

# Financial Empowerment: Personal Finance for Indigenous and Non-Indigenous People



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*Personal Finance for Indigenous and Non-Indigenous People*

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UNIVERSITY OF REGINA PRESS  
REGINA



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# About the Book

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The purpose of this textbook adaptation is to take an accessible, student-focused personal finance textbook from the United States and make it affordable and relevant for Indigenous and non-Indigenous people in Canada. While many mainstream Canadian personal finance texts provide excellent content in terms of the mechanics of personal finance, they are expensive and not always relevant to the values and experiences of students in the classroom. Many mainstream personal finance texts fall short for Indigenous Canadians and non-Indigenous Canadians alike because they do not speak to readers' varied backgrounds, knowledge systems, and experiences. This textbook aims to motivate a broad range of students to learn about personal finance. While it is beyond the scope of this book to address all of the diverse groups that comprise the Canadian population, the text does attempt to provide practical, student-focused information that all students can relate to.

Everyone needs to be able to see themselves in what they are learning, and this text represents one small effort to make personal finance more relevant to Indigenous students in Canada, and to also teach non-Indigenous students about Indigenous histories, perspectives, and realities. It is this understanding and knowledge that will contribute to reconciliation in Canada.

Another intention of this text is to contribute to real social, political, and economic change, which the Truth and Reconciliation Commission of Canada calls for in order for reconciliation to be achieved. Increased financial literacy and personal finance knowledge can contribute to that social, political, and economic change.

*Financial Empowerment* is designed for a single-semester introduction to financial planning and decision-making. It seeks to provide students with the necessary financial literacy and skills needed to make sound financial decisions, assess financial risk, and achieve financial success. Given the broad scope and application of financial literacy, this textbook is developed for students taking first- and second-year courses in a post-secondary institution.

The specific goals of this textbook are:

- to help students build a solid understanding of personal finance in order to achieve financial literacy and financial success by providing them with the skills and knowledge necessary to navigate short- and long-term financial change;
- to tailor the content for a Canadian audience by providing Indigenous and non-Indigenous perspectives on personal finance and financial planning using examples and information from

- the Canadian financial system and economy;
- to increase accessibility to financial education resources for students and the general public alike, regardless of where they live or study;
  - to customize the content for Indigenous students in Canada and address student needs for practical and theoretical knowledge on financial decision-making and financial risk assessment; and
  - to connect financial literacy with Indigenous Knowledge and history by threading Indigenous perspectives and interviews with Elders and other community leaders throughout the textbook.

## APPROACH AND PEDAGOGY

*Financial Empowerment* will introduce you to the theory of personal finance through real-life examples of financial decision-making, including videos with Elders. This textbook has been adapted in order to provide you with the most up-to-date and relevant information. Since this is an open textbook, there will be annual reviews and updates of the content to ensure that the predetermined critical learning elements and outcomes are met. Instructors may assign additional readings to each class in order to enrich your learning.

Each chapter will begin with a brief overview of the chapter content. **Key terms** are highlighted in bold.

Coloured boxes are used in each chapter to differentiate and highlight important learning features (see the following diagram).



**Learning objectives** in the green coloured boxes provide clear directions for each section and provide structure to your learning. Orange boxes containing **key takeaways** contain a general overview of chapter content at the end of each chapter section. **Exercises** in the blue boxes at the end of each

chapter section provide additional information, as well as an opportunity for students to review and apply what they have learned.

Where relevant, a complete list of **references** is included at the end of chapter sections to clearly document and attribute the source material and to assist students in locating resources.

**Video interviews with Elders** provide critical historical information, First Nations perspectives on personal finance, and wisdom meant to help guide students.

**Figures, diagrams, and tables** provide a plethora of attractive and concise visual learning aids.

## HYPOTHESIS

Hypothesis (or Hypothes.is) is an open source web annotation tool that students and instructors can use to highlight and annotate online text, which they can share publicly or privately (for group discussion) or use for individual study. Hypothesis encourages deeper engagement with academic text and other Internet resources.

Hypothesis has been enabled for the online format of this textbook. To use this tool, you will first need to create a free account with Hypothesis and then follow the step-by-step instructions. For more information, Hypothesis offers the following Quick Start Guides:

1. Quick Start Guide for Students
2. Quick Start Guide for Teachers

# Preface to the 2018 Edition

## (Adapted from the original)

This text has a goal: in addition to providing sources of practical information, it should introduce you to a way of thinking about your personal financial decisions. This should lead you to thinking harder and farther about the long-term consequences of your decisions. Many of the more practical aspects of personal finance will change over time, as practices, technologies, intermediaries, customs, and laws change, but a fundamental awareness of how to think well about solving financial questions can always be useful. Some of the more practical ideas may be obviously and immediately relevant—and some not—but decision-making and research skills are lasting.

You may be enrolled in a traditional two- or four-year degree program, or you may just be taking the course for personal growth. You may be a business major or a family or consumer studies major with some prerequisite knowledge of economics or some level of accounting or math skills, or you may be filling in an elective and have no such skills. In fact, although such skills can enhance one's ability to make personal financial decisions, they are not necessary. Software, downloadable applications, and calculators perform ever more sophisticated functions with ever more approachable interfaces. The emphasis in this text is on understanding the fundamental relationships behind the math and being able to use that understanding to make better decisions about your personal finances.

The idea here is to introduce you to the practical and conceptual framework for making personal financial decisions as part of a greater economy of financial participants.

## STRUCTURE

The text is divided into four parts:

**Learning Basic Skills, Knowledge, and Context** (Chapter 1 “Personal Financial Planning”—Chapter 6 “Taxes and Tax Planning”)

**Achieving Your Financial Goals** (Chapter 7 “Financial Management”—Chapter 9 “Buying a Home”)

**Protecting What Is Important to You** (Chapter 10 “Personal Risk Management: Insurance”—Chapter 11 “Personal Risk Management: Retirement and Estate Planning”)

**Planning for the Future** (Chapter 12 “Investing”—Chapter 15 “Career Planning”)

This structure is based on the typical life cycle of personal financial decisions, which in turn is based

on the premise that, in a market economy, an individual participates by trading something of value: labour or capital. Most of us start with nothing to trade but labour. We hope to sustain our desired lifestyle on the earnings from our labour and to gradually (or quickly) amass capital that will then provide additional earnings.

## PART I: Learning Basic Skills, Knowledge, and Context (Chapter 1 “Personal Financial Planning”–Chapter 6 “Taxes and Tax Planning”)

Chapter 1 “Personal Financial Planning” introduces four major themes of the textbook:

1. Financial decisions are individual-specific (Section 1.1 “Individual or ‘Micro’ Factors That Affect Financial Thinking”)
2. Financial decisions are economic decisions (Section 1.2 “Systemic or ‘Macro’ Factors That Affect Financial Thinking”)
3. Financial decision-making is a continuous process (Section 1.3 “The Planning Process”)
4. Professional advisers work for financial decision-makers (Section 1.4 “Financial Planning Professionals”)

These themes emphasize the idiosyncratic, systemic, and continuous nature of personal finance, putting decisions within the larger contexts of an entire lifetime and an economy.

Chapter 2 “Basic Ideas of Finance” introduces the basic financial and accounting categories of revenues, expenses, assets, liabilities, and net worth as tools to understand the relationships between them as a way, in turn, of organizing financial thinking. It also introduces the concepts of opportunity costs and sunk costs as implicit but critical considerations in financial thinking.

Chapter 3 “Financial Statements” continues with the discussion of organizing financial data to help in decision-making and introduces basic analytical tools that can be used to clarify the situation portrayed in financial statements.

Chapter 4 “Evaluating Choices: Time, Risk, and Value” introduces the critical relationship of time and risk to value. It demonstrates the math but focuses on the role that those relationships play in financial thinking, especially in comparing and evaluating choices in making financial decisions.

Chapter 5 “Financial Plans: Budgets” demonstrates how organized financial data can be used to create a plan, monitor progress, and adjust goals.

Chapter 6 “Taxes and Tax Planning” discusses the role of taxation in personal finance and its effects on earnings and on accumulating wealth. The chapter emphasizes the types, purposes, and impacts of

taxes; the organization of resources for information; and the areas of controversy that lead to changes in the tax rules.

## PART 2: Achieving Your Financial Goals (Chapter 7 “Financial Management”–Chapter 9 “Buying a Home”)

Chapter 7 “Financial Management” focuses on financing consumption using current earnings and/or credit, and financing longer-term assets with debt.

Chapter 8 “Consumer Strategies” discusses purchasing decisions, starting with recurring consumption, and then goes into detail on the purchase of a car, a more significant and longer-term purchase both in terms of its use and financing.

Chapter 9 “Buying a Home” applies the ideas developed in the previous chapter to what, for most people, will be the major purchase: a home. The chapter discusses its role both as a living expense and an investment, as well as the financing and financial consequences of the purchase.

## PART 3: Protecting What Is Important to You (Chapter 10 “Personal Risk Management: Insurance”–Chapter 11 “Personal Risk Management: Retirement and Estate Planning”)

Chapter 10 “Personal Risk Management: Insurance” introduces the idea of incorporating risk management into financial planning. This chapter focuses on planning for the unexpected. It progresses from the more obvious risks to property to less obvious risks, such as the possible inability to earn due to temporary ill health, permanent disability, or death.

Chapter 11 “Personal Risk Management: Retirement and Estate Planning” focuses on planning for the expected: retirement, loss of income from wages, and the subsequent distribution of assets after death. Retirement planning discusses ways to develop alternative sources of income from capital that can eventually substitute for wages. Estate planning also touches on the considerations and mechanics of distributing accumulated wealth.

## PART 4: Planning for the Future (Chapter 12 “Investing”–Chapter 15 “Career Planning”)

Chapter 12 “Investing” presents basic information about investment instruments and markets and explains the classic relationships of risk and return developed in modern portfolio theory.

Chapter 13 “Owning Stocks” and Chapter 14 “Owning Bonds and Investing in Mutual Funds” look at investments commonly made by individual investors and their use in (and the risks of) building wealth as part of a diverse investment strategy. Chapter 15 “Career Planning” brings the planning process full circle with a discussion on how to think about getting started—that is, deciding how to approach the process of selling your labour. The chapter introduces the idea of selling labour to employers in the labour market and explores how to search and apply for a job in light of its strategic as well as immediate potential.



# Introduction

My name is Bettina Schneider and I am currently an associate professor and associate vice-president academic at First Nations University of Canada (FNU) in Regina, Saskatchewan. I have worked in the School of Business and Public Administration at FNU since 2007. I am non-Indigenous and originally from the United States. I have a PhD in Native American Studies and a master's in Community Development from the University of California, Davis. My dissertation focused on Indigenous financial institutions in Canada and the United States. Through this research, and my work as a consultant with the First Nations Development Institute and First Nations Oweesta Corporation in the United States, I was exposed to a number of Indigenous financial institutions and the culturally relevant financial literacy curricula they were utilizing and sharing with their communities. In 2013, I began working with the Newo Yotina Friendship Centre (NYFC) in Regina on the development of culturally relevant financial literacy workshops, as the NYFC had identified a need for such services among its clientele. Thanks to a grant from the Urban Aboriginal Knowledge Network, we were able to research and develop such a curriculum for the NYFC. My work with the NYFC was the catalyst for the financial empowerment course I later developed at FNU and the adaptation of this textbook.

## PURPOSE OF THIS TEXTBOOK

The purpose of this textbook adaptation is to take an accessible, student-focused personal finance textbook written for an American audience and make it relevant for Indigenous and non-Indigenous people in Canada. In so doing, it aims to not only help students build their own personal financial capacity, but to prepare them to help others do the same.

My greatest goal with this text is to ensure that students do not make the same mistakes that I and many people before me have made because we did not pursue or have access to financial literacy courses or resources when we were young. Financial literacy education should be a requirement for every student in Canada and throughout the world. It is my sincere hope that this Open Access textbook makes the delivery of financial literacy education more accessible and affordable for all.

Financial literacy resources do not always speak to the varied values and experiences of their audience. For example, mainstream resources may provide a review of the Canadian tax system, but make no mention of taxation as it relates to First Nations peoples. Furthermore, I believe it is important to understand our own values, histories, and life experiences in order to better understand our financial decision-making processes. This text attempts to include the perspectives, values, and realities of Indigenous and non-Indigenous people in Canada in order to better understand our relationship to personal finance.

Colonization has denied many Indigenous people equal access to money, economic opportunities, financial literacy education, financial institutions, and much more. It was, in fact, the pursuit of money that fueled much of the conquest that colonized Indigenous people in Canada and throughout the world.

During pre-contact times, Indigenous people had a rich economic history that demonstrated strong personal financial skills. All resources—whether it was buffalo, caribou, elk, or seal—were utilized fully and nothing was left to waste. How can we apply such principles to personal finance today? As the Aboriginal Financial Officers Association of BC states, during pre-contact times Indigenous people were self-sustaining, with strong values that guided how resources and assets were used, how people traded with one another, and how wealth was shared (AFOA BC, 2011). These skills were passed down and helped many Indigenous people and communities survive the financial exclusion and cultural and systemic barriers that came with colonization.

This text attempts to share some of the pre- and post-contact histories of Indigenous people, as well as current financial information that is relevant to both Indigenous people and non-Indigenous people in Canada. It is critical that all Canadians know and understand the histories and realities of Indigenous people in Canada in order for reconciliation to be possible. I wish this book could speak to all of the varied backgrounds, knowledge systems, and experiences of its Canadian audience. For now, I have done my best with the time allotted to adapt this text to make it as accessible as possible for Indigenous and non-Indigenous people in Canada.

I have chosen to adapt this textbook in order to offer a free text that:

- is relevant to, and can be accessed by, all Canadians;
- is student-friendly and provides a solid foundation in personal finance;
- includes Indigenous and non-Indigenous content in order to enhance the learning experience of all Canadians; and
- offers a comprehensive range of pedagogical aids.

## THE NEED

According to Jessica Chin (2017), “over half (52 per cent) of Canadians are only \$200 away from insolvency, and 31 per cent don’t make enough to cover their bills, according to a recent poll of 1,500 Canadians by insolvency consultancy MNP. What’s more, 67 per cent aren’t particularly confident about their ability to handle their finances, and when it comes to debt they’ve taken on, 58 per cent wish they could go back and do things differently.” The Canadian Foundation for Economic Education (CFEE) points out that the number of students who are simultaneously attending school and working has been increasing. In fact, about one-half of college or university students will be working while they are attending school (CFEE, 2012). Early interventions and financial education will help to build

financial literacy and self-sufficiency among youth so that they can make the most of their earnings and avoid the heavy debt and financial challenges that many Canadians currently experience.

In 2014, Jane Rooney, the Government of Canada's financial literacy leader, met with stakeholders and held consultations across the country to ensure the development of a national strategy that meets the needs of all Canadians. The Financial Consumer Agency of Canada's (FCAC) resulting national strategy sets out goals and priorities to help Canadians better manage their finances and make appropriate decisions as their needs and circumstances change. It calls on organizations to join efforts "to help Canadians take action and make financial literacy a life-long journey" (FCAC, 2015, p. 3). I am hopeful that such a strategy, along with an increase in financial literacy resources and the support of many public-, private-, and non-profit-sector institutions, will help Indigenous and non-Indigenous Canadians meet their needs and achieve the following goals outlined in the FCAC's national strategy: 1) manage money and debt wisely; 2) plan and save for the future; and 3) prevent and protect against fraud and financial abuse (FCAC, 2015, p. 5).

According to Prosper Canada, over 1.4 million Indigenous people live in urban, rural, and remote communities across Canada. These 1.4 million people are comprised of "three distinct self-identified Aboriginal groups with diverse cultures, languages, and spiritual beliefs: First Nations (over 60 per cent), Métis (32 per cent), and Inuit (just over 4 per cent)" (Prosper Canada, 2017). Overall, the Indigenous population is young and it is the fastest growing segment of Canada's population. A large proportion of the Indigenous population is in the early phases of financial life (e.g., finding employment, pursuing education, buying a car and a first home) and will thus benefit from early interventions and financial education that address the early life stage (Prosper Canada, 2017). Furthermore, Indigenous entrepreneurship is also growing, "increasing 38 per cent between 2001 and 2006, a rate five times higher than that of Canadians overall" (Prosper Canada, 2017). A strong foundation in financial literacy is critical to the success of Indigenous entrepreneurs. Being financially literate helps to support the overall sustainability of a business and a healthy bottom line, one with which entrepreneurs can make confident financial decisions that will benefit them and their businesses.

## RECONCILIATION AND FINANCIAL LITERACY

The Truth and Reconciliation Commission of Canada (TRC) has stated that apologies and reparations are not enough; in order for reconciliation to be achieved, real social, political, and economic change is needed (TRC, 2015). The 94 Calls to Action issued by the TRC are meant to guide this change in Canada. One of the Calls to Action is to develop culturally appropriate curricula. Culture, history, and world views are key components of culturally appropriate educational resources (Weaver, 1999). As Dominique Collins, author of *Aboriginal Financial Literacy in Canada*, has demonstrated, culturally relevant training has shown to be effective (Collins, 2011). In order to incorporate Indigenous world views and perspectives into this textbook, eight elders from FNUniv were interviewed between

June 2017 and July 2018. Their perspectives, along with the perspectives and world views of other Indigenous people and organizations, have been incorporated into different sections of this textbook wherever possible.

The Aboriginal Financial Officers Association of British Columbia (AFOA BC), First Nations Development Institute (FNDI), and First Nations Oweesta Corporation (FNOC) have been at the forefront of the development of culturally relevant financial literacy curriculum in Indigenous communities in Canada and the United States. Both FNDI and FNOC have written extensively about the long history of traditional resource management in Indigenous communities and have compared it to financial management today. As stated in the *Building Native Communities* financial literacy curriculum, produced by FNDI and FNOC, “Traditional resource management teaches us that our actions today affect the resources that we will have available in the future” (FNDI and FNOC, 2015, p. 74).

As Oweesta and FNDI point out, Indigenous communities have traditionally demonstrated tremendous skill in managing resources to support the needs of their communities on an ongoing basis, as the following statement makes clear: “For years, our people have understood and practiced the present-day concepts of budgeting and savings. We managed our resources through conservation so that they lasted throughout the year by saving additional supplies for future use. Our people also saved for the purpose of acquiring goods that we could not produce ourselves. By producing more than the community needed, we had goods to trade” (FNDI and FNOC, 2015, p. 1).

However, the effects of colonization have denied many Indigenous people access to this economic history (Elder Kewistep, Video 2). By relating the past to the present, this textbook attempts to honour that rich history; ideally, this will make the information in this textbook more accessible for Indigenous students and build cultural awareness among non-Indigenous students as well.

For many, saving money can be perceived as hoarding or buying into a consumer culture that does not reflect their values. Elder and FNUniv Professor Emeritus, Willie Ermine, shared, “We don’t have a culture of saving money. . . . It’s almost a sin in our communities . . . to be one that [hoards money]” (personal communication, June 10, 2017) (Video 3).

Elder Ermine discusses the concept of the giveaway and the importance of giving “something that you treasure to get something that you need; it’s the same system as money. I can give you money and you give me what I need. [The giveaway] has been there thousands of years . . . we do ceremonies that giveaway in return for whatever it is that I need. The more we do that, the more this cycle continues. The more you give, the more you get” (personal communication, June 10, 2017) (Elder Ermine, Video 2). Elder Ermine offers these ideas as a counter-narrative to discussions of Indigenous people and financial management. While savings are important in terms of how they help you to support your loved ones and community, giving is important for other reasons, and people are often judged more so for what they give rather than what they have (Elder Ermine, Video 1B).

Another form of giveaway in the Pacific Northwest is the Potlach, a Chinook word for “give-away” or

“gift,” which is a ceremony meant to give thanks and redistribute wealth. AFOA BC states that “the potlach system is an example of financial literacy in a pre-contact context. We showed our wealth by giving and sharing with others. Wealth was managed through potlach and it worked—we did not have the poverty and dependency we have today. Our people had clothes on their backs and food in their bellies. In 1884, the potlach system was banned and so were our teachings about wealth management. . . . We need to look for new ways to learn about money and how to manage it” (AFOA BC, 2011, p. 6).

Today, there are so many examples of Indigenous people, communities, and organizations sharing their financial success with others (Elder Reynolds, Video 4; Elder Cochrane, Video 2). When savings can be linked to giving, supporting, and planning for the future of our loved ones and communities, savings can be viewed in a good way. This text asks all of its readers the following questions: How can money be a positive force in your life? How can we change our relationship to money so that it can be a benefit to us, our families, friends, and communities?

Elder Florence Allen shared, “The first teachings I got regarding finance were through my parents and there is one that sticks out a lot. They said money has a purpose and you’re always the boss of it and it’s never the boss of you because if it becomes the boss of you, you become obsessed about it and you hoard it and you are not as kind” (personal communication, June 10, 2017). When talking about her parents, Elder Florence Allen said, “They only went as far as the money went. . . . We never suffered because of that. . . . Life is good when you know you can work with that money and not allow that money to take over your life” (personal communication, June 10, 2017).

Other Elders I spoke with also warned about letting money take over your life. This is easy to do when you either become too obsessed with having money or when you live beyond your means and become overwhelmed by debt and other expenses (Elder Allen, Video 1).

Through colonization, which included racially focused forms of social and economic exclusion such as reserves, residential schools, and the pass system, many First Nations, Métis, and Inuit communities have experienced persistent cultural and systemic barriers that have significantly contributed to gaps in financial literacy. For example, the pass system required First Nations people to present a travel document, authorized by an Indian agent, in order to leave and return to the reserve. Those who were caught without a pass were returned to the reserve or imprisoned. The pass system also restricted those who could come onto the reserve to do business. Trade and commerce in First Nations economies were significantly restricted, which in turn limited First Nations engagement in the economy and their ability to make their own financial decisions (Cullingham and Williams, 2015).

Elder Rose Bird from Thunderchild First Nation said that she never learned about money management while at residential school:

Everything was taken away from us. . . . We didn’t know how to manage money. . . . I didn’t know how to do anything. It seemed like I was controlled. Even after I got out [of residential school], I didn’t know nothing about [money] management. My mom and dad were in residential school and also my grandparents, so they

didn't know too much about things like that either. Plus, Indian Affairs would send us a monthly cheque for food rations. . . . We didn't get money, and even for clothing, we would order from a catalog. My mom would order us clothing for spring, summer, fall, and winter. . . . And food wise, we would buy a lot of food with Indian Affairs and there was a budget on Indian Affairs money. Lot of time when we had food rations, we'd have salt pork, and the basics, flour, lard, sugar, tea . . . so we were really poor; we hardly seen money. (Personal communication, June 10, 2017)

Elder Bird's words are incredibly important because they explain how colonial legislation and structures attempted to control Indigenous people and create a system of dependency that denied many access to money and an education in money management (i.e., financial literacy). (Elder Bird, Video 1). According to the Truth and Reconciliation Commission of Canada, "most students left residential schools unprepared either to succeed in the market economy or to pursue more traditional activities such as hunting and fishing" (TRC, 2015, p. 106). As James Dashuck (2013) points out in *Clearing the Plains*, food was used by government officials to control First Nations. Often, the rations provided were not fit for consumption and the pass system limited First Nations to reserve lands that did not provide adequate hunting or agricultural opportunities. All of these colonial structures limited First Nations' self-sufficiency, self-determination, and autonomy. Despite these barriers, Indigenous people demonstrated incredible resilience and continued to find ways to sustain themselves.

Elder Audrey Cochrane, from Keeseekoose First Nation, said she never saw money while growing up in the thirties and forties (Elder Cochrane, Video 1). Everything that sustained her and her family was from the land (personal communication, June 10, 2017).

Elder Norma Jean Byrd, a Métis Elder from Meadow Lake, Saskatchewan, also shared how her family sustained themselves through hunting and gardening when she was a child. She also spoke of how her family made a little go a long way. One lesson she wished to share with youth is the importance of creating a will in order to protect loved ones and to properly plan for the future (Video 4).

Elder Millie Anderson, an Inuit elder from the Northwest Territories, shared that her family did not begin using money until 1959 when the first financial institution opened in Inuvik (Video 2). Prior to 1959, her family sustained themselves through trapping, fishing, whaling, and hunting (Elder Anderson, personal communication, July 2, 2018). Many Inuit relocated to new trapping areas established by traders which resulted in permanent settlements and a significant change to traditional economies (Macleod, 2016, p. 9). Elder Anderson's father was a trapper and a reindeer herder; she often helped him on the trap lines as a child (Video 1). Any goods that were purchased were bought on credit through the Hudson's Bay Company (HBC) (Elder Anderson, personal communication, July 2, 2018). The HBC was established in 1670 by the British and the North West Company (NWC) was developed in 1779 "by traders in Montréal in order to compete with HBC" (Macleod, 2016, p. 8). Eventually, these two companies merged in 1821. Essentially, the HBC had "a fur trade monopoly that would span centuries and create a system of commercial exchange

that fundamentally altered the traditional domestic means of production” among Indigenous people across Canada (Coutts, 2017). Many Indigenous trappers took on debt by purchasing supplies on credit through the HBC “in exchange for a promise to bring their next season’s fur catch to that post” (Massie, 2008). Credit was used as a tool by Indigenous people in Canada to help meet their needs when cash wasn’t always available.

Financial empowerment is not only about building one’s personal finance skills and knowledge, but also about changing one’s financial behaviour in order to feel confident in making good financial decisions. In order to change our financial behaviour, it is critical that we understand our values regarding money. As noted by FNDI and FNOC, “it’s difficult to manage money well unless you know your values surrounding money” (FNDI and FNOC, 2016, p. 18). What are your values around money? What is your money culture? “Money culture” is what we incorporate from our values, attitudes, goals, and practices into how we manage or view the importance of money (FNDI and FNOC, 2016). In order to determine our money culture, we must look at the past, present, and future. As AFOA BC states, “We need to acknowledge our past and understand how it influenced the present situation so we can move forward to creating our future” (AFOA BC, 2015, p. 6). Financial empowerment is about taking hold of our financial future in order to achieve financial independence and well-being.

As stated in the *First Nations Financial Literacy Ottawa roundtable summary report*, “To support financial literacy development, we have to address the much bigger and more profound exclusions between First Nations, Métis and Inuit communities and the rest of Canada, and develop more inclusive and generative public policy” (Public Policy Forum, 2015, p. 1). Public policy, along with a culturally relevant approach to financial literacy education, can help to address the financial literacy gaps that colonization has certainly created. According to the Truth and Reconciliation Commission of Canada, “reconciliation must create a more equitable and inclusive society by closing the gaps in social, health, and economic outcomes that exist between Aboriginal and non-Aboriginal Canadians” (2015, p. 3).

It is my hope that this textbook provides an accessible approach to financial literacy for Indigenous and non-Indigenous people—one that examines the past, present, and future, and which fosters financial empowerment for all.

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## PART II

# LEARNING BASIC SKILLS, KNOWLEDGE, AND CONTEXT

### IN THIS SECTION:

Chapter 1 “Personal Financial Planning” introduces four major themes of the textbook:

1. Financial decisions are individual-specific (Section 1.1 “Individual or ‘Micro’ Factors That Affect Financial Thinking”)
2. Financial decisions are economic decisions (Section 1.2 “Systemic or ‘Macro’ Factors That Affect Financial Thinking”)
3. Financial decision-making is a continuous process (Section 1.3 “The Planning Process”)
4. Professional advisers work for financial decision-makers (Section 1.4 “Financial Planning Professionals”)

These themes emphasize the idiosyncratic, systemic, and continuous nature of personal finance, putting decisions within the larger contexts of an entire lifetime and an economy.

Chapter 2 “Basic Ideas of Finance” introduces the basic financial and accounting categories of revenues, expenses, assets, liabilities, and net worth as tools to understand the relationships between them as a way, in turn, of organizing financial thinking. It also introduces the concepts of opportunity costs and sunk costs as implicit but critical considerations in financial thinking.

Chapter 3 “Financial Statements” continues with the discussion of organizing financial data to help in decision-making and introduces basic analytical tools that can be used to clarify the situation portrayed in financial statements.

Chapter 4 “Evaluating Choices: Time, Risk, and Value” introduces the critical relationship of time and risk to value. It demonstrates the math but focuses on the role that those relationships play in financial thinking, especially in comparing and evaluating choices in making financial decisions.

Chapter 5 “Financial Plans: Budgets” demonstrates how organized financial data can be used to create a plan, monitor progress, and adjust goals.

Chapter 6 “Taxes and Tax Planning” discusses the role of taxation in personal finance and its effects on earnings and on accumulating wealth. The chapter emphasizes the types, purposes, and impacts of taxes; the organization of resources for information; and the areas of controversy that lead to changes in the tax rules.



# I. Personal Financial Planning

## INTRODUCTION

Skyler and Lori are just one semester shy of graduating from First Nations University of Canada. Both are good friends and have supported one another a lot throughout university. Skyler is getting a bachelor of administration degree with a major in accounting. Skyler wants a job that comes with a lot of job security and opportunities for career growth.

Lori is getting a bachelor of social work degree and hopes to eventually become a school counsellor. She has interviews lined up at nearby schools. Both Skyler and Lori will need additional training to have the jobs they want, and they are already in debt for their educations.

Lori qualified for a student loan. She will owe about \$30,000 of principal plus interest. Lori plans to start working immediately on graduation and to take classes on the job or at night for as long as it takes to get the extra certification she needs. Unsubsidized, the extra training would cost about \$3,500. She presently earns about \$5,000 a year working weekends as a home health aide and could easily double that after she graduates. Lori also qualified for a grant of around \$5,000 each year she was a full-time student, which has paid for her rooms in an off-campus student housing unit.

Skyler was awarded post-secondary funding from his First Nation and received some money from his relatives to support his education. He has also taken out a small loan from his credit union. He has been attending classes part-time year-round so he can work to earn money for university and living expenses. He earns about \$19,000 a year working for catering services. Skyler feels very strongly about repaying his relatives who have helped finance his education.

Lori has managed to put aside \$3,000 in a savings account earmarked for clothes and gifts. Skyler has sunk all his savings into tuition and books, and his only other asset is his trusty old pickup truck, which has no liens and a trade-in value of \$3,900. For both Lori and Skyler, having reliable transportation to their jobs is a concern. Lori hopes to continue using public transportation to get to a new job after graduation. Both Skyler and Lori are smart enough about money to have avoided getting into credit card debt. Each keeps only one major credit card and a debit card and with rare exceptions pays statements in full each month.

After graduation, Skyler plans to rent an apartment. Skyler also has a rent-free option of moving in temporarily with his brother. Lori feels very strongly about saving money to buy a home. Although still young, Skyler is concerned about being able to retire—the sooner the better—but he has no idea how that would be possible. He thinks he would enjoy running his own catering firm as a retirement business one day.

Lori's starting salary as a school counsellor will be about \$32,289, and as an entry-level accountant Skyler would have a starting salary of about \$38,000. Both have the potential to double their salaries after fifteen years on the job. Aside from Lori's savings bonds, she and Skyler are not in the investment market, although as soon as he can, Skyler wants to invest in a diversified registered retirement savings plan (RRSP) that includes corporate stocks and municipal bonds.

Lori and Skyler certainly have a lot of decisions to make, and some of those decisions have high-stakes consequences for their lives. To understand their decision-making process, we should consider some of the following questions:

1. What individual or personal factors will affect Lori's and Skyler's financial thinking and decision-making?
2. When should Skyler and Lori invest in the additional job training each will need, and how can they finance that training?
3. How will Lori pay off her university loan, and how much will it cost? How soon can she get out of debt?
4. How will Skyler repay his loan reflecting his family's investment in his education?
5. What are Lori's short- and long-term goals? What are Skyler's?
6. What should they do about retirement needs?
7. What should they do about saving and investing?
8. What should they do about buying a home and a car?
9. What is Skyler's present and projected income from all sources? What is Lori's?
10. What budget categories would you create for Lori's and Skyler's expenses and expenditures over time?
11. How could Lori and Skyler adjust their budgets to meet their short- and long-term goals?
12. On the basis of your analysis and investigations, what five-year financial plan would you develop for Lori and Skyler?
13. How will larger economic factors affect the decisions Skyler and Lori make and the outcomes of those decisions?

You will make financial decisions all your life. Sometimes you can see those decisions coming and plan accordingly; sometimes, well, stuff happens, and you are faced with a more sudden decision. Personal financial planning is about making both deliberate decisions that allow you to get closer to your goals and sudden decisions that allow you to stay on track, even when things take an unexpected turn.

Blair Stonechild states "currency is only a medium of exchange and not a goal in itself" (Stonechild, 2016, p. 196). As a medium of exchange, it is used to trade goods and services instead of barter. Money measures the value of goods and services and stores value that can be used for future purchases (Ebert, Griffin, Starke, and Dracopoulos, 2017). Indigenous Elders offer a distinct perspective on money in many of the interviews shared throughout this text. Elder Ermine, for instance, states that "Money is a tool" that you use to create certain conditions (Elder Ermine, Video 1A).

According to Richards (2015), “Tools are meant to be used. They’re not meant to sit on a shelf and collect dust.” Richards provides an example of a family that saves for a family vacation. Instead of judging the expenditure of money as bad or good, positive or negative, he views it as a tool that has helped that family to achieve their objective, which is more time together. In order to fully benefit from our tools, we must understand how to use them and what we are using them for. Some students might want to pursue a degree, while others might want to buy a home for their families, and some might want to go on a vacation. It is difficult to accomplish any of these goals without money. Money is a way to achieve our goals and not a goal in itself (Stonechild, 2016, p. 196).

The idea of personal financial planning is really no different from the idea of planning almost anything: you figure out where you’d like to be, where you are, and how to go from here to there. The process is complicated by the number of factors to consider, by their complex relationships to each other, and by the profound nature of these decisions, because how you finance your life will, to a large extent, determine the life that you live. The process is also complicated—often enormously—by risk: you are often making decisions with plenty of information, but little certainty or even predictability.

Personal financial planning is a lifelong process. Your time horizon is as long as can be—until the very end of your life—and during that time your circumstances will change in predictable and unpredictable ways. A financial plan has to be re-evaluated, adjusted, and readjusted. It has to be flexible enough to be responsive to unanticipated needs and desires, robust enough to advance specific goals, and all the while be able to protect from unimagined risks.

One of the most critical resources in the planning process is information. We live in a world full of information—and no shortage of advice—but to use that information well you have to understand what it is telling you, why it matters, where it comes from, and how to use it in the planning process. You need to be able to put that information in context before you can use it wisely. That context includes factors in your individual situation that affect your financial thinking, and factors in the wider economy that affect your financial decision-making.

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## 1.1 INDIVIDUAL OR “MICRO” FACTORS THAT AFFECT

# FINANCIAL THINKING

## *Learning Objectives*

1. List individual factors that strongly influence financial thinking.
2. Discuss how income, income needs, risk tolerance, and wealth are affected by individual factors.
3. Explain how life stages affect financial decision-making.
4. Summarize the basis of sound financial planning.

The circumstances or characteristics of your life influence your financial concerns and plans. What you want and need—and how and to what extent you want to satisfy your wants and needs—all depend on how you live and how you'd like to live in the future. While everyone is different, there are common circumstances of life that affect personal financial concerns and thus affect everyone's financial planning. Factors that affect personal financial concerns are family structure, health, career choices, and age.

## Family Structure

Marital status and dependents, such as children, parents, or siblings, determine whether you are planning only for yourself or for others as well. If you have a spouse, partner, or dependents, you have a financial responsibility to someone else, and that includes a responsibility to include them in your financial thinking. Not only is it important to know our own beliefs and attitudes about money, but it is also critical to understand those of our spouses or partners. You may expect the dependence of a family member to end at some point, as with children or elderly parents, or you may have lifelong responsibilities to and for another person.

Partners and dependents affect your financial planning as you seek to provide for them, such as paying for children's education. Parents typically want to protect or improve their children's quality of life, and they may choose to limit their own fulfillment to achieve that end.

Providing for others increases income needs. Being responsible for others also affects your attitudes toward and tolerance of risk. Typically, both the willingness and ability to assume **risk**, the possibility or uncertainty of loss, diminishes with dependents and a desire for more financial protection grows. People often seek protection for their income or assets even past their own lifetimes to ensure the

continued well-being of partners and dependents. An example is a life insurance policy naming a spouse or dependents as beneficiaries.

## Health

Your health is another defining circumstance that will affect your expected income needs and risk tolerance and thus your personal financial planning. Personal financial planning should include some protection against the risk of chronic illness, accident, or long-term disability, and some provision for short-term events such as pregnancy and birth. If your health limits your earnings or ability to work or adds significantly to your expenditures, your income needs may increase. The need to protect yourself against further limitations or increased costs may also increase. At the same time, your tolerance for risk may decrease, further affecting your financial decisions.

## Career Choice

Your career choices affect your financial planning, especially through educational requirements, income potential, and characteristics of the occupation or profession you choose. Careers have different hours, pay, benefits, risk factors, and patterns of advancement over time. Thus, your financial planning will reflect the realities of being a postal worker, professional athlete, commissioned sales representative, corporate lawyer, freelance photographer, librarian, building contractor, tax preparer, professor, web site designer, and so on. For example, the careers of most athletes end before middle age, include a higher risk of injury, and command steady, higher-than-average incomes, while the careers of most sales representatives last longer with greater risk of unpredictable income fluctuations. Table 1.1.1 compares the median salaries of certain careers.

**Table 1.1.1 Canadian Median Salary Comparisons by Profession**

<b>Profession</b>	<b>Median Salary</b>
Accountant	54,600
Personal Financial Advisor	66,100
Sports Competitor	41,100
Interior Designer	42,300
Substance Abuse Social Worker	35,400
Computer Programmer	65,500
Elementary School Teacher	45,600
Cafeteria Cook	20,400
Dentist	132,000
Pharmacist	94,500
Lawyer	102,500
Sales Manager	91,600
Fire Fighter	41,200
Lab Technician	32,800

Data Source: Original table adapted by Bettina Schneider, 2018; *Payscale*, 2017.

Most people begin their independent financial lives by selling their labour to create an income by working. Over time, they may choose to change careers, develop additional sources of concurrent income, move between employment and self-employment, or become unemployed or re-employed. Along with career choices, all these changes affect personal financial management and planning.

## Age

Needs, desires, values, and priorities all change over a lifetime, and financial concerns change accordingly. Ideally, personal finance is a process of management and planning that anticipates or keeps abreast with such changes. Although everyone is different, some financial concerns are common to or typical of the different stages of adult life. Analysis of **life stages** is part of financial planning.

At the beginning of your adult life, you are more likely to have no dependents, little if any accumulated wealth, and few assets. **Assets** are resources that can be used to create income, decrease expenses, or store wealth as an investment. As a young adult, you also are likely to have comparatively small

income needs, especially if you are providing only for yourself. Your employment income is probably your primary or sole source of income. Having no one and almost nothing to protect, your willingness to assume risk is usually high. At this point in your life, you are focused on developing your career and increasing your earned income. Any investments you may have are geared toward growth.

As your career progresses, income increases, but so does spending. Lifestyle expectations increase. If you now have a spouse and dependents and elderly parents to look after, you have additional needs to manage. In middle adulthood, you may also be acquiring more assets, such as a house, a retirement account, or an inheritance.

As income, spending, and asset base grow, ability to assume risk grows but willingness to do so typically decreases. Now you have things that need protection: dependents and assets. As you age, you realize that you require more protection. You may want to stop working one day, or you may suffer a decline in health. As an older adult, you may want to create alternative sources of income, perhaps a retirement fund, as insurance against a loss of employment or income. Table 1.1.2 suggests the effects of life stages on financial decision-making.

**Table 1.1.2 Financial Decisions Related to Life Stages**

	<b>Young Adulthood</b>	<b>Middle Adulthood</b>	<b>Older Adulthood</b>	<b>Retirement</b>
<b>Source of Income</b>	Wages	Wages / Investment	Wages / Investment	Investment
<b>Asset Base</b>	None	Accumulating	Growing	Using up
<b>Expenses</b>	Low	Growing	Growing	Low
<b>Risk: Ability</b>	Low	Higher	Higher	High
<b>Risk: Willingness</b>	High	Lower	Lower	Low

Early and middle adulthood are periods of building up: building a family, building a career, increasing earned income, and accumulating assets. Spending needs increase, but so do investments and alternative sources of income.

Later adulthood is a period of spending down. There is less reliance on earned income and more on the accumulated wealth of assets and investments. You are likely to be without dependents, as your children have grown up or your parents passed on, and without the responsibility of providing for them your expenses are lower. You are likely to have more leisure time, especially after retirement.

Without dependents, spending needs decrease. On the other hand, you may feel free to finally indulge in those things that you've "always wanted." There are no longer dependents to protect, but assets demand even more protection as, without employment, they are your only source of income. Typically, your ability to assume risk is high because of your accumulated assets, but your willingness to assume risk is low, as you are now dependent on those assets for income. As a result, risk tolerance decreases: you are less concerned with increasing wealth than you are with protecting it.

Effective financial planning depends largely on an awareness of how your current and future stages in life may influence your financial decisions.

### *Key Takeaways*

1. Personal circumstances that influence financial thinking include family structure, health, career choice, and age.
2. Family structure and health affect income needs and risk tolerance.
3. Career choice affects income and wealth or asset accumulation.
4. Age and stage of life affect sources of income, asset accumulation, spending needs, and risk tolerance.
5. Sound personal financial planning is based on a thorough understanding of your personal circumstances and goals.

### *Exercises*

1. After reading this chapter, identify and describe your current life stage. How does your current age or life stage affect your financial thinking and behaviour? To what extent and in what ways does your financial thinking anticipate your next stage of life? What financial goals are you aware of that you have set? How are your current experiences informing your financial planning for the future? You may be surprised at what you discover. In the process, consider how information in this text specifically relates to your observations and insights.
2. Continue your personal financial journal by describing how other micro factors, such as your present family structure, health, career choices, and other individual factors, are affecting your financial planning.
3. Find the age range for your stage of life and read “Your Financial Checklist For Every Stage of Life” from Forbes’ website. According to the article, what should be your top priorities in financial planning right now? How are your financial planning priorities likely to change?

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### 1.2 SYSTEMIC OR “MACRO” FACTORS THAT AFFECT FINANCIAL THINKING

#### *Learning Objectives*

1. Identify the systemic or macro factors that affect personal financial planning.
2. Describe the impact of inflation or deflation on disposable income.
3. Describe the effect of rising unemployment on disposable income.
4. Explain how economic indicators can have an impact on personal finances.

Financial planning has to take into account conditions in the wider economy and in the markets that make up the economy. The **labour market**, for example, is where labour is traded through hiring or employment. Workers compete for jobs and employers compete for workers. In the **capital market**, capital (cash or assets) is traded, most commonly in the form of stocks and bonds (along with other ways to package capital). In the **credit market**, a part of the capital market, capital is loaned and borrowed rather than bought and sold. These and other markets exist in a dynamic economic environment, and those environmental realities are part of sound financial planning.

In the long term, history has proven that an economy can grow over time, that investments can earn returns, and that the value of currency can remain relatively stable. In the short term, however, that is not continuously true. Contrary or unsettled periods can upset financial plans, especially if they last long enough or happen at just the wrong time in your life. Understanding large-scale economic patterns and factors that indicate the health of an economy can help you make better financial decisions. These systemic factors include, for example, business cycles and employment rates.

## Business Cycles

Ideally, an economy should be productive enough to provide for the wants of its members. Normally, economic output increases as population increases or as people's expectations grow. An economy's output or productivity is measured by its **gross domestic product (GDP)**, the value of what is produced in a period. When the GDP is increasing the economy is in an expansion, and when it is decreasing the economy is in a contraction. An economy that contracts for half a year is said to be in **recession**; a prolonged recession is a **depression**. The GDP is a closely watched barometer of the economy. However, GDP can be considered a limited indicator of economic growth because it doesn't measure goods and services that are not paid for. For example, caring for children or housework is not counted as part of GDP unless it is done by a daycare or a hired cleaner. Furthermore, GDP doesn't account for negative externalities such as the "harm done by industrial pollution or the health costs resulting from a polluted water system; these should be accounted as debits to the national income. Conversely the benefits of clean water and clean environment are not counted within GDP" (Orr and Weir, 2013, p. 110).

Over time, the economy tends to be cyclical, usually expanding but sometimes contracting. This is called the **business cycle**. Periods of contraction are generally seen as market corrections, or the market regaining its equilibrium, after periods of growth. Growth is never perfectly smooth, so sometimes certain markets become unbalanced and need to correct themselves. Over time, the periods of contraction seem to have become less frequent. The business cycles still occur nevertheless.

There are many metaphors to describe the cyclical nature of market economies: "peaks and troughs," "boom and bust," "growth and contraction," "expansion and correction," and so on. While each cycle is born of a unique combination of circumstances, cycles occur because things change and upset economic equilibrium. That is, events change the balance between supply and demand in the economy overall. Sometimes demand grows too fast and supply can't keep up, and sometimes supply grows too fast for demand. There are many reasons that this could happen, but whatever the reasons, buyers and sellers react to this imbalance, which then creates a change.

## Employment Rate

An economy produces not just goods and services to satisfy its members, but also jobs, because most people participate in the market economy by trading their labour and most rely on wages as their primary source of income. The economy must therefore provide opportunities to earn wages so more people can participate in the economy through the market. Otherwise, more people must be provided for in some other way, such as a private or public subsidy (charity or welfare).

The **unemployment rate** is a measure of an economy's shortcomings, because it shows the

proportion of people who want to work but don't because the economy cannot provide them jobs. There is always a so-called natural rate of unemployment, as people move in and out of the workforce as the circumstances of their lives change—for example, as they retrain for a new career or take time out for family. But natural unemployment should be consistently low and not affect the productivity of the economy.

Unemployment also shows that the economy is not efficient, because it is not able to put all its productive human resources to work.

The **employment rate** shows how successful an economy is at creating opportunities to sell labour and efficiently using its human resources. Statistics Canada defines the employment rate as “the number of employed people as a percentage of the population aged 15 and older. The rate for a particular group (for example, youths aged 15 to 24) is the number employed in that group as a percentage of the population for that group” (Statistics Canada, 2018, p. 5). In contrast, the **participation rate** includes *both* unemployed and employed Canadians, or, as Stats Canada puts it, “The participation rate is the number of employed and unemployed people as a percentage of the population” (Statistics Canada, 2018, p. 5).

A healthy market economy uses its labour productively, is productive, and provides employment opportunities as well as consumer satisfaction through its markets. Table 1.2.1 shows the relationship between GDP and unemployment and each stage of the business cycle.

**Table 1.2.1 Cyclical Economic Effects**

	<b>Boom</b>	<b>Expansion</b>	<b>Recession</b>	<b>Depression</b>
<b>Rate of GDP Increase</b>	Unsustainably High	Positive	Negative	Unsustainably Low
<b>Rate of Unemployment</b>	Unsustainably Low	“Natural” or Minimal	Higher	Unsustainably High

At either end of this scale of growth, the economy is in an unsustainable position: either growing too fast, with too much demand for labour, or shrinking, with too little demand for labour.

If there is too much demand for labour—more jobs than workers to fill them—then wages will rise, pushing up the cost of everything and causing prices to rise. Prices usually rise faster than wages, for many reasons, which would discourage consumption that would eventually discourage production and cause the economy to slow down from its “boom” condition into a more manageable rate of growth.

If there is too little demand for labour—more workers than jobs—then wages will fall or, more typically, there will be people without jobs, or unemployment. If wages become low enough, employers will (theoretically) be encouraged to hire more labour, which would bring employment levels back up. However, it doesn't always work that way, because people have job mobility—they are willing and able to move between economies to seek employment.

If unemployment is high and prolonged, then too many people are without wages for too long, and they are not able to participate in the economy because they have nothing to trade. In that case, the market economy is just not working for too many people, and they will eventually demand a change (which is how most revolutions have started).

## Other Indicators of Economic Health

Other economic indicators give us clues as to how “successful” our economy is, how well it is growing, or how well positioned it is for future growth. These indicators include statistics, such as the number of houses being built or existing home sales, orders for durable goods (e.g., appliances and automobiles), consumer confidence, producer prices, and so on. However, GDP growth and unemployment are the two most closely watched indicators because they get at the heart of what our economy is supposed to do: provide diverse opportunities for the highest number of people to participate in the economy, to create jobs, and to satisfy these individuals’ needs.

An expanding and healthy economy will offer its participants more choices—namely, more choices for trading labour and for trading capital. It offers more opportunities to earn a return or an income and therefore also offers more diversification and less risk.

Naturally, everyone would rather operate in a healthier economy, but this is not always possible. Financial planning must include planning for the risk that economic factors will affect one’s financial realities. A recession may increase unemployment, lowering the return on labour—wages—or making it harder to anticipate an increase in income. Wage income could be lost altogether. Such temporary involuntary loss of wage income will probably happen to you during your lifetime, as you inevitably will endure economic cycles.

A hedge against lost wages is investment to create other forms of income. In a period of economic contraction, however, the usefulness of capital, and thus its value, may decline as well. Some businesses and industries are considered immune to economic cycles (e.g., public education and health care), but overall, investment returns may suffer. Thus, during your lifetime business cycles will likely affect your participation in the capital markets as well.

## Currency Value

Stable currency value is another important indicator of a healthy economy and a critical element in financial planning. Like anything else, a currency’s value is based on its usefulness. We use currency as a medium of exchange, so its value is based on how it can be used in trade, which in turn is based on what is produced in the economy. If an economy produces little that anyone wants, then its currency

has little value relative to other currencies, because there is little use for it in trade. So, a currency's value is an indicator of how productive an economy is.

A currency's usefulness is based on what it can buy, or its **purchasing power**. The more a currency can buy, the more useful and valuable it is. When prices rise or when things cost more, purchasing power decreases; the currency buys less and its value decreases.

When the value of a currency decreases, an economy has **inflation**. Its currency has less value because it is less useful—that is, less can be bought with it. Prices are rising. It takes more units of currency to buy the same amount of goods. When the value of a currency increases, on the other hand, an economy has **deflation**. Prices are falling; the currency is worth more and buys more.

For example, say you can buy five video games for \$20. Each game is worth \$4, or each dollar buys one-quarter of a game. Then we have inflation, and prices—including the price of video games—rise. A year later you want to buy games, but now your \$20 only buys two games. Each one costs \$10, or each dollar only buys one-tenth of a game. Rising prices have eroded the purchasing power of your dollars.

If there is deflation, prices fall, so maybe a year later you could buy ten video games with your same \$20. Now each game costs only \$2, and each dollar buys half a game. The same amount of currency buys more games: its purchasing power has increased, as has its usefulness and its value. Table 1.2.2 provides an overview of how prices, purchasing power, and currency value change during periods of inflation and deflation.

**Table 1.2.2 Dynamics of Currency Value**

	<b>Inflation</b>	<b>Deflation</b>
<b>Prices</b>	Rise	Fall
<b>Purchasing Power</b>	Decreases	Increases
<b>Currency Value</b>	Falls	Rises

Inflation is most commonly measured by the **consumer price index (CPI)**, which is a measure of inflation or deflation based on a national average of prices for a “basket” of common goods and services purchased by the average consumer as determined by the federal government. It is an accepted way of tracking rising or falling price levels, and as such is indicative of inflation or deflation.

Currency instabilities can also affect investment values, because the dollars that investments return don't have the same value as the dollars that the investment was expected to return. Say you lend \$100 to your sister, who is supposed to pay you back one year from now. There is inflation, so over the next year, the value of the dollar decreases (it buys less as prices rise). Your sister does indeed pay you back on time, but now the \$100 that she gives back to you is worth less (because it buys less) than the \$100 you gave her. Your investment, although nominally returned, has lost value: you have your \$100 back, but you can't do as much with it; it is less useful.

If the value of currency—the units in which wealth is measured and stored—is unstable, then investment returns are harder to predict. In those circumstances, investment involves more risk. Both inflation and deflation are currency instabilities that are troublesome for an economy and also for the financial planning process. An unstable currency affects the value or purchasing power of income. Price changes affect consumption decisions, and changes in currency value affect investing decisions.

It is human nature to assume that things will stay the same, but financial planning must include the assumption that over a lifetime you will encounter and endure economic cycles. You should try to anticipate the risks of an economic downturn and the possible loss of wage income and/or investment income. At the same time, you should not assume or rely on the windfalls of an economic expansion.

### *Key Takeaways*

1. Business cycles include periods of expansion and contraction (including recessions), as measured by the economy's productivity (GDP).
2. An economy is in an unsustainable situation when it grows too fast or too slowly, as each situation causes too much stress in the economy's markets.
3. In addition to GDP, measures of the health of an economy include:
  - the rates of employment and unemployment, and
  - the value of currency (the consumer price index).
4. Financial planning should take into account the fact that periods of inflation or deflation change the value of currency, affecting purchasing power and investment values.
5. Thus, personal financial planning should take into account:
  - business cycles,
  - changes in the economy's productivity,
  - changes in the currency value, and
  - changes in other economic indicators.

### *Exercises*

1. Record in your personal financial journal the macroeconomic factors that are influencing your financial thinking and behaviour today. What are some specific examples? How have

large-scale economic changes or cycles affected your financial planning and decision-making?

2. How does the health of the economy affect your financial health? How healthy is the Canadian economy right now? On what measures do you base your judgments? How will your appreciation of the big picture help you in planning for your future?
3. How do business cycles and the health of the economy affect the value of your labour? In terms of supply and demand, what are the optimal conditions in which to sell your labour? How might further education increase your mobility in the labour market (the value of your labour)?

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## 1.3 THE PLANNING PROCESS

### *Learning Objectives*

1. Trace the steps of the financial planning process and explain why that process needs to be repeated over time.
2. Characterize effective goals and differentiate goals in terms of timing.
3. Explain and illustrate the relationships among costs, benefits, and risks.
4. Analyze cases of financial decision-making by applying the planning process.

A financial planning process involves figuring out where you'd like to be, where you are, and how to go from here to there. More formally, a financial planning process means the following:

- Defining goals
- Assessing the current situation
- Identifying choices
- Evaluating choices
- Choosing
- Assessing the resulting situation
- Redefining goals
- Identifying new choices
- Evaluating new choices
- Choosing
- Assessing the resulting situation over and over again

Personal circumstances change, and the economy changes, so your plans must be flexible enough to adapt to those changes yet be steady enough to eventually achieve long-term goals. You must be constantly alert to those changes but “have a strong foundation when the winds of changes shift” (Dylan, 1973).

## Defining Goals

Figuring out where you want to go is a process of defining goals. You have shorter-term (one to two years), intermediate (two to five years), and longer-term goals that are quite realistic, and goals that are more wishful. Setting goals is a skill that usually improves with experience. According to a popular model, to be truly useful goals must be specific, measurable, attainable, realistic, and timely (SMART). Goals change over time, and certainly over a lifetime. Whatever your goals, however, life is complicated and risky, and having a plan and a method to reach your goals increases your odds of doing so.

For example, after graduating from university, Brittany has an immediate focus on earning income to provide for living expenses and debt (student loan) obligations. She is fortunate that her family assists her with child care. Within the next decade, she foresees going to graduate school and perhaps purchasing a house for her and her daughter. Her income will have to provide for her increased expenses and also generate a surplus that can be saved to accumulate these assets.

In the long term, she will want to be able to retire and derive all her income from her accumulated assets, and perhaps travel around the world. In order to do so, she will have to accumulate enough assets to provide for her retirement income and for the travel. Table 1.3.1 shows the relationship between timing, goals, and sources of income.

**Table 1.3.1 Timing, Goals, and Income**

<b>Timing</b>	<b>Goals</b>	<b>Income Sources</b>
Short-Term	Reduce Debt	Wages/Salary
Intermediate	Accumulate Assets	Wages/Salary
Long-Term	Create Retirement Income	Investment Returns

Brittany’s income will be used to meet her goals, so it’s important for her to understand where her income will be coming from and how it will help in achieving her goals. She needs to assess her current situation.

## Assessing the Current Situation

Figuring out where you are, or assessing the current situation, involves understanding what your present situation is and the choices that it creates. There may be many choices, but you want to identify those that will be most useful in reaching your goals.

Assessing the current situation is a matter of organizing your personal financial information into summaries that can clearly show different and important aspects of your financial life—your assets, debts, incomes, and expenses. These numbers are expressed in financial statements—in an income statement, balance sheet, and cash flow statement (topics discussed in Chapter 3 “Financial Statements”). Businesses also use these three types of statements in their financial planning.

For now, we can assess Brittany’s situation by identifying her assets and debts and by listing her annual incomes and expenses; that will show if she can expect a budget surplus or deficit. But more importantly, it will show how possible her goals are and whether she is making progress toward them. Even a ballpark assessment of the current situation can be illuminating.

Brittany’s assets may be a car worth about \$5,000 and a savings account with a balance of \$250. Her debts include a student loan with a balance of \$53,000 and a car loan with a balance of \$2,700. These are shown in Table 1.3.2.

**Table 1.3.2 Brittany’s Financial Situation**

<b>Assets</b>	<b>Debts</b>
Car: 5,000	Car Loan: 2,700
Savings: 250	Student Loan: 53,000
Total: 5,250	Total: 55,700

Her annual disposable income (after tax income or take-home pay) may be \$35,720, and annual

expenses are expected to be \$10,800 for rent and \$14,400 for living expenses—food, gas, entertainment, clothing, and so on. Her annual loan payments are \$2,400 for the car loan and \$7,720 for the student loan, as shown in Table 1.3.3.

**Table 1.3.3 Brittany's Income and Expenses**

<b>After tax income</b>	<b>35,720</b>
Rent	10,800
Living expenses	14,400
<b>Remaining for debt reduction and savings</b>	<b>10,520</b>
Student loan payments	7,720
Car loan payments	2,400
<b>Remaining for savings</b>	<b>400</b>

Brittany will have an annual budget surplus of just \$400. She will be achieving her short-term goal of reducing debt, but with a small annual budget surplus it will be difficult for her to begin to achieve her goal of accumulating assets.

To reach that intermediate goal, she will have to increase income or decrease expenses to create more of an annual surplus. When her car loan is paid off next year, she hopes to buy another car, but she will have at most only \$650 (\$250 + \$400) in savings for a down payment for the car, and that assumes she can save all her surplus. When her student loans are paid off in about five years, she will no longer have student loan payments, and that will increase her surplus significantly (by \$7,720 per year) and allow her to put that money toward asset accumulation and her graduate degree. Brittany's long-term goals also depend on her ability to accumulate productive assets, as she wants to be able to quit working and live on the income from her assets in retirement. Brittany is making progress toward meeting her short-term goals of reducing debt, which she must do before being able to work toward her intermediate and long-term goals. Until she reduces her debt, which would reduce her expenses and increase her income, she will not make progress toward her intermediate and long-term goals.

Assessing her current situation allows Brittany to see that she has to delay accumulating assets until she can reduce expenses by reducing debt (and thus her student loan payments). She is now reducing debt, and as she continues to do so, her financial situation will begin to look different, and new choices will be available to her.

Brittany learned about her current situation by compiling two simple lists: one of her assets and debts, and the other of her income and expenses. Even in this simple example it is clear that the process of articulating the current situation can put information into a very useful context. It can reveal the critical paths to achieving goals.

## Evaluating Alternatives and Making Choices

Figuring out how to go from here to there is a process of identifying immediate choices and longer-term strategies or series of choices. To do this you have to be both realistic and imaginative about your current situation; this will allow you to see the choices you are presented with and the future choices that your current choices may create. The characteristics of your living situation—family structure, age, career choice, and health—and the larger context of the economic environment will affect or define the relative value of your choices.

After you have identified alternatives, you must evaluate each one. The obvious things to look for and assess are its costs and benefits, but you also want to think about its risks, where it will leave you, and how well positioned it will leave you to make the next decision. You want to have as many choices as you can at any point in the process, and you want your choices to be diversified. That way you can choose with an understanding of how this choice will affect the next choice, and the next, and so on. The further along in the process you can think, the better you can plan.

In her current situation, Brittany is reducing debt, an obligation for which she is liable, so one choice would be to continue on this path. She could begin to accumulate assets—cash or property with a monetary value—sooner if she could reduce expenses to create more of a budget surplus (Kapoor, Dlabay, Hughes, and Ahmad, 2015). Brittany looks over her expenses and decides she really can't cut them back much. She decides that the alternative of reducing expenses is not feasible. She could increase income, however. She has two choices: work a second job or go to Las Vegas to play poker.

Brittany could work a second, part-time job that would increase her after tax income but leave her more tired and with less time for other interests. The economy is in a bit of a slump too—unemployment is up a bit—so her second job probably wouldn't pay much. She could go to Vegas and win big, with the cost of the trip as her only expense. To evaluate her alternatives, Brittany needs to calculate the benefits and costs of each, as in Table 1.3.4.

**Table 1.3.4 Brittany's Choices: Benefits and Costs**

<b>Choices</b>	<b>Benefit</b>	<b>Explicit Cost</b>	<b>Implicit Cost</b>
<b>Continue</b>	Reduce debt	None	None
<b>Second job</b>	Reduce debt and increase surplus a little (more income)	None	Give up leisure pursuits
<b>Vegas</b>	Eliminate debt and increase surplus a lot (no debt payment)	Airfare and hotel in Vegas	Risk of increased deficit and debt

Laying out Brittany's choices in this way shows their consequences more clearly. The alternative with the biggest benefit is the trip to Vegas, but that also has the biggest cost because it has the biggest risk: if she loses, she could have even more debt. That would put her further from her goal

of beginning to accumulate assets, which would have to be postponed until she could eliminate that new debt as well as her existing debt.

Thus, she would have to increase her income and decrease her expenses. Simply continuing as she does now would no longer be an option because the new debt increases her expenses and creates a budget deficit. Her only remaining alternative to increase income would be to take the second job that she had initially rejected because of its implicit cost. She would probably have to reduce expenses as well, an idea she initially rejected as an unreasonable choice. Thus, the risk of the Vegas option is that it could force her to “choose” alternatives that she had initially rejected as too costly.

**Chart 1.3.1 Considering Risk in Brittany’s Choice**



The Vegas option becomes least desirable when its risk is included in the calculations of its costs, especially as they compare with its benefits.

Its obvious risk is that Brittany will lose wealth, but its even costlier risk is that it will limit her future choices. Without including risk as a cost, the Vegas option looks attractive—which is, of course, why Vegas exists. But when risk is included, and when the decision involves thinking strategically not only about immediate consequences, but also about the choices it will preserve or eliminate, that option can be seen in a very different light.

**Table 1.3.5 Brittany's Choices: Benefits and More Costs**

Choices	Benefit	Explicit Cost	Implicit Cost	Strategic Cost
<b>Continue</b>	Reduce debt	None	None	Preserves alternatives
<b>Second job</b>	Reduce debt and increase surplus a little (more income)	None	Give up leisure pursuits	Preserves alternatives
<b>Vegas</b>	Eliminate debt and increase surplus a lot (no debt payment)	Airfare and hotel in Vegas	Risk of increased deficit and debt	Eliminates alternatives

You may sometimes choose an alternative with less apparent benefit than another but also with less risk. You may sometimes choose an alternative that provides less immediate benefit but more choices later. Risk itself is a cost and choice a benefit, and they should be included in your assessment.

### *Key Takeaways*

1. Financial planning is a recursive process that involves:
  - defining goals,
  - assessing the current situation,
  - identifying choices,
  - evaluating choices, and
  - choosing.
2. Choosing further involves assessing the resulting situation, redefining goals, identifying new choices, evaluating new choices, and so on.
3. Goals are shaped by current and expected circumstances, family structure, career, health, and larger economic forces.
4. Depending on the factors shaping them, goals are short-term, intermediate, and long-term.
5. Choices will allow faster or slower progress toward goals and may digress or regress from goals; goals can be eliminated.
6. You should evaluate your feasible choices by calculating the benefits, explicit costs, implicit costs, and the strategic costs of each one.

## Exercises

1. Assess and summarize your current financial situation. What measures are you using to describe where you are? Your assessment should include an appreciation of your financial assets, debts, incomes, and expenses.
2. Use the SMART planning model and information in this section to evaluate Brittany's goals. Write your answers in your financial planning journal and discuss your evaluations with classmates.
  - Pay off student loan
  - Buy a house and save for children's education
  - Accumulate assets
  - Retire
  - Travel around the world in a sailboat
3. Identify and prioritize your immediate, short-term, and long-term goals at this time in your life. Why will you need different strategies to achieve these goals? For each goal identify a range of alternatives for achieving it. How will you evaluate each alternative before making a decision?
4. In your personal financial journal, record specific examples of your use of the following kinds of strategies in making financial decisions:
  - Weigh costs and benefits
  - Respond to incentives
  - Learn from experience
  - Avoid a feared consequence or loss
  - Avoid risk
  - Throw caution to the wind.
5. On average, would you rate yourself as a rational or non-rational financial decision-maker?

## REFERENCES

Dylan, B. (1973). "Forever Young." On *Planet Waves*, Asylum Records, 33 $\frac{1}{3}$  rpm.

Kapoor, J., L. Dlabay, R. Hughes, and F. Ahmad. (2015). *Personal Finance*. Toronto: McGraw-Hill Ryerson.

## 1.4 FINANCIAL PLANNING PROFESSIONALS

### *Learning Objectives*

1. Identify the professions of financial advisers.
2. Discuss how training and compensation may affect your choice of adviser.
3. Describe the differences between objective and subjective advice and how that may affect your choice of adviser.
4. Discuss how the kind of advice you need may affect your choice of adviser.

Even after reading this book, or perhaps *especially* after reading this book, you may want some help from a professional who specializes in financial planning. As with any professional that you go to for advice, you want expertise to help make your decisions, but in the end, you are the one who will certainly have to live with the consequences of your decisions, and you should make your own decisions accordingly.

There are a multitude of **financial advisers** to help with financial planning, such as accountants, investment advisers, tax advisers, estate planners, or insurance agents. Many financial advisers also work as financial planners. They have different kinds of training and qualifications, different educations and backgrounds, and different approaches to financial planning. To have a set of initials after their name, all have met educational and professional experience requirements and have passed exams administered by professional organizations, testing their knowledge in the field.

Certifications are useful because they indicate training and experience in a particular aspect of financial planning. When looking for advice, however, it is important to understand where the adviser's interests lie (as well as your own). It is always important to know where your information and advice come from and what that says about the quality of that information and advice. Specifically, how is the adviser compensated?

Some advisers just give, and get paid for, advice; some are selling a product, such as a particular investment or mutual fund or life insurance policy, and get paid when it gets sold. Others are selling a service, such as brokerage or mortgage servicing, and get paid when the service is used. All may be highly ethical and well-intentioned, but when choosing a financial planning adviser, it is important to be able to distinguish among them.

Sometimes a friend or family member who knows you well and has your personal interests in mind may be a great resource for information and advice, but perhaps not as objective or knowledgeable as a disinterested professional. It is good to diversify your sources of information and advice, using both professional and "amateur," subjective and objective advisers. As always, diversification decreases risk.

Now you know a bit about the planning process, the personal factors that affect it, the larger economic contexts, and the business of financial advising. The next steps in financial planning have to do with details, especially how to organize your financial information to see your current situation and how to begin to evaluate your alternatives.

## References to Professional Organizations

The references that follow provide information for further research on the professionals and professional organizations mentioned in this chapter.

**Table 1.4.1 References to Professional Organizations**

Professional Organizations	Websites
The Association of Chartered Certified Accountants (ACCA)	<a href="http://www.accaglobal.com/ca/en.html">http://www.accaglobal.com/ca/en.html</a>
The Association for Financial Counseling and Planning Education	<a href="http://www.afcpe.org">http://www.afcpe.org</a>
Canadian Institute of Chartered Accountants (CICA)	<a href="http://www.cica.ca">http://www.cica.ca</a>
Certified Financial Planner Board of Standards	<a href="http://www.cfp.net">http://www.cfp.net</a>
Chartered Financial Analyst Institute	<a href="http://www.cfainstitute.org">http://www.cfainstitute.org</a>
Financial Planners Standards Council of Canada	<a href="http://www.fpsccanada.org">http://www.fpsccanada.org</a>
The National Association of Estate Planners and Councils	<a href="http://www.naepc.org">http://www.naepc.org</a>

## *Key Takeaways*

1. Financial advisers may be working as financial planners, accountants, investment advisers, tax advisers, estate planners, or insurance agents.
2. You should always understand how your adviser is trained and how that may be related to the kind of advice that you receive.
3. You should always understand how your adviser is compensated and how that may be related to the kind of advice that you receive.
4. You should diversify your sources of information and advice by using subjective advisers—friends and family—as well as objective, professional advisers. Diversification, as always, reduces risk.

## *Exercises*

1. Where do you get your financial advice? Identify all the sources. In what circumstances might you seek a professional financial adviser?
2. Read the following information from the Financial Consumer Agency of Canada on “Choosing a financial adviser.” Which recommendations about getting financial advice do you find most valuable? Share your views with classmates.

## 2. Basic Ideas of Finance

### INTRODUCTION

Money, says the proverb, makes money. When you have got a little, it is often easy to get more. The great difficulty is to get that little.

–Adam Smith, *The Wealth of Nations* (1776)

Personal finance addresses the “great difficulty” of getting a little money. It is about creating productive assets—that is, resources that can be used to create future economic benefit, such as increasing income, decreasing expenses, or storing wealth, as an investment, and about protecting existing and expected value in those assets. In other words, personal finance is about learning how to achieve your goals and how to protect what is important to you.

There is no trick to managing your personal finances. Making good financial decisions is largely a matter of understanding how the economy works, how money flows through it, and how other people make financial decisions. The better your understanding, the better your ability to plan, take advantage of opportunities, and avoid disappointments. Life can never be planned entirely, of course, and the best-laid plans can go awry, but anticipating risks and protecting against them can minimize your exposure to the inevitable mistakes and ups and downs of life that we all experience.

The AFOA BC equates financial literacy with financial fitness: “when you are financially fit you are able to make informed choices about finances and you understand how your choices are going to impact your wallet and your life” (AFOA BC, 2011, p. 7). Just like it takes effort to become and remain physically fit, it takes effort to become financially fit: “you have to train. You have to obtain information, knowledge and skills and apply them so you can make good choices about how you treat your money and how your money treats you” (AFOA BC, 2011, p. 7). You don’t need lots of money to be financially fit—after all, there are plenty of people with money who aren’t financially fit—but you must build your skills and knowledge base “about money, savings, spending, credit, investing, and everything else people do with money. Then you can use what you learn to make choices for you and your family that help—not hurt—your bank account” (AFOA BC, 2011, p. 8).

## 2.1 INCOME AND EXPENSES

### *Learning Objectives*

1. Identify and compare the sources and uses of income.
2. Define and illustrate the budget balances that result from the uses of income.
3. Outline the remedies for budget deficits and surpluses.
4. Define opportunity and sunk costs and discuss their effects on financial decision-making.

Personal finance is the process of paying for or financing a life and a way of living. Just as a business must be financed—its buildings, equipment, use of labour and materials, and operating costs must be paid for—so must a person's possessions and living expenses. Just as a business relies on its revenues from selling goods or services to finance its costs, so a person relies on income earned from selling labour or capital to finance his or her costs. You need to understand this financing process and the terms used to describe it. In the next chapter, you'll look at how to account for it.

### Where Does Income Come From?

**Income** is what is earned or received in a given period. There are various terms for income because there are various ways of earning income. Income from employment or self-employment is wages or salary. Deposit accounts, like savings accounts, earn interest, which could also come from lending. Owning stock entitles the shareholder to a dividend, if there is one.

The two fundamental ways of earning income in a market-based economy are by selling labour or selling capital. Selling labour means working, either for someone else or for yourself. Income comes in the form of a paycheque. Total compensation may include other benefits, such as retirement contributions, health insurance, or life insurance. Labour is sold in the labour market.

Selling capital means investing: taking excess cash and selling it or renting it to someone who needs **liquidity** (access to cash). Lending is renting out capital; the interest is the rent. You can lend privately by direct arrangement with a borrower, or you can lend through a public debt exchange by buying corporate, government, or government agency bonds. Investing in or buying corporate stock is an example of selling capital in exchange for a share of the company's future value.

You can invest in many other kinds of assets, like art, land, or commodities such as soybeans, live cattle, or potash. The principle is the same: investing is renting capital or selling it for an asset that can be resold later, or that can create future income, or both. Capital is sold in the capital market and

lent in the credit market—a specific part of the capital market (just like the dairy section is a specific part of the supermarket). Table 2.1.1 shows the sources of income.

**Table 2.1.1 Sources of Income**

	<b>Work</b>	<b>Invest</b>	<b>Lend</b>
<b>Trade</b>	Sell Labour	Sell Capital	Rent Capital
<b>Return/Income</b>	Wages or Salary	Profit or Dividend Capital Gain (Loss)	Interest
<b>Market</b>	Labour Market	Capital Market	Credit Market

In the labour market, the price of labour is the wage that an employer (buyer of labour) is willing to pay to the employee (seller of labour). For any given job, that price is determined by many factors. The nature of the work defines the education and skills required, and the price may reflect other factors as well, such as the status or desirability of the job.

In turn, the skills needed and the attractiveness of the work determine the supply of labour for that particular job—the number of people who could and would want to do the job. If the supply of labour is greater than the demand—if there are more people to work at a job than are needed—then employers will have more hiring choices. That labour market is a **buyers’ market**, and the buyers can hire labour at lower prices. If there are fewer people willing and able to do a job than there are jobs, then that labour market is a **sellers’ market**, and workers can sell their labour at higher prices.

Similarly, the fewer skills required for the job, the more people there will be who are able to do it, which in turn creates a buyers’ market. The more skills required for a job, the fewer people there will be to do it, and the more leverage or advantage the seller has in negotiating a price. People pursue education to make themselves more highly skilled and therefore able to compete in a sellers’ labour market.

When you are starting your career, you are usually in a buyers’ market (unless you have some unusual gift or talent), if only because of your lack of experience. As your career progresses, you have more, and perhaps more varied, experience and presumably more skills, and so can sell your labour in more of a sellers’ market. You may change careers or jobs more than once, but you would hope to be doing so to your advantage—that is, always to be gaining bargaining power in the labour market.

Many people love their work for a variety of reasons other than the pay, however, and they choose it for those rewards. Labour is more than a source of income; it can also be a source of intellectual, social, and other personal gratifications. Your labour is nevertheless a tradable commodity as well and therefore has a market value. The personal rewards of your work may ultimately determine your choices, but you should be aware of the market value of those choices as you make them.

Your ability to sell labour and earn income reflects your situation in your labour market. Earlier in your career, you can expect to earn less than you will as your career progresses. Most people would

like to reach a point where they don't have to sell labour at all. They hope to retire someday and pursue other hobbies or interests. They can retire if they have alternative sources of income—if they can earn income from savings and from selling capital.

Capital markets exist so that buyers can buy capital. Businesses always need capital and have limited ways of raising it. Sellers and lenders (investors), on the other hand, have many more choices of how to invest their excess cash in the capital and credit markets, so those markets are much more like sellers' markets. The following are examples of ways to invest in the capital and credit markets:

- Buying stocks
- Buying government or corporate bonds
- Lending a mortgage

The market for any particular investment or asset may be a sellers' or buyers' market at any particular time, depending on economic conditions, if there are more sellers than buyers. Typically, however, there is as much or more demand for capital as there is supply. The more capital you have to sell, the more ways you can sell it to more kinds of buyers, and the more those buyers may be willing to pay. At first, however, for most people, selling labour is their only practical source of income.

## Where Does Income Go?

**Expenses** are costs for items or resources that are used up or consumed in the course of daily living. Expenses recur (i.e., they happen over and over again) because food, housing, clothing, energy, and so on are used up on a daily basis.

When income is less than expenses, you have a **budget deficit**: too little cash to provide for your wants or needs. A budget deficit is not sustainable; it is not financially viable. The only choices are to eliminate the deficit by 1) increasing income, 2) reducing expenses, or 3) borrowing to make up the difference. Borrowing may seem like the easiest and quickest solution, but borrowing also increases expenses because it creates an additional expense: interest. Unless income can also be increased, borrowing to cover a deficit will only increase it.

A better, although usually harder, choice is to either increase income or decrease expenses. Table 2.1.2 shows the choices created by a budget deficit.

**Table 2.1.2 Budget Deficit**

<b>Income Less Than Expenses = Budget Deficit</b>		
1. Reduce expenses	= consume less	= reduce budget deficit
2. Increase income	= sell more labour or capital	= reduce budget deficit
3. Borrow	= increase (interest) expenses	= increase budget deficit

When income for a period is greater than expenses, there is a **budget surplus**. That situation is sustainable and remains financially viable. You could choose to decrease income by, say, working less. More likely, though, you would use the surplus in one of two ways: consume more or save it. If consumed, the income is gone, although presumably you enjoyed it.

If saved, however, the income can be stored, perhaps in a piggy bank or cookie jar, and used later. A more profitable way to save income is to invest it in some way—deposit it in a bank account, lend it with interest, or trade it for an asset, such as a stock or a bond or real estate. Those ways of saving are ways of selling your excess capital in the capital markets to increase your wealth. The following are examples of savings:

1. Depositing into a savings account at a bank
2. Contributing to a retirement account
3. Purchasing a guaranteed investment certificate
4. Purchasing a government savings bond

Table 2.1.3 shows the choices created by a budget surplus.

**Table 2.1.3 Budget Surplus**

<b>Income Greater Than Expenses = Budget Surplus</b>		
1. Increase expenses	= consume more	= reduce budget surplus
2. Reduce income	= sell less labour or capital	= reduce budget surplus
3. Save and invest	= increase income	= increase budget surplus

## Opportunity Costs and Sunk Costs

Aside from expenses, there are two other important kinds of costs that affect your financial life. Suppose you can afford a new jacket or new boots, but not both, because your resources—the income you can use to buy clothing—are limited. If you buy the jacket, you cannot also buy the boots. Not

getting the boots is an **opportunity cost** of buying the jacket; it is the cost of sacrificing your next-best choice.

In personal finance, there is always an opportunity cost. You always want to make a choice that will create more value than cost, and so you always want the opportunity cost to be less than the benefit from trade. You bought the jacket instead of the boots because you decided that having the jacket would bring more benefit than the cost of not having the boots. You believed your benefit would be greater than your opportunity cost.

In personal finance, opportunity costs affect not only consumption decisions but also financing decisions, such as whether to borrow or to pay cash. Borrowing has obvious costs, whereas paying with your own cash or savings seems costless. Using your cash does have an opportunity cost, however: you lose whatever interest you may have had on your savings, and you lose liquidity. In other words, if you need cash for something else, like a better choice or an emergency, you no longer have it and may even have to borrow it at a higher cost.

When buyers and sellers make choices, they weigh opportunity costs, and sometimes regret them, especially when the benefits from trade are disappointing. Regret can colour future choices. Sometimes regret can keep us from recognizing **sunk costs**.

Sunk costs are costs that have already been spent; whatever resources you traded are gone, and there is no way to recover them. Decisions, by definition, can be made only about the future, not about the past. A trade, when it's over, is over and done, so recognizing that sunk costs are truly sunk can help you make better decisions.

For example, the money you spent on your jacket is a sunk cost. If it snows next week and you decide you really do need boots too, that money is gone and you cannot use it to buy boots. If you really want the boots, you will have to find another way to pay for them.

Unlike a price tag, opportunity cost is not obvious. You tend to focus on what you are getting in the trade rather than what you are *not* getting. This tendency is a cheerful aspect of human nature, but it can hamper the kind of strategic decision-making that is so essential to financial planning. Human nature may also make you focus too much on sunk costs, but all the relish or regret in the world cannot change past decisions. Learning to recognize sunk costs is an important part of making good financial decisions.

### *Key Takeaways*

1. It is important to understand the sources (incomes) and uses (expenses) of funds, and the

budget deficit or budget surplus that may result.

2. Wages or salary is income from employment or self-employment; interest is earned by lending; a dividend is the income from owning corporate stock; and a draw is income from a partnership.
3. Deficits or surpluses need to be addressed, and that means making decisions about what to do with them.
4. Increasing income, reducing expenses, and borrowing are three ways to deal with budget deficits.
5. Spending more, saving, and investing are three ways to deal with budget surpluses.
6. Opportunity costs and sunk costs are hidden expenses that affect financial decision-making.

## *Exercises*

1. Where does your income come from, and where does it go? Analyze your inflows of income from all sources and use of income through expenditures in a month, quarter, or year. After analyzing your numbers and converting them to percentages, show your results in two tables, using proportions of a loonie to show where your income comes from and proportions of another loonie to show how you spend your income. How would you like your income to change? How would you like your distribution of expenses to change? Use your investigation to develop a rough personal budget.
2. Examine your budget and distinguish between wants and needs. How do you define a financial need? What are your fixed expenses, or costs you must pay regularly each week, month, or year? Which of your budget categories must you provide for first before satisfying others? To what extent is each expense discretionary—under your control in terms of spending more or less for that item or resource? Which of your expenses could you reduce if you had to or wanted to for any reason?
3. If you had a budget deficit, what could you do about it? What would be the best solution for the long term? If you had a budget surplus, what could you do about it? What would be your best choice, and why?
4. You need a jacket, boots, and gloves, but the jacket you want will use up all the money you have available for outerwear. What is your opportunity cost if you buy the jacket? What is your sunk cost if you buy the jacket? How could you modify your consumption to reduce opportunity cost? If you buy the jacket but find that you need the boots and gloves, how could you modify your budget to compensate for your sunk cost?

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## 2.2 ASSETS

### *Learning Objectives*

1. Identify the purposes and uses of assets.
2. Identify the types of assets.
3. Explain the role of assets in personal finance.
4. Explain how a capital gain or loss is created.

As defined earlier in this chapter, an asset is any item with economic value that can be converted to cash. As such, they can be used to create income or reduce expenses and to store value. The following are examples of tangible (material) assets:

- Car
- Savings account
- Wind-up toy collection
- Shares of stock
- Forty acres of farmland
- Home

Selling excess capital in the capital markets in exchange for an asset is a way of storing wealth, and hopefully of generating income as well. The asset is your investment—a use of your liquidity. Some assets are more liquid than others. For example, you can probably sell your car more quickly than you can sell your house. As an investor, you assume that when you want your liquidity back, you can sell the asset. This assumes that it has some liquidity and market value (some use and value to someone else) and that it trades in a reasonably efficient market. Otherwise, the asset is not an investment, but merely a possession, which may bring great happiness but will not serve as a store of wealth.

Assets may be used to store wealth, create income, and reduce future expenses.

## Assets Store Wealth

If the asset is worth more when it is resold than it was when it was bought, then you have earned a **capital gain**: the investment has not only stored wealth but also increased it. Of course, things can go the other way too: the investment can decrease in value while owned and be worth less when resold than it was when bought. In that case, you have a **capital loss**. The investment not only did not store wealth, it lost some. Table 2.2.1 shows how capital gains and losses are created.

**Table 2.2.1 Gains and Losses**

Buy lower, then sell higher → Capital GAIN
Buy higher, then sell lower → Capital LOSS

The better investment asset is the one that increases in value—creates a capital gain—during the time you are storing it.

## Assets Create Income

Some assets not only store wealth, but also create income. An investment in an apartment or house can potentially store wealth and create rental income, for example. An investment in a share of stock stores wealth and also perhaps creates dividend income. A deposit in a savings account stores wealth and creates interest income.

Some investors care more about increasing asset value than about income. For example, an investment in a share of corporate stock may produce a dividend, which is a share of the corporation's profit, or the company may keep all its profit rather than pay dividends to shareholders. Reinvesting that profit in the company may help the company to increase in value. If the company increases in value, the stock increases in value too, thereby increasing investors' wealth. Further, increases in wealth through capital gains are taxed differently than income, making capital gains more valuable than an increase in income for some investors.

On the other hand, some investors care more about receiving income from their investments. For example, retirees who no longer have employment income may be relying on investments to provide

income for living expenses. Being older and having a shorter horizon, retirees may be less concerned with growing wealth than with creating income.

## Assets Reduce Expenses

Some assets are used to reduce living expenses. Purchasing an asset and using it may be cheaper than arranging for an alternative. For example, buying a car to drive to work may be cheaper, in the long run, than renting one or using public transportation. The car typically will not increase in value, so it cannot be expected to be a store of wealth; its only role is to reduce future expenses.

Sometimes an asset may be expected to both store wealth and reduce future expenses. For example, buying a house to live in may be cheaper, in the long run, than renting one. In addition, real estate may appreciate in value, allowing you to realize a gain when you sell the asset. In this case, the house has effectively stored wealth. Appreciation in value, however, depends on the real estate market and demand for housing when the asset is sold, so you cannot count on such a gain. Still, a house usually can reduce living expenses and be a potential store of wealth. In some cases, a house not only reduces living expenses and potentially stores wealth, but also increases income if, for example, the basement or other spaces in the house are rented by tenants.

Table 2.2.2 shows the roles of assets in reducing expenses, increasing income, and storing wealth.

**Table 2.2.2 Assets and the Roles of Assets**

Asset	Reduce Expenses	Increase Income	Store Wealth
Car	Yes	No	No
Savings Account	No	Yes	Yes
Home	Yes	No	Yes
Rental Property	No	Yes	Yes
Investment in Bonds	No	Yes	Yes
Investment in Stocks	No	Yes	Yes

The choice of investment asset, then, depends on your belief in its ability to store and increase wealth, create income, or reduce expenses. Ideally, your assets will store and increase wealth while increasing income or reducing expenses. Otherwise, acquiring the asset will not be a productive use of liquidity. Also, in that case, the opportunity cost will be greater than the benefit from the investment, since there are many assets to choose from.

## *Key Takeaways*

1. Assets are items with economic value that can be converted to cash. You use excess liquidity or surplus cash to buy an asset and store wealth until you resell the asset.
2. An asset can create income, reduce expenses, and store wealth.
3. To have value as an investment, an asset must either store wealth, create income, or reduce expenses.
4. Whatever the type of asset you choose, investing in assets or selling capital can be more profitable than selling labour.
5. Selling an asset can result in a capital gain or capital loss.
6. Selling capital means trading in the capital markets, which is a sellers' market. You can do this only if you have a budget surplus, or an excess of income over expenses.

## *Exercises*

1. Record your answers to the following questions in your personal finance journal. What are your assets? How do your assets store your wealth? How do your assets make income for you? How do your assets help you reduce your expenses?
2. List your assets in the order of their cash or market value (most valuable to least valuable). Then list them in terms of their degree of liquidity. Which assets do you think you might sell in the next ten years? Why? What new assets do you think you would like to acquire and why? How could you reorganize your budget to make it possible to invest in new assets?

## 2.3 DEBT AND EQUITY

### *Learning Objectives*

1. Define equity and debt.
2. Compare and contrast the benefits and costs of debt and equity.
3. Illustrate the uses of debt and equity.
4. Analyze the costs of debt and equity.

Buying capital—that is, borrowing—enables you to invest without first owning capital. By using other people’s money to finance the investment you get to use an asset before actually owning it, free and clear, assuming you can repay out of future earnings.

Borrowing capital has costs, however, so the asset will have to increase wealth, increase earnings, or decrease expenses enough to compensate for its costs. In other words, the asset will have to be more productive to earn enough to cover its financing costs—the cost of buying or borrowing capital to buy the asset.

Buying capital gives you equity, borrowing capital gives you debt, and both kinds of financing have costs and benefits. When you buy or borrow liquidity or cash, you become a buyer in the capital market.

### The Costs of Debt and Equity

You can buy capital from other investors in exchange for an ownership share or **equity**, which represents your claim on any future gains or future income. If the asset is productive in storing wealth, generating income, or reducing expenses, the equity holder or shareholder or owner enjoys that benefit in proportion to the share of the asset owned. If the asset actually loses value, the owner bears a portion of the loss in proportion to the share of the asset owned. The **cost of equity** is in having to share the benefits from the investment.

In 2004, for example, Google, a company that produced a very successful Internet search engine, decided to buy capital by selling shares of the company (shares of stock or equity securities) in exchange for cash. Google sold over nineteen million shares for a total of \$1.67 billion. Those who bought the shares were then owners or shareholders of Google, Inc. Each shareholder has equity in Google, and as long as they own the shares they will share in the profits and value of Google, Inc. The original founders and owners of Google, Larry Page and Sergey Brin, have since had to share their

company's gains (income) or losses with all those shareholders. In this case, the cost of equity is the minimum rate of return Google must offer its shareholders to compensate them for waiting for their returns and for bearing some risk that the company might not do as well in the future.

Borrowing is renting someone else's money for a period of time, and the result is **debt**. During that period of time, rent or **interest** must be paid, which is a cost of debt. When that period of time expires, all the capital (the **principal** amount borrowed) must be given back. The investment's earnings must be enough to cover the interest, and its growth in value must be enough to return the principal. Thus, debt is a liability—an obligation for which the borrower is liable.

In contrast, the cost of equity may need to be paid only if there is an increase in income or wealth, and even then can be deferred. So, from the buyer's point of view, purchasing liquidity by borrowing (debt) has a more immediate effect on income and expenses. Interest must be added as an expense, and repayment must be anticipated.

Table 2.3.1 shows the implications of equity and debt as the sources of capital.

**Table 2.3.1 Sources of Capital**

	<b>Equity</b>	<b>Debt</b>
<b>Trade</b>	Buy Capital	Borrow Capital
<b>Cost/Expense</b>	Share Profits and Gains	Pay Interest
<b>Market</b>	Capital Market	Credit Market

## The Uses of Debt and Equity

Debt is a way to make an investment that could not otherwise be made, to buy an asset (e.g., house, car, corporate stock) that you couldn't buy without borrowing. If that asset is expected to provide enough benefit (e.g., increase value, create income, or reduce expense) to compensate for its additional costs, then the debt is worth it. However, if debt creates additional expense without enough additional benefit, then it is not worth it. The trouble is, while the costs are usually known up front, the benefits are not. That adds a dimension of risk to debt, which is another factor in assessing whether it's desirable.

For example, after the housing boom in the United States began to go bust in 2008, homeowners began losing value in their homes as housing prices dropped. Some homeowners were in the unfortunate position of owing more on their mortgage than their house was worth. The costs of their debt were knowable up front, but the consequences—the house losing value and becoming worth less than the debt—were not.

Debt may also be used to cover a budget deficit, or the excess of expenses over income. As mentioned

previously, however, in the long run the cost of the debt will increase expenses that are already too big, which is what created the deficit in the first place. Unless income can also be increased, debt can only aggravate a deficit.

## The Value of Debt

The value of debt includes the benefits of having the asset sooner rather than later, something that debt financing enables. For example, many people want to buy a house when they have children, perhaps because they want bedrooms and bathrooms and maybe a yard for their children. Not far into adulthood, would-be homebuyers may not have had enough time to save enough to buy the house outright, so they borrow to make up the difference. Over the length of their mortgage (real estate loan), they pay the interest.

The alternative would be to rent a living space. If the rent on a comparable home were more than the mortgage interest (which it often is, because a landlord usually wants the rent to cover the mortgage *and* create a profit), it would make more sense, if possible, to borrow and buy a home and be able to live in it. And, extra bedrooms and bathrooms and a yard are valuable while children are young and live at home. If you wait until you have saved enough to buy a home, you may be much older, and your children may be off on their own.

Another example of the value of debt is using debt to finance an education. Education is valuable because it has many benefits that can be enjoyed over a lifetime. One benefit is an increase in potential earnings in wages and salaries. Demand for the educated or skilled employee is generally greater than for the uneducated or less-skilled employee. So, education creates a more valuable and thus higher-priced employee.

It makes sense to be able to maximize value by becoming educated as soon as possible so that you have as long as possible to benefit from increased income. It even makes sense to invest in an education before you sell your labour because your opportunity cost of going to school—in this case, the “lost” wages of not working—is lowest. Without income or savings (or very little) to finance your education, you typically borrow. Debt enables you to use the value of the education to enhance your income, out of which you can pay back the debt.

The alternative would be to work and save and then get an education, but you would be earning income less efficiently until you completed your education, and then you would have less time to earn your return. Waiting decreases the value of your education—that is, its usefulness—over your lifetime.

In the examples shown in Table 2.3.2, debt creates a cost, but it reduces expenses or increases income to offset that cost. Debt allows this to happen sooner than it otherwise could, which allows you to realize the maximum benefit for the investment. In such cases, debt is “worth” it.

**Table 2.3.2 Debt: Uses, Value, and Cost**

Debt	Debt Used to Finance	Value	Cost Paid From
Credit Cards	Living Expenses	Convenience	Income
Auto Loan	Car	Reduce Expenses	Income
Mortgage	Home	Reduce Expenses	Income
College Loan	Education	Increase (Future) Income	Future Income

### *Key Takeaways*

1. Financing assets through equity means sharing ownership and whatever gains or losses that brings.
2. Financing assets through borrowing and creating debt means taking on a financial obligation that must be repaid.
3. Both equity and debt have costs and value.
4. Both equity and debt enable you to use an asset sooner than you otherwise could and therefore to reap more of its rewards.

### *Exercises*

1. Research the founding of Google online—for example, at Ubergizmo “Google’s First Steps” and the Ted Talks webpage on Larry Page. How did the young entrepreneurs Larry Page and Sergey Brin use equity and debt to make their business successful and increase their personal wealth? Discuss your findings with classmates.
2. Record your answers to the following questions in your personal finance journal. What equity do you own? What debt do you owe? In each case, what do your equity and debt finance? What do they cost you? How do they benefit you?
3. Read the Financial Consumer Agency of Canada’s website “Paying back student debt.” Students fear going into debt for their education or later have difficulty paying off student loans. What are four practical financial planning tips to take advantage of debt financing your education? If payments on student loans become overwhelming, what

should you do to avoid default?

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## 2.4 INCOME AND RISK

### *Learning Objectives*

1. Describe how sources of income may be diversified.
2. Describe how investments in assets may be diversified.
3. Explain the use of diversification as a risk-management strategy.

Personal finance is not just about getting what you want; it is also about protecting what you have. Since the way to accumulate assets is to create surplus capital by having an income larger than your expenses, and since you rely on income to provide for living expenses, you also need to think about protecting your income. One way to do so is through **diversification**, or spreading the risk.

You already know not to put all your eggs in one basket, because if something happens to that basket, all the eggs are gone. If the eggs are in many baskets, on the other hand, the loss of any one basket would mean the loss of just a fraction of the eggs. The more baskets, the smaller your proportional loss would be. Then if you put many different baskets in many different places, your eggs are diversified even more effectively, because all the baskets aren't exposed to the same environmental risks.

Diversification is more often discussed in terms of investment decisions, but diversification of sources of income works the same way and makes the same kind of sense for the same reasons. If sources of income are diverse—in number and kind—and one source of income ceases to be productive, then you still have others to rely on.

If you sell your labour to only one buyer, then you are exposed to more risk than if you can generate income by selling your labour to more than one buyer. You have only so much time you can devote to working, however; having more than one employer could be exhausting and perhaps impossible. Selling your labour to more than one buyer also means that you are still dependent on the labour

market, which could suffer from an economic cycle such as a recession affecting many buyers (employers).

Jeff, for example, works as a graphics designer, tutors on the side, paints houses in the summers, and buys and sells sports memorabilia on the Internet. If he got laid off from his graphics design job, he would lose his paycheque but still be able to create income by tutoring, painting, and trading memorabilia.

Similarly, if you sell your capital to only one buyer—that is, if you invest in only one asset—then you are exposed to more risk than if you generate income by investing in a variety of assets. Diversifying investments means you are dependent on trade in the capital markets, however, which likewise could suffer from unfavourable economic conditions.

Jeff has a chequing account, a high-interest savings account, an RRSP, and a tax-free savings account (TSFA) that is invested in a balanced portfolio of stocks. If his stock portfolio lost value, he would still have the value in his other accounts.

A better way to diversify sources of income is to sell both labour *and* capital. Then you are trading in different markets, and are not totally exposed to risks in either one. In Jeff's case, if all his incomes dried up, he would still have his investments, and if all his investments lost value, he would still have his paycheque and other incomes. To diversify to that extent, you need surplus capital to trade. This brings us full circle to Adam Smith, quoted at the beginning of this chapter, who said, essentially, “It takes money to make money.”

### *Key Takeaways*

Diversifying sources of income in both the labour market and the capital markets is the best hedge against risks in any one market.

### *Exercises*

Record your answers to the following questions in your personal finance journal. How can you diversify your sources of income to spread the risk of losing income? How can you diversify your investments to spread the risk of losing return on investment?

# 3. Financial Statements

## INTRODUCTION

Measuring by counting, by adding it all up, by taking stock, is probably as old as any human activity.

In financial planning, assessing the current situation is crucial to determining any sort of financial plan. This assessment is the point of departure for any strategy. It becomes the mark from which any progress is measured, the principal from which any return is calculated. It can determine your practical or realistic goals and the strategies to achieve them. Eventually, the current situation becomes a time forgotten with the pride of success, or remembered with the regret of failure.

Understanding the current situation is not just a matter of measuring it, but also of putting it in perspective and in context, relative to your own past performance and future goals, and relative to the realities of the economic world around you. Tools for understanding your current situation are your accounting and financial statements.

## 3.1 ACCOUNTING AND FINANCIAL STATEMENTS

### *Learning Objectives*

1. Distinguish between accrual and cash accounting.
2. Compare and contrast the three common financial statements.
3. Identify the results shown on the income statement, balance sheet, and cash flow statement.
4. Explain the calculation and meaning of net worth.
5. Trace how a bankruptcy can occur.

Clay tablets interested Sumerian traders because the records gave them a way to see their financial situation and to use that insight to measure progress and plan for the future. The method of accounting universally used in business today is known as **accrual accounting**. In this system events are accounted for even if cash does not change hands. That is, transactions are recorded at the time they occur rather than when payment is actually made or received. Anticipated or preceding

payments and receipts (cash flows) are recorded as accrued or deferred. Accrual accounting is the opposite of **cash accounting**, in which transactions are recognized only when cash is exchanged.

Accrual accounting defines earning as an economic event signified by an exchange of goods rather than by an exchange of cash. In this way, accrual accounting allows for the separation in time of the exchange of goods and the exchange of cash. A transaction can be completed over time and distance, which allows for extended—and extensive—trade. Another advantage of accrual accounting is that it gives a business a more accurate picture of its present situation.

In personal finance, it almost always makes more sense to use cash accounting, to define and account for events when the cash changes hands. As a result, incomes and expenses are noted when the cash is received or paid, or when the cash flows.

## The Accounting Process

Financial decisions result in transactions, actual trades that buy or sell, invest or borrow. In the market economy, something is given up in order to get something, so each trade involves at least one thing given up and one thing gotten—two things flowing in at least two directions. The process of accounting records these transactions and records what has been gotten and what has been given up in exchange, what flows in and what flows out.

In business, accounting journals and ledgers are set up to record transactions as they happen. In personal finance, a chequebook records most transactions, with statements from banks or investment accounts providing records of the rest. Periodically, the transaction information is summarized in financial statements so it can be read most efficiently.

Events are recorded through **bookkeeping**—the process of recording what, how, and by how much a transaction affects the financial situation. Since the advent of accounting software, bookkeeping, like long division and spelling, has become somewhat obsolete, although human judgment is still required. What is more interesting and useful are the summary reports that can be produced once all this information is recorded: the income statement, cash flow statement, and balance sheet.

## Income Statement

The **income statement** summarizes incomes and expenses for a period of time. In business, income is the value of whatever is sold, expenses are the costs of earning that income, and the difference is profit. In personal finance, income is what is earned as wages or salary and as interest or dividends, and expenses are the costs of things consumed in the course of daily living: the costs of sustaining you while you earn income. Thus, the income statement is a measure of what you have earned and

what your cost of living was while earning it. The difference is personal profit, which, if accumulated as investment, becomes your wealth.

The income statement clearly shows the relative size of your income and expenses. If income is greater than expenses, there is a surplus, and that surplus can be used to save or to spend more (and create more expenses). If income is less than expenses, then there is a deficit that must be addressed. If the deficit continues, it creates debts—unpaid bills—that must eventually be paid. Over the long term, a deficit is not a viable scenario.

The income statement can be useful for its level of detail too. You can see which of your expenses consumes the greatest portion of your income or which expense has the greatest or least effect on your bottom line. If you want to reduce expenses, you can see which would have the greatest impact or would free up more income if you reduced it. If you want to increase income, you can see how much more that would buy you in terms of your expenses. For example, consider Brittany’s situation in Table 3.1.1.

**Table 3.1.1 Brittany’s Situation**

Gross wages	44,650
Income taxes and deductions	8,930
Rent expense	10,800
Living expenses	14,400

In addition to the figures outlined above, Brittany also had car payments of \$2,400 and student loan payments of \$7,720. Each loan payment actually covers the interest expense and partial repayment of the loan. The interest is an expense representing the cost of borrowing, and thus of having, the car and the education. The repayment of the loan is not an expense, however, but is just giving back something that was borrowed. The loan payments breakdown is shown in Table 3.1.2.

**Table 3.1.2 Brittany’s Loan Payments (Annually)**

	Interest	Debt Repayment
<b>Car Loan</b>	240	2,160
<b>Student Loan</b>	4,240	3,480

Breaking down Brittany’s living expenses in more detail and adding in her interest expenses, Brittany’s income statement would look like Table 3.1.3.

**Table 3.1.3 Brittany's Income Statement for the Year 2016**

<b>Gross wages</b>		<b>44,650</b>
Income taxes and deductions	8,930	
Disposable income		35,720
Rent	10,800	
Food	3,900	
Car expenses	3,600	
Clothing	1,800	
Cell phone	1,200	
Internet and cable TV	1,200	
Entertainment, travel, etc.	2,700	
<b>Total living expenses</b>		<b>25,200</b>
Car loan interest	240	
Student loan interest	4,240	
<b>Total interest expenses</b>		<b>4,480</b>
<b>Net income</b>		<b>6,040</b>

Brittany's **disposable income**, or income to meet expenses after taxes have been accounted for, is \$35,720. Brittany's net income, or net earnings or personal profit, is the remaining income after all other expenses have been deducted, in this case \$6,040.

Now Brittany has a much clearer view of what's going on in her financial life. She can see, for example, that living expenses take the biggest bite out of her income and that rent is her biggest single expense. If she wanted to decrease expenses, finding a place to live with a cheaper rent will make the most impact on her bottom line. Or perhaps it would make more sense to make many small changes rather than one large change. She could begin by cutting back on the expense items that she feels are least necessary or that she could most easily live without. Perhaps she could do with less entertainment or clothing or travel, for example. Whatever choices she subsequently made would be reflected in her income statement. The value of the income statement is in presenting income and expenses in detail for a particular period of time.

## Cash Flow Statement

The **cash flow statement** shows how much cash came in and where it came from, and how much cash went out and where it went, over a specific period of time. This differs from the income statement because it may include cash flows that are not from income and expenses. Examples of such cash flows would be receiving repayment of money that you loaned, repaying money that you borrowed, or using money in exchanges such as buying or selling an asset.

The cash flow statement is important because it can show how well you do at creating liquidity, as well as your net income. Liquidity is nearness to cash, and liquidity has value. An excess of liquidity can be sold or lent, creating additional income. A lack of liquidity must be addressed by buying it or borrowing, creating additional expense.

Looking at Brittany's situation, she has two loan repayments that are not expenses and so are not included on her income statement. These payments reduce her liquidity, however, making it harder for her to create excess cash. Table 3.1.4 shows what Brittany's cash flow statement looks like.

**Table 3.1.4 Brittany's Cash Flow Statement for the Year 2016**

<b>Cash from gross wages</b>	<b>44,650</b>
<b>Cash paid for:</b>	
Income taxes and deductions	(8,930)
Rent	(10,800)
Food	(3,900)
Car expenses	(3,600)
Clothing	(1,800)
Cell phone	(1,200)
Internet and cable TV	(1,200)
Entertainment, travel, etc.	(2,700)
Car loan interest	(240)
Student loan interest	(4,240)
Cash for repayment of car loan	(2,160)
Cash for repayment of student loan	(3,480)
<b>Net cash flow</b>	<b>400</b>

Note that on a cash flow statement, negative and positive numbers indicate direction of flow. A negative number is cash flowing out, and a positive number is cash flowing in. Conventionally, negative numbers are in parentheses.

As with the income statement, the cash flow statement is more useful if there are subtotals for the different kinds of cash flows, as defined by their sources and uses. The cash flows from income and expenses are **operating cash flows**, or cash flows that are a consequence of earning income or paying for the costs of earning income. The loan repayments are cash flows from **financing** assets or investments that will increase income. In this case, cash flows from financing include repayments on the car and the education. Although Brittany doesn't have any in this example, there could also be cash flows from **investing**, from buying or selling assets. **Free cash flow** is the cash available to make investments or finance decisions after taking care of operations and debt obligations. It is calculated as cash flow from operations less debt repayments. **Net cash flow** is the gain or loss of funds over a period after all operation expenses, debts, and investment activities are paid for. The most significant difference between the three categories of cash flows—operating, investing, or financing—is whether or not the cash flows may be expected to recur regularly. Operating cash flows recur regularly; they are the cash flows that result from income and expenses or consumption, and therefore can be expected to occur every year. Operating cash flows may be different amounts in different periods, but they will happen in every period. Investing and financing cash flows, on the other hand, may or may not recur, and indeed are often unusual events. Typically, for example, you would not borrow or lend or buy or sell assets in every year. Table 3.1.5 illustrates how Brittany's cash flows would be classified.

**Table 3.1.5 Brittany's Cash Flow Statement for the Year 2016**

<b>Cash from gross wages</b>	44,650	
<b>Cash paid for:</b>		
Income taxes and deductions	(8,930)	
Rent	(10,800)	
Food	(3,900)	
Car expenses	(3,600)	
Clothing	(1,800)	
Cell phone	(1,200)	
Internet and cable TV	(1,200)	
Entertainment, travel, etc.	(2,700)	
Car loan interest	(240)	
Student loan interest	(4,240)	
Operating cash flows		6,040
Cash for repayment of car loan	(2,160)	
Cash for repayment of student loan	(3,480)	
Financing cash flows		(5,640)
<b>Net cash flow</b>		<b>400</b>

This cash flow statement more clearly shows how liquidity is created and where liquidity could be increased. If Brittany wanted to create more liquidity, it is obvious that eliminating those loan payments would be a big help.

## Balance Sheet

In business or in personal finance, a critical piece in assessing the current situation is the balance sheet. Often referred to as the “statement of financial condition,” the **balance sheet** is a snapshot of what you have and what you owe at a given point in time. Unlike income or cash flow statements, it is not a record of performance over a period of time, but simply a statement of where things stand at a certain moment.

The balance sheet is a list of assets, debts or liabilities, and equity or net worth, with their values. In business, assets are resources that can be used to create income, while debt and equity are the capital that financed those assets. Thus, the value of the assets must equal the value of the debt and

the equity. In other words, the value of the business's resources must equal the value of the capital it borrowed or bought in order to get those resources.

$$\text{assets} = \text{liabilities} + \text{equity}$$

In business, the **accounting equation** is as absolute as the law of gravity. It simply must always be true, because if there are assets, they must have been financed somehow—either through debt or equity. The value of that debt and equity financing must equal or balance the value of the assets it bought. Thus, it is called the “balance” sheet because it *always* balances the debt and equity with the value of the assets.

In personal finance, assets are also things that can be sold to create liquidity. Liquidity is needed to satisfy or repay debts. Because your assets are what you use to satisfy your debts when they become due, the assets' value should be greater than the value of your debts. That is, you should have more to work with to meet your obligations than you owe.

The difference between what you have and what you owe is your **net worth**. Literally, net worth is everything that you own. It is the value of what you have *net of* (less) what you owe to others. Whatever asset value is left over after you meet your debt obligations is your own worth. It is the value of what you have that you can claim free and clear.

$$\text{assets} - \text{debt} = \text{net worth}$$

Your net worth is really your equity or financial ownership in your own life. Here, too, the personal balance sheet must balance, because if

$$\text{assets} - \text{debt} = \text{net worth}$$

then it should also be

$$\text{assets} = \text{debt} + \text{net worth}$$

It is important to note that the prices of most assets fluctuate, but many debts are fixed so that net worth can change as a result of market fluctuations in asset prices.

Brittany could write a simple balance sheet to see her current financial condition. She has two assets (her car and her savings account), and she has two debts (her car and student loans), as illustrated in Table 3.1.6.

**Table 3.1.6 Brittany's Balance Sheet, December 31, 2016**

<b>Assets</b>	<b>Liabilities</b>
Car: 5,000	Car Loan: 2,700
Savings: 250	Student Loan: 53,000
Total: 5,250	Total: 55,700
	Net Worth: (50,450)

Brittany's balance sheet presents her with a much clearer picture of her financial situation, but also with a dismaying prospect: she seems to have negative net worth. **Negative net worth** results whenever the value of debts or liabilities is actually greater than the assets' value.

*Net worth is positive if liabilities < assets; assets – liabilities > 0; net worth > 0*

*Net worth is negative if liabilities > assets; assets – liabilities < 0; net worth < 0*

Negative net worth implies that the assets don't have enough value to satisfy the debts. Since debts are obligations, this would cause some concern.

## Net Worth and Bankruptcy

In business, when liabilities are greater than the assets to meet them, the business has negative equity and is literally bankrupt. In that case, it may go out of business, selling all its assets and giving whatever it can to its **creditors** or lenders, who will have to settle for less than what they are owed. More usually, the business continues to operate in bankruptcy, if possible, and must still repay its creditors, although perhaps under somewhat easier terms. Creditors (and the laws) allow these terms because creditors would rather get paid in full later than get paid less now or not at all.

In personal finance, personal **bankruptcy** may occur when debts are greater than the value of assets. But because creditors would rather be paid eventually than never, the bankrupt person is usually allowed to continue to earn income in the hopes of repaying the debt later or with easier terms. Often, the bankrupt person is forced to liquidate (sell) some or all of his or her assets.

Because debt is a legal as well as an economic obligation, there are laws governing bankruptcies that differ from province to province and from country to country. For more information on bankruptcy, see Chapter 7 "Financial Management."

The use of another's property or wealth is a serious responsibility, so debt is a serious obligation.

However, Brittany's case is actually not as dismal as it looks, because Brittany has an "asset" that is not listed on her balance sheet—that is, her education. It is not listed on her balance sheet because the

value of her education, like the value of any asset, comes from how useful it is, and its usefulness has not happened yet, but will happen over her lifetime, based on how she chooses to use her education to increase her income and wealth. It is difficult to assign a monetary value to her education now. Brittany knows what she paid for her education, but, sensibly, its real value is not its cost but its potential return, or what it can earn for her as she puts it to use in the future.

Current studies show that a university education has economic value because a university graduate earns more over a lifetime than a high school graduate (Statistics Canada, 2017; Berger and Parkin, 2016; Baum, Ma, and Payea, 2013). How much more one will earn varies and is dependent on a number of different variables such as your geographical location and the degree pursued.

If Brittany assumes that her education will be worth \$1,000,000 in extra income over her lifetime, and she includes that asset value on her balance sheet, then it would look more like what is listed in Table 3.1.7.

**Table 3.1.7 Brittany's Balance Sheet, December 31, 2016**

<b>Assets</b>	<b>Liabilities</b>
Car: 5,000	Car Loan: 2,700
Savings: 250	Student Loan: 53,000
Education: 1,000,000	Total: 55,700
Total: 1,005,250	Net Worth: 949,550

This looks much better, but it's not sound accounting practice to include an asset—and its value—on the balance sheet before it really exists. After all, education generally pays off, but until it does, it hasn't yet and there is a chance, however slim, that it won't for Brittany. A balance sheet is a snapshot of one's financial situation at one particular time. At this particular time, Brittany's education has value, but its amount is unknown.

It is easy to see, however, that the only thing that creates negative net worth for Brittany is her student loan. The student loan causes her liabilities to be greater than her assets—and if that were paid off, her net worth would be positive. Given that Brittany is just starting her adult earning years, her situation seems quite reasonable.

### *Key Takeaways*

1. Three commonly used financial statements are the income statement, the cash flow

statement, and the balance sheet.

2. Results for a period are shown on the income statement and the cash flow statement. Current conditions are shown on the balance sheet.
3. The income statement lists income and expenses.
4. The cash flow statement lists three kinds of cash flows: operating (recurring), financing (nonrecurring), and investing (nonrecurring).
5. The balance sheet lists assets, liabilities (debts), and net worth.
6. Net worth = assets – debts.
7. Bankruptcy occurs when there is negative net worth, or when debts are greater than assets.

## Exercises

1. Prepare a personal income statement for the past year, using the same format as Brittany's income statement in this chapter. Include all relevant categories of income and expenses. What does your income statement tell you about your current financial situation? For example, where does your income come from, and where does it go? Do you have a surplus of income over expenses? If so, what are you doing with the surplus? Do you have a deficit? What can you do about that? Which of your expenses has the greatest effect on your bottom line? What is the biggest expense? Which expenses would be easiest to reduce or eliminate? How else could you reduce expenses? Realistically, how could you increase your income? How would you like your income statement for the next year to look?
2. Using the format for Brittany's cash flow statement, prepare your cash flow statement for the same one-year period. Include your cash flows from all sources in addition to your operating cash flows: the income and expenses that appear on your income statement. What, if any, were the cash flows from financing and the cash flows from investing? Which of your cash flows are recurring, and which are nonrecurring? What does your cash flow statement tell you about your current financial situation? If you wanted to increase your liquidity, what would you try to change about your cash flows?
3. Prepare a balance sheet, again based on Brittany's form. List your assets, liabilities, and debts, and equity from all sources. What does the balance sheet show about your financial situation at this moment in time? What is your net worth? Do you have positive or negative net worth at this time, and what does that mean? To increase your liquidity, how would your balance sheet need to change? What would be the relationship between your cash flow statement and your budget?

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Statistics Canada. (2017). *Does Education Pay? A Comparison of earnings by level of education in Canada and its provinces*. Retrieved from: <https://www12.statcan.gc.ca/census-recensement/2016/as-sa/98-200-x/2016024/98-200-x2016024-eng.cfm>.

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## 3.2 COMPARING AND ANALYZING FINANCIAL STATEMENTS

### *Learning Objectives*

1. Explain the use of common-size statements in financial analysis.
2. Discuss the design of each common-size statement.
3. Demonstrate how changes in the balance sheet may be explained by changes on the income and cash flow statements.
4. Identify the purposes and uses of ratio analysis.
5. Describe the uses of comparing financial statements over time.

Financial statements are valuable summaries of financial activities because they can organize information and make it easier to see and therefore to understand. Each one—the income statement, cash flow statement, and balance sheet—conveys a different aspect of the financial picture; viewed together, the picture is pretty complete. The three provide a summary of earning and expenses, of cash flows, and of assets and debts.

Since the three statements offer three different kinds of information, sometimes it is useful to look at each in the context of the others, and to look at specific items in this larger context. This is the purpose of financial statement analysis: creating comparisons and contexts to gain a better understanding of the financial picture.

## Common-Size Statements

On **common-size statements**, each item's value is listed as a percentage of another. This compares items, showing their relative size and their relative significance (see Table 3.2.1 “Common Common-Size Statements”). On the income statement, each income and expense may be listed as a percentage of the total income. This shows the contribution of each kind of income to the total, and thus the diversification of income. It shows the burden of each expense on total income or how much income is needed to support each expense.

On the cash flow statement, each cash flow can be listed as a percentage of total positive cash flows, again showing the relative significance and diversification of the sources of cash, and the relative size of the burden of each use of cash.

On the balance sheet, each item is listed as a percentage of total assets, showing the relative significance and diversification of assets, and highlighting the use of debt as financing for the assets.

**Table 3.2.1 Common-Size Statements**

	<b>Income Statement</b>	<b>Cash Flow Statement</b>	<b>Balance Sheet</b>
<b>Items as a % of</b>	Total Income	Total Positive Cash Flows	Total Assets

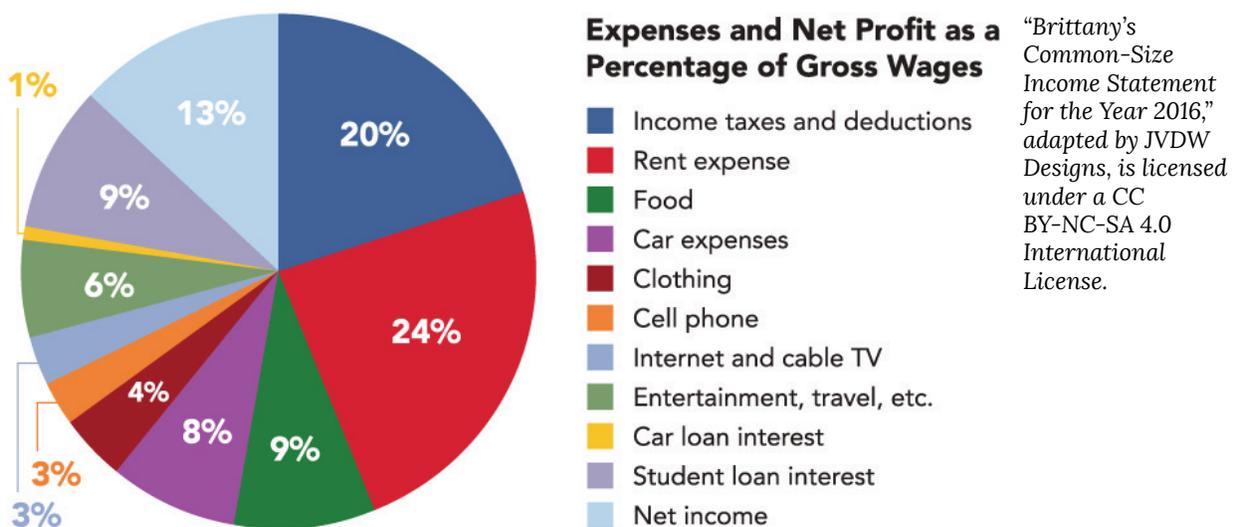
Brittany can look at a common-size income statement by looking at her expenses as a percentage of her income and comparing the size of each expense to a common denominator: her income. This shows her how much of her income, proportionately, is used up for each expense.

**Table 3.2.2 Brittany's Common-Size Income Statement for the Year 2016**

<b>Gross wages</b>		<b>44,650</b>		<b>100.00%</b>
Income taxes and deductions	8,930		20.00%	
Disposable income		35,720		80.00%
Rent	10,800		24.19%	
Food	3,900		8.73%	
Car expenses	3,600		8.06%	
Clothing	1,800		4.03%	
Cell phone	1,200		2.69%	
Internet and cable TV	1,200		2.69%	
Entertainment, travel, etc.	2,700		6.05%	
<b>Total living expenses</b>		<b>25,200</b>		<b>56.44%</b>
Car loan interest	240		0.54%	
Student loan interest	4,240		9.50%	
<b>Total interest expenses</b>		<b>4,480</b>		<b>10.03%</b>
<b>Net income</b>		<b>6,040</b>		<b>13.53%</b>

Seeing the common-size statement as a pie chart makes the relative size of the slices even clearer.

**Chart 3.2.1 Brittany's Common-Size Income Statement for the Year 2016**



The biggest discretionary use of Brittany's wages is her rent expense, followed by food, car expenses, and entertainment. Her income tax expense is a big use of her wages, but it is unavoidable or nondiscretionary.

Ranking expenses by size offers interesting insight into lifestyle choices. It is also a valuable way of framing financial decisions, pointing out which expenses have the largest impact on income and thus on the resources for making financial decisions. If Brittany wanted more discretionary income to make more or different choices, she could easily see that reducing rent expense would have the most impact on freeing up some of her wages for another use.

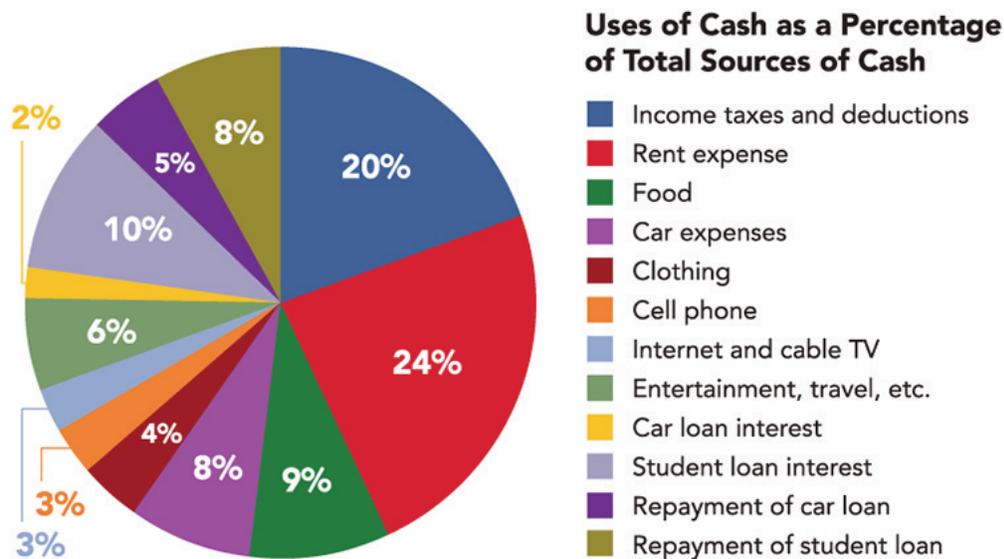
## Common-Size Cash Flow Statement

Looking at Brittany's negative cash flows as percentages of her positive cash flow (on the cash flow statement), or the uses of cash as percentages of the sources of cash, creates the **common-size cash flows**. As with the income statement, this gives Brittany a clearer and more immediate view of the largest uses of her cash, as can be seen in Table 3.2.3.

**Table 3.2.3 Brittany's Common-Size Cash Flow Statement for the Year 2016**

<b>Cash from gross wages</b>	<b>44,650</b>		<b>100.00%</b>
<b>Cash paid for:</b>			
Income taxes and deductions	(8,930)		-20.00%
Rent	(10,800)		-24.19%
Food	(3,900)		-8.73%
Car expenses	(3,600)		-8.06%
Clothing	(1,800)		-4.03%
Cell phone	(1,200)		-2.69%
Internet and cable TV	(1,200)		-2.69%
Entertainment, travel, etc.	(2,700)		-6.05%
Car loan interest	(240)		-0.54%
Student loan interest	(4,240)		-9.50%
Operating cash flows		6,040	13.53%
Cash for repayment of car loan	(2,160)		-4.84%
Cash for repayment of student loan	(3,480)		-7.79%
Financing cash flows		(5,640)	-12.63%
<b>Net cash flow</b>		<b>400</b>	<b>0.00%</b>

**Chart 3.2.2 Brittany's Common-Size Cash Flow Statement**



“Brittany’s Common-Size Cash Flow Statement,” adapted by JVDW Designs, is licensed under a Creative Commons Attribution-Non-Commercial-Sharealike 4.0 International License.

Again, rent is the biggest discretionary use of cash for living expenses, but debts demand the most significant portion of cash flows. Repayments and interest together are 30 per cent of Brittany’s cash—as much as she pays for rent and food. Eliminating those debt payments would create substantial liquidity for Brittany.

## Common-Size Balance Sheet

On the balance sheet, looking at each item as a percentage of total assets allows for measuring how much of the assets’ value is obligated to cover each debt, or how much of the assets’ value is claimed by each debt.

**Table 3.2.4 Brittany’s Common-Size Balance Sheet, December 31, 2016**

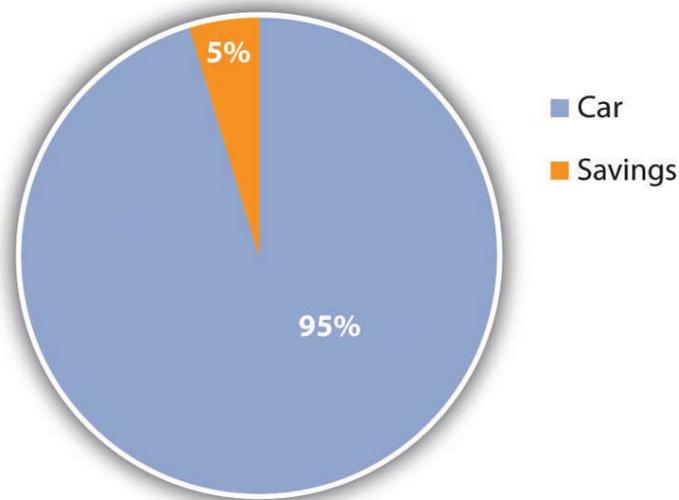
Assets			Liabilities		
Car	5,000	95%	Car Loan	2,700	51%
Savings	250	5%	Student Loan	53,000	1,010%
Total	5,250	100%	Total	55,700	1,061%
			Net Worth	(50,450)	(961%)

This **common-size balance sheet** allows “over-sized” items to be more obvious. For example, it is immediately obvious that Brittany’s student loan dwarfs her assets’ value and creates her negative net worth.

Common-size statements allow you to look at the size of each item relative to a common

denominator: total income on the income statement, total positive cash flow on the cash flow statement, or total assets on the balance sheet. The relative size of the items helps you spot anything that seems disproportionately large or small. The common-size analysis is also useful for comparing the diversification of items on the financial statement—the diversification of incomes on the income statement, cash flows on the cash flow statement, and assets and liabilities on the balance sheet. Diversification reduces risk, so you want to diversify the sources of income and assets you can use to create value.

**Chart 3.2.3 Pie Chart of Brittany’s Common-Size Balance Sheet: The Assets**



For example, Brittany has only two assets, and one—her car—provides 95 per cent of her assets’ value. If something happened to her car, her assets would lose 95 per cent of their value. Her asset value would be less exposed to risk if she had asset value from other assets to diversify the value invested in her car.

Likewise, both her income and her positive cash flows come from only one source, her paycheque. Because her positive net earnings and positive net cash flows depend on this one source, she is exposed to risk, which she could decrease by diversifying her sources of income. She could diversify by adding earned income—taking on a second job, for example—or by creating investment income. In order to create investment income, however, she needs to have a surplus of liquidity, or cash, to invest. Brittany has run head-first into Adam Smith’s “great difficulty”: that it takes some money to make money (see Chapter 2 “Basic Ideas of Finance”).

## Relating the Financial Statements

Common-size statements highlight the details of the financial statements relative to a common factor

for each statement. But each financial statement is also related to the others, and as important as it is to see each individual piece, it is also important to see that larger picture. To make sound financial decisions, you need to be able to foresee the consequences of a decision, to understand how a decision may affect the different aspects of the bigger picture.

For example, what happens in the income statement and cash flow statements is reflected on the balance sheet because the earnings and expenses and the other cash flows affect the asset values and the values of debts, and thus the net worth. Cash may be used to purchase assets, so a negative cash flow may increase assets. Cash may be used to pay off debt, so a negative cash flow may decrease liabilities. Cash may be received when an asset is sold, so a decrease to assets may create positive cash flow. Cash may be received when money is borrowed, so an increase in liabilities may create a positive cash flow.

There are many other possible scenarios and transactions, but you can begin to see that the balance sheet at the end of a period is changed from what it was at the beginning of the period by what happens during the period, and what happens during the period is shown on the income statement and the cash flow statement. So, as shown in Chart 3.2.4, the income statement and cash flow information, related to each other, also relate the balance sheet at the end of the period to the balance sheet at the beginning of the period.

**Chart 3.2.4 Relationships among Financial Statements**



The significance of these relationships becomes even more important when evaluating alternatives for financial decisions. When you understand how the statements are related, you can use that understanding to project the effects of your choices on different aspects of your financial reality and see the consequences of your decisions.

## Ratio Analysis

Creating ratios is another way to see the numbers in relation to each other. Any ratio shows the

relative size of the two items compared, just as a fraction compares the numerator to the denominator or a percentage compares a part to the whole. The percentages on the common-size statements are ratios, although they only compare items within a financial statement. Ratio analysis is used to make comparisons across statements. For example, you can see how much debt you have just by looking at your total liabilities, but how can you tell if you can afford the debt you have? That depends on the income you have to meet your interest and repayment obligations, or the assets you could use (sell) to meet those obligations. **Ratio analysis** can give you the answer.

The **financial ratios** you use depend on the perspective you need or the question(s) you need answered. Some of the more common ratios (and questions) are presented in Table 3.2.5.

**Table 3.2.5 Common Personal Financial Ratios**

<b>Ratio</b>	<b>Calculation</b>	<b>Question it helps to answer</b>
Net income margin	$\text{Net income} / \text{Total income}$	How much income is used up by expenses?
Return on assets	$\text{Net income} / \text{Total assets}$	How big is the income supporting the assets?
Return on net worth	$\text{Net income} / \text{Net worth}$	How big is income relative to net worth?
Debt to assets	$\text{Total debt} / \text{Total assets}$	How much asset value is financed by debt? Or how much asset value is there to satisfy debt?
Total debt	$\text{Total debt} / \text{Net worth}$	How large is debt relative to net worth?
Interest coverage	$\text{Income before interest} / \text{Interest expense}$	How well does income cover interest expenses?
Cash flow to income	$\text{Net cash flow} / \text{Net income}$	How much do payments for investments and financing take from income?
Cash flow to assets	$\text{Net cash flow} / \text{Total assets}$	How much cash flow supports assets?

These ratios all get “better” or show improvement as they get bigger, with two exceptions: debt to assets and total debt. Those two ratios measure levels of debt, and the smaller the ratio, the less the debt. Ideally, the two debt ratios would be less than one. If your debt-to-assets ratio is greater than one, then debt is greater than assets, and you are bankrupt. If the total debt ratio is greater than one, then debt is greater than net worth, and you “own” less of your assets’ value than your creditors do.

Some ratios will naturally be less than one, but the bigger they are, the better. For example, net income margin will always be less than one because net income will always be less than total income (net income = total income – expenses). The larger that ratio is, and the fewer expenses that are taken away from the total income, the better.

Some ratios should be greater than one, and the bigger they are, the better. For example, the interest coverage ratio should be greater than one, because you should have more income to cover interest expenses than you have interest expenses, and the more you have, the better. Table 3.2.6 suggests what to look for in the results of your ratio analyses.

**Table 3.2.6 Results of Ratio Analysis**

<b>Ratio</b>	<b>Calculation</b>	<b>Question it helps to answer</b>	<b>Better as it gets...</b>
Net income margin	Net income / Total income	How much income is used up by expenses?	Bigger
Return on assets	Net income / Total assets	How big is the income supporting the assets?	Bigger
Return on net worth	Net income / Net worth	How big is income relative to net worth?	Bigger
Debt to assets	Total debt / Total assets	How much asset value is financed by debt? Or how much asset value is there to satisfy debt?	Smaller: Should be < 1
Total debt	Total debt / Net worth	How large is debt relative to net worth?	Smaller: Should be < 1
Interest coverage	Income before interest / Interest expense	How well does income cover interest expenses?	Bigger: Should be > 1
Cash flow to income	Net cash flow / Net income	How much do payments for investments and financing take from income?	Bigger
Cash flow to assets	Net cash flow / Total assets	How much cash flow supports assets?	Bigger

While you may have a pretty good “feel” for your situation just by paying the bills and living your life, it often helps to have the numbers in front of you. Table 3.2.7 illustrates Brittany’s ratio analysis for 2016.

**Table 3.2.7 Brittany's Ratio Analysis, 2016**

<b>Ratio</b>	<b>Calculation</b>	<b>Result</b>
Net income margin	Net income / Total income	0.1353
Return on assets	Net income / Total assets	1.1505
Return on net worth	Net income / Net worth	(0.1197)
Debt to assets	Total debt / Total assets	10.6095
Interest coverage	Income before interest / Interest expense	2.3482
Cash flow to income	Net cash flow / Net income	0.0662
Cash flow to assets	Net cash flow / Total assets	0.0762

The ratios that involve net worth—return on net worth and total debt—are negative for Brittany because she has negative net worth (her debts are larger than her assets). She can see how much larger her debt is than her assets by looking at her debt-to-assets ratio. Although she has a lot of debt (relative to assets and to net worth), she can earn enough income to cover its cost or interest expense, as shown by the interest coverage ratio.

Brittany is earning well. Her income is larger than her assets. She is able to live efficiently. Her net income is a healthy 13.53 per cent of her total income (net income margin), which means that her expenses are only 86.47 per cent of it, but her cash flows are much less (cash flow to income), meaning that a significant portion of earnings is used up in making investments or, in Brittany's case, debt repayments. In fact, her debt repayments don't leave her with much free cash flow—that is, cash flow not used up on living expenses or debts.

Looking at the ratios, it is even more apparent how much—and yet how subtle—of a burden Brittany's debt is. In addition to giving her negative net worth, it keeps her from increasing her assets and creating positive net worth—and potentially more income—by obligating her to use up her cash flows. Debt repayment keeps her from being able to invest.

Currently, Brittany can afford the interest and the repayments. Her debt does not keep her from living her life, but it does limit her choices, which in turn restricts her decisions and future possibilities.

## Comparisons Over Time

Another useful way to compare financial statements is to look at how the situation has changed over time. Comparisons over time provide insights into the effects of past financial decisions and changes in circumstance. That insight can guide you in making future financial decisions, particularly

in foreseeing the potential costs or benefits of a choice. Looking backward can be very helpful in looking forward.

Fast-forward ten years: Brittany is now in her early thirties. Her career has progressed and her income has grown. She has paid off her student loan and has begun to save for retirement and perhaps a down payment on a house.

A comparison of Brittany's financial statements shows the change over the decade, both in absolute dollar amounts and as a percentage (see the following tables: Table 3.2.8 "Brittany's Income Statements: Comparison Over Time," Table 3.2.9 "Brittany's Cash Flow Statements: Comparison Over Time," and Table 3.2.10 "Brittany's Balance Sheets: Comparison Over Time"). For the sake of simplicity, this example assumes that neither inflation nor deflation have significantly affected currency values during this period.

**Table 3.2.8 Brittany's Income Statement: Comparison Over Time**

<b>For Year Ending</b>	<b>12/31/16</b>	<b>12/31/26</b>	<b>Change</b>	<b>% Change</b>
<b>Gross wages</b>	<b>44,650</b>	<b>74,000</b>	<b>29,350</b>	<b>65.73%</b>
Income taxes and deductions	8,930	18,500	9,570	107.17%
<b>Disposable income</b>	<b>35,720</b>	<b>55,500</b>	<b>19,780</b>	<b>55.38%</b>
Rent	10,800	18,000	7,200	66.67%
Food	3,900	3,900	0	0.00%
Car expenses	3,600	3,600	0	0.00%
Clothing	1,800	1,800	0	0.00%
Cell phone	1,200	1,200	0	0.00%
Internet and cable TV	1,200	1,200	0	0.00%
Entertainment, travel, etc.	2,700	5,200	2,500	92.59%
<b>Total living expenses</b>	<b>25,200</b>	<b>34,900</b>	<b>9,700</b>	<b>38.49%</b>
Car loan interest	240	757	517	215.42%
Student loan interest	4,240	0	4,240	-100.00%
<b>Total interest expenses</b>	<b>4,480</b>	<b>757</b>	<b>3,723</b>	<b>-83.10%</b>
<b>Net income</b>	<b>6,040</b>	<b>19,843</b>	<b>13,803</b>	<b>228.53%</b>

**Table 3.2.9 Brittany's Cash Flow Statement: Comparison Over Time**

<b>For Year Ending</b>	<b>12/31/16</b>	<b>12/31/26</b>	<b>Change</b>	<b>% Change</b>
<b>Cash from gross wages</b>	<b>44,650</b>	<b>74,000</b>	<b>29,350</b>	<b>65.73%</b>
<b>Cash paid for:</b>				
Income taxes and deductions	(8,930)	(18,500)	9,570	107.17%
Rent	(10,800)	(18,000)	7,200	66.67%
Food	(3,900)	(3,900)	0	0.00%
Car expenses	(3,600)	(3,600)	0	0.00%
Clothing	(1,800)	(1,800)	0	0.00%
Cell phone	(1,200)	(1,200)	0	0.00%
Internet and cable TV	(1,200)	(1,200)	0	0.00%
Entertainment, travel, etc.	(2,700)	(5,200)	2,500	92.59%
Car loan interest	(240)	(757)	517	215.42%
Student loan interest	(4,240)	0	4,240	-100.00%
<b>Operating cash flows</b>	<b>6,040</b>	<b>19,843</b>	<b>13,803</b>	<b>228.53%</b>
Cash invested in RRSP	0	(3,000)	3,000	100.00%
Cash invested in car	0	(6,300)	6,300	100.00%
<b>Investing cash flows</b>	<b>0</b>	<b>(9,300)</b>	<b>9,300</b>	<b>100.00%</b>
Cash for repayment of car loan	(2,160)	(4,610)	2,450	113.43%
Cash for repayment of student loan	(3,480)			-100.00%
<b>Financing cash flows</b>	<b>(5,640)</b>	<b>(4,610)</b>	<b>1,030</b>	<b>-18.26%</b>
<b>Net cash flow</b>	<b>400</b>	<b>5,933</b>	<b>5,533</b>	<b>1383.25%</b>

**Table 3.2.10 Brittany's Balance Sheet: Comparison Over Time**

As of	12/31/16	12/31/26	Change	% Change
<b>Assets</b>				
Cash/Chequing	0	5,000	5,000	100.00%
Savings	250	250	0	0.00%
Money Market	0	2,600	2,600	100.00%
Pension	0	13,000	13,000	100.00%
RRSP	0	7,400	7,400	100.00%
Car	5,000	15,000	10,000	200.00%
<i>Total assets</i>	5,250	43,250	38,000	723.81%
<b>Liabilities</b>				
Car loan	2,700	4,610	1,910	70.74%
Student loan	53,000	0	53,000	-100.00%
<i>Total liabilities</i>	55,700	4,610	51,090	-91.72%
<b>Net worth</b>	<b>-50,450</b>	<b>38,640</b>	<b>89,090</b>	<b>176.59%</b>

Starting with the income statement, Brittany's income has increased. Her income tax withholding and deductions have also increased, but she still has higher disposable income (take-home pay). Many of her living expenses have remained consistent; rent and entertainment have increased. Interest expense on her car loan has increased, but since she has paid off her student loan, that interest expense has been eliminated, so her total interest expense has decreased. Overall, her net income, or personal profit—what she clears after covering her living expenses—has almost doubled.

Her cash flows have also improved. Operating cash flows, like net income, have almost doubled—due primarily to eliminating the student loan interest payment. The improved cash flow allowed her to make a down payment on a new car, invest in her RRSP, make the payments on her car loan, and still increase her net cash flow by a factor of ten.

Brittany's balance sheet is most telling when it comes to the changes in her life, especially what is now her positive net worth. She has more assets. She has begun saving for retirement and has more liquidity, distributed in her chequing, savings, and money market accounts. Since she has less debt as a result of having paid off her student loan, she now has positive net worth.

Comparing the relative results of the common-size statements provides an even deeper view of the relative changes in Brittany's situation (See the following tables: Table 3.2.11 "Comparing Brittany's

Common-Size Statements for 2016 and 2026: Income Statements,” Table 3.2.12 “Comparing Brittany’s Common-Size Statements for 2016 and 2026: Cash Flow Statements,” and Table 3.2.13 “Comparing Brittany’s Common-Size Statements for 2016 and 2026: Balance Sheets”).

**Table 3.2.11 Comparing Brittany’s Common-Size Statements for 2016 and 2026: Income Statement**

<b>For the Year Ending</b>	<b>12/31/16</b>	<b>12/31/26</b>
<b>Gross wages</b>	<b>100.00%</b>	<b>100.00%</b>
Income taxes and deductions	20.00%	25.00%
Disposable income	80.00%	75.00%
Rent	24.19%	24.32%
Food	8.73%	5.27%
Car expenses	8.06%	4.86%
Clothing	4.03%	2.43%
Cell phone	2.69%	1.62%
Internet and cable TV	2.69%	1.62%
Entertainment, travel, etc.	6.05%	7.03%
<b>Total living expenses</b>	<b>56.44%</b>	<b>47.16%</b>
Car loan interest	0.54%	1.02%
Student loan interest	9.50%	0.00%
<b>Total interest expenses</b>	<b>10.03%</b>	<b>1.02%</b>
<b>Net income</b>	<b>13.53%</b>	<b>26.81%</b>

**Table 3.2.12 Comparing Brittany's Common-Size Statements for 2016 and 2026: Cash Flow Statement**

<b>For the Year Ending</b>	<b>12/31/ 16</b>	<b>12/31/ 26</b>
<b>Cash from gross wages</b>	<b>100.00%</b>	<b>100.00%</b>
<b>Cash paid for:</b>		
Income taxes and deductions	-20.00%	-25.00%
Rent	-24.19%	-24.32%
Food	-8.73%	-5.27%
Car expenses	-8.06%	-4.86%
Clothing	-4.03%	-2.43%
Cell phone	-2.69%	-1.62%
Internet and cable TV	-2.69%	-1.62%
Entertainment, travel, etc.	-6.05%	-7.03%
Car loan interest	-0.54%	-1.02%
Student loan interest	-9.50%	0.00%
<b>Operating cash flows</b>	<b>13.53%</b>	<b>26.81%</b>
Cash invested in pension	0.00%	-4.05%
Cash invested in car	0.00%	-8.51%
<b>Investing cash flows</b>	<b>0.00%</b>	<b>-12.57%</b>
Repayment of car loan	-4.84%	-6.23%
Repayment of student loan	-7.79%	0.00%
<b>Financing cash flows</b>	<b>-12.63%</b>	<b>-6.23%</b>
<b>Net cash flow</b>	<b>0.90%</b>	<b>8.02%</b>

**Table 3.2.13 Comparing Brittany's Common-Size Statements for 2016 and 2026: Balance Sheet**

<b>As of</b>	<b>12/31/16</b>	<b>12/31/26</b>
<b>Assets</b>		
Cash/Chequing	0.00%	11.56%
Savings	4.76%	0.58%
Money Market	0.00%	6.01%
Pension	0.00%	30.06%
RRSP	0.00%	17.11%
Car	95.24%	34.68%
<i>Total assets</i>	100.00%	100.00%
<b>Liabilities</b>		
Car loan	51.43%	10.66%
Student loan	1009.52%	0.00%
<i>Total liabilities</i>	1006.95%	10.66%
<b>Net worth</b>	<b>-960.95%</b>	<b>89.34%</b>

Although income taxes and rent have increased as a percentage of income, living expenses have declined, showing Brittany's real progress in raising her standard of living: it now costs her less of her income to sustain herself. Interest expense has decreased substantially as a portion of income, resulting in a net income or personal profit that is not only larger, but larger relative to income. More of her income is profit, left for other discretionary uses.

The change in operating cash flows confirms this. Although her investing activities now represent a significant use of cash, her need to use cash in financing activities—debt repayment—is so much less that her net cash flow has increased substantially. The cash that used to have to go toward supporting debt obligations now goes toward building an asset base, such as the RRSP, which may provide income in the future.

Changes in the balance sheet show a much more diversified and therefore much less risky asset base. Although almost half of Brittany's assets are restricted for a specific purpose, such as her RRSP account, she still has significantly more liquidity and more liquid assets. Debt has fallen from ten times the assets' value to one-tenth of it, creating some ownership for Brittany. Finally, Brittany can compare her ratios over time, as seen in Table 3.2.14.

**Table 3.2.14 Ratio Analysis Comparison**

<b>Ratio Analysis</b>	<b>12/31/16</b>	<b>12/31/26</b>
Net income margin	0.1353	0.2681
Return on assets	1.1505	0.4588
Return on net worth	-0.1197	0.5135
Debt to assets	10.6095	0.1066
Interest coverage	1.3482	26.2127
Cash flow to income	0.0662	0.2990
Cash flow to assets	0.0762	0.1372

Most immediately, her net worth is now positive, and so are the return on net worth and the total debt ratios. As her debt has become less significant, her ability to afford it has improved (to pay for its interest and repayment). Both her interest coverage and free cash flow ratios show large increases. Since her net income margin (and income) has grown, the only reason her return-on-asset ratio has decreased is because her assets have grown even faster than her income.

By analyzing over time, you can spot trends that may be happening too slowly or too subtly for you to notice in daily living, but which may become significant over time. It is recommended to review your situation at least every year.

### *Key Takeaways*

1. Each financial statement shows a piece of the larger picture. Financial statement analysis puts this information in context and so in sharper focus.
2. Common-size statements show the size of each item relative to a common denominator.
3. On the income statement, each income and expense is shown as a percentage of total income.
4. On the cash flow statement, each cash flow is shown as a percentage of total positive cash flow.
5. On the balance sheet, each asset, liability, and net worth is shown as a percentage of total assets.
6. The income and cash flow statements explain the changes in the balance sheet over time.
7. Ratio analysis is a way of creating a context by comparing items from different statements.
8. Comparisons made over time can demonstrate the effects of past decisions to better understand the significance of future decisions.
9. Financial statements should be compared at least annually.

## Exercises

1. Prepare common-size statements for your income statement, cash flow statement, and balance sheet. What do your common-size statements reveal about your financial situation? How will your common-size statements influence your personal financial planning?
2. Calculate your debt-to-income ratio and other ratios using the financial tools found in the article on the U.S. News & World Report website “Debt-to-Income Ratio: Are You In Over Your Head?.” According to the calculation, are you carrying a healthy debt load? Why or why not? If not, what can you do to improve your situation?
3. Read a 2006 article by Charles Farrell in the *Financial Planning Association Journal*—“Personal Financial Ratios: An Elegant Roadmap to Financial Health and Retirement”. Farrell focuses on three ratios: savings to income, debt to income, and savings rate to income. Where, how, and why might these ratios appear on the chart of common personal financial ratios in this chapter?
4. If you increased your income and assets and reduced your expenses and debt, your personal wealth and liquidity would grow. In your personal financial journal, outline a general plan for how you would use or allocate your growing wealth to further reduce your expenses and debt, to acquire more assets or improve your standard of living, and to further increase your real or potential income.

## 3.3 ACCOUNTING SOFTWARE: AN OVERVIEW

### Learning Objectives

1. Identify the uses of personal finance software.
2. List the common features of personal financial software.
3. Demonstrate how actual financial calculations may be accomplished using personal financial software.
4. Discuss how personal financial software can assist in your personal financial decisions.

Many software products are available to help you organize your financial information to be more useful in making financial decisions. They are designed to make the record-keeping aspects of personal finance—the collection, classification, and sorting of financial data—as easy as possible. The programs are also designed to produce summary reports (e.g., income statements, cash flow statements, and balance sheets) as well as many calculations that may be useful for various aspects of financial planning. For example, financial planning software exists for managing education and retirement savings, debt and mortgage repayment, and income and expense budgeting.

## Collecting the Data

Most programs have designed their data input to look like a chequebook, which is what most people use to keep personal financial records. This type of user interface is intended to be recognizable and familiar, similar to the manual record keeping that you may already do.

When you input your chequebook data into the program, the software does the bookkeeping, creating the journals, ledgers, adjustments, and trial balances that people have done—albeit more tediously, with parchment and quill or with ledger paper and pencil—for generations. Most personal financial transactions happen as cash flows through a chequing account, so the chequebook becomes the primary source of data.

More and more personal transactions are done by electronic transfer—that is, no paper changes hands, but cash still flows to and from an account, usually a chequing account.

Data for other transactions, such as income from investments or changes in investment value, are usually received from periodic statements issued by investment managers: banks where you have savings accounts; brokers or mutual fund companies that manage investments; or employers' retirement account statements.

Most personal financial software allows you to download account information directly from the source—your bank, broker, or employer—which saves you from manually entering the data into the program. Aside from providing convenience, downloading directly should eliminate human error in transferring the data.

## Reporting Results and Planning Ahead

All personal financial software produces the essential summary reports—the income statement, cash flow statement, and balance sheet—that show the results of financial activity for the period. Most will also report more specific aspects of activities, such as listing all transactions for a particular income or expense.

Most will provide separate reports on activities that have some tax consequence, since users always need to be aware of tax obligations and tax consequences of financial decisions. Some programs, especially those produced by companies that also sell tax software, allow you to export data from your financial software to your tax program, which makes tax preparation—or at least tax record keeping—easier. In some programs, you need to know which activities are taxable and flag them as such. Some programs recognize that information already, while others may still prompt you for tax information.

All programs allow you to play “What If?”; this is a marvelous feature of computing power and the virtual world in general, and certainly helpful when it comes to making financial decisions. All programs include a budgeting feature that allows you to foresee or project possible scenarios and gauge your ability to live with them. This feature is particularly useful when budgeting for income and living expenses. Budgeting is discussed more thoroughly in Chapter 5 “Financial Plans: Budgets.” Most programs have features that allow you to project the results of savings plans for education or retirement. None can dictate the future, or allow you to, but they can certainly help you to have a better view.

## Security, Benefits, and Costs

All programs are designed to be installed on a personal computer or a handheld device such as a smart phone, but some can also be run from a website and therefore do not require a download. Product and service providers are very concerned with security.

As with all Internet transactions, you should be aware that the more your data is transferred, downloaded, or exported over the Internet, the more exposed it is to theft. Personal financial data theft is a serious and growing problem worldwide, and security systems are hard pressed to keep up with the ingenuity of hackers. The convenience gained by having your bank, brokerage, tax preparer, and so on, accessible to you (and your data accessible to them), or your data accessible to you wherever you are, must be weighed against the increased exposure to data theft. As always, the potential benefit should be considered against the costs.

Keeping digital records of your finances may be more secure than keeping them scattered in shoeboxes or files, where they are exposed to risks such as fire, flood, and theft. Digital records are often easily retrievable because the software organizes them systematically for you. Space is not a practical issue with digital storage, so records may be kept longer. As with anything digital, however, you must be diligent about backing up your data, although many programs will do that automatically or regularly prompt you to do so. Hard-copy records must be disposed of periodically, and judging how long to keep them is always difficult. Throwing them in the trash may be risky because of “dumpster diving,” a well-known method of identity theft, so documents with financial information should always be shredded before disposal.

Personal financial software is usually quite reasonably priced, with many programs selling for less than \$50, and most for less than \$100. Buying the software usually costs less than buying an hour of accounting expertise from an accountant or financial planner. While software cannot replace financial planning professionals' valuable judgment, it can allow you to hire them *only* for their judgment rather than to collect, classify, sort, and report your financial data.

Software will not improve your financial situation, but it can improve the organization of your financial data monthly and yearly, allowing you a much clearer view and almost certainly a much better understanding of your situation.

#### **Software References**

1. Visit [thebalance.com](http://thebalance.com) and read the article “Best Online Personal Finance Software Apps” for information on how to manage and save money with different apps.
2. Visit the product review website Top Ten Reviews and read the article “Best Personal Finance Software of 2018” to find personal financial software favourites that are reasonably priced.

### *Key Takeaways*

1. Personal finance software provides convenience and skill for collecting, classifying, sorting, reporting, and securing financial data to better assess you current situation.
2. To help you better evaluate your choices, personal finance software provides calculations for projecting information such as the following:
  - Education savings
  - Retirement savings
  - Debt repayment
  - Mortgage repayment
  - Income and expense budgeting

## *Exercises*

1. Explore free online resources for developing and comparing baseline personal financial statements. One good resource is a blog from Money Musings called “It’s Your Money”. View the post “The Worth of Net Worth.” This site also explains how and where to find the tables you need for accurate and complete income statements and balance sheets.
2. Compare and contrast the features of popular personal financial planning software at the following websites: Mint.com, [www.quicken.com/canada](http://www.quicken.com/canada), and Moneydance.com. Record your findings in your personal finance journal. Which software, if any, would be your first choice, and why? Share your experience and views with others taking this course.
3. The Financial Consumer Agency of Canada explains the key components of financial planning in Module 11: Financial planning of its Financial Toolkit. What goes into a financial plan? What aspects of financial planning do you already have in place? What aspects of financial planning should you consider next?

# 4. Evaluating Choices: Time, Risk, and Value

## INTRODUCTION

Financial decisions can only be made about the future. As much as analysis may tell us about the outcomes of past decisions, the past is “sunk”: it can be known but not decided upon. Decisions are made about the future, which cannot be known with certainty, so evaluating alternatives for financial decisions always involves speculation on both the kind of result and the value of the result that will occur. It also involves understanding and measuring the risks or uncertainties that time presents and the opportunities—and opportunity costs—that time creates.

### 4.1 THE TIME VALUE OF MONEY

#### *Learning Objectives*

1. Explain the value of liquidity.
2. Demonstrate how time creates distance, risk, and opportunity cost.
3. Demonstrate how time affects liquidity.
4. Analyze how time affects value.

Part of the planning process is evaluating the possible future results of a decision. Since those results will occur sometime in the future, it is critical to understand how the passage of time may affect those benefits and costs—not only the probability of their occurrence, but also their value when they do. Time affects value because time affects liquidity.

Liquidity is valuable, and the liquidity of an asset affects its value: all things being equal, the more liquid an asset is, the more valuable it is. This relationship—how the passage of time affects the liquidity of money and thus its value—is commonly referred to as the **time value of money**, which can actually be calculated concretely as well as understood abstractly.

Suppose you went to Mexico, where the currency is the peso. Coming from Canada, you have dollars to spend. When you get there, you are hungry. You see and smell a taco stand and decide to have a taco. Before you can buy the taco, however, you have to get some pesos so that you can pay for it because the right currency is needed to trade in that market. You have wealth (your fistful

of dollars), but you don't have wealth that is liquid. In order to change your dollars into pesos and acquire liquidity, you need to exchange currency. There is a fee to exchange your currency: a **transaction cost**, which is the cost of simply making the trade. It also takes a bit of time, and you could be doing other things, so it creates an opportunity cost (see Chapter 2 "Basic Ideas of Finance"). There is also the chance that you won't be able to make the exchange for some reason, or that it will cost more than you thought, so there is a bit of risk involved. Obtaining liquidity for your wealth creates transaction costs, opportunity costs, and risk.

In general, transforming not-so-liquid wealth into liquid wealth creates transaction costs, opportunity costs, and risk, all of which take away from the value of wealth. Liquidity has value because it can be used without any additional costs.

One dimension of difference between not-so-liquid wealth and liquidity is time. Cash flows in the past are sunk, cash flows in the present are liquid, and cash flows in the future are not yet liquid. You can only make choices with liquid wealth, not with cash that you don't have yet or that has already been spent. Separated from your liquidity and your choices by time, there is an opportunity cost: if you had liquidity now, you could use it for consumption or investment and benefit from it now. There is also risk, as there is always some uncertainty about the future: whether or not you will actually get your cash flows and just how much they'll be worth when you do.

The further in the future cash flows are, the farther away you are from your liquidity, the more opportunity cost and risk you have, and the more that takes away from the present value of your wealth, which is not yet liquid. In other words, time puts distance between you and your liquidity, and that creates costs that take away from value. The more time there is, the larger its effect on the value of wealth.

Financial plans are expected to happen in the future, so financial decisions are based on values some distance away in time. You could be trying to project an amount at some point in the future—perhaps an investment payout or college tuition payment. Or perhaps you are thinking about a series of cash flows that happen over time—for example, annual deposits into and then withdrawals from a retirement account. To really understand the time value of those cash flows, or to compare them in any reasonable way, you have to understand the relationships between the nominal or face values in the future and their equivalent present values (i.e., what their values would be if they were liquid today). The equivalent present values today will be less than the nominal or face values in the future because that distance over time, that separation from liquidity, costs us by discounting those values.

### *Key Takeaways*

1. Liquidity has value because it enables choice.
2. Time creates distance or delay from liquidity.

3. Distance or delay creates risk and opportunity costs.
4. Time affects value by creating distance, risk, and opportunity costs.
5. Time discounts value.

### *Exercises*

1. How does the expression “a bird in the hand is worth two in the bush” relate to the concept of the time value of money?
2. In what four ways can “delay to liquidity” affect the value of your wealth?

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## 4.2 CALCULATING THE RELATIONSHIP OF TIME AND VALUE

### *Learning Objectives*

1. Identify the factors you need to know to relate a present value to a future value.
2. Write the algebraic expression for the relationship between present and future value.
3. Discuss the use of the algebraic expression in evaluating the relationship between present and future values.
4. Explain the importance of understanding the relationships among the factors that affect future value.

Financial calculation is not often a necessary skill since it is easier to use calculators, spreadsheets, and software. However, understanding the calculations is important in understanding the relationships between time, risk, opportunity cost, and value.

To do the math, you need to know:

1. what the future cash flows will be,
2. when the future cash flows will be, and
3. the rate at which time affects value (e.g., the costs per time period, or the magnitude [the size or amount] of the effect of time on value).

It is usually not difficult to forecast the timing and amounts of future cash flows. Although there may be some uncertainty about them, gauging the rate at which time affects money can require some judgment. That rate, commonly called the **discount rate** because time discounts value, is the opportunity cost of not having liquidity. Opportunity cost derives from forgone choices or sacrificed alternatives, and sometimes it is not clear what those might have been (see Chapter 2 “Basic Ideas of Finance”). It is an important judgment call to make, though, because the rate will directly affect the valuation process.

At times, the alternatives are clear: you could be putting the liquidity in an account earning 3 per cent, so that’s your opportunity cost of not having it. Or you are paying 6.5 per cent on a loan, which you wouldn’t be paying if you had enough liquidity to avoid having to borrow; that’s your opportunity cost. Sometimes, however, your opportunity cost is not so clear.

Say that today is your twentieth birthday. Your grandparents have promised to give you \$1,000 for your twenty-first birthday, one year from today. If you had the money today, what would it be worth? That is, how much would \$1,000 worth of liquidity one year from now be worth today?

That depends on the cost of its not being liquid today, or on the opportunity costs and risks created by not having liquidity today. If you had \$1,000 today, you could buy things and enjoy them, or you could deposit it in an interest-bearing account. So on your twenty-first birthday, you would have more than \$1,000—you would have the \$1,000 plus whatever interest it had earned. If your bank pays 4 per cent per year (interest rates are always stated as annual rates) on your account, then you would earn \$40 of interest in the next year, or  $\$1,000 \times .04$ . So, on your twenty-first birthday you would have \$1,040 as expressed in the equation below:

$$\$1,000 + (1,000 \times 0.04) = \$1,000 \times (1 + 0.04) = \$1,040$$

**Table 4.2.1 Interest-Bearing Account**

Today	Interest Rate	Time (years)	One Year from Now
1,000	0.04	1	$1,040 = 1,000 \times (1+0.04)$

If you left that amount in the bank until your twenty-second birthday, you would have

$$1,040 + (1,040 \times 0.04) = 1,040 \times (1 + 0.04) =$$

$$[1,000 \times (1 + 0.04)] \times (1 + 0.04) =$$

$$1,000 \times (1+0.04)^2 = 1,081.60$$

To generalize the computation, if your **present value (PV)**, is your value today,  $r$  is the rate at which time affects value or discount rate (in this case, your interest rate), and if  $t$  is the number of time periods between you and your liquidity, then the **future value (FV)** of your wealth is expressed in the following equation:

$$FV = PV \times (1+r)^t$$

In this case,  $1,000 \times (1.04)^1 = 1,040$  and  $1,000 \times (1+r)^2 = 1,081.60$ . Table 4.2.2 illustrates how present value, the interest rate, and time equate to future value.

**Table 4.2.2 Future Value**

Today	Interest Rate	Time (years)	Equation
1,000	0.04	1	$1,040 = 1,000 \times (1+0.04)^1$
1,000	0.04	2	$1,081.60 = 1,000 \times (1+0.04)^2$
PV	$r$	$t$	$FV = PV \times (1+r)^t$

Assuming there is little chance that your grandparents will not be able to give this gift, there is negligible risk. Your only cost of not having liquidity now is the opportunity cost of having to delay consumption or not earning the interest you could have earned.

The cost of delayed consumption is largely derived from a subjective valuation of whatever is consumed, or its **utility** or satisfaction. The more value you place on having something, the more it “costs” you not to have it, and the more time that you are without it affects its value.

Assuming that if you had the money today you would save it, by having to wait until your twenty-first birthday to receive it—and not having it today—you miss out on the \$40 it could have earned.

So, what would that nominal \$1,000 (that future value that you get one year from now) actually be worth today? The rate at which time affects your value is 4 per cent because that’s what having a choice (to spend or invest it) could earn for you if only you had received the \$1,000. That’s your opportunity cost; that’s what it costs you to not have liquidity. Since  $PV \times (1+r)^t = FV$ , then  $PV = FV / [(1+r)^t]$ , so  $PV = 1,000 / [(1.04)^1] = 961.5385$ .

Your gift is worth \$961.5385 today (its present value). If your grandparents offered to give you your twenty-first birthday gift on your twentieth birthday, they could give you \$961.5385 today, which would be the equivalent value to you of getting \$1,000 one year from now.

It is important to understand the relationships between time, risk, opportunity cost, and value. This equation describes that relationship:

$$PV \times (1+r)^t = FV$$

The  $r$  is more formally called the “discount rate” because it is the rate at which your liquidity is discounted by time, and it includes not only opportunity costs, but also risk. (On some financial calculators,  $r$  is displayed as  $I$  or  $i$ .)

The  $t$  is how far away you are from your liquidity over time.

Studying this equation yields valuable insights into the relationship it describes. Looking at the equation, you can observe the following relationships:

The more time ( $t$ ) separating you from your liquidity, the more time affects value. The less time separating you from your liquidity, the less time affects value (as  $t$  decreases,  $PV$  increases).

As  $t$  increases, the  $PV$  of your  $FV$  liquidity decreases.  
As  $t$  decreases, the  $PV$  of your  $FV$  liquidity increases.

The greater the rate at which time affects value ( $r$ ), or the greater the opportunity cost and risk, the more time affects value. The less your opportunity cost or risk, the less your value is affected.

As  $r$  increases, the  $PV$  of your  $FV$  liquidity decreases.  
As  $r$  decreases, the  $PV$  of your  $FV$  liquidity increases.

Table 4.2.3 presents examples of these relationships.

**Table 4.2.3 Present Values, Interest Rates, Time, and Future Values**

	Today	Interest Rate	Time (years)	Future Value
<b>Example A</b>	1,000	0.04	1	1,040 = $PV \times 1.04\%$
Greater effect r increases	1,000	0.10	1	1,100 = $PV \times 1.10\%$
More time t increases	1,000	0.04	3	1,124.86 = $PV \times 1.04^3\%$
Less effect r decreases	1,000	0.01	1	1,010 = $PV \times 1.01\%$
Less time t decreases	1,000	0.04	0.5	1,019.80 = $PV \times 1.04^{0.5\%}$
<b>Example B</b>	961.54 = $FV/1.04\%$	0.04	1	1,000
Greater effect r increases	909.09 = $FV/1.10\%$	0.10	1	1,000
More time t increases	889.00 = $FV/1.04^3\%$	0.04	3	1,000
Less effect r decreases	990.10 = $FV/1.01\%$	0.01	1	1,000
Less time t decreases	980.58 = $FV/1.04^{0.5\%}$	0.04	0.5	1,000

The strategy implications of this understanding are simple yet critical. All things being equal, it is more valuable to have liquidity (get paid, or have positive cash flow) sooner rather than later and give up liquidity (pay out, or have negative cash flow) *later* rather than sooner.

If possible, accelerate incoming cash flows and decelerate outgoing cash flows: get paid sooner, but pay out later. Or, as Popeye’s pal Wimpy used to say, “I’ll give you 50 cents tomorrow for a hamburger today.”

Please see the following TVM tables developed by Jodi Letkiewicz (York University), in order to practice calculating future value and present value. A sample of the first TVM table—Future Value of a Lump Sum (\$1 at the end of  $t$  periods)—is illustrated below. Remember that  $FV = PV \times (1+r)^t$ .

**TVM Table 1: Future Value of a Lump Sum (\$1 at the end of t periods)**

t	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	1.0100	1.0200	1.0300	1.0400	1.0500	1.0600	1.0700	1.0800	1.0900	1.1000
2	1.0201	1.0404	1.0609	1.0816	1.1025	1.1236	1.1449	1.1664	1.1881	1.2100
3	1.0303	1.0612	1.0927	1.1249	1.1576	1.1910	1.2250	1.2597	1.2950	1.3310
4	1.0406	1.0824	1.1255	1.1699	1.2155	1.2625	1.3108	1.3605	1.4116	1.4641
5	1.0510	1.1041	1.1593	1.2167	1.2763	1.3382	1.4026	1.4693	1.5386	1.6105
6	1.0615	1.1262	1.1941	1.2653	1.3401	1.4185	1.5007	1.5869	1.6771	1.7716
7	1.0721	1.1487	1.2299	1.3159	1.4071	1.5036	1.6058	1.7138	1.8280	1.9487
8	1.0829	1.1717	1.2668	1.3686	1.4775	1.5938	1.7182	1.8509	1.9926	2.1436
9	1.0937	1.1951	1.3048	1.4233	1.5513	1.6895	1.8385	1.9990	2.1719	2.3579
10	1.1046	1.2190	1.3439	1.4802	1.6289	1.7908	1.9672	2.1589	2.3674	2.5937
11	1.1157	1.2434	1.3842	1.5395	1.7103	1.8983	2.1049	2.3316	2.5804	2.8531
12	1.1268	1.2682	1.4258	1.6010	1.7959	2.0122	2.2522	2.5182	2.8127	3.1384
13	1.1381	1.2936	1.4685	1.6651	1.8856	2.1329	2.4098	2.7196	3.0658	3.4523
14	1.1495	1.3195	1.5126	1.7317	1.9799	2.2609	2.5785	2.9372	3.3417	3.7975
15	1.1610	1.3459	1.5580	1.8009	2.0789	2.3966	2.7590	3.1722	3.6425	4.1772
16	1.1726	1.3728	1.6047	1.8730	2.1829	2.5404	2.9522	3.4259	3.9703	4.5950
17	1.1843	1.4002	1.6528	1.9479	2.2920	2.6928	3.1588	3.7000	4.3276	5.0545
18	1.1961	1.4282	1.7024	2.0258	2.4066	2.8543	3.3799	3.9960	4.7171	5.5599
19	1.2081	1.4568	1.7535	2.1068	2.5270	3.0256	3.6165	4.3157	5.1417	6.1159
20	1.2202	1.4859	1.8061	2.1911	2.6533	3.2071	3.8697	4.6610	5.6044	6.7275

View the complete TVM tables in PDF format at the following four links:

[TVM Table 1: Future Value of a Lump Sum \(\\$1 at the end of t periods\)](#)

[TVM Table 2: Present Value of a Lump Sum \(\\$1\)](#)

[TVM Table 3: Present Value of a Series of Payments \(Annuity\) \(\\$1\)](#)

[TVM Table 4: Future Value of a Series of Payments \(Annuity\) \(\\$1\)](#)

## Key Takeaways

1. To relate a present (liquid) value to a future value, you need to know:
  - what the present value is or the future value will be,
  - when the future value will be, and
  - the rate at which time affects value: the costs per time period, or the magnitude of the effect of time on value.
2. The relationship of present value (PV), future value (FV), risk and opportunity cost (the discount rate,  $r$ ), and time ( $t$ ), may be expressed as:  $PV \times (1 + r)^t = FV$ .
3. The above equation yields valuable insights into these relationships:
  - The more time ( $t$ ) creates distance from liquidity, the more time affects value.
  - The greater the rate at which time affects value ( $r$ ), or the greater the opportunity cost and risk, the more time affects value.
  - The closer the liquidity, the less time affects value.
  - The less the opportunity cost or risk, the less value is affected.
4. To maximize value, get paid sooner and pay later.

## Exercises

1. In your financial planning journal, identify a future cash flow. Calculate its present value and then calculate its future value based on the discount rate and time to liquidity. Repeat the process for other future cash flows you identify. What pattern of relationships do you observe between time and value?
2. Try the Time Value of Money calculator at Money-Zine. How do the results compare with your calculations in Exercise 1?
3. View the TeachMeFinance.com animated audio slide show on “The Time Value of Money” (3:00) by Mark McCracken. This slide show will walk you through an example of how to calculate the present and future values of money. How is each part of the formula used in that lesson equivalent to the formula presented in this text?
4. To have liquidity, when should you increase positive cash flows and decrease negative cash flows, and why?

## 4.3 VALUING A SERIES OF CASH FLOWS

### *Learning Objectives*

1. Discuss the importance of the idea of the time value of money in financial decisions.
2. Define the present value of a series of cash flows.
3. Define an annuity.
4. Identify the factors you need to know to calculate the value of an annuity.
5. Discuss the relationships of those factors to the annuity's value.
6. Define a perpetuity.

It is quite common in finance to value a series of future cash flows (CF), perhaps a series of withdrawals from a retirement account, interest payments from a bond, or deposits for a savings account. The present value of the series of cash flows is equal to the sum of the present value of each cash flow, so valuation is straightforward: find the present value of each cash flow and then add them up.

Often, the series of cash flows is such that each cash flow has the same future value. When there are regular payments at regular intervals and each payment is the same amount, that series of cash flows is an **annuity**. Most consumer loan repayments are annuities, as are, typically, installment purchases, mortgages, retirement investments, savings plans, and retirement plan payouts. Fixed-rate bond interest payments are an annuity, as are stable stock dividends over long periods of time. You could think of your paycheck as an annuity, as are many living expenses, such as groceries and utilities, for which you pay roughly the same amount regularly.

To calculate the present value of an annuity, you need to know:

- the amount of the future cash flows (the same for each),
- the frequency of the cash flows,
- the number of cash flows ( $t$ ), and
- the rate at which time affects value ( $r$ ).

Almost any calculator and the many readily available software applications can do the math for you, but it is important for you to understand the relationships between time, risk, opportunity cost, and value.

If you win the lottery, for example, you are typically offered a choice of payouts for your winnings: a lump sum or an annual payment over twenty years.

The lottery agency would prefer that you took the annual payment because it would not have to give up as much liquidity all at once; it could hold on to its liquidity longer. To make the annual payment more attractive for you—it isn't, because you would want to have more liquidity sooner—the lump-sum option is discounted to reflect the present value of the payment annuity. The discount rate, which determines that present value, is chosen at the discretion of the lottery agency.

Say you win \$10 million. The lottery agency offers you a choice: take \$500,000 per year over twenty years or take a one-time lump-sum payout of \$6.7 million. You would choose the alternative with the greatest value. The present value of the lump-sum payout is \$6.7 million. The value of the annuity is not simply \$10 million, or  $\$500,000 \times 20$ , because those \$500,000 payments are received over time and time affects liquidity and thus value. So, the question is: What is the annuity worth to you?

Your discount rate or opportunity cost will determine the annuity's value to you, as Table 4.3.1 shows.

**Table 4.3.1 Lottery Present Value with Different Discount Rates**

CF	Rate (r) in Per Cent	Time (t) in Years	PV
500,000	0.0200	20	8,175,717
500,000	0.0400	20	6,795,163
500,000	0.0600	20	5,734,961
500,000	0.0800	20	4,909,074
500,000	0.1000	20	4,256,782
500,000	0.1200	20	3,734,722
500,000	0.1400	20	3,311,565
500,000	0.0416	20	6,700,000

As expected, the present value of the annuity is less if your discount rate—or opportunity cost or next-best choice—is more. The annuity would be worth the same to you as the lump-sum payout if your discount rate were 4.16 per cent.

In other words, if your discount rate is about 4 per cent or less—if you don't have more lucrative choices than earning 4 per cent with that liquidity—then the annuity is worth more to you than the immediate payout. You can afford to wait for that liquidity and collect it over twenty years because you have no better choice. On the other hand, if your discount rate is higher than 4 per cent, or if you feel that your use of that liquidity would earn you more than 4 per cent, then you have more lucrative things to do with that money and you want it now: the annuity is worth less to you than the payout.

For an annuity, as when relating one cash flow's present and future value, the greater the rate at which time affects value, the greater the effect on the present value. When opportunity cost or risk is low, waiting for liquidity doesn't matter as much as when opportunity costs or risks are higher. When

opportunity costs are low, you have nothing better to do with your liquidity, but when opportunity costs are higher, you may sacrifice more by having no liquidity. Liquidity is valuable because it allows you to make choices. After all, if there are no more valuable choices to make, you lose little by giving up liquidity. The higher the rate at which time affects value, the more it costs to wait for liquidity, and the more choices pass you by while you wait for liquidity.

When risk is low, it is not really important to have your liquidity firmly in hand any sooner because you'll have it sooner or later anyhow. But when risk is high, getting liquidity sooner becomes more important because it lessens the chance of not getting it at all. The higher the rate at which time affects value, the more risk there is in waiting for liquidity and the more chance that you won't get it at all.

As  $r$  increases, the PV of the annuity decreases.  
 As  $r$  decreases, the PV of the annuity increases.

You can also look at the relationship of time and cash flow to annuity value in Table 4.3.2 “Lottery Payout Present Values.” Suppose your payout was more (or less) each year, or suppose your payout happened over more (or fewer) years.

**Table 4.3.2 Lottery Payout Present Values**

CF	Rate	Time	PV
500,000	0.0400	20	6,795,163
500,000	0.0200	20	8,175,717
500,000	0.0600	20	5,734,961
750,000	0.0400	20	10,192,745
250,000	0.0400	20	3,397,582
500,000	0.0400	30	8,646,017
500,000	0.0400	10	4,055,448

As seen in Table 4.3.2, the amount of each payment or cash flow affects the value of the annuity because more cash means more liquidity and greater value.

As CF increases, the PV of the annuity increases.

As CF decreases, the PV of the annuity decreases.

Although time increases the distance from liquidity, with an annuity, it also increases the number of payments because payments occur periodically. The more periods in the annuity, the more cash flows and the more liquidity there is, thus increasing the value of the annuity.

As  $t$  increases, the PV of the annuity increases.  
As  $t$  decreases, the PV of the annuity decreases.

It is common in financial planning to calculate the FV of a series of cash flows. This calculation is useful when saving for a goal where a specific amount will be required at a specific point in the future (e.g., saving for university, a wedding, or retirement).

It turns out that the relationships between time, risk, opportunity cost, and value are predictable going forward as well. Say you decide to take the \$500,000 annual lottery payout for twenty years. If you deposit that payout in a bank account earning 4 per cent, how much would you have in twenty years? What if the account earned more interest? Less interest? What if you won more (or less) so the payout was more (or less) each year?

What if you won \$15 million and the payout was \$500,000 per year for thirty years; how much would you have then? Or if you won \$5 million and the payout was only for ten years? Table 4.3.3 shows how future values would change.

**Table 4.3.3 Lottery Payout Future Values**

CF	Rate	Time	PV	FV
500,000	0.0400	20	6,795,163	14,889,039
500,000	0.0200	20	8,175,717	12,148,685
500,000	0.0600	20	5,734,961	18,392,796
750,000	0.0400	20	10,192,745	22,333,559
250,000	0.0400	20	3,397,582	7,444,520
500,000	0.0400	30	8,646,017	28,042,469
500,000	0.0400	10	4,055,448	6,003,054

Going forward, the rate at which time affects value ( $r$ ) is the rate at which value grows, or the rate at which your value compounds. It is also called the **rate of compounding**. The bigger the effect of time on value, the more value you will end up with because more time has affected the value of your money while it was growing as it waited for you. So, looking forward at the future value of an annuity:

As  $r$  increases, the FV of the annuity increases.  
As  $r$  decreases, the FV of the annuity decreases.

The amount of each payment or cash flow affects the value of the annuity because more cash means more liquidity and greater value. If you were getting more cash each year and depositing it into your account, you'd end up with more value.

As CF increases, the FV of the annuity increases.  
As CF decreases, the FV of the annuity decreases.

The more time there is, the more time can affect value. As payments occur periodically, the more cash flows there are, and the more liquidity there is. The more periods in the annuity, the more cash flows, and the greater the effect of time, thus increasing the future value of the annuity.

As  $t$  increases, the FV of the annuity increases.  
As  $t$  decreases, the FV of the annuity decreases.

There is also a special kind of annuity called a **perpetuity**, which is an annuity that goes on forever (i.e., a series of cash flows of equal amounts occurring at regular intervals that never ends). It is hard to imagine a stream of cash flows that never ends, but it is actually not as rare as it sounds. The dividends from a share of corporate stock are a perpetuity, because in theory, a corporation has an infinite life (as a separate legal entity from its shareholders or owners) and because, for many reasons, corporations like to maintain a steady dividend for their shareholders.

The perpetuity represents the maximum value of the annuity, or the value of the annuity with the most cash flows and therefore the most liquidity and therefore the most value.

## Life Is a Series of Cash Flows

Once you understand the idea of the time value of money, and its use for valuing a series of cash flows, and the idea of annuities in particular, you won't believe how you ever got through life without them. These are the fundamental relationships that structure so many financial decisions, most of which involve a series of cash inflows or outflows. Understanding these relationships can be a tool to help you answer some of the most common financial questions about buying and selling liquidity, because loans and investments are so often structured as annuities and certainly take place over time.

Loans are usually designed as annuities, with regular periodic payments that include interest expense and principal repayment. Using these relationships, you can see the effect of a different amount borrowed ( $PV_{\text{annuity}}$ ), interest rate ( $r$ ), or term of the loan ( $t$ ) on the periodic payment (CF).

For example, as seen in Table 4.3.4 "Mortgage Calculations," if you get a \$250,000 (PV), thirty-year ( $t$ ), 6.5 per cent ( $r$ ) mortgage, the monthly payment will be \$1,577 (CF). If the same mortgage had an interest rate of only 5.5 per cent ( $r$ ), your monthly payment would decrease to \$1,423 (CF). If it were a fifteen-year ( $t$ ) mortgage, still at 6.5 per cent ( $r$ ), the monthly payment would be \$2,175 (CF). If you can make a larger down payment and borrow less—say \$200,000 (PV)—then with a thirty-year ( $t$ ), 6.5 per cent ( $r$ ) mortgage your monthly payment would be only \$1,262 (CF).

**Table 4.3.4 Mortgage Calculations**

CF	Rate (r)	Time (t)	PV
1,577	0.0054	360	250,000
1,423	0.0046	360	250,000
2,175	0.0054	180	250,000
1,262	0.0054	360	200,000

Note that in Table 4.3.4, the mortgage rate is the monthly rate—that is, the annual rate divided by twelve (months in the year), or  $r / 12$ , and that  $t$  is stated as the number of months, or the number of years  $\times 12$  (months in the year). That is because the mortgage requires monthly payments, so all the variables must be expressed in units of months. In general, the periodic unit used is defined by the frequency of the cash flows and must agree for all variables. In this example, because you have monthly cash flows, you must calculate using the monthly discount rate ( $r$ ) and the number of months ( $t$ ).

Saving to reach a goal—to provide a down payment on a house, or a child’s education, or retirement income—is often accomplished by a plan of regular deposits to an account for that purpose. The savings plan is an annuity, so these relationships can be used to calculate how much would have to be saved each period to reach the goal (CF), or given how much can be saved each period, how long it will take to reach the goal ( $t$ ), or how a better investment return ( $r$ ) would affect the periodic savings, or the time needed ( $t$ ), or the goal (FV).

For example, if you want to have \$1 million (FV) in the bank when you retire, and your bank pays 3 per cent ( $r$ ) interest per year, and you can save \$10,000 per year (CF) toward retirement, can you afford to retire at age sixty-five? You could if you start saving at age eighteen, because with that annual saving at that rate of return, it will take forty-seven years ( $t$ ) to have \$1,000,000 (FV). If you could save \$20,000 per year (CF), it would only take thirty-one years ( $t$ ) to save \$1,000,000 (FV). If you are already forty years old, you could do it if you save \$27,428 per year (CF) or if you can earn a return of at least 5.34 per cent ( $r$ ). See Table 4.3.5.

**Table 4.3.5 Retirement Savings Calculations**

CF	Rate (r)	Time (t)	PV	FV
10,000	0.0300	47	250,000	1,000,000
20,000	0.0300	31	400,000	1,000,000
27,428	0.0300	25	477,606	1,000,000
20,000	0.0534	25	272,621	1,000,000

As you can see, the relationships between time, risk, opportunity cost, and value are some of the most important relationships you will ever encounter in life, and understanding them is critical to making sound financial decisions.

## Financial Calculations

Modern tools make it much easier to do the math. Widely available calculators, spreadsheets, and software have been developed to be very user friendly.

Financial calculators have the equations relating the present and future values, cash flows, the discount rate, and time embedded, for single amounts or for a series of cash flows, so that you can calculate any one of those variables if you know all the others.

Personal finance software packages usually come with a planning calculator that performs a similar function. These tools are usually presented as a “mortgage calculator” or a “loan calculator” or a “retirement planner,” and they are set up to answer common planning questions such as, “How much do I have to save every year for retirement?” or, “What will my monthly loan payment be?”

Spreadsheets also have the relevant equations built in, as functions or as macros. There are also stand-alone software applications that may be downloaded to a mobile device, such as a smartphone. They are useful in answering planning questions, but they lack the ability to store and track your situation in the way that a more complete software package can.

The calculations are discussed here not so that you can perform them—you have many tools to choose from that can do that more efficiently—but so that you can understand them, and most importantly, so that you can understand the relationships that they describe.

### *Key Takeaways*

1. The idea of the time value of money is fundamental to financial decisions.
2. The present value of a series of cash flows is equal to the sum of the present value of each cash flow.
3. A series of cash flows is an annuity when there are regular payments at regular intervals and each payment is the same amount.
4. To calculate the present value of an annuity, you need to know:
  - the amount of the identical cash flows (CF),
  - the frequency of the cash flows,

- the number of cash flows ( $t$ ), and
  - the discount rate ( $r$ ) or the rate at which time affects value.
5. The calculation for the present value of an annuity yields valuable insights.
    - The more time ( $t$ ), the more periods and the more periodic payments—that is, the more cash flows, and so the more liquidity and the more value.
    - The greater the cash flows, the more liquidity and the more value.
    - The greater the rate at which time affects value ( $r$ ) or the greater the opportunity cost and risk or the greater the rate of discounting, the more time affects value.
  6. The calculation for the future value of an annuity yields valuable insights.
    - The more time ( $t$ ), the more periods and the more periodic payments—that is, the more cash flows, and so the more liquidity and the more value.
    - The greater the cash flows, the more liquidity and the more value.
    - The greater the rate at which time affects value ( $r$ ) or the greater the rate of compounding, the more time affects value.
  7. A perpetuity is an infinite annuity.

## *Exercises*

1. In your financial planning journal, identify and record all your cash flows. Calculate the present value of each. Then calculate the future value. Which cash flows give you the greatest liquidity or value?
2. How can you determine if a lump-sum payment or an annuity will have greater value for you?

## 4.4 USING FINANCIAL STATEMENTS TO EVALUATE FINANCIAL CHOICES

### *Learning Objectives*

1. Define pro forma financial statements.
2. Explain how pro forma financial statements can be used to project future scenarios for the planning process.

Now that you understand the relationship of time and value, especially looking forward, you can begin to think about how your ideas and plans will look as they happen. More specifically, you can begin to see how your future will look in the mirror of your financial statements. Projected or **pro forma financial statements** can show the consequences of your choices. To project future financial statements, you need to be able to envision the expected results of all the items on them. This can be difficult, for there can be many variables that may affect your income and expenses or cash flows, and some of them may be unpredictable. Predictions always contain uncertainty, so projections are always, at best, educated guesses. Still, they can be useful in helping you to see how the future may look.

For example, we can glimpse Brittany's projected cash flow statements and balance sheets for each of her choices, along with their possible outcomes. Brittany can actually project how her financial statements will look after each choice is followed.

When making financial decisions, it is helpful to be able to think in terms of their consequences on the financial statements, which provide an order to our summary of financial results. For example, in previous chapters, Brittany was deciding how to decrease her debt. Her choices were to continue to pay it down gradually as she does now; to get a second job to pay it off faster; or to go to Vegas, hit it big (or lose big), and eliminate her debt altogether (or wind up with even more). Brittany can look at the effects of each choice on her financial statements as seen in Table 4.4.1.

**Table 4.4.1 Potential Effects on Brittany's Financial Statements**

<b>Choices</b>	<b>Income Statement</b>	<b>Cash Flow Statement</b>	<b>Balance Sheet</b>
<b>Continue</b>	No new effects	No new effects	↓Debt ↑Net worth
<b>Second job</b>	↑Income	No new effect (increased cash flow from wages is used to pay debt)	↓Debt faster ↑Net worth faster
<b>Vegas: Win</b>	↑Expenses (for the trip)	No new effect (increased cash flow from winnings is used to pay debt)	Eliminate debt ↑Net worth
<b>Vegas: Lose</b>	↑Expenses (for the trip)	↓Net cash flow	↑Debt ↓Net worth

Looking more closely at the actual numbers on each statement gives us a much clearer idea of Brittany's situation. Beginning with the income statement, income will increase if she works a second job or goes to Vegas and wins, while expenses will increase (travel expense) if she goes to Vegas at all. Assume that her second job would bring in an extra \$20,000 income and that she could win or lose \$100,000 in Vegas. Any change in gross wages or winnings (losses) would have a tax consequence; if she loses in Vegas, she will still have income taxes on her salary. See Table 4.4.2.

**Table 4.4.2 Brittany's Pro Forma Income Statements**

	<b>Continue</b>	<b>Second Job</b>	<b>Vegas: Win</b>	<b>Vegas: Lose</b>
<b>For the Year Ending</b>	<b>12/31/18</b>	<b>12/31/18</b>	<b>12/31/18</b>	<b>12/31/18</b>
<b>Gross wages</b>	<b>44,650</b>	<b>64,650</b>	<b>144,650</b>	<b>(55,350)</b>
Income taxes and deductions	8,930	12,930	28,930	
Disposable income	35,720	51,720	115,720	(55,350)
Rent	10,800	10,800	10,800	10,800
Food	3,900	3,900	3,900	3,900
Car expenses	3,600	3,600	3,600	3,600
Clothing	1,800	1,800	1,800	1,800
Cell phone	1,200	1,200	1,200	1,200
Internet and cable TV	1,200	1,200	1,200	1,200
Entertainment, travel, etc.	2,700	2,700	3,700	3,700
<i>Total living expenses</i>	25,200	25,200	26,200	26,200
Car loan interest	240	240	240	240
Student loan interest	4,240	4,240	4,240	4,240
<b>Total interest expenses</b>	<b>4,480</b>	<b>4,480</b>	<b>4,480</b>	<b>4,480</b>
<b>Net income</b>	<b>6,040</b>	<b>22,040</b>	<b>85,040</b>	<b>(86,030)</b>

While Vegas yields the largest increase in net income or personal profit if Brittany wins, it creates the largest decrease if she loses; it is clearly the riskiest option. The pro forma cash flow statements (shown in Table 4.4.3) reinforce this observation.

**Table 4.4.3 Brittany's Pro Forma Cash Flow Statements**

	<b>Continue</b>	<b>Second Job</b>	<b>Vegas: Win</b>	<b>Vegas: Lose</b>
<b>For the Year Ending</b>	<b>12/31/18</b>	<b>12/31/18</b>	<b>12/31/18</b>	<b>12/31/18</b>
<b>Cash from gross wages</b>	<b>44,650</b>	<b>64,650</b>	<b>44,650</b>	<b>44,650</b>
<b>Cash paid for:</b>				
Income taxes and deductions	(8,930)	(12,930)	(8,930)	(8,930)
Rent	(10,800)	(10,800)	(10,800)	(10,800)
Food	(3,900)	(3,900)	(3,900)	(3,900)
Car expenses	(3,600)	(3,600)	(3,600)	(3,600)
Clothing	(1,800)	(1,800)	(1,800)	(1,800)
Cell phone	(1,200)	(1,200)	(1,200)	(1,200)
Internet and cable TV	(1,200)	(1,200)	(1,200)	(1,200)
Entertainment, travel, etc.	(2,700)	(2,700)	(3,700)	(3,700)
Car loan interest	(240)	(240)	(240)	(240)
Student loan interest	(4,240)	(4,240)	(4,240)	(4,240)
<b>Operating cash flow</b>	<b>6,040</b>	<b>22,040</b>	<b>5,040</b>	<b>5,040</b>
Cash from gambling	0	0	100,000	(100,000)
Cash for repayment of car loan	(2,160)	(2,160)	(2,700)	(2,160)
Cash for repayment of student loan	(3,480)	(19,000)	(53,000)	(7,760)
Proceeds from new loan	0	0	0	104,880
<b>Financing cash flows</b>	<b>(5,640)</b>	<b>(21,160)</b>	<b>44,300</b>	<b>(5,040)</b>
<b>Net cash flow</b>	<b>400</b>	<b>880</b>	<b>49,340</b>	<b>0</b>

If Brittany has a second job, she will use the extra cash flow, after taxes, to pay down her student loan, leaving her with a bit more free cash flow than she would have had without the second job. If she wins in Vegas, she can pay off both her car loan and her student loan and still have an increased free cash flow. However, if she loses in Vegas, she will have to secure more debt to cover her losses. Assuming she borrows as much as she loses, she will have a small negative net cash flow and no free cash flow, and her other assets will have to make up for this loss of cash value.

So, how will Brittany's financial condition look in one year? That depends on how she proceeds, but the pro forma balance sheets, as seen in Table 4.4.4, provide a glimpse.

**Table 4.4.4 Brittany's Pro Forma Balance Sheets**

	<b>Continue</b>	<b>Second Job</b>	<b>Vegas: Win</b>	<b>Vegas: Lose</b>
	<b>12/31/19</b>	<b>12/31/19</b>	<b>12/31/19</b>	<b>12/31/19</b>
<b>Assets</b>				
Car	5,000	5,000	5,000	5,000
Savings	650	1,130	49,590	0
Total assets	5,650	6,130	54,590	5,000
<b>Liabilities</b>				
Car loan	540	540	0	540
Student loan	45,240	34,000	0	45,240
New loan	0	0	0	104,880
Total liabilities	45,780	34,540	0	150,660
<b>Net worth</b>	<b>(40,130)</b>	<b>(28,410)</b>	<b>54,590</b>	<b>(145,660)</b>

If Brittany has a second job, her net worth increases but is still negative, as she has paid down more of her student loan than she otherwise would have, but it is still larger than her asset value. If she wins in Vegas, her net worth can be positive; with her loan paid off entirely, her asset value will equal her net worth. However, if she loses in Vegas, she will have to borrow more, her new debt quadrupling her liabilities and decreasing her net worth by that much more.

Table 4.4.5 provides a summary of the critical “bottom lines” from each pro forma statement and most clearly shows Brittany’s complete picture for each alternative.

**Table 4.4.5 Brittany's Pro Forma Bottom Lines**

	<b>Continue</b>	<b>Second Job</b>	<b>Vegas: Win</b>	<b>Vegas: Lose</b>
	<b>12/31/19</b>	<b>12/31/19</b>	<b>12/31/19</b>	<b>12/31/19</b>
<b>Net income</b>	6,040	22,040	85,040	(86,030)
<b>Net cash flow</b>	400	880	49,340	(4,880)
<b>Net worth</b>	<b>(40,130)</b>	<b>(28,410)</b>	<b>54,590</b>	<b>(145,660)</b>

Going to Vegas creates the best and the worst scenarios for Brittany, depending on whether she wins or loses. While the outcomes for continuing or getting a second job are fairly certain, the outcome in Vegas is not; indeed, there are two possible outcomes. The Vegas choice has the most risk or the least certainty.

The Vegas alternative also has strategic costs: if she loses, her increased debt and its obligations—more interest and principal payments on more debt—will further delay her goal of

building an asset base from which to generate new sources of income. In the near future, or until her new debt is repaid, she will have even fewer financial choices.

The strategic benefit of the Vegas alternative is that if she wins, she can eliminate debt, begin to build her asset base, and have even more choices (by eliminating debt and freeing cash flow).

The next step for Brittany would be to try to assess the probabilities of winning or losing in Vegas. Once she has determined the risk involved—given the consequences now illuminated in the pro forma financial statements—she would have to decide if she can tolerate that risk, or if she should reject that alternative because of its risk.

### *Key Takeaways*

Pro forma financial statements show the consequences of financial choices in the context of the financial statements.

### *Exercises*

1. What are pro forma financial statements based on?
2. What are the strategic benefits of making financial projections on pro forma statements?

# 5. Financial Plans: Budgets

## INTRODUCTION

Seeing the value of reaching a goal is often much easier than seeing a way to reach that goal. People often resolve to somehow improve themselves or their lives. While they are not lacking sincerity, determination, or effort, they nevertheless fall short for want of a plan, a map, a picture of why and how to get from here to there.

Pro forma financial statements provide a look at the potential results of financial decisions. They can also be used as a tool to plan for certain results. When projected in the form of a budget, a projection of the financial requirements and consequences of a plan, tables become not only an estimated result, but also an actual strategy or plan, a map illustrating a path to achieve a goal. Later, when you compare actual results to the original plan, you can see how shortfalls or successes can point to future strategies.

Budgets are usually created with a specific goal in mind: to cut living expenses, to increase savings, or to save for a specific purpose such as education or retirement. While the need to do such things may be brought into sharper focus by the financial statements, the budget provides an actual plan for doing so. It is more a document of action than of reflection.

As such, a budget is meant to be dynamic, a reconciliation of “facts on the ground” and “castles in the air.” While financial statements are summaries of historic reality—that is, of all that has already happened and is “sunk”—budgets reflect the current realities that define one’s next choices. A budget should never be merely followed, *but should constantly be revised to reflect new information.*

Elder Rose Bird’s mother taught her how to budget in order to reconcile “facts on the ground” and “castles in the air.” When she was living on her own in Prince Albert, Saskatchewan, her mother came over from North Battleford, Saskatchewan, to visit her. Her mother asked for her money, so Elder Bird put it on the table. She then grabbed envelopes and asked her daughter how much her rent, utilities, food, and smokes cost her on a monthly basis. She marked a number of envelopes, divided up Elder Bird’s money, and put aside an envelope with the appropriate amount inside for each expense. Elder Bird’s mother said, “Whatever money you have left, then you can go to bingo” (personal communication, June 10, 2017). After dealing with the “facts on the ground,” namely her monthly expenses, she put aside a bit for the “castles in the air,” her wishes, dreams, and goals (Elder Bird, Video 2).

According to the *Building Native Communities* financial literacy curriculum, written by the First Nations Development Institute (FNDI) and First Nations Oweesta Corporation (FNOC), budgeting and savings have always been critical skills exemplified by First Nations people:

For years, our people have understood and practiced the present-day concepts of budgeting and savings. We managed our resources through conservation so that they lasted throughout the year by saving additional supplies for future use.

Consider the planning done by the Canadian Bands, Nit Nat and Sooke, when they prepared for one of their women to marry. They saved for one year to provide a feast and gifts for all guests at the ceremony. Traditionally, gifts included blankets, canoes, dried fish, and many kinds of animal skins. . . . The wedding ceremony required a lot of preparation and planning. Our people also saved for the purpose of acquiring goods that we could not produce ourselves. By producing more than the community needed, we had goods to trade. For instance, the Northwest Coastal Indians traded a wide variety of products, including smoked or dried fish and venison, as well as tools made from elk, deer, fish, or other indigenous animals. . . . Our people have successfully practiced resource management skills for generations. Now we call upon their example to strengthen our own abilities. (FNDI and Oweesta, 2016, p. 1)

Elder Florence Allen and Elder Margaret Reynolds also spoke of the budgeting and savings skills demonstrated by their families (Elder Reynolds, Video 1).

As stated by FNDI and FNOC, budgeting and savings are and have always been core skills that allow individuals and families to contribute to the economy and the community. They allow individuals and families to make informed financial decisions that ensure that they are in control of their money and not controlled by it.

As Elder Florence Allen stated, “money has a purpose and you’re always the boss of it and it’s never the boss of you because if it becomes the boss of you, you become obsessed about it and you hoard it and you are not as kind” (personal communication, June 10, 2017). Budgeting and savings help you to be the boss of your money; these skills help you to know what is coming, what is going out, and what is available for rainy days. When talking about her parents, Elder Florence Allen said, “they only went as far as the money went. . . . We never suffered because of that. . . . Life is good when you know you can work with that money and not allow that money to take over your life” (Elder Allen, Video 1).

## 5.1 THE BUDGET PROCESS

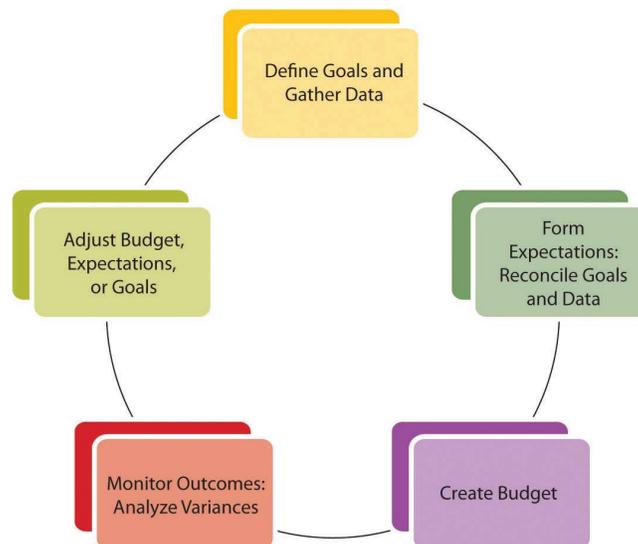
### *Learning Objectives*

1. Trace the budget process.
2. Discuss the relationships of goals and behaviours.
3. Demonstrate the importance of conservatism in the budget process.
4. Show the importance of timing in the budget process.

The budget process is an infinite loop similar to the larger financial planning process. It involves:

- defining goals and gathering data;
- forming expectations and reconciling goals and data;
- creating the budget;
- monitoring actual outcomes and analyzing variances;
- adjusting budget, expectations, or goals; and
- redefining goals.

**Chart 5.1.1 The Budget Process**



A review of your financial statements or your current financial condition—as well as your own ideas about how you are and could be living—should indicate immediate and longer-term goals. It may also point out new choices. For example, an immediate goal may be to lower your housing expense. In the short-term, you could look for an apartment with lower rent, but in the long run, it may be more

advantageous to own a home. This long-term goal may indicate a need to start a savings plan for a down payment.

The process of creating a budget can be instructive. Creating a budget involves projecting realistic behaviour. Your assumptions may come from your actual past behaviour based on accurate records that you have gathered. If you have been using personal finance software, it has been keeping those records for you; if not, a thorough review of your chequebook and investment statements will reveal that information. Financial statements are useful summaries of the information you need to create a budget.

According to the *Building Native Communities* (BNC) curriculum, “Every year our ancestors estimated their needs based on what they used in previous years . . . our ancestors compared the available harvest to their current needs . . . and planned what portion of the harvest to set aside for their future needs” (FNDI and FNOC, 2015, p. 15).

After formulating realistic expectations based on past behaviour and current circumstances, you still must reconcile your future behaviour with your original expectations. For example, you may recognize that greater sacrifices need to be made, or that you must change your behaviour, or even that your goals are unattainable and should be more realistic—perhaps based on less desirable choices.

On the other hand, this can be a process of happy discovery: goals may be closer or require less sacrifice than you may have thought.

Whether it results in sobering dismay or ambitious joy, the budget process is one of reconciling your financial realities to your financial dreams. How you finance your life determines how you can live your life, so budgeting is really a process of mapping out a life strategy. You may find it difficult to separate the emotional and financial aspects of your goals, but the more successfully you can do so, the more successfully you will reach your goals.

A budget is a projection of how things should work out, but there is always some uncertainty. If the actual results are better than expected, if incomes are more or expenses less, expectations can be adjusted upward as a welcome accommodation to good fortune. On the other hand, if actual results are worse than expected, if incomes are less or expenses more, not only the next budget, but also current living choices may have to be adjusted to accommodate that situation. Those new choices are less than preferred or you would have chosen them in your original plan.

To avoid unwelcome adjustments, you should be **conservative** in your expectations so as to maximize the probability that your actual results will be better than expected. Thus, when estimating, you would always underestimate the income items and potential gains and overestimate the expense items and potential losses.

You will also need to determine a time period and frequency for your budget process: annually, monthly, or weekly. The timing will depend on how much financial activity you have and how much

discipline or guidance you want your budget to provide. You should assess your progress at least annually. In general, you want to keep a manageable amount of data for any one period, so the more financial activity you have, the shorter your budget period should be. Since your budget needs to be monitored consistently, you don't want to be flooded with so much data that monitoring becomes too daunting a task. On the other hand, you want to choose an ample period or time frame to show meaningful results. Choose a time period that makes sense for your quantity of data or level of financial activity.

### *Key Takeaways*

1. A budget is a process that mirrors the financial planning process.
2. The process of creating a budget can suggest goals, behaviours, and limitations.
3. For the budget to succeed, goals and behaviours must be reconciled.
4. Budgets should be prepared conservatively. Overestimate costs. Underestimate earnings.
5. The appropriate time period is one that is short enough to limit the amount of data, and long enough to capture meaningful data.

### *Exercises*

1. In your financial planning journal, begin your budgeting process by reviewing your short- and long-term goals. What will it take to achieve those goals? What limitations and opportunities do you have for meeting them? Then gather your financial data and choose a time period and frequency for checking your progress.
2. Read "Making a Budget" from the Financial Consumer Agency of Canada, then answer the following questions. Why is a budget so important in personal financial planning? What kinds of problems can you resolve by creating a personal budget? What kinds of goals can you attain through changes to your personal budget?

## REFERENCES

First Nations Oweesta Corporation and First Nations Development Institute. (2016). *Building Native Communities* (5th Ed). Retrieved from: [http://www.firstnations.org/system/files/BNC\\_Participant\\_5thEd\\_Small.pdf](http://www.firstnations.org/system/files/BNC_Participant_5thEd_Small.pdf).

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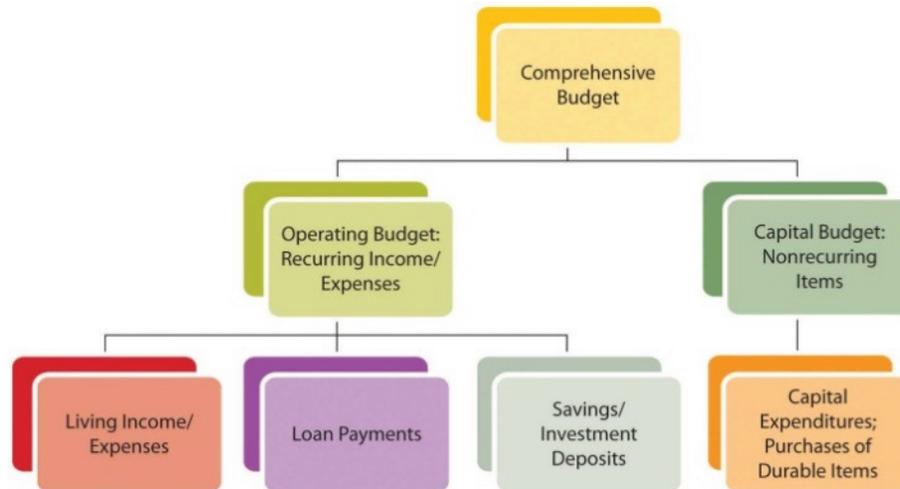
## 5.2 CREATING THE COMPREHENSIVE BUDGET

### *Learning Objectives*

1. Describe the components of the comprehensive budget and their purposes.
2. Describe the components of an operating budget.
3. Discuss the sources of recurring income and expenses.
4. Identify the factors in the operating budgeting process.
5. Identify the factors in the capital budgeting process.

Gathering data and creating a budget—with some goals already in mind—are the initial steps in the process. Understanding the format or shape of the budget will help guide you to the kind of information you need. A **comprehensive budget**—that is, a budget covering all aspects of financial life—will include a projection of recurring incomes and expenses and of nonrecurring expenditures. (Nonrecurring income or “windfalls” should not be counted on, but rather “budgeted for” conservatively.) Recurring incomes would be earnings from wages, interest, or dividends. Recurring expenditures may include living expenses, loan repayments, and regular savings or investment deposits. Nonrecurring expenditures may be for capital improvements such as a new roof for your house or for purchases of durable items such as a refrigerator or a car. These are purchases that would not be made each period. A comprehensive budget diagram is shown in Chart 5.2.1.

### **Chart 5.2.1 Comprehensive Budget Diagram**



Another distinction in recognizing recurring and nonrecurring items is the time frame for each. Recurring items need to be taken care of repeatedly and are therefore considered in the short term, while the items on the capital budget may allow for long-term planning because they happen less frequently. The different time horizons for planning for recurring and nonrecurring items may allow for different strategies to reach those different goals.

A comprehensive budget is a compilation of an **operating budget** for short-term goals involving recurring items, and a **capital budget** for long-term goals involving nonrecurring items.

## Operating Budget: Recurring Incomes and Expenditures

### *Using Financial History*

Recurring incomes and expenditures are usually the easiest to determine and project, as they happen consistently and have an immediate effect on your everyday living. An income statement shows incomes and expenses; cash flow statements show actual cash expenditures. Recurring incomes and expenditures are planned in the context of short-term lifestyle goals or preferences.

Look at a time period large enough to capture relevant data. Some incomes and expenditures recur reliably but only periodically or seasonally. For example, you may pay the premium on your auto insurance policy twice per year. It is a recurring expense, but it happens in only two months of the year, so you would have to look at expenditures over enough months to see it. Or your heating or cooling expenses may change seasonally, affecting your utility expenses in some months more than in others.

The time period you choose for a budget should be long enough to show intermittent items as

recurring and nonrecurring items as unusual, yet short enough to follow and to manage choices within the period. For personal budgets, a month is the most common budget period to use, since most living expenses are paid at least monthly. However, it is best to use at least one full year's worth of data to get a reasonable monthly average and to see seasonal and periodic items as they occur.

Some items may recur, but not reliably: either their frequency or their amount is uncertain. Taking a conservative approach, you should include the maximum possible amount of uncertain expenses in your budget. If income occurs regularly but the amount is uncertain, conservatively include the minimum amount. If income actually happens irregularly, it may be better just to leave it out of your budget—and your plans—since you can't "count" on it.

Recall Jeff from Chapter 2. He works on contract as a graphics designer, tutors on the side, does house painting in the summer, and buys and sells sports memorabilia on the Internet. In 2016, he bought an older house with a \$200,000 fixed-rate mortgage at 3.02 per cent. He does not have health or dental benefits through his work, so he purchases health and dental insurance every year to cover the cost of prescription medication, physiotherapy, and other unexpected health costs. Every year, he deposits \$1,000 into his RRSP and uses some capital for home improvements. He used a car loan to buy his car. Whatever cash is left over after he has paid his bills is saved in a high interest savings account and invested in his tax-free savings account. At the end of 2018, he is trying to draw up a budget for 2019. Since he bought the house, he has been keeping pretty good financial records as shown in Table 5.2.1.

Remember that on a cash flow statement, described in Chapter 3, negative and positive numbers indicate direction of flow. A negative number is cash flowing out, and a positive number is cash flowing in. Conventionally, negative numbers appear in parentheses. The following two tables (5.2.1 and 5.2.2) are not cash flow tables, but the cash flow format has been used in order to clearly indicate the direction of flow.

**Table 5.2.1 Jeff's Financial Data, 2015–2018**

	<b>2015 Actual</b>	<b>2016 Actual</b>	<b>2017 Actual</b>	<b>2018 Actual</b>
<b>Incomes</b>				
Contract Earnings	32,000	33,500	35,000	36,500
Tutoring	3,000	4,000	2,500	2,000
Memorabilia Sales	2,500	950	2,650	5,300
House Painting	10,000	11,000	4,500	10,250
Interest Income	180	192	173	146
<i>Total Income</i>	47,680	49,642	44,823	54,196
Payroll/Income Taxes	(8,000)	(8,375)	(8,750)	(9,125)
<b>Disposable Income</b>	<b>39,680</b>	<b>41,267</b>	<b>36,073</b>	<b>45,071</b>
<b>Living Expenses</b>				
Groceries	(3,120)	(3,120)	(3,120)	(3,120)
Car (Fuel)	(1,688)	(1,875)	(2,813)	(1,523)
Car (Service, etc.)	(350)	(350)	(350)	(350)
Car (Insurance)	(800)	(800)	(800)	(800)
Electricity	(780)	(780)	(780)	(780)
Phone/Cable/Internet	(1,500)	(1,188)	(1,188)	(1,068)
Heat	(1,240)	(1,200)	(1,990)	(1,125)
Health and Dental Insurance	(840)	(840)	(840)	(840)
Medical	0	0	(600)	(200)
Travel/Entertainment	(3,000)	(3,000)	(3,000)	(3,000)
Car Loan Payment	(3,600)	(5,400)	(5,400)	(5,400)
Mortgage Interest	(11,433)	(11,281)	(11,120)	(10,950)
Property Tax	(3,450)	(3,450)	(3,450)	(4,350)
<i>Total Living Expenses</i>	(31,801)	(33,284)	(35,451)	(33,506)
<b>Income after Living Expenses</b>	<b>7,879</b>	<b>7,983</b>	<b>622</b>	<b>11,565</b>
Interest Expense	0	0	0	0

<b>Capital Expenditures/Investment</b>				
Mortgage Principal	(2,573)	(2,725)	(2,886)	(3,056)
Free Cash Flow	5,306	5,258	(2,264)	8,509
RRSP Deposit	(1,000)	(1,000)	(1,000)	(1,000)
Home Improvement	(4,200)	(5,327)	0	(4,146)
High Interest Savings Account deposit/(withdrawal)	106	(1,069)	(3,264)	3,363
Line of Credit draw on/(pay off)	0	0	0	0
Net Cash Flow	0	0	0	0
Line of Credit Balance	0	0	0	0
Tax-Free Savings Account Balance	6,400	5,778	4,878	7,336

Jeff has five sources of income—some more constant, some more reliable, and some more seasonal. His graphics design job provides a steady, year-round income. House painting is a seasonal, although fairly reliable, source of income; in 2017, it was less because Jeff fell from a ladder and was unable to paint for two months. He had to spend money on crutches and the rental of a leg scooter. Tutoring is a seasonal source of income, which decreased in 2017. Memorabilia trading is a year-round, but unpredictable source of income. In 2019, he made some very lucrative trades, but in 2016 he made almost none. Interest income depends on the balance in the high interest savings account. He would include his graphics design, painting, and interest incomes in his budget, but should be conservative about including his tutoring or trading incomes.

Jeff's expenses are reliable and easily predictable, with a few exceptions. His accident in 2017 increased his medical expenses for that year. The cost of gas for his car and heating expense vary with the weather and the highly volatile price of oil; in 2017, those expenses were unusually high. Jeff's property tax increased in 2018, but is unlikely to do so again for several years.

### *Using New Information and “Micro” Factors*

Along with your known financial history, you would want to include any new information that may change your expectations. As with any forecast, the more information you can include in your projections, the more accurate it is likely to be.

Jeff knows that his tutoring income will likely increase due to a decrease of available tutors where he lives. He just received some new graphics design contracts so he will receive a modest increase in his earnings and has just traded in his car and gotten a new loan for a “new” used car.

The personal or micro characteristics of your situation influence your expectations, especially if they are expected to change. Personal factors such as family structure, health, career choice, and age have significant influence on financial choices and goals. If any of those factors is expected to change, your financial situation should be expected to change as well, and that expectation should be included in your budget projections.

For example, if you are expecting to increase or decrease the size of your family or household, that would affect your consumption of goods and services. If you anticipate a change of job or career, that will affect your income from wages. A change in health may result in working more or less and thus changing your income from wages. There are many ways that personal circumstances can change, and they can alter your financial expectations, choices, and goals. All these projected changes need to be included in the budget process.

### *Using Economics and “Macro” Factors*

Macro factors affecting your budget come from the context of the wider economy, so understanding how incomes and expenses are created is useful in forming estimates. Incomes are created when labour or capital (liquidity or assets) is sold. The amount of income created depends on the quantity sold and on the price.

The price of labour depends on the relative supply and demand for labour reflected in unemployment rates. The price of liquidity depends on the relative supply and demand for capital reflected in interest rates. Unemployment rates and interest rates in turn depend on the complex dynamics of the wider economy.

The economy tends to behave cyclically. If the economy is in a period of contraction or recession, demand for labour is lower, competition among workers is higher, and wages cannot be expected to rise. As unemployment rises, especially if you are working in an industry that is cyclically contracting along with the economy, wages may become unreliable or increasingly risky if there is risk of losing your job. Interest rates are, as a rule, more volatile and thus more difficult to predict, but generally tend to fall during a period of contraction and rise in a period of expansion. A budget period is usually short so that economic factors will not vary widely enough to affect projections over that brief period. Still, those economic factors should inform your estimates of potential income.

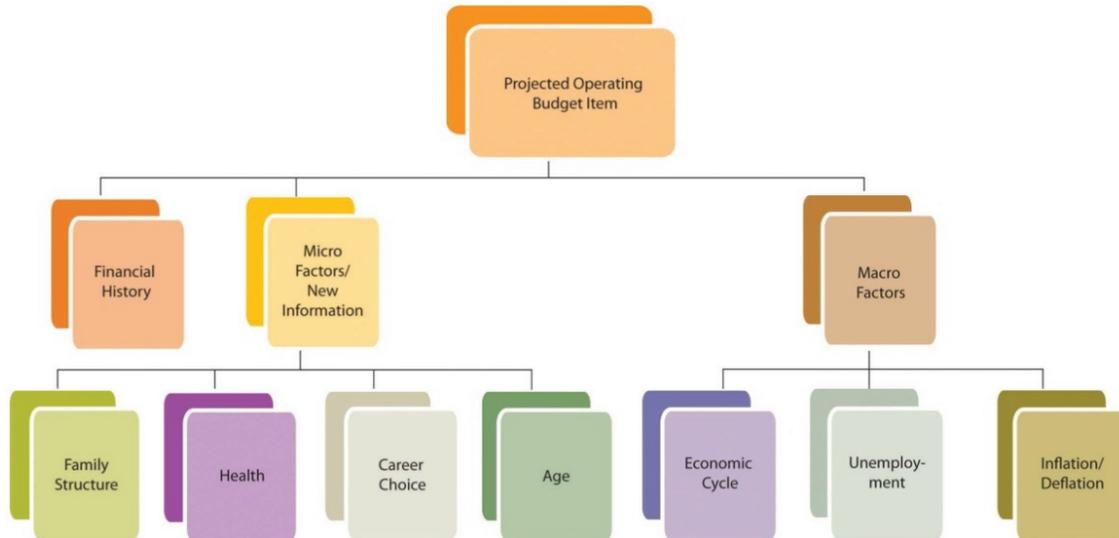
Expenses are created when a quantity of goods or services is consumed for a price. That price depends on the relative supply of, and demand for, those goods and services, and also on the larger context of price levels in the economy. If inflation or deflation is decreasing or increasing the value of our currency, then its purchasing power is changing and so is the real cost of expenses. Again, as a rule, the budget period should be short enough so that changes in purchasing power won't affect the budget too much; still, these changes should not be ignored. Price levels tend to change much

quicker than wage levels, so it is quite possible to have a rise in prices before a rise in wages, which decreases the real purchasing power of your paycheck.

If you have a **variable rate loan**—that is, a loan for which the interest rate may be adjusted periodically—you are susceptible to interest rate volatility. You should be aware of that particular macro factor when creating your budget.

Macroeconomic factors are difficult to predict, as they reflect complex scenarios, but news about current and expected economic conditions is easily available in the media every day. A good financial planner will also be keeping a sharp eye on economic indicators and forecasts. You can gain a pretty concrete idea of where the economy is in its cycles and how that affects you just by seeing how your paycheck meets your living expenses (e.g., filling up your car with gas or shopping for groceries). Chart 5.2.2 suggests how personal history, along with micro and macroeconomic factors, can be used to make projections about items in your budget.

**Chart 5.2.2 Factors for Determining a Projected Operating Budget Item**



Using his past history, current information, and understanding of current and expected macroeconomic factors, Jeff has put together the budget shown in Table 5.2.2.

**Table 5.2.2 Jeff's 2019 Budget**

	<b>2015 Actual</b>	<b>2016 Actual</b>	<b>2017 Actual</b>	<b>2018 Actual</b>	<b>2019 Budget</b>
<b>Incomes</b>					
Contract Earnings	32,000	33,500	35,000	36,500	41,000
Tutoring	3,000	4,000	2,500	2,000	4,000
Memorabilia Sales	2,500	950	2,650	5,300	1,500
House Painting	10,000	11,000	4,500	10,250	10,417
Interest Income	180	192	173	146	49
<i>Total Income</i>	47,680	49,642	44,823	54,196	56,966
Payroll/Income Taxes	(8,000)	(8,375)	(8,750)	(9,125)	(9,500)
<b>Disposable Income</b>	<b>39,680</b>	<b>41,267</b>	<b>36,073</b>	<b>45,071</b>	<b>47,466</b>
<b>Living Expenses</b>					
Groceries	(3,120)	(3,120)	(3,120)	(3,120)	(3,120)
Car (Fuel)	(1,688)	(1,875)	(2,813)	(1,523)	(1,523)
Car (Service, etc.)	(350)	(350)	(350)	(350)	(350)
Car (Insurance)	(800)	(800)	(800)	(800)	(800)
Electricity	(780)	(780)	(780)	(780)	(780)
Phone/Cable/ Internet	(1,500)	(1,188)	(1,188)	(1,068)	(1,068)
Heat	(1,240)	(1,200)	(1,990)	(1,125)	(1,200)
Health and Dental Insurance	(840)	(840)	(840)	(840)	(840)
Medical	0	0	(600)	(200)	(240)
Travel/ Entertainment	(3,000)	(3,000)	(3,000)	(3,000)	(3,000)
Car Loan Payment	(3,600)	(5,400)	(5,400)	(5,400)	(5,988)
Mortgage Interest	(11,433)	(11,281)	(11,120)	(10,950)	(10,764)
Property Tax	(3,450)	(3,450)	(3,450)	(4,350)	(4,350)
<i>Total Living Expenses</i>	<i>(31,801)</i>	<i>(33,284)</i>	<i>(35,451)</i>	<i>(33,506)</i>	<i>(34,023)</i>

<b>Income after Living Expenses</b>	<b>7,879</b>	<b>7,983</b>	<b>622</b>	<b>11,565</b>	<b>13,443</b>
Interest Expense	0	0	0	0	(521)
<b>Capital Expenditures/Investment</b>					
Mortgage Principal	(2,573)	(2,725)	(2,886)	(3,056)	(3,236)
Free Cash Flow	5,306	5,258	(2,264)	8,509	9,686
RRSP Deposit	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)
Home Improvement	(4,200)	(5,327)	0	(4,146)	(15,000)
High Interest Saving Account deposit/(withdrawal)	106	(1,069)	(3,264)	3,363	(3,157)
Line of Credit draw on/(pay off)	0	0	0	0	3,157
Net Cash Flow	0	0	0	0	0
Line of Credit Balance	0	0	0	0	3,157
Tax-Free Savings Account Balance	6,400	5,778	4,878	7,336	7,500

To project incomes, Jeff relied on his newest information to estimate his wages and tutoring income. He used the minimum income from the past four years for memorabilia sales, which is conservative and reasonable given its volatility. His painting income is less volatile, so his estimate is an average, excluding the unusual year of his accident.

Jeff expects his expenses for 2019 to be what they were in 2018, since his costs and consumption are not expected to change. However, he has adjusted his dental expenses and his car lease payments on the basis of new knowledge.

The price of gas and heating oil has been extraordinarily volatile during this period (2015–2018), affecting Jeff's gas and heating expenses, so he bases his estimates on what he knows about his expected consumption and the price. He knows he drives an average of about 16,704 kilometres per year and that his car, a fairly modern, fuel efficient vehicle, gets slightly under 8 litres per 100 kilometres which is equivalent to around 35 miles per gallon. He estimates his gas expense for 2019 by guessing that since oil prices are similar to what they were in 2018, gas will cost, on average, what it did then, which was about \$1.14 per litre. He will buy, on average, 1,336 litres per year (16,704 kilometres/100 km x 8 litres), so his total expense will be \$1,523. Jeff also knows that he uses 1,895 litres of heating oil each year. Estimating heating oil prices at the previous year's levels, his cost will be about the same as it was then, or \$1,200.

Jeff knows that the more knowledge and information he can bring to bear on his budget, the more accurate and useful his estimates are likely to be.

## Capital Budget: Capital Expenditures and Investments

Income remaining after the deduction of living expenses and debt obligations, or **free cash flow**, is cash available for capital expenditures or investment. Capital expenditures are usually part of a long-term plan of building an asset base. Investment may also be part of a longer-term plan to build an asset base or to achieve a specific goal, such as financing education or retirement. **Net cash flow** is the gain or loss of funds over a period after all operation expenses, debts, and investment activities are paid for.

Long-term strategies are based on expected changes to the micro factors that shape goals. For example, you want to save for retirement because you anticipate aging and not being as willing or able to sell labour. Expanding or shrinking the family structure may create new savings goals or a change in housing needs that will indicate a change in asset base (e.g., buying or selling a house).

Some changes will eliminate a specific goal. A child finishing university, for example, ends the need for education savings. Some changes will emphasize the necessity of a goal, such as a decline in health underscoring the need to save for retirement. As personal factors change, you should reassess your longer-term goals and the capital expenditure toward those goals because long-term goals, and thus capital expenditures, may change with them.

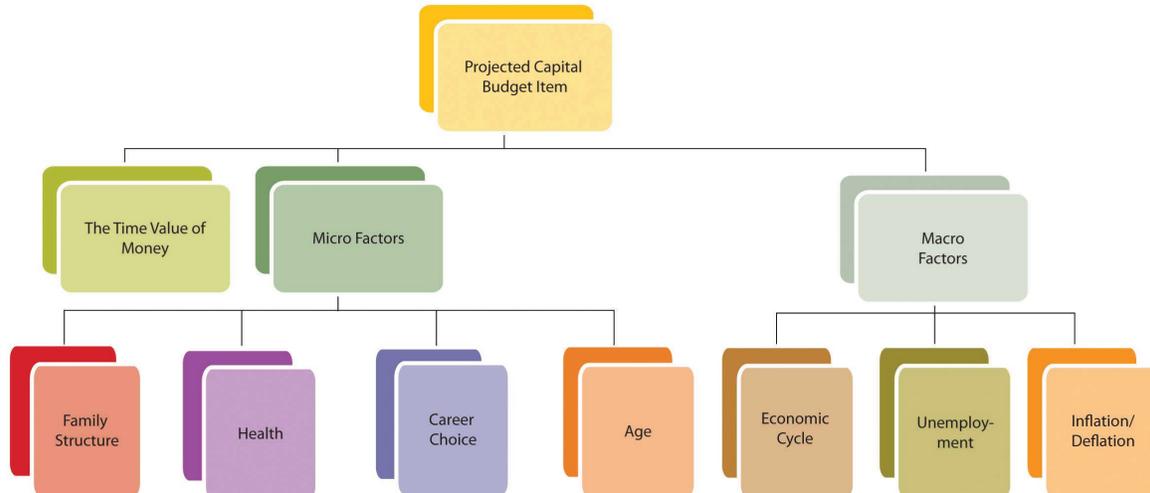
While many personal factors are relatively predictable over the long term (e.g., you will get older, not younger), the macroeconomic factors that will occur simultaneously are much harder to predict. Will the economy be expanding or contracting when you retire? Will there be inflation or deflation? The further (in time) you are from your goals, the harder it is to predict those factors and the less relevant they are to your budgeting concerns. As you get closer to your goals, macro factors become more influential in the assessment of your goals and your progress toward them.

Since long-term strategies happen over time, you should use the relationships between time and value to calculate capital expenditures and progress toward long-term goals. Long-term goals are often best reached by a progression of steady and even steps. For example, a savings goal is often reached by a series of regular and steady deposits; and those regular deposits form an annuity. Knowing how much time there is and how much compounding there can be to turn your account balance (the present value of this annuity) into your savings goal (its future value), you can calculate the amount of the deposits into the account. This can then be compared to your projected free cash flow to see if such a deposit is possible. You can also see if your goal is too modest or too ambitious, and should be adjusted in terms of the time to reach a goal or the rate at which you do.

A **capital expenditure** may be a one-time investment, like a new roof. It may also be a step toward a

long-term goal, like an annual savings deposit. That goal should be assessed with each budget, and that “step” or capital expenditure should be reviewed. Chart 5.2.3 shows the relationship of factors used to determine the capital budget.

**Chart 5.2.3 Factors for Determining the Projected Capital Budget Item**



Jeff’s 2019 budget (shown in Table 5.2.2) projects a drop in income and disposable income, and a rise in living expenses, which will leave him with less free cash flow for capital expenditures or investments. He knows that his house needs a new roof (estimated cost = \$15,000) and was hoping to have that done in 2019. However, that capital expenditure would create negative net cash flow, even if he also uses the savings from his high interest savings account. Jeff’s budget shows that both his short-term lifestyle preferences (projected income and expenses) and progress toward his longer-term goals (property improvement and savings) cannot be achieved without some changes and choices. What should those changes and choices be?

### *Key Takeaways*

1. A comprehensive budget consists of an operating budget and a capital budget.
2. The operating budget accounts for recurring incomes and expenses.
3. Recurring incomes result from selling labour and/or liquidity.
4. Recurring expenses result from consumption of goods and/or services.
5. Recurring incomes and expenses satisfy short-term lifestyle goals and create free cash flow for capital expenditures.
6. The capital budget accounts for capital expenditures or nonrecurring items.
7. Capital expenditures are usually part of a longer-term plan or goal.

8. Projecting recurring incomes and expenses involves using: financial history, new information and microeconomic factors, and macroeconomic factors.
9. Different methods may be used to project different incomes and expenses depending on the probability, volatility, and predictability of quantity and price.
10. Projecting capital expenditures involves using the following: new information and microeconomic factors; macroeconomic factors, although these are harder to predict for a longer period, and therefore are less relevant; and the relationships described by the time value of money.

### *Exercises*

1. Using Jeff's budget sheet as a guide, adapt the budget categories and amounts to reflect your personal financial realities and projections. Develop an operating budget and a capital budget, distinguishing recurring incomes and expenses from nonrecurring capital expenditures. On what basis will you make projections about your future incomes and expenses?
2. How does your budget sheet relate to your income statement, your cash flow statement, and your balance sheet? How will you use this past history to develop a budget to reach your short- and long-term goals?

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## 5.3 THE CASH BUDGET AND OTHER SPECIALIZED BUDGETS

### *Learning Objectives*

1. Discuss the use of a cash budget as a cash management tool.
2. Explain the cash budget's value in clarifying risks and opportunities.

3. Explain the purpose of a specialized budget, including a tax budget.
4. Demonstrate the importance of including specialized budgets in the comprehensive budget.

## The Cash Budget

When cash flows are not periodic—that is, when they are affected by seasonality or a different frequency than the budgetary period—a closer look at cash flow management can be helpful. Although cash flows may be adequate to support expenses for the whole year, there may be timing differences. Cash flows from income may be less frequent than cash flows for expenses, for example, or may be seasonal while expenses are more regular. Most expenses must be paid on a monthly basis, and if some income cash flows occur less frequently or only seasonally, there is a risk of running out of cash in a specific month. When it comes to cash flows, timing is everything.

A good management tool is the cash budget, which is a rearrangement of budget items to show each month in detail. Irregular cash flows can be placed in the specific months when they will occur, allowing you to see the effects of cash flow timing more clearly. Jeff's cash budget for 2019 is outlined in Table 5.3.1.

**Table 5.3.1 Jeff's Cash Budget**

	2019 January	2019 February	2019 March	2019 April	2019 May	2019 June	2019 July	2019 August	2019 September	2019 October	2019 November
<b>Incomes</b>											
Contract Earnings	3,417	3,417	3,417	3,417	3,417	3,417	3,417	3,417	3,417	3,417	3,417
Tutoring	333	333	333	333	555	555	0	0	333	333	333
Memorabilia Sales	79	79	79	79	79	79	79	79	79	79	79
House Painting	0	0	0	0	0	3,472	3,472	3,472	0	0	0
Interest Income	15	25	36	45	57	0	0	0	0	0	0
<i>Total Income</i>	3,844	3,854	3,865	3,874	4,108	7,523	6,968	6,968	3,829	3,829	3,829
Payroll/ Income Taxes	(792)	(792)	(792)	(792)	(792)	(792)	(792)	(792)	(792)	(792)	(792)
<b>Disposable Income</b>	<b>3,052</b>	<b>3,062</b>	<b>3,073</b>	<b>3,082</b>	<b>3,316</b>	<b>6,731</b>	<b>6,176</b>	<b>6,176</b>	<b>3,037</b>	<b>3,037</b>	<b>3,037</b>
<b>Living Expenses</b>											
Groceries	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)	(260)
Car (Fuel)	(127)	(127)	(127)	(127)	(127)	(127)	(127)	(127)	(127)	(127)	(127)
Car (Service, etc.)	(29)	(29)	(29)	(29)	(29)	(29)	(29)	(29)	(29)	(29)	(29)
	<b>2019 January</b>	<b>2019 February</b>	<b>2019 March</b>	<b>2019 April</b>	<b>2019 May</b>	<b>2019 June</b>	<b>2019 July</b>	<b>2019 August</b>	<b>2019 September</b>	<b>2019 October</b>	<b>2019 November</b>
Car (Insurance)	0	(400)	0	0	0	0	0	(400)	0	0	0
Electricity	(65)	(65)	(65)	(65)	(65)	(65)	(65)	(65)	(65)	(65)	(65)
Phone / Cable / Internet	(89)	(89)	(89)	(89)	(89)	(89)	(89)	(89)	(89)	(89)	(89)
Heat	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)

Health and Dental Insurance	(70)	(70)	(70)	(70)	(70)	(70)	(70)	(70)	(70)	(70)	(70)
Medical	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
Travel/ Entertainment	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)	(250)
Car Loan Payment	(499)	(499)	(499)	(499)	(499)	(499)	(499)	(499)	(499)	(499)	(499)
Mortgage Interest	(897)	(897)	(897)	(897)	(897)	(897)	(897)	(897)	(897)	(897)	(897)
Property Tax	0	0	0	0	0	0	0	0	0	(4,350)	0
Total Living Expenses	(2,406)	(2,806)	(2,406)	(2,406)	(2,406)	(2,406)	(2,406)	(2,806)	(2,406)	(6,756)	(2,406)
	<b>2019 January</b>	<b>2019 February</b>	<b>2019 March</b>	<b>2019 April</b>	<b>2019 May</b>	<b>2019 June</b>	<b>2019 July</b>	<b>2019 August</b>	<b>2019 September</b>	<b>2019 October</b>	<b>2019 November</b>
<b>Income after Living Expenses</b>	<b>646</b>	<b>256</b>	<b>667</b>	<b>676</b>	<b>910</b>	<b>4,325</b>	<b>3,770</b>	<b>3,370</b>	<b>631</b>	<b>(3,719)</b>	<b>631</b>
Interest Expense	0	0	0	0	0	(526)	(364)	(214)	(79)	(88)	(93)
<b>Capital Expenditures/Investment</b>											
Mortgage Principal	(270)	(270)	(270)	(270)	(270)	(270)	(270)	(270)	(270)	(270)	(270)
Free Cash Flow	376	(14)	397	406	640	3,529	3,163	2,886	282	(4,077)	268
RRSP Deposit	0	0	(1000)	0	0	0	0	0	0	0	0
Home Improvement	0	0	0	0	(15,000)	0	0	0	0	0	0

High Interest Savings Account deposit/(withdrawal)	376	(14)	(603)	406	(6,210)	3,529	3,163	2,886	282	(4,077)	268
Line of Credit draw on/(pay off)	0	0	0	0	10,525	(3,250)	(3,000)	(2,700)	180	100	415
Net Cash Flow	0	0	0	0	2,375	279	163	186	462	100	683
	<b>2019 January</b>	<b>2019 February</b>	<b>2019 March</b>	<b>2019 April</b>	<b>2019 May</b>	<b>2019 June</b>	<b>2019 July</b>	<b>2019 August</b>	<b>2019 September</b>	<b>2019 October</b>	<b>2019 November</b>
Line of Credit Balance	0	0	0	0	10,525	7,275	4,275	1,575	1,755	1,855	2,270
Tax-Free Savings Account Balance	7,336	7,336	7,336	7,336	7,200	7,100	7,150	7,200	7,300	7,350	7,400

Jeff's original annual budget (Table 5.2.2 "Jeff's 2019 Budget") shows that although his income is enough to cover his living expenses, it does not produce enough cash to support his capital expenditures—specifically, to fix the roof. If he must make the capital expenditure this year, he can finance it with a **line of credit**: a loan where money can be borrowed as needed, up to a limit, and paid down as desired, and interest is paid only on the outstanding balance.

The cash budget (Table 5.3.1) shows a more detailed and slightly different story. Because of Jeff's seasonal incomes, if he has the roof fixed in May, he will need to borrow \$10,525 in May (before he has income from painting). Then he can pay that balance down until September, when he will need to extend it again. By the end of the year, his outstanding debt will be a bit more than originally shown, but his total interest expense will be a bit less as the loan balance (and therefore the interest expense) will be less in some of the months that he has the loan.

The cash (monthly) budget shows a different story than the annual budget because of the seasonal nature of Jeff's incomes. Since he is planning the capital expenditures before he begins to earn income from painting, he actually has to borrow more—and assume more risk—than originally indicated.

The cash budget may show risks, but also remedies that otherwise may not be apparent. In Jeff's case, it is clear that the capital expenditure cannot be financed without some external source of capital, most likely a line of credit. He would have to pay interest on that loan, creating an additional expense. That expense would be in proportion to the amount borrowed and the time it is borrowed for. In his original plan, the capital expenditure occurred in May, and Jeff would have had to borrow about

\$10,525, paying interest for the next seven months. Delaying the capital expenditure until October, however, would cost him less, because he would have to borrow less and would be paying interest in fewer months.

Delaying the capital expenditure until October would also allow the high interest savings account to build value—Jeff's seasonal income would be deposited during the summer—which would finance more of the capital expenditure. He could borrow less and his interest expense would be lower because he has borrowed less and because he can wait until October to borrow, thus paying interest for only three months of the year.

Timing matters for cash flows because you need to get cash before you spend it, but also because time affects value, so it is always better to have liquidity sooner and hang onto it longer. A cash budget provides a much more detailed look at these timing issues, and the risks—and opportunities—of cash management that you may otherwise have missed.

## Other Specialized Budgets

A cash flow budget is a budget that projects a specific aspect of your finances—in this case, the cash flows. Other kinds of **specialized budgets** focus on one particular financial aspect or goal. A specialized budget is ultimately included in the comprehensive budget, as it is a part of total financial activity. It usually reflects one particular activity in more detail, such as the effect of owning and maintaining a particular asset or of pursuing a particular activity. You create a budget for that asset or that activity by segregating its incomes and expenses from your comprehensive budget. It is possible to create such a focused budget only if you can identify and separate its financial activity from the rest of your financial life. If so, you may want to track an activity separately that is directly related to a specific goal.

For example, suppose you decide to take up weekend backpacking as a recreational activity. You are going to try it for two years, and then decide if you want to continue. Aside from assessing the enjoyment that it gives you, you want to be able to assess its impact on your finances. Typically, weekend backpacking requires specialized equipment and clothing, travel to a hiking trail or campground, and perhaps lodging and meals: capital investment (in the equipment) and then recurring expenses. You may want to create a separate budget for your backpacking investment and expenses in order to assess the value of this new recreational activity.

One common type of specialized budget is a **tax budget**, including activities—incomes, expenses, gains, and losses—that have direct tax consequences. A tax budget can be useful in planning for or anticipating an event that will have significant tax consequences—for example, income from self-employment; the sale of a long-term asset such as a stock portfolio, business, or real estate.

While it can be valuable to isolate and identify the effects of a specific activity or the progress toward

a specific goal, that activity or that goal is ultimately just a part of your larger financial picture. Specialized budgets need to remain a part of your comprehensive financial planning.

### *Key Takeaways*

1. The cash flow budget is an alternative format used as a cash management tool that provides:
  - more detailed information about the timing and amounts of cash flows, and
  - a clearer view of risks and opportunities.
2. Specialized budgets focus on a specific asset or activity.
3. A tax budget is commonly used to track taxable activities.
4. Eventually, specialized budgets need to be included in the comprehensive budget to have a complete perspective.

### *Exercises*

1. When is a cash flow budget a useful alternative to a comprehensive budget?
2. Create a specialized budget and a tax budget from your comprehensive budget.

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## 5.4 BUDGET VARIANCES

### *Learning Objectives*

1. Define and discuss the uses of budget variances.

2. Identify the importance of budget-monitoring activities.
3. Analyze budget variances to understand their causes, including possible changes in micro or macro factors.
4. Analyze budget variances to see potential remedies and to gauge their feasibility.

A **budget variance** occurs when the actual results of your financial activity differ from your budgeted projections. Since your expectations were based on knowledge from your financial history, micro- and macroeconomic factors, and new information, if there is a variance, it is because your estimate was inaccurate or because one or more of those factors changed unexpectedly. If your estimate was inaccurate—perhaps you had overlooked or ignored a factor—knowing that can help you improve. If one or more of those factors has changed unexpectedly, then identifying the cause of the variance creates new information with which to better assess your situation. At the very least, variances will alert you to the need for adjustments to your budget and to the appropriate choices.

Once you have created a budget, your financial life continues. As actual data replace projections, you must monitor the budget compared to your actual activities so that you will notice any serious variances or deviations from the expected outcomes detailed in the budget. Your analysis and understanding of variances constitute new information for adjusting your current behaviour, preparing the next budget, or perhaps realistically reassessing your behaviour or original goals.

The sooner you notice a budget variance, the sooner you can analyze it and, if necessary, adjust for it. And the sooner you correct the variance, the less it costs. For example, perhaps you have had a little trouble living within your means, so you have created a budget to help you do so. You have worked out a plan so that total expenses are just as much as total income. In your original budget, you expected to have a certain expense for putting gas in your car, which you determined by knowing the mileage that you drive and the current price of gas. You are following your budget and going along just fine. Suddenly, the price of gas goes way up. So does your monthly expense. That means you'll have to:

- spend less for other expenses in order to keep your total expenses within your budget,
- lower your gas expense by driving less, and/or
- increase your income to accommodate this larger expense.

In the short term, monitoring your gas expense alerts you to the fact that you need to change your financial behaviour by driving less, spending less on other things, or earning more. In the long run, if you find this increased expense intolerable, you will make other choices to avoid it. For example, perhaps you would buy a more fuel-efficient car, or change your lifestyle to necessitate less driving. The number and feasibility of your choices will depend on the elasticity of your demand for that particular budget item. But if you hadn't been paying attention—that is, if you had not been monitoring your budget against the real outcomes that were happening as they were happening—you would not

have been aware that any change was needed, and you would have found yourself with a surprising budget deficit.

It bears repeating that once you have discovered a significant budget variance, you need to analyze what caused it so that you can address it properly.

Income results from the sale of labour (wages) or liquidity (interest or dividends). If income deviates from its projection, it is because:

- a different quantity of labour or liquidity was sold at the expected price (e.g., you had fewer house-painting contracts than usual but kept your rates the same),
- the expected quantity of labour or liquidity was sold at a different price (e.g., you had the usual number of contracts but earned less from them), or
- a different quantity of labour or liquidity was sold at a different price (e.g., you had fewer contracts and charged less in order to be more competitive).

Expenses result from consuming goods or services at a price. If an expense deviates from its projected outcome, it is because:

- a different quantity was consumed at the expected price (e.g., you did not use as much gas),
- the expected quantity was consumed at a different price (e.g., you used as much gas but the price of gas fell), or
- a different quantity was consumed at a different price (e.g., you used less gas and bought it for less).

Isolating the cause of a variance is useful because different causes will dictate different remedies or opportunities. For example, if your gas expense has increased, is it because you are driving more miles or because the price of gas has gone up? You can't control the price of gas, but you can control the amount you drive. Isolating the cause allows you to identify realistic choices. In this case, if the variance is too costly, you will need to address it by somehow driving shorter distances.

If your income falls, is it because your hourly wage has fallen or because you are working fewer hours? If your wage has fallen, you need to try to increase it either by negotiating with your employer or by seeking a new job at a higher wage. Your success will depend on demand in the labour market and on your usefulness as a supplier of labour.

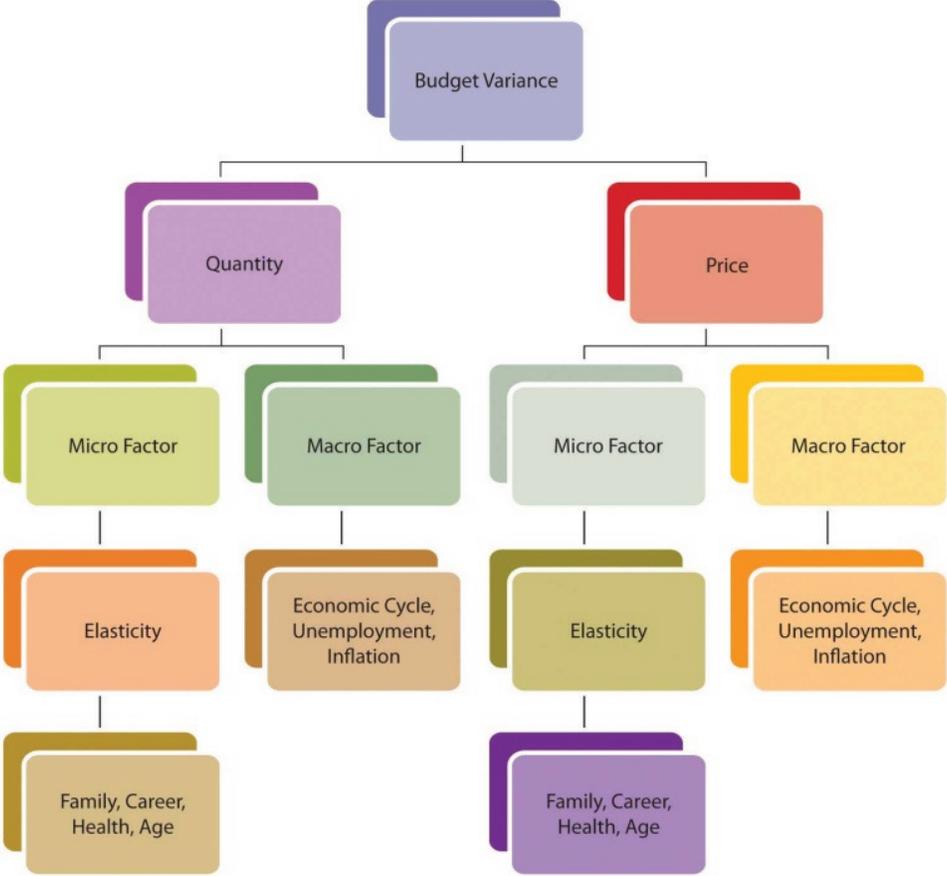
If you are working fewer hours, it may be because your employer is offering you less work or because you choose to work less. If the problem is with your employer, you may need to renegotiate your position or find a new one. However, if your employer is buying less labour because of decreased demand in the labour market, that may be due to an industry or economic cycle, which may affect your success in making that change.

If it is your choice of hours that has caused the variance, perhaps that is due to personal factors—you

are aging or your dependents require more care and attention—that need to be resolved to allow you to work more. Or perhaps you could simply choose to work more.

Identifying why you are straying from your budget is critical to identifying remedies and choices. Putting those causes in the context of the micro- and macroeconomic factors that affect your situation will make your feasible choices clearer. Chart 5.4.1 below shows how these factors can combine to cause a variance.

**Chart 5.4.1 The Causes of a Budget Variance**



After three months, Jeff decides to look at his budget variances to make sure he’s on track. His actual results for the January–March 2019 period are detailed in the following table.

**Table 5.4.1 Jeff's Actual Income and Expenditures, January–March 2019**

	2019 January Actual	2019 February Actual	2019 March Actual
<b>Incomes</b>			
Contract earnings	3,417	3,417	3,417
Tutoring	500	500	500
Memorabilia Sales	450	360	1,200
House Painting	0	0	0
Interest Income	15	25	30
<i>Total Income</i>	4,382	4,302	5,147
Payroll/Income Taxes	(792)	(792)	(792)
<b>Disposable Income</b>	<b>3,590</b>	<b>3,508</b>	<b>4,355</b>
<b>Living Expenses</b>			
Groceries	(260)	(260)	(260)
Car (Fuel)	(127)	(127)	(127)
Car (Service, etc.)	(29)	(29)	(29)
Car (Insurance)	0	(400)	0
Electricity	(65)	(65)	(65)
Phone/Cable/Internet	(89)	(89)	(89)
Heat	(200)	(200)	(200)
Health and Dental Insurance	(70)	(70)	(70)
Medical	(20)	(20)	(20)
Travel/Entertainment	0	0	0
Car (Loan Payment)	(499)	(499)	(499)
Mortgage Interest	(897)	(897)	(897)
Property Tax	0	0	0
<i>Total Living Expenses</i>	(2,256)	(2,656)	(2,256)
<b>Income after Living Expenses</b>	<b>1,334</b>	<b>852</b>	<b>2,099</b>

Interest Expense	0	0	0
<b>Capital Expenditures/Investment</b>			
Mortgage Principal	(270)	(270)	(270)
Free Cash Flow	1,064	582	1,829
RRSP Deposit	0	0	(1,000)
Home Improvement	0	0	0
High Interest Savings Account deposit/(withdrawal)	1,064	582	829
Line of Credit draw on/(pay off)	0	0	0
Net Cash Flow	0	0	0
Line of Credit Balance	0	0	0
Tax-Free Savings Account Balance	7,336	7,436	7,529

How will Jeff analyze the budget variances he finds? In his case, the income variances are positive. He has picked up a couple of tutoring clients who have committed to lessons through the end of the school year in June; this new information can be used to adjust income. His memorabilia business has done well; the volume of sales has not increased, but the memorabilia market seems to be up and prices are better than expected. The memorabilia business is cyclical: economic expansion and increases in disposable incomes enhance that market. Given the volatility of prices in that market, however, and the fact that there has been no increase in the volume of sales (Jeff is not doing more business, just more lucrative business), Jeff will not make any adjustments going forward. Interest rates have remained steady, so he will not adjust his expected interest income.

His expenses are as expected. The only variance is the result of Jeff's decision to cut his travel and entertainment budget for this year (i.e., giving up his vacation) to offset the costs of the roof. He is planning that capital expenditure for October, which will actually make it cheaper to do.

**Table 5.4.2 Jeff's Adjusted Cash Budget for 2019, January-June**

	2019 January Actual	2019 February Actual	2019 March Actual	2019 April	2019 May	2019 June
<b>Incomes</b>						
Contract earnings	3,417	3,417	3,417	3,417	3,417	3,417
Tutoring	500	500	500	500	500	500
Memorabilia Sales	450	360	1,200	700	650	500
House Painting	0	0	0	0	0	3,472
Interest Income	13	24	31	39	53	66
<i>Total Income</i>	4,380	4,301	5,148	4,656	4,620	7,955
Payroll/Income Taxes	(792)	(792)	(792)	(792)	(792)	(792)
<b>Disposable Income</b>	<b>3,588</b>	<b>3,509</b>	<b>4,356</b>	<b>3,864</b>	<b>3,828</b>	<b>7,163</b>
<b>Living Expenses</b>						
Groceries	(260)	(260)	(260)	(260)	(260)	(260)
Car (Fuel)	(127)	(127)	(127)	(127)	(127)	(127)
Car (Service, etc.)	(29)	(29)	(29)	(29)	(29)	(29)
Car (Insurance)	0	400	0	0	0	0
Electricity	(65)	(65)	(65)	(65)	(65)	(65)
Phone/Cable/Internet	(89)	(89)	(89)	(89)	(89)	(89)
Heat	(200)	(200)	(200)	0	0	0
Health and Dental Insurance	(70)	(70)	(70)	(70)	(70)	(70)
Medical	(20)	(20)	(20)	(20)	(20)	(20)
Travel/Entertainment	0	0	0	0	0	0
Car Loan Payment	(499)	(499)	(499)	(499)	(499)	(499)
Mortgage Interest	(897)	(897)	(897)	(897)	(897)	(897)
Property Tax	0	0	0	0	0	0
<i>Total Living Expenses</i>	(2,256)	(2,656)	(2,256)	(2,256)	(2,256)	(2,256)
<b>Income after Living Expenses</b>	<b>1,332</b>	<b>853</b>	<b>2,100</b>	<b>1,608</b>	<b>1,572</b>	<b>4,907</b>

Interest Expense	0	0	0	0	0	0
<b>Capital Expenditures/Investment</b>						
Mortgage Principal	(270)	(270)	(270)	(270)	(270)	(270)
Free Cash Flow	1,062	583	1,830	1,338	1,302	4,637
RRSP Deposit	0	0	(1000)	0	0	0
Home Improvement	0	0	0	0	0	0
High Interest Savings Account deposit/(withdrawal)	1,062	583	830	1,338	1,302	4,637
Line of Credit draw on/(payoff)	0	0	0	0	0	0
Net Cash Flow	0	0	0	0	0	0
Line of Credit Balance	0	0	0	0	0	0
Tax-Free Savings Account Balance	7,336	7,345	7,450	7,500	7,037	7,069

**Table 5.4.3 Jeff's Adjusted Cash Budget for 2019, July-December**

	2019 July	2019 August	2019 September	2019 October	2019 November	2019 December
<b>Incomes</b>						
Contract earnings	3,417	3,417	3,417	3,417	3,417	3,417
Tutoring	0	0	250	500	500	300
Memorabilia Sales	400	450	300	500	900	100
House Painting	3,472	3,472	0	0	0	0
Interest Income	111	153	192	200	20	36
<i>Total Income</i>	7,400	7,492	3,967	4,617	4,844	3,853
Payroll/Income Taxes	(792)	(792)	(792)	(792)	(792)	(792)
<b>Disposable Income</b>	<b>6,608</b>	<b>6,700</b>	<b>3,175</b>	<b>3,825</b>	<b>4,050</b>	<b>3,061</b>
<b>Living Expenses</b>						
Groceries	(260)	(260)	(260)	(260)	(260)	(260)
Car (Fuel)	(127)	(127)	(127)	(127)	(127)	(127)
Car (Service, etc.)	(29)	(29)	(29)	(29)	(29)	(29)
Car (Insurance)	0	(400)	0	0	0	0
Electricity	(65)	(65)	(65)	(65)	(65)	(65)
Phone/Cable/Internet	(89)	(89)	(89)	(89)	(89)	(89)
Heat	0	0	0	(100)	(100)	(200)
Health and Dental Insurance	(70)	(70)	(70)	(70)	(70)	(70)
Medical	(20)	(20)	(20)	(20)	(20)	(20)
Travel/Entertainment	0	0	0	0	0	0
Car Loan Payment	(499)	(499)	(499)	(499)	(499)	(499)
Mortgage Interest	(897)	(897)	(897)	(897)	(897)	(897)
Property Tax	0	0	0	(4,350)	0	0
<i>Total Living Expenses</i>	(2,056)	(2,456)	(2,056)	(6,506)	(2,156)	(2,156)
<b>Income after Living Expenses</b>	<b>4,552</b>	<b>4,244</b>	<b>1,119</b>	<b>(2,681)</b>	<b>1,894</b>	<b>905</b>

Interest Expense	0	0	0	0	0	0
<b>Capital Expenditures/Investment</b>						
Mortgage Principal	(270)	(270)	(270)	(270)	(270)	(270)
Free Cash Flow	4,282	3,974	849	(2,951)	1,624	635
RRSP Deposit	0	0	0	0	0	0
Home Improvement	0	0	0	(15,000)	0	0
High Interest Savings Account deposit/(withdrawal)	4,282	3,974	849	(17,951)	1,624	635
Line of Credit draw on/(pay off)	0	0	0	0	0	0
Net Cash Flow	0	0	0	0	0	0
Line of Credit Balance	0	0	0	0	0	0
Tax-Free Savings Account Balance	7,345	7,554	8,702	9,541	9,836	9,988

With these adjustments, it turns out that Jeff can avoid new debt and still support the capital expenditure of the new roof. The increased income that Jeff can expect, and his decreased expenses (if he can maintain his resolve), can finance the project and still leave him with a bit of savings in his high interest savings account.

This situation bears continued monitoring, however. Some improvements are attributable to Jeff's efforts (cutting back on entertainment expenses, giving up his vacation, cultivating new tutoring clients). But Jeff has also benefited from macroeconomic factors that have changed to his advantage (rising memorabilia prices), and those factors could change again to his disadvantage. He has tried to be conservative about making adjustments going forward, but he should continue to keep a close eye on the situation, especially as he gets closer to making the relatively large capital expenditure in October.

Sometimes a variance cannot be "corrected" or is due to a micro- or macroeconomic factor beyond your control. In that case, you must adjust your expectations to reality, which may mean adjusting expected outcomes or even your ultimate goals.

Variances are also measures of the accuracy of your projections: what you learn from them can improve your estimates and your budgeting ability. The unexpected can always occur, but the better you can anticipate what to expect, the more accurate—and useful—your budget process can be.

## *Key Takeaways*

1. Recognizing and analyzing variances between actual results and budget expectations identifies potential problems, and identifies potential remedies.
2. The more frequently the budget is monitored, generally the sooner adjustments may be made, and the less costly adjustments are to make.
3. Budget variances for incomes and expenses should be analyzed to see if they are caused by a difference in: actual quantity, actual price, or both actual quantity and actual price.
4. Variances also need to be analyzed in the context of micro and macro factors that may change.

## *Exercises*

You are working fewer hours, which is reducing your income from employment and causing a budget variance. If the choice is yours, what are some microeconomic factors that could be causing this outcome? If the choice is your employer's, what are some macroeconomic factors that could be sources of the variance? What are your choices for increasing income? Alternatively, what might you change in your financial behaviour, budget, or goals to your improve outcomes?

## 5.5 BUDGETS, FINANCIAL STATEMENTS, AND FINANCIAL DECISIONS

### *Learning Objectives*

1. Describe the budget process as a financial planning tool.
2. Discuss the relationships between financial statements and budgets.
3. Demonstrate the use of budgets in assessing choices.
4. Identify factors that affect the value of choices.

Whatever type of budget you create, the budget process is one aspect of personal financial planning and therefore a tool to make better financial decisions. Other tools include financial statements, assessments of risk and the time value of money, macroeconomic indicators, and microeconomic or personal factors. These tools' usefulness stems from their ability to provide a clearer view of "what is" and "what is possible." It puts your current situation and your choices into a larger context, giving you a better way to think about where you are, where you'd like to be, and how to go from here to there.

Jeff has to decide whether to go ahead with the new roof. Assuming the house needs a new roof, his decision is really only about his choice of financing. An analysis of Jeff's budget variances has shown that he can actually pay for the roof with the savings in his high interest savings account. This means his goal is more attainable (and less costly) than in his original budget. This favourable outcome is due to his efforts to increase income and reduce expenses, and to macroeconomic changes that have been to his advantage. So, Jeff can make progress toward his long-term goals of building his asset base; he can continue saving for retirement with deposits to his retirement account; and he can continue improving his property with a new roof on his house.

Because Jeff is financing the roof with the savings from his high interest savings account, he can avoid new debt and thus additional interest expense. He will lose the interest income from his high interest savings account (which is not that significant), but the increases from his tutoring and sales income will offset the loss. Jeff's income statement will be virtually unaffected by the roof. His cash flow statement will show unchanged operating cash flow, a large capital expenditure, and use of savings.

Jeff can finance this increase of asset value (his new roof) with another asset: his high interest savings account. His balance sheet will not change substantially—value will just shift from one asset to another—but the high interest savings account earns a minimal income, which the house does not, although there may be a gain in value when the house is sold in the future.

Moreover, Jeff will be moving value from a very liquid high interest savings account to a not-so-liquid house, decreasing his overall liquidity. Looking ahead, this loss of liquidity could create another

opportunity cost: it could narrow his options. Jeff's liquidity will be pretty much depleted by the roof, so future capital expenditures may have to be financed with debt. If interest rates continue to rise, that will make financing future capital expenditures more expensive, perhaps causing Jeff to delay those expenditures or even cancel them.

However, Jeff also has a very reliable source of liquidity in his earnings—his paycheque, which can offset this loss. If he can continue to generate free cash flow to add to his savings, he can restore his high interest savings account and his liquidity. Having no dependents makes Jeff more able to assume the risk of depleting his liquidity now and relying on his income to restore it later.

The opportunity cost of losing liquidity and interest income will be less than the cost of new debt and new interest expense. That is because interest rates on loans are always higher than interest rates on savings. Banks always charge more than they pay for liquidity. That **spread**, or difference between those two rates, is the bank's profit, so the bank's cost of buying money will always be less than the price it sells for. The added risk and obligation of new debt could also create opportunity cost and make it more difficult to finance future capital expenditures. So financing the capital expenditure with an asset rather than with a liability is less costly, both immediately and in the future, because it creates fewer obligations and more opportunities, less opportunity cost and less risk.

The budget and the financial statements allow Jeff to project the effects of this financial decision in the larger context of his current financial situation and ultimate financial goals. His understanding of opportunity costs, liquidity, the time value of money, and personal and macroeconomic factors also helps him evaluate his choices and their consequences. Jeff can use this decision and its results to inform his next decisions and his ultimate horizons.

Financial planning is a continuous process of making financial decisions. Financial statements and budgets are ways of summarizing the current situation and projecting the outcomes of choices. Financial statement analysis and budget variance analysis are ways of assessing the effects of choices. Personal factors, economic factors, and the relationships of time, risk, and value affect choices as their dynamics—how they work and bear on decisions—affect outcomes.

### *Key Takeaways*

1. Financial planning is a continuous process of making financial decisions.
2. Financial statements are ways of summarizing the current situation.
3. Budgets are ways of projecting the outcomes of choices.
4. Financial statement analysis and budget variance analysis are ways of assessing the effects of choices.

5. Personal factors, economic factors, and the relationships of time, risk, and value affect choices, as their dynamics affect outcomes.

## *Exercises*

Analyze Jeff's budget as a financial planning tool for making decisions in the following situations. For each of the situations below, create a new budget showing the projected effects of Jeff's decisions.

1. A neighbour and co-worker suggest that he and Jeff commute to work together.
2. Jeff wants to give up tutoring and put more time into his memorabilia business.

# 6. Taxes and Tax Planning

## INTRODUCTION

The design of a tax system reflects the society's view of both the government's responsibilities toward its citizens and of its citizens toward their government. It is an important source of revenue for all governments, and it is largely used to pay for public programs and services.

The federal and provincial governments were granted the authority to make laws under the Constitution Act, 1867. Provinces and territories may assign some law-making authority to municipalities. Since federal, provincial or territorial, and municipal governments can all enact different tax laws, "this leads to a complex and diverse system of taxation in Canada" (Wadden, 2016, p. 128).

The authority of the federal government to make laws pertaining to "Indians, and lands reserved for Indians" has been questioned by Indigenous peoples, many of whom argue that there is no foundation for this in the treaties (Wadden, 2016, p. 128). This brings into question the Indian Act itself and its authority to define the rights of Indigenous peoples. Section 35 of the Constitution Act, 1982 recognizes the inherent Aboriginal right of self-government. The Indian Act will become less relevant as more Indigenous communities move toward self-government (Wadden, 2016).

Please go to the Financial Consumer Agency of Canada's webpage 8.1.3 What taxes you pay for an illustration of the total amount of revenue that governments in Canada collect from each type of tax.

According to the CBC, in the 2013–2014 fiscal year, the Canadian government spent \$276.8 billion, "and 80 per cent of it, or \$219.9 billion, came from tax revenue" (CBC, 2015).

Many people tend to focus on taxes only in the lead-up to the April 30 deadline to file personal income tax. But successful financial planning requires an effective tax strategy throughout the whole year, as well as a basic understanding of the tax rules and regulations. As Kapoor et al. (2015) point out, there are common goals related to tax planning:

- knowing the current tax laws and regulations that affect you,
- maintaining complete and appropriate tax records, and
- making employment, purchase, and investment decisions that leave you with the greatest after tax cash flows and net wealth. (p. 172)

Manny Jules, the chief commissioner and one of the creators of the First Nations Tax Commission, an institution that helps securitize property tax revenues and oversee the bylaw approval process, suggests that "taxation is a mechanism to promote the economic independence, and stability of

Aboriginal communities” (Wadden, 2016, p. 126). Jules believes that taxation is a fundamental government power that can help bands advance by creating a better, more accountable system, one that helps them to generate their own revenue; “otherwise, you’re always depending on someone else to do something for you” (Gerson, 2012). Taxation is an important means for Indigenous governments to generate their own independent revenues instead of relying on federal transfer funds or “Indian monies” under the Indian Act. Indigenous governments have wide discretion to apply tax revenues to their own priorities. During the past twenty-five years, many Indigenous governments in Canada “have enacted laws imposing direct taxes within their reserves or settlement lands. Aboriginal government taxes may include real property tax, sales tax, income tax and certain provincial-type commodity taxes” (INAC, 2014).

We will review the different types of taxes utilized by Indigenous, federal, provincial or territorial, and municipal governments throughout this chapter.

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## 6.1 SOURCES OF TAXATION AND KINDS OF TAXES

### *Learning Objectives*

1. Identify the levels of government that impose taxes.
2. Define the different kinds of incomes, assets, and transactions that may be taxed.
3. Compare and contrast progressive and regressive taxes.

Any government that needs to raise revenue and has the legal authority to do so may tax. Tax jurisdictions reflect government authorities. Taxation is used by governing bodies to fund public services such as “water, sewer, roads, garbage collection, education, and health care” (Wadden, 2016, p. 125).

In Canada, federal, provincial or territorial, and municipal governments impose taxes. Many Indigenous governments also impose taxes. Individuals and businesses in Canada must pay the following taxes: property tax, income tax, and sales tax. Similarly, in many countries there are national, provincial or state, county, and municipal taxes. Regional economic alliances, such as the European Union, may also levy taxes. The following are common taxes paid by people in Canada every year:

- Income taxes on employment and other income that you receive
- Sales taxes such as the Goods and Services Tax (GST) or Harmonized Sales Tax (HST) and the Provincial Sales Taxes (PST)
- Property taxes, usually charged by local governments on the value of land and buildings
- Customs duties or tariffs on certain imported and exported products
- Contributions by employers and employees to social security plans such as the Employment Insurance (EI) system, the Canada Pension Plan (CPP), the Québec Pension Plan (QPP), or the Québec Parental Insurance Plan
- Health services taxes charged in some provinces for access to the provincial health-care system
- Other taxes such as motor vehicle licences and natural resource taxes. (FCAC, 2017)

Governments tax income because it is a way to tax broadly based on the ability to pay. Most adults have an income from some source, even if it is a government distribution. Those with higher incomes should be able to pay more taxes, and, in theory, they should be willing to do so, for they have been more successful in or have benefited more from the economy that the government protects.

According to the Financial Consumer Agency of Canada, the following are definitions of different types of taxes:

**Tax:** A compulsory financial contribution imposed by law to raise government revenue.

**Tariff:** A charge (or list of charges) imposed by a government on imports or exports.

**Duty:** A specific tax imposed by law on imports or exports (same as tariffs).

**Fee:** A payment for services or for a particular privilege. (FCAC, 2017)

**Income tax** is usually a **progressive tax**: the higher the income or the more to be taxed, the greater the tax rate. The percentage of income that is paid in tax increases as income rises. Those income categories are called **tax brackets**.

Income tax is the main source of revenue for the federal government and is a direct tax on the income of individuals and businesses. Income tax can be levied by the federal, provincial or territorial, and Indigenous governments. The Income Tax Act provides the federal government with the authority to collect income tax. Through tax-collection agreements with most of the provinces and territories, the federal government has the authority to collect provincial or territorial income taxes on their behalf. **First Nations Personal Income Tax Administration agreements** have been entered into by a number of First Nations with the Government of Canada. According to Wadden (2016), these agreements allow self-governing First Nations “to exercise their power of direct taxation, to impose taxes on the income of individuals, and to enter into tax-collection agreements with Canada to collect taxes payable under the First Nations Tax Act” and remit them back to the applicable First Nation (p. 134).

With regard to the federal and provincial or territorial governments, your income, minus the deductions for which you qualify, must be calculated in order to arrive at a taxable income. You are taxed first by the federal government and then by your provincial or territorial government.

In Canada, we operate under a marginal tax rate system. **Marginal tax** is the amount of tax paid on an additional dollar of income. Unlike the flat tax rate, where you pay the same rate of tax no matter what your income, a marginal tax rate system increases the tax rate as income rises. Knowing one's marginal tax rate can help you make effective long-term financial decisions.

For example, if you know you will be taxed at a much higher rate because you will be earning significantly more income in the coming year, you might want to consider investing in an RRSP. However, this strategy only makes sense if you can reasonably assume that you will be earning a much lower income in retirement and therefore paying a lower income tax in retirement. (Please see Chapter 11 for more information on RRSPs.)

The rate at which you are taxed is categorized into tax brackets and is determined by the government. Table 6.1.1 shows an overview of 2018 federal tax brackets.

**Table 6.1.1 Canadian Income Tax Brackets in 2018**

<b>If your taxable income was between</b>	<b>Federal Marginal Tax Rate</b>
\$0-\$46,605	15%
\$46,606 up to \$93,208	20.5%
\$93,208 up to \$144,489	26%
\$144,489 up to \$205,842	29%
\$205,842 and up	33%

Data Source: Canada Revenue Agency, 2018. Table created by Bettina Schneider, 2018.

Federal tax and tax for all provinces and territories (except Quebec) is calculated the same way. Marginal tax rates calculate the amount of combined federal and provincial taxes payable on the next dollar of income. To calculate your combined federal and provincial tax bill in each province and territory as of June 15, 2018, you can use the 2018 Personal tax calculator found on Ernst & Young's website.

For a list of provincial and territorial tax rates, please visit the Government of Canada's webpage, Provincial and territorial tax rates for 2018.

Tax is levied on income from many sources:

- wages (selling labour),
- interest, dividends, and gains from investment (selling capital),
- self-employment (operating a business or selling a good or service),
- property rental,
- royalties (rental of intellectual property), and
- "other" income such as alimony, gambling winnings, or prizes.

A **sales tax** or **consumption tax** taxes the consumption financed by income. In Canada, sales taxes are imposed by the federal and provincial governments. Sales taxes are said to be more efficient and fair in that consumption reflects income (income determines one's ability to consume and therefore one's level of consumption). Consumption is also hard to hide, making sales tax a good way to collect taxes based on one's ability to pay. Consumption taxes typically tax all consumption, including nondiscretionary items such as food, clothing, and housing. Opponents of sales tax argue that it is a **regressive tax**, because those with lower incomes must use a higher percentage of their incomes on nondiscretionary purchases than higher-income people do. In Canada, there are three types of sales taxes:

1. **Provincial Sales Tax (PST)**: currently collected in British Columbia, Saskatchewan, Manitoba, and Quebec.
2. **Goods and Services Tax (GST)**: a value-added tax (general consumption tax) levied by the

federal government on most products except for essentials such as groceries, rent, and medical services. GST is an example of an excise tax, an indirect tax imposed on the sale of a particular product.

3. **Harmonized Sales Tax (HST)**: also a value-added tax that is a single, blended combination of PST and GST, collected by Ontario, New Brunswick, Newfoundland and Labrador, Nova Scotia, and Prince Edward Island.

Sales tax is an example of an indirect tax because it involves an intermediary that collects tax from a person or organization and remits it to the entity that is imposing it (Wadden, 2016, p. 128). The seller (the taxation body) collects the tax from the buyer.

The **value-added tax (VAT)** or GST is a consumption tax, but it differs from the sales tax, which is paid only by the consumer as an end user. With a VAT or GST, the value added to the product is taxed at each stage of production. Governments use a VAT or GST instead of a sales tax to spread the tax burden among producers and consumers, and thus to reduce incentive to evade the tax. A consumption tax is a regressive tax. When travelling abroad, you should be aware that a VAT may add substantially to the cost of a purchase (i.e. a meal, accommodations, etc.).

**Excise taxes** are taxes on specific consumption items such as alcohol, cigarettes, motor vehicles, fuel, or highway use. In some provinces, excise taxes are justified by the discretionary nature of the purchases and may be criticized as exercises in “social engineering”—using the tax code to dictate social behaviours. For example, people addicted to nicotine or alcohol tend to purchase cigarettes or liquor even if an excise tax increases their cost and are therefore a reliable source of tax revenue.

**Property taxes** are used primarily by local—municipal, provincial or territorial, state, and county—governments, and are most commonly imposed on real property (land and buildings), but also on personal assets such as vehicles and boats. Property values theoretically reflect wealth (accrued income) and thus one’s ability to pay taxes. Property values are also a matter of public record (real property is deeded, whereas boats or automobiles are licensed), which allows more efficient tax collection. First Nations property may be taxed under bylaws passed by band councils, which may have authority under section 83 of the Indian Act or the 2005 First Nations Fiscal and Statistical Management Act. Most of these bylaws exempt property that is owned by band members (Wadden, 2016).

## First Nations and Tax Exemptions

First Nations individuals and businesses are subject to the same tax rules as other Canadian residents unless income is eligible for tax exemption under section 87 of the Indian Act and paragraph 81(1)(a) of the Income Tax Act. As of 2011, 55 per cent of the 1.4 million Indigenous people in Canada followed the same tax rules as other Canadians (Sagan, 2015). Exemption is meant to protect the property of those

living on reserves. Those who have moved off reserve do not qualify for section 87 tax exemptions. If the income of a First Nations person is earned on a reserve, that income is exempt from contributions to such programs as EI, CPP, and QPP. If goods are bought on, or delivered to, a reserve, they are also tax exempt. Section 87 of the Indian Act does not apply to First Nations that have self-government agreements.

The following factors are considered by the Canada Revenue Agency (CRA) with regard to employment income tax exemption:

- Name
- Address
- Whether address is located on reserve
- Whether the individual is registered or entitled to be registered under the Indian Act
- Proportion of duties that are performed on reserve
- Residence is also a factor (CRA, 2017)

Furthermore, according to Sagan (2015), businesses and self-employed individuals can be tax exempt if they meet several factors outlined by the CRA, including:

- Where the business or person carries out revenue-generating activities
- Where its customers are located
- Whether or not an office or books and records are kept on a reserve (Sagan, 2015)

Section 87 of the Indian Act states that the following property, although subject to section 83 and section 5 of the First Nations Fiscal Management Act, is exempt from taxation:

- The interest of an Indian or a band in reserve lands or surrendered lands; and
- The personal property of an Indian or a band situated on reserve (Indian Act, 1985).

According to section 90, “certain items of personal property are protected from taxation or seizure by deeming that the property is situated on the reserve” (Wadden, 2016, p. 135). Currently, Métis and Inuit are not eligible to use the tax exemptions noted in the Indian Act. Tax exemptions are granted only to those individuals who meet the definition of “Indian” under the Act. Section 2 defines an Indian as “a person who pursuant to this Act is registered as an Indian or is entitled to be registered as an Indian” (Wadden, 2016, pp. 136–137). Those who have been removed from the Indian Register, or from a band list, may apply to be added. According to the CBC, “tax exemption for First Nations serves in part to protect aboriginal land and ‘to make sure tax does not erode the use of Indian property on reserves’ ” (Sagan, 2015).

Whitecap Dakota First Nation levies a variety of different taxes on reserve that status and non-status First Nations must pay. Chief Darcy Bear believes First Nations communities that levy their own taxes “are following in the tradition of the ‘sharing model’ that’s always been a part of First Nations culture”

(Sagan, 2015). According to Chief Bear, “If your best hunter killed 10 buffalo, he doesn’t eat 10 buffalo himself. He shares with the whole community” (Sagan, 2015). Chief Bear believes it is important to generate income through taxation so a First Nation can invest in its people (Sagan, 2015).

The following information, taken directly from the Indigenous and Northern Affairs Canada webpage Facts Sheet–Taxation by Aboriginal Governments, highlights the different types of First Nations government taxes currently in place:

- **First Nations Sales Tax (FNST)** (levied only by Indian Act bands): A tax that applies to on-reserve sales of alcoholic beverages, motor fuels or tobacco products.
- **First Nations Goods and Services Tax (FNGST)** (levied by Indian Act bands or Aboriginal self-governments): A tax on the consumption that occurs within reserve or settlement lands.
- **First Nations Personal Income Tax (FNPIT)** (levied only by Aboriginal self-governments): To date, fourteen self-governing Aboriginal groups have enacted personal income tax laws and concluded related tax administration agreements with Canada.
- **Real Property Tax** under the Indian Act or the First Nations Fiscal Management Act: section 83 of the Indian Act provides a power for Indian Act bands to make bylaws for the taxation of land or interest in land in the reserve.
- **Self-Government Agreements:** The area of tax powers is also generally one of the subject matters addressed in self-government negotiations. Following the conclusion of self-government negotiations, many final agreements provide the Aboriginal government with the authority to impose direct taxes (e.g., real property tax, sales tax) on their citizens/members within their reserves or settlement lands.
- **Provincial-Type Taxes** (Indian Act bands or Aboriginal Self-Governments): The federal government has repeatedly expressed its willingness to facilitate tax administration agreements between *Indian Act* bands and provinces or territories. In 2006, the *First Nations Goods and Services Tax Act* was amended to enable the council of an *Indian Act* band that is listed in Schedule II to that Act to enact a law that imposes a direct tax like a particular provincial tax, if that province agrees and is also listed in the Schedule. A number of *Indian Act* bands and provinces have concluded such agreements. (INAC, 2016)

In August 2017, the Prime Minister announced that Indigenous and Northern Affairs Canada (INAC) would be dissolved and two new departments–Crown-Indigenous Relations and Northern Affairs Canada, and Indigenous Services Canada–would take INAC’s place over time, after engagement with Indigenous peoples and others.

As you can see, there are a number of different taxes that exist in Canada. It is critical to understand which taxes apply to you so you can develop a taxation strategy that will help you to be successful in your financial planning.

## Key Takeaways

1. Governments at all levels use taxes as a source of financing.
2. Taxes may be imposed on the following:
  - Incomes from wages, interest, dividends, and gains (losses), and rental of real or intellectual property.
  - Consumption of discretionary and nondiscretionary goods and services.
  - Wealth from asset ownership.
3. Taxes may be progressive, such as the income tax, in which you pay proportionally more taxes the more income you have, or regressive, such as a sales tax, in which you pay proportionally more taxes the less income you have.

## Exercises

1. The T1 tax form is what individual Canadians use to complete their personal income tax return. Please review the video “Preparing T1 Returns – Reporting income and inputting T-slips on the T1 tax return (Part 2 of 5)” (12:47) by CanadianTaxAcademy.com on how to complete a T1 General form. After watching this video, try completing the T1 General form.
2. Examine the tax returns that you filed last year. Alternatively, estimate your tax return based on your present financial situation. On what incomes were you (or would you be) taxed? What tax bracket were you (or would you be) in? How did (or would) your provincial, federal, and other tax liabilities differ? What other types of taxes did you (or would you) pay, and to which government jurisdictions?
3. There are six types of tax: property, consumption, value-added or goods and services tax, income tax, excise tax, and sales tax. Match the type of tax to the description below:
  - Tax on the use of vehicles, gasoline, alcohol, cigarettes, highways, etc.
  - Tax on purchases of both discretionary and nondiscretionary items
  - Tax on wages, earned interest, capital gain, and the like
  - Tax on home and land ownership
  - Tax on purchases of discretionary items
  - Tax on items during their production as well as upon consumption
4. In your financial planning journal, record all the types of taxes you will be paying next year and to whom. How will you plan for paying these taxes? How will your tax liabilities affect your budget?

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## 6.2 THE CANADIAN FEDERAL INCOME TAX PROCESS

### *Learning Objectives*

1. Identify the taxes most relevant for personal financial planning.
2. Identify taxable incomes and the schedules used to report them.
3. Calculate deductions and credits.
4. Compare methods of tax payment.

The Canadian government relies most on income tax to provide for various types of government services. Income tax is the most relevant tax to consider for personal financial planning, as everyone has some sort of income over a lifetime. Most provinces and territories model their tax systems on the federal model or base their tax rates on federally defined income.

## Taxable Entities

There are three taxable entities in the federal system: the individual or family unit, the corporation, and the trust. Personal financial planning focuses on your decisions as an individual or family unit, but other tax entities can affect individual income. Corporate profit may be distributed to individuals as a **dividend**, for example, which then becomes the individual's taxable income. Likewise, funds established for a specific purpose may distribute money to an individual that is taxable as individual income. A **trust**, for example, is a legal arrangement whereby control over property is transferred to a person or organization (the trustee) for the benefit of someone else (the beneficiary). In Canada, the estate pays the taxes owed to the government, not the beneficiaries.

Peace Hills Trust (PHT) is considered Canada's first and largest First Nation trust company. It is owned by the Samson Cree Nation of Maskwacis, Alberta, and has its head office in Maskwacis, Alberta. PHT was established in 1980 in order to serve "the financial needs of First Nations and their members, corporations, institutions and associations both on and off reserve" (PHT, 2017). It currently offers a wide range of financial and retail banking to more than twenty thousand personal and business customers, from both Indigenous and non-Indigenous backgrounds, in most regions of Canada through a network of eight regional offices and electronic services (PHT, 2017). As PHT states, "First Nation trusts have evolved a great deal over recent years. Now they may include impact benefit arrangements and economic development structures that provide growth and educational opportunities for First Nations" (PHT, n.d.).

While Canadian tax rules do not allow spouses to file joint income tax returns, couples in Canada can reduce the total amount of taxes they have to pay. If you choose to use tax preparation software, it may include an option to prepare a "coupled" return that maximizes your benefits while still generating two separate returns.

All taxable entities, including non-residents who receive income from sources in Canada, have to file a declaration of incomes and pay any tax obligations annually. Under Canada's tax system, what you pay in income tax is based on your residency status.

But not everyone who files a tax return actually pays taxes. For example, individuals with low incomes and tax exempt, non-profit corporations typically do not. All potential taxpayers nevertheless must declare income and show their obligations to the government. For the individual, that declaration is filed on the T1 General form, which can be accessed on the Canada Revenue Agency website.

## Income

For individuals, the first step in the process is to calculate total income. Income may come from many sources, and each income must be calculated and declared. Some kinds of income have a separate

form or schedule to show their more detailed calculations. The following schedules are the most common for reporting incomes separately by source.

## **Interest and Dividend Income**

Interest income is income from selling liquidity. For example, the interest that your savings account, guaranteed investment certificate, and bonds earn in a year is income. You essentially are earning interest from lending cash to a bank, a government, or a corporation (though not all your interest income may be taxable). Dividend income, on the other hand, is income from investing in the stock market. Dividends are your share of corporate profits as a shareholder, distributed in proportion to the number of shares of corporate stock you own.

## **Employment Income**

Employment income is payment received for personal effort, including salaries, wages, commissions, tips, bonuses, and taxable employee benefits.

## **Business Income**

Business income is income from any sole proprietorship, partnership, corporation, or profession. For sole proprietors and partners in a partnership, business income is the primary source of income. Many other individuals rely on wages, but have a small business on the side for extra income. Business expenses can be deducted from business income, including, for example, business use of your car and home. If expenses are greater than income, the business is operating at a loss. Business losses can be deducted from total income, just as business income adds to total income.

The tax laws distinguish between a business and a hobby that earns or loses money. The CRA defines a business as “any activity that you do for profit,” and any profit from your hobby is considered business income (Ward, 2017). In addition, the self-employed must pay estimated income taxes in quarterly installments based on expected income depending on your earnings. According to the CRA, quarterly income tax installments are required if your net tax owing will be above the threshold for your province or territory and/or if your net tax owing in previous years was above the threshold for your province or territory.

Adam is thinking about turning his hobby into a business. He has been successful at selling his artwork at different tradeshows and online. He thinks he has found a large enough market to support a

business enterprise. As a business, he would be able to deduct the costs of website promotion, his art sales trips, his home office, and shipping, which would reduce the taxes he would have to pay on his business income. Adam decides to enroll in online courses on becoming an entrepreneur, how to write a business plan, and how to find capital for a new venture.

## Capital Gains (or Losses)

Gains or losses from investments derive from changes in asset value during ownership between the asset's original cost and its market value at the time of sale. If you sell an asset for more than you paid for it, you have a gain. If you sell an asset for less than you paid for it, you have a loss. Capital losses are subtracted from capital gains in the same calendar year, and 50 per cent of the resulting amount is taxable, which means less tax is paid on capital gains than on income. Recurring gains or losses from investment are from returns on financial instruments such as stocks and bonds. One-time gains or losses, such as the sale of a home, are also reported.

When you invest in financial assets, such as stocks, bonds, mutual funds, property, or equipment, be sure to keep good records by noting the date when you bought them and the original price. These records establish the **cost basis** of your investments, which is used to calculate your gain or loss when you sell them.

## Rental and Royalty Income; Income from Partnerships and Trusts

Rental or royalty income is income earned from renting an asset, either real property or a creative work such as a book or a song. This can be a primary source of income, although many individuals rely on wages and have some rental or royalty income on the side. Home ownership may be made more affordable, for example, if the second half of a duplex can be rented for extra income. Rental expenses can also be deducted from rental income, which can create a loss from rental activity rather than a gain. Unlike a business, which must become profitable to remain a business for tax purposes, rental activities may generate losses year after year. Such losses are a tax advantage, as they reduce total income. In Canada, any capital gained on a home (house, condominium, or a share in a co-operative housing corporation) is tax exempt as long as it is your primary residence. The revenue sale of a rental home is subject to capital gains tax.

Partnerships are alternative business structures for a business with more than one owner. For example, partnerships are commonly used by professional practices, such as accounting firms, law firms, medical practices, and the like, as well as by family businesses.

The partnership is not a taxable entity, but the share of its profits distributed to each owner is taxable income for the owner and must be declared.

## Other Taxable and Non-Taxable Income

Other taxable income includes spousal support, retirement fund distributions from pension plans and RRSPs, as well as payments from government plans such as the Canada Pension Plan, Employment Insurance, or Old Age Security.

According to the CRA, income that is not taxed by the Canadian government and does not have to be reported as income includes the following:

- any GST/HST credit, Canada child benefit, or Canada child tax benefit payments, including those from related provincial and territorial programs;
- child assistance payments and the supplement for handicapped children paid by the province of Quebec;
- compensation received from a province or territory if you were a victim of a criminal act or a motor vehicle accident;
- most lottery winnings;
- most gifts and inheritances;
- amounts paid by Canada or an ally (if the amount is not taxable in that country) for disability or death due to war service;
- most amounts received from a life insurance policy following someone's death;
- most payments of the type commonly referred to as strike pay you received from your union, even if you perform picketing duties as a requirement of membership;
- elementary and secondary school scholarships and bursaries;
- post-secondary school scholarships, fellowships, and bursaries are not taxable if you received them in 2016 for your enrollment in a program that entitles you to claim the full-time education amount in 2015 or 2016, or if you will be considered a full-time qualifying student for 2017. (CRA, 2018)

Note, however, that income earned on any of the above amounts (such as interest you earn when you invest lottery winnings) is taxable.

Any amount contributed to a Tax-Free Savings Account (TFSA) as well as any income earned in the TFSA (for example, investment income and capital gains) is generally tax-free, even when it is withdrawn. For more information, see RC4466 Tax-Free Savings Account (TFSA), Guide for Individuals (CRA, 2018).

More information on completing your tax return can be found on the Canada Revenue Agency website.

## Deductions and Credits

**Deductions** are tax breaks created by government that allow individuals to reduce their overall taxable income by deducting certain expenditures.

Other deductions involve financial choices that the government encourages by providing an extra incentive in the form of a tax break. For example, one can deduct investment interest on borrowed money for the purpose of earning income from a business or property; this deduction is meant to encourage investment.

Deductions are also created for expenditures that may be considered nondiscretionary, such as court-ordered child support, spousal support, or medical expenses that you are required to pay. You have to read the instructions carefully in order to know what expenditures qualify as deductions. The following list provides examples of common deductions permitted in the calculation of net income:

- Contributions to deferred income plans such as registered pension plans, individual pension plans, and RRSPs are deductible. Income from these plans is taxed later down the road when withdrawals are made. Contributions to a tax-free savings account or a registered education savings plan (RESP) are not tax-deductible.
- Union and profession dues
- Child-care expenses
- Disability supports
- Moving expenses
- Other deductions include deductible business investment losses, spousal and child support payments, interest paid on loans (excluding loans for RRSP and RESP contributions), and employment expenses if, for example, one's employer requires the employee to pay for travel or other costs of employment.

For a list of medical expenses that are tax-deductible, please visit the CRA webpage Lines 330 and 331 – Eligible medical expenses you can claim on your tax return.

Some deductions require an additional form to calculate specifics, such as unreimbursed employee or job-related expenses and investment interest. Once deductions are subtracted from total income, **net income** can be determined. Additional deductions and losses from previous years can be carried forward to determine taxable income once net income has been calculated. The final step in determining your taxable income is to factor in tax rates and tax credits.

A **tax credit** directly reduces the amount of tax you'll pay versus a deduction which reduces your

overall taxable income. A tax credit can be viewed as a deduction from the tax that is owed. Each taxpayer receives the same tax relief with a tax credit no matter the tax bracket one falls into as long as the credit can be used. Credits can be in the form of refundable credits or non-refundable credits. Refundable credits can be fully refunded if used. Even if you don't owe any tax, you will still receive what is owed through the tax credit. An example of a refundable tax credit is the Working Income Tax Credit which provides tax relief for eligible working low-income individuals and families. In terms of nonrefundable tax credits, all taxpayers can claim a basic non-refundable tax credit, known as the **personal amount**, which can reduce your tax liability. If any portion from the non-refundable tax credit remains after your taxable income reaches zero, it is automatically forfeited by the taxpayer. Each province and territory also sets a personal amount for provincial or territorial taxes. A tax credit is applied to the amount of tax owed by the taxpayer after all deductions are made from his or her taxable income, and reduces the total tax bill of an individual.

Deductions reduce taxable income, while credits reduce taxes owed.

Deductions and credits are some of the more disputed areas of the tax code. Because of the depth of dispute about them, they tend to change more frequently than other areas of the tax code. As a taxpayer, you want to stay alert to changes that may be to your advantage or disadvantage. Usually, such changes are phased in and out gradually so you can include them in your financial planning process. For more information on deductions and credits, visit the Canadian government webpage [Deductions, credits, and expenses](#).

## Payments and Refunds

Once you have calculated your tax obligation for the year, you can compare that to any taxes you have paid during the year and calculate the amount still owed or the amount to be refunded to you.

You pay taxes during the tax year by having them withheld from your paycheque if you earn income through wages, or by making quarterly estimated tax payments if you have other kinds of income. When you begin employment, you fill out a form (Form TD1) that determines the taxes to be withheld from your regular pay. You may adjust this amount, within limits, at any time. If you have both wages and other incomes, but your wage income is your primary source of income, you may be able to increase the taxes withheld from your wages to cover the taxes on your other income, and thus avoid having to make estimated payments. However, if your non-wage income is substantial, you will have to make estimated payments to avoid a penalty and/or interest. The self-employed must pay estimated income taxes in quarterly installments based on expected income depending on your earnings. According to the CRA, quarterly income tax installments are required if your net tax owing will be above the threshold for your province or territory and/or if your net tax owing in previous years was above the threshold for your province or territory (CRA, 2017).

The government requires that taxes are withheld or paid quarterly during the tax year because it

uses tax revenues to finance its expenditures, so it needs a steady and predictable cash flow. Steady payments also greatly decrease the risk of taxes being uncollectible. Provincial, territorial, and local income taxes must also be paid during the tax year and are similarly withheld from wages or paid quarterly.

If you have paid more during the tax year than your actual obligation, then you are due a refund of the difference. You may have that amount directly deposited to a bank account, or the government will send you a cheque.

If you have paid less during the tax year than your actual obligation, then you will have to pay the difference, and you may have to pay a penalty and/or interest, depending on the size of your payment.

The deadline for filing income tax returns and for paying any necessary amounts is April 30, following the end of the tax year on December 31. If you are self-employed, or the spouse or common-law partner of someone who is, the deadline to file your income tax and benefit return is June 15, although any balance owing is due April 30. You may file to request an extension of that deadline. Should you miss a deadline without filing for an extension, you will owe penalties and interest, even if your actual tax obligation results in a refund. It really pays to get your return in on time.

### *Key Takeaways*

1. The most relevant tax for financial planning is the income tax, as it affects the taxpayer over an entire lifetime.
2. Different kinds of income must be defined and declared on specific income schedules and are subject to tax.
3. Deductions reduce taxable income.
4. Credits reduce tax obligations.
5. Payments are made throughout the tax year through withholdings from wages or quarterly payments.

## Exercises

1. Do you have to file a tax return for the current year? Why or why not? (Identify all the factors that apply.) Which tax form(s) should you use?
2. Go to the Government of Canada webpage Income Tax Folio S1-F2-C3, Scholarships, Research Grants and Other Education Assistance to find answers to the following questions:
  - Is financial aid for university subject to federal income tax?
  - Can federal and provincial or territorial education grants be taxed as income?
  - Are student loans taxable?
  - When is a scholarship tax exempt?
  - Do you have to be in a degree program to qualify for tax exemption?
  - Can the amount of a scholarship used for tuition be deducted?
  - Can living expenses while on scholarship be deducted?
  - Is the income and stipend from a teaching fellowship or research assistantship tax exempt?

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## 6.3 RECORD KEEPING, PREPARATION, AND FILING

### *Learning Objectives*

1. Identify sources of tax information.
2. Explain the importance of verifiable records and record keeping.
3. Compare sources of tax preparation assistance.
4. Trace the tax review process and its implications.

The CRA is responsible for the collection of tax revenues. To collect revenues, the CRA must inform the public of tax obligations and devise data collection systems that will allow for collection and verification of tax information so that collectible revenues can be verified. In other words, the CRA has to determine how to inform the public and collect taxes while also collecting enough information to be able to check that those taxes are correct.

To inform the public, the CRA has published numerous publications covering various aspects of the tax code. In addition, the CRA provides a website and telephone support to answer questions and assist in preparing tax filings.

By far, most income taxes from wages are collected through withholdings as earned. For most taxpayers, wages represent the primary form of income, and thus most of their tax payments are withheld or paid as wages are earned. Still, everyone has to file to summarize the details of the year's incomes for the CRA and to calculate the final tax obligation. It is important that everyone file a tax return, even if an individual owes no money. Everyone needs to file a return in order to get, for example, the GST rebate, the Canada child benefit, or Old Age Security. For further information on the benefits of filing a return, see the CRA webpage [Do you have to file a return?](#)

### **Keeping Records**

The individual filer must collect and report the information on tax forms and schedules. Fortunately, this is not as difficult as the volume of data would suggest. Employers are required to send Form T4 to each employee at the end of the year, detailing the total wages earned and taxes and contributions withheld. Depending on your tax situation, you may need to refer to other guides, or complete some schedules and other forms that have more detailed information. You can find this information on the webpage [Other guides, schedules and forms you may need to complete your income tax and benefit return.](#)

The system for filing tax information has purposeful redundancies. Where possible, information is collected independently from at least two sources so it can be verified. For example, your wage data is collected both from you and from your employer; your interest and dividend incomes are reported by both you and the bank or brokerage that paid them, and so on. Those redundancies, wherever practical, allow for a system of cross-references so that the CRA can check the validity of the data it receives.

Incomes may be summarized and reported to you, but only you know your expenses. Expenditures are important if they are allowed as deductions, such as job-related expenses, and so on, so data should be collected throughout the tax year. If you do nothing more than keep a chequebook, then you will have to go through it and identify the deductible expenses for the tax year. Financial software applications will make that task easier; most allow you to flag deductible expenses in your initial setup.

You should also keep receipts of purchases that may be deductible; credit or debit card statements and bank statements provide convenient backup proof of expenditures. Proof is needed in the event the CRA questions the accuracy of your return.

## Tax Preparation and Filing

After you have collected the information you need, you fill out the forms. The tax code is based on the idea that citizens should create revenues for the government based on their ability to pay—and the tax forms follow that logic. Most taxpayers need to complete only a few schedules and forms to supplement their Form T1. Most taxpayers have the same kinds of taxable events, incomes, and deductions year after year, and file the same kinds of schedules and forms.

Many taxpayers prefer to consult a professional tax preparer. Professional help is useful if you have a relatively complicated tax situation: unusual sources of income or expenditures that may be deductible under unusual circumstances. Some taxpayers use a tax preparer simply to protect against making a mistake and having the error, however innocent, prove costly to fix. Fees for tax preparers depend on how complex your return is, the number of forms that need to be completed, and the type of professional you consult.

Professional tax preparers may be lawyers, accountants, personal financial planners, or tax consultants. You may have an ongoing relationship with your tax preparer, who may also be your accountant or financial planner working with you on other financial decisions. Or you may consult a tax preparer simply on tax issues. You may want your tax preparer to fill out and file the forms for you, or you may be looking for advice about future financial decisions that have tax consequences. Tax preparers may be independent practitioners who work during tax season, or employees of a national chain that provide year-round tax services.

There is no standard certification to be a professional tax preparer. A **chartered public accountant (CPA)** has specific training and experience in accounting. When looking for a tax preparer, your lawyer, accountant, or financial planner may be appropriate, or they may be able to make a recommendation. If your information is fairly straightforward, you may minimize costs by using a preparer who simply does taxes. If your situation involves more complications—especially involving other entities such as businesses or trusts, or unusual circumstances such as a gain—you may want to consult a professional with a range of expertise, such as an accountant or a lawyer who specializes in taxes. Many professionals also offer a “guarantee” that they will also help you if the information on your return is later questioned by the CRA.

Whether you prepare your tax return by yourself or with a professional, it is you who must sign the return and assume responsibility for its details. You should be sure to review your return with your tax preparer so that you understand and can explain any of the information found on it. You should question anything that you cannot understand or that seems contrary to your original information. You should also know your tax return because understanding how and why tax obligations are created or avoided can help you plan for tax consequences in future financial decisions.

You may choose to prepare the return yourself using a tax preparation software application. There are many available, and several are compatible with personal financial software applications, enabling you to download or transfer data from your financial software directly into the tax software. Software applications are usually designed as a series of questions that guide you through Form T1 and the supplemental schedules, filling in the data from your answers. Once you have been through the “questionnaire,” it tells you the forms it has completed for you, and you can simply print them out to submit by mail or “e-file” them directly to the CRA. Most programs also allow you to enter data into the individual forms directly.

Many tax preparation software packages are reviewed in the business press or online. Some popular programs are listed on thebalance.com website in the article “Top Canadian Tax Software Programs.”

Software can be useful in that it automatically calculates unusual circumstances, limitations, or exceptions to rules using your complete data. Some programs even prompt you for additional information based on the data you submit. Overlooking exceptions is a common error that software programs can help you avoid. The programs have all the forms and schedules, but if you choose to file hard-copy versions, you can download them directly from the CRA website, or you can call the CRA and request that they be sent to you. Once your return is completed, you must file it with the CRA, either by mail or by e-file, which has become increasingly popular.

## Following Up

After you file your tax return it will be processed and reviewed by the CRA. If you are owed a refund, it will be sent; if you paid a payment, it will be deposited. The CRA reviews returns for accuracy,

based on redundant reporting and its “sense” of your data. For example, the CRA may investigate any discrepancies between the wages you report and the wages your employer reports. As another example, if your total wages are \$23,000 and you show a charitable contribution of \$20,000, that contribution seems too high for your income—although there may be an explanation.

The CRA may follow up by mail or by a personal interview. It may just ask for verification of one or two items, or it may conduct a full **audit**—a thorough financial investigation of your return. In any case, you will be asked to produce records or receipts that will verify your reported data. Therefore, it is important to save a copy of your return and the records and receipts that you used to prepare it. The CRA recommends saving your tax data for six years in case the CRA decides to review your tax returns and/or audit your small business. The best protection against a possible audit is to have verification—a receipt or a bill or a cancelled cheque—for all the incomes and expenses that you report.

If you have a personal interview, your tax preparer may accompany you to help explain and verify your return. Ultimately, however, you are responsible for it. If you have made errors, and if those errors result in a larger tax obligation (if you owe more), you may have to pay penalties and interest in addition to the tax you owe. You may be able to negotiate a payment schedule with the CRA.

The CRA randomly chooses a certain number of returns each year for review and possible audit even where no discrepancies or unusual items are noticed. The threat of a random audit may deter taxpayers from cheating or taking shortcuts on their tax returns. Computerized record keeping has made it easier for both taxpayers and the CRA to collect, report, and verify tax data.

## Filing Strategies

Most citizens recognize the need to contribute to the government’s revenues but want to avoid paying more than they need to. **Tax avoidance** is the practice of ensuring that you have no excess tax obligations. Strategies for minimizing or avoiding tax obligations are perfectly legal. However, **tax evasion**—fraudulently reporting tax obligations, for example, by understating incomes and gains or overstating expenses and losses—is illegal.

Timing can affect the value of taxable incomes. If you anticipate a significant increase in income—and therefore in your tax rate—in the next tax year, you may try to defer a deductible expense. Likewise, if you anticipate a decrease in income that will decrease your tax rate, you may want to defer receipt of income until the next year, when it will be taxed at a lower rate. In addition, some kinds of incomes are taxed at different rates than others, so how your income is created may have a bearing on how much tax it creates. The definition of expenses and the way you claim them can affect the tax one saves. For example, suppose you are a high school Cree or French teacher. You also tutor students privately. You buy Cree or French books to improve your own language skills and to keep current with the published literature. Are the costs of those books an unreimbursed employee expense related to

your job as a teacher? Or are they an expense of your private tutoring business? They may be both, but you can only claim the expense once or in one place on your tax return.

### *Key Takeaways*

1. Information about the tax code is available from the CRA.
2. Verifiable records must be kept for all taxable incomes and expenses or other taxable events and activities.
3. Professional tax assistance and tax preparation software are readily available.
4. The CRA reviews tax returns for errors and may follow up through an informal or formal audit process.
5. Tax avoidance is the legal practice of minimizing tax obligations.
6. Tax evasion is the illegal process of fraudulently presenting information used in calculating tax obligations.
7. Tax-avoidance strategies can involve the timing of incomes and/or expenses to take advantage of changing tax circumstances.

### *Exercises*

1. Gather a current sample of the kind of records you will use to calculate your tax liability this year and to verify your tax return. List each type of record and identify exactly what information it will give you, your tax preparer, and the CRA about your tax situation. What additional records will you need that are not yet in your possession?
2. Use your spreadsheet program, or download a free one, to develop a document showing monthly cash flows for income and expenses to date for which you have written records. If you continue to develop this document for the remaining months, how will it help you prepare your tax returns?
3. Research how you can reduce your tax liability and/or avoid paying taxes when you file this year. Work with classmates to develop a tip sheet for students on tax avoidance.

## 6.4 TAXES AND FINANCIAL PLANNING

### *Learning Objectives*

1. Trace the tax effects of life stages and life changes.
2. Identify goals and strategies that provide tax advantages.
3. Identify tax advantages that may be useful in pursuing your goals.
4. Discuss the relationship of tax considerations to financial planning.

You may anticipate significant changes in income or expenses based on a change of job or career, or a change of life stage or lifestyle. Not only may the amounts of income or expenses change, but the kinds of incomes or expenses may change as well. Planning for those changes in relation to tax obligations is part of personal financial planning.

### Tax Strategies and Life Stages

Tax obligations change more broadly as your stage of life changes. Although everyone is different, there is a typical pattern to aging, earning, and taxes, as shown in the following table.

**Table 6.4.1 Life Stages and Tax Implications**

	<b>Young Adulthood</b>	<b>Middle Adulthood</b>	<b>Older Adulthood</b>	<b>Retirement</b>
<b>Source of Income</b>	Wages	Wages/ Investments	Wages/ Investments	Investments
<b>Asset Base</b>	None/Low	Accumulating	Growing	Depleting
<b>Taxable Income</b>	Low	Higher	Highest	Lower
<b>Deductions, Credits</b>	Low	Higher	High	Low

In young adulthood, you rely on income from wages, and you usually have yet to acquire an asset base, so you have little income from interest, dividends, or capital gains. Your family structure does not include dependents, so you have few deductions but also low taxable income.

As you progress in your career, you can expect wages, expenses, and dependents to increase. You are building an asset base by buying a home, possibly saving for your children's education, or saving for

retirement. Because those are the kinds of assets encouraged by the government, they not only build wealth, but also create tax advantages—for example, an RRSP or an RESP.

In older adulthood, you may begin to build an asset base that can no longer provide those tax advantages that are limited or may create taxable income such as interest, dividends, or rental income. In retirement, most people can anticipate a significant decrease in income from wages and a significant increase in reliance on incomes from investments, such as interest, dividends, and gains. Some of those assets may be retirement savings accounts, such as an RRSP, that created tax advantages while growing, but will create tax obligations as income is drawn from them.

Generally, you can expect your income to increase during the middle years of adult life, but that is when many people typically have dependents and deductions such as job-related expenses to offset increased tax obligations. As you age, and especially when you retire, you can expect less income and also fewer deductions.

The bigger picture is that at the stages of your life when income is increasing, so are your deductions and tax credits, which tend to decrease as your income decreases. Although your incomes change over your lifetime, your tax obligations change proportionally, so they remain relative to your ability to pay.

The tax consequences of such changes should be anticipated and considered as you evaluate choices for financial strategies. Because the tax code is a matter of law it does change, but because it is also a matter of politics, it changes slowly and only after much public discussion. You can usually be aware of any tax code changes far enough in advance to incorporate them into your planning.

## Tax Strategies and Personal Financial Planning

Tax advantages are sometimes created for personal financial strategies as a way of encouraging certain personal goals. In Canada, for example, home ownership, retirement savings, and education are seen as personal goals that benefit society as well as the individual. In most cases, tax advantages are created to encourage progress toward those goals.

Retirement saving is encouraged, so some savings plans such as a **registered retirement savings plan (RRSP)** or a **registered pension plan (RPP)** create tax advantages. For example, an RPP is a pension plan that has been set up by your employer, and registered by the CRA, in order to provide you with a pension upon retirement. You can deduct the total of your RPP contributions to reduce your taxable income. Income from this plan will be taxed at a later date.

There are also retirement savings strategies that do not create tax advantages, such as saving outside of a tax-advantaged account. A **tax-free savings account (TFSA)** is a flexible investment account that can help you meet both your short- and long-term goals. Your investment income in a TFSA—interest,

dividends, or capital gains—is not taxed, even when withdrawn. This tax-free compound growth means that your money grows more quickly inside a TFSA than in a taxable account. In addition to the investment income earned, any amount contributed to the TFSA is not taxed when it is withdrawn. However, initial contributions to a TFSA are not deductible for income tax purposes. The following are important facts about contributions to your TFSA:

- The current contribution limit is \$5,500 per year; contributions to your RRSP/RPP do not limit your TFSA contribution.
- Any unused room can be carried forward.
- You can contribute up to your TFSA contribution limit. A tax applies to all contributions exceeding your TFSA contribution limit.
- Withdrawals will be added to your TFSA contribution room at the beginning of the following year.
- You can replace the amount of the withdrawal in the same year only if you have available TFSA contribution room.
- Direct transfers must be completed by your financial institution. (Government of Canada, 2016)

A **registered education savings plan (RESP)** is an education savings account registered with the Government of Canada. It is an investment vehicle used by parents to save for their children's post-secondary education in Canada. The key advantage of an RESP is the access it provides to the Canada Education Savings Grant (CESG) no matter what your family income. This grant is 20 per cent of any eligible contributions in an RESP account; the maximum annual grant by the government is \$500. There are currently no annual contribution limits; however, you can receive the grant only on the first \$2,500 in contributions per year, and the lifetime contribution limit is \$50,000 (Government of Canada, 2017).

Although contributions are not tax-deductible, all investment income generated in the RESP is tax-free as long as it remains in the plan (Government of Canada, 2016). Once the recipient withdraws the money from the plan, he or she will be taxed. However, many students have little or no income and therefore the student would pay little to no tax on the withdrawal.

RESPs also provide access to the Canada Learning Bond, which is an important benefit for low-income families. The Canada Learning Bond is money that the Government of Canada deposits into an RESP for Canadian residents born on or after January 1, 2004, in order to help low-income families save for a child's education after high school. The government deposits can be up to a maximum of \$2,000 and will not affect any other benefits that you or an eligible child receives (Government of Canada, 2018).

## Planning Your Strategy

Where you have a choice, it makes sense to use a strategy that will allow you to make progress toward your goal and realize a tax advantage. Your enthusiasm for the tax advantage should not define your goals, however. Taxes affect the value of your alternatives, so recognizing tax implications should inform your choices without defining your goals.

Unanticipated events such as lottery winnings, casualty and theft losses, or medical expenses can also have tax consequences. They are often unusual events (and therefore unanticipated) and may be unfamiliar and financially complicated. In those circumstances, it may be wise to consult an expert.

Your financial plans should reflect your vision for your life. You will want to be aware of tax advantages or disadvantages so that you can make the most tax-advantageous decisions. Like any costs, you want to minimize your tax costs of living and of life events, but tax avoidance is only a means to an end. You should make your life choices for better reasons than avoiding taxes.

### *Key Takeaways*

1. Tax strategies may change as life stages and family structure changes.
2. Some personal finance goals may be pursued in a more or less tax-advantaged way, so you should evaluate the tax effects on your alternatives.
3. Tax strategies are a means to an end—that is, to achieving your personal finance goals with a minimum of cost.

### *Exercises*

1. Review your list of personal financial goals. For each goal, how does the Canadian tax code help or hinder you in achieving it?
2. Investigate tax strategies that would benefit you in your present life stage. What tax strategies would benefit you in your next life stage? Share your findings and strategies with others in your life stage.

## REFERENCES

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## PART III

# ACHIEVING YOUR FINANCIAL GOALS

### IN THIS SECTION:

Chapter 7 “Financial Management” focuses on financing consumption using current earnings and/or credit, and financing longer-term assets with debt.

Chapter 8 “Consumer Strategies” discusses purchasing decisions, starting with recurring consumption, and then goes into detail on the purchase of a car, a more significant and longer-term purchase both in terms of its use and financing.

Chapter 9 “Buying a Home” applies the ideas developed in the previous chapter to what, for most people, will be the major purchase: a home. The chapter discusses its role both as a living expense and an investment, as well as the financing and financial consequences of the purchase.



# 7. Financial Management

## INTRODUCTION

Financial management is about managing the financing for consumption and investment. You have two sources for money: yourself or someone else. You need to decide when to use whose money and how to do so as efficiently as possible so as to maximize benefit and minimize cost. As with all financial decisions, you also need to think about the strategic consequences of your decisions and how they might impact your future.

You can use your own money as a source of financing if your income is at least equal to your living expenses. If it is more, you have a budget surplus that can be saved and used as a source of future financing while earning income at the same time. If your own income is less than the expenses, you have a budget deficit that will require another external source of financing—someone else’s money—that will add an expense. Ideally, you want to avoid the additional expense of borrowing and instead create the additional income from saving. The budgeting techniques discussed in Chapter 5 “Financial Plans: Budgets” are helpful in seeing this picture more clearly.

Your ability to save will vary over your lifetime, as your family structure, age, career choice, and health will change. Those “micro” factors determine your income and expenses and thus your ability to create a budget surplus and your own internal financing. Likewise, your need to use external financing, such as credit or debt, will vary with your income, expenses, and ability to save.

At times, unexpected change can turn a budget surplus into a budget deficit (e.g., a sudden job loss or increased health expenses), and a saver can reluctantly become a borrower. Being able to recognize that change and understand the choices for financing and managing cash flow will help you create better strategies.

Financing can be used to purchase a long-term asset that will generate income, reduce expense, or create a gain in value, and it may be useful when those benefits outweigh the cost of the debt. The benefit of long-term assets is also influenced by personal factors. For example, a house may be more useful, efficient, and valuable when families are larger.

Macroeconomic factors, such as the economic cycle, employment levels, and inflation, should bear on your financing decisions as well. Your incomes and expenses are affected by the economy’s expansion or contraction, especially as it affects your own employment or earning potential. Inflation or deflation, or an expected devaluation or appreciation of the currency, affects interest rates as both lenders and borrowers anticipate using or returning money that has changed in value.

Financial management decisions become more complicated when the personal and macroeconomic

factors become part of the decision-making process, but the result is a more realistic evaluation of alternatives and a better strategy that leaves more choices open in the future. Financial management decisions, however, are difficult not because of their complexity, but because the way you finance your assets and expenses (i.e., lifestyle) determines the life that you live.

## 7.1 YOUR OWN MONEY: CASH

### *Learning Objectives*

1. Identify the cash flows and instruments used to manage income deposits and expense payments.
2. Explain the purpose of cheque balancing.

Most people use a **chequing account** as their primary means of managing cash flows for daily living. Incomes from wages and perhaps from investments are deposited into this account, and expenses are paid from it. The actual deposit of paycheques and the writing of cheques, however, has been made somewhat obsolete as more cash flow services are provided electronically.

When incoming funds are distributed regularly, such as a paycheque or a government distribution, **direct deposit** is preferred. For employers and government agencies, it offers a more efficient, timely, and secure method of distributing funds. For the recipient, direct deposit is equally timely and secure, and can allow for a more efficient dispersal of funds to different accounts. For example, you may have some of your paycheque directly deposited to a savings account, while the rest is directly deposited to your chequing account to pay living expenses. Because you never “see” the money that is saved, it never passes through the account that you “use,” so you are less likely to spend it.

Withdrawals or payments have many electronic options. **Automatic payments** may be scheduled to take care of a periodic payment (i.e., same payee, same amount) such as a mortgage or car payment. They may also be used for periodic expenses of different amounts—for example, utility or telephone expenses. A **debit card** may be used to directly transfer funds at the time of purchase; money is withdrawn from your account and transferred to the payee’s with one quick swipe at checkout. An **ATM (automated teller machine) card** offered by a bank allows for convenient access to the cash in your bank accounts through instant cash withdrawals.

The bank clears these transactions as it manages your account, providing statements of your cash activities, usually monthly and online. When you reconcile your record keeping (i.e., your chequebook or software accounts) with the bank’s statement, you are balancing your chequing account. This

ensures that your records and the bank's records are accurate and that your information and account balance are up to date and consistent with the bank's. Banks do make mistakes, and so do you, so it is important to check and be sure that the bank's version of events agrees with yours.

### *Key Takeaways*

1. A chequing account is the primary cash flow management tool for most consumers, providing a way to pay for expenses and store cash until it is needed.
2. Balancing your chequebook reconciles your personal records with the bank's records of your chequing account activity.

### *Exercises*

1. In your personal finance journal, inventory in detail all the vehicles you use for managing your cash flows. Include all your accounts that are mediated through banks and finance companies. Also, list your cards issued by banks, such as debit or ATM cards, and identify any direct deposits and automatic payments that are made through your savings and chequing accounts. How might you further enhance your cash management through the use of banking tools?
2. Does your bank offer online banking services, such as electronic bill payment? View your bank and others online to learn more about Internet banking. What products and services do online branches and banks offer? Do you (or would you) use those products and services? Why or why not? Discuss online banking with classmates. What do they identify as the main benefits and risks of electronic banking?

## 7.2 YOUR OWN MONEY: SAVINGS

### *Learning Objectives*

1. Identify the markets and institutions used for saving.
2. Compare and contrast the instruments used for saving.
3. Analyze a savings strategy in terms of its liquidity and risk.

When incomes are larger than expenses there is a budget surplus, and that surplus can be saved. You could keep it in your possession and store it for future use, but then you have the burden of protecting it from theft or damage. More important, you create an opportunity cost. Because money trades in markets and liquidity has value, your alternative is to lend that liquidity to someone who wants it more than you do at the moment and is willing to pay for its use. Money sitting idle is an opportunity cost.

The price that you can get for your money has to do with supply and demand for liquidity in the market, which in turn has to do with a host of other macroeconomic factors. It also has a lot to do with time, opportunity cost, and risk. If you are willing to lend your liquidity for a long time, then the borrower has more possible uses for it, and increased mobility increases its value. However, while the borrower has more opportunity, you (the seller) have more opportunity cost because you give up more choices over a longer period of time. That also creates more risk for you, since more can happen over a longer period of time. The longer you lend your liquidity, the more compensation you need for your increased opportunity cost and risk.

### Savings Markets

The markets for liquidity are referred to as the **money markets** and the **capital markets**. The money markets are used for relatively short-term, low-risk trading of money, whereas the capital markets are used for relatively long-term, higher-risk trading of money. The different time horizons and risk tolerances of the buyers, and especially the sellers, in each market create different ways of trading or packaging liquidity.

When individuals are saving or investing for a long-term goal (e.g., education or retirement), they are more likely to use the capital markets; their longer time horizon allows for greater use of risk to earn return. Saving to finance consumption relies more on trading liquidity in the money markets because there is usually a shorter horizon for the use of the money. Also, most individuals are less willing to

assume opportunity costs and risks when it comes to consumption, thus limiting the time that they are willing to lend liquidity.

When you save, you are the seller or lender of liquidity. When you use someone else's money or when you borrow, you are the buyer of liquidity.

## Savings Institutions

For most individuals, access to the money markets is done through a bank. A bank functions as an **intermediary** or “middleman” between the individual lender of money (the saver) and the individual borrower of money.

For the saver or lender, the bank can offer the convenience of finding and screening the borrowers, and of managing the loan repayments. Most important, a bank can guarantee the lender a return: the bank assumes the risk of lending. For the borrowers, the bank can create a steady supply of surplus money for loans (from the lenders), and arrange standard loan terms for the borrowers.

Banks create other advantages for both lenders and borrowers. Intermediation allows for the amounts loaned or borrowed to be flexible and for the maturity of the loans to vary. That is, you don't have to lend exactly the amount someone wants to borrow for exactly the time she or he wants to borrow it. The bank can “disconnect” the lender and borrower, creating that flexibility. By having many lenders and many borrowers, the bank diversifies the supply of and demand for money, and thus lowers the overall risk in the money market.

The bank can also develop expertise in screening borrowers to minimize risk and in managing and collecting the loan payments. In turn, that reduced risk allows the bank to attract lenders and diversify supply. Through diversification and expertise, banks ultimately lower the cost of lending and borrowing liquidity. Since they create value in the market (by lowering costs), banks remain as intermediaries or middlemen in the money markets.

In Canada, there are currently five banks and the National Bank of Canada, often referred as the Big Six, which account for more than 90 per cent of the total banking assets in Canada. The National Bank of Canada is headquartered in Montreal, Quebec, and the five banks are headquartered in Toronto, Ontario. The five banks are classified as Schedule I domestic banks, which are banks that are Canadian-owned and have no more than 10 per cent of voting shares controlled by a single interest. These banks are: Bank of Montreal, Canadian Imperial Bank of Commerce, Royal Bank of Canada, Scotiabank, and Toronto-Dominion.

Unlike the United States, which has hundreds of banks—some with only a few branches—Canada has a much smaller number of banks, many with hundreds of branches throughout the country. Schedule II banks may be domestically owned or foreign-controlled and do not meet the 10 per cent limit (Ebert,

Griffin, Starke, and Dracopoulos, 2017). Schedule III banks are branches of foreign institutions that are authorized under the Bank Act to do banking in Canada. These foreign institutions are subject to certain restrictions that Schedule I and II banks are not subject to. Bank of America and Capital One are examples of such institutions.

**Credit unions**, or *caisses populaires*, function similarly, but are co-operative membership organizations, with depositors as members. Credit unions also tend to be more community-oriented in their overall mission. For example, Conexus Credit Union promotes financial well-being, its key priority, through its Community Investment Program. In partnership with non-profit and charitable organizations, credit unions support financial literacy education programs, capital projects, and programs that address basic human needs with regard to education, food, shelter, and health services. Another difference between banks and credit unions is that banks are federally regulated, while credit unions are regulated by the provinces or territories.

In addition to banks, other kinds of intermediaries for savers include pension funds, life insurance companies, and investment funds. They focus on saving for a particular long-term goal. To finance consumption, however, most individuals primarily use banks or credit unions.

Some intermediaries have moved away from the “bricks-and-mortar” branch model and now operate as online banks, either entirely or in part. There are cost advantages for the bank if it can use online technologies in processing saving and lending. Those cost savings can be passed along to savers in the form of higher returns on savings accounts or lower service fees. Most banks offer online and, increasingly, mobile account access via cell phone or smartphone. Intermediaries operating as finance companies offer similar services.

The Canadian Deposit Insurance Corporation (CDIC) is a federal Crown corporation of the Government of Canada that protects eligible deposits at each of its member financial institutions up to a maximum of \$100,000 (principal and interest combined) per depositor per insured category in case of a failure. There is no need to apply for this insurance or file a claim; coverage is free and automatic as long as deposits are paid in Canada and in Canadian currency. The CDIC does not cover foreign currency deposits, including U.S. dollars. If deposits are made at a branch or office of a CDIC member institution in Canada, that institution is eligible for CDIC coverage (CDIC, 2018a). Similar protection is provided to customers of credit unions. A provincial deposit insurer is present in each of Canada’s ten provinces and protects provincial credit unions; these provincial deposit insurers can be found on the CDIC website on the webpage Provincial deposit insurers. Currently, there is no credit union legislation in place in the Yukon, Northwest Territories, and Nunavut.

Eligible deposits covered by the CDIC include:

- Savings accounts,
- Chequing accounts,
- Term deposits (such as GICs) with original terms to maturity of five years or less,
- Debentures issued to evidence deposits by CDIC member institutions (other than banks),

- Money orders and bank drafts issued by CDIC members,
- Cheques certified by CDIC members. (CDIC, 2018b)

Member institutions include banks, federally regulated credit unions, as well as loan and trust companies and associations governed by the Cooperative Credit Associations Act. The CDIC is funded by premiums paid by its member institutions and does not receive public funds to operate (CDIC, 2018c).

The above-mentioned institutions are examples of deposit-type institutions.

The following are examples of non-depository institutions that also provide a variety of financial services: life insurance companies, investment companies, mortgage and loan companies, pawnshops, and cheque-cashing outlets (Kapoor et al., 2015).

**Non-depository institutions** provide non-depository credit, such as real estate credit, international trade financing, short-term inventory credit and loans, working capital credit, and agricultural credit and loans. Essentially, they make direct loans or extend credit through funds from sources other than deposits from the public.

**Cheque-cashing centres** are examples of a non-depository financial institution that offer financial services that are often utilized by those who are unable to open up accounts at depository institutions, largely because of their past financial history, those who wish to take advantage of their extended business hours, and those who wish to have immediate access to their funds. Some are critical of these centres because of the fees associated with them. Many centres charge an average fee of 3 to 5 per cent of the cheque amount. Long term, the fees charged by these centres are generally far more expensive than a traditional chequing account at a depository institution.

A **pawnshop** is an example of a non-depository institution that offers loans in exchange for personal property as a form of collateral. The personal property may be repurchased if the loan is repaid in an agreed-upon time frame at its initial price plus interest. The personal property “may be liquidated by the pawn shop through a pawnbroker or second-hand dealer through sales to customers” (BusinessDictionary, 2018).

## Indigenous Banking and Financing

Historically, Indigenous communities and businesses in Canada have had a lack of access to debt financing due to a number of issues such as limited collateral, the challenge of using on-reserve assets as collateral, and a lack of local financial institutions. Equity financing has also been hampered by limited personal resources, a lack of access to venture capital and community funds, and the inability of family and friends to invest (Cooper, 2016). According to Cooper (2016), “perceived risk underlies most of these issues. In many cases this perception is shaped by a lack of accurate information about

the governance and fiscal capacity of Aboriginal communities. . . . As a result, Aboriginal individuals and communities in Canada have been placed at a disadvantage to the rest of Canadian society” (pp. 163–164).

Instead of selling bonds or other large loans to capital markets, “Aboriginal entrepreneurs, businesses and governments rely more on financial institutions, such as banks, credit unions, and other structures to access capital” (Cooper, 2016, p. 165). Therefore, Indigenous financial institutions and banking play a critical role in closing the gap that has existed between Indigenous and mainstream communities with regard to access to capital. Many mainstream financial institutions and government initiatives, such as Aboriginal Business Canada, have also attempted to close the “capital gap” in recent years.

Below are some examples of Indigenous financial institutions that have been established in order to assist Indigenous communities, entrepreneurs, and governments in accessing capital.

**First Nations Bank of Canada** got its start with the Saskatchewan Indian Equity Foundation (SIEF). SIEF was established as an Aboriginal capital corporation in the mid-1980s. During the early 1990s, the settlement of land claims under the Treaty Land Entitlement Framework Agreement (TLEFA) in Saskatchewan was taking place. Many banks began to show a new interest in managing First Nations money because of these land claims. Seeing an opportunity, SIEF submitted a proposal to the Federation of Saskatchewan Indian Nations (FSIN)—now called the Federation of Sovereign Indigenous Nations—to create the First Nations Bank (Schneider, 2009).

In 1996, SIEF, the FSIN, and Toronto-Dominion (TD) launched the First Nations Bank of Canada (Cooper, 2016). The founders of First Nations Bank (FNB) had a vision to develop a federally chartered bank serving Indigenous and non-Indigenous people, corporations, and governments throughout Canada. The bank offers these customers a full range of personal and business banking services, including loans, mortgages, investments (registered and non-registered), transaction accounts, and cash management. The bank is primarily focused on providing financial services to the Indigenous marketplace in Canada and “sees itself as an important step toward Aboriginal self-sufficiency” (FNB, 2017a). Over 80 per cent of FNB is Indigenous owned and controlled; the bank now operates separately from TD (FNB, 2017b).

FNB is both an approved member of the CDIC and the Canadian Payments Association, and it is an approved mortgage lender with Canada Mortgage and Housing Corporation as well as the First Nations Market Housing Fund (FNB, 2017b). The bank is headquartered in Saskatoon, Saskatchewan.

**Anishinabek Nation Credit Union, Caisse Populaire Kahnawake, and Me-Dian Credit Union** are three examples of Indigenous credit unions in Canada. Caisse Populaire Kahnawake is located on reserve, twenty kilometres from Montreal. Kahnawake chose to open the credit union in the mid-1980s in order to develop their own source of capital for economic development purposes instead of being reliant on outside government. The credit union model was chosen “so they could tailor products and services to meet the members’ needs. The *caisse populaire* is headquartered on

the reserve, so there is no question of taxability on interest earned. In 2004, 5,288 people from a reserve of 8,000 were members of the caisse” (Cooper, 2016).

**Aboriginal financial institutions (AFIs)** were created in the late 1980s and early 1990s by Indigenous leaders, the Government of Canada, and a Native Economic Development Program initiative in order to address the lack of available capital to finance Indigenous small-business development. Within the last thirty years, over fifty AFIs have been established throughout Canada, resulting in over thirteen thousand full-time equivalent jobs and \$2.3 billion in developmental loans to Canadian Indigenous peoples (NACCA, 2016).

AFIs represent a network of loan corporations in Canada, structured as non-governmental financial institutions, which deliver a variety of Indigenous business and community development products and support services. AFIs offer developmental lending and their products are inclusive of small business loans to Indigenous small businesses engaged in all sectors of the Canadian economy. The National Aboriginal Capital Corporation (NACCA) serves the AFI network by supporting AFI capacity development and Indigenous business development in order to enhance “social and economic self-reliance and sustainability for Indigenous peoples and communities nationwide” (NACCA, 2016, p. 5). AFIs are generally composed of three different institutional structures:

1. Aboriginal capital corporations;
2. Aboriginal community future development corporations; and
3. Development corporations.

For more information on these different types of AFIs, go to the website of the National Aboriginal Capital Corporations Association.

## Saving Instruments

Banks offer many different ways to save your money until you use it for consumption. The primary difference among the accounts offered to you is the price that your liquidity earns, or the compensation for your opportunity cost and risk, which in turn depends on the degree of liquidity that you are willing to give up. You give up more liquidity when you agree to commit to a minimum time or amount of money to save or lend.

For the saver, a **demand deposit** (e.g., chequing account) typically earns no or very low interest but allows complete liquidity on demand. Chequing accounts that do not earn interest are less useful for savings and therefore more useful for cash management. Some chequing accounts do earn some interest, but often require a minimum balance. **Time deposits**, or savings accounts, offer minimal interest or a bit more interest with minimum deposit requirements.

If you are willing to give up more liquidity, GICs offer a higher price for liquidity, but extract a

time commitment enforced by a penalty for early withdrawal if they are considered non-redeemable GICs. Some GICs can be redeemed prior to maturity, but these GICs will offer a lower rate of interest compared to non-redeemable GICs (Kapoor et al., 2015, pp. 129). They are offered for different maturities and some have minimum deposits as well. Banks can also offer investments in money market mutual funds. A **money market fund** is a “combination savings-investment plan in which the investment company uses your money to purchase a variety of short-term financial instruments” (Kapoor et al., 2015, pp. 123–124). Examples of short-term financial instruments are securities such as stocks and bonds.

Compared to the capital markets, the money markets have very little risk, so money market funds are considered very low-risk investments.

As long as your money remains in your account, including any interest earned while it is there, you earn interest on that money. If you do not withdraw the interest from your account, it is added to your principal balance, and you earn interest on both. This is referred to as earning interest on interest, or **compounding**. The rate at which your principal compounds is the **annual percentage rate (APR)** that your account earns.

The **rate of return** is the *yield*, namely “the percentage of increase in the value of savings as a result of interest earned” (Kapoor et al., 2015, p. 130). For example, if you invest \$200 and earn 2 per cent annually, you will earn \$4 the first year. You can calculate the eventual value of your account by using the relationships of time and value that we looked at in Chapter 4 “Evaluating Choices: Time, Risk, and Value,” where  $FV$  = future value,  $PV$  = present value,  $r$  = rate, and  $t$  = time. The balance in your account today is your present value,  $PV$ ; the APR is your rate of compounding,  $r$ ; the time until you will withdraw your funds is  $t$ . Your future value depends on the rate at which you can earn a return or the rate of compounding for your present account and can be determined using the following formula:

$$FV = PV \times (1+r)^t$$

If you are depositing a certain amount each month or with each paycheck, that stream of cash flows is an annuity. You can use the annuity relationships discussed in Chapter 4 to project how much the account will be worth at any point in time, given the rate at which it compounds. Many financial calculators can help you make those calculations.

Ideally, you would choose a bank’s savings instrument that offers the highest APR and most frequent compounding. However, interest rates change, and banks with savings plans that offer higher yields often require a minimum deposit, minimum balance, and/or a maintenance fee. Also, your interest from savings is taxable, as it is considered income. As you can imagine, however, with monthly automatic deposits into a savings account with compounding interest, you can see your wealth can grow safely.

# Savings Strategies

Your choice of savings instrument should reflect your liquidity needs. In the money markets all such instruments are relatively low risk, so return will be determined by opportunity cost.

You do not want to give up too much liquidity and then risk being caught short, because then you will have to become a borrower to make up that shortfall, which will create additional costs. If you cannot predict your liquidity needs or you know they are immediate, you should choose products that will least restrict your liquidity choices. If your liquidity needs are more predictable or longer term, you can give up liquidity without creating unnecessary risk and can therefore take advantage of products, such as GICs, that will pay a higher price.

Your expectations of interest rates will contribute to your decision to give up liquidity. If you expect interest rates to rise, you will want to invest in shorter-term maturities, so as to regain your liquidity in time to reinvest at higher rates. If you expect interest rates to fall, you would want to invest in longer-term maturities so as to maximize your earnings for as long as possible before having to reinvest at lower rates.

One strategy to maximize liquidity is to diversify your savings in a series of instruments with differing maturities. If you are using GICs, the strategy is called **GIC laddering**. For example, suppose you have \$12,000 in savings earning 0.50 per cent annually. You have no immediate liquidity needs, but would like to keep \$1,000 easily available for emergencies. If a one-year GIC is offering a 1.5 per cent return, the more savings you put into the GIC, the more return you will earn, but the less liquidity you will have.

A “laddering” strategy allows you to maximize return and liquidity by investing \$1,000 per month by buying a one-year GIC. After twelve months, all your savings are invested in twelve GICs, each earning 1.5 per cent. But because one GIC matures each month, you have \$1,000 worth of liquidity each month. You can keep the strategy going by reinvesting each GIC as it matures. Your choices are shown in Table 7.2.1.

**Table 7.2.1 GIC Laddering Strategy**

	\$ Invested in GICs	Liquid	Earnings	Interest Rate
<b>Savings Strategy</b>	0	12,000	60	0.50%
<b>Savings Strategy</b>	11,000	1,000	165	1.50%
<b>Savings Strategy</b>	12,000	0	180	1.50%
<b>GIC Laddering Strategy</b>	12,000	1,000	180	1.50%

A laddering strategy can also reflect expectations of interest rates. If you believe that interest rates or the earnings on your money will increase, then you don’t want to commit to the currently offered rates for too long. Your laddering strategy may involve a series of relatively short-term (less than one

year) instruments. On the other hand, if you expect interest rates to fall, you would want to weight your laddering strategy to longer-term GICs, keeping only your minimum liquidity requirement in the shorter-term GICs.

The laddering strategy is an example of how diversifying maturities can maximize both earnings and liquidity. In order to save at all, however, you have to choose to save income that could otherwise be spent, suffering the opportunity cost of everything that you could have had instead. Saving is delayed spending, often seen as a process of self-denial.

One saving strategy is to create regular deposits into a separate account such that you might have a chequing account from which you pay living expenses and a savings account in which you save.

This is easier with direct deposit of wages since you can have a portion of your disposable income go directly into your savings account. Saving becomes effortless, while spending actually requires a more conscious effort.

Some savings accounts need to be “segregated” because of different tax consequences—a retirement or education account, for example. In most cases, however, separating accounts by their intended use has no real financial value, although it can create a psychological benefit. Establishing a savings vehicle has a very low cost, if any, so it is easy to establish as many separate funds for saving as you find useful.

## *Key Takeaways*

1. Banks serve to provide the consumer with excess cash by having their cash earn money through savings until the consumer needs it.
2. Banking institutions include retail, commercial, and investments banks.
3. Consumers use retail institutions, including the following:
  - savings banks,
  - mutual savings banks,
  - Aboriginal financial institutions, and
  - credit unions.
4. Savings instruments include the following:
  - demand deposit accounts,
  - time deposit accounts,
  - guaranteed income certificates, and
  - money market fund accounts.
5. A savings strategy can maximize your earnings from savings.

## Exercises

1. What are the benefits and drawbacks of guaranteed income certificates and money market funds for saving? Compared to savings accounts, what are their implications for liquidity and risk? What are their implications for cost and return? What advice would you give to someone who saved by keeping money in a piggy bank?
2. You have \$10,000 to deposit. You want to save it, earning interest by loaning its use in the money market to your bank. You anticipate you will need to replace your washing machine within the year, however, so you don't want to surrender all your liquidity all at once. What is the best way to save your money that will give you the greatest increase in wealth without too much risk and while still retaining some liquidity? Explain your reasons for your choice of a solution.
3. What Aboriginal financial institutions are located within your province or territory or are closest to where you live? Pick one and identify what banking services they offer.
4. Go online to experiment with compound interest calculators (for example, at [moneychimp.com](http://moneychimp.com) or [WebMath.com](http://WebMath.com)). Use real numbers based on your actual or projected savings. For example, based on what you have in savings now, how much could you have in five years? To see the effects of compounding, compare your results with the same calculation for simple interest (rather than compounded interest), using the simple interest calculator at [WebMath.com](http://WebMath.com).

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## 7.3 OTHER PEOPLE’S MONEY: CREDIT

### *Learning Objectives*

1. Identify the different kinds of credit used to finance expenses.
2. Analyze the costs of credit and their relationships to risk and liquidity.
3. Describe the credit rating process and identify its criteria.
4. Identify common features of a credit card.
5. Discuss remedies for credit card trouble.
6. Summarize government’s role in protecting lenders and borrowers.

The term “**credit**” derives from the Latin verb *credere* (to believe). It has several meanings as a

verb in common usage—to recognize with respect, to acknowledge a contribution—but in finance, it generally means to allow delayed payment. According to Kapoor et al. (2015), credit is defined as “an arrangement to receive cash, goods, or services now and pay for them in the future” (p. 144).

Credit is not a new concept among Indigenous peoples in Canada. Trading posts, in what is present-day Canada, were largely established by the Hudson’s Bay Company in the late 1600s and throughout the 1700s and 1800s.

According to the *Encyclopedia of Saskatchewan*, Indigenous families would gather at trading posts in the fall, expecting the arrival of traders from the east with new stocks of goods. Indigenous families would obtain many of their supplies on credit and would then depart for their wintering grounds. These families would usually not return until the spring. It was at this time that they would bring winter furs to pay off their debts from the previous fall and would trade any remaining merchandise for other goods (Russell, 2006). Credit was used as a tool by Indigenous people in Canada to help meet their needs when cash wasn’t always on hand.

As pointed out by Oweesta and First Nations Development Institute, traditional resource management teaches us that our actions today affect the resources that we will have available in the future. For example, “hunting practices demonstrated an understanding of the costs and benefits of working within the natural cycle. The benefit of fresh meat year-round did not justify the cost” (FNOC and FNDI, 2016, p. 74).

When it comes to credit, traditional resource management also teaches us that we must not overextend ourselves and purchase goods that we are not able to repay in “the spring” (FNOC and FNDI, 2016, p. 74). Credit might provide us the benefit of fresh meat (i.e., various non-necessities and luxury items) all year long, but it is not worth the excessive interest payments that will arise if you don’t have the resources to pay off those interest charges on a monthly basis.

## Kinds of Credit

Credit is issued either as installment credit or as revolving credit. **Installment credit** is a form of credit used to purchase consumer durables, usually issued by one vendor, such as a department store, for a specific purchase. The vendor screens the applicant and extends credit, bearing the **default risk**, or risk of nonpayment. Payments are made until that amount is paid for. Payments include a portion of the cost of the purchase and the cost of the credit itself, or interest.

Installment credit is an older form of credit that became popular for the purchase of consumer durables (i.e., furniture, appliances, electronics, or household items) after the First World War. This form of credit expanded as mass production and invention made consumer durables such as radios and refrigerators widely available. (Longer-term installment purchases for bigger-ticket assets, such as a car or property, are considered debt.)

**Revolving credit** extends the ability to delay payment for different items from different vendors up to a certain limit. Such credit is lent by a bank or finance company, typically through a **charge card** or a **credit card**. The charge card balance must be paid in full in each period or **credit cycle**, while the credit card balance may not be, requiring only a minimum payment.

While both the charge card and many credit cards operate on a line of unsecured credit that has been extended to you by the card's issuer and both assess similar fees, such as annual fees, late fees, or foreign transaction fees, there are two key distinctions.

First, credit cards typically have a pre-set spending limit while charge cards do not, which allows charge card holders to put all their expenses on one card and take advantage of rewards points if these are offered on the card.

The other important difference (mentioned above) is that charge cards require customers to pay in full every month or face a fee, which can be as high as 30 per cent of the balance. However, paying interest on your balance is not required.

A charge card tends to be a good choice for those who travel frequently or have a lot of regular expenses for business. The card holder benefits from a much higher spending limit than a traditional credit card (Engen, 2013).

It is important to note that some credit cards are secured. For some consumers, this might be their only choice.

The credit card is a more recent form of credit, as its use became widely practical only with the development of computing technology. The first charge card was the Diners' Club card, issued in 1950. The first credit card was the Bank Americard (now called Visa), issued by Bank of America in 1958, which was later followed by MasterCard in 1966. Retailers can also issue revolving credit (e.g., a store account or credit card) to encourage purchases.

Credit cards are used for convenience and security. Merchants around the world accept credit cards as a method of payment because the issuer (the bank or finance company) has assumed the default risk by guaranteeing merchants' payment. Use of a credit card abroad also allows consumers to incur less transaction cost.

This universal acceptance allows a consumer to rely less on cash, so consumers can carry less cash, which is therefore less likely to be lost or stolen. Credit card payments also create a record of purchases, which is convenient for later record keeping. When banks and finance companies compete to issue credit, they often offer gifts or rewards to encourage purchases. In some situations, such as when it comes to purchasing airline tickets or hotel reservations, it's difficult to complete the transaction without a credit card.

Credit cards create security against cash theft, but they also create opportunities for credit fraud and even for identity theft. A lost or stolen credit card can be used to extend credit to a fraudulent

purchaser. It can also provide personal information that can then be used to assume your financial identity, usually without your knowing it. You should therefore, handle your credit cards carefully and be aware of publicized fraud alerts. Failure to do so may leave you responsible for purchases you did not make—or enjoy. Currently, there are a number of bank apps that can be utilized to review your credit card transactions in real time in order to ensure against cash theft or credit fraud, such as the TD MySpend app. Look to see if your bank has such an app.

## Costs of Credit

Credit has become a part of modern transactions, largely enabled by technology, and a matter of convenience and security. It is easy to forget that credit is a form of borrowing and thus has costs. Understanding those costs helps you manage them.

Because consumer credit is all relatively short term, its cost is driven more by risk than by opportunity cost—that is, the risk of default or the risk that you will fail to repay the amounts advanced to you. The riskier the borrower, the fewer the sources of credit. The fewer sources of credit available to a borrower, the more credit will cost.

## Measuring Risk: Credit Ratings and Reports

How do lenders know who the riskier borrowers are?

**Credit rating** agencies specialize in evaluating borrowers' credit risk or default risk for lenders. That evaluation results in a **credit score**, which lenders use to determine their willingness to lend and their price.

If you have ever applied for consumer credit (a revolving, installment, or personal loan) you have been evaluated and given a credit score. The information you write on your credit application form, such as your name, address, income, and employment, is used to research the factors for calculating your credit score, also known as a FICO (Fair Isaac Corporation) score after the company that developed it.

In Canada, there are currently two major credit rating agencies: Equifax Canada and TransUnion. Each calculates your score a bit differently, but the process is similar. They assign a numerical value to five characteristics of your financial life and then compile a weighted average score. Scores range from 300 to 900; the higher your score, the less risky you appear to be. Although a number of factors can determine credit scores, the following five factors are most heavily weighted when determining your credit score:

1. your payment history,

2. amounts you currently owe,
3. the length of credit history,
4. new credit issued to you, and
5. the types of credit you have received.

The rating agencies give your payment history the most weight, because it indicates your risk of future defaults. Do you pay your debts? How often have you defaulted in the past? CIBC has recently partnered with Fintech Borrowell and Equifax Canada to provide Canadians unlimited free access to their credit score, which will be updated quarterly, through CIBC mobile banking. The purpose of this app is to not only provide clients with access to their credit score, but also to improve their financial well-being and understanding with additional information that is provided on “factors that affect their credit score and advice on how to improve it” (CIBC, 2017).

CIBC recently conducted research that indicates “the majority of Canadians recognize the importance of knowing their credit score to safeguard against fraud, yet more than two-thirds do not know their credit score (69 per cent). Two-in-five (45 per cent) say they have no idea where to obtain their credit score” (CIBC, 2017). The credit available to you is reflected in the amounts you currently owe or the credit limits on your current accounts. These show how dependent you are on credit and whether or not you are able to take on more credit. It is important to keep your credit balance low because the lower your outstanding credit balances, the more points are awarded in terms of your credit score.

The length of your credit history shows how long you have been using credit successfully; the longer you have been doing so, the less risky a borrower you are and the higher your score becomes. Credit rating agencies pay more attention to your more recent credit history and also look at the age and mix of your credit accounts, which show your consistency and diversification as a borrower.

The credit rating process is open to manipulation and misinterpretation. Many people are shocked to discover, for example, that simply cancelling a credit card, even for a dormant or unused account, lowers their credit rating by shortening their credit history and decreasing the diversity of their accounts. Yet it may make sense for a responsible borrower to cancel a card. Credit reports may also contain errors that you should correct by disputing the information.

You should know your credit score. Even if you haven’t applied for new credit, you should check on it annually. Each of the credit rating agencies is required to provide your score once a year for free and to correct any errors that appear—and they do—in a timely way. If you should find an error in your report, you should contact the agency immediately and follow up until the report is corrected.

Beware of any other websites called “annual credit report” as these may be impostors. It is important to review your score regularly to check for those errors. Knowing your score can help you to make financing decisions because it can help you to determine your potential costs of credit. It can also alert you to any credit or identity theft of which you otherwise are unaware.

Please visit the webpage Credit report and score basics on the Government of Canada website for more information.

If you wish to protest your credit score or ask for more information, you can contact the credit reporting agency regarding their dispute resolution process. After an investigation, if you do not agree with an item, you can visit either the TransUnion or Equifax websites for more information on how you can add an explanatory statement to your report.

**Identity theft** is a growing problem. Financial identity theft occurs when someone poses as you by using your personal information, such as your social insurance, driver's licence, bank account, or credit card numbers. The impostor uses your identity to either access your existing accounts (withdrawing funds from your chequing account or buying things with your credit card) or establish new accounts in your name.

The best protection is to be careful how you give out public information. Convenience encourages more and more transactions by telephone and Internet, but you still need to be sure of whom you are talking to before giving out identifying data.

As careful as you are, you cannot protect yourself completely. Checking your credit report regularly can therefore flag any unfamiliar or unusual activity carried out in your name. If you suspect that your personal information has been breached, you can ask the credit reporting agencies to issue a fraud alert. Fraud alert messages notify potential credit grantors to verify your identification by contacting you before extending credit in your name in case someone is using your information without your consent. That way, if a thief is using your credit to establish new accounts (or buy a home, a car, or a boat) you will know it. If a stronger measure is needed, you can order a credit freeze that will prevent anyone other than yourself from accessing your credit file.

## Using a Credit Card

Credit cards issued by a bank or financing company are the most common form of revolving credit. This often has costs only after a repayment deadline has passed. For example, credit cards offer a **grace period** between the time of the credit purchase or "charge" and the time of payment, assuming your beginning balance is zero. If you pay before interest is applied, you are using someone else's money to make your purchases at no additional cost. In that case, you are using the credit simply as a cash management tool.

Credit cards are effective as a **cash management tool**. They can be safer to use than cash, especially for purchasing pricier items. Payment for many items can be consolidated and made monthly, with the credit card statement providing a detailed record of purchases. If you carry more than one card, you might use them for different purposes. For example, you might use one card for personal

purchases and another for work-related expenses. Credit cards also make it convenient to buy on impulse, which may cause problems.

Problems arise if you go beyond using your card as a cash management tool and use it to extend credit or to finance your purchases past the payment deadline. At that point, interest charges begin to accrue. Typically, that interest is expensive—perhaps only a few percentage points per month, but compounding to a large APR.

Credit card APRs today may start with 0 per cent for introductory offers and range from as low as 8.99 per cent (fixed rate) to between 20 to 23 per cent on popular credit cards (Barnea, 2017). These rates may be fixed or variable, but in any case, when you carry a balance from month to month, this high interest is added to what you owe.

As an example, if your credit card charges interest of 1.5 per cent per month, that may not sound like much, but it is an annual percentage rate of 18 per cent (1.5 per cent per month  $\times$  12 months per year). To put that in perspective, remember that your savings account is probably earning only around 1 to 3 per cent *per year*. Consumer credit is thus an expensive way to finance consumption. Consumers tend to rely on their cards when they need things and lack the cash, and this can quickly lead to credit card debt.

## Choosing a Credit Card

You should shop around for credit just as you would shop around for anything that you might purchase with it, comparing the features and the costs of each credit card.

Features of the credit include the credit limit (or how much credit will be extended), the grace period, purchase guarantees, liability limits, and consumer rewards. Some cards offer a guarantee for purchases; if you purchase a defective item, you can have the charge “stopped” and removed from your credit card bill. Liability limits involve your responsibilities should your card be lost or stolen.

Consumer rewards may be offered by some credit cards, usually by rewarding “points” for dollars of credit. The points may then be cashed in for various products. Sometimes the credit card is sponsored by a certain retailer and offers rewards redeemable only through that store. A big sponsor of rewards has been the airline industry, commonly offering “frequent flyer miles” through credit cards as well as actual flying. Be aware, however, that many reward offers have limitations or conditions on redemption. In the end, many people never redeem their rewards.

Creditors charge fees for extending credit. There is the APR on your actual credit, which may be a fixed or adjustable rate. It may be adjustable based on the age of your balance—that is, the rate may rise if your balance is over sixty days or ninety days. There may also be a late fee charged in addition

to the actual interest. The APR may also adjust as your balance increases, so that even if you stay within your credit limit, you are paying a higher rate of interest on a larger balance.

There are also fees on cash advances and on balance transfers (i.e., having other credit balances transferred to this creditor). These can be higher than the APR and can add a lot to the cost of those services. You should be aware of those costs when making choices. For example, it can be much cheaper to withdraw cash from an ATM using your bank account's debit card than using a cash advance from your credit card.

Many credit cards charge an annual fee just for having the card, regardless of how much it is used. Many do not, however, and it is worth looking for a card that offers the features that you want with no annual fee.

How you will use the credit card will determine which features are important to you and what costs you will have to pay to get them. If you plan to use the credit card as a cash management tool and pay your balance every month, then you are less concerned with the APR and more concerned about the annual fee, or the cash advance charges. If you sometimes carry a balance, then you are more concerned with the APR.

It is important to understand the costs and responsibilities of using credit—and it is very easy to overlook them.

The Financial Consumer Agency of Canada's credit card comparison tool helps consumers compare the features of different cards, including interest rates, annual fees, and rewards. Go to the Credit Card Comparison Tool on the Government of Canada's website to find the card that best suits your needs.

## Installment Credit

Retailers also may offer credit, usually as installment credit for a specific purchase, such as a flat screen TV or baby furniture. The cost of that credit can be hard to determine, as the deal is usually offered in terms of “low, low monthly payments of only” or “no interest for the first six months.” To find the actual interest rate you would have to use the relationships of time and value. Ideally, you would pay in as few installments as you could afford and would pay all the installments in the shortest possible time.

Retailers usually offer credit for the same reason they offer home delivery—as a sales tool—because most often, customers would be hesitant or even unable to make a durable goods purchase without the opportunity to buy it over time. For such retailers, the cost of issuing and collecting credit and its risk are the operating costs of sales. The interest on installment credit offsets those sales costs.

Some retailers sell their installment receivables to a company that specializes in the management and collection of consumer credit, including the repossession of durable goods.

## Personal Loans

Aside from installment credit and rotating credit, another source of consumer credit is a short-term personal loan arranged through a bank, credit union, or finance company. Personal loans used as credit are all-purpose loans that may be “unsecured”—that is, nothing is offered as collateral—or “secured.” Personal loans used as debt financing are discussed in the next section. Personal loans used as credit are often costly and difficult to secure, depending on the size of the loan and the bank’s risks and costs (screening and paperwork).

A personal loan may also be made by a private financier who holds personal property as collateral, such as a pawnbroker in a pawnshop. Typically, such loans are costly, usually result in the loss of the property, and are used by desperate borrowers with no other sources of credit. Today, many “financiers” offer personal loans online at very high interest rates with no questions asked to consumers with bad credit. This is a contemporary form of “loan sharking,” or the practice of charging a very high and possibly illegal interest rate on an unsecured personal loan. Some loan sharks have been known to use threats of harm to collect what is owed.

One form of high-tech loan sharking is the “**payday loan**,” which offers very short-term personal loans of small amounts at high interest rates. The amount you borrow, usually between \$500 and \$1,500, is directly deposited into your chequing account overnight, but you must repay the loan with interest on your next payday. The loan thus acts as an advance payment of your wages or salary, so when your paycheque arrives, you have already spent a large portion of it, and maybe even more because of the interest you have to pay. As you can imagine, many victims of repeated payday loans fall behind in their payments, cannot meet their fixed living expenses on time, and end up ever deeper in debt.

Payday lending is often viewed as a form of **predatory lending**; this type of lending is often characterized by excessive interest rates, unnecessary charges, and highly questionable terms. Some predatory lenders will charge interest rates as high as 59.9 per cent, just short of the 60 per cent legal limit in Canada. Payday lenders such as Money Mart (interest rate – 59.9 per cent) and Easyfinancial (interest rate – 46.9 per cent) are examples of predatory lenders (Freeman, 2015). The total fees result in an APR equivalent cost of over 300 per cent. In 2006, the federal government introduced legislation allowing provinces to lower the legal limit if they created a regulatory system to govern the industry. Bill C-26 (2006) exempts payday lenders from prosecution under Section 347 and defers regulation of these lenders to the provinces.

Personal loans are the most expensive way to finance recurring expenses, and they almost always create more expense and risk—both financial and personal—for the borrower.

## Credit Trouble and Protections

As easy as it is to use credit, it is even easier to get into trouble with it. Because of late fees and compounding interest, if you don't pay your balance in full each month, it quickly multiplies and becomes more difficult to pay. It doesn't take long for the debt to overwhelm you.

According to the Advanced Planning Insurance Group (2018), the following are five warning signs of overindebtedness to watch for:

1. You are spending more than 20 per cent of your after-tax earnings on debt. Total up all you owe, excluding your mortgage (e.g., student loans, car payments, and credit card bills). Now total up how much of your after-tax income is dedicated to servicing this debt.
2. You are paying for daily essentials with credit instead of cash. Consequently, you are close to the credit limits on your cards. Credit cards charge notoriously high interest rates, which is exacerbated by compounding when credit cards are not paid off monthly. This can also increase your actual gross cost of goods purchased.
3. You are deferring important expenditures. You may need maintenance work (on your car, your home, and your teeth) as you struggle to get by.
4. You seem to spend your paycheque the day you get it. This may be a sign that you're also overspending, an activity that leads to debt.
5. You are not differentiating between "good" versus "bad" debt. Good debt is money borrowed for productive purposes to help generate wealth over time (through such things as education, building a small business, or purchasing real estate). Fancy cars, expensive vacations, restaurant meals, and overindulgent gift giving may indicate a lifestyle that is, for many, beyond the average household's paycheque.

If you should become overindebted, the first thing to do is to try to devise a realistic budget that includes a plan to pay off the balance. Contact your creditors and explain that you are having financial difficulties and that you have a plan to make your payments. Don't wait for the creditor to turn your account over to a debt collector such as a collection agency, a company that intervenes to recover money owed by people in debt. It is better to be proactive in trying to resolve the debt. Creditors—the people to whom money is owed—pay collection agencies to recover what is owed to them. If money is owed to a company or a supplier, and payments have not recently been made by an individual or company, that company or supplier can turn the file over to a collection agency.

In Canada, only a first party lender, debt buyer, or lawyer can collect money. Provincially, a licensed collection agency can collect consumer or commercial debt, and these agencies are subject to provincial laws (Priority Credit Recovery, 2017). You can refer to the Office of Consumer Affairs (OCA) on the Innovation, Science and Economic Development Canada website for helpful tips and information on how to deal with collection agencies.

Too much debt can create serious stress in your life and threaten your well-being and your future.

You may want to use a credit counsellor to help you create a budget and negotiate with creditors. Many counselling agencies are non-profit organizations that can also help with debt consolidation and debt management. Some “counsellors” are little more than creditors trying to sell you more credit, however, so be careful about checking their credentials before you agree to any plan. You do not need more credit, but more *realistic* credit.

As a last resort, you may file for personal bankruptcy, which may relieve you of some of your debts, but will blemish your credit rating for six years, making it very difficult—and expensive—for you to use any kind of credit or debt. A second bankruptcy will stay on your credit report for fourteen years (Bankruptcy Canada, 2013). Each allows you to keep some assets, and each holds you to some debts. But the process gets complicated, and you will want legal assistance.

In Canada, **insolvency**—that is, “the inability to pay debts when they are due because of liabilities that far exceed the value of assets”—falls under the Bankruptcy and Insolvency Act and is governed by the Office of the Superintendent of Bankruptcy (Kapoor et al., 2015, p. 53).

A consumer proposal “is a maximum five-year plan for paying creditors all or a portion of a debt owed. To be eligible for this type of insolvency protection application, you must be insolvent and be less than \$250,000 in debt (excluding a mortgage on your principal residence)” (Kapoor et al., 2015, p. 192). A Licensed Insolvency Trustee (LIT) is a qualified, experienced, federally regulated professional who administers a consumer proposal, which is a legally binding process, and can help guide you and get you discharged from your debt. One must work with a trustee if they are filing either a consumer proposal or for bankruptcy. The LIT works with you “to develop a ‘proposal’ to pay creditors a percentage of what is owed to them, or extend the time you have to pay off the debts, or both. The term of a consumer proposal cannot exceed five years. Payments are made through the LIT, and the LIT uses that money to pay each of your creditors” (Government of Canada, 2015). See the Office of the Superintendent of Bankruptcy on the Government of Canada website for information on how to file a consumer proposal or for bankruptcy as an individual.

The effects of a bankruptcy can last longer than your debts would have, however, so it should never be seen as an “out,” but rather as a last resort.

Modern laws and regulations governing the extension and use of credit and debt try to balance protection of the lender and of the borrower. They try to ensure that credit or debt is used for economic purposes and not to further social or political goals. They try to balance borrowers’ access to credit and debt as tools of financial management with the rights of property owners (lenders).

Many provinces have their own legislation and oversight. These bankruptcy rules focus on personal bankruptcy exemptions.

If you feel that your legal rights as a borrower or lender have been ignored and that the offender has not responded to your direct, written notice, there are local, provincial, and national agencies and organizations that offer assistance. There are also organizations that help borrowers manage credit and debt.

Laws and regulations can govern how we behave in the credit and debt markets, but not whether we choose to participate as a lender or as a borrower: whether we use credit to manage cash flow or to finance a lifestyle, whether we use debt to finance assets or lifestyle, and whether we save. Laws and regulations can protect us from each other, but they cannot protect us from ourselves.

### *Key Takeaways*

1. Credit is used as a cash management tool or as a method of short-term financing for consumption.
2. Credit may be issued as revolving credit (credit cards), installment credit, or personal loans.
3. Credit can be a relatively expensive method of financing.
4. Credit accounts differ by the following features:
  - credit limit,
  - grace period,
  - purchase guarantees,
  - liability limits, and
  - consumer rewards.
5. Credit accounts charge fees, such as the following: annual percentage rate, late fees, balance transfer fees, and cash advance fees.
6. Credit remedies include the following: renegotiation, debt consolidation, debt management, and bankruptcy.
7. Modern laws governing the uses of credit and debt try to balance protection of borrowers and lenders.

### *Exercises*

1. Read the Maclean's article "Drowning in debt is the new normal in Canada," by Scott Terrio, on personal credit card debt in Canada. Record in your personal finance journal all the facts that pertain especially to you in your present financial situation. What facts did you find most surprising or most disturbing? Share your observations about these data with your classmates.
2. Investigate online the sources and processes of debt consolidation. Sample debt consolidation businesses offering "free" advice and services. Visit the Financial Consumer Agency of Canada's website and read the webpage Getting help from a credit counsellor. When seeking advice about

- your credit, why might you want to use an adviser or consumer centre?
3. What is your credit rating or credit score? Apply for your credit reports from Equifax Canada or TransUnion.

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## 7.4 OTHER PEOPLE’S MONEY: AN INTRODUCTION TO DEBT

### *Learning Objectives*

1. Define debt and identify its uses.
2. Explain how default risk and interest rate risk determine the cost of debt.
3. Analyze the appropriate uses of debt.

**Debt** is something, often a sum of money, that is owed or due. One often has the ability to delay payment over several periods when taking on debt. **Credit** creates debt—either short- or long-term debt—in order to finance the purchase of assets. Credit is a cash management tool used to create security and convenience, whereas debt is an asset management tool used to create wealth. Debt also creates risk.

The two most common uses of debt by consumers are car loans and mortgages. They are discussed much more thoroughly in Chapter 8 “Consumer Strategies” and Chapter 9 “Buying a Home.” But before you get into the specifics, it is good to know some general ideas about debt.

Usually, the asset financed by the debt can serve as collateral for the debt, lowering the default risk for the lender. However, that security is often outweighed by the amount and maturity of the loan, so default risk remains a serious concern for lenders. Whatever concerns lenders will be included in the cost of debt, and so these things should also concern borrowers.

Lenders face two kinds of risk: **default risk**, or the risk of not being paid, and **interest rate risk**, or the risk of not being paid enough to outweigh their opportunity cost and make a profit from lending. Your costs of debt will be higher than the lender’s cost of risk. When you lower the lender’s risk, you lower your cost of debt.

## Costs of Debt

### *Default Risk*

Lenders try to protect themselves against default risk by screening applicants to determine their probability of defaulting. Along with the scores provided by credit rating agencies, lenders evaluate loan applicants on “the five C’s”: character, capacity, capital, collateral, and conditions.

**Character** is an assessment of the borrower’s attitude toward debt and its obligations, which is a critical factor in predicting timely repayment. To deduce “character,” lenders can look at your financial stability, employment history, residential history, and repayment history on prior loans.

**Capacity** represents your ability to repay by comparing the size of your proposed debt obligations to the size of your income, expenses, and current obligations. The larger your income is in relation to your obligations, the more likely it is that you are able to meet those obligations.

**Capital** is your wealth or asset base. You use your income to meet your debt payments, but you could use your asset base or accumulated wealth as well if your income falls short. Also, you can use your asset base as collateral.

**Collateral** insures the lender against default risk by claiming a valuable asset in case you default. Loans to finance the purchase of assets, such as a mortgage or car loan, commonly include the asset as collateral—the house or the car. Other loans, such as a student loan, may not specify collateral but instead are guaranteed by your general wealth.

**Conditions** refer to the lender’s assessment of the current and expected economic conditions that are the context for this loan. If the economy is contracting and unemployment is expected to rise, that may affect your ability to earn income and repay the loan. Also, if inflation is expected, the lender can expect that 1) interest rates will rise and 2) the value of the currency will fall. In this case, lenders will want to use a higher interest rate to protect against interest rate risk and the devaluation of repayments.

### *Interest Rate Risk*

Because debt is long term, the lender is exposed to interest rate risk, or the risk that interest rates will fluctuate over the maturity of the loan. A loan is issued at the current interest rate, which is “the going rate” or current equilibrium market price for liquidity. If the interest rate on the loan is fixed, then that is the lender’s compensation for the opportunity cost or time value of money over the maturity of the loan.

If interest rates increase before the loan matures, lenders suffer an opportunity cost because they miss out on the extra earnings that their cash could have earned had it not been tied up in a fixed-rate loan. If interest rates fall, borrowers will try to refinance or borrow at lower rates to pay off this now higher-rate loan. Then the lender will have its liquidity back, but it can only be re-lent at a newer, lower price and create earnings at this new and lower rate. So the lender suffers the opportunity cost of the interest that could have been earned.

Why should you, the borrower, care? Because lenders will have you cover their costs and create a loan structured to protect them from these sorts of risks. Understanding their risks (looking at the loan agreement from their point of view) helps you to understand your debt choices so you can use them to your advantage.

Lenders can protect themselves against interest rate risk by structuring loans with a penalty for early repayment to discourage refinancing or by offering a **floating-rate loan**, a loan for which the interest rate “floats” or changes, usually periodically and relative to a benchmark rate such as the prime rate. In contrast, the interest rate of a **fixed-rate loan** remains the same until the loan is paid back. The **prime rate** is the rate that banks charge their very best (least risky) borrowers. The floating-rate loan shifts some interest rate risk onto the borrower, for whom the cost of debt would rise as interest rates rise. The borrower would still benefit, and the lender would still suffer from a fall in interest rates, but there is less probability of early payoff should interest rates fall. Mainly, the floating-rate loan is used to give the lender some benefit should interest rates rise. The **real rate of return** is what the investor receives as an annual percentage return on an investment once changes in prices, due to inflation or other external effects, are taken into account.

Borrowers may be better off having a fixed-rate loan and having stable and predictable payments over the life of the loan. The better or more creditworthy a borrower you are, the better the terms and structure of the loan you may negotiate.

## Uses of Debt

Debt should be used to finance assets rather than recurring expenses, which are better managed with a combination of cash and credit. The maturity of the financing (credit or debt) should match the useful life of the purchase. In other words, you should use shorter-term credit for consumption and longer-term debt for assets.

If you finance consumption with longer-term debt, then your debt will outlive your expenses: you will be continuing to pay for something long after it is gone. If you finance assets with short-term debt, you will be making very high payments, both because you will be repaying over a shorter time and so will have fewer periods in which to repay and because your cost of credit is usually higher than your cost of debt; for example, annual credit card rates are typically higher than mortgage rates.

However, borrowers may be tempted to finance asset purchases with credit in order to avoid the more difficult screening process of debt. Given the more significant investment of time and money in debt, lenders screen potential borrowers more rigorously for debt than they do for credit. The transaction costs for borrowing with debt are therefore higher than they are for borrowing with credit. Still, the higher costs of credit should be a caution to borrowers.

The main reason not to finance expenses with debt is that expenses are expected to recur, and therefore the best way to pay for them is with a recurring source of financing, such as income. The cost of credit can be minimized if it is used merely as a cash management tool, but if it is used as debt—and if interest costs are allowed to accrue—then it becomes a very costly form of financing because it creates a new expense (interest) and further obligates future income. In turn, that limits future choices, creating even more opportunity cost.

Credit is more widely available than debt and it is therefore a tempting source of financing. It is a costlier financing alternative, however, in terms of both interest and opportunity costs.

## Student Loans

Unlike grants, which do not have to be paid back, student loans are borrowed money and are legal obligations that have to be repaid once you complete your education. It is important that students understand the financial implications of taking out a loan for their education. How much will you have to repay once you graduate?

The Government of Canada provides lower interest rates than commercial lenders because the federal government subsidizes student loan rates. The two main student loan programs in Canada fall under federal or provincial and territorial jurisdiction. The federal program—the Canada Student Loans Program (CSLP)—can be accessed by both full- and part-time students. The provincial and territorial programs offer either integrated or stand-alone loans. Integrated loans mean that students not only have to apply to their province of residence in order to access federal and provincial student loans, but also have to go through the National Student Loans Service Centre in order to manage and repay the loan. Integrated loans exist in Ontario, British Columbia, New Brunswick, Newfoundland and Labrador, and Saskatchewan. All other provinces and territories, except the Yukon, offer **stand-alone loans**, which means that students apply to one place for assistance, but have to manage and repay two separate loans (Kapoor et al., 2015).

For more information on Canada Student Loans, the Repayment Assistance Plan, the National Student Loan Service Centre, provincial and territorial student financial aid offices, and how to manage and reduce student loan debt, visit the Student Loans webpage on the Government of Canada website.

## *Key Takeaways*

1. Debt is an asset management tool used to create wealth.
2. Costs of debt are determined by the lender's costs and risks, such as default risk and interest rate risk.
3. Default risk is defined by the borrower's ability to repay the interest and principal.
4. Interest rate risk is the risk of a change in interest rates that affects the value of the loan and the borrower's behaviour.
5. Debt should be used to purchase assets, not to finance recurring expenses.

## *Exercises*

1. Identify and analyze your debts. What assets secure your debts? What assets do your debts finance? What is the cost of your debts? What determined those costs? What risks do you undertake by being in debt? How can being in debt help you build wealth?
2. Are you considered a default risk? How would a lender evaluate you based on "the five C's" of character, capacity, capital, collateral, and conditions? Write your evaluations in your personal finance journal. How could you plan to make yourself more attractive to a lender in the future?
3. Use the Loan Repayment Estimator on the Government of Canada website to estimate the monthly payments you will need to make to repay your Canada Student Loan or other government student loans.

# 8. Consumer Strategies

## INTRODUCTION

Aiden, Riley, and Athena are all students at the local university. All are living at home to save money while in school, and all are working at least one job to pay tuition. Between their paycheques and financial aid, they can get by, but not by much.

Aiden loves nothing more than to get lost in the world of games; he is hoping that his degree in digital media will lead to a career developing games and applications for a growing market. Whenever he can, he upgrades his laptop and smartphone with the latest killer apps.

Living in a city with public transportation, none of them needs a car. Riley, however, loves to ride his bike whenever possible and keeps a bike in his parents' garage. Riley is a whiz not only in engineering, but also in mechanics. He has helped to fix a number of his friend's bikes over the years and is considering opening up a part-time business that would focus on bike repairs.

Athena is hoping to become an entrepreneur and is getting a head start by joining the campus business club. Wanting to make a good impression, Athena is careful to maintain a fashionable yet professional wardrobe.

All three are consumers and will be all their lives. All three make consumption decisions based on their financial and strategic goals, on their personal tastes and lifestyle, and on their professional aspirations. Their choices are very different and have different financial consequences. Everyone needs strategies that help guide their purchasing decisions.

## 8.1 CONSUMER PURCHASES

### *Learning Objectives*

1. Trace the pre-purchase, purchase, and post-purchase steps in consumer purchases.
2. Demonstrate the use of product-attribute scoring in identifying the product.
3. Compare and contrast features of different consumer markets.
4. Analyze financing choices and discuss their impact on purchasing decisions.
5. Discuss the advantages of consumer strategies using branding, timing, and transaction

costs.

6. Identify common consumer scams, strategies, and remedies.

**Consumer purchases** refer to items used in daily living (e.g., clothing, food, electronics, appliances). They are the purchases that most intimately frame your life: you live with these items and use them every day; they are an expression of your tastes and lifestyle choices, and as such, they reflect your priorities. Maybe you take pride in your car or your clothes or your kitchen appliances or your latest, coolest whatever. Or maybe you spend whatever you can on travel or on your passion for hiking. Those very personal tastes will frame your spending choices.

Consumer purchases should fit into your budget. By making an operating budget, you can plan to consume and to finance your consumption without creating extra costs of borrowing. You can plan to live within your income. At times, you may have unexpected changes (loss of a job or change in the family) that put your nondiscretionary needs temporarily beyond your means. Ideally, you would want to have a cushion to tide you over until you can adjust your spending to fit your income.

A budget can also show you just how fast some “small luxuries” can add up. Stopping for a latte on your way to work or school every day (\$4.95) adds up to \$25 per week, or about \$1,300 per year. That money may be better used to finance a bigger-ticket item that you then would not have to finance with debt. With the budget to help you put expenses into perspective, you can make better purchasing decisions.

Purchasing decisions are always limited by your available income, and that means making choices. Your choices of what, where, when, and even how to buy will affect the amount that you spend and the utility (the joy or regret) that you ultimately get out of your purchase.

Shopping is a process. You decide what you want, then have to make more specific decisions:

- Should you buy more (and pay more) but get a cheaper unit price?
- Should you buy locally or remotely, via catalogue or Internet?
- Should you pay more for a well-known brand or buy generic?
- Should you look for a guarantee or warranty or consider long-term repair costs?
- Should you consider resale value?
- Should you pay cash or use credit? If you pay through credit, is it store credit, your own credit card, or a loan?

Each of these decisions creates a trade-off. For example, it may be more convenient—and quicker—to shop locally, but there may be lower prices and a better selection of products online. Or you may find lower prices online, but have a harder time getting repairs done if you haven't bought locally.

Some of your purchases involve few conscious decisions—for example, groceries—because you buy them repeatedly and often. Other purchases involve more decisions because they are made less often and involve costlier items such as a car. When you have to live with your decision for years instead of days, you tend to make it more carefully.

The decision process can be broken down into the following steps:

1. Before you buy, or “pre-purchase,” identify

- the product: compare attributes;
- the market: compare price, delivery (return), and convenience; and
- the financing.

2. As you buy, negotiate

- attributes: colour, delivery, and style;
- price and purchase costs; and
- payment.

3. After you buy, or “post-purchase,” consider

- maintenance; and
- how to address dissatisfaction.

## Before You Buy: Identify the Product

What do you want? What do you want it to do for you? What do you want to gain by having it or using it or wearing it or eating it or playing with it? You buy things hoping to solve a need in your life. The more specifically you can define that need, the more accurately you can identify something to fill it. If your purchase is inappropriate for your need, you will not be happy with it, no matter how good it is. And because your budget is limited, you want to minimize your opportunity cost and **buyer’s remorse** or regret at not making a better purchase in order to use your limited income most efficiently.

Sometimes you can identify a need, but have no idea of the kinds of products that may fill it. This is especially true for infrequent needs or purchases. For example, you may decide you need to get away and take a long weekend. To do it cheaply, you decide to go hiking and camping. To make it more fun, you decide to go to an area where you’ve never been before. You may not be aware of the camping options available in that area, however, or of equally cheap alternatives such as hostels, bed and breakfasts, or other accommodations. When you find that you have a range of choices, you can compare them and choose one that offers the most satisfaction.

Once you have identified the product, you can compare the attributes of those products. What characteristics do you require or want? How are you going to use the product? For example, do you need cooking facilities, access to a shower, a safe but scenic location, opportunities to meet other hikers, and so on? What attributes are important to you and what are available?

Aiden is looking for a new computer keyboard, a hot gaming keyboard that can also be comfortable for writing college papers. He begins to research keyboards and finds over five hundred models from over fifty brands with different designs, attributes, and functions offered at a range of prices. He decides to try to filter his choices by looking only at gaming keyboards, which narrows it down to about eighty models.

Noticing that most of the keyboards range in price from \$25 to \$50, he decides to look in the \$50 to \$100 range, figuring he'll get a slightly higher-end product, but not an outrageously expensive one. This narrows his search to about twenty-five models.

None of the models has all the attributes that Aiden desires. It's a trade-off: he can have some features, but not others. He decides to try to organize his research by creating a table ranking the product attributes in order of importance, and then scoring each model on each attribute (on a scale of one to ten), eventually coming up with an overall score for each model. Table 8.1.1 shows scoring for three models.

**Table 8.1.1 Aiden's Product-Attribute Scoring**

		VTK		TKG		GBY	
Attribute	Weight (%)						
Backlit	25	8	2	10	2.5	9	2.25
Wireless	25	9	2.25	10	2.5	0	0
Programmable G-keys	25	2	0.5	10	2.5	5	1.25
Game panel	8	7	0.56	1	0.08	5	0.4
Touch	5	8	0.4	1	0.05	10	0.5
Media controls	5	7	0.35	1	0.05	10	0.5
Ergonomic design	5	7	0.35	1	0.05	10	0.5
Warranty	2	0	0	0	0	10	0.2
<b>Weighted Average Score</b>	<b>100</b>	<b>6.34</b>		<b>7.72</b>		<b>5.55</b>	

Multiplying each attribute's weight by its score gives its weighted score, then adding up each weighted score gives the total score for the product. Based on this attribute analysis, Aiden would choose TKG, which has the highest overall score.

In the case of an asset purchase, you may eventually think of reselling the item, so the ease and/or

costs of doing so may factor into your pre-purchase evaluation. You may decide to go with a “better” product—a more recognizable or popular brand, for example—that may have a higher resale value. You also need to consider the market for used or pre-owned products; if there is one, how liquid the market is, or how easy it is to use. If the market is not very liquid, then the transaction costs of selling in the used product market may be significant, and you may be disappointed with the result.

The more choices you have, the better your chances of finding satisfaction. The more products there are to satisfy your need, and the more attributes those products offer, the more likely you are to find what “works” for you. Sometimes you need to be a bit creative in thinking about your alternatives, especially with limited resources.

Sources of product information include the manufacturer, retailer, and other consumers. By law, certain information must be provided for certain products. For example, food ingredients must be labelled, and perishable products dated. Appliances almost always come with operating and care instructions that can give you an idea of their ongoing maintenance costs as well as operating features.

The Internet has made it easy to research products online and to become a much better-informed consumer. You can do lots of research online, even if you actually purchase locally. A feature of many online stores and consumer discussions is product reviews, where consumers give feedback on their satisfaction with the product. Such reviews can balance the information from the manufacturer and retailer, who want primarily to encourage consumers to buy.

Other sources of information are magazines and trade journals (such as *Consumer Reports*, both in print and online), which have articles and ratings on products as well as ads. Your research may also involve actual or virtual window shopping, like going to stores to examine the products you are thinking of buying.

## Before You Buy: Identify the Market

Your market may be local, national, or international, with advantages and disadvantages to each. Generally, a larger market (more vendors) will offer more variation and selection of product attributes.

As with any market, the real determinant of how your market works is competition. The more vendors there are, the more they compete for your business, and the more likely you will find options for purchasing convenience, product attributes, and price.

In markets where vendors are so plentiful that your problem is filtering rather than finding information, there are middlemen to provide that service. An example is the budget travel businesses, where there are websites that make it convenient to research and buy flights, rental cars, and

hotel accommodations. Middlemen, or **brokers**, exist in markets where they can add value to your purchasing process, either by providing information in the pre-purchase stage or by providing convenience during the purchase. The more they can reduce the cost of a “bad” decision (e.g., a difficult flight schedule, an expensive car rental, an uncomfortable hotel accommodation), the more valuable they are. They can add more value in markets where you have too little or too much information or less familiarity with products or vendors. Generally, the more expensive the product or the less frequent the purchase, the more likely you will find a middleman to make it easier.

Some products—such as durable goods and some consumer goods like textbooks, vintage clothing, and yard sale goods—have a “new” and a “used” market. Evaluating the quality of a used or pre-owned product can require more research, information, and expertise, because the effect of its past use on its future value can be hard to estimate. Used products are almost always priced less than new products, unless they have become “collectibles” that can store value. The trade-off is that used products offer less reliable or predictable future performance and may lack attributes of newer models.

Different kinds of stores often offer the same products at different prices. Convenience stores, for example, typically charge higher prices than grocery stores, but—as their name suggests—may be in more convenient locations and open at more convenient hours. Smaller boutique stores cannot always realize the economies of scale in administrative costs or in inventory management that are available to a larger store or a chain. For those reasons, prices tend to be higher at a smaller store. Boutiques often offer more amenities and a higher level of customer service to be competitive. You may also shop at a specialty store when you need a certain level of expertise or assistance in making a purchase.

Co-operative stores are owned and managed collectively and may provide goods or services that would not otherwise be available. Shopping is usually open to anyone, but members are eligible for discounts, depending on their participation in the store’s operations or management. The members own the store, so they can forgo corporate profits for consumer discounts.

Increasingly, merchandise of all kinds may be bought directly from the manufacturer, often through a catalogue or online. The shopping experience is very different (you can’t try on the sweater or see how the keyboard feels), but if you are well informed about the product, you may be comfortable buying it. Internet shopping has become a great convenience to those who are too busy or too far away to visit stores.

Auctions are becoming increasingly popular, as well, especially online auctions at eBay and similar sites. Auctions are open negotiations between buyers and sellers and offer dynamic pricing. They also offer uncertainty, as the price and even the eventual purchase are risky—you may lose the auction and not get the item. Auctions are used most often for resales and for assets such as homes, cars, antiques, art, and collectibles. The popularity of online auctions has led to more buyers, bringing more competition and thus higher prices.

## Before You Buy: Identify the Financing

Most consumer purchases are for consumable goods or services and are budgeted from current income. You pay by using cash or a debit card or, if financed, by using a credit card for short-term financing. Such purchases—food, clothing, transportation, and so on—should be covered by recurring income because they are recurring expenses. You need to be able to afford them. As you read in Chapter 7 “Financial Management,” consumers who use debt to finance consumption can quickly run into trouble because they add the cost of debt to their recurring expenses, which are already greater than their recurring income.

Unless financed by savings, durable goods such as appliances, household wares, or electronics are often bought on credit, as they are costlier items infrequently purchased. Assets such as a car or a home may be financed using long-term debt such as a car loan or a mortgage, although they also require some down payment of cash.

The use of middlemen or brokers to find and buy an item also contributes to the cost of a purchase because of the fees you pay for the service.

Products and preferred financing sources are shown in Table 8.1.2.

**Table 8.1.2 Products and Preferred Financing Sources**

	Consumer Goods	Durable Goods	Assets
Cash, Debit, Income	✓	✓	
Savings		✓	✓
Credit		✓	
Debt			✓

## As You Buy: The Purchase

Having done your homework and made your choice, you are ready to purchase. In some cases, you may be able to make specific arrangements with vendors as to convenience, price, delivery, and even financing.

In Western cultures, prices for consumer goods are usually not negotiable; consumers expect to pay the price on the price tag. In many other cultures, however, bargaining over price is common and expected, which often surprises travellers abroad.

Durable goods and asset purchases typically offer more purchase options than consumer goods, usually as an incentive to buyers. Vendors may offer free delivery or free installation, product

guarantees, or financing arrangements such as “no payments for six months” or “zero per cent financing.” Offers may be enhanced periodically to “move the merchandise,” when prices may also be discounted. Sales, “special offers,” or “low, low prices” may be used to sell merchandise that is about to be replaced by a newer model. If those product cycles are seasonal and predictable, you may be able to schedule your purchase to take advantage of discounts.

Or you may decide to wait and pay full price for the newer model to avoid purchasing a product that is about to become outdated.

The more the purchase process allows for negotiation, the more possibility there is for consumers to enhance satisfaction. However, the negotiation process can go the other way too: it allows more opportunity for the vendor to negotiate an advantage. The better-informed consumer is more likely to negotiate a more satisfying purchase, so it is important to be thorough in your pre-purchase research.

A purchase may have transaction costs such as sales tax or delivery charges. For higher-priced products such as durables and assets, those transaction costs can add up, so you should factor them into the overall cost of your purchase.

Financing costs can also be significant if debt financing is used. Debt is long term and is a significant commitment as well. It may pay to compare financing rates and terms just as you would for the product itself, or you may be able to use financing costs as a negotiating chip in your price negotiations.

Now you can enjoy your purchase. Some products require maintenance and periodic repair to remain useful. You should research those additional costs before buying, because after the purchase you are committed to those activities.

If you are not satisfied due to a product defect, you can contact the retailer or manufacturer. If there is a warranty, the retailer or manufacturer will either fix the defect or replace the item. Many manufacturers and retailers will do so, even if there is no warranty, to maintain good customer relations and enhance their brand’s reputation. An Internet search will usually turn up contact information for a product’s customer service team.

There are also federal and provincial consumer protection laws that cover a seller’s responsibilities after a sale. In Canada, the Office of Consumer Affairs has the most direct responsibility for consumer issues. Contact information can be found on the Canadian Consumer Handbook webpage Federal, Provincial and Territorial Consumer Affairs Offices. Locally, you can also contact your chamber of commerce or Better Business Bureau for more information.

You can also resort to the judicial system for compensation. For limited claims, you can file in small claims court. Claim limits vary by province. Small claims court is a less formal and costly process than filing a suit. At the other end of the spectrum is the class action suit in which many plaintiffs pursue the same complaint, sharing the costs and the awards of the lawsuit.

## Consumer Strategies

The advertising industry is proof of the importance of “branding.” Customer brand loyalty is a real phenomenon.

Producers go to great expense to brand their products. When in doubt, consumers tend to choose a familiar brand. Once disappointed by a brand, consumers tend to avoid it. For some products, there are alternative private-label or store-label brands, applied to many products, but sold by one store or chain. The store brand is usually a cheaper alternative and often, although not always, of comparable quality. This is a widespread practice in the food industry with grocery store brands. Shopping for the store brand can often yield significant savings.

Consider the story of Maria. Maria’s purchase comes with a two-year manufacturer’s guarantee, but the salesperson is encouraging her to buy an extended warranty. She is already paying more than she wanted to for a high-quality machine, and the extended warranty adds nearly a hundred dollars to the purchase price. She decides to forgo the extra protection, reasoning that most repairs, if needed after two years, would cost less than that anyway.

An offer of a warranty with purchase can be valuable if it lowers the expected maintenance or repair costs of the product. Sometimes a product is offered with a warranty at a higher price; sometimes you can purchase an optional warranty for an additional cost. If the cost of a malfunction is low, then the warranty is probably not worth it.

Price advantage can sometimes come through timing. Seasonally updated products or models can force retailers to discount old inventory to get it off the shelves before the new inventory arrives. Automobiles, for example, have a one-year product cycle, as do many desktop computers and peripherals.

Some products, such as calendars or tax preparation software, are naturally dated, and so may be discounted as they near their expiration date. However, that is because they have less and less usefulness and may not be worth buying at all.

Commodities prices can fluctuate depending on the season or the weather, and although you may not have a choice of when to buy home heating oil, some products do offer you a choice. Tomatoes in January are more expensive than in August, for example; eating fresh foods seasonally can produce savings.

Price can also be affected by transaction costs, or the costs of making the purchase. They can be included in the price or may be listed separately. Larger and more expensive items tend to have more transaction costs, such as delivery and storage. Sales tax, which is a percentage of the price, may be required, and the higher the item’s price, the more sales tax you will pay. Asset purchases also involve a legal transfer of ownership and often the costs of acquiring financing, which add to their costs. Sometimes, to entice a purchase, the seller may agree to bear some or all of the transaction costs.

Retailers change prices based on buyers' needs. They practice **price discrimination**, or the practice of charging a different price for the same product, when different consumers have different need of a product. Airlines are a classic example: they charge less for a ticket bought weeks in advance than for the same flight if the ticket is bought the day before. Someone who purchases weeks ahead is probably a leisure traveller, has more flexibility, and is more sensitive to price. Someone who books a day ahead is probably a business traveller, has little flexibility, and is not as sensitive to price. The business traveller, in this case, is willing to pay more, so the airline will charge that person more.

Retailers also offer discounts, sales, or “deals” to attract consumers who otherwise would not be shopping. Sometimes these are seasonal and predictable, such as in January, when sales follow the big holiday shopping season. Sometimes sales are not sales at all, but rather are “discounted” prices relative to new, higher, prices that will soon take effect. **Quantity discounts**—a lower unit price for a higher volume purchased—may be available for customers buying larger quantities, although sometimes the opposite is true—that is, the smaller package offers a smaller unit price. While it may be cheaper to buy a year's worth of toilet paper at one time, you then create storage costs and sacrifice liquidity, which you should weigh against your cost savings.

In short, sellers want to sell and will use price to make products more attractive. As a buyer, you need to recognize when that attraction offers real value.

## Scams: Caveat Emptor (Buyer Beware)

Unfortunately, the world of commerce includes people with less-than-honourable intentions. You likely have been taken advantage of once or twice or have fallen victim to a **scam**, or a fraudulent business activity or swindle. Technology has made it easier for con artists to steal from more people, contacting them by telephone or by email. The details of these scams vary, but the pattern is much the same: the fraud sets up a scenario that requires the victim to send money or to divulge financial or personal information, such as bank account details, social insurance number (federal identification), or credit card numbers, which can then be used to access accounts.

Here are some typical scams reported by the Canadian Competition Bureau:

- subscription traps/free trial scams
- business supplies/directory scams
- cheque cashing/online classifieds/money transfer job scams
- fraudulent health products or cures
- prize lottery scams
- work-at-home job opportunity scams
- antivirus scams
- continuity and premium text messaging scams. (Competition Bureau, 2015a)

The best way to protect yourself from scams is to be as informed as possible. Do your homework. If you feel like you are in over your head, call on a friend or family member to help you or to speak for you in negotiations. There are a number of non-profit and government agencies that you can ask about the legitimacy of an idea or an arrangement. Review the Competition Bureau's webpage *Fraud Facts—Recognize, Reject, Report Fraud*.

There are also some proven ways to try to protect yourself:

1. Never give anyone personal and/or financial information when solicited by telephone or Internet. Legitimate business interests do not do that. When in doubt, contact the organization to verify the caller's identity.
2. Get a second opinion, especially when advised to do costly repairs.
3. Check the credentials of prospective workers or service providers; most are certified, licensed, or recognized by a professional organization or trade group (e.g., auto mechanics may be endorsed by the Canadian Automobile Association).
4. If you have doubts about a professional's credentials, such as an accountant, doctor, or architect, call the local professional society or trade group and ask about previous complaints lodged against him or her.
5. Get a written estimate, specifying the work to be done, the materials to be used, the estimated labour costs, the estimated completion date, and the estimated total price. Ask the vendor to provide proof of insurance. (Competition Bureau, 2015b)

If you do get “scammed,” it is your civic duty to complain to your federal, provincial, or territorial consumer affairs offices; it is the only way to stop and expose such frauds and to keep others from becoming victims. And remember, as the saying goes, “If it sounds too good to be true, it probably is.”

### *Key Takeaways*

1. The consumer purchase process involves:
  - pre-purchase: identifying the product, the market, and the financing;
  - purchase: negotiating the purchase price and terms of sale; and
  - post-purchase: ensuring satisfaction.
2. Attribute scoring can be used to help identify the product.
3. A product may be sold in different markets that may affect the cost of the purchase.
4. Financing choices can affect the cost of the purchase.
5. Strategies such as maximizing the advantages of branding, timing, and transaction costs can benefit customers.
6. There are common features of scams and also legal protections and remedies.

## Exercises

1. Identify the last three items (consumer goods and durable goods) you purchased. Alternatively, select any three items you purchased during the last two months. Choose diverse items and analyze each item in terms of the following factors:
  - Why did you buy that item? How did you decide what to get?
  - What attributes proved most important in narrowing your choices? Create an attribute analysis chart for each item (see Table 8.1.1 “Aiden’s Product-Attribute Scoring”).
  - Where did you get your information about the item?
  - Where did you go to buy the item?
  - In what kind of market did you make your purchase?
  - Where did the money come from for your purchase?
  - How much did you pay for the item and how did you pay for it?
  - How would you rate your satisfaction with your purchase?
  - If or when you purchase that type of item again, what might you do differently?
2. In your personal finance journal, record your favourite strategies for making purchases. Include a specific recent example of how you used each strategy. Your strategies may relate to bargain shopping, high-end shopping, warranties, store brands, coupons, discounts, rebates, seasonal shopping, expiry shopping, bulk buying, co-operative buying, special sales, or other practices. Share your consumer success stories with classmates and add at least one new idea to your list.
3. Have you ever been the victim of a consumer scam? What scams have you been exposed to that you managed to avoid? Describe your experiences in your personal finance journal. How informed are you about your rights as a consumer in your province and as a citizen of Canada? For example, what are your rights in returning unwanted purchases and recalled items? In moving? In buying food? In having access to electricity?

## REFERENCES

Competition Bureau. (2015a). “Common Scams.” Retrieved from: <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03234.html#s1>.

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## 8.2 A MAJOR PURCHASE: BUYING A CAR

### *Learning Objectives*

1. Show how the purchasing process (e.g., identifying the product, the market, and the financing) may be applied to a car purchase.
2. Explain the advantages (and disadvantages) of leasing versus borrowing as a form of financing.
3. Analyze all the costs associated with car ownership.

Many adults will buy a car several times during their lifetimes. A car is a major purchase. Its price can be as much as or more than one year's disposable income. Its annual operating costs can be substantial, including the cost of fuel, legally mandated insurance premiums, and registration fees, as well as maintenance and perhaps repairs and storage (parking). A car is not only a significant purchase, but also an ongoing commitment.

In Canada, people spend a considerable amount of time in their cars, commuting to work, driving their children to school and various activities, driving to entertainment and recreational activities, and so on. Most people want their car to provide not only transportation, but also comforts and conveniences. You can apply the purchasing model, described in this chapter, to the car purchase.

First, you identify the need: What is your goal in owning a car? What needs will it fulfill? Here are some further questions to consider:

- What kind of driving will you use the car for? Will you depend on it to get you to work, or will you use it primarily for weekend getaways?
- Do you need carrying capacity (for passengers or "stuff") or hauling capacity?
- Do you live in a metropolitan area where you will be driving shorter distances at lower speeds and often idling in traffic?
- Do you live in a more rural area where you will be driving longer distances at faster speeds?
- Do you live in a climate where winter or a rainy season would make traction and storage an issue?
- How much time will you spend in the car every day?
- How many kilometres will you drive each year?
- How long do you expect to keep the car?
- Do you expect to resell or trade in the car?

Your answers to these questions will help you identify the product you want.

## Identify the Product

Answering these questions can help identify the attributes you value in a car, based on how you will use it. Cars have many features to compare. The most critical (in no particular order) are shown in Table 8.2.1.

**Table 8.2.1 Automobile Attributes and Relevance**

<b>Automobile Attribute</b>	<b>Relevance</b>
<b>Fuel or Energy Efficiency</b>	Determine the cost and convenience of operating the car, a major component of your annual operating expenses. Energy efficiency may also relate to growing demand for “green” cars or hybrids. An environmentally friendly car may in itself be an attribute you care about when deciding to buy a car.
<b>Size and “Horsepower”</b>	Determined by your need to carry passengers and “stuff”. Size may also refer to engine size, which affects fuel or energy efficiency.
<b>Condition</b>	New, floor model, or used. Physical condition and odometer reading on trade-ins are major attributes on the used car market.
<b>Performance Quality</b>	Usually described in terms of the car’s acceleration, but also in terms of the availability of four-wheel drive and the quality of steering system, braking system, suspension, and transmission—all of which affect the ease and utility of driving the car and its expected maintenance and repair costs.
<b>Entertainment Features</b>	As more people spend more time in their cars, features such as DVD players and monitors have joined radios, bluetooth connectivity, and cup holders as desirable features. Plug-in capacity for cell phones and laptops has also become a critical feature for many consumers.
<b>Navigation Features</b>	Innovations such as real-time GPS systems with digital road maps are rapidly becoming standard.
<b>Safety Features</b>	Many safety features are mandated, but distinctive safety features are offered, including, for example, electronic locking systems, built-in security alarms, built-in child restraints, and reverse sonar.
<b>Appearance and Comfort</b>	For some buyers the color, shape, and fitting of a car and its interior are important attributes.
<b>Reliability</b>	Reliability refers to expected performance over time in all conditions, as well as to future maintenance and repair costs.
<b>Make</b>	Some buyers prefer particular brands or styles of car and remain loyal to them.

All these attributes affect price, and you may think of others. Product-attribution scoring can help you identify the models that most closely fit your goals.

Mary lives on a reserve in a rural area; she drives about 46,619 kilometres per year, commuting to her job as an accountant at the corporate headquarters of an auto parts chain and taking her kids to school. She is also a pretty good car mechanic and does basic maintenance herself.

Miguel lives in the city. He walks, bikes, or takes a bus to his job as a market researcher for an ad agency, but keeps a car to visit his parents in the suburbs. He drives about 12,950 kilometres per year, often crawling in traffic. Miguel does limited maintenance on his vehicle.

Miguel and Mary would rate these attributes very differently, and their scoring of the same models would have very different results.

Mary may value fuel efficiency more, as she drives more (and so purchases more fuel). Driving often and with her children, she may rank size, safety, and entertainment features higher than Miguel would, who is in his car less frequently and alone. Mary relies on the car to get to work, so reliability would be more important for her than for Miguel, who drives only for recreational visits. But Mary also knows that she can maintain and repair some things herself, which makes that less of a factor.

Car attributes are widely publicized by car dealers and manufacturers.

You can visit dealerships in your area or manufacturers' websites. Using the Internet is a more efficient way of narrowing your search. Specialized print and online magazines, such as *Car and Driver*, *Road and Track*, and *Edmunds.com*, offer detailed discussions of model attributes and their actual performance. *Consumer Reports* also offers ratings and reviews and also provides data on frequency of repairs and annual maintenance costs.

You want to be sure to consider not only the price of buying the car, but also the costs of operating it. Fuel, maintenance, repair, insurance, and registration may all be affected by the car's attributes, so you should consider operating costs when choosing the product. For example, routine repairs and maintenance are more expensive for some cars. A more fuel-efficient car can significantly lower your fuel costs. A more valuable car will cost more to insure. Moreover, the costs of fuel, maintenance, insurance, and registration will be ongoing expenses—you want to buy a car you can afford *and* afford to drive.

If you are buying a new car, you know its condition and so you can predict annual maintenance and repair costs and the car's longevity by the history for that model. Depending on how long you expect to own the car, you may also be concerned with its predicted resale value.

Used cars are generally less expensive than new. A used car has fewer kilometres left in it. Its condition is less certain: you may not know how it has been driven or its repair and maintenance history. This makes it harder to predict annual maintenance and repair costs. Typically, since it is already used when you buy it, you expect little or no resale value. You can gain a significant price savings in the used car market, and there are good used cars for sale. You may just have to look a bit harder to find one.

The Canadian Black Book publishes guidebooks on used-car values. Items to inspect in your exterior, interior, and engine checks are outlined in Table 8.2.2.

**Table 8.2.2 Used Car Buyer’s Checklist**

Exterior	Interior	Engine
<ul style="list-style-type: none"> <li>• Alignment</li> <li>• Doors</li> <li>• Lights</li> <li>• Mirrors</li> <li>• Paint</li> <li>• Panels, bumpers, trim</li> <li>• Shocks</li> <li>• Windshields and windows</li> </ul>	<ul style="list-style-type: none"> <li>• Carpets and upholstery</li> <li>• Instruments and controls</li> <li>• Trunk</li> <li>• Seats</li> <li>• Safety features</li> <li>• Comfort</li> </ul>	<ul style="list-style-type: none"> <li>• Belts and hoses</li> <li>• Battery</li> <li>• Exhaust</li> <li>• Fluids</li> <li>• Idling</li> <li>• Driving</li> </ul>

Data Source: National Automobile Dealers Association, 2009

A car’s exterior and interior conditions can indicate past accidents, repairs, or lack of maintenance that may increase future operating expenses, or just driving habits that have left a less attractive or less comfortable vehicle.

Services like Carfax provide research on a vehicle’s history based on its VIN (vehicle identification number), including any incidence of accidents, flooding, frame damage, or airbag deployment, the number and type of owners (was it a rental or commercial vehicle?), and the number of kilometres. All these events affect your expectations of the vehicle’s longevity, maintenance and repair costs, resale value, and operating costs, which can help you calculate its value and usefulness.

Unless you are an expert yourself, you should always have a trained mechanic inspect a used vehicle before you buy it. With cars, as with any item, the better informed you are, the better you can do as a consumer. Given the cost of a car and its annual expense, there is enough at stake with this purchase to make you cautious.

## Identify the Market

New cars are sold through car dealerships. The dealer has a contract with the manufacturer to sell its cars in the retail market. Dealers may also offer repair and maintenance services as well as parts and accessories made especially for the models it sells.

New car dealers may also resell cars that they get as trade-ins, especially of the same models they sell new. Used car dealers typically buy cars through auctions of corporate, rental, or government cars.

Individuals selling a used car can also do so through networking—in an online auction such as eBay, a virtual bulletin board such as VarageSale or Kijiji, or the bulletin board in the local college snack bar.

Dealers will have more information about the market, especially about the supply of cars and price levels for them.

Some people prefer a new car, with its more advanced features and more certain quality, but a used car may be a viable substitute for many purchasers. Many people buy used cars while their incomes are lower, especially in the earlier stages of their adult (working) life. As income rises and concern for convenience, reliability, and safety increases with age and family size, consumers may move into the new car market.

While they are two very different markets, the markets for new and used cars are related. Supply of and demand for new cars affect price levels in the new car market, but also in the used car market. For example, when new car prices are high, more buyers seek out used cars, and when they are low, used car buyers may turn to the new car market.

Demand for cars is affected by macroeconomic factors such as business cycles and inflation. If there is a recession and a rise in unemployment, incomes drop; demand for new cars will therefore fall. Many people will decide to keep driving their current vehicle until things pick up, unwilling to purchase a long-term asset when they are uncertain about their job and paycheck. That slowing of demand may lower car prices, but will also lower the resale or trade-in value of the current vehicle. For first-time car buyers, that may be a good time to buy.

If there is inflation, it will push up interest rates because the price of borrowing money rises with other prices. Since many people borrow when purchasing a car, that will make the borrowing, and so the purchase, costlier, which will discourage demand.

When the economy is expanding, on the other hand, and inflation and interest rates are low, demand for new cars rises, pushing up prices. In turn, prices are kept in check by competition. As demand for new cars rises, demand for used cars may fall, causing the supply of used cars to rise as more people trade in their cars to buy a new one. They trade them in earlier in the car's life, so the quality of the used cars on the market rises. This may be a good time to buy a used car.

## Identify the Financing: Loans and Leases

The cost of a car is significant. Car purchases usually require financing through a loan or a lease. Each may require a down payment, which you would take out of your savings. That creates an opportunity cost of losing the return you could have earned on your savings. You also lose liquidity: you are taking cash, a liquid asset, and trading it for a car, a not-so-liquid asset. (See the FCAC webpage Financing a car for more information.)

Your opportunity cost and the cost of decreasing your liquidity are costs of buying the car. You can reduce those costs by borrowing more (and putting less money down), but the more you borrow, the

higher your costs of borrowing. If you trade in a vehicle, dealers will often use the trade-in value as the down payment and will sell the car to you with “no money down.”

Car loans are available from banks, credit unions, consumer finance companies, and the manufacturers themselves. Be sure to shop around for the best deal, as rates, maturity, and terms can vary. If you shop for the loan before shopping for the car, then the loan negotiation is separate from the car purchase negotiation. Both may be complex deals, and there are many trade-offs to be made. The more separate—and simplified—each negotiation is, the more likely you will be happy with the outcome.

Loans differ by interest rate, or APR, and by the time to maturity. Both will affect your monthly payments. A loan with a higher APR will cost you more and, all things being equal, will have a higher monthly payment. A loan with a longer maturity will reduce your monthly payment, but if the APR is higher, it will actually cost you more. Loan maturities may range from one to five years; the longer the loan, the more you risk ending up with a loan that’s worth more than your car.

Rebecca buys a used Saturn for \$6,000, with \$1,000 cash down from savings and a loan at 7.2 APR, on which she pays \$115 a month for forty-eight months. She could have gotten a twenty-four-month loan, but wanted to have smaller monthly payments. After only twenty-five months, she totals her car in a chain collision but luckily escapes injury. Now she needs another car. The Saturn has no trade-in value, her insurance benefit won’t be enough to cover the cost of another car, and she still has to pay off her loan regardless. Rebecca is out of luck, because her debt outlived her asset. If your debt outlives your asset, your ability to get financing when you go to replace that vehicle will be limited, because you still have the old debt to pay off and now are looking to add a new debt—and its payments—to your budget. Rebecca will have to use more savings and may have to pay more for a second loan, if she can get one, increasing her monthly payments or extending her debt over a longer period of time.

An alternative to getting a car loan is leasing a car. Leases are a common way of financing a car purchase. A **lease** is a long-term rental agreement with a **buyout option** at maturity. Typically, at the end of the lease—usually three or four years—you can buy the car outright for a certain amount, or you can give it back (and buy or lease another car), which removes the risk of having an asset that outlives its financing. Leases specify the number of kilometres that you can drive the car in a year before incurring additional costs. Leases also specify the monthly payment and requirements for routine maintenance that will preserve the car’s value.

So, lease or borrow? The price of the car should be the same regardless of how it is financed—the car should be worth what it’s worth, no matter how it is paid for. The cost of borrowing, in percentage terms, is the interest rate or APR of the loan. The costs of leasing, in dollars, are the down payment, the lease payments, and the buyout. Since the price of the car itself is the same in either case, the present value of all the lease costs should be the same as the price of the car. You can use what you know about the time value of money to calculate the discount rate that produces that price; that is the equivalent annual cost of the lease, in percentage terms.

For example, you want to buy a car with a price of \$19,000. You can get a car loan with an APR of 6.5 per cent from your bank. You are offered a lease requiring a down payment of \$2,999, monthly payments of \$359 for three years, and a final buyout of \$5,000. The APR of the lease is actually 5.93 per cent, which would make it the cheaper financing alternative.

In general, the longer you intend to keep the car, the less sense it makes to lease. If you typically drive a car “into the ground,” until it costs more to repair than replace it, then you are better off borrowing and spreading the costs of financing over a longer period. On the other hand, if you intend to keep the car only for the term of the lease and not to exercise the buyout option, then it is usually more cost effective to lease. You also need to consider whether or not you are likely to stay within the kilometre limits of the lease, as the penalties can add significantly to your costs.

Some people will say that they like to borrow and then “own” in order to have an asset that can store value or “build equity.” Given the unpredictable nature of the used car market, however, a car is really not an asset that can be counted on to store value. Thinking of a car as something that you will use up (although over several years) rather than as an asset you can preserve or save will help you make better financial decisions.

When you are buying a car, you want to minimize the cost of both the car and the financing. If you are purchasing the car and the financing from the same dealer, you should be careful to discuss them separately. Car dealers who offer loans and leases as well as cars often combine the three discussions, offering a break on the financing to make the car more affordable, or offering a break on the car to make the financing more affordable. To complicate matters further, they may also offer a rebate on a certain model or with a certain lease. The more clearly you can separate which costs belongs to which—the car or the financing—the more clearly you can understand and minimize your costs.

## Purchase and Post-Purchase

A car purchase requires significant pre-purchase activities. Once you have identified and compared appropriate car attributes, a seller, and financing options, all you have to do is drive away, right? Not quite.

Car purchases are one instance where the buyer is expected to haggle over price. The sticker price is the **manufacturer’s suggested retail price (MSRP)** for that vehicle model with those features. Dealers negotiate many of the factors that ultimately determine the value of the purchase: the optional features of the car, the warranty terms, service discounts on routine maintenance, financing terms, rebates, trade-in value for your old car, and so on.

As more of these factors are discussed at once, the negotiation becomes more and more complex. You can help yourself by keeping the negotiations as simple as possible: negotiate one thing at a time,

settle on that, and then negotiate the next factor. Keep track of what has been agreed to as you go along. When each factor has been negotiated, you will have the package deal.

Your ability to get a satisfying deal rests on your abilities as a negotiator. For this reason, many people who find that process distasteful or suspect that their skills are lacking find the car-purchasing process distasteful. Dealers know this, and some will try to attract customers by being more transparent about their own costs and about prices.

As with any product in any market, the more information you have, the better you can negotiate. The more thorough your pre-purchase activities, the more satisfying your purchase will be.

While you own the car, you will maximize the benefits enjoyed by operating the vehicle safely and by keeping it in good condition. Routine maintenance (e.g., replacing fluids, rotating tires) can ensure the quality and longevity of your vehicle. New cars come with owner's manuals that detail a schedule of service requirements and good driving practices for your vehicle. You will be required to keep the car legally insured and registered with the province or territory where you reside, and you must maintain a valid licence to drive.

New cars, and some used cars, are sold with a **warranty**, which is a promise about the quality of the product, made for a certain period of time. The terms and covered repair costs may vary. You should understand the terms of the warranty, especially if something covered should need servicing, so that you know what repairs you may be charged for. The manufacturer, and sometimes the seller, issues the warranty. If you have questions about the warranty after purchasing, it may be best to contact the manufacturer directly.

If you are dissatisfied with your purchase (and the fault seems to be with the car), your first step should be a conversation with your dealer. If the problem is not addressed, you can contact the automobile company directly; its website will provide you with a customer service contact. If the dealer and the manufacturer refuse to make good, you should contact your provincial or territorial consumer affairs office.

### *Key Takeaways*

1. The purchase process may be applied to a car purchase.
2. Attribute scoring may be helpful to identify the product.
3. Cars are commonly financed through a loan or a lease.
4. A warranty guarantees minimal satisfaction with performance attributes.

## Exercises

1. Perform an attribute analysis for your next new or used car. Go online to research cars with the attributes you have prioritized, and find where you could buy what you want locally. Then research the dealership, including a quick check at the Better Business Bureau website or your local chamber of commerce to learn if there have been many consumer complaints. Comparison shop by referring to the Canadian Red Book or the Canadian Black Book. After researching the product, the market, and the price, visit a dealership, preferably with a classmate or partner, for the experience of getting information and practising your negotiation skills (but without making any commitments, unless you really are in the market for a car at this time).
2. How will you finance a car? First identify a sample of new or used cars you would like to own, and for each choice calculate what your down payment, monthly loan payments, and term of payment would be. How much would you need to buy a car and where would that money come from? How much could you afford to pay each month and for how long? How could you modify your budget to accommodate car payments?
3. For a car you would like to drive, calculate and compare what it would cost you to buy it and to lease it. Use the Vehicle Lease or Buy Calculator on the Government of Canada website. What would be the advantages of owning the car? What would be the advantages of leasing it? For your lifestyle, needs, and uses of a vehicle, should you buy or lease?

# 9. Buying a Home

## INTRODUCTION

Buying a home may be the biggest purchase you ever make. Unlike most other consumer purchases, a home is expected to be more than a living space; it is also often viewed as an asset that stores and increases value. A house, then, often has a dual financial role as both a nest *and* a nest egg.

However, it must be noted that a house does not always increase in value. Depending on how they save and invest their money, many people who choose to rent and often save and invest the difference between their rent and what they would have had to pay as a mortgage payment do just as well as or better than their peers who build equity in a home.

A house can be costly to maintain. There are substantial annual operating expenses for repairs and maintenance, insurance, and taxes. Maintenance is critical if one wishes to preserve a home's value. Insurance is also required if you wish to protect that value. Homeowners must pay taxes for community services that help to enhance and secure a home's value.

A house purchase is typically financed with debt that creates a significant monthly expense in your budget—the mortgage payment. A mortgage is a long-term debt that obligates your cash flows for a long time, perhaps even reducing your choices of careers and your mobility.

Your choice of home, whether you own or rent, reflects personal factors in your life. These factors include your personal tastes, your age and stage of life, your family size and circumstances, your health, and your career choices. These factors are reflected in your decision to own or rent a home, as well as in the location, size, and use of your home.

## 9.1 IDENTIFY THE PRODUCT AND THE MARKET

### *Learning Objectives*

1. Describe the different building structures for residential dwellings.
2. Describe the different ownership structures for residential dwellings.
3. Identify the factors used by lenders to evaluate borrowers for mortgage credit.

4. Identify the components of the mortgage affordability calculation and calculate estimated mortgage affordability.
5. Identify the components of a buyer's inspection checklist.
6. Explain the potential effects of business cycles, unemployment, and inflation on the housing market.
7. Analyze the effects of the demand for housing financing on the housing market.

## Renting a Home

If you have already decided on a goal of home ownership, you have already compared the costs and benefits of the alternative, which is renting. Renting requires relatively few initial legal or financial commitments. The renter signs a lease that spells out the terms of the rental agreement: term, rent, terms of payments and fees, restrictions such as pets or smoking, and charges for damages. A renter is usually required to give the landlord a security deposit to cover the landlord's costs of repairs or cleaning, as necessary, when the tenant moves out. If the deposit is not used, it is returned to the departing tenant and, in most cases, the deposit with interest should be provided to tenants when they move out. Some general advantages and disadvantages of renting and owning are shown in Table 9.1.1.

**Table 9.1.1 Renting versus Owning**

	Advantage	Disadvantage
Renting	<ul style="list-style-type: none"> <li>• Limited financial obligation</li> <li>• Limited maintenance expenses</li> <li>• More liquidity</li> <li>• More mobility</li> </ul>	<ul style="list-style-type: none"> <li>• No equity growth or store of value</li> <li>• Lifestyle limitations (e.g., pets, smoking)</li> <li>• Decorating/renovating limitations</li> <li>• Less-predictable housing expense</li> </ul>
Owning	<ul style="list-style-type: none"> <li>• Store of value and possible equity growth</li> <li>• Lifestyle choices</li> <li>• Decorating/renovating choices</li> <li>• Pride of ownership</li> <li>• More-predictable housing expenses</li> </ul>	<ul style="list-style-type: none"> <li>• Substantial financial obligation</li> <li>• Significant annual expenses</li> <li>• Less liquidity</li> <li>• Less mobility</li> </ul>

The choice of whether to rent or own follows the pattern of life stages. People rent early in their adult lives because they typically have fewer financial resources and put a higher value on mobility, usually

to keep more career flexibility. Since incomes are usually low, the tax advantages of ownership don't have much benefit.

As family size grows, the quality of life for dependents typically takes precedence, and a family looks for the added space and comfort of a house and its benefits as an investment. This is the mid-adult stage of accumulating assets and building wealth. As income rises, the tax benefit becomes more valuable too. Often, in retirement, with both incomes and family size smaller, older adults will downsize to a condo, an apartment, or a smaller house, shedding responsibilities and financial commitments. Home ownership decisions vary: some people do not want the responsibilities of ownership, while some just want to own their home.

Finding an apartment or house to rent is much like finding a home in terms of assessing its attributes, comparing choices, and making a choice. Landlords, property managers, and agents all rent properties and use various media to advertise an available space. Since the rent for an apartment is a regular expense, financed from current income (not long-term debt), you need to find only the apartment and not the financing, which simplifies the process considerably.

## Assessing Attributes

Once you decide to own your home, you must choose which home to own.

There are single- and multiple-unit dwellings, for example. A multiple-unit dwelling can be used to create rental income or to house extended family members, but this choice imposes the responsibilities of being a landlord and also limits privacy.

There are previously owned, new, and custom-built homes. Previously owned homes may require some renovation to make them comfortably modern and convenient. New and custom-built homes typically have more modern features and conveniences and require less maintenance and repair expense. Custom-built homes are built to the homeowners' specifications.

Mobile homes are large trailers fitted with utilities connections and they can be installed on permanent sites and used as residences. A mobile home may also be situated in a trailer park or mobile home community in which the owner rents a lot. Mobile homes are often referred to as manufactured homes, and other examples of manufactured homes are prefabricated or modular homes, which are moved to a foundation site by trailer and then assembled.

In a condominium, the homeowner owns a unit in a multiple-unit dwelling, but the common areas of the building are owned and managed by the condominium owners' association. Condo owners pay a fee to cover the costs of overall building maintenance and operating expenses for common areas.

Co-operative housing is a unit in a building or complex owned by a non-profit association or a

corporation for the residents' use. Residents do not own the units, but rather own shares in the co-operative association, which entitles them to the right to dwell in its housing units.

Personal factors such as your age, family size, health, and career help you to answer some of the following key questions:

- How large should the house be? How many bedrooms and bathrooms?
- Which rooms are most important: kitchen, family room, or home office?
- Do you need parking or a garage?
- Do you need storage space?
- Do you need disability accommodation?
- Do you want outside space: a yard, patio, or deck?
- How important is privacy?
- How important is energy efficiency and other “green” features?
- How important are design features and appearance?
- How important is location and environmental factors?
- How important is proximity to work? Schools? Shopping? Family and friends?

After ranking the importance of such attributes, you can use an attribute-scoring matrix to score your choices. After understanding exactly what you are looking for in a home, you should begin to think about how much house you can afford.

## Canada Mortgage Housing Corporation

The Canada Mortgage Housing Corporation (CMHC) is a Canadian government agency and Canada's authority on housing. According to the CMHC, the agency aims to “contribute to the stability of the housing market and financial system, provide support for Canadians in housing need, and offer objective housing research and advice to Canadian governments, consumers and the housing industry” (CMHC, 2017a).

Many of the resources that are provided throughout this chapter are derived from the CMHC website and are important to review before you set out to purchase a home.

## Assessing Affordability

Before looking for a house that offers what you want, you need to identify a price range that you can afford. Most people use financing to purchase a home, so your ability to access financing or get a

loan will determine the price range of the house you can buy. Since your home and your financing are long-term commitments, you need to be careful to try to include future changes in your thinking.

For example, Tamiko and Anthony are both twenty-five years old, newly married, and looking to buy their first home. Both work and earn good incomes. The real estate market is strong, especially with mortgage rates relatively low. They buy a two-bedroom condo in a new development as a starter home.

Fast forward five years. Tamiko and Anthony are expecting their second child; while the couple is happy about the new baby, neither can imagine how they will all fit in their already cramped space. They would love to sell the condo and purchase a larger home with a yard for the kids, but the real estate market has slowed, mortgage rates have risen, and a plant closing last year has driven up unemployment in their area. Tamiko hasn't worked outside the home since their first child was born two years ago; they are just getting by on one salary and a new baby will increase their expenses—making it even more difficult to think about financing a larger home.

A lender will look at your income, your current debts, and your credit history to assess your ability to afford a mortgage. As discussed in Chapter 7 “Financial Management,” your credit score is an important tool for the lender, who may also request verification of employment and income from your employer.

Before looking for a home, the CMHC recommends reviewing its guide Homebuying Step by Step.

As Tamiko and Anthony consider buying a home, an important first step is identifying how much they can afford to spend on homeownership in order to ensure they have enough money to cover all of their other expenses, such as food, clothing, and other debts and payments.

According to the CMHC, there are two rules Canadians should follow in order to assess whether they can comfortably manage a home and to verify whether a lender will approve them. The first affordability rule is to determine your gross debt service (GDS). To figure out your GDS, you must determine the principal and interest that make up your monthly mortgage payment, as well as taxes and heating expenses. The acronym “PITH” (principal, interest, taxes, and heating) can help people to remember these expenses. A condominium purchase must also take into consideration half of the monthly condominium fees. GDS is determined by adding up your total monthly PITH payments and calculating what percentage of your average gross monthly household income is made up of PITH payments (CMHC, 2016). GDS ratios are calculated by using the following equation:

$$\text{Gross debt service (GDS)} = \frac{\text{PI} + \text{T} + \text{H}}{\text{GI}} \times 100\%$$

GDS should not be more than 35 per cent of your gross monthly income. The CMHC online Debt Service Calculator can help you to compare your monthly debt payments and housing expenses to your gross household income.

The second affordability rule is to calculate your total debt service (TDS) in order to determine how much of your gross income is already going toward debt payments. TDS is the percentage of your income needed to cover all of your debts. The ratio for this is the same as that of the GDS, except all of your monthly payments, such as car payments, credit cards, and any loans, must be considered (CMHC, 2016). TDS ratios are calculated by using the following equation:

$$\text{Total debt service (TDS)} = \frac{\mathbf{PI + T + H + D} \times \mathbf{100\%}}{\mathbf{GI}}$$

For lenders to consider you for a mortgage, your TDS should not be more than 42 per cent of your gross monthly income.

In order to calculate GDS and TDS, the CMHC webpage Calculating GDS/TDS provides information on what inputs are used to calculate a borrower's debt service ratios.

If you would like to determine the monthly mortgage payments (principal and interest) of a home by inputting different down payments, house prices, and interest rates, the CMHC's Mortgage Calculator should be of assistance.

These kinds of calculations give both you and your lender a much clearer idea of what you can afford, and they are part of the pre-approval process for a mortgage. You may want to sit down with a potential lender and have this discussion before you do any serious house hunting so that you have a price range in mind before you shop.

## Searching for a Home

After understanding exactly what you are looking for in a home and what you can afford, you can organize your efforts and begin your search.

Typically, buyers use a realtor, real estate agent, or broker who has to be licensed to trade real estate in Canada and realty listings to identify homes for sale. A **realtor** is a person or business that serves as an agent for the sale and purchase of buildings and land. A **real estate broker** is a manager of a brokerage firm who supervises real estate agents. Brokers are given broker's licences by provincial real estate associations when they have completed additional training for their added responsibilities. Brokers add value to your search by providing information about the house and property, the neighbourhood and its schools, recreational and cultural opportunities, and costs of living. A **real estate agent** serves as an intermediary between people selling a property and those who want to buy real estate, and they are often employed by a real estate broker in a registered real estate brokerage.

Remember, though, that the broker or its agent, while helping you gather information and assess your choices, is working for the sellers and will be compensated by the seller when a sale is made.

Consider paying for the services of a buyer's agent, a fee-based real estate broker who works for the buyer to identify choices independently of the purchase. The real estate industry is regulated by provincial, territorial, and federal laws as well as by self-regulatory bodies, and real estate agents must be licensed to operate.

Increasingly, sellers are marketing their homes directly to save the cost of using a broker. A real estate broker typically takes a negotiable amount of the purchase price, often in the range of 3 to 7 per cent, from which it pays a commission to the real estate agent, which is then split with the buyer's agent. Some brokers will charge a flat rate. There is no set rate of commission for real estate agents nationally or in individual provinces and territories and the rate is often negotiable (Tersigni, 2017). "For sale by owner" sites on the Internet can make the exchange of housing information easier and more convenient for both buyers and sellers. For example, websites such as comfree.com serve home sellers and buyers directly. Keep in mind, however, that sellers acting as their own brokers and agents are not licensed or regulated and may not be knowledgeable about federal and provincial laws governing real estate transactions, potentially increasing your risk.

## Mortgage Pre-Approval and Qualifying for a Mortgage

Mortgages can be obtained from several types of lenders, such as:

- banks,
- credit unions or *caisses populaires*,
- mortgage companies,
- insurance companies,
- trust companies, and
- loan companies.

It is important to talk to several lenders during the pre-approval process to make sure you're getting the best rates and conditions for your mortgage needs. A pre-payment penalty can be charged if you switch lenders after signing a mortgage contract, so it is important that you are comfortable with and understand the terms and condition of your mortgage contract.

Mortgage lenders look at one's finances (GDS and TDS) in order to determine the maximum amount of a mortgage they will lend you, what tentative interest rate they will charge, and what your estimated mortgage payments will be. But the pre-approval, while it represents the maximum amount you may get, does not guarantee you will receive that mortgage loan amount (FCAC, 2017).

In order to get pre-approved, the FCAC (2017) provides an overview of the information (your total assets and debts) required by your lender or mortgage broker (an intermediary between a borrower and a lender who determines the borrower's ability to secure financing), including:

- identification,
- proof of employment,
- proof you can pay for the down payment and closing costs,
- information about your other assets, such as a car, cottage, or boat, and
- information about your debts or financial obligations.

Proof of employment may require that you provide:

- proof of current salary or hourly pay rate (for example, a current pay stub and a letter from your employer),
- your position and length of time with the organization, and
- notices of assessment from the CRA for the past two years, if you're self-employed.

Proving that you can pay the down payment may require that you provide recent financial statements from bank accounts or investments.

Your lender or mortgage broker will also require an overview of your debts or financial obligations, which may include:

- credit card balances and limits, including those on store credit cards,
- child or spousal support amounts,
- car loans or leases,
- lines of credit,
- student loans, and
- other loans.

The FCAC recommends asking the following questions when getting pre-approved:

- how long the lender or broker will guarantee the pre-approved rate
- whether you automatically get the lowest rate if interest rates go down while you're pre-approved
- if the pre-approval can be extended (FCAC, 2017).

Even if you've been pre-approved, you could be refused a mortgage by your chosen lender. A lender will need to verify that your property meets certain standards; this is determined by each lender and therefore varies. If you are turned down for a mortgage, it is important to ask about other options that are available (FCAC 2017).

## Home Inspection

After you narrow your search, receive mortgage pre-approval, and choose a prospective home, you have the home inspected to assess its condition and project the cost of any repairs or renovations. Home inspections are strongly recommended before signing a purchase agreement or as a condition of the agreement. A standard home inspection checklist, based on information from Desjardins Insurance, is shown in Table 9.1.2.

**Table 9.1.2 Standard Home Inspection Checklist**

Inside	Outside
<p><b>Kitchen</b></p> <ul style="list-style-type: none"> <li>• Check countertops, sinks, cupboard doors for damage</li> <li>• Ensure range hood exhaust fan works properly</li> <li>• Check pipes under sink for leaks</li> <li>• Check sink water flow</li> </ul>	<p><b>Driveway, Grounds</b></p> <ul style="list-style-type: none"> <li>• Check for large cracks or uneven portions of driveway</li> <li>• Check for standing water</li> </ul>
<p><b>Floors, Walls, Ceilings</b></p> <ul style="list-style-type: none"> <li>• Check for cracks, damage, water spots</li> <li>• Walk across all floors—ensure minimum unevenness, squeaking</li> </ul>	<p><b>Exterior Surfaces</b></p> <ul style="list-style-type: none"> <li>• Check for cracks, decay in siding</li> <li>• Check for stains or paint flaking on exterior surfaces</li> </ul>
<p><b>Bathrooms</b></p> <ul style="list-style-type: none"> <li>• Check faucet water flow and pressure</li> <li>• Ensure sink, shower, tub drains properly, toilet functions properly</li> <li>• Check for cracked/loose tiles</li> <li>• Ensure cabinets and plumbing under sink in good condition</li> </ul>	<p><b>Roof</b></p> <ul style="list-style-type: none"> <li>• Shingles: check for rot, cracks, curling, loss of granulation, broken or missing shingles</li> <li>• Ensure that gutters and chimney are in good condition</li> </ul>
<p><b>Windows, Doors</b></p> <ul style="list-style-type: none"> <li>• Ensure windows and doors open/close properly</li> <li>• Check for cracked/broken glass or damaged screens in windows</li> <li>• Inspect weather-stripping for damage</li> </ul>	<p><b>Miscellaneous Items</b></p> <ul style="list-style-type: none"> <li>• Ensure that automatic garage door operates properly</li> <li>• Make sure outside foundation is in good condition (straight, no large cracks)</li> <li>• Ensure smoke/carbon monoxide detectors installed as per provincial regulations</li> </ul>
<p><b>Basement</b></p> <ul style="list-style-type: none"> <li>• Check for large cracks/stains in exposed foundation</li> <li>• Check for water leaks on ceiling/floor</li> <li>• No decay/damage in structural wood</li> </ul>	
<p><b>Attic</b></p> <ul style="list-style-type: none"> <li>• Check for structural and water damage</li> <li>• Ensure proper insulation and ventilation</li> </ul>	

<p><b>Plumbing</b></p> <ul style="list-style-type: none"> <li>• Check for damaged/leaking pipes</li> <li>• Check for rust on water heater</li> <li>• Locate all water shut-off valves (remember: to prevent frozen pipes in winter, close inside valves that supply outside hose bibs)</li> </ul>	
<p><b>Electrical</b></p> <ul style="list-style-type: none"> <li>• Ensure main electrical panel is easily accessible</li> <li>• Ensure all wiring is in good condition, no exposed splices</li> <li>• Ensure there are CFGI (ground fault circuit interrupter) outlets in kitchen and bathrooms</li> </ul>	

Data Source: Desjardins Insurance, 2016; table created by Bettina Schneider, 2018

As with a car, it is best to hire a professional (a structural engineer, contractor, or licensed home inspector) to do the home inspection. A professional will be able to spot not only potential problems but also evidence of past problems that may have been fixed improperly or that may recur—for example, water in the basement or leaks in the roof. If there are problems, you will need an estimate for the cost of fixing them. If there are significant and immediate repair or renovation costs projected by the home's condition, you may try to reduce the purchase price of the property by those costs. You don't want any surprises after you buy the house, especially costly ones.

You will also want to do a title search, as required by your lender, to verify that there are no **liens** or claims outstanding against the property. For example, the previous owners may have had a dispute with a contractor and never paid his bill, and the contractor may have filed a lien or a claim against the property that must be resolved before the property can change hands. There are several other kinds of liens—for example, a tax lien, which is imposed to secure payment of overdue taxes.

A lawyer or a title search company can do the search, which involves checking the municipal or town records where a lien would be filed. A title search will also reveal if previous owners have deeded any rights—such as development rights or water rights, for example, or grants of right-of-way across the property—that would diminish its value.

## Identifying the Market

Housing costs are determined by the price of the house and by the price of the debt (i.e., the interest rate payments) that finances the house. House prices are determined by forces of supply and demand, which in turn are determined by macroeconomic circumstances.

When the economy is contracting and incomes are decreasing, and especially if unemployment rises

and incomes become uncertain, buyers are hesitant to add the significant financial responsibility of new debt to their budgets. They tend to continue with their present arrangements or may try to move into cheaper housing, downsizing to a smaller house, an apartment, or condo to decrease operating expenses. When the economy is expanding, on the other hand, expectations of rising incomes may encourage buyers to be bolder with their purchasing decisions.

A house represents not only a housing expense but also an investment that can serve as a store of wealth. In theory, if a contraction creates a market with declining asset values, investors will seek out alternative investments, abandoning that market. In other words, if house prices decline, the house's value as an investment will decline. Investors will seek other assets in which to store wealth to avoid the opportunity cost of making an investment that does not generate returns.

Housing markets are local, however. If the local economy is dominated by one industry or by one large employer, the housing market will be sensitive to the fate of that industry or employer. If a location has value independent of the local economy, such as value as a vacation or retirement location, that value can offset local concerns. In that case, housing prices may be less sensitive to the local economy.

Since a house is an investment, the homebuyer is concerned about its expected future value. Future value is not easy to predict, however, as housing markets have some volatility. In extreme periods, for example between 2004 and 2009 in the United States, there was extreme volatility. Thus, depending on how long you intend to own the home, it may or may not be realistic to try to predict price trends based on macroeconomic cycles or factors. Some areas may seem to be always desirable, but a severe economic shock or boom can affect prices in those areas as well. While a house may be used to store value, it may not generate a real increase in wealth.

Since the early 2000s, however, housing prices have soared. Many economists attribute this to a sustained period of low mortgage rates and slow economic growth. In recent years, many have been concerned that Canada is close to the level at which America's housing bubble topped out in 2006. In the United States, the housing bubble burst in 2007 as the economy slumped into a recession. Housing demand and prices fell, even with low mortgage rates, creating a real buyer's market. Many economists attribute the severity of the slump to the banking crisis that froze the credit markets, because most housing purchases were financed with debt.

Ability to buy a house rests on the ability to finance the purchase, to provide a down payment, and to borrow. That ability is determined by the buyer's personal situation (e.g., stability of employment or income, credit history) and by macroeconomic events such as interest rate levels, expected inflation, and liquidity in the credit markets. If interest rates and inflation are low and there is liquidity in the credit markets, it will be easier for buyers to borrow than if inflation and interest rates are high and the credit market is liquid. Demand for housing thus relies on the availability of credit for the housing market.

## Key Takeaways

1. Different building structures are:
  - single-unit or multiple-unit dwellings or mobile homes, and
  - previously owned, new, or custom built.
2. Different ownership structures include:
  - conventional ownership,
  - condominium, and
  - co-operative housing.
3. The buyer's inspection checklist includes:
  - structural elements,
  - exterior elements,
  - systems for plumbing, electrical, heating/cooling, and
  - outdoor buildings and features.
4. Lenders assess income, current debts, and credit history to determine the borrower's creditworthiness.
5. A mortgage affordability estimate uses an estimate of PITH and other debt payments as a percentage of gross monthly income and of the down payment as a percentage of the purchase price.
6. Housing prices may be affected by business cycles as they affect
  - unemployment and income levels, and
  - inflation, which affects not only the cost of houses but also interest rates and the cost of home financing.
7. Housing prices are affected by the availability of home financing, which in turn depends on:
  - interest rates and inflation, and
  - liquidity in the credit markets.

## Exercises

1. Perform an attribute analysis of your projected wants and needs as a homeowner. Begin by prioritizing the following personal and microeconomic factors in terms of their importance to you in deciding when to buy a home:
  - How large should the house be? How many bedrooms and bathrooms?
  - Which rooms are most important: kitchen, family room, or home office?
  - Do you need parking or a garage?
  - Do you need storage space?

- Do you need disability accommodation?
  - Do you want outside space: a yard, patio, or deck?
  - How important is privacy?
  - How important is energy efficiency or other “green” features?
  - How important are design features and appearance?
  - How important is location and environmental factors?
  - How important is proximity to work? Schools? Shopping? Family and friends?
2. In your journal, describe hypothetically your first or next home that you think you would like to own, including its location and environment. Predict how much you think it might cost to own such a home in your province. Then look through realty news and ads to find the asking prices for homes or housing units similar to the one you described. How accurate is your prediction?
  3. Discuss with classmates the ins and outs of being a tenant and the ins and outs of being a landlord. Develop a comparison chart of benefits, drawbacks, and risks.
  4. Do you live in a dorm or at home with parents or other relatives? What needs to happen for you to have a place of your own? Research websites that aid students in finding independent housing. Develop a flexible plan and timetable for finding and financing a place of your own and record it in your personal finance journal.
  5. Investigate the real estate market in your area. How do local housing availability and pricing differ from other cities, towns, and provinces or territories? How stable or volatile is your real estate market? Is it a buyer’s market or a seller’s market, and what does that mean? To what local factors do you attribute the differences you find? Share your findings with classmates.
  6. Identify and analyze the macroeconomic factors that are affecting your local real estate market. In what ways or to what extent does your local economy reflect macroeconomic factors in the national economy?

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## 9.2 IDENTIFY FINANCING

### *Learning Objectives*

1. Define the effects of the down payment on other housing costs.
2. Calculate the monthly mortgage payment, given its interest rate, maturity, and principal balance.
3. Distinguish between a fixed-rate, variable-rate, and an adjustable-rate mortgage and explain their effects on the monthly payment and interest rate.
4. Distinguish between a rate cap and a payment cap, and explain their uses and risks.
5. Identify potential closing costs.
6. Define First Nations housing on reserve.

Just as your house may be your most significant purchase, your mortgage may be your most significant debt. The principal may be many times one year’s disposable income and may need to be paid over fifteen or thirty years. The house secures the loan, so if you default or miss payments, the lender may **foreclose** on your house or claim ownership of the property, evict you, and resell the house to recover what you owe.

Banks, credit unions, finance companies, and mortgage finance companies sell mortgages. They profit by lending and competing for borrowers. It makes sense to shop around for a mortgage, as rates and terms (i.e., the borrowers’ costs and conditions) may vary widely. The Internet has made it easy to compare; a quick search of “mortgage rates” yields many websites that provide national and provincial averages, lenders in your area, comparable rates and terms, and free mortgage calculators.

Keep in mind that the costs discussed in this chapter, associated as they are with various kinds of mortgages, may change. The real estate market, government housing policies, and government

regulation of the mortgage financing market may change at any time. So when it is time for you to shop for a mortgage, be sure you are informed of current developments.

## Down Payment

Mortgages require a **down payment**, or a percentage of the purchase price paid in cash upon purchase. Most buyers use cash from savings, the proceeds of a house they are selling, or a family gift.

In Canada, the minimum down payment required is 5 per cent if the home costs \$500,000 or less. If the price of the home is greater than \$500,000, one will need a minimum of 5 per cent down on the first \$500,000 and 10 per cent on the remainder (CMHC, 2018). The size of the down payment does not affect the price of the house, but how much you put down will affect the cost of the financing (a larger down payment = a smaller mortgage and lower monthly payments).

Buyers with a down payment between 5 and 20 per cent must be backed by **mortgage insurance**, which insures the lender against the costs of default. Mortgage loan insurance is mandatory for federally regulated lenders in Canada when the buyer of a home puts down less than a 20 per cent down payment.

The CMHC is a public mortgage insurer and as such has “a mandate to provide service in all parts of the country and for a range of housing forms” (CMHC, 2017a). A conventional mortgage is a loan for no more than 80 per cent of the purchase price (or appraised value) of the property, and it must meet the 20 per cent down payment CMHC requires in order to not have to purchase mortgage insurance. A high ratio mortgage is a loan for more than 80 per cent of the purchase price (or appraised value) of the property. A high ratio mortgage must be insured by the CMHC, Genworth Financial Canada, or Canada Guarantee.

A significant portion of the CMHC’s mortgage loan insurance business is in markets or for housing options that are not served or less served by private mortgage insurers. In addition to being the primary insurer for housing in small and rural communities, the CMHC is the only insurer of mortgages for multi-unit residential properties, including large rental buildings, student housing, and nursing and retirement homes (CMHC, 2017a).

The down payment can offset the annual cost of the financing, but it creates opportunity cost and decreases your liquidity as you take money out of savings.

The Home Buyers’ Plan is an important source of money for a down payment. The Home Buyers’ Plan “is a program that allows you to withdraw up to \$25,000 in a calendar year from your RRSPs to buy or build a housing unit in Canada for yourself or for a relative with a disability” (Government of Canada, 2016).

Cash will also be needed for the **closing costs** or transaction costs of this purchase or for any

immediate renovations or repairs. Those needs will have to be weighed against your available cash to determine the amount of your down payment. Expenses for moving, new furniture, and other related moving expenses should be considered as well.

## Monthly Mortgage Payment

The mortgage payment is the ongoing cash flow obligation of the loan. While monthly mortgage payments are common, other options are available, such as biweekly and semi-monthly payments. If you don't meet this payment, you are in default on the loan and may eventually lose the house with no compensation for the money you have already put into it. Your ability to make the monthly payment therefore determines your ability to keep the house.

The interest rate and the maturity (lifetime of the mortgage) determine the monthly payment amount. With a **fixed-rate mortgage**, the interest rate remains the same over the entire maturity of the mortgage, and so does the monthly payment. A **variable-rate mortgage (VRM)** requires a constant monthly payment, but the amount paid toward the principal balance will fluctuate as interest rates fluctuate. Lower interest rates mean that more of the monthly payment will go towards the principal balance, while higher interest rates mean that more of the payment is allocated to the interest. VRMs generally offer lower initial interest rates compared to fixed-rate mortgages, which are attractive to borrowers. However, borrowers, not lenders, are at risk if future interest rates increase. VRMs are more often issued outside of the United States. Conventional mortgages can be fixed-rate mortgages or variable rate.

A fixed-rate mortgage is structured as an annuity: regular periodic payments of equal amounts. Some of the payment is repayment of the principal and some is for the interest expense. As you make a payment, your balance gets smaller, and so the interest portion of your next payment is smaller, and the principal payment is larger. In other words, as you continue making payments, you are paying off the balance of the loan faster and faster and paying less and less interest.

**Mortgage amortization** is a schedule of interest and principal payments over the life of the loan—that is, the length of time it will take you to pay off your entire mortgage. The maximum amortization period on CMHC-insured mortgages is twenty-five years. The longer the maturity, the greater the interest rate, because the lender faces more risk the longer it takes for the loan to be repaid.

In the early years of the mortgage, your payments are mostly interest, while in the last years they are mostly principal.

With an **adjustable-rate mortgage (ARM)**, the interest rate—and the monthly payment—can change. This differs from a variable-rate mortgage in which only the interest rate can change; only the amount paid towards the principal balance varies, not the actual monthly payment. If interest rates rise, the monthly payment will increase, and if they fall, it will decrease. A **rate cap** is a limit on an adjustable-

rate mortgage. Most rate caps rise 1 to 2 per cent in a year and no more than 5 percentage points during the life of a loan (Kapoor et al., 2015). Homeowners with ARMs are at risk of seeing their monthly payment increase, but can limit this interest rate risk with a rate cap.

ARMs are much more commonly offered in the United States than in Canada. “80% of U.S. mortgages issued in recent years to sub-prime borrowers were adjustable-rate mortgages” (Kapoor et al., 2015). The **sub-prime mortgage crisis** in the United States came about due to an increase in mortgage foreclosures, largely sub-prime mortgages (loans given to less creditworthy borrowers). Many mortgage lenders and hedge funds in the United States failed due to this crisis. It also negatively impacted the global credit market as risk premiums increased and capital liquidity decreased (Kapoor et al., 2015). The global financial crisis, ignited by the sub-prime mortgage crisis in the United States, began in 2007, resulting in a recession in many parts of the world, including Canada. The Canadian recession of 2008–2009, while considered milder than what was experienced in the United States and Europe, was still harsh enough that a number of changes to mortgages—insured and uninsured—were made.

The Insured Mortgage Purchase Program (IMPP) was introduced by the federal government, which allowed banks to exchange “illiquid mortgage assets for bonds issued by the Canadian Mortgage and Housing Corporation. . . . Since CMHC debt is backed by the federal government, these assets were more readily accepted as collateral for short-term lending. This exchange did not affect the government’s risk exposure to the mortgage market: only mortgages that were already insured by the government were eligible for the IMPP” (Gordon, 2017).

A **payment cap** limits the amount by which the mortgage payment can increase or decrease. That sounds like it would protect the borrower, but if the payment is capped and the interest rate rises, more of the payment pays for the interest expense and less for the principal payment, so the balance is paid down more slowly. If interest rates are high enough, the payment may be too small to pay all the interest expense, and any interest not paid will add to the principal balance of the mortgage.

In other words, instead of paying off the mortgage, your payments may actually increase your debt, and you could end up owing more money than you borrowed, even though you make all your required payments on time. This is called **negative amortization**.

There are mortgages that combine fixed and variable rates—for example, offering a fixed rate for a specified period of time, and then an adjustable rate. Another type of mortgage is a **split- or multi-rate (hybrid) mortgage** that allows one to split the borrowed amount into three to five parts, each with different term lengths, rates, and rate types. A hybrid mortgage allows a borrower to take advantage of the low rates inherent in a variable-rate mortgage when different parts of the mortgage are renewed at different times.

As an asset, a house may be used to secure other types of loans. A **home equity loan** or a second mortgage allows a homeowner to borrow against any equity in the home. A home improvement loan is a type of home equity loan. A **home equity line of credit (HELOC)** allows the homeowner to secure

a revolving line of credit, or a loan that is borrowed and paid down as needed, with interest paid only on the outstanding balance. The advantages of HELOCs are easy access to a line of credit and the ability to repay at any time without pre-payment penalties. The disadvantages of HELOCs are the fees attached to these loans and the fact that you could lose your home if you are unable to make your loan payments.

**Do-it-yourself mortgages** are for self-employed people who may often have inconsistent income. For such borrowers, there are two options: 1) apply for a **stated income loan**, which are based on the income the borrower reports (these loans are often riskier unless the applicant has a high credit score or can provide a large down payment), and 2) **regular loans with income documentation**, which requires applicants to provide one to two years of tax returns (Kapoor et al., 2015).

A **reverse mortgage** is designed to provide homeowners with high equity a monthly income in the form of a loan. A reverse mortgage essentially is a loan against your home that you do not have to pay back for as long as you live there. To be eligible for most reverse mortgages, you must own your home and be sixty years of age or older. A set payment schedule is not required, as it is with a traditional mortgage; you or your estate repays the loan when you sell the house or die. Reverse mortgages need to be considered with caution. For more information on what people need to think about when considering this choice, see the FCAC overview of Reverse mortgages on the Government of Canada website.

## Closing Costs

Other costs of a house purchase are transaction costs—that is, costs of making the transaction happen that are not direct costs of either the home or the financing. These are referred to as **closing costs**, as they are paid at the closing, when the ownership and loan documents are signed and the property is actually transferred. The buyer pays these closing costs, including the appraisal fee, title insurance, and filing fee for the deed.

The lender will have required an independent **appraisal** of the home's value to make sure that the amount of the mortgage is reasonable given the value of the house that secures it. The lender will also require a **title search** and contract for **title insurance**. The title company will research any claims or liens on the deed; the purchase cannot go forward if the deed may not be freely transferred. Over the term of the mortgage, the title insurance protects against flaws not found in the title and any claims that may result. The buyer also pays a fee to file the property deed with the township or municipality. There may also be a **land transfer tax**, a one-time tax levied by most provinces and territories that is the responsibility of the buyer. PST on the mortgage insurance and legal/notarial fees must also be paid in cash as part of the closing costs. For more information on closing costs in Canada, see the Royal Bank of Canada webpage Closing Costs.

Closings may take place in the office of the title company handling the transaction or at the registry

of deeds. Closings also may take place in the lender's offices, such as a bank, or an attorney's office and usually are mediated between the buyer and the seller through their attorneys. Lawyers who specialize in real estate ensure that all legal requirements are met and all filings of legal documents are completed.

## First Nations, Métis, and Inuit Housing

First Nations governments are responsible for providing and managing on-reserve housing. First Nations communities that receive annual funding from Indigenous Services Canada for on-reserve housing can use these funds for a variety of housing needs, such as:

- construction,
- lot servicing,
- renovation,
- maintenance,
- insurance,
- debt servicing,
- planning and managing their housing portfolio, and
- mould remediation. (INAC, 2016)

The Government of Canada also invests annually in other housing programs, such as the CMHC's On-Reserve Non-Profit Housing Program and the First Nation Market Housing Fund.

Other Government of Canada departments have programs available to support housing on reserve. For example, the CMHC works closely with other federal partners, provinces and territories, and Indigenous organizations to attempt to address housing needs in Indigenous communities by funding different programs. The CMHC's funding supports the following:

- the construction of new rental housing,
- the renovation of existing homes,
- ongoing subsidies for existing rental social housing, and
- an investment in capacity-building for First Nations people living on reserve. (CMHC, 2017b)

The CMHC also has an On-Reserve Non-Profit Housing Program, which assists First Nations in the following areas: the construction, purchase, rehabilitation, and administration of suitable, adequate, and affordable rental housing in First Nations communities. The CMHC provides a subsidy to the project to assist with its financing and operation (CMHC, 2017b).

There are off-reserve housing supports as well that are available to all Indigenous peoples. Provinces and territories deliver the vast majority of federal housing investments in these cases. Indigenous

housing providers off reserve also have access to the CMHC's Affordable Housing Centre, "which works with the private, public and non-profit sectors to develop affordable housing solutions that do not require ongoing federal assistance" (CMHC, 2017b). According to the CMHC, the Investment in Affordable Housing, new federal funding that has been available since 2011, provides provincial and territorial governments "the flexibility to provide programs that meet their community's housing needs" through agreements with the federal government (CMHC, 2017c). Support may be provided in the form of proposal development funding and/or seed funding to assist in getting projects started. Indigenous housing providers off reserve can also access the Direct Lending Program for federally assisted social housing projects.

An example of an off-reserve Indigenous housing provider is Namerind Housing Corporation in Regina, Saskatchewan, which has been 100 per cent Indigenous owned since 1977. Its mission "is to provide safe, affordable, quality housing and economic development opportunities for Indigenous People" (Namerind Housing Corporation, 2018). Silver Sage Housing Corporation is another Regina-based non-profit that provides affordable housing options to First Nations peoples living in urban centres.

An example of a Métis-owned housing corporation is the Métis Urban Housing Corporation, which provides "affordable, adequate, and appropriate rental housing for low and moderate income Aboriginal families within the urban centers of Alberta" (Métis Nation of Alberta, 2018).

The Nunavut Housing Corporation (NHC) delivers a public housing program in all twenty-five Nunavut communities, the majority of which are Inuit. Management agreements between the NHC and the Local Housing Organizations (LHOs) provide "the financial resources and professional support needed to provide ongoing public housing services" (NHC, 2015).

The CMHC also provides the Housing Internship Initiative for First Nations and Inuit Youth (HIIFNIY) for First Nations and Inuit youth who would like to pursue employment in the housing industry.

The CMHC supports Habitat for Humanity's efforts to make its home ownership model available to more Indigenous people, and it is the founding national partner for Habitat for Humanity Canada's Indigenous Housing Program (CMHC, 2017e).

## *Key Takeaways*

1. The percentage of the purchase price paid up front as the down payment will determine the amount that is borrowed. That principal balance on the mortgage, in turn, determines the monthly mortgage payment.
2. A larger down payment may make the monthly payment smaller but creates the

opportunity cost of losing liquidity.

3. A fixed-rate mortgage is structured as an annuity; the monthly mortgage payment can be calculated from the mortgage rate, the maturity, and the principal balance on the mortgage.
4. A fixed-rate mortgage has a fixed mortgage rate and fixed monthly payments.
5. An adjustable-rate mortgage may have an adjustable mortgage rate and/or adjustable payments.
6. A rate cap or a payment cap may be used to offset the effects of an adjustable-rate mortgage on monthly payments.
7. Closing costs are transaction costs such as an appraisal fee, title search and title insurance, filing fees for legal documents, transfer taxes, and sometimes realtors' commissions.

## Exercises

1. You are considering purchasing an existing single-family house for \$200,000 with a 20 per cent down payment and a twenty-five-year, fixed-rate mortgage at 5.5 per cent. What would be your monthly mortgage payment? When should you consider an adjustable-rate mortgage? Why should you be cautious about adjustable-rate mortgages?
2. Do you presently rent or own your home or apartment? What are your housing costs? What percentage of your income is taken up in housing costs? If your housing is costing you more than a third of your income, what could you do to reduce that cost? Record your alternatives in your personal finance journal.
3. As a prospective homeowner, what would be your estimated PITH? Would a bank consider that you qualify for a mortgage loan at this time? Why or why not? What criteria do lenders use to determine your eligibility for a home mortgage?
4. Can you afford a mortgage now? How much of a mortgage could you afford? Answer these questions using the Mortgage Calculator found on the CMHC website. If you cannot afford a mortgage now, how would your personal situation and/or budget need to change to make that possible? Establish home affordability as a goal in your financial planning. Write in your personal finance journal how and when you expect you will reach that goal.
5. Read about the closing process in the following article from the Real Estate Wire, "Eight Steps to Closing the Purchase of Your New Home." Who attends the closing? What legal documents are processed at the closing?
6. Re-review local real estate, condo, or apartment listings in the price range you have now determined is truly affordable for you. For learning purposes, choose a home you would like to own and clip the ad with photo to put in your personal finance journal. Record the purchase price, the down payment you would make, the mortgage amount you would seek, the current interest

rates on a mortgage loan for fixed- and variable-rate mortgages for various periods or maturities, the type of mortgage you would prefer, the rate and maturity you would seek, the amount of monthly mortgage payments you would expect to make, and the names of lenders you would consider approaching first.

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## 9.3 PURCHASING AND OWNING YOUR HOME

### *Learning Objectives*

1. Identify the components of a purchase and sale agreement.
2. Explain the importance of a capital budget in determining capital spending priorities.
3. Identify the financing events you may encounter during the maturity of a mortgage.
4. Define the borrower's and the lender's responsibilities to the mortgage.
5. Explain the consequences of default and foreclosure.

### The Purchase Process

Now that you've chosen your home and determined the financing, all that's left to do is sign the papers, right? Not quite.

Once you have found a house, you will make an offer to the seller, who will then accept or reject your offer. If the offer is rejected, you may try to negotiate with the seller or you may decide to forgo this purchase. If your offer is accepted, you and the seller will sign a formal agreement, often called a purchase and sale agreement or a residential form of offer to purchase, specifying the terms of the sale. When the purchase and sale agreement is signed, you will be required to pay a non-refundable deposit, also known as **earnest money**, which counts toward your down payment.

The purchase and sale agreement might include the following terms and conditions:

- A legal description of the property, including boundaries, with a site survey contingency;
- The sale price and deposit amount;
- A mortgage contingency, stating that the sale is contingent on final approval of your financing;
- The closing date and location, mutually agreed upon by buyer and seller;
- **Conveyances** or any agreements made as part of the offer—for example, an agreement as to whether the kitchen appliances are sold with the house;
- A home inspection contingency specifying the consequences of a home inspection and any problems that it may find, if not already completed and included in the price negotiation;
- Possession date, usually the closing date; and
- A description of the property insurance policy that will cover the home until the closing date.

Any problems with the property must be legally disclosed, and the method of doing so varies by province.

After the purchase and sale agreement is signed, any conditions that it specified must be fulfilled before the closing date. If those conditions are the seller's responsibility, you will want to be sure that they have been fulfilled before closing. Read all the documents before you sign them and get copies of everything you sign. Do not hesitate to ask questions. You will live with your mortgage, and your house, for a long time.

## Capital Expenditures

A house and property need care; even a new home will have repair and maintenance costs. These costs are now a part of your living expenses or operating budget.

If you have purchased a home that requires renovation or repair, you will decide how much of the work you can do immediately and how much can be done on an annual basis. A capital budget is helpful to project these capital expenditures and plan the income or savings to finance them. You can prioritize these costs by their urgency and by how they will be done.

For example, Sally and Chris just closed on an older home and are planning renovations. During the home inspection, they learned that the old stone foundation would need some work. They would also like to install more energy-efficient windows, paint the walls, and strip and refinish the old wood floors.

Their first priority should be the foundation on which the house rests. The windows should be the next on the list, as they will not only provide comfort but also reduce the heating and cooling expenses. Cosmetic repairs such as painting and refinishing can be done later. The walls should be done before the floors (in case any paint drips on the floors).

Renovations should increase the resale value of your home. It is tempting to customize renovations to suit your tastes and needs, but too much customization will make it more difficult to realize the value of those renovations when it comes time to sell. You will have a better chance of selling at a higher price if there is more demand for it, if it appeals to as many potential buyers as possible. The more customized or “quirky” it is, the less broad its appeal may be.

## Early Payment

Two financing decisions may come up during the life of a mortgage: **early payment** and **refinancing**. Some mortgages have an **early payment penalty**, also referred to as “closed mortgages”—whereby the

borrower is fined for repaying the loan before it is due—but most do not. If your mortgage does not have an early payment penalty—this is often referred to as an “open mortgage”—you may be able to pay it off early (before maturity), either with a lump sum or by paying more than your required monthly payment and having the excess payment applied to your principal balance.

If you are thinking of paying off your mortgage with a lump sum, then you are weighing the value of your liquidity, the opportunity cost of giving up cash, against the cost of the remaining interest payments. The cost of giving up your cash is the loss of any investment return you may otherwise have from it.

You also need to weigh the use of your cash to pay off the mortgage versus other uses of that cash. For example, suppose you have some money saved and you are thinking of paying down the mortgage. However, you also know that you will need a new car in two years. If you use that money to pay down the mortgage now, you won't have it to pay for the car two years from now. You could get a car loan to buy the car, but the interest rate on that loan will be higher than the rate on your mortgage. *If paying off your mortgage debt forces you to use more expensive debt, then it is not worth it.*

One way to pay down a mortgage early without sacrificing too much liquidity is by making a larger monthly payment. The excess over the required amount will be applied to your principal balance, which then decreases faster. Since you pay interest on the principal balance, reducing it more quickly would save you some interest expense. If you have had an increase in income, you may be able to do this fairly “painlessly,” but then again, there may be a better use for your increased income.

Over a mortgage as long as thirty years, that interest expense can be substantial—more than the original balance on the mortgage. However, that choice must be made in the context of the value of your alternatives.

## Refinancing

You may think about refinancing your mortgage if better mortgage rates are available. Refinancing means borrowing a new debt or getting a new mortgage and repaying the old one. It involves closing costs: the lender will want an updated appraisal, a title search, and title insurance. It is valuable to refinance if the mortgage rate will be so much lower that your monthly payment will be substantially reduced. That in turn depends on the size of your mortgage balance.

If interest rates are low enough and your home has appreciated so that your equity has increased, you may be able to refinance and increase the principal balance on the new mortgage without increasing the monthly payment over your old monthly payment. If you do that, you are withdrawing equity from your house, but you are not allowing it to perform as an investment—that is, to store your wealth.

If you would rather take gains from the house and invest them differently, that may be a good choice.

But if you want to take gains from the house and use those for consumption, then you are reducing the investment returns on your home. You are also using nonrecurring income to finance recurring expenses, which is not sustainable. There is also a danger that property value will decrease and you will be left with a mortgage worth more than your home.

## Default, Foreclosure, and Fraud

If you have a change of circumstances—for example, you lose your job in an economic downturn, or you have unexpected health-care costs in your family—you may find that you are unable to meet your mortgage obligations as planned. A mortgage is secured by the property it financed. If you miss payments and default on your mortgage, the lender has recourse to foreclose on your property, evict you and take possession of your home, and then sell or lease it to recover its investment. Under normal circumstances, lenders incur a cost in repossessing a home, and usually lose money in its resale. It may be possible to renegotiate terms of your mortgage to forestall foreclosure. You may want to consult with a legal representative, or contact federal and/or provincial agencies for assistance.

You may believe you are having trouble meeting your mortgage obligations because they are not what you thought they would be. Lenders profit by lending. When you are borrowing it is important to understand the terms of your loan. If those terms will adjust under certain conditions, you must understand what could happen to your payments and to the value of your home. It is your responsibility to understand these conditions. However, the lender has a responsibility to disclose the lending arrangement and all its costs, according to federal and provincial laws (which vary by province). If you believe that not all the conditions and terms of your mortgage were fairly disclosed, you should contact local consumer advocacy groups that will help clarify the laws and explore any legal recourse you may have.

Just as your lender has a legal obligation to be forthcoming and clear with you, you have an obligation to be truthful. If you have misrepresented or omitted facts on your mortgage application, you can be held liable for mortgage fraud. For example, if you have overstated your income, misled the lender about your employment or your intention to live in the house, or have understated your debts, you may be prosecuted for mortgage fraud, intentional misrepresentation or omission of facts perpetrated by a borrower in the process of obtaining mortgage financing. Other forms of mortgage fraud are more elaborate, such as inflating the appraisal amount in order to borrow more.

During the recent housing bubble in the United States, mortgage fraud was aggravated by low interest rates that encouraged more borrowing and lending, often when it was less than prudent to do so.

## *Key Takeaways*

1. The purchase and sale agreement details the conditions of the sale.
2. Conditions of the purchase and sale agreement must be met before the closing.
3. A capital budget can help you prioritize and budget for capital expenditures.
4. Early payment is the trade-off of interest expense versus the opportunity cost of losing liquidity.
5. Refinancing is the trade-off between lower monthly payments and closing costs.
6. Both borrowers and lenders have a responsibility to understand the terms of the mortgage.
7. Buyers, sellers, lenders, and brokers must be alert to predatory lending, real estate scams, and possible cases of mortgage fraud.
8. Default may result in the lender foreclosing on the property and evicting the former homeowner.

## *Exercises*

1. According to this chapter, what information is included in a purchase and sale agreement?
2. Use the mortgage refinance calculator from Loans Canada to find out if you would save money by refinancing your real or hypothetical mortgage at this time. What factors should you take into consideration when deciding to refinance?
3. Sample consumer advocacy groups online at [dmoztools.net](http://dmoztools.net). What kinds of help can you get through such organizations?

## PART IV

# PROTECTING WHAT IS IMPORTANT TO YOU

### IN THIS SECTION:

Chapter 10 “Personal Risk Management: Insurance” introduces the idea of incorporating risk management into financial planning. This chapter focuses on planning for the unexpected. It progresses from the more obvious risks to property to less obvious risks, such as the possible inability to earn due to temporary ill health, permanent disability, or death.

Chapter 11 “Personal Risk Management: Retirement and Estate Planning” focuses on planning for the expected: retirement, loss of income from wages, and the subsequent distribution of assets after death. Retirement planning discusses ways to develop alternative sources of income from capital that can eventually substitute for wages. Estate planning also touches on the considerations and mechanics of distributing accumulated wealth.



# 10. Personal Risk Management: Insurance

## INTRODUCTION

Life is full of risks. You can try to avoid them or reduce their likelihood and consequences, but you cannot eliminate them. You can, however, pay someone to share them. That is the idea behind insurance.

There are **speculative risks**—that is, risks that offer a chance of loss or gain, such as developing a “killer app” or business idea that may or may not sell, or investing in a corporate stock that may or may not provide good returns. Such risks can be avoided simply by not participating. They are almost always uninsurable.

There are **pure risks**—accidental or unintentional events, such as a car accident or an illness. Pure risks are insurable because their probabilities can be calculated precisely enough for the risk to be quantified, which means it can be priced, bought, and sold.

**Risk shifting** is the process of selling risk to someone who then assumes the risk and its consequences. Why would someone buy your risk? Because in a large enough market, your risk can be diversified, which minimizes its cost.

Insurance can be purchased for your property and your home, your health, your employment, and your life. In each case, you weigh the cost of the consequence of a risk that may never actually happen against the cost of insuring against it. Deciding what and how to insure is really a process of deciding what the costs of loss would be and how willing you are to pay to get rid of those risks.

**Risk management** is the strategic trade-off of the costs of reducing, assuming, and shifting risks. The costs of insurance can also be lowered through risk avoidance or reduction strategies. **Risk avoidance** is accomplished by completely avoiding the risk through such measures as choosing not to smoke or avoiding an activity that might cause injury. **Risk reduction** reduces the risk of injury, loss, or illness. For example, installing an alarm system in your home may reduce homeowner’s insurance premiums because that reduces the risk of theft. Of course, installing an alarm system has a cost too. **Risk assumption** is when one assumes responsibility for a loss or injury instead of pursuing insurance. Risk assumption is often embraced when the potential loss is minimal, risk reduction strategies have been undertaken, insurance is too expensive, and/or when protection is difficult to obtain (Kapoor et al., 2015). First Nations people on reserve can be sued and can sue for personal injury or property damage. Indigenous governments need to protect their assets and their operations from risk. There are a number of insurance companies in Canada that serve primarily First Nations clients. The following are a few examples of such companies.

Kitsaki Management Limited Corporation is owned by the Lac La Ronge Indian Band and serves nearly ten thousand band members in northern Saskatchewan. First Nations Insurance Services Limited Partnership was established in 1987 to meet the needs of First Nations, their institutions, and businesses. It provides its clients with the following choice of benefits: life insurance, dependent life coverage, accidental death and dismemberment, short- and long-term disability, extended health, dental, vision, and an employee and family assistance program, pension services, and other benefits that can be passed on to their employees. Kitsaki will “never replace or duplicate Treaty Health Rights for any employee who has Treaty Status” (Kitsaki Management Limited Corporation, 2017).

Many Nations Financial Services’ (MNFS) coordinates its clients’ group life and health insurance coverage with the benefits their clients receive from the Department of Indigenous Services Canada and Non-Insured Health Benefits (NIHB). The NIHB is a national program that provides eligible First Nations and Inuit people with prescription drugs, over-the-counter medication, medical supplies and equipment, mental health counselling, dental care, vision care, and medical transportation (Government of Canada, 2018).

MNFS also attempts to ensure that non-taxable First Nations employees receive a higher level of disability income if they become disabled in order to be comparable to their pre-disability earnings (MNFS, 2014).

AFN Insurance Brokers has been in operation since 1998 as a nationally incorporated insurance brokerage that only serves First Nations across Canada to meet their specific needs.

## 10.1 INSURING YOUR PROPERTY

### *Learning Objectives*

1. Describe the purpose of property insurance.
2. Identify the causes of property damage.
3. Compare the coverage and benefits offered by various homeowner’s insurance plans.
4. Analyze the costs of homeowner’s insurance.
5. Compare the kinds of auto insurance to cover bodily injury and property damage.
6. Explain the factors that determine auto insurance costs.
7. Analyze the factors used in determining the risks of the driver, the car, and the driving region.

**Property insurance** is ownership insurance: it ensures that the rights of ownership conferred upon you when you purchased your property will remain intact. Typically, property insurance covers loss

of use from either damage or theft; loss of value, or the cost of replacement; and liability for any use of the property that causes damage to others or others' property. For most people, insurable property risks are covered by insuring two kinds of property: car and home.

Loss of use and value can occur from **hazards**, which increase the likelihood of loss due to **peril**, which is the cause of possible loss. Examples of perils are fires, weather disasters, accidents, and the results of deliberate destruction such as vandalism or theft. One can choose named perils coverage, which provides coverage only for loss caused by the perils one chooses. All risks coverage applies to loss from all causes and is usually more expensive than a named perils insurance policy.

When replacement or repair is needed to restore usefulness and value, that cost is the cost of your risk. For example, if your laptop's hard drive crashes, you not only have the cost of replacing or repairing it, but also the cost of being without your laptop for however long that takes. Insuring your laptop shares that risk (and those costs) with the insurer.

**Liability** is the risk that your use of your property will injure someone or something else. Ownership implies control of, and therefore responsibility for, property use.

For example, you are liable for your dog's attack on a pedestrian and for your fallen tree's damage to a neighbour's fence. You are also liable for damage a friend causes while driving your car with your permission, and for injury to your invited guests who trip over your lawn ornament, fall off your deck, or leave your party drunk.

Legal responsibility can result from:

- **negligence**, or the failure to take necessary precautions;
- **strict liability**, or responsibility for intentional or unintentional events (strict liability is when you are liable by default—that is, the onus has shifted from the plaintiff to the defendant. For example, if you have a dangerous thing, like a wild animal, and it escapes, it is presumed to be your fault unless you can demonstrate some intervening cause that was not caused by your negligence); and
- **vicarious liability**, or responsibility for someone else's use of your possessions or someone else's activity for which you are responsible.

## Home Insurance Coverage

Homeowner's insurance insures both the structure and the personal possessions that make the house your home. **Tenant's** or **renter's insurance** protects your possessions even if you are not the owner of your dwelling. Tenant's insurance policies will vary depending on the customer. **Riders** are exemptions included in policies that allow you to adapt your renter's policy to fit your needs. For example, if you work from home, you might consider an at-home business endorsement rider,

which provides additional coverage for certain business-related items such as a computer and other electronic items that can surpass your \$2,500 liability limit on business items. This rider could help to double your standard coverage at a low cost.

A **deductible**—a fixed sum of money—is required before an insurance company will pay a claim. As stated in Kapoor et al., “the amount of your deductible is often \$100, \$250, \$500, or \$1,000, and your insurance company will subtract that amount from your claim” (2015, p. 243). Thus, if you have to pay a \$500 deductible for a \$1,000 claim, then you will only receive \$500 for the claim. Policy premiums are often reduced when one agrees to pay a higher deductible. A policy costs less when you agree to pay a higher deductible because you are essentially sharing more of the risk with the insurance company. Higher deductibles also have other advantages for insurance companies. When people have to pay a higher deductible, they are more careful and, therefore, insurance companies have to process fewer claims (Kapoor et al., 2015).

You may not think you need insurance until you are the homeowner, but even when you don’t need to insure against possible damage or liability for your dwelling, you can still insure your possessions. Even if your furniture came from your aunt’s house or a yard sale, it could cost a lot to replace. Ed and Elizabeth were renting and had chosen to store artwork and a number of heirlooms in the basement of their home rental. Their landlord was negligent and had not cleaned the septic tank in years. The septic tank backed up in the basement of their home rental and most of their artwork and heirlooms were ruined. Luckily, they had tenant’s insurance that covered the replacement cost of most of their items.

If you have especially valuable possessions such as jewelry or fine musical instruments, you may want to insure them separately to get enough coverage for them. Such items are typically referred to as **scheduled property** and are insured as **endorsements** added on to a homeowner’s or renter’s policy. Items should be appraised by a certified appraiser to determine their replacement or insured value.

A good precaution is to have an up-to-date inventory of your possessions such as furniture, clothing, electronics, and appliances, along with photographs or video showing these items in your home. That inventory should be kept somewhere else, such as a safe deposit box. If the house suffered damage, you would then have the inventory to help you document your losses.

A homeowner’s policy covers damage to the structure itself as well as any outbuildings on the property and, in some cases, even the landscaping or infrastructure on the grounds, such as a driveway.

A homeowner’s policy does not cover:

- property of renters, or property kept in an apartment regularly rented;
- business property, even if the business is conducted on the residential premises; and
- most forms of accidental death (e.g., vehicle impact).

According to the Insurance Bureau of Canada, coverage can vary from one insurer to the next. Different policies exist to meet the different needs of insurers.

Home insurance covers the dwelling, contents, and personal liability of the policyholder, as well as his or her spouse or partner and children. The policy also covers:

- dependants under the age of eighteen; and
- dependants who are students enrolled and actually attending a school, college, or university and living in the household or temporarily living away from the insured principal residence.

If you share your home with a friend or relative, or rent out part of your residence, you must notify your insurance representative.

Home insurance also includes coverage for additional living expenses in the event that you are temporarily unable to live in your home due to an insured loss in certain circumstances.

Homeowners' policies cover liability for injuries on the property and for injuries that the homeowner may accidentally inflict. You may also want to add an **umbrella policy** that covers personal liabilities such as slander, libel, and defamation of character, or the invasion of property. An umbrella policy may also extend over other assets, such as vehicles or rentals covered by other insurance carriers. If you participate in activities where you are assuming responsibilities for others, you may want such extended liability coverage available through your homeowners' policy (also available separately).

## Home Insurance Coverage: The Benefit

Home insurance policies automatically cover your possessions up to a certain percentage of the house's insured value. You can buy more coverage if you think your possessions are worth more. The benefits are specified as either **actual cash value** or **replacement cost**. Actual cash value tries to estimate the actual market value of the item at the time of loss, so it accounts for the original cost less any depreciation that has occurred. Replacement cost is the cost of replacing the item. For most items, the actual cash value is less.

For example, say your policy insures items at actual cash value. You are claiming the loss of a ten-year-old washer and dryer that were ruined when a pipe burst and your basement flooded. Your coverage could mean a benefit of \$100 (based on the market price of ten-year-old appliances). However, to replace your appliances with comparable new ones could cost \$1,000 or more.

The actual cash value is almost always less than the replacement value, because prices generally rise over time and because items generally depreciate (rather than appreciate) in value. A policy that specifies benefits as replacement costs offers more actual coverage. **Guaranteed replacement costs**

are the full cost of replacing your items, while **extended replacement costs** are capped at a certain percentage—for example, 125 per cent of actual cash value.

## Home Insurance Coverage: The Cost

You buy home insurance by paying a **premium** to the insurance company. The insurance purchase is arranged through a broker, who may represent more than one insurance company. The broker should be knowledgeable about various policies, coverage, and premiums offered by different insurers.

The amount of the premium is determined by the insurer’s risk—the more risk, the higher the premium. Risk is determined by:

- the insured (the person buying the policy),
- the property insured, and
- the amount of coverage.

To gauge the risk of the insured, the insurer needs information about your personal circumstances and history, the nature of the property, and the amount of coverage desired for protection. This information is summarized in Table 10.1.1.

**Table 10.1.1 Factors that Determine Insurance Premiums**

Insured	Property	Coverage
<ul style="list-style-type: none"> <li>• Employment</li> <li>• Marital Status</li> <li>• Criminal record</li> <li>• Credit history</li> <li>• Insurance claim history</li> </ul>	<ul style="list-style-type: none"> <li>• Age</li> <li>• Size</li> <li>• Location</li> <li>• Proximity to fire/police services</li> <li>• Building materials</li> <li>• Number of occupants</li> <li>• Heating system</li> </ul>	<ul style="list-style-type: none"> <li>• Actual cash value</li> <li>• Replacement cost</li> <li>• Endorsements for listed property</li> <li>• Umbrella for personal liability</li> </ul>

Insurers may offer discounts for enhancements that lower risks, such as alarm systems or upgraded electrical systems. You may also be offered a discount for being a loyal customer, for example, by insuring both your car and home with the same company. Be sure to ask your insurance broker about available discounts for the following:

- Multiple policies (with the same insurer),
- Sprinkler systems,
- Burglar and fire alarms,
- Long-time policyholder,
- Upgrades to plumbing, heating, and electrical systems,
- Age (insurers give discounts to people as young as age forty in some cases), and

- Credit scoring (quite new in Canada).

Premiums can vary, even for the same levels of coverage for the same items insured. You should compare policies offered by different insurers to shop around for the best premium for the coverage you want.

## Insuring Your Car

If you own and drive a car, you must have car insurance. A car accident could affect not only you and your car, but also the health and property of others. An accident often involves a second party, and so legal and financial responsibility must be assigned and covered by both parties.

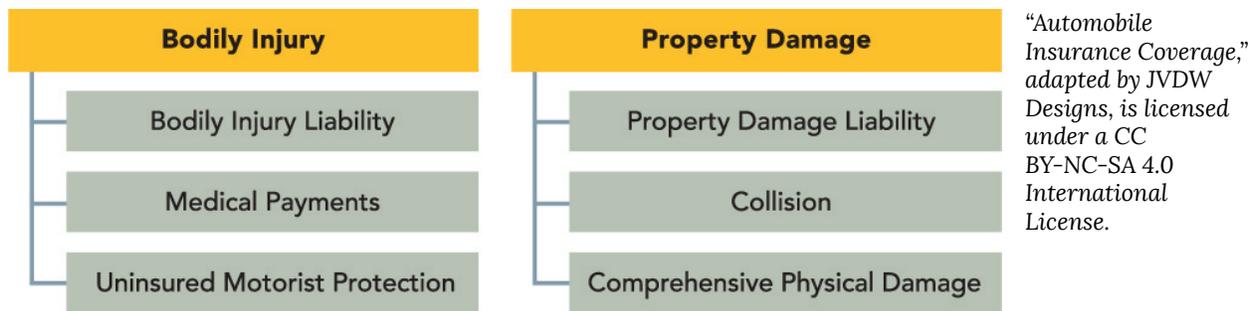
Conventionally, a victim or plaintiff in an accident is reimbursed by the driver at fault or by his or her insurer. Fault has to be established and the amount of the claim agreed to. In practice, this has often been done only through extensive litigation.

In Canada, the provincial governments of British Columbia, Manitoba, and Saskatchewan offer basic automobile insurance coverage. In Quebec, the provincial government and private insurers split auto insurance coverage. In all other provinces and territories, private insurers provide auto insurance. Public insurance requires just one price for coverage, while private insurance companies' rates may vary. Manitoba, Ontario, Quebec, and Saskatchewan have adopted variations of **no-fault insurance**, in which an injured person's own insurance covers his or her damages and injuries regardless of fault, and a victim's ability to sue the driver at fault is limited. The person deemed responsible for the accident is responsible for the deductible payment. The goal of no-fault insurance is to lower the incidence of court cases, and thus the cost of legal action against a third party, and to speed up compensation for victims (Kapoor et al., 2015).

## Auto Insurance Coverage

Auto insurance policies cover two types of consequences: bodily injury and property damage. Each cover three types of financial losses. Chart 10.1.1 shows these different kinds of automobile insurance coverage.

### Chart 10.1.1 Automobile Insurance Coverage



**Bodily injury liability** refers to the financial losses of people in the other car that are injured in an accident you cause, including their medical expenses, loss of income, your legal fees, and other expenses associated with the automobile accident. Injuries to people in your car or to yourself are covered by the automobile owner’s policy. If the owner has given permission for someone else to operate his or her vehicle, the automobile owner’s policy will cover any liability claim. **Accident Benefits** cover the following benefits for people, including yourself, who were injured in your automobile accident: income replacement, medical, rehabilitation, and attendant car expenses, and death and funeral costs (Kapoor et al., 2015).

**Uninsured motorist protection** covers your injuries if the accident is caused by someone with insufficient insurance or by an unidentified driver.

**Property damage liability** covers the costs to other people’s property from damage that you cause, while **collision** covers the costs of damage to your own property. Collision coverage is limited to the market value of the car at the time. To reduce their risk, the lenders financing your car loan will require that you carry adequate collision coverage. **Comprehensive physical damage** covers your losses from anything other than a collision, such as theft, weather damage, acts of nature, or hitting an animal.

## Auto Insurance Costs

As with any insurance, the cost of having an insurer assume risk is related to the cost of that risk. The cost of auto insurance is related to three factors that create risk: the car, the driver, and the driving environment—the region or rating territory.

The model, style, and age of the car determine how costly it may be to repair or replace, and therefore the potential cost of damage or collision. The higher that cost is, the higher the cost of insuring the car. For example, a 2017 luxury car will cost more to insure than a 2002 sedan. Also, different models have different safety features that may lower the potential cost of injury to passengers, and those

features may lower the cost of insurance. Different models may come with different security devices or be more or less attractive to thieves, affecting the risk of theft.

The driver is an obvious source of risk as the operator of the car. Insurers use various demographic factors such as age, education level, marital status, gender, and driving habits to determine which kinds of drivers present more risk. Not surprisingly, young drivers (ages sixteen to twenty-four) of both sexes and elderly drivers (over seventy) are the riskiest. According to data compiled over a ten-year period, provincial police have said that twice as many males as females aged twenty-five to thirty-four die in auto accidents (Canadian Press, 2015).

Your driving history, and especially your accident claim history, along with your criminal record (or lack thereof) and credit score, can affect your premiums. In some provinces and territories, an accident claim can severely increase your cost of insurance over a number of years. Your driving habits—whether or not you use the car to commute to work, for example—can affect your costs as well. Some insurers offer credits or points that reduce your premium if you have a safe driving record or have passed a driver education course.

Where you live and drive also matters. Insurers use police statistics to determine rates of traffic accidents, auto theft, and vandalism, for example. If you are in an accident-prone area or higher-crime region, you may be able to offset those costs by installing safety and security features in your car.

Premium rates vary, so you should always shop around. You can shop through a broker or directly. Online discount auto insurers have become increasingly popular in recent years. Their rates may be lower, but the same cautions apply as for other high-stakes transactions conducted online.

Also, premiums are not the only cost of auto insurance. You should also consider the insurer's reliability in addressing a claim. Chances are you rely on your car to get to school, to work, or for your daily errands or recreational activities. Your car is also a substantial investment, and you may still be paying off debt from financing your car. Losing your car to repairs and perhaps being injured yourself is no small inconvenience and can seriously disrupt your life. You want to be working with an insurer who will co-operate in trying to get you and your car back on the road as soon as possible.

### *Key Takeaways*

1. Property insurance is to insure the rights of ownership and to protect against its liabilities.
2. Property damage can be caused by hazards or by deliberate destruction, such as vandalism or theft.
3. Homeowner's policies insure structures and possessions for actual cash value or replacement

- cost; an umbrella policy covers personal liability.
4. The cost of homeowner's insurance is determined by the individual taking out the policy, the property insured, and the extent of the coverage and benefits.
  5. Auto insurance coverage insures bodily injury through:
    - bodily injury liability,
    - medical payments coverage, and
    - uninsured motorist protection.
  6. Auto insurance coverage insures property damage through:
    - property damage liability,
    - collision, and
    - comprehensive physical damage.
  7. Auto insurance costs are determined by the driver, the car, and the driving region.
  8. The risk of the driver is determined by demographics, credit history, employment history, and driving record.
  9. The risk of the car is determined by its cost; safety and security features may lower insurance costs.
  10. The risk of the driving region is determined by statistical incident histories of accidents or thefts.

## *Exercises*

1. In your personal finance journal, record or chart all the insurances you own privately or through a financial institution and/or are entitled to through your employer. In each case, consider the following questions: what is insured, who is the insurer, what is the term, what are the benefits, and what is your premium or deduction? Research online to find the details. Then analyze your insurance in relation to your financial situation. How does each type of insurance shift or reduce your risk or otherwise help protect you and your assets or wealth?
2. Conduct and record a complete inventory of all your personal property. State the current market value or replacement cost of each item. Then identify the specific items that would cause you the greatest difficulty and expense if they were lost, damaged, or stolen.
3. How would a tenant's insurance policy help protect your property? What do such policies cover? How much would it cost you to insure against the loss of just your laptop or desktop computer?
4. How do auto insurance rates in your province or territory—which are based partly on the rates of accidents, injuries, and deaths in your respective province or territory—compare with rates in other provinces?

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## 10.2 INSURING YOUR HEALTH AND INCOME

### *Learning Objectives*

1. Discuss how health insurance is important when it comes to financial planning.
2. Describe the purposes, coverage, and costs of disability insurance.
3. Compare the appropriate uses of term life and whole life insurance.
4. Explain the differences among variable, adjustable, and universal whole life policies and the use of riders.
5. List the factors that determine the premiums for whole life policies.

As you have learned, assets such as a home or car should be protected from the risk of a loss of value, because assets store wealth, so a loss of value is a loss of wealth.

Your health is also valuable, and the costs of repairing it in the case of accident or illness are significant enough that it also requires insurance coverage. In addition, however, you may have an accident or illness that leaves you permanently impaired or even dead. In either case, your ability to

earn income will be restricted or gone. Thus, your income should be insured, especially if you have dependents who would bear the consequences of losing your income. Disability insurance and life insurance are ways of insuring your income against some limitations.

## Health Insurance

In Canada, provincial government health plans cover most basic medical procedures under the Medical Care Act. The following are examples of items either not covered or only partially covered by provincial health insurance plans:

- Semi-private or private hospital rooms
- Prescription drugs
- Eyeglasses
- Dental care
- Private nursing care
- Cosmetic surgery
- Physician testimony in court

Many people insure the above-mentioned items through private medical insurance companies. When travelling internationally, many people will also purchase travel insurance to cover health-care costs that are not fully covered by provincial health-care plans.

Health insurance pays for medical expenses incurred by the insured and reduces the financial burden of risk by “dividing losses among many individuals” (Kapoor et al., 2015, p. 274). Insurance companies establish rates and benefits by determining how many people within a certain population will become ill and how much their illness will cost (Kapoor et al., 2015). Health insurance can reimburse the insured for expenses incurred from illness or injury, or pay the care provider directly.

Group health insurance plans most commonly offer supplemental health insurance coverage and are most often sponsored by the employer, who pays most or part of the cost. Group health insurance plans vary depending on the provider and will likely not cover all of one’s health needs. Therefore, many will supplement their group insurance plans with individual health insurance.

Individual health insurance plans are tailored to an individual’s or family’s specific needs, particularly when group insurance plans do not suffice. Individual health insurance plans do require comparative shopping because coverage and cost can vary greatly from one provider to the next. “Make sure you have enough insurance, but don’t waste money by over insuring” (Kapoor et al., 2015).

## Disability Insurance

**Disability insurance** is designed to insure your income should you survive an injury or illness impaired. The definition of “disability” is a variable feature of most policies. Some define it as being unable to pursue your regular work, while others define it more narrowly as being unable to pursue any work. Some plans pay partial benefits if you return to work part-time, and some do not. As always, you should understand the limits of your plan’s coverage.

The costs of disability insurance are determined by the features and/or conditions of the plan, including the following:

- Waiting period
- Amount of benefits
- Duration of benefits
- Cause of disability
- Payments for loss of vision, hearing, speech, or use of limbs
- Inflation-adjusted benefits
- Guaranteed renewal or non-cancelable clause

In general, the more of these features or conditions that apply, the higher your premium.

All plans have a waiting period from the time of disability to the collection of benefits. Most are between 30 and 90 days, but some are as long as 180 days. Generally, the longer the waiting period is, the less the premium.

Plans also vary in the amount and duration of benefits. Benefits are usually offered as a percentage of your current wages or salary. The more the benefits or the longer the insurance pays out, the higher the premium.

In addition, some plans offer benefits in the following cases, all of which carry higher premiums:

- Disability due to accident or illness
- Loss of vision, hearing, speech, or the use of limbs, regardless of disability
- Benefits that automatically increase with the rate of inflation
- Guaranteed renewal, which insures against losing your coverage if your health deteriorates

You may already have some disability insurance through your employer, although in many cases the coverage is minimal. Private medical insurance policies provide coverage for disability. Coverage varies depending on your premium, the company, and the details of your policy. There are provincial and federal programs available to the disabled. Employment insurance is a federal program that provides short-term payments for those who have contributed in the past. Both the Canada and Quebec Pension Plans also include a disability pension for those contributors with a severe or

prolonged disability. You may also be eligible for workers' compensation benefits from your province or territory, if the disability is due to an on-the-job accident (Kapoor et al., 2015). Other providers of disability benefits include the following:

- Veterans' Affairs Canada (if you are a veteran)
- Automobile insurance (if the disability is due to a car accident)
- Labour unions (if you are a member)
- Civil service provisions (if you are a government employee)

You should know the coverage available to you and if you find it's not adequate, supplement it with private disability insurance.

## Life Insurance

**Life insurance** is a way of insuring that your income will continue after your death. If you have a spouse, children, parents, or siblings who are dependent on your income or care, your death would create new financial burdens for them. To avoid that, you can insure your dependents against your loss, at least financially.

There are many kinds of life insurance policies. Before purchasing one, you should determine what it is you want the insurance to accomplish for your survivors. This could include the following:

- Pay off the mortgage
- Put your kids through university
- Provide income so that your spouse can be home with the kids and not be forced out into the workplace
- Provide alternative care for your elderly parents or dependent siblings
- Cover the costs of your medical expenses and funeral

Your goals for your life insurance will determine how much benefit you need and what kind of policy you need. Weighed against that are its costs—the amount of premium that you pay and how that fits into your current budget. Consider the following scenario.

Sam and Saifina have two children, ages three and five. Saifina works as a credit analyst in a bank. Sam looks after the household and the children and Saifina's elderly mother, who lives a couple of blocks away. He does her grocery shopping, cleans her apartment, does her laundry, and runs any errands that she may need done. Sam and Saifina live in a condo they bought, financed with a mortgage. They have established RESPs for each child, and they try to save regularly.

Sam and Saifina need to insure both their lives, because the loss of either would cause the survivors financial hardship. With Saifina's death, her earnings would be gone, which is how they pay the

mortgage and save for their children's education. Insurance on her life should be enough to pay off the mortgage and fund their children's university educations, while providing for the family's living expenses, unless Sam returns to the workforce. With Sam's death, Saifina would have to hire someone to keep house and care for their children, and also someone to keep her mother's house and provide care for her. Insurance on Sam's life should be enough to maintain everyone's quality of living.

## *Term Insurance*

Saifina's income provides for three expenditures: the mortgage, education savings, and living expenses. While living expenses are an ongoing or permanent need, the mortgage payment and the education savings are not: eventually, the mortgage will be paid off and the children educated. To cover permanent needs, Saifina and Sam could consider permanent insurance, also known as **whole life**, straight life, or cash value insurance. To insure those two temporary goals of paying the mortgage and university tuitions, Saifina and Sam could also consider temporary or term insurance. **Term insurance** is insurance for a limited time period, usually one, five, ten, or twenty years. After that period, the coverage stops. It is used to cover financial needs for a limited time period—for example, to cover the balance due on a mortgage, or education costs. Premiums are lower for term insurance, because the coverage is limited. The premium is based on the amount of coverage and the length of the time period covered.

A term insurance policy may have a renewability option, so that you can renew the policy at the end of its term, or it may have a conversion option, so that you can convert it to a whole life policy and pay a higher premium. If it is a multi-year level term or straight term, the premium will remain the same over the term of coverage.

Decreasing term insurance pays a decreasing benefit as the term progresses, which may make sense in covering the balance due on a mortgage, which also decreases with payments over time. On the other hand, you could simply buy a one-year term policy with a smaller benefit each year and have more flexibility should you decide to make a change.

A **return-of-premium (ROP)** term policy will return the premiums you have paid if you outlive the term of the policy. On the other hand, the premiums on such policies are higher, and you may do better by simply buying the regular term policy and saving the difference between the premiums.

Term insurance is a more affordable way to insure against a specific risk for a specific time. It is pure insurance, in that it provides risk shifting for a period of time, but unlike whole life, it does not also provide a way to save or invest.

# Whole Life Insurance

Whole life insurance is permanent insurance—that is, you pay a specified premium until you die, at which time your specified benefit is paid to your beneficiary. The amount of the premium is determined by the amount of your benefit and your age and life expectancy when the policy is purchased.

Unlike term insurance, where your premiums simply pay for your coverage or risk shifting, a whole life insurance policy has a **cash surrender value** or cash value that is the value you would receive if you cancelled the policy before you die. You can “cash out” the policy and receive that cash value before you die. In that way, the whole life policy is also an investment vehicle: your premiums are a way of saving and investing, using the insurance company as your investment manager. Whole life premiums are more than term life premiums because you are paying not only to shift risk, but also for investment management.

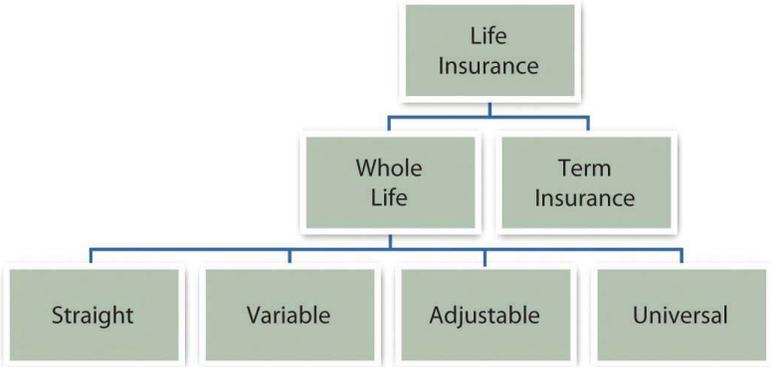
A **variable life** insurance policy has a minimum death benefit guaranteed, but the actual death benefit can be higher depending on the investment returns that the policy has earned. In that case, you are shifting some risk, but also assuming some risk of the investment performance.

An **adjustable life** policy is one where you can adjust the amount of your benefit, and your premium, as your needs change.

A **universal life** policy offers flexible premiums and benefits. The benefit can be increased or decreased without cancelling the policy and getting a new one (and thus losing the cash value, as in a basic whole life policy). Premiums are added to the policy’s cash value, as are investment returns, while the insurer deducts the cost of insurance (COI) and any other policy fees.

When purchased, universal life policies may be offered with a single premium payment, a fixed (and regular) premium payment until you die, or a flexible premium where you can determine the amount of each premium, so long as the cash value in the account can cover the insurer’s COI. Chart 10.2.1 shows the life insurance options.

**Chart 10.2.1 Life Insurance Options**



So, is it term or whole life? When you purchase a term life policy, you purchase and pay for the insurance only. When you purchase a whole life policy, you purchase insurance plus investment management. You pay more for that additional service, so its value should be greater than its cost (in additional premiums). Whole life policies take some analysis to assess the real investment returns and fees, and the insurer is valuable to you only if it is a better investment manager than you could have otherwise. There are many choices for investment management. Thus, the additional cost of a whole life policy must be weighed against your choices among investment vehicles. If it's better than your other choices, then you should buy the whole life. If not, then buy term life and save or invest the difference in the premiums.

## Choosing a Policy

All life insurance policies have basic features, which then can be customized with a rider clause that adds specific benefits under specific conditions. The standard features include provisions that protect the insured and beneficiaries in cases of missed premium payments, fraud, or suicide. There are also loan provisions granted, so that you can borrow against the cash value of a whole life policy.

Riders are actually extra insurance that you can purchase to cover less-common circumstances. Commonly offered riders include:

- a waiver of premium payment if the insured becomes completely disabled;
- a double benefit for accidental death;
- guaranteed insurability allowing you to increase your benefit without proof of good health;
- cost of living protection that protects your benefit from inflation; and
- accelerated benefits that allow you to spend your benefit before your death if you need to finance long-term care.

Finally, you need to consider the settlement options offered by the policy: the ways that the benefit is paid out to your beneficiaries. The three common options are:

- as a lump sum, paid out all at once;
- in installments, paid out over a specified period; or
- as interest payments, so that a series of interest payments is made to the beneficiaries until a specified time when the benefit itself is paid out.

You would choose the various options depending on your beneficiaries and their anticipated needs. Understanding these features, riders, and options can help you to identify the appropriate insurance product for your situation. As with any purchase, once you have identified the product, you need to identify the market and the financing.

Many insurers offer many insurance products, usually sold through brokers or agents. Agents are paid on commission, based on the amount of insurance they sell. A captive agent sells the insurance of only one company, while an independent agent sells policies from many insurers. You want a licensed agent that is responsive and will answer questions patiently and professionally. If you die, this may be the person on whom your survivors will have to depend to help them receive their benefits in a troubling time.

You will have to submit an application for a policy and may be required to have a physical exam or release medical records to verify your physical condition. Factors that influence your riskiness are your family medical history, age and weight, and lifestyle choices such as smoking, drinking, and drug use. Your risks will influence the amount of your premiums.

Having analyzed the product and the market, you need to be sure that the premium payments are sustainable for you, that you can add the expense in your operating budget without creating a budget deficit.

## **Life Insurance as a Financial Planning Decision**

Unlike insuring property and health, life insurance can combine two financial planning functions: shifting risk and saving to build wealth. The decision to buy life insurance involves thinking about your choices for both and your opportunity cost in doing so.

Life insurance is about insuring your earnings even after your death. You can create earnings during your lifetime by selling labour or capital. Your death precludes your selling labour or earning income from salary or wages, but if you have assets that can also earn income, they may be able to generate some or even enough income to ensure the continued comfort of your dependents, even without your salary or wages.

In other words, the larger your accumulated asset base, the greater its earnings, and the less dependent you are on your own labour for financial support. In that case, you will need less income protection and less life insurance. Besides life insurance, another way to protect your beneficiaries is to accumulate a large enough asset base with a large enough earning potential.

If you can afford the life insurance premiums, then the money that you will pay in premiums is currently part of your budget surplus and is being saved somehow. If it is currently contributing to your children's education savings or to your retirement plan, you will have to weigh the value of protecting current income against insuring your children's education or your future income in retirement. Or that surplus could be used toward generating that larger asset base.

These are tough decisions to weigh because life is risky. If you never have an accident or illness, and simply go through life earning plenty and paying off your mortgage and saving for retirement and

educating your children, then are all those insurance premiums just wasted? No. Since your financial strategy includes accumulating assets and earning income to satisfy your needs now or in the future, you need to protect those assets and income, at least by shifting the risk of losing them through a chance accident. At the same time, you must make risk-shifting decisions in the context of your other financial goals and decisions.

### *Key Takeaways*

1. Disability insurance insures your income against an accident or illness that leaves your earning ability impaired.
2. Disability insurance coverage and costs vary.
3. Life insurance is designed to protect dependents against the loss of your income in the event of your death.
4. Term insurance provides life insurance coverage for a specified period of time.
5. Whole life insurance provides life insurance coverage until the insured's death.
6. Whole life insurance has a cash surrender value and thus can be used as an investment instrument as well as a way of shifting risk.
7. Variable, adjustable, and universal life policies offer more flexibility of benefits and premiums.
8. Riders provide more specific coverage.
9. Premiums are determined by the choice of benefits and riders and the risk of the insured, as assessed by medical history and lifestyle choices.

### *Exercises*

1. Find out about workers' compensation in your province or territory by visiting the website of the Association of Workers' Compensation Boards of Canada. What does the Association of Workers' Compensation Boards of Canada do? Find out what programs are available in your province for workers' compensation covering industrial and workplace accidents. What information does the Canadian Centre for Occupational Health and Safety provide on the prevention of workplace illness and injury?
2. Find information about employment insurance at the following websites Employment and Social Development Canada and EI Regular Benefits—Overview to answer the following questions:
  - What does it mean to be involuntarily unemployed?

- If you are involuntarily unemployed, does employment insurance replace your wages?
- Are you entitled to employment insurance if you choose to be unemployed temporarily?
- Does it matter what kind of a job you have or how much income you earn?
- Where does the money come from?
- If you have seasonal employment, can you collect unemployment to cover the off-season?
- If you are eligible, how long can you collect unemployment?
- Is the money you receive from unemployment compensation taxable?

## REFERENCES

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# II. Personal Risk Management: Retirement and Estate Planning

## INTRODUCTION

While insurance is about protecting what you have, retirement and estate planning is about protecting what you may have in the future. Insuring what you have means finding the best way to protect it. Retirement planning, on the other hand, means finding the best way to protect the life that you'd like to be living after you stop earning income from employment. Estate planning involves protecting what you have even after your death.

Both types of planning aim to address some of the following questions, even if you really can't answer them:

- What will my life be like when I retire?
- Will I have a spouse or partner?
- Will I have dependents?
- Will I have a home?
- Will I have a mortgage?
- Will I be disabled?
- Where will I live?
- What will I do?
- What would I like to do?

Planning, especially for retirement, should start as early as possible, allowing the most time for savings to occur and accrue. Ironically, that's when it is hardest to try to imagine answers to these questions. Understanding the practical means to planning and saving for retirement can help you get started. If your plans are flexible, they can be adapted to the unexpected as it happens, which it inevitably will.

## II.I RETIREMENT PLANNING: PROJECTING NEEDS

### *Learning Objectives*

1. Identify the factors required to estimate savings for retirement.
2. Estimate retirement expenses, length of retirement, and the amount saved at retirement.
3. Calculate relationships between the annual savings required and the time to retirement.

Retirement planning involves the same steps as any other personal planning: assess where you'd like to be and then determine how to get there from where you are. More formally, the first step is to define your goals, even if they are no more specific than "I want to be able to afford a nice life after I stop getting a paycheque." But what is a "nice life," and how will you pay for it?

It may seem impossible or futile to try to project your retirement needs so far from retirement given that there are so many uncertainties in life and retirement may be far away. But that shouldn't keep you from saving. You can try to save as much as possible for now, with the idea that your plans will clarify as you get closer to your retirement, so whatever money you have saved will give you a head start.

Chris and Sam are young professionals in Regina, Saskatchewan. Their families live elsewhere in the province—Chris's family lives in Prince Albert, and Sam's family lives on a reserve forty-five minutes from Regina near Fort Qu'Appelle. Both Chris and Sam miss not having their families close by, especially now that they have young kids. Both would like to move closer to Sam's reserve one day, but they have good jobs in Regina, so they agreed that for the time being, they would like to buy a second home near Sam's reserve. They plan to go there a couple weekends each month and during holidays in order to spend more time with family. They have also discussed the possibility of Sam's younger cousin, Jen, paying them a modest monthly rent to live there. This monthly rent would help them to pay for the cost of the home. Jen has agreed to stay with family when they visit during weekends and holidays. Chris and Sam are planning to use the value of their house in Regina to finance their second home. Now in their mid-thirties, Chris and Sam are planning to retire in thirty years. They hope to sell their home in Regina when they retire, for retirement income, and move to their second home.

As they plan, Chris and Sam need to project how much money they will need to have saved by the time they wish to retire. To do that, they need to project both their future capital needs (to buy their second home) and their future living expense in retirement. They also need to project how long they may live after retirement, or how many years' worth of living expenses they will need, so that they won't outlive their savings.

They know that they have thirty years over which to save this money. They also know, as explained

in Chapter 4 “Evaluating Choices: Time, Risk, and Value,” that time affects value. Thus, Sam and Chris need to project the rate of compounding for their savings, or the rate at which time will affect the value of their money.

To estimate required savings, in other words, you need to estimate the following:

- Expenses in retirement
- The duration of retirement
- The return on savings in retirement

As difficult as these estimations seem, because it is a long time until retirement and a lot can happen in the meantime, you can start by using what you know about the present.

## Estimating Annual Expenses

One approach is to assume that your current living expenses will remain about the same in the future. Given that, over the long run, inflation affects the purchasing power of your income, you factor in the effect inflation may have so that your purchasing power remains the same.

For example, say your living expenses are around \$25,000 per year and you’d like to have that amount of purchasing power in retirement as well. Assuming your costs of living remain constant, if you are thirty years from retirement, how much will you be spending on living expenses then?

The overall average annual rate of inflation in Canada in 2017 was about 1.53 per cent.

So, you would have to spend  $\$25,000 \times (1 + 0.0153)^{30} = \$39,425$  *per year* to maintain your standard of living thirty years from now. In this case, \$25,000 is the present value of your expenses, and you are looking for the future value, given that your expenses will appreciate at a rate of 1.53 per cent per year for thirty years.

As you can see, you would need a little more than two times your current spending to live the life you live now. Fortunately, your savings won’t be just “sitting there” during that time. They, too, will be compounding to keep up with your needs.

You may use your current expenses as a basis to project a more or less expensive lifestyle after retirement. You may anticipate expenses dropping with fewer household members and dependents, for example, after your children have grown. Or you may wish to spend more and live a more comfortable life, doing things you’ve always wanted to do. In any case, your current level of spending can be a starting point for your estimates.

## Estimating Length of Retirement

How much you need to have saved to support your annual living expenses after retirement depends on how long those expenses continue or how long you'll live after retirement. In Canada, life expectancy at age sixty-five has increased dramatically in the last century due to increased access to health care, medical advances, and healthier lives before age sixty-five.

If life expectancy continues to increase, in thirty years your life expectancy at age sixty-five could be twenty-eight to thirty years. In that case, your retirement savings will have to provide for your living expenses for as long as thirty years. Put another way, at age thirty-five you have thirty years to save enough to support you for thirty years after that.

## Estimating the Amount Needed and Annual Savings for Retirement

You can use what you know about time and value (from Chapter 4) to estimate the amount you would need to have saved up by the time you retire. Your annual expenses in retirement are really a series of cash flows that will grow by the rate of inflation. At the same time, your savings will grow by your rate of return, even after you are making withdrawals to cover your expenses.

The amount you need at retirement varies with the expected rate of return on your savings. While you are retired, you will be drawing income from your savings, but your remaining savings will still be earning a return. The more return your savings can earn while you are retired, the less you have to have saved by retirement. The less return your savings can earn in retirement, the more you need to have saved *before* retirement.

The more your account can earn before you retire, the less you will have to contribute to it. On the other hand, the more you can contribute to it, the less it has to earn.

The time you have to save until retirement can make a big difference to the amount you must save every year. The longer the time you have to save, the less you have to save each year to reach your goal.

The longer the time you have to save, the sooner you start saving, and the less you need to save each year. Chris and Sam are already in their thirties, so they have thirty years to save for retirement. Had they started in their twenties and had forty years until retirement, they would not have to save so much each year. If they wait until they are around fifty, they will have to save a lot more each year. The more you have to save, the less disposable income you will have to spend on current living expenses, making it harder to save. Clearly, saving early and regularly is the superior strategy.

When you make these calculations, be aware that you are using estimates to determine the money you'll need at retirement. You use the *expected* inflation rate, based on its historic average, to estimate

annual expenses, historical statistics on life expectancy to *estimate* the duration of your retirement, and an *estimate* of future savings returns. Estimates must be adjusted because things change. As you progress toward retirement, you'll want to re-evaluate these numbers at least annually to be sure you are still saving enough.

### *Key Takeaways*

1. To calculate required savings, you need to estimate:
  - expenses in retirement, based on lifestyle and adjusted for inflation;
  - the duration of retirement, based on age at retirement and longevity; and
  - the return on savings in retirement.
2. You must save more for retirement if:
  - expenses are higher;
  - duration of retirement is longer; and
  - the return on savings in retirement is less.
3. Your annual savings for retirement also depends on the time until retirement; the longer the time that you have to save, the less you need to save each year.

### *Exercises*

1. Write in your personal finance journal your ideas and expectations for your retirement. At what age do you want to retire? How many years do you have to prepare before you reach that age? Will you want to stop working at retirement? Will you want to have a retirement business or start a new career? Where and how would you like to live? How do you think you would like to spend your time in retirement? How much have you saved toward retirement so far?
2. Review the Financial Consumer Agency of Canada's worksheet 10.6.1 Your retirement planning worksheet. What will you have saved for retirement by the time you retire? What will you need to live in retirement without income from employment? How old will you be when your retirement savings run out? Run several combinations of estimates to get an idea of how and why you should plan to save for retirement.

## II.2 RETIREMENT PLANNING: WAYS TO SAVE

### *Learning Objectives*

1. Compare and contrast employer, government, and individual retirement plans.
2. Explain the differences between a defined benefit pension plan and a defined contribution pension plan.
3. Summarize the structure and purpose of the Canada Pension Plan.
4. Identify retirement plans for the self-employed.

While knowing the numbers clarifies the picture of your needs, you must reconcile that picture with the realities that you face now. How will you be able to afford to save what you need for retirement?

There are several savings plans structured to help you save; some offer tax advantages, some don't. But first you need to make a commitment to save.

Saving means not spending a portion of your disposable income. It means delaying gratification or putting off until tomorrow what you could have today. That is often difficult, as you have many demands on your disposable income. You must weigh the benefit of fulfilling those demands with the cost of not saving for retirement, even though benefit in the present is much easier to credit than benefit in the future. Once you resolve to save, however, employer, government, and individual retirement plans are there to help you.

### Defined Benefit and Contribution Plans

Employers may sponsor pension or retirement plans for their employees as part of the employees' total compensation. In Canada, a registered pension plan "is an arrangement by an employer or a union to provide pensions to retired employees in the form of periodic payments. The Income Tax Act provides deductions in respect of both employee and employer contributions. Contributions and investment earnings are tax-exempt until such time as benefits commence to be paid" (Government of Canada, 2016a). There are two kinds of employer-sponsored plans: defined benefit plans and defined contribution plans.

A **defined benefit plan** is a retirement plan funded by the employer, who promises the employee a specific benefit upon retirement. The employer can be a corporation, labour union, government, or other organization that establishes a retirement plan for its employees. In addition to (or instead of) a defined benefit plan, an employer may also offer a profit-sharing plan, a stock bonus plan, an

employee stock ownership plan, or other plan. Each type of plan has advantages and disadvantages for employers and employees, but all are designed to give employees a way to save for the future and employers a way to attract and keep employees.

The payout for a defined benefit plan is usually an annual or monthly payment for the remainder of the employee's life. In some defined benefit plans, there is also a spousal or survivor's benefit. The amount of the benefit is determined by your wages and length of service with the company.

With a defined benefit plan your income in retirement is constant or "fixed," and it is the employer's responsibility to fund your retirement. This is both an advantage and a disadvantage for the employee. Having your employer fund the plan is an advantage, but having a fixed income in retirement is a drawback during periods of inflation when the purchasing power of each dollar declines. In some plans, that drawback is offset by automatic cost of living increases.

To avoid the responsibility for defined benefit plans, more and more employers are moving toward **defined contribution retirement plans**.

Under defined contribution plans, each employee has a retirement account, and both the employee and the employer may contribute to the account. The employer may contribute up to a percentage limit or offer to match the employee's contributions, up to a limit. With a matching contribution, if employees choose not to contribute, they lose the opportunity of having the employer's contribution as well as their own. The employee makes untaxed contributions to the account as a payroll deduction, up to a maximum limit specified by the tax code. The employer's contributions are a tax-deductible expense and are not a taxable benefit to the plan member. After a certain period of time, the employee obtains the right to the employer's contribution. Employers can allow employees to make the investment decisions for the employer contributions, or the decision may be left to the employer. Employees usually make the investment decisions for their own contributions.

Private pension plans (including pooled registered pension plans) provided to employees whose employment falls under federal jurisdiction or for pension plans established in the Yukon, the Northwest Territories, and Nunavut, are regulated and supervised by the Office of the Superintendent of Financial Institutions. Every province, except Prince Edward Island, "has its own laws and regulations that govern pension plans in industries that are not under federal jurisdiction" (Government of Canada, 2016a). Regulations pertain to withdrawals both in retirement and in special situations.

The employer offers a selection of investments, but the employee chooses how the funds in his or her account are diversified and invested. Thus, the employee assumes the responsibility—and risk—for investment returns. The employer's contributions are a benefit to the employee. There is a considerable choice of investment options. These typically include:

- Guaranteed investment funds
- Canadian bond funds

- Canadian balanced funds
- Canadian equity funds
- International and/or global equity funds

Many defined benefit and contribution plans are structured with a **vesting** option that limits your claim on the retirement fund until you have been with the company for a certain length of time. For example, Paul's employer has a defined benefit plan that provides for Paul to be 50 per cent vested after five years and fully vested after seven years. If Paul were to leave the company before he had worked there for five years, none of his retirement fund would be in his account. If he left after six years, half his fund would be kept for him; after ten years, all of it would be.

Employers can also make a contribution with company stock, which can create an undiversified account. A portfolio consisting only of your company's stock exposes you to market risk should the company not do well, in which case, you may find yourself losing both your job and your retirement account's value.

Employers are increasingly moving towards defined contribution plans versus defined benefit plans because they are concerned about investment risk as well as liquidity within the plan to pay active retirees versus contributing employees.

## Canadian Government: Public Pensions

The Canadian government has three different retirement income systems. The first is **Old Age Security (OAS)**, which provides a modest monthly pension starting at the age of sixty-five. The second system is the **Canada Pension Plan (CPP)**, a retirement plan for all citizens offered by the federal government, except those living in Quebec who must contribute to the **Quebec Pension Plan (QPP)**. The third level of the retirement income system is composed of **private pensions and savings**.

### *Canada Pension Plan and Quebec Pension Plan*

The CPP and QPP is not an automatic benefit, but an entitlement. To qualify for benefits, you must work and contribute. The CPP and the QPP are closely coordinated so that your pension is protected no matter where you live in Canada. If you have contributed to both the CPP and the QPP, the amount you receive will take into consideration all contributions made to both plans. However, if you live in Quebec, you must apply for the QPP, and if you live elsewhere in Canada, you must apply for the CPP. Your benefit will be paid depending on your place of residence (Government of Canada, 2016a). Every person over the age of eighteen (with some exceptions) who works in Canada and earns more than the minimum amount per year (it is frozen at \$3,500) must contribute pensionable earnings to either the CPP or QPP. It is important to note that employers and First Nations workers on-reserve

are not required to pay into the Canada Pension Plan. However, if a First Nation employer chooses to participate in the CPP, all employees must contribute to the CPP through payroll deductions. If people are self-employed or their First Nation employer decides not to participate in the CPP, they can still contribute by paying both the employee and the employer's portions of the CPP contributions. Those who are employed off-reserve or are receiving taxable employment income must contribute to the CPP (Government of Canada, 2016b).

Maximum pensionable earnings are adjusted every January according to the increases in average wage. In 2018, the maximum amount was \$55,900. Employers pay half the required contributions and the employee pays the other half. If you are self-employed, you make the whole contribution, to a maximum contribution of \$5,187.60 as of 2018. Your contributions are based on your net business income after expenses (Government of Canada, 2018).

You can apply to begin collecting a monthly retirement pension from the federal government at the age of sixty if you have paid into the CPP. However, the earlier you begin collecting your pension before the age of sixty-five, the less you will receive on a monthly basis. If you begin collecting at age sixty, your pension payments could be reduced by as much as 36 per cent. If you collect after seventy, it could be as much as 42 per cent greater (Government of Canada, 2016c). The CPP has three different types of benefits: disability benefits (for disabled contributors and their children), a retirement pension, and survivor benefits (which include the death benefit, the surviving spouse's pension, and the children's benefit).

"CPP was designed to replace only 25 per cent of the salary from which you made your CPP contributions" (Kapoor et al., 2015, p. 421). Given this information, it is critical that you understand that CPP and other public pensions cannot meet all of your financial needs in retirement. You must combine private savings with public pensions in order to be prepared for retirement. A statement of your CPP contribution is available through the Service Canada website; this statement must be used as a personal finance tool in order to properly plan for retirement and set realistic goals (Kapoor et al., 2015).

The following recent changes to CPP will be implemented over the course of a number of years:

1. The annual payout target will increase from about 25 per cent of pre-retirement earnings to 33 per cent.
2. The maximum amount of income covered by the CPP will increase from \$54,900 to about \$82,700 when the program is fully phased in by 2025. Those who earn a higher income will be eligible to earn CPP benefits on a larger portion of their income (McFarland and McGugan, 2017).
3. Canadians who take time out of the workforce to raise children or due to disability will not see a decline in their retirement benefits. A drop-in provision has been introduced by the federal government that allows for a drop-in amount based on an average of previous years' earnings. The formula assigns income to those during years without work because they have chosen to raise a child or because of disability (Canadian Press, 2017; Press, 2017).
4. Survivor benefits will be paid out to everyone, regardless of age, dependent children, or

disability, beginning in 2019.

5. The death benefit, a one-time payment to, or on behalf of, the estate of a deceased CPP contributor, will be set for everyone at \$2,500, instead of being calculated based on a deceased's earnings (Canadian Press, 2017).

### *Old Age Security, Guaranteed Income Supplement, and Spouse's Allowance*

According to the Government of Canada, the Old Age Security program is its largest pension program and is funded out of its general revenues; Canadians do not pay directly into it. OAS is available to seniors aged sixty-five and older who meet the Canadian legal status and residence requirements and the amount one receives is determined by how long one has lived in Canada after the age of eighteen.

OAS benefits are adjusted quarterly (in January, April, July, and October) if there are increases in the cost of living as measured by the Consumer Price Index. Seniors who have low income may be eligible to also receive the **Guaranteed Income Supplement (GIS)** and **Spouse's Allowance (SPA)**. The GIS is a monthly, non-taxable benefit for Old Age Security pension recipients who have a low income and are living in Canada. The SPA is also a benefit available to low-income individuals aged sixty to sixty-four who are the spouses or common-law partners of GIS recipients (Government of Canada, 2016d).

Seniors who have high income must pay back all or a portion of their OAS (line 113 of the tax return) as well as any net federal supplements (line 146) if their annual income exceeds a certain amount (TurboTax Canada, 2017).

Traditionally, many plans for public employees have been defined benefit plans providing annuities upon retirement.

## Personal Retirement Plans

### *Registered Retirement Savings Plan*

Any individual can save for retirement without a special "account," but since the government would like to encourage retirement savings, it has created tax-advantaged accounts to help you do so. Because these accounts provide tax benefits as well as some convenience, it is best to use them first in planning for retirement, although their use may be limited.

A **registered retirement savings plan (RRSP)** is a personal investment vehicle that allows you to shelter your savings from income taxes. RRSPs allow you to shelter your money in a wide range of financial products: stocks, Canada Savings Bonds (CSBs) and treasury bills (T-Bills), corporate bonds,

term deposits, guaranteed investment certificates (GICs), mutual funds, savings accounts, real estate, and so on. In the 2017 federal budget, the Government of Canada announced its decision to end the sale of CSBs as of November 1, 2017. Savings accounts, term deposits, and GICs are examples of *guaranteed funds* because you are ensured the return of your principal plus a guaranteed rate of return, and they are offered by most financial institutions. *Mutual funds* do not guarantee a rate of return or the return of your principal and are available through most financial institutions including investment dealers and life insurance companies. *Life insurance and life annuity products*, which are sold through life insurance companies, may also qualify as RRSP investments, but they might not be the best financial plan due to various restrictions on these types of investments (Kapoor et al., 2015).

An RRSP allows you to realize immediate tax benefits at a time when your income is generally highest. Your annual contribution can be deducted from your gross income at tax time, reducing the amount you pay in income tax that year. The income earned in your RRSP is not taxed until you begin to withdraw funds at retirement and will likely be taxed at a lower rate given that most people will be earning a reduced income compared to when they worked full-time. However, one will certainly be receiving taxable income and not everyone will be in a lower tax bracket upon retirement. Your RRSP investments can grow and are tax-sheltered until retirement. If one is paying little to no income tax, likely an RRSP is not needed. As mentioned above, an RRSP is best utilized when your income is generally highest. An additional advantage of the RRSP is that principal appreciation (interest, dividend income, or capital gain) is not taxed until the funds are withdrawn.

### *Types of RRSPs*

The most common type of RRSP held by Canadians is a “regular” RRSP due to the fact that fees are minimal and it requires minimal management. However, because of the type of low-risk and low-return investments available within the regular RRSP, there is a limited return on investment. “Self-directed” RRSPs allow for greater scope of categories, such as cash, T-Bills, bonds (including CSBs), mortgages, mutual funds, and stocks (Kapoor et al., 2015). The fees are higher and require more management, but the return on investment is often higher. *Spousal* RRSPs are available to common-law couples and same-sex couples, and they allow one to contribute to an RRSP and name one’s spouse/partner as the beneficiary. This can be a useful type of RRSP when one spouse/partner does not participate in the labour market. However, this type of contribution will reduce one’s allowable contribution to his or her own plan.

As mentioned in Chapter 9 “Buying a Home,” you can use RRSP funds for a down payment on your first home under the Home Buyer’s Plan. Up to \$25,000 can be withdrawn as a loan from your RRSP; no interest is required on the loan and it must be paid back within fifteen years. A certain payment must be paid every year; if it is not, that amount due will be included in your income for that year.

RRSP funds, up to a maximum of \$20,000, can also be used for full-time training or educational purposes for you or your common-law partner or spouse under the Life-Long Learning Plan, up

to \$10,000 per year. Withdrawals have to be paid within ten years. As with funds used for a down payment on a house, if a payment that is due is not made, it will be included in your income for the year it was due (Kapoor et al., 2015).

### *Contribution Limits*

If you are already contributing to a registered pension plan, the CRA will calculate, along with the help of your employer, the allowable contribution using a pension adjustment. If you do not have an RPP, then you can contribute up to 18 per cent of your earned income or the stated maximum (Kapoor et al., 2015). You can exceed your contribution limit by \$2,000 without penalty, but anything beyond this amount will incur a 1 per cent fine. If you do not contribute the maximum contribution in a given year, you can carry forward your contribution shortfall and invest more in a year when you are able to.

### *Deregistering an RRSP*

Cashing in or “deregistering” your RRSP must take place before the end of the calendar year of your seventy-first birthday. Upon deregistering an RRSP, you have a number of options:

1. Withdraw the funds and pay the income tax. If a lump-sum payment is withdrawn, it is likely a high marginal tax rate will apply. The tax consequences of doing this could be quite expensive.
2. Purchase a single-payment *life annuity* from an insurance company. This life annuity will allow you to receive a fixed level of payment on a regular basis for the rest of one’s lifetime and you only pay taxes on your annual income.
3. Purchase a *fixed-term annuity* from an insurance company that pays you an income for a fixed-term. Unlike life annuities, life expectancy or the pooling of funds with others is not taken into account.
4. Set-up a registered retirement income fund (RRIF) that allows you to withdraw a minimum amount from the RRSP and invest that money. That minimum amount increases over time. The amount and frequency of payments to your RRIF can be adjusted. Earnings in a RRIF are tax-free and amounts paid out of a RRIF are taxable upon receipt (Kapoor et al., 2015, pp. 440–442).
5. One could also choose a combination of the options mentioned above, such as withdrawing funds, buying an annuity, and putting the rest in a RRIF.

For more information regarding your options when deregistering an RRSP, see Options for your own RRSPs on the Government of Canada website.

## Fixed-Term and Life Annuities

Fixed-term and life annuities can be purchased with a lump sum from any Canadian life insurance company; the lump sum can be from either registered or non-registered sources. Examples of registered funds used to purchase both fixed-term and life annuities are: individual RRSPs, locked-in RRSPs, RRIFs, pension plans, or deferred profit sharing plans. Fixed-term annuities specify to the insurance company how long the purchaser wishes this type of annuity to pay them. The insurance company is obligated to pay out all capital used to pay for this annuity. All income payments cease and the annuity contract ends once the payment period has ended. Fixed-term annuities are purchased when a guaranteed income is needed for a specific time period. Any guaranteed payments that have not been paid due to the death of the annuitant will be paid to a named beneficiary or his or her estate (Canadian Annuity Rates, 2018).

Life annuities can be purchased as either single life or joint life. “Single Life annuities pay a periodic income as long as the sole annuitant is alive. Joint Life annuities continue to pay as long as one of the two joint annuitants is alive” (Canadian Annuity Rates, 2018).

As mentioned in Chapter 6 “Taxes and Tax Planning,” a **tax-free savings account (TFSA)** is a flexible investment account where one’s investment income—interest, dividends, or capital gains—is not taxed, even when withdrawn. TFSAs are an increasingly popular investment strategy because your money grows more quickly inside a TFSA than in a taxable account due to tax-free compound growth. Through a TFSA, one can invest in various vehicles, such as GICs, bonds, mutual funds, stocks, and exchange-traded funds. Furthermore, eligibility for federal income-tested benefits (e.g., OAS), or credits (non-refundable tax credit for taxpayers sixty-five years and older) are not affected by investment gains within the TFSA or by withdrawals (Kapoor et al., 2015). The following are important facts about contributions to your TFSA:

- The current contribution limit is \$5,500 per year; contributions to your RRSP/RPP do not limit your TFSA contribution.
- Any unused room can be carried forward.
- You can contribute up to your TFSA contribution limit. A tax applies to all contributions exceeding your TFSA contribution limit.
- Withdrawals will be added to your TFSA contribution room at the beginning of the following year.
- You can replace the amount of the withdrawal in the same year only if you have available TFSA contribution room.
- Direct transfers must be completed by your financial institution (Government of Canada, 2016e; Government of Canada, 2016f).

The federal government introduced TFSAs in 2009. One can go back and contribute for every year since 2009 for a total of \$57,500 (2009–2012: \$5,000 per year; 2013–2014: \$5,500 per year; 2015:

\$10,000; 2016–2018: \$5,500). Many different groups can benefit from TFSAs, and they should be considered as a viable retirement savings strategy for young and old as well as low- to high-income Canadians (Government of Canada, 2016e).

### *Key Takeaways*

1. Retirement plans may be sponsored by employers, government, or individuals.
2. Defined benefit plans differ from defined contribution plans in that the benefit is a specified amount for which the employer is liable. In a defined contribution plan, the benefit is not specified, and the employee is responsible for the accumulation in the plan.
3. CPP is an entitlement financed by payroll taxes and designed to supplement employer retirement plans or individual retirement plans.
4. Examples of personal retirement plans are registered retirement savings plans and tax-free savings accounts.

### *Exercises*

1. Do you participate in an employer-sponsored retirement savings plan? If so, what kind of plan is it, and what do you see as the benefits and drawbacks of participating? If you contribute to your plan, how did you decide how much to contribute? Could you contribute more? In searching for your next good job, what kind of retirement plan would you prefer to find in the new employer's benefit package, and why?
2. As part of your planning, how can you estimate what you will need for your retirement income? Find this answer by going to the Canadian Retirement Income Calculator on the Government of Canada's website.

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## II.3 ESTATE PLANNING

### *Learning Objectives*

1. Identify the purposes, types, and components of a will.
2. Describe the roles and types of trusts and gifts.
3. Analyze the role of the estate tax in estate planning.

Your **estate** includes everything you own. Other aspects of financial planning involve creating and managing your assets while you are alive. Estate planning is a way to manage your assets after your death. Age is not really a factor, because death can occur at any time, at any age, by any cause. Arranging for the disposition of your estate is not a morbid concern, but a kindness to those you leave behind. Death is a legal and financial event as well as an emotional one. Your loved ones will have to deal with the emotional aftermath of your loss and will appreciate your care in planning for the legal and financial outcomes of your death.

### Legal Considerations

Provincial family law varies from province to province when it comes to the distribution of one's estate. For example, British Columbia and Ontario consider common-law or same-sex unions when determining when one has matrimonial rights; this is particularly important for the purposes of distributing an estate without a will. While these provincial laws differ, the motive behind provincial laws is to fairly distribute your estate to those who are financially dependent on you at the time of your death. It is important that you make known your desires regarding the distribution of your estate so that it is not left up to the legal system to make sensitive decisions.

### *Wills*

Elder Norma Jean Byrd emphasizes the importance of a will in order to plan for the future of loved ones (Video 4).

Since you won't be here, you will need to leave a written document outlining your instructions

regarding your estate. That is your **will**, your legal request for the distribution of your estate—that is, assets that remain after your debts have been satisfied. If you die **intestate**, or without a will, the laws of your province or territory of legal residence will dictate the distribution of your estate.

You can write your own will so long as you are a legal adult and mentally competent. The document has to be witnessed by two or three people who are not inheriting anything under the terms of the will, and it must be dated and signed and, in some provinces, notarized. A **holographic will** is handwritten, and as such, it may be more difficult to validate. A **formal will** is usually prepared on a typed or pre-printed form with the assistance of an attorney. A **statutory will** is a pre-printed form that you can buy from a store or in a software package. Online will-writing services, such as Canadian Legal Wills (legalwill.ca) or MakeYourWill.com (canada.makeyourwill.com), provide easy, affordable access to statutory wills. Consider, however, that a will is a legal document. Having yours drawn up by a lawyer may better insure its completeness and validity in court. A **notarial will** is only available in Quebec and must be signed in the presence of a notary, who keeps the original copy to share with heirs, and at least one witness (Kapoor et al., 2015).

**Probate** is the legal process of validating a will and administering the payment of debts and the distribution of assets by a probate court. The probate court process legally confirms the authority of the executor of an estate by granting the executor letters probate (or in Ontario, a certificate of estate trustee with a will). In Quebec, probates are not common because notarial wills do not require probate (Financial Post, 2013). Probate courts also distribute property in the absence of a will. However, probate is not required if the deceased:

- owned assets of little value, allowing for transfer without court supervision;
- owned assets jointly with or “payable on death” to another person;
- owned assets naming another person as beneficiary; or
- held all assets in a living trust (a legal entity for managing assets on behalf of beneficiaries).

Besides the details of “who gets what,” a will should name an **executor**, the person or persons who will administer the payment of your debts and the distribution of your remaining assets according to your wishes as expressed in your will. If you have legal dependents, you should name a **guardian** for them who will assume responsibility for providing for your children and managing the estate for them. A great deal of thought and consideration should be put into the selection of a guardian for your children to ensure you are choosing someone who has a similar parenting philosophy and who would be willing to accept responsibility for your children. You may also include a “letter of last instruction” stating the location of important documents, safe deposit keys, and bank accounts, and specifying your funeral arrangements.

You may change or rewrite your will at any time, but you should definitely do so as your life circumstances change, especially with events such as marriage or divorce, the birth of a child, and the acquisition of significant assets, such as a house. If the changes in your circumstances are substantial, you should create a new will.

There are several types of wills. A **simple will** leaves everything to a spouse.

It is possible that you will become mentally or physically disabled before you die and unable to direct management of your assets. To prepare for this possibility, you may create a **living will** with instructions for your care in that event. You may appoint someone, usually a spouse, child, or sibling, who would have **power of attorney**—that is, the right to act on your behalf, especially regarding financial and legal decisions. That power may be limited or unlimited (such as a “durable power of attorney”) and is restricted to certain acts or dependent on certain circumstances. The two major types of powers of attorney are ordinary and enduring. An ordinary power of attorney is no longer valid if the donor becomes mentally incompetent while an enduring power of attorney remains valid regardless (LawDepot, 2018).

An **ethical will** is a way for one to pass along values and beliefs as well as emotional and spiritual wishes (Kapoor et al., 2015).

Along with granting power of attorney, your living will may include a health-care proxy, requesting that medical personnel follow the instructions of a designated family member who expresses your wishes concerning your end-of-life treatment. Many people request, for example, that they not be revived or sustained if they cannot experience some quality of life. But be sure to update your living will, as over time your views may change and medical and technological advances may change our notions of what constitutes “quality of life.”

## *Trusts and Gifts*

A **trust** is a legal entity created by a trustor, or grantor, who owns assets managed by a trustee or trustees for the benefit of a beneficiary or beneficiaries. A trust is often preferred to probating a will, which can be a costly and lengthy process that could make the contents of the probate a matter of public record. A **testamentary trust** may be established by a will so that beneficiaries who are unable to manage assets (minor children or disabled dependents) can benefit from the assets but have them managed for them. This type of trust becomes effective upon one’s death. A **living trust** is established while the grantor is alive. Unlike a will, it does not become a matter of public record upon your death. A **spousal trust** is a trust created for one’s spouse and “requires that 1) all income of the trust is paid to the spouse during the spouse’s lifetime, and 2) that none of the capital can be distributed to anyone else during your spouse’s lifetime” (Kapoor et al., 2015, p. 464).

Most trusts, whether testamentary or living, are created to avoid either the probate process or to avoid wills from becoming a public record. The probate process can be long and costly and therefore a burden for your executor, your beneficiaries (who may have to wait for their distributions), and your estate. Living trusts are also easier to change than the contents of a will.

## *Estates*

An **estate** includes everything you own, such as property, life insurance, annuities, employee benefits, etc. Unlike the United States, Canada no longer has any form of estate or inheritance tax. However, there are three potential taxes that may be incurred at death:

- Income tax due to deemed disposition (Income Tax Act)
- Provincial probate taxes
- US estate tax (on your US assets)

Your primary objective is to see that your dependents are provided for by the distribution of your assets and that your assets are distributed as you would wish them to be were you still there to distribute them yourself.

## *Estate Services for First Nations Peoples*

In Canada, under the Indian Act, the Department of Indigenous Services Canada (DISC) is required to manage the estates of First Nations people who lived on reserve upon their time of death as well as the estates of dependent adults or a minor. DISC will get involved in managing an estate if no one is identified in the will or if no other eligible person is willing and able to. If First Nations individuals live off-reserve upon their time of death, the province or territory where an individual lives will be responsible and provincial/territorial laws will apply. DISC will also assist First Nations people to administer the estates themselves (INAC, 2017).

DISC provides the following services as part of its Deceased Estates Service:

- appoints estate administrators or executors,
- approves wills so they can take effect,
- transfers reserve lands from the estate to the heirs or beneficiaries,
- if someone dies without a will, DISC will determine the heirs,
- if the family does not or cannot settle the estate, DISC will serve as administrator,
- if DISC is the administrator, it will distribute estate assets according to the will or the intestacy provisions of the *Indian Act* (INAC, 2017).

## *Key Takeaways*

1. A will describes your wishes for the distribution of your assets (the estate) after your death.

2. Probate courts distribute assets in the absence of a will and administer wills in estates with assets valued above a certain (variable) dollar amount.
3. There are many kinds of wills, including:
  - the holographic will
  - the formal will
  - the statutory will
  - the notarial will
  - the simple will
  - the living will
  - the ethical will
4. Living wills, with power of attorney and health-care proxy, provide medical directives, empower someone to manage your estate while you are still alive, and authorize someone to make decisions about your end-of-life care.
5. Trusts are used to provide the benefits of assets for beneficiaries without them assuming responsibility for asset management.
6. There are testamentary, living trusts, and spousal trusts. Setting up and administering trusts involves some considerable expense.

## Exercises

1. Draft a holographic will or use a form for a statutory will. Start by reviewing your balance sheet, showing your assets, liabilities, net worth, and inventory of personal and household property. Think about how you would want your estate to be distributed upon your death. Identify an executor. For more information on writing a will, read the *Canadian Living* article “What you need to know about writing a will,” and visit [formalwill.ca](http://formalwill.ca) for free forms and advice.
2. Find out what kind of document your province or territory requires for a “last will and testament.” Also, consider drafting a living will. What should be in a living will?

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## PART V

# PLANNING FOR THE FUTURE

### IN THIS SECTION:

Chapter 12 “Investing” presents basic information about investment instruments and markets and explains the classic relationships of risk and return developed in modern portfolio theory.

Chapter 13 “Owning Stocks” and Chapter 14 “Owning Bonds and Investing in Mutual Funds” look at investments commonly made by individual investors and their use in (and the risks of) building wealth as part of a diverse investment strategy.

Chapter 15 “Career Planning” brings the planning process full circle with a discussion on how to think about getting started—that is, deciding how to approach the process of selling your labour. The chapter introduces the idea of selling labour to employers in the labour market and explores how to search and apply for a job in light of its strategic as well as immediate potential.



# 12. Investing

## INTRODUCTION

Saving to build wealth is investing. When people have too much money to spend immediately—that is, a surplus of disposable income—they become savers or investors. They transfer their surplus to individuals, companies, or governments that have a shortage or too little money to meet immediate needs. This is almost always done through an intermediary—a bank or broker—who can match up the surpluses and the shortages. If the capital markets work well, those who need money can get it, and those who can defer their need can try to profit from that. When you invest, you are transferring capital to those who need it on the assumption that they will be able to return your capital when you need or want it and that they will also pay you for its use in the meantime.

Investing happens over your lifetime. In your early adult years, you typically have little surplus to invest. Your first investments are in your home (although primarily financed with the debt of your mortgage) and then perhaps in planning for children’s education or for your retirement.

After a period of just paying the bills, making the mortgage, and trying to put something away for retirement, you may have the chance to accumulate wealth. Your income increases as your career progresses. You have fewer dependents (as children leave home), so your expenses decrease. You begin to think about your investment options. You have already been investing—in your home and retirement—but those investments have been prescribed by their specific goals.

You may reach this stage earlier or later in your life, but at some point, you begin to think beyond your immediate situation and look to increase your real wealth to ensure your future financial health. Investing is about that future.

Investment also goes beyond simply contributing one’s own individual wealth and financial health. The investments we make can contribute to the growth of businesses, organizations, and communities. The investment choices we make can have a significant economic and social impact in the world.

With regard to Indigenous communities in Canada, economic growth is fueled by investment. According to Chief Michael LeBourdais of the Whispering Pine/Clinton Indian Band, “investment can be generated from local residents through savings, through home equity or from outside sources. In Canada, private sector investment outweighs public sector investment by five to one. Three times as many jobs are created in the private sector as in the public sector” (Tulo Centre of Indigenous Economics, 2014, p. 6). Thus, attracting private investment to Indigenous business and economic development projects is an important part of economic growth. Many Indigenous entrepreneurs lack access to capital and rely heavily on personal and family support to help finance their businesses;

“there is a growing need for ‘angel investors’” as well as other private investment options (Cooper, 2016). Furthermore, “investment creates jobs and business opportunities. This, in turn, builds the fiscal capacity of governments to support social improvements and build infrastructure. It also encourages a natural constituency for accountable, fiscally responsible government as the investment climate is enhanced. Indigenous governments must participate in federations and market systems to provide fiscal and economic opportunities for their governments and members” (Tulo Centre of Indigenous Economics, 2014, p. 7). Therefore, investing can help to increase your individual financial well-being, as well as the economic and social well-being of communities throughout the country.

Through the creation of the First Nations Fiscal and Statistical Management Act on March 23, 2005, the First Nations Finance Authority (FNFA), the First Nations Financial Management Board (FNFMB), and the First Nations Tax Commission (FNTC) were established. Canada’s First Nations and the Government of Canada worked together to support the creation of these new institutions in order to assist First Nations to better access capital markets and more investment opportunities. The FNFMB helps First Nations to build stronger community management and accountability frameworks, including best practices, standard-setting, and capacity-building, that enhance First Nations’ ability to participate in raising capital through the FNFA (Cooper, 2016). The FNTC, as mentioned in Chapter 6, helps First Nations use their property tax revenue to secure long-term borrowing and oversee the bylaw approval process, which provides greater investor certainty. As Cooper states, “the ability to successfully provide transparent, risk-related investment opportunities to private capital providers requires that First Nation communities undertake initiatives to enhance their ability to borrow. The practices and processes of the FNFA and the FNFMB are tools which can be of immediate assistance to the First Nations communities as they proceed to prepare themselves for dealing with private capital providers” (Cooper, 2016, p. 172).

How should you invest your money? This is a critical question that we must all ask ourselves as we reach that stage of our lives when we are ready to begin investing. Today, there are more and more options available to investors who wish to invest their money in socially responsible businesses. Furthermore, many businesses are focusing more on **corporate social responsibility (CSR)**, which is focused on economic, social, and environmentally sustainable activities—and not only because they know it is the right thing to do, but also because it is good business. More and more companies are sharing their CSR record, which makes it easier for investors to research and make informed decisions.

## 12.1 INVESTMENTS AND MARKETS: A BRIEF OVERVIEW

### *Learning Objectives*

1. Identify the features and uses of issuing, owning, and trading bonds.
2. Identify the uses of issuing, owning, and trading stocks.
3. Identify the features and uses of issuing, owning, and trading commodities and derivatives.
4. Identify the features and uses of issuing, owning, and trading mutual funds, including exchange-traded funds and index funds.
5. Describe the reasons for using different instruments in different markets.

Before looking at investment planning and strategy, it is important to take a closer look at the galaxy of investments and markets where investing takes place. Understanding how markets work, how different investments work, and how different investors can use investments is critical to understanding how to plan your investment goals and strategies.

You have looked at using the money markets to save surplus cash for the short term. By contrast, investing is primarily about using the capital markets to invest surplus cash for the longer term. As in the money markets, when you invest in the capital markets, you are selling liquidity.

The capital markets developed as a way for buyers to buy liquidity (i.e., raise capital). The two primary methods that have evolved into modern times are the bond and stock markets. Both are discussed in greater detail in Chapter 13 “Owning Stocks” and Chapter 14 “Owning Bonds and Investing in Mutual Funds,” but a brief introduction is provided here to give you a basic idea of what they are and how they can be used as investments.

### **Bonds and Bond Markets**

**Bonds** are debt. The bond issuer borrows by selling a bond, promising the buyer regular interest payments and then repayment of the principal at maturity. If a company wants to borrow, it could just go to one lender and borrow. But if the company wants to borrow a lot, it may be difficult to find any one investor with the capital and the inclination to make that large a loan, taking a large risk on only one borrower. In this case, the company may need to find a lot of lenders who will each lend a little money, and this is done through selling bonds.

A bond is a formal contract to repay borrowed money with interest (often referred to as the coupon) at fixed intervals. Corporations and governments (e.g., federal, provincial, municipal, and foreign)

borrow by issuing bonds. The interest rate on the bond may be a **fixed interest rate** or a **floating interest rate** that changes as underlying interest rates—rates on debt of comparable companies—change. (Underlying interest rates include the prime rate: the annual interest rate Canada’s major banks and financial institutions use to set interest rates for variable loans and lines of credit, including variable-rate mortgages. The Bank of Canada sets the prime rate.)

Bonds have many features other than the principal and interest; these include the **issue price** (the price you pay to buy the bond when it is first issued) and the **maturity date** (when the issuer of the bond has to repay you). Bonds may also be “callable”—that is, **redeemable** before **maturity** (paid off early). Bonds may also be issued with various **covenants** or conditions that the borrower must meet to protect the bondholders (the lenders). For example, the borrower (the bond issuer) may be required to keep a certain level of cash on hand, relative to his or her short-term debts, or may not be allowed to issue more debt until this bond is paid off.

Because of the diversity and flexibility of bond features, the bond markets are not as transparent as the stock markets—that is, the relationship between the bond and its price is harder to determine.

## Stocks and Stock Markets

**Stocks** or equity securities are shares of ownership: when you buy a share of stock, you buy a share of the corporation. The size of your share of the corporation is proportional to the size of your stock holding. Since corporations exist to create profit for the owners, when you buy a share of the corporation, you buy a share of its future profits. You are literally sharing in the fortunes of the company.

Unlike bonds, however, shares do not promise you any returns at all. If the company does create a profit, some of that profit may be paid out to owners as a **dividend**, usually in cash but sometimes in additional shares of stock. The company may pay no dividend at all, however, in which case the value of your shares should rise as the company’s profits rise. But even if the company is profitable, the value of its shares may not rise, for a variety of reasons having to do more with the markets or the larger economy than with the company itself. Likewise, when you invest in stocks, you share the company’s losses, which may decrease the value of your shares.

Corporations issue shares to raise capital. When shares are issued and traded in a public market such as a stock exchange, the corporation is “publicly traded.” There are many stock exchanges in Canada and around the world. Internationally, the best-known Canadian stock exchange is the Toronto Stock Exchange.

Only members of an exchange may trade on the exchange, so to buy or sell stocks you must go through a broker who is a member of the exchange. Brokers also manage your account and offer

varying levels of advice and access to research. Most brokers have web-based trading systems. Some discount brokers offer minimal advice and research along with minimal trading commissions and fees.

## Commodities and Derivatives

**Commodities** are resources or raw materials, including the following:

- agricultural products (food and fibres) such as soybeans, pork bellies, and cotton;
- energy resources such as oil, coal, and natural gas;
- precious metals such as gold, silver, and copper; and
- currencies, such as the dollar, yen, and euro.

Commodity trading was formalized because of the risks inherent in producing commodities—raising and harvesting agricultural products or natural resources—and the resulting volatility of commodity prices. As farming and food production became mechanized and required a larger investment of capital, commodity producers and users wanted a way to reduce volatility by locking in prices over the longer term.

The answer was futures and forward contracts. **Futures** and **forward contracts** (or forwards) are a form of **derivatives**, the term for any financial instrument whose value is derived from the value of another security. For example, suppose it is now July 2018. If you know that you will want to have wheat in May of 2019, you could wait until May 2019 and buy the wheat at the market price, which is unknown in July 2018. Or you could buy it now, paying today's price, and store the wheat until May 2019. Doing so would remove your future price uncertainty, but you would incur the cost of storing the wheat.

Alternatively, you could buy a futures contract for May 2019 wheat in July 2018. You would be buying May 2019 wheat at a price that is now known to you (as stated in the futures contract), but you will not take delivery of the wheat until May 2019. The value of the futures contract to you is that you are removing the future price uncertainty without incurring any storage costs. In July 2018, the value of a contract to buy May 2019 wheat depends on what the price of wheat actually turns out to be in May 2019.

Forward contracts are traded privately, as a direct deal made between the seller and the buyer, while futures contracts are traded publicly on an exchange such as the Chicago Mercantile Exchange or the New York Mercantile Exchange.

When you buy a forward contract for wheat, for example, you are literally buying future wheat, wheat that doesn't yet exist. Buying it now, you avoid any uncertainty about the price, which may change. Likewise, by writing a contract to sell future wheat, you lock in a price for your crop or a return for your investment in seed and fertilizer.

Futures and forward contracts proved so successful in shielding against some risk that they are now written for many more types of commodities, such as interest rates and stock market indices. More kinds of derivatives have been created as well, such as options. **Options** are the right, but not the obligation, to buy or sell at a specific price at a specific time in the future. Options are commonly written on shares of stock as well as on stock indices, interest rates, and commodities.

Derivatives such as forwards, futures, and options are used to hedge or protect against an existing risk or to speculate on a future price. For a number of reasons, commodities and derivatives are more risky than investing in stocks and bonds and are not the best choice for most individual investors.

## Mutual Funds, Index Funds, and Exchange-Traded Funds

A **mutual fund** is an investment portfolio consisting of securities that an individual investor can invest in all at once without having to buy each investment individually. The fund thus allows you to own the performance of many investments while actually buying—and paying the transaction cost for buying—only one investment.

Mutual funds have become popular because they can provide diverse investments with a minimum of transaction costs. In theory, they also provide good returns through the performance of professional portfolio managers. Chapter 14 section 4 “Mutual Funds” provides more information on portfolio management fees.

An **index fund** is a mutual fund designed to mimic the performance of an index, a particular collection of stocks or bonds whose performance is tracked as an indicator of the performance of an entire class or type of security. For example, the Standard & Poor’s (S&P) 500 is an index of the five hundred largest publicly traded corporations, and the famous Dow Jones Industrial Average is an index of thirty stocks of major industrial corporations. An index fund is invested in the same securities as the index and so requires minimal management and should have minimal management fees or costs.

Mutual funds are created and managed by mutual fund companies or by brokerages or even banks. To trade shares of a mutual fund you must have an account with the company, brokerage, or bank. Mutual funds are a large component of individual retirement accounts and of defined contribution plans.

Mutual fund shares are valued at the close of trading each day and orders placed the next day are executed at that price until it closes. An **exchange-traded fund (ETF)** is a mutual fund that tracks an index or a commodity or a basket of assets, but is traded like stocks on a stock exchange. An ETF trades like a share of stock in that it is valued continuously throughout the day, and trades are executed at the market price.

The ways that capital can be bought and sold is limited only by the imagination. When corporations

or governments need financing, they invent ways to entice investors and promise them a return. The last thirty years have seen an explosion in **financial engineering**, the innovation of new financial instruments through mathematical pricing models. This explosion has coincided with the ever-expanding powers of the computer, allowing professional investors to run the millions of calculations involved in sophisticated pricing models. The Internet also gives amateurs instantaneous access to information and accounts.

Much of the modern portfolio theory that spawned these innovations (i.e., the idea of using the predictability of returns to manage portfolios of investments) is based on an infinite time horizon, looking at performance over very long periods of time. This has been very valuable for institutional investors (e.g., pension funds, insurance companies, endowments, foundations, and trusts) as it gives them the chance to magnify returns over their infinite horizons.

For most individual investors, however, most portfolio theory may present too much risk or just be impractical. Individual investors don't have an infinite time horizon, but rather a comparatively small amount of time to create wealth and to enjoy it. For individual investors, investing is a process of balancing the demands and desires of returns with the costs of risk, before time runs out.

## *Key Takeaways*

1. Bonds are:
  - a way to raise capital through borrowing, used by corporations and governments;
  - an investment for the bondholder that creates return through regular, fixed, or floating interest payments on the debt and the repayment of principal at maturity; and
  - traded on bond exchanges through brokers.
2. Stocks are:
  - a way to raise capital through selling ownership or equity;
  - an investment for shareholders that creates return through the distribution of corporate profits as dividends or through gains (losses) in corporate value; and
  - traded on stock exchanges through member brokers.
3. Commodities are:
  - natural or cultivated resources;
  - traded to hedge revenue or production needs or to speculate on resources' prices; and
  - traded on commodities exchanges through brokers.
4. Derivatives are instruments based on the future, and therefore uncertain, price of another security, such as a share of stock, a government bond, a currency, or a commodity.
5. Mutual funds are portfolios of investments designed to achieve maximum diversification with minimal cost through economies of scale.
6. An index fund is a mutual fund designed to replicate the performance of an asset class or

- selection of investments listed on an index.
7. An exchange-traded fund is a mutual fund whose shares are traded on an exchange.
  8. Institutional and individual investors differ in the use of different investment instruments and in using them to create appropriate portfolios.

## Exercises

1. In your personal finance journal, record your experiences with investing. What investments have you made, and how much do you have invested? What stocks, bonds, funds, or other instruments described in this section do you have now (or have had in the past)? How were the decisions about your investments made, and who made them? If you have had no personal experience with investing, explain your reasons. What reasons might you have for investing (or not) in the future?
2. Please review the article “Stock Exchanges Around the World” found on Investopedia’s website. Roughly how many stock exchanges exist in the world? Which geographic region has the greatest number of exchanges?
3. Visit the Chicago Mercantile Exchange. What are some examples of commodities on the CME that theoretically could be part of your investment portfolio?

## REFERENCES

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## 12.2 INVESTMENT PLANNING

### *Learning Objectives*

1. Describe the advantages of the investment policy statement as a useful framework for investment planning.
2. Identify the process of defining investor return objectives.
3. Identify the process of defining investor risk tolerance.
4. Identify investor constraints or restrictions on an investment strategy.

Allison has a few hours to kill while her flight home is delayed. She loves her job as an analyst for a management consulting firm, but the travel is getting old. As she gazes at the many investment magazines and paperbacks on display and the several screens all tuned to financial news networks and watches people hurriedly checking their stocks on their mobile phones, she begins to think about her own investments. She has been paying her bills, paying back student loans, and trying to save some money for a while. Her uncle just died and left her a bequest of \$50,000. She is thinking of investing it since she is getting by on her salary and has no immediate plans for this windfall.

Allison is wondering how to get into some serious investing. There is no lack of information or advice about investing, but Allison isn't sure how to get started.

Allison may not realize that there are as many different investment strategies as there are investors. The planning process is similar to planning a budget or savings plan. You determine where you are, where you want to be, and how to get there. One way to get started is to draw up an individual investment policy statement.

**Investment policy statements** are outlines of the investor's goals and constraints, and they are popular with institutional investors such as pension plans, insurance companies, or non-profit endowments. Institutional investment decisions are typically made by professional managers operating on instructions from a higher authority, usually a board of directors or trustees. The directors or trustees may approve the investment policy statement and then leave the specific investment decisions up to the professional investment managers. The managers use the policy statement as their guide to the directors' wishes and concerns.

This idea of a policy statement has been adapted for individual use, providing a helpful, structured framework for investment planning—and thinking. The advantages of drawing up an investment policy to use as a planning framework include the following:

- The process of creating the policy requires thinking through your goals and expectations and

adjusting those to what is possible.

- The policy statement gives you an active role in your investment planning, even if the more specific details and implementation are left to a professional investment adviser.
- Your policy statement is portable, so even if you change advisers, your plan can go with you.
- Your policy statement is flexible; it can and should be updated at least once a year.

A policy statement is written in two parts. The first part lists your return objectives and risk preferences as an investor. The second part lists your constraints on investment. It is sometimes difficult to reconcile the two parts, so you may need to adjust your statement to improve your chances of achieving your return objectives within your risk preferences without violating your constraints.

## Defining Return Objectives and Risk Tolerance

Defining **return objectives** is the process of quantifying the required annual return (e.g., 5 per cent, 10 per cent, etc.) necessary to meet your investment goals. If your investment goals are vague (e.g., to “increase wealth”), then any positive return will do. Usually, however, you have some specific goals—for example, to finance a child’s or grandchild’s education, to have a certain amount of wealth at retirement, to buy a sailboat on your fiftieth birthday, and so on.

Once you have defined goals, you must determine when they will happen and how much they will cost, or how much you will have to have invested to make your dreams come true. As explained in Chapter 4 “Evaluating Choices: Time, Risk, and Value,” the rate of return that your investments must achieve to reach your goals depends on how much you have to invest to start with, how long you have to invest it, and how much you need to fulfill your goals.

As in Allison’s case, your goals may not be so specific. Your thinking may be more along the lines of, “I want my money to grow and not lose value,” or, “I want the investment to provide a little extra spending money until my salary rises as my career advances.” In that case, your return objective can be calculated based on the role that these funds play in your life: safety net, emergency fund, extra spending money, or nest egg for the future.

However specific (or not) your goals may be, the quantified return objective defines the annual performance that you demand from your investments. Your portfolio can then be structured—you can choose your investments—such that it can be expected to provide that performance.

If your return objective is more than can be achieved given your investment and expected market conditions, then you know to scale down your goals, or perhaps find a different way to fund them. For example, if Allison wanted to stop working in ten years and start her own business, she probably would not be able to achieve this goal solely by investing her \$50,000 inheritance, even in a bull (up) market earning higher rates of return.

As you saw in Chapter 10 “Personal Risk Management: Insurance” and Chapter 11 “Personal Risk Management: Retirement and Estate Planning,” in investing there is a direct relationship between risk and return, and risk is costly. The nature of these relationships has fascinated and frustrated investors since the origin of capital markets, and it remains a subject of investigation, exploration, and debate. To invest is to take risk. To invest is to separate yourself from your money through actual distance—you literally give it to someone else—or through time. There is always some risk that what you get back is worth less (or costs more) than what you invested (a loss), or is less than what you might have had if you had done something else with your money (opportunity cost). The more risk you are willing to take, the more potential return you can make, but the higher the risk, the more potential losses and opportunity costs you may incur.

Individuals have different risk tolerances. Your **risk tolerance** is your ability and willingness to assume risk. Your ability to assume risk is based on your asset base, your time horizon, and your liquidity needs. In other words, your ability to take investment risks is limited by how much you have to invest, how long you have to invest it, and your need for your portfolio to provide cash—for use rather than reinvestment—in the meantime.

Your willingness to take risk is shaped by your “personality,” your experiences, and your knowledge and education. Attitudes are shaped by life experiences, and attitudes toward risk are no different. Chart 12.2.1 shows how your level of risk tolerance develops.

**Chart 12.2.1 Risk Tolerance**



Investment advisers may try to gauge your attitude toward risk by having you answer a series of questions on a formal questionnaire or by just talking with you about your investment approach. For

example, an investor who says, “It’s more important to me to preserve what I have than to make big gains in the markets,” is relatively **risk averse**. The investor who says, “I just want to make a quick profit,” is probably more of a risk seeker.

Once you have determined your return objective and risk tolerance (i.e., what it will take to reach your goals and what you are willing and able to risk to get there) you may have to reconcile the two. You may find that your goals are not realistic unless you are willing to take on more risk. If you are unwilling or unable to take on more risk, you may have to scale down your goals.

## Defining Constraints

Defining constraints is a process of recognizing any limitation that may impede or slow or divert progress toward your goals. The more you can anticipate and include constraints in your planning, the less likely they will throw you off course. Constraints include the following:

- Liquidity needs,
- Time available,
- Tax obligations,
- Legal requirements, and
- Unique circumstances.

Liquidity needs, or the need to use cash, can slow your progress from investing because you have to divert cash from your investment portfolio in order to spend it. In addition, you will have ongoing expenses from investing. For example, you will have to use some liquidity to cover your transaction costs such as brokerage fees and management fees. You may also wish to use your portfolio as a source of regular income or to finance asset purchases, such as the down payment on a home or a new car or new appliances.

While these may be happy transactions for you, for your portfolio they are negative events, because they take away value from your investment portfolio. Since your portfolio’s ability to earn returns is based on its value, whenever you take away from that value, you are reducing its ability to earn.

Time is another determinant of your portfolio’s earning power. The more time you have to let your investments earn, the more earnings you can amass. Or, the more time you have to reach your goals, the more slowly you can afford to get there, earning less return each year but taking less risk as you do. Your time horizon will depend on your age and life stage and on your goals and their specific liquidity needs.

Tax obligations are another constraint, because paying taxes takes value away from your investments. Investment value may be taxed in many ways (as income tax, capital gains tax, property tax, estate

tax, or gift tax) depending on how it is invested, how its returns are earned, and how ownership is transferred if it is bought or sold.

Investors typically want to avoid, defer, or minimize paying taxes, and some investment strategies will do that better than others. In any case, your individual tax liabilities may become a constraint in determining how the portfolio earns to best avoid, defer, or minimize taxes.

Legalities also can be a constraint if the portfolio is not owned by you as an individual investor but by a personal trust or a family foundation. Trusts and foundations have legal constraints defined by their structure.

“Unique circumstances” refer to your individual preferences, beliefs, and values as an investor. For example, some investors believe in socially responsible investing (SRI), so they want their funds to be invested in companies that practise good corporate governance, responsible citizenship, fair trade practices, or environmental stewardship.

Some investors don’t want to finance companies that make objectionable products or by-products or have labour or trade practices reflecting objectionable political views. **Divestment** is the term for taking money out of investments. Grassroots political movements often include divestiture campaigns, such as student demands that their universities stop investing in companies that do business with nondemocratic or oppressive governments.

**Socially responsible investment** is the term for investments based on ideas about products or businesses that are desirable or objectionable. These qualities exist in the eye of the beholder, however, and vary among investors. Your beliefs and values are unique to you and to your circumstances in investing, and they may change over time. For more information on socially responsible investing in Canada, please go to the following websites:

- US SIF: The Forum for Sustainable and Responsible Investment
- Rocky Mountain Humane Investing
- Responsible Investment Association (RIA)
- *The Globe and Mail* article “Confused by ethical investing? Here’s a primer“

Having mapped out your goals and determined the risks you are willing to take, and having recognized the limitations you must work with, you and/or your investment advisers can now choose the best investments. Different advisers may have different suggestions based on your investment policy statement. The process of choosing involves knowing what returns and risks investments have produced in the past, what returns and risks they are likely to have in the future, and how the returns and risks are related—or not—to each other.

## Key Takeaways

1. The investment policy statement provides a useful framework for investment planning because:
  - the process of creating the policy requires thinking through goals and expectations and adjusting those to the possible;
  - the statement gives the investor an active role in investment planning, even if the more specific details and implementation are left to a professional investment adviser;
  - the statement is portable, so that even if you change advisers your plans can go with you; and
  - the statement is flexible; it can and should be updated at least once per year.
2. Return objectives are defined by the investor's goals, time horizon, and value of the asset base.
3. Risk tolerance is defined by the investor's ability and willingness to assume risk; comfort with risk-taking relates to personality, experience, and knowledge.
4. Constraints or restrictions to an investment strategy are the investor's
  - liquidity needs,
  - time horizon,
  - tax circumstances and obligations,
  - legal restrictions, and
  - unique preferences or circumstances.
5. Socially responsible investment and divestment are unique preferences based on beliefs and values about desirable or objectionable industries, products, or companies.
6. Your investment policy statement guides the selection of investments and development of your investment portfolio.

## Exercises

1. Brainstorm with classmates expressions relating to investing, such as, “you gotta pay to play”; “you gotta play to win”; “no pain, no gain”; “it takes money to make money,” and so on. What does each of these expressions really mean? How do they relate to the concepts of investment risk and return on investment? In what ways are risks and returns in a reciprocal relationship?
2. Draft an individual investment policy statement as a guide to your future investment planning. What will be the advantages of having an investment policy statement? In your personal finance journal, record your general return objectives and specific goals at this time. What is a return objective?
3. What is your level of risk tolerance? How would you rate your risk tolerance on a five-point scale (with one indicating “most risk averse”)? In your personal finance journal, record how

your asset base, time horizon, and liquidity needs define your ability to undertake investment risk. Then describe the personality characteristics, past experiences, and knowledge base that you feel help shape your degree of willingness to undertake risk. Now check your beliefs by using Sun Life Financial's investment risk profiler on the webpage Calculate your risk profile. How do the results compare with your estimate? What conclusions do you draw from this test? What percentage of your investments do you now think you could put into stocks? What factor could you change that might enable you to tolerate more risk?

4. In your personal finance journal, record the constraints you face when it comes to reaching your investment goals. With what types of constraints must you reconcile with your investment planning? The more you need to use your money to live and the less time you have to achieve your goals, the greater the constraints in your investment planning. Revise your statement of goals and return objectives as needed to ensure it is realistic in light of your constraints.
5. In collaboration with classmates, conduct an online investigation into socially responsible investing. Review the websites noted in the section above on socially responsible investment. On the basis of your investigation, outline and discuss the different forms and purposes of SRI. Which form and purpose appeal most to you and why? What investments might you make, and what investments might you specifically avoid, to express your beliefs and values? Do you think investment planning could ever have a role in bringing about social change?

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## 12.3 MEASURING RETURN AND RISK

### *Learning Objectives*

1. Characterize the relationship between risk and return.
2. Describe the differences between actual and expected returns.
3. Explain how actual and expected returns are calculated.
4. Define investment risk and explain how it is measured.
5. Define the different kinds of investment risk.

You want to choose investments that will combine to achieve the return objectives and level of risk that's right for you, but how do you know what the right combination will be? You can't predict the future, but you can make an educated guess based on an investment's past history. To do this, you

need to know how to read or use the information available. Perhaps the most critical information to have about an investment is its potential return and susceptibility to types of risk.

## Return

Returns are always calculated as annual rates of return, or the percentage of return created for each unit (dollar) of original value. If an investment earns 5 per cent, for example, that means that for every \$100 invested, you would earn \$5 per year (because \$5 = 5% of \$100).

Returns are created in two ways: the investment creates income or the investment gains (or loses) value. To calculate the annual rate of return for an investment, you need to know the income created, the gain (loss) in value, and the original value at the beginning of the year. The percentage return can be calculated as in Table 12.3.1.

**Table 12.3.1 Calculating Percentage Return**

$$\begin{aligned} &[\text{Income} + \text{Gain}] / \text{Original value} = \text{percentage rate of return} \\ &[\text{Income} + (\text{Ending value} - \text{Original value})] / \text{Original value} = \text{percentage rate of return} \end{aligned}$$

Note that if the ending value is greater than the original value, then ending value – (minus) original value > 0 (is greater than zero), and you have a gain that adds to your return. If the ending value is less, then ending value – (minus) original value < 0 (is less than zero), and you have a loss that detracts from your return. If there is no gain or loss, if ending value – (minus) original value = 0 (is the same), then your return is simply the income that the investment created.

For example, if you buy a share of stock for \$100, and it pays no dividend, and a year later the market price is \$105, then your return =  $[0 + (105 - 100)] / 100 = 5 / 100 = 5\%$ . If the same stock paid a dividend of \$2, then your return =  $[2 + (105 - 100)] / 100 = 7 / 100 = 7\%$ .

If the information you have shows more than one year's results, you can calculate the annual return using what you learned in Chapter 4 "Evaluating Choices: Time, Risk, and Value" about the relationships of time and value. For example, if an investment was worth \$10,000 five years ago and is worth \$14,026 today, then  $\$10,000 \times (1 + r)^5 = \$14,026$ . Solving for  $r$ , the annual rate of return, you get 7 per cent. So, other factors being equal, the \$10,000 investment must have earned at a rate of 7 per cent per year to be worth \$14,026 five years later.

While information about current and past returns is useful, investment professionals are more concerned with the **expected return** for the investment—that is, how much it may be expected to

earn in the future. Estimating the expected return is complicated because many factors (e.g., current economic conditions, industry conditions, and market conditions) may affect that estimate.

For investments with a long history, a strong indicator of future performance may be past performance. Economic cycles fluctuate, and industry and firm conditions vary, but over the long run, an investment that has survived has weathered all those storms. So, you could look at the average of the returns for each year. There are several ways to do the math, but if you look at the average return for different investments of the same asset class or type (e.g., stocks of large companies) you could compare what they have returned, on average, over time.

If the time period you are looking at is long enough, you can reasonably assume that an investment's average return over time is the return you can expect in the next year. For example, if a company's stock has returned, on average, 9 per cent per year over the last twenty years, then if next year is an average year, that investment should return 9 per cent again. Over the eighteen-year span from 1990 to 2008, for example, the average return for the S&P 500 was 9.16 per cent. Unless you have some reason to believe that next year will *not* be an average year, the average return can be your expected return. The longer the time period you consider, the less volatility there will be in the returns, and the more accurate your prediction of expected returns will be.

Returns are the value created by an investment, through either income or gains. Returns are also your compensation for investing, for taking on some or all of the risk of the investment, whether it is a corporation, government, parcel of real estate, or work of art. Even if there is no risk, you must be paid for the use of liquidity that you give up to the investment (by investing).

Returns are the benefits from investing, but they must be larger than its costs. There are at least two costs to investing: the opportunity cost of giving up cash and giving up all your other uses of that cash until you get it back in the future, and the cost of the risk you take—the risk that you won't get it all back.

## Risk

Investment risk is the idea that an investment will not perform as expected, that its actual return will deviate from the expected return. Risk is measured by the amount of volatility—that is, the difference between actual returns and average (expected) returns. This difference is referred to as the **standard deviation**. Returns with a large standard deviation (showing the greatest variance from the average) have higher volatility and are the riskier investments.

An investment may do better or worse than its average. Standard deviation can therefore be used to define the expected range of investment returns. For the S&P 500, for example, the standard deviation from 1990 to 2008 was 19.54 per cent. So, in any given year, the S&P 500 is expected to

return 9.16 per cent, but its return could be as high as 67.78 per cent or as low as -49.46 per cent, based on its performance during that specific period.

What risks are there? What would cause an investment to unexpectedly over or underperform? Starting from the top (the big picture) and working down, there are

- economic risks,
- industry risks,
- company risks,
- asset class risks, and
- market risks.

**Economic risks** are risks that something will upset the economy as a whole. The economic cycle may swing from expansion to recession, for example; inflation or deflation may increase, unemployment may increase, or interest rates may fluctuate. These macroeconomic factors affect everyone doing business in the economy. Most businesses are cyclical, growing when the economy grows and contracting when the economy contracts.

Consumers tend to spend more disposable income when they are more confident about economic growth and the stability of their jobs and incomes. They also tend to be more willing and able to finance purchases with debt or with credit, expanding their ability to purchase durable goods. So, demand for most goods and services increases as an economy expands, and businesses expand too. An exception is businesses that are countercyclical. Their growth accelerates when the economy is in a downturn and slows when the economy expands. For example, low-priced fast food chains typically have increased sales in an economic downturn because people substitute fast food for more expensive restaurant meals as they worry more about losing their jobs and incomes.

**Industry risks** usually involve economic factors that affect an entire industry or developments in technology that affect an industry's markets. An example is the effect of a sudden increase in the price of oil (a macroeconomic event) on the airline industry. Every airline is affected by such an event, as an increase in the price of airplane fuel increases airline costs and reduces profits. An industry such as real estate is vulnerable to changes in interest rates. A rise in interest rates, for example, makes it harder for people to borrow money to finance purchases, which depresses the value of real estate.

**Company risk** refers to the characteristics of specific businesses or firms that affect their performance, making them more or less vulnerable to economic and industry risks. These characteristics include how much debt financing the company uses, how well it creates economies of scale, how efficient its inventory management is, how flexible its labour relationships are, and so on.

The **asset class** that an investment belongs to can also bear on its performance and risk. Investments (assets) are categorized in terms of the markets they trade in. Broadly defined, asset classes include:

- corporate stock or equities (shares in public corporations, either domestic or foreign);

- bonds or the public debts of corporations or governments;
- commodities or resources (e.g., oil, coffee, or gold);
- derivatives or contracts based on the performance of other underlying assets;
- real estate (both residential and commercial); and
- fine art and collectibles (e.g., stamps, coins, baseball cards, or vintage cars).

Within those broad categories, there are finer distinctions. For example, corporate stock is classified as large cap, mid cap, or small cap, depending on the size of the corporation as measured by its market capitalization (the aggregate value of its stock). Bonds are distinguished as corporate or government and as short-, intermediate-, or long-term, depending on the maturity date.

Risks can affect entire asset classes. Changes in the inflation rate can make corporate bonds more or less valuable, for example, or more or less able to create valuable returns. In addition, changes in a market can affect an investment's value. When the stock market fell unexpectedly and significantly, as it did in 1929, 1987, and 2008, all stocks were affected, regardless of relative exposure to other kinds of risk. After such an event, the market is usually less efficient or less liquid—that is, there is less trading and less efficient pricing of assets (stocks) because there is less information flowing between buyers and sellers. The loss in market efficiency further affects the value of assets traded.

As you can see, the link between risk and return is reciprocal. The question for investors and their advisers is: How can you get higher returns with less risk?

### *Key Takeaways*

1. There is a direct relationship between risk and return because investors will demand more compensation for sharing more investment risk.
2. Actual return includes any gain or loss of asset value plus any income produced by the asset during a period.
3. Actual return can be calculated using the beginning and ending asset values for the period and any investment income earned during the period.
4. Expected return is the average return the asset has generated based on historical data of actual returns.
5. Investment risk is the possibility that an investment's actual return will not be its expected return.
6. The standard deviation is a statistical measure used to calculate how often and how far the average actual return differs from the expected return.
7. Investment risk is exposure to:
  - economic risk,
  - industry risk,
  - company- or firm-specific risk,
  - asset class risk, or
  - market risk.

## Exercises

1. Selecting a security to invest in, such as a stock or fund, requires analyzing its returns. You can view the annual returns as well as average returns over a five-, ten-, fifteen-, or twenty-year period. Charts of returns can show the amount of volatility in the short term and over the longer term. What do you need to know to calculate the annual rate of return for an investment?
2. The standard deviation on the rate of return on an investment is a measure of its volatility or risk. What would a standard deviation of zero mean? What would a standard deviation of 10 per cent mean?
3. What kinds of risk are included in investment risk? Go online to survey current or recent financial news. Find and present a specific example of the impact of each type of investment risk. In each case, how did the type of risk affect investment performance?

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## 12.4 DIVERSIFICATION: RETURN WITH LESS RISK

### Learning Objectives

1. Explain the use of diversification in a portfolio strategy.
2. List the steps in creating a portfolio strategy, explaining the importance of each step.
3. Compare and contrast active and passive portfolio strategies.

Every investor wants to maximize return, the earnings or gains from giving up surplus cash. And every investor wants to minimize risk, because it is costly. To invest is to assume risk, and you assume risk expecting to be compensated through return. The more risk assumed, the more the promised return. So, to increase return you must increase risk, and to lessen risk, you must expect less return. But another way to lessen risk is to **diversify**: to spread out your investments among a number of different asset classes. Investing in different asset classes reduces your exposure to economic, asset class, and market risks.

Concentrating investment concentrates risk. Diversifying investments spreads risk by having more

than one kind of investment and thus more than one kind of risk. To truly diversify, you need to invest in assets that are not vulnerable to one or more kinds of risk. For example, you may want to diversify:

- between cyclical and countercyclical investments, reducing economic risk;
- among different sectors of the economy, reducing industry risks;
- among different kinds of investments, reducing asset class risk; and
- among different kinds of firms, reducing company risks.

To diversify well, you have to look at your collection of investments as a whole—that is, as a portfolio rather than as a gathering of separate investments. If you choose the investments well, if they are truly different from each other, the whole can actually be more valuable than the sum of its parts.

## Steps to Diversification

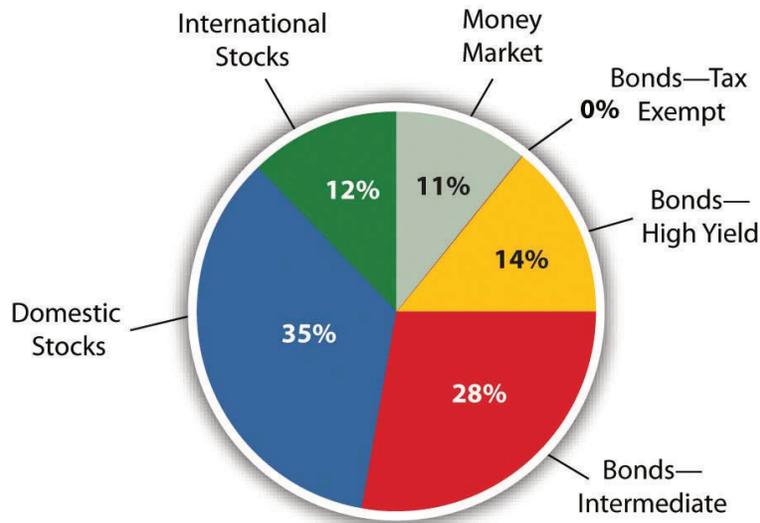
In traditional portfolio theory, there are three levels or steps to diversifying: capital allocation, asset allocation, and security selection.

**Capital allocation** is diversifying your capital between risky and riskless investments. A “riskless” asset is a short-term (less than ninety-day) government treasury bill. Because it has such a short time to maturity, it won’t be much affected by interest rate changes, and it is probably impossible for the Canadian government to become insolvent—go bankrupt—and have to default on its debt within such a short time.

The capital allocation decision is the first diversification decision. It determines the portfolio’s overall exposure to risk, or the proportion of the portfolio that is invested in risky assets. That, in turn, will determine the portfolio’s level of return.

The second diversification decision is **asset allocation**: deciding which asset classes, and therefore which risks and which markets, to invest in. Asset allocations are specified in terms of the percentage of the portfolio’s total value that will be invested in each asset class. To maintain the desired allocation, the percentages are adjusted periodically as asset values change. Chart 12.4.1 shows an asset allocation for an investor’s portfolio.

### Chart 12.4.1 Proposed Asset Allocation



Asset allocation is based on the expected returns and relative risk of each asset class and how it will contribute to the return and risk of the portfolio as a whole. If the asset classes you choose are truly diverse, then the portfolio's risk can be lower than the sum of the assets' risks.

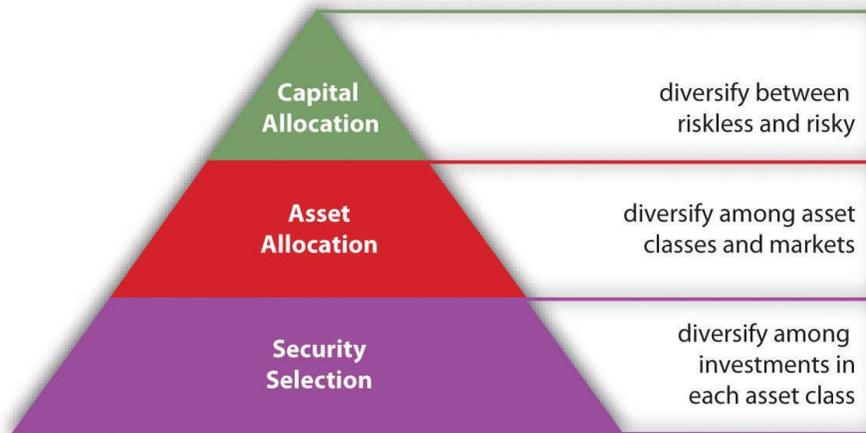
One example of an asset allocation strategy is **life cycle investing**—changing your asset allocation as you age. When you retire, for example, and forgo income from working, you become dependent on income from your investments. As you approach retirement age, therefore, you typically shift your asset allocation to less risky asset classes to protect the value of your investments.

**Security selection** is the third step in diversification: choosing individual investments within each asset class. Here is the chance to achieve industry or sector and company diversification. For example, if you decided to include corporate stock in your portfolio (asset allocation), you decide which corporation's stock to invest in. Choosing corporations in different industries, or companies of different sizes or ages, will diversify your stock holdings. You will have less risk than if you invested in just one corporation's stock. Diversification is not defined by the number of investments but by their different characteristics and performance.

## Investment Strategies

Capital allocation decides the amount of overall risk in the portfolio; asset allocation tries to maximize the return you can get for that amount of risk. Security selection further diversifies within each asset class. Chart 12.4.2 demonstrates the three levels of diversification.

**Chart 12.4.2 Levels of Diversification**



Just as life cycle investing is a strategy for asset allocation, investing in index funds is a strategy for security selection. Indexes are a way of measuring the performance of an entire asset class by measuring returns for a portfolio containing all the investments in that asset class. Essentially, the index becomes a **benchmark** for the asset class, a standard against which any specific investment in that asset class can be measured. An index fund is an investment that holds the same securities as the index, so it provides a way for you to invest in an entire asset class without having to select particular securities.

There are indexes and index funds for most asset classes. By investing in an index, you are achieving the most diversification possible for that asset class without having to make individual investments—that is, without having to make any security selection decisions. This strategy of bypassing the security selection decision is called **passive management**. It also has the advantage of saving transaction costs (broker's fees) because you can invest in the entire index through only one transaction rather than the many transactions that picking investments would require.

In contrast, making security selection decisions to maximize returns and minimize risks is called **active management**. Investors who favour active management feel that the advantages of picking specific investments, after careful research and analysis, are worth the added transaction costs. Actively managed portfolios may achieve diversification based on the quality, rather than the quantity, of securities selected.

Also, asset allocation can be actively managed through the strategy of **market timing**—shifting the asset allocation in anticipation of economic shifts or market volatility. For example, if you forecast a period of higher inflation, you would reduce allocation in fixed-rate bonds or debt instruments, because inflation erodes the value of the fixed repayments. Until the inflation passes, you would shift your allocation so that more of your portfolio is in stocks, say, and less in bonds.

It is rare, however, for active investors or investment managers to achieve superior results over time.

More commonly, an investment manager is unable to achieve consistently better returns within an asset class than the returns of the passively managed index (Malkiel, 2007).

### *Key Takeaways*

1. Diversification can decrease portfolio risk by allowing you to choose investments with different risk characteristics and exposures.
2. A portfolio strategy involves:
  - capital allocation decisions,
  - asset allocation decisions, and
  - security selection decisions.
3. Active management is a portfolio strategy including security selection decisions and market timing.
4. Passive management is a portfolio strategy omitting security selection decisions and relying on index funds to represent asset classes, while maintaining a long-term asset allocation.

### *Exercises*

1. What is the meaning of the following expressions: “Don’t count your chickens before they hatch,” and “Don’t put all your eggs in one basket”? How do they relate to the challenge of reducing exposure to investment risks and building a high-performance investment portfolio?
2. Do you favour an active or a passive investment management strategy? Why? Identify all the pros and cons of these investment strategies and debate them with classmates. What factors favour an active approach? What factors favour a passive approach? Which strategy might prove more beneficial for first-time investors?

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# 13. Owning Stocks

## INTRODUCTION

By 1976, computers had been around for decades, but they were typically the size of a large room and just as expensive. To use one, you had to learn a programming language. On April 1, 1976, Steve Jobs, Steve Wozniak, and Ron Wayne started a company to make personal computers. On January 3, 1977, Jobs and Wozniak incorporated without Wayne, buying his 10 per cent share of the company for \$800 (Linzmayer, 1999).

On December 12, 1980, Apple Computer, Inc. went public; its stock sold for \$22 per share (FundingUniverse, 2009). Had you bought Apple's stock when the company went public and held it until today, you would have earned an annual return of about 14.5 per cent.

Typically, an inventor has a great idea, then teams up with—or becomes—an entrepreneur. The entrepreneur's job is to build a company that can make the invention a reality. The company needs to find the resources to make the product and sell it widely enough to pay for those resources and to create a profit, making the whole effort worthwhile. No matter how great the idea is, if it can't be done profitably, it can't be done. The personal computer had to be produced and sold to be widely used and useful.

As an investor, you buy stocks hoping to share in corporate profits, benefiting directly from the inventive vitality of the economy and participating in economic growth. Understanding what stocks are, where they come from, what they do, and how they have value will help you decide how to include stocks in your investment portfolio and how to use them to reach your investment goals.

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## 13.1 STOCKS AND STOCK MARKETS

### *Learning Objectives*

1. Explain the role of stock issuance and ownership in economic growth.
2. Contrast and compare the roles of the primary and secondary stock markets.
3. Identify the steps of stock issuance.
4. Contrast and compare the important characteristics of common and preferred stock.

Resources have costs, so a company needs money, or capital, which is also a resource. To get that start-up capital, the company could borrow or it could offer a share of ownership, or equity, to those who chip in capital.

If the costs of debt (interest payments) are affordable, the company may choose to borrow, which limits the company's commitment to its capital contributor. When the loan matures and is paid off, the relationship is over.

If the costs of debt are too high, however, or the company is unable to borrow, it seeks equity investors willing to contribute capital in exchange for an unspecified share of the company's profits at some time in the future. In exchange for taking the risk of no exact return on their investment, equity investors get a say in how the company is run.

Stock represents those shares in the company's future and the right to a say in how the company is run. The original owners—the inventor(s) and entrepreneur(s)—choose equity investors who share their ideals and vision for the company. Usually, the first equity investors are friends, family, or colleagues; this allows the original owners freedom of management. At that point, the corporation is privately held, and the company's stock may be traded privately between owners. There may be restrictions on selling the stock, as is often the case for a family business, so that control stays within the family.

If successful, however, eventually the company needs more capital to grow and remain competitive. If debt is not desirable, then the company issues more equity, or stock, to raise capital. The company may seek out an **angel investor**, **venture capital firm**, or **private equity firm**. Such investors finance companies in the early stages in exchange for a large ownership and management stake in the company. Their strategy is to buy a significant stake when the company is still “private” and then realize a large gain, typically when the company goes public. The company may also seek a buyer, perhaps a competitive or complementary business.

Alternatively, the company may choose to **go public**, selling shares of ownership to investors in the

public markets. Theoretically, this means sharing control with random strangers because anyone can purchase shares traded in the stock market. It may even mean losing control of the company. Founders can be fired, as Steve Jobs was from Apple in 1985 (although he returned as CEO in 1996).

Going public requires a profound shift in corporate structure and management. Once a company is publicly traded, it falls under the regulatory scrutiny of federal and provincial governments, and must regularly file financial reports and analysis. It must broaden participation on the board of directors and allow more oversight of management. Companies go public to raise large amounts of capital to expand products, operations, markets, or to improve or create competitive advantages. To raise public equity capital, companies need to sell stock, and to sell stock they need a market. That's where the stock markets come in.

## Primary and Secondary Markets

The private corporation's board of directors—shareholders elected by the shareholders—must authorize the number of shares that can be issued. Since issuing shares means opening the company up to more owners, or sharing it among more people, only the existing owners have the authority to do so.

Those **authorized shares** are then issued through an **initial public offering (IPO)**. At that point the company goes public. The IPO is a **primary market** transaction, which occurs when the stock is initially sold and the proceeds go to the company issuing the stock. After that, the company is publicly traded; its stock is outstanding, or publicly available. Then, whenever the stock changes hands, it is a **secondary market** transaction. The owner of the stock may sell shares and realize the proceeds. When most people think of “the stock market,” they are thinking of the secondary markets.

The existence of secondary markets makes the stock a liquid or tradable asset, which reduces its risk for both the issuing company and the investor buying it. The investor is giving up capital in exchange for a share of the company's profit, with the risk that there will be no profit or not enough to compensate for the opportunity cost of sacrificing the capital. The secondary markets reduce that risk to the shareholder because the stock can be resold, allowing the shareholder to recover at least some of the invested capital and to make new choices with it.

Meanwhile, the company issuing the stock must pay the investor for assuming some of its risk. The less that risk is, because of the liquidity provided by the secondary markets, the less the company has to pay. The secondary markets decrease the company's cost of equity capital.

A company hires an investment bank to manage its initial public offering of stock. For efficiency, the bank usually sells the IPO stock to institutional investors. Usually, the original owners of the corporation keep large amounts of stock as well.

What does this mean for individual investors? Some investors believe that after an initial public offering of stock, the share price will rise because the investment bank will have initially underpriced the stock in order to sell it. This is not always the case, however. Share price is typically more volatile after an initial public offering than it is after the shares have been outstanding for a while. The longer the company has been public, the more information is known about the company, and the more predictable its earnings, and thus its share price, are (Lowery, Officer, and Schwert, 2009).

When a company goes public, it may issue a relatively small number of shares. Its **market capitalization**—the total dollar value of its outstanding shares—may therefore be small. The number of individual shareholders, mostly institutional investors and the original owners, also may be small. As a result, the shares may be “thinly traded”—that is, traded infrequently or in small amounts.

Thinly traded shares may add to the volatility of the share price. One large shareholder deciding to sell could cause a decrease in the stock price, for example, whereas for a company with many shares and shareholders, the actions of any one shareholder would not be significant. As always, diversification—in this case, of shareholders—decreases risk. Thinly traded shares are less liquid and more risky than shares that trade more frequently.

## Common, Preferred, and Foreign Stocks

A company may issue **common stock** or **preferred stock**. Common stock is more prevalent. All companies issue common stock, whereas not all issue preferred stock. The differences between common and preferred have to do with the investor’s voting rights, risk, and dividends.

Common stock allows each shareholder voting rights—one vote for each share owned. The more shares you own, the more you can influence the company’s management. Shareholders vote for the company’s directors, who provide policy guidance for and hire the management team that directly operates the corporation. After several corporate scandals in the early twenty-first century, some shareholders have assumed a more active voting role.

Common stockholders assume the most risk of any corporate investor. If the company encounters financial distress, its first responsibility is to satisfy creditors, then the preferred shareholders, and then the common shareholders. Thus, common stocks provide only residual claims on the value of the company. In the event of bankruptcy, in other words, common shareholders get only the residue—whatever is left after all other claimants have been compensated.

Common shareholders share the company’s profit after interest has been paid to creditors and a specified share of the profit has been paid to preferred shareholders. Common shareholders may receive all or part of the profit in cash—the dividend. The company is under no obligation to pay common stock dividends, however. The management may decide that the profit is better used to

expand the company, to invest in new products or technologies, or to grow by acquiring a competitor. As a result, the company may pay a cash dividend only in certain years or not at all.

Shareholders investing in preferred stock, on the other hand, give up voting rights but get less risk and more dividends. Preferred stock typically does not convey voting rights to the shareholder. As noted above, preferred shareholders have a superior claim on the company's assets in the event of bankruptcy. They get their original investment back before common shareholders, but after creditors.

Preferred dividends are more of an obligation than common dividends. Most preferred shares are issued with a fixed dividend as **cumulative preferred shares**. This means that if the company does not create enough profit to pay its preferred dividends, those dividends ultimately must be paid before any common stock dividend.

For the individual investor, preferred stock may have two additional advantages over common stock:

1. Less volatile prices
2. More reliable dividends

As the company goes through its ups and downs, the preferred stock price will fluctuate less than the common stock price. If the company does poorly, preferred stockholders are more likely to be able to recoup more of their original investment than common shareholders because of their superior claim. If the company does well, however, preferred stockholders are less likely to share more in its success because their dividend is fixed. Preferred shareholders are thus exposed to less risk, protected by their superior claim and fixed dividend. The preferred stock price reflects less of the company's volatility.

Because the preferred dividend is more of an obligation than the common dividend, it provides more predictable dividend income for shareholders. This makes the preferred stock less risky and attractive to an investor looking for less volatility and more regular dividend income.

The following table summarizes the differences between common stock and preferred stock.

**Table 13.1.1 Stock Comparisons**

<b>Common versus Preferred Stock</b>	<b>Common Stock</b>	<b>Preferred Stock</b>
Voting Rights	Yes	Usually not
Downside Risk	More	Less
Upside Risk	More	Less or None
Reliability of Investment Income	Less	More
Price Volatility	More	Less

As an investment choice, preferred stock is more comparable to bonds than to common stock. Bonds

also offer less volatility and more reliable income than common stock (see Chapter 14 “Owning Bonds and Investing Mutual Funds”). If there is a difference in the tax rate between dividend income (from preferred stock) and interest income (from bonds), you may find a tax advantage to investing in preferred stock instead of bonds.

Corporations often issue and trade their stocks on exchanges or in markets outside their home country, especially if the foreign market has more liquidity and will attract more buyers. For example, many foreign corporations issue and trade stock on the Toronto Stock Exchange (TSX), New York Stock Exchange (NYSE), or on the National Association of Securities Dealers Automated Quotations (NASDAQ).

### *Key Takeaways*

1. Companies go public to raise capital to finance growth by selling equity shares in the public markets.
2. A primary market transaction happens between the original issuer and buyer.
3. Secondary market transactions are between all subsequent sellers and buyers.
4. The secondary market lowers risk and transaction costs by increasing liquidity.
5. Shares are authorized and issued and then become outstanding or publicly available.
6. Equity securities may be common or preferred stock, differing by:
  - the assignment of voting rights,
  - dividend obligations,
  - claims in case of bankruptcy, and
  - risk.
7. Common stocks have less predictable income, whereas most preferred stocks have fixed-rate cumulative dividends.

### *Exercises*

1. What is a venture capitalist? Watch the video “Guy Kawasaki on Venture Capital – Part 1” (7:45). What top three pieces of advice does he give to new ventures seeking equity investment?
2. According to WebFinance’s Investorwords.com, what is an angel investor?

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### 13.2 STOCK VALUE

#### *Learning Objectives*

1. Explain the basis of stock value.
2. Identify the factors that affect earnings expectations.
3. Analyze how market capitalization affects stock value.
4. Discuss how market popularity or perception of value affects stock value.
5. Explain how stocks can be characterized by their expected performance relative to the market.

The value of a stock is in its ability to create a return, to create income or a gain in value for the investor. With common stock, the income is in the form of a dividend, which the company is not obligated to pay. The potential gain is determined by estimations of the future value of the stock.

If you knew that the future value would likely be more than the current market price—over your transaction costs, tax consequences, and opportunity cost—then you would buy the stock.

If you thought the future value would be less, you would short the stock (borrow shares and sell them with the intent of buying it back when the price of the stock falls), or you would just look for another investment.

Every investor wants to know what a stock will be worth, which is why so many stock analysts spend so much time estimating future value. Equity analysis is the process of gathering as much information as possible and making the most educated guesses.

Corporations exist to make profit for the owners. The better a corporation is at doing that, the more valuable it is, and the more valuable are its shares. A company also needs to increase earnings, or grow, because the global economy is competitive. A corporation's future value depends on its ability to create and grow earnings.

That ability depends on many factors. Some factors are company-specific, some are specific to the industry or sector, and some are macroeconomic forces. Chapter 12 “Investing” discusses these factors in terms of the risk that a stock creates for the investor. The risk is that the company will not be able to earn the expected profit.

A company’s size is an indicator of its earnings and growth potential. Size may correlate with age. A large company typically is more mature than a smaller one, for example. A larger company may have achieved economies of scale or may have gotten large by eliminating competitors or dominating its market. Size in itself is not an indicator of success, but similarly sized companies tend to have similar earnings growth (Fama and French, 1992).

Companies are usually referred to by the size of their market capitalization, or **market cap**—that is, the current market value of the debt and equity they use to finance their assets. Common market cap categories are based on the following sizes: micro, small, mid (medium), and large, or:

- micro cap, with a market capitalization between \$50 million and \$300 million;
- small cap, with a market capitalization between \$300 million and \$2 billion;
- mid cap, with a market capitalization between \$2 billion and \$10 billion; and
- large cap, with a market capitalization of more than \$10 billion.

The market capitalization of a company—along with industry and economic indicators—is a valuable indicator of earnings potential.

In the stock market, the forces of supply and demand determine stock prices. The more demand or popularity there is for a company’s stock, the higher its price will go (unless the company issues more shares). A stock is popular, and thus in greater demand, if it is thought to be more valuable—that is, if it has more earnings and growth potential.

Sometimes a company is under- or overpriced relative to the going price for similar companies. If the market recognizes this “error,” the stock price should rise or fall as it “corrects” itself.

A **growth stock** is a stock that promises a higher rate of return because the market has underestimated its growth potential. It is a stock that has been underpriced for some reason. For example, investors may be wary of the outlook for its industry. Because it is underpriced, a value stock is expected to provide a higher-than-average return.

Stocks may be characterized by the role that they play in a diversified portfolio—and some by their colorful names—as shown in Table 13.2.1.

**Table 13.2.1 Definitions of Stocks and their Roles in a Portfolio**

Stock	Definition	Role
Growth stock	Underestimated potential for growth.	Expect a higher rate of return.
Value stock	Undervalued by the market; underpriced.	Expect a higher-than-average return.
Defensive stock	Less volatility than the overall market and less sensitive to market changes.	Expect the value to fall less than the market's during a market decline.
Cyclical stock	More volatility than the overall market and more sensitive to market changes.	When the market rises, expect the price to rise at a higher rate. When the market falls, expect the price to fall at a higher rate.
Speculative stock	Overvalued by the market; overpriced.	Expect the price to continue rising for a time before it falls.
Blue chip stock	Stock of a stable, well-established, large cap company.	Expect stable returns.
Widow-and-orphan stock	A blue chip defensive stock.	Expect a steady dividend.
Wallflower stock	Overlooked and therefore underpriced.	Expect the value to rise when the stock is "discovered."
Penny stock	Low-priced stock of a small or micro-cap company.	Expect the value to rise if and when the company succeeds.

Each of these terms names a stock's relationship to the market and to investors. For example, an investor who wants to invest in stocks but wants to minimize economic risk would include defensive stocks along with some blue chips. Implicit is its potential for price growth, risk, or role in a diversified portfolio.

### *Key Takeaways*

1. A stock's value is based on the corporation's ability to create and grow profits.
2. Earnings expectations are based on industry- and company-specific factors.

3. The size of the market capitalization affects stock value.
4. A stock's market popularity or perception of value affects its value.
5. Stocks can be characterized by their expected behaviour relative to the market as:
  - growth stocks,
  - value stocks,
  - cyclical stocks,
  - defensive stocks, or
  - other named types (e.g., blue chip stocks, penny stocks).

## REFERENCES

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## 13.3 COMMON MEASURES OF VALUE

### *Learning Objectives*

1. Identify common return ratios and evaluate their usefulness.
2. Explain how to interpret dividend yield.
3. Explain the significance of growth ratios.
4. Explain the significance of market value ratios.

A corporation creates a return for investors by creating earnings. Those earnings may be paid out in cash as a dividend or retained as capital by the company. A company's ability to create earnings is watched closely by investors because the company's earnings are the investor's return.

A company's earnings potential can be tracked and measured, and several measurements are expressed as ratios. Mathematically, as discussed in Chapter 3 "Financial Statements," a ratio is simply a fraction. In investment analysis, a ratio provides a clear means of comparing values. Three kinds of ratios important to investors are return ratios, growth ratios, and market value ratios.

The ratios described here are commonly presented in news outlets and websites where stocks are discussed (e.g., the Toronto Stock Exchange and the NASDAQ Stock Market), so chances are you won't have to calculate them yourself. Nevertheless, it is important to understand what they mean and how to use them in your investment thinking.

## Return Ratios

One of the most useful ratios in looking at stocks is the **earnings per share (EPS)**: the dollar value of the earnings per each share of common stock. It calculates the company's earnings, or the portion of a company's profit allocated to each outstanding share of common stock. The calculation lets you see how much you benefit from holding each share. Here is the formula for calculating EPS:

$$\text{EPS} = \frac{\text{net income} - \text{preferred stock dividends}}{\text{average number of common shares outstanding}}$$

The company's earnings are reported on its income statement as net income, so a shareholder could easily track earnings growth. However, the EPS allows you to make a direct comparison to other stocks by putting the earnings on a per-share basis, creating a common denominator. Earnings per share should be compared over time and also compared to the EPS of other companies.

When a stock pays a dividend, that dividend is income for the shareholder. Investors concerned with the cash flows provided by an equity investment look at **dividends per share (DPS)** as a measure of the company's ability and willingness to pay a dividend.

$$\text{DPS} = \frac{\text{common stock dividends}}{\text{average number of common shares outstanding}}$$

Another measure of the stock's usefulness in providing dividends is the **dividend yield**, which calculates the dividend as a percentage of the stock price. It is a measure of the dividend's role as a return on investment: for every dollar invested in the stock, how much is returned as a dividend, or actual cash payback? An investor concerned about cash flow returns can compare companies' dividend yields.

$$\text{dividend yield} = \frac{\text{dividend per share (in dollars)}}{\text{price per share (in dollars)}}$$

Earnings are either paid out as dividends or are retained by the company as capital. That capital is used by the company to finance operations, capital investments such as new assets for expansion and growth, or repayment of debt.

The **dividend** is the return on investment that comes as cash while you own the stock. Some investors

see the dividend as a more valuable form of return than the earnings that are retained as capital by the company. It is more liquid, since it comes in cash and comes sooner than the gain that may be realized when the stock is sold (more valuable because time affects value). It is the “bird in the hand,” perhaps less risky than waiting for the eventual gain from the company’s **retained earnings**.

Some investors see a high dividend as a sign of the company’s strength, indicative of its ability to raise ample capital through earnings. Dividends are a sign that the company can earn more capital than it needs to finance operations, make capital investments, or repay debt. Thus, dividends are capital that can be spared from use by the company and given back to investors.

Other investors see a high dividend as a sign of weakness, indicative of a company that cannot grow because it is not putting enough capital into expansion and growth or into satisfying creditors. This may be because it is a mature company operating in saturated markets, a company stifled by competition, or a company without the creative resources to explore new ventures.

As an investor, you need to look at dividends in the context of the company and your own income needs.

## Growth Ratios

The more earnings are paid out to shareholders as dividends, the less earnings are retained by the company as capital.

$$\text{earnings} = \text{dividends} + \text{capital retained}$$

Since retained capital finances growth, the more earnings are used to pay dividends, the less earnings are used to create growth. Two ratios that measure a company’s choice in handling its earnings are the dividend payout rate and the retention rate. The **dividend payout rate** compares dividends to earnings, while the **retention rate** compares the amount of capital retained to earnings.

The dividend payout rate equals the dividend as a percentage of earnings.

$$\text{dividend payout rate} = \text{dividends} / \text{earnings}$$

The retention rate equals the retained capital as a percentage of earnings.

$$\text{retention rate} = \text{capital retained} / \text{earnings}$$

Because earnings = dividends + capital retained, then 100 per cent of earnings = dividend payout + retention rate.

If a company’s dividend payout rate is 40 per cent, then its retention rate is 60 per cent; if it pays out 40 per cent of its earnings in dividends, then it retains 60 per cent of them.

Since Microsoft has earnings of \$15.3 billion and dividends of \$4.68 billion, it must retain \$10.62 billion of its earnings. So, for Microsoft,

$$\text{dividend payout rate} = 4.68 \text{ billion} / 15.3 \text{ billion} = 30.59\%$$

$$\text{retention rate} = 10.62 \text{ billion} / 15.3 \text{ billion} = 69.41\%$$

There is no benchmark dividend payout or retention ratio for every company; they vary depending on the age and size of the company, industry, and economic climate. These numbers are useful, however, to get a sense of the company's strategy and to compare it to competitors.

A company's value lies in its ability to grow and to increase earnings. The rate at which it can retain capital—that is, earn it and not pay it out as dividends—is a factor in determining how fast it can grow. This rate is measured by the internal growth rate and the sustainable growth rate. The **internal growth rate** answers the question, "How fast could the company grow (increase earnings) without any new capital, without borrowing or issuing more stock?" Given how good the company is at taking capital and turning it into assets and using those assets to create earnings, the internal growth rate looks at how fast the company can grow without any new borrowing or new shares issued.

The **sustainable growth rate** answers the question, "How fast could the company grow without changing the balance between using debt and using equity for capital?" Given how good the company is at taking capital and turning it into assets and using those assets to create earnings, the sustainable growth rate looks at how fast the company can grow if it uses some new borrowing, but keeps the balance between debt and equity capital stable.

Both growth rates use the retention rate as a factor in allowing growth. The fastest rate of growth could be achieved by having a 100 per cent retention rate—that is, by paying no dividends and retaining all earnings as capital.

An investor who is not using stocks as a source of income, but rather for their potential gain, may look for higher growth rates (evidenced by a higher retention rate and a lower dividend payout rate). An investor looking for income from stocks would instead be attracted to companies offering a higher dividend payout rate and a lower retention rate (despite lower growth rates).

## Market Value Ratios

While return and growth ratios are measures of a company's fundamental value, and therefore the value of its stocks, the actual stock price is affected by the market. Investors' demand can result in the under- or overpricing of a stock, depending on its attractiveness in relation to other investment choices or opportunity cost.

A stock's market value can be compared with that of other stocks. The most common measure for

doing so is the **price-to-earnings ratio (P/E)**. The price-to-earnings ratio is calculated by dividing the price per share (in dollars) by the earnings per share (in dollars). The result shows the investment needed for every dollar of return that the stock creates.

$$\text{P/E} = \text{price per share} / \text{earnings per share}$$

For Microsoft, for example, the price per share is around \$24 and the EPS is \$1.70, so the  $\text{P/E} = 24.00 / 1.70 = \$14.12$ . This means that the price per share is around fourteen times bigger than the earnings per share.

The larger the P/E ratio, the more expensive the stock is and the more you have to invest to get one dollar's worth of earnings in return. To get \$1 of Microsoft's earnings, you have to invest around \$14. By comparing the P/E ratio of different companies, you can see how expensive they are relative to each other.

A low P/E ratio could be a sign of weakness. Perhaps the company has problems that make it riskier going forward, even if it has earnings now, so the future expectations and thus the price of the stock is now low. Or it could be a sign of a buying opportunity for a stock that is currently underpriced.

A high P/E ratio could be a sign of a company with great prospects for growth and so a higher price than would be indicated by its earnings alone. On the other hand, a high P/E could indicate a stock that is overpriced and has nowhere to go but down. In that case, a high P/E ratio would be a signal to sell your stock.

How do you know if the P/E ratio is "high" or "low"? You can compare it to other companies in the same industry or to the average P/E ratio for a stock index of similar-type companies based on company size, age, debt levels, and so on. As with any of the ratios discussed here, this one is useful in comparison.

Another indicator of market value is the **price-to-book ratio (P/B)**. Price-to-book ratio compares the price per share to the book value of each share. The **book value** is the value of the company that is reported "on the books"—the company's balance sheet—using the intrinsic or original values of assets, liabilities, and equity. The balance sheet does not show the market value of the company's assets, for example, or what they could be sold for today; it shows what they were worth when the company acquired them. The book value of a company should be less than its market value, which should have appreciated over time. The company should be worth more as times goes on.

$$\text{P/B} = \frac{\text{price per share}}{\text{book value of equity per share}}$$

Since the price per share is the market value of equity per share, the P/B ratio compares the current market value of the company's equity to its book value. If that ratio is greater than one, then the company's equity is worth more than its original value, and the company has been increasing its value.

If that ratio is less than one, then the company's current value is less than its original value, so the value has been decreasing. A P/B of one would indicate that a company has just been breaking even in terms of value over the years.

The higher the P/B ratio, the better the company has done in increasing its value over time. You can calculate the ratio for different companies and compare them by their ability to increase value.

Table 13.3.1 provides a summary of the return, growth, and market value ratios.

**Table 13.3.1 Ratios and Their Uses**

<b>Ratio</b>	<b>What It Measures</b>
Earnings per Share (EPS)	Earning (in dollars) for every outstanding share of stock
Dividends per Share (DPS)	Dividend (in dollars) for every outstanding share of stock
Dividends Yield	Dividend (in dollars) returned for every dollar invested in the stock
Dividends Payout	Percentage of earnings retained as capital
Internal Growth Rate	The fastest rate of growth without using more debt or issuing more equity
Sustainable Growth Rate	The fastest rate of growth using more debt but without changing the balance of debt and equity
Price-to-Earnings Ratio (P/E)	The market value of each dollar's worth of earnings
Price-to-Book Ratio (P/B)	The market value of the company's equity compared to its book value

Ratios can be used to compare a company with its past performance, with its competitors, or with competitive investments. They can be used to project a stock's future value based on the company's ability to earn, grow, and be a popular investment. A company has to have fundamental value to be an investment choice, but it also has to have market value to have its fundamental value appreciated in the market and to have its price reflect its fundamental value.

## Key Takeaways

1. Earnings per share (EPS) and dividends per share (DPS) indicate stock returns on investment.
2. Dividend yield measures a shareholder's cash return relative to investment.
3. Growth ratios such as the internal and sustainable growth rates indicate the company's ability to grow given earnings and dividend expectations.
4. Market value ratios, most commonly price-to-earnings and price-to-book, indicate a stock's market popularity and its effects on its price.

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## 13.4 EQUITY STRATEGIES

### Learning Objectives

1. Identify and explain the rationales behind common long-term strategies.
2. Identify and explain the rationales behind common short-term strategies.

The best stock strategy is to know what you are looking for (i.e., what kind of stock will fulfill the role you want it to play in your portfolio) and to do the analyses you need to find it. That is easier said than done, however, and it requires that you have the knowledge, skill, and data for stock analysis. Commonly used general stock strategies may be long term (returns achieved in more than one year) or short term (returns achieved in less than one year), but the strategies you choose should fit your investing horizon, risk tolerance, and needs. An important part of that strategy, as with financial planning in general, is to check your stock investments and re-evaluate your holdings regularly. How regularly depends on the long- or short-term horizon of your investing strategies.

### Long-Term Strategies

Long-term strategies favour choosing a long-term approach to avoid the volatility and risk of market timing. For individual investors, a **buy-and-hold strategy** can be effective over the long run. The strategy is just what it sounds like: you choose the stocks for your equity investments, and you hold

them for the long term. The idea is that if you choose wisely and your stocks are well diversified, over time you will do at least as well as the stock market itself. Though it suffers through economic cycles, the economy's long-term trend is growth.

By minimizing the number of transactions, you can minimize transaction costs. Since you are holding your stocks, you are not realizing gains and are not paying gains tax. Thus, even if your gross returns are not spectacular, you are minimizing your costs and maximizing net returns. This strategy is optimal for investors with a long horizon, low risk tolerance, and little need for liquidity in the short term.

Another long-term strategy is **dollar-cost averaging**. The idea of dollar-cost averaging is that you invest in a stock gradually by buying the same dollar amount of the same stock at regular intervals. This is a way of negating the effects of market timing. By buying at regular intervals, you will buy at times when the price is low and when it is high, but over time your price will average out. Dollar-cost averaging is a way of avoiding a stock's price volatility because the net effect is that you buy the stock at its average price.

An investor uses dollar-cost averaging when regular payroll deductions are made to fund defined contribution retirement plans. The same amount is contributed to the plan in regular intervals and is typically used to purchase the same set of specified assets.

A buy-and-hold or dollar-cost averaging strategy only makes sense over time because both assume a long time horizon in order to “average out” volatility, making them better than other investment choices. If you have a long-term horizon—as with a retirement plan, for example—those strategies can be quite effective. However, market or economic cycles can be long too, so you need to think about whether your “long-term” horizon is likely to outlast or be surpassed by the market's cycle, especially as you near your investment goals.

Direct investment and dividend reinvestment are ways of buying shares directly from a company without going through a broker. This allows you to avoid brokerage commissions. **Direct investment** means purchasing shares from the company, while **dividend reinvestment** means having your dividends automatically invested in more shares (rather than being sent to you as cash). Dividend reinvestment is also a way of building up your equity in the stock by reinvesting cash that you might otherwise spend.

The advantage of direct investment and dividend reinvestment is primarily the savings on brokers' commissions. You can also buy fractional shares—that is, less than a whole share—and there is no minimum amount to invest, as there can be with brokerage transactions. The disadvantage is that by having funds automatically reinvested, you are not actively deciding how they should be invested and thus may be missing better opportunities.

**Indexing** is a passive long-term investment strategy to invest in index funds as a diversified asset rather than select stocks. Instead of choosing individual large cap companies, for example, you could invest in the S&P 500's index fund, which would provide more diversification for only one transaction

cost than you could get picking individual securities. The disadvantage to indexing is that you do not enjoy the potential of individual stocks producing above-average returns.

Table 13.4.1 summarizes long-term stock strategies.

**Table 13.4.1 Long-Term Stock Strategies**

Strategy	Avoids Market Timing	Avoids Stock Selection	Lowers Transaction Costs	Schedules Investment (Savings)
Buy and Hold	✓		✓	
Dollar-Cost Averaging	✓		✓	✓
Direct Investment			✓	
Dividend Reinvestment	✓		✓	✓
Indexing		✓	✓	

## Short-Term Strategies

Short-term stock strategies rely on market timing to earn above-average returns. Some advisers believe that the stock market fluctuates between favouring value stocks and favouring growth stocks. That is, the market will go through cycles when value stocks that are temporarily underpriced outperform stocks of companies poised for higher growth, and vice versa. If true, you would want to weight your portfolio with growth stocks when they are favoured and with value stocks when they are favoured.

This value-growth weighting strategy relies on market timing, which is difficult for the individual investor to harness. It also relies on correctly identifying growth and value stocks and market trends in their favour, complicating the process of market timing even further.

**Day trading** is a very short-term strategy of taking and closing a position in a day or two. Literally, it means buying in the morning and selling in the afternoon. Day trading became popular in the 1990s when stock prices were riding the tide of the tech stock bubble. At that time, it was possible to hold a stock for just a few hours and earn a gain. Technology, especially the Internet, also made real-time quotes and other market data available to individual investors at a reasonable cost. At the same time, Internet and discount brokers drove down the costs of trading.

Day trading declined, but did not die, after the tech bubble burst. It turns out that in a bubble, any strategy can make money, but when market volatility is more closely related to earnings potential and fundamental value, there is no alternative to doing your homework, knowing as much as possible about your investments, and making appropriate strategic choices.

## *Key Takeaways*

1. Common long-term strategies try to maximize returns by
  - minimizing transaction costs, or
  - minimizing the effects of market timing.
2. Long-term stock strategies include buy and hold, dollar-cost averaging, direct investment, dividend reinvestment, and indexing.
3. Common short-term strategies try to maximize return by taking advantage of market timing.

## *Exercises*

1. Review your investing horizon, risk tolerance, and needs. In your personal finance journal, record your ideas about the effects of your horizon, risk profile, and personal circumstances on your decisions about investing in stocks. Rank the long- and short-term investment strategies in order of their appropriateness for you. Explain why your top-ranked strategies seem best for you at this time.
2. Survey (but do not join) websites for day traders online. Then read the article “Day trading strategies for beginners” from Investopedia.com. What information in this article might discourage you from getting involved in day trading?

# 14. Owning Bonds and Investing in Mutual Funds

## INTRODUCTION

One definition of a bond is an affinity between people. In science, that affinity is physically held together by an attraction of atoms. In finance, a bond is a debt agreement holding lender and borrower together in a shared financial fate.

Investors buy bonds to participate in economic growth as lenders rather than as shareholders, with less risk and a firmer claim on assets. Bonds are issued by different kinds of organizations—by governments as well as by corporations—giving investors different kinds of partners in growth.

Since bonds are a different form of capital than stocks, and since bond investments are made by different kinds of borrowers, bonds offer diversification from the stocks in your portfolio. Your use of bonds may change over time, as your risk tolerance or liquidity needs change.

Mutual funds are not another kind of asset, but another way of investing in any kind of asset. The fund is a pool capable of much greater diversification than an individual's investment portfolio, given transaction costs. A mutual fund can also provide security selection, expertise, liquidity, and convenience. Some funds are even designed to perform the asset allocation task for the investor. Mutual funds are fast becoming the dominant investment vehicle for individual investors, changing the role of the broker and financial adviser.

Mutual funds may be purchased by parents and/or grandparents to help provide for their future. Elder Margaret Reynolds said that one reason she and her husband “buy mutual funds and trust funds [is] because I don't know what it's going to be like in 20 years for my grandchildren, so those are the things that we do now” (Elder Reynolds, Video 7). Elder Reynolds and her husband look after their grandchildren to make sure that they are cared for in the future. This is good financial planning.

## 14.1 BONDS AND BOND MARKETS

### *Learning Objectives*

1. Identify bond features that can determine risk and return.
2. Identify various Canadian federal, provincial, and municipal bonds.
3. Compare and contrast features of the corporate bond markets, the markets for corporate stock, and the markets for government bonds.
4. Explain the role of rating agencies and the process of bond rating.

Bonds are a relatively old form of financing. Formalized debt arrangements long preceded corporate structure and the idea of equity (stock) as we know it. Venice issued the first known government bonds of the modern era in 1157 (Barmash, 2003), while private bonds are cited in British records going back to the thirteenth century (Adams, 1921).

### **Bonds**

In addition to financing government projects, bonds are used by corporations to capitalize growth. Bonds are also a legal arrangement, and as such are subject to various conditions, obligations, and consequences. As a result of their legal and financial roles, bonds carry a quaint and particular vocabulary. Bonds come in all shapes and sizes to suit the needs of the borrowers and the demands of lenders. Table 14.1.1 lists the descriptive terms for basic bond features.

**Table 14.1.1 Basic Bond Features**

<b>Bond Term</b>	<b>Meaning</b>
Issuer	Borrower
Investor	Lender or Creditor
Principal, Face Value, Par Value	Amount Borrowed
Coupon Rate	Interest Rate
Coupon	Interest Payment
Maturity	Due Date
Term	Time until Maturity
Yield to Maturity	Annualized Return on Bond Investment
Market Value	Current Price

The **coupon** is usually paid to the investor twice yearly. It is calculated as a percentage of the **face value**—amount borrowed—so that the annual coupon = coupon rate × face value. By convention, each individual bond has a face value of \$1,000. A corporation issuing a bond to raise \$100 million would have to issue 100,000 individual bonds (100,000,000 divided by 1,000). If those bonds pay a 4 per cent coupon, a bondholder who owns one of those bonds would receive a coupon of \$40 per year (1,000 × 4%), or \$20 every six months.

The **coupon rate** of interest on the bond may be fixed or floating and may change. A floating rate is usually based on another interest benchmark, such as the **prime rate**, a widely recognized benchmark of prevailing interest rates.

A **zero-coupon bond** has a coupon rate of zero: it pays no interest and repays only the principal at maturity. A “zero” may be attractive to investors, however, because it can be purchased for much less than its face value. A **registered coupon bond** is registered for principal only and not for interest. A **registered bond** is issued by the issuing company and is registered in the owner’s name. A **bearer bond** does not register the bond in the investor’s name (Kapoor et al., 2015). There are **deferred coupon bonds** (also called **split-coupon bonds** and issued below par), which pay no interest for a specified period, followed by higher-than-normal interest payments until maturity. There are also **step-up bonds** that have coupons that increase over time.

The face value—the principal amount borrowed—is paid back at maturity. If the bond is **callable**, it may be redeemed after a specified date, but before maturity. A borrower typically “calls” its bonds after prevailing interest rates have fallen, making lower-cost debt available. Borrowers can borrow new, cheaper debt and pay off the older, more expensive debt. As an investor (lender), you would be paid back early, which sounds great, but because interest rates have fallen, you would have trouble finding another bond investment that would pay as high a rate of return.

A **convertible bond** is a corporate bond that may be converted into common equity at maturity or after some specified time. If a bond were converted into stock, the bondholder would become a shareholder, assuming more of the company's risk.

The bond may be secured by collateral, such as property or equipment, sometimes called a **mortgage bond**. If unsecured, or secured only by the “full faith and credit” of the borrower (the borrower's unconditional commitment to pay principal and interest on the debt), the bond is a **debenture**. In other words, a debenture “is a bond that is backed only by the reputation of the issuing corporation” (Kapoor et al., 2015, p. 366). Most bonds are issued as debentures. The First Nations Finance Authority “is a not-for-profit finance authority formed in 1995 to provide member First Nations with the opportunity to use debentures to access long-term affordable financing. Its primary purpose is to raise long-term private capital at preferred rates for public works, such as roads, water and sewer, and buildings” (Cooper, 2016, p. 171). These debentures are secured through property-taxes or long-term revenue sources (Cooper, 2016).

A bond specifies if the borrower has more than one bond issue outstanding or more than one set of lenders to repay, which establishes the bond's seniority in relation to previously issued debt. This “pecking order” determines which lenders will be paid back first in case of default on the debt or bankruptcy. Thus, when the borrower does not meet its coupon obligations, investors holding **senior debt** as opposed to **subordinated debt** have less risk of default. In case of bankruptcy, senior debt will be paid first and subordinate debt second.

Bonds may also come with **covenants** or conditions on the borrower. Covenants are usually attached to corporate bonds and require the company to maintain certain performance goals during the term of the loan. Those goals are designed to lower **default risk** for the lender. Examples of typical covenants are:

- dividend limits,
- debt limits,
- limits on sales of assets, and
- maintenance of certain liquidity ratios or minimum cash balances.

Corporations issue corporate bonds, usually with maturities of ten, twenty, or thirty years. Corporate bonds tend to be the most “customized,” with features such as callability, conversion, and covenants.

The Canadian government issues two types of bonds: marketable bonds and T-Bills.

**Canada Treasury bills**, also known as T-Bills, are investments fully guaranteed by the Government of Canada, which means the principal and rate of interest are guaranteed. T-Bills are considered the safest Canadian investment you can hold with a term of one year or less. They are offered for terms of one month to one year. Interest is paid at maturity. T-Bills can be purchased from most financial institutions and can be sold at market value at any time. The minimum investment for a T-Bill having

a term of three months to one year is \$5,000. The minimum investment for a T-Bill having a term of one or two months is \$25,000 (Canadian Bank Rates, 2013).

**Marketable bonds** not only have a specific maturity date and interest rate, but they are also transferable and can thus be traded in the bond market. All Canadian-dollar marketable bonds are non-callable, which means they cannot be called in by the government to be redeemed before maturity. Marketable bonds also pay a fixed rate of interest semi-annually (Kapoor et al., 2015).

**Real Return Bonds** are Canadian government bonds that pay a fixed rate of interest semi-annually that is adjusted by inflation. This ensures your purchasing power remains constant regardless of the future inflation rate.

The sale of **Canada Savings Bonds** ended November 1, 2017. It was the third type of bond issued by the Canadian government.

Provincial and municipal governments issue bonds in order to raise funds for program spending and to fund deficits. Provincial bonds or debentures are primarily used by provincial governments and are secured by the province through its ability to levy taxes. A **general obligation bond** is a bond backed by a municipal government. Canadian municipalities often issue two forms of general obligation debt: the **serial bond**, in which the principal and interest mature on different dates or are paid in installments; and the **bullet bond**, in which the entire principal is repaid on the bond's maturity date while regular interest payments are made on the investors' shares during the term of the fund (Hanniman, 2015). Municipal bullet bonds are often offset by **sinking funds** "to which annual or semi-annual deposits are made for the purpose of redeeming a bond issue" (Kapoor et al., 2015, p. 368). A **revenue bond** is repaid out of the revenue generated by the project that the debt is financing. For example, toll revenue may secure a debt that finances a highway. Revenue bonds are not common in Canada and are currently only used in Toronto (Hanniman, 2015).

Foreign corporations and governments also issue bonds. You should keep in mind, however, that foreign government defaults are not uncommon. Mexico in 1994, Russia in 1998, and Argentina in 2001 are all recent examples. Foreign corporate or sovereign debt also exposes the bondholder to currency risk, as coupons and principal will be paid in the foreign currency.

## Bond Markets

The volume of capital traded in the bond markets is far greater than what is traded in the stock markets. All sorts of borrowers issue bonds: corporations; national, provincial, and municipal governments. Even small towns issue bonds to finance capital expenditures such as schools, fire stations, and roads. Each kind of bond has its own market.

**Private placement** refers to bonds that are issued in a private sale rather than through the public

markets. The investors in privately placed bonds are institutional investors such as insurance companies, endowments, and pension funds.

Corporate bonds are traded in over-the-counter transactions through brokers and dealers. Because the details of each bond issue may vary—maturity, coupon rate, callability, convertibility, covenants, and so on—it is hard to directly compare bond values the way stock values are compared. As a result, the corporate bond markets are less transparent to the individual investor.

To provide guidance, **rating agencies** provide bond ratings; that is, they “grade” individual bond issues based on the likelihood of default and thus the risk to the investor. Rating agencies are comprised of independent agents that base their ratings on the financial stability of the company, its business strategy, competitive environment, and its outlook for the industry and the economy—any factors that may affect the company’s ability to meet coupon obligations and pay back debt at maturity.

Ratings agencies such as DBRS, Fitch Ratings, A. M. Best, Moody’s, and Standard & Poor’s are hired by large borrowers to analyze the company and rate its debt. Moody’s also rates government debt. Ratings agencies use an alphabetical system to grade bonds (shown in Table 14.1.2) based on the highest-to-lowest rankings of two well-known agencies.

**Table 14.1.2 Bond Ratings**

Standard & Poor’s	Moody’s	Grade	Meaning
AAA	Aaa	Investment	Risk is almost zero
AA	Aa	Investment	Low risk
A	A	Investment	Risk if economy declines
BBB	Baa	Investment	Some risk; more if economy declines
BB	Ba	Speculative	Risky
B	B	Speculative	Risky; expected to get worse
CCC	Caa	Speculative	Probable bankruptcy
C	Ca	Speculative	Probable bankruptcy
C	C	Speculative	In bankruptcy or default
D		Speculative	In bankruptcy or default

A plus sign (+) following a rating indicates that it is likely to be upgraded, while a minus sign (–) following a rating indicates that it is likely to be downgraded.

Bonds rated BBB or Baa and above are considered **investment grade bonds**: relatively low risk and “safe” for both individual and institutional investors. Bonds rated below BBB or Baa are speculative in that they carry some default risk. These are called **speculative grade bonds, junk bonds, or high-**

**yield bonds.** Because they are riskier, speculative grade bonds need to offer investors a higher return or yield in order to be “priced to sell.”

Although the term “junk bonds” sounds derogatory, not all speculative grade bonds are “worthless” or are issued by “bad” companies. Bonds may receive a speculative rating if their issuers are young companies, in a highly competitive market, or capital intensive, requiring lots of operating capital. Any of those features would make it harder for a company to meet its bond obligations, thus earning its bonds a speculative rating. In the 1980s, for example, companies such as CNN and MCI Communications issued high-yield bonds, which became lucrative investments as the companies grew into successful corporations.

**Default risk** is the risk that a company won’t have enough cash to meet its interest payments and principal payment at maturity. That risk depends, in turn, on the company’s ability to generate cash, profit, and grow to remain competitive. Bond-rating agencies analyze an issuer’s default risk by studying its economic, industry, and firm-specific environments in order to estimate its current and future ability to satisfy its debts. The default risk analysis is similar to equity analysis, but bondholders are more concerned with cash flows—cash to pay back the bondholders—and profits, rather than profits alone.

Bond ratings can determine the coupon rate the issuer must offer investors to compensate them for default risk: the higher the risk, the higher the coupon must be. Ratings agencies have been criticized recently for not being objective enough in their ratings of the corporations that hire them. Nevertheless, over the years, bond ratings have proven to be a reliable guide for bond investors.

### *Key Takeaways*

1. Bond features that can determine risk and return include:
  - coupon and coupon structure,
  - maturity, callability, and convertibility,
  - security or debenture,
  - seniority or subordination, and
  - covenants.
2. Provincial and municipal governments issue
  - revenue bonds secured by project revenues, or
  - general obligation bonds secured by the government issuer.
3. Corporate bonds may be issued through the public bond markets or through private placement.
4. The secondary bond market offers little transparency because of the differences among bonds and the lower volume of trades.
5. To help provide transparency, rating agencies analyze default risk and rate specific bonds.

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## 14.2 BOND VALUE

### *Learning Objectives*

1. Explain how bond returns are measured.
2. Define and describe the relationships between interest rates, bond yields, and bond prices.
3. Define and describe the risks that bond investors are exposed to.
4. Explain the implications of the three types of yield curves.
5. Assess the role of the yield curve in bond investing.

Bond rating does not replace bond analysis, which focuses on bond value. Like any investment, a bond is worth the value of its expected return. That value depends on the amount expected and the certainty of that expectation. To understand bond values, then, is to understand the value of its return and the costs of its risks.

Bonds return two cash flows to their investors: 1) the coupon, or the interest paid at regular intervals, usually twice yearly or yearly, and 2) the repayment of the principal at maturity. The amounts are

spelled out in the bond itself. The coupon rate is specified (for a fixed-rate bond) and the face value is the principal to be returned at the stated maturity.

Unlike a stock, for which the cash flows—both the amount and the timing—are “to be determined,” in a bond everything about the cash flows is established at the outset. Any bond feature that makes those cash flows less certain increases the risk to the investor and thus the investor’s return. If the bond has a floating-rate coupon, for example, then there is uncertainty about the amount of the coupon payments. If the bond is callable, there is uncertainty about the number of coupon payments.

Whatever the particular features of a bond, as debt instruments, bonds expose investors to specific risks. What are those risks, and what is their role in defining expectations of returns?

## Bond Returns

Unlike a stock, a bond’s future cash returns are known with certainty. You know what the coupon will be (for a fixed-rate bond) and you know that at maturity the bond will return its face value. For example, if a bond pays a 4 per cent coupon and matures in 2028, you know that every year you will receive \$20 twice per year ( $20 = 4\% \times 1,000 \times \frac{1}{2}$ ) until 2028, when you will also receive the \$1,000 face value at maturity. You know what you will get and when you will get it. However, you can’t be sure what that will be worth to you when you do. You don’t know what your opportunity cost will be at the time.

Investment returns are quoted as an annual percentage of the amount invested, the rate of return. For a bond, that rate is the yield. Yield is expressed in two ways: the current yield and the yield to maturity. The **current yield** is a measure of your bond’s rate of return in the short term, if you buy the bond today and keep it for one year. You can calculate the current yield by looking at the coupon for the year as a percentage of your investment or the current price, which is the market price of the bond.

$$\text{current yield} = \text{annual coupon (interest received, or cash flows)} / \text{market value} = \\ (\text{coupon rate} \times \text{face value}) / \text{market value}$$

So, if you bought a 4 per cent coupon bond, which is selling for \$960 today (its market value), and kept it for one year, the current yield would be  $40 \text{ (annual coupon)} / 960 \text{ (market value)} = 4.1667\%$ . The idea of the current yield is to give you a quick look at your immediate returns (your return for the next year).

In contrast, the **yield to maturity (YTM)** is a measure of your return if you bought the bond and held it until maturity, waiting to claim the face value. That calculation is a bit more complicated, because it involves the relationship between time and value (as we saw in Chapter 4 “Evaluating Choices: Time,

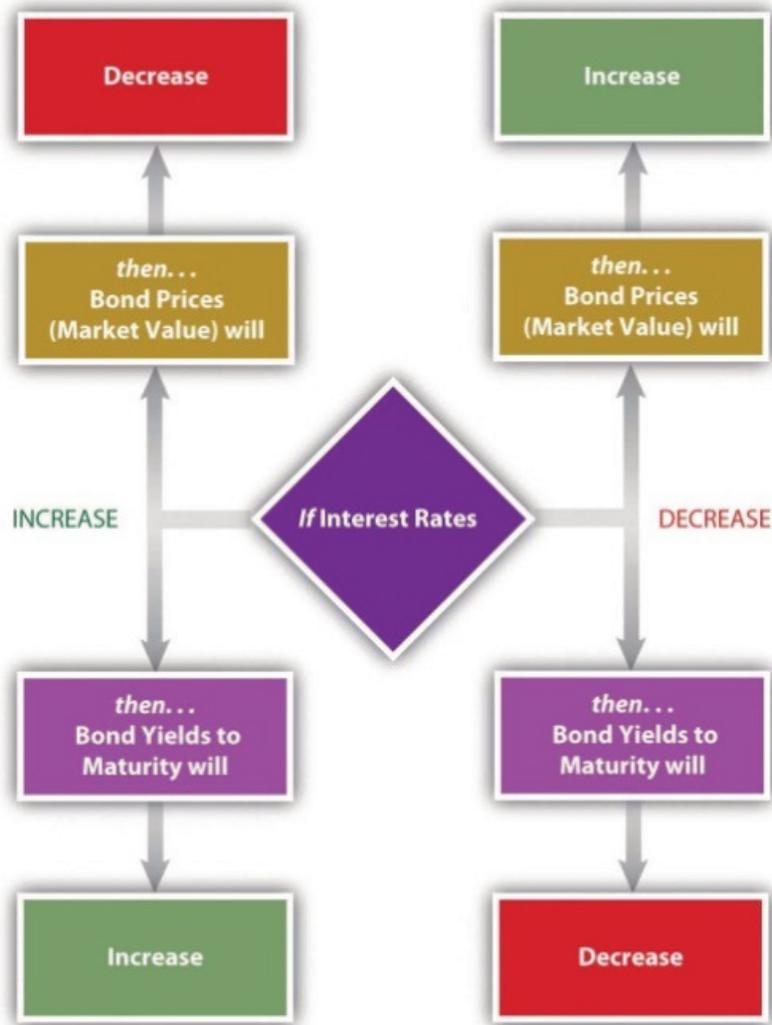
Risk, and Value”), since the yield is over the long term until the bond matures. You will find bond yield-to-maturity calculators online, and many financial calculators have the formulas preprogrammed.

To continue the example, if you buy a bond for \$960 today (2018), you will get \$20 every six months until 2028, when you will also get \$1,000. Because you are buying the bond for less than its face value, your return will include all the coupon payments (\$400 over ten years) plus a gain of \$40 (1,000 – 960 = 40). Over the time until maturity, the bond returns coupons plus a gain. Its yield to maturity is close to 4.5 per cent.

Bond prices—their market values—have an inverse relationship to the yield to maturity. As the price goes down, the yield goes up, and as the price goes up, the yield goes down. This makes sense because the payout at maturity is fixed as the face value of the bond (\$1,000). Thus, the only way a bond can have a higher rate of return is to have a lower price in the first place.

The yield to maturity is directly related to interest rates in general, so as interest rates increase, bond yields increase and bond prices fall. As interest rates fall, bond yields fall and bond prices increase. Chart 14.2.1 shows these relationships.

#### **Chart 14.2.1 Bond Prices, Bond Yields, and Interest Rates**



You can use the yield to maturity to compare bonds to see how good they are at creating returns. This yield holds if you hold the bond until maturity, but you may sell the bond at any time. When you sell the bond before maturity, you may have a gain or a loss, since the market value of the bond may have increased or decreased since you bought it. That gain or loss would be part of your return along with the coupons you have received over the holding period, or the period of time that you held the bond.

Your **holding period yield** is the annualized rate of return that you receive depending on how long you have held the bond, its gain or loss in market value, and the coupons you received in that period. For example, if you bought the bond for \$960 and sold it again for \$980 after two years, your return in dollars would be the coupons of \$80 (\$40 per year × 2 years) plus your gain of \$20 (\$980 – \$960), relative to your original investment of \$960. Your holding period yield would be close to 5.2 per cent.

## Bond Risks

The basic risk of bond investing is that the returns—the coupon and the principal repayment (face value)—will not be repaid, or that when they are repaid, they won't be worth as much as you thought they would be. The risk that the company will be unable to make its payments is default risk—the risk that it will default on the bond. You can estimate default risk by looking at the bond rating as well as the economic and sector- and firm-specific factors that define the company's soundness.

Part of a bond's value is that you can expect regular coupon payments in cash, which you could spend or reinvest. There is a risk, however, that when you go to reinvest the coupon, you will not find another investment opportunity that will pay as high a return because interest rates and yields have fallen. This is called **reinvestment risk**. Your coupons are the amount you thought they would be, but they are not worth as much as you expected because you cannot earn as much from them.

If interest rates and bond yields have dropped, your fixed-rate bond, which is paying a coupon that is now higher than other bonds, has become more valuable. Its market price has risen. But the only way to realize the gain from the higher price is to sell the bond, and then you won't have any place to invest the proceeds in other bonds to earn as much return.

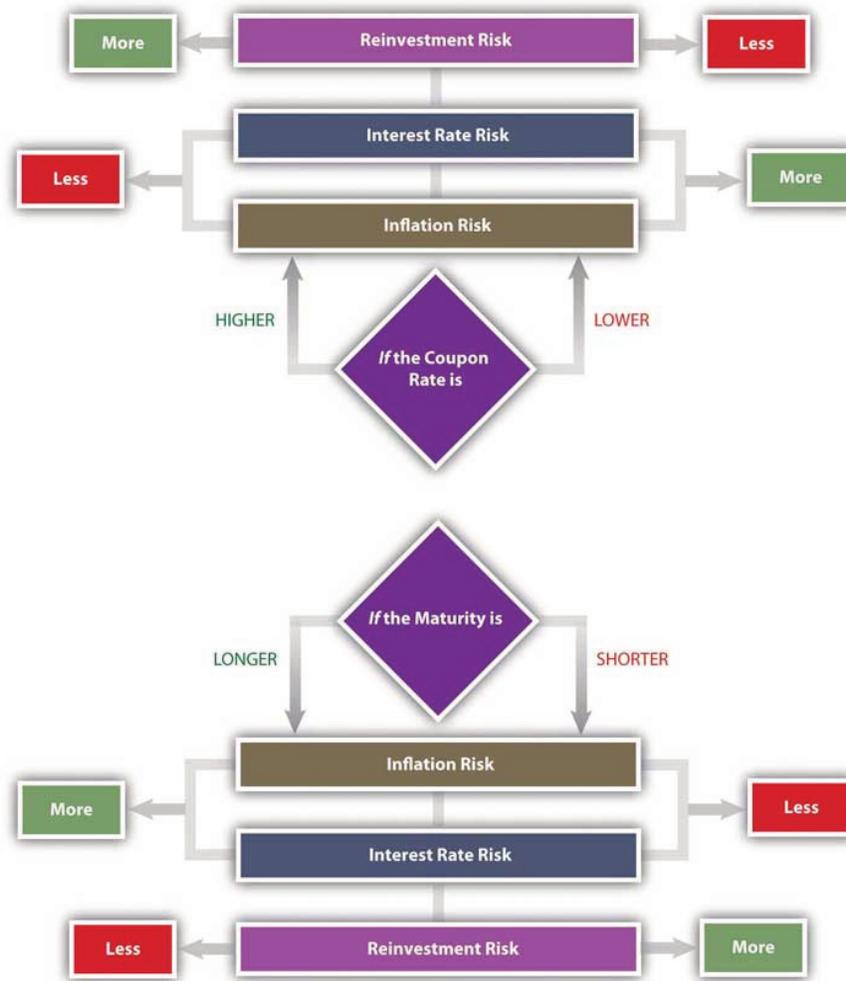
Reinvestment risk is one facet of interest rate risk, which arises from the fundamental relationship between bond values and interest rates. **Interest rate risk** is the risk that a change in prevailing interest rates will change bond value—that interest rates will rise and the market value of the bond will fall. (If interest rates fell, the bond value would increase, which the investor would not see as a risk.)

Another threat to the value of your coupons and principal repayment is inflation. **Inflation risk** is the risk that your coupons and principal repayment will not be worth as much as you thought, because inflation has decreased the purchasing power or the value of the dollars you receive.

A bond's features can make it more or less vulnerable to these risks. In general, the longer the term to maturity, the riskier the bond. The longer the term is, the greater the probability that the bond will be affected by a change in interest rates, a period of inflation, or a damaging business cycle.

In general, the lower the coupon rate and the smaller the coupon, the more sensitive the bond will be to a change in interest rates. The lower the coupon rate and the smaller the coupon, the more of the bond's return comes from the repayment of principal, which only happens at maturity. More of your return is deferred until maturity, which also makes it more sensitive to interest rate risk. A bond with a larger coupon provides more liquidity, over the term of the bond, and less exposure to risk. Chart 14.2.2 shows the relationship between bond characteristics and risks.

### Chart 14.2.2 Bond Characteristics and Risks



A zero-coupon bond offers the lowest coupon rate possible: zero. Investors avoid reinvestment risk since the only return—and reinvestment opportunity—comes when the principal is returned at maturity. However, a “zero” is exposed to the maximum interest rate risk, because interest rates will always be higher than its coupon rate of zero. The attraction of a zero is that it can be bought for a very low price.

As a bond investor, you can make better decisions if you understand how the characteristics of bonds affect their risks and yields as you use those yields to compare and choose bonds.

## Yield Curve

Interest rates affect bond risks and bond returns. If you plan to hold a bond until maturity, interest rates also affect reinvestment risk. If you plan to sell the bond before maturity, you face interest rate

risk or the risk of a loss of market value. When you invest in bonds, then, you want to be able to forecast future interest rates.

Investors can get a sense of how interest rates are expected to change in the future by studying the **yield curve**, a graph that compares the terms of the yields for bonds of different maturities.

The yield curve illustrates the **term structure of interest rates**, or the relationship of interest rates to time. Usually, the yield curve is upward sloping—that is, long-term rates are higher than short-term rates. Long-term rates indicate expected future rates. If the economy is expanding, future interest rates are expected to be higher than current interest rates, because capital is expected to be more productive in the future. Future interest rates will also be higher if there is inflation because lenders will want more interest to make up for the fact that the currency has lost some of its purchasing power.

A flat yield curve indicates that future interest rates are expected to be about the same as current interest rates or that capital will be about as productive in the economy as it is now. A downward-sloping yield curve shows that future interest rates are expected to be lower than current rates. This is often interpreted as a signal of a recession, because capital would be less productive in the future if the economy were less productive then.

The yield curve is not perfectly smooth; it changes every day as bonds trade and new prices and new yields are established in the bond markets. It is a widely used indicator of interest rate trends, however. It can be useful to know the broad trends in interest rates that the market sees.

For your bond investments, an upward-sloping yield curve indicates that interest rates will go up, which means that bond yields will go up but bond prices will go down. If you are planning to sell your bond in that period of rising interest rates, you may be selling at a loss.

Because of their known coupon and face value, many investors use bonds to invest funds for a specific purpose. For example, suppose you have a child who is eight years old and you want her to be able to go to university in ten years. You might invest in bonds that have ten years until maturity. However, if you invest in bonds that have twenty years until maturity, they will have a higher yield (all else being equal), so you could invest less now.

You could buy the twenty-year bonds but plan to sell them before maturity for a price determined by what interest rates are in ten years (when you sell them). If the yield curve indicates that interest rates will rise over the next ten years, then you could expect your bond price to fall, and you would have a loss when you sell the bond, which would take away from your returns.

In general, rising interest rates mean losses for bondholders who sell before maturity, and falling interest rates mean gains for bondholders who sell before maturity. Unless you are planning to hold bonds until maturity, the yield curve can give you a sense of whether you are more likely to have a gain or loss.

## Key Takeaways

1. All bonds expose investors to:
  - default risk (the risk that coupon and principal payments won't be made),
  - reinvestment risk (the risk that coupon payments will be reinvested at lower rates),
  - interest rate risk (the risk that changing interest rates will affect bond values), and
  - inflation risk (the risk that inflation will devalue bond coupons and principal repayment).
2. Bond returns can be measured by yields.
  - The current yield measures short-term return on investment.
  - The yield to maturity measures return on investment until maturity.
  - The holding period yield measures return on investment over the term that the bond is held.
3. There is a direct relationship between interest rates and bond yields.
4. There is an inverse relationship between bond yields and bond prices (market values).
5. There is an inverse relationship between bond prices (market values) and interest rates.
6. The yield curve illustrates the term structure of interest rates, showing yields of bonds with differing maturities and the same default risk. The purpose of a yield curve is to show expectations of future interest rates.
7. The yield curve may be:
  - upward sloping, indicating higher future interest rates;
  - flat, indicating similar future interest rates; or
  - downward sloping, indicating lower future interest rates.

## Exercises

1. How do you buy bonds? Read Investopedia's primer "Bond Basics: How to Trade Bonds."
2. Read Investopedia's explanation of how to read a bond table, "Bond Basics: How To Read A Bond Table." In the example of a bond table, suppose you invested \$5,000 in Avco's bond issue. What coupon rate were you getting? When was the maturity date, and how much did you get then? What was the current value of the bond at that time? What does it mean for a bond to be trading above par? What was the bond's annual return during the time you held it? If you held the bond for ten years, what cash flows did you receive? Would you have reinvested in the bond when it matured, or would you have sold it and why? Study the other corporate bonds listed in the Investopedia example of a bond table.
3. To find out more about how to use bond tables when making investment decisions, read the

article “Reading Bond Prices in the Newspaper” by the Securities Industry and Financial Markets Association. Where will you find bond tables? What will you compare in bond tables? At the top of this Securities Industry and Financial Markets Association page, click on one of the bond markets “at-a-glance” under “Bond Markets & Prices.” Then enter the name of an issuer on the form and choose the data you want to see. For example, enter your province’s name and ask to see all the bonds by yield or by maturity date or by some other search factor. What do these data tell you? For each search factor, how would the information assist you in making decisions about including bonds in your investment portfolio?

4. Experiment with Investopedia’s Yield to Maturity calculator. Why should you know the yield to maturity (indicated as “YTM” on the calculator) before investing in bonds?

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## 14.3 BOND STRATEGIES

### *Learning Objectives*

1. Discuss diversification as a strategic use of bonds.
2. Summarize strategies to achieve bond diversification.
3. Define and compare matching strategies.
4. Explain life cycle investing and bond strategy.

Bonds provide more secure income for an investment portfolio, while stocks provide more growth potential. When you include bonds in your portfolio, you do so to have more income and less risk than you would have with just stocks. Bonds also diversify the portfolio. Because debt is so fundamentally different from equity, debt markets and equity markets respond differently to changing economic conditions.

### Diversification Strategies

If your main strategic goal of including bonds is diversification, you can choose an active or passive bond selection strategy. As with equities, an active strategy requires individual bond selection, while

a passive strategy involves the use of indexing, or investing through a broadly diversified bond index fund or mutual fund in which bonds have already been selected.

The advantage of the passive strategy is its greater diversification and relatively low cost. The advantage of an active strategy is the chance to create gains by finding and taking advantage of market mispricings. An active strategy is difficult for individual investors in bonds, however, because the bond market is less transparent and less liquid (this applies mostly to corporate bonds, not government bonds) than the stock market.

If your main strategic goal of including bonds is to lower the risk of your portfolio, you should keep in mind that bond risk varies.

Another way to look at the effect of default risk on bond prices is to look at spreads. A **spread** is the difference between one rate and another. With bonds, the spread generally refers to the difference between one yield to maturity and another. Spreads are measured and quoted in basis points. A **basis point** is one one-hundredth of a per cent, or 0.0001 or 0.01 per cent.

The most commonly quoted spread is the difference between the yield to maturity for a Treasury bond and a corporate bond with the same term to maturity. Treasury bonds are considered to have no default risk because it is unlikely that the Canadian government will default. Treasuries are exposed to reinvestment, interest rate, and inflation risks, however.

Corporate bonds are exposed to all four types of risk. So, the difference between a twenty-year corporate bond and a twenty-year Treasury bond is the difference between a bond with and without default risk. The difference between their yields—the spread—is the additional yield for the investor for taking on default risk. The riskier the corporate bond, the greater the spread.

Spreads generally fluctuate with market trends and with confidence in the economy or expectations of economic cycles. When spreads narrow, the yields on corporate bonds are closer to the yields on Treasury bonds, indicating that there is less concern with default risk. When spreads widen, corporate bondholders worry more about default risk.

As the spread widens, corporate yields rise and/or Treasury yields fall. This means that corporate bond prices (market values) are falling and/or Treasury bond values are rising. This is sometimes referred to as the “flight to quality.” In uncertain times, investors would rather invest in Treasuries than corporate bonds, because of the increased default risk of corporate bonds. As a result, Treasury prices rise (and yields fall) and corporate prices fall (and yields rise).

Longer-term bonds are more exposed to reinvestment, interest rate, and inflation risk than shorter-term bonds. If you are using bonds to achieve diversification, you want to be sure to be diversified among bond maturities. For example, you would want to have some short-term (less than one year until maturity), intermediate-term (two to ten years until maturity), and long-term (more than ten years until maturity) bonds, in addition to diversifying on the basis of industries and company and perhaps even countries.

## Matching Strategies

**Matching strategies** are used to create a bond portfolio that will finance specific funding needs, such as education, a down payment on a second home, or retirement. If the timing and cash flow amounts of these needs can be predicted, then a matching strategy can be used to support them. This strategy involves matching a “liability” (to yourself, because you “owe” yourself the chance to reach that goal) with an “asset” (a bond investment). The two most commonly used matching strategies are immunization and cash flow matching.

**Immunization** is designing a bond portfolio that will achieve a certain rate of return over a specific period of time, based on the idea of balancing interest rate risk and reinvestment risk.

Recall that as interest rates rise, bond values decrease, but reinvested income from bond coupons earns more. As interest rates fall, bond values increase, but reinvested income from bond coupons decreases. Immunization is the idea of choosing a portfolio of bonds such that the exposure to interest rate risk is exactly offset by the exposure to reinvestment risk for a certain period of time, thus guaranteeing a minimum return over that period (Maginn, Tuttle, Pinto, and McLeavey, 2007).

In other words, the interest rate risk and the reinvestment risk cancel each other out, and the investor is left with a guaranteed return. You would use this kind of strategy when you had a liquidity need with a deadline—for example, to fund a child’s higher education.

**Cash flow matching**, also called a dedication strategy, is an alternative to immunization. It involves choosing bonds that match your anticipated cash flow needs by having maturities that coincide with the timing of those needs. For example, if you will need \$50,000 for travel in twenty years, you could buy bonds with a face value of \$50,000 and a maturity of twenty years. If you hold the bonds to maturity, their face value provides the amount of cash flow you need, and you don’t have to worry about interest rate or reinvestment risk. You can plan on having \$50,000 in twenty years, barring any default.

If you had the \$50,000 now, you could just stuff it under your mattress or save it in a savings account. But buying a bond has two advantages: 1) you may be able to buy the bond for less than \$50,000 now, requiring less upfront investment; and 2) over the next twenty years, the bond will also pay coupons at a higher rate than you could earn with a savings account or under your mattress.

If you will need different cash flows at different times, you can use cash flow matching for each one. When cash flow matching is used to create a steady stream of regular cash flows, it is called **bond laddering**. You invest in bonds of different maturities, such that you would have one bond maturing and providing cash flow in each period (like the GIC laddering discussed in Chapter 7 “Financial Management”).

Strategies such as immunization and cash flow matching are designed to manage interest rate and reinvestment risk to minimize their effects on your portfolio’s goals. Since you are pursuing an

active strategy by selecting individual bonds, you must also consider transaction costs and the tax consequences of your gain (or loss) at maturity and their effects on your target cash flows.

## Life Cycle Investing

Bonds are most commonly used to reduce portfolio risk. Typically, as your risk tolerance decreases with age, you will include more bonds in your portfolio, shifting its weight from stocks, which have more growth potential, to bonds, which have more income and less risk. This change in the weighting of portfolio assets usually begins as you get closer to retirement.

For years, the conventional wisdom was that you should have the same percentage of your portfolio invested in bonds as your age, so that you have 30 per cent of your portfolio in bonds when you are thirty, 50 per cent when you are fifty, and so on. That wisdom is now being questioned, however, because while bonds are lower risk, they also have lower growth potential. Today, since more people can expect to live much longer past retirement age, they run a real risk of outliving their funds if they invest as conservatively as the conventional wisdom suggests.

It is still true nevertheless that for most people, risk tolerance changes with age, and your investment in bonds should reflect that change.

### *Key Takeaways*

1. One strategic use of bonds in a portfolio is to increase diversification.
2. Diversification can be achieved by: an active strategy, using individual bond selection; or a passive strategy, using indexing.
3. Spreads indicate the “price” or the yield on default risk.
4. Matching strategies to minimize interest rate and reinvestment risks can include: immunization, cash flow matching, and bond laddering.
5. Life cycle investing considers the relationship of age and risk tolerance to the strategic use of bonds in a portfolio.

## Exercises

In your personal finance journal, record your bond strategy. What will be your purpose in including bonds in your portfolio? What types of bonds will you include and why? Will you take an active or passive approach and why? How will spreads inform your investment decisions? Which bond strategies described in this section will you plan to use and why? How will your bond strategies reflect your needs to diversify, reduce risk, and maximize liquidity at the right times? How will your bond strategies reflect your age and risk tolerance?

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## 14.4 MUTUAL FUNDS

### Learning Objectives

1. Identify the general purposes of using mutual funds in individual investment portfolios.
2. Analyze the advantages of an index fund or a fund of funds.
3. List and define the structures of mutual funds.
4. Describe the strategic goals of lifestyle funds, leveraged funds, and inverse funds.
5. Identify the costs and differences in costs of mutual fund investing.
6. Calculate returns from mutual fund investing.
7. Summarize the information found in a mutual fund prospectus.

As defined in the Chapter 12 “Investing,” a mutual fund is a portfolio of securities consisting of one type of security or a combination of several different types. A fund serves as a convenient way for an investor to have a diversified portfolio of investments in just about any investable asset. The oldest mutual fund is believed to have been founded by Adriaan van Ketwich in 1774. Ketwich invited

investors to contribute to a trust fund to spread the risk of investing in foreign bonds. The idea moved from the Netherlands to Scotland to the United States, where the Boston Personal Property Trust established the first mutual fund in 1893 (Investment Funds Institute of Canada, 2017).

Mutual funds play a significant role in individual investment decisions. A mutual fund provides an investor with cheaper and simpler diversification and security selection, requiring only one transaction to own a diversified portfolio (the mutual fund). By buying shares in the fund rather than individual securities, you achieve extensive diversification for a much lower transaction cost than by investing in individual securities and making individual transactions. You also receive the benefit of professional security selection, which theoretically minimizes the opportunity costs of lesser choices. So, by using a mutual fund, you get more and better security selection and diversification.

A mutual fund also provides stock and bond issuers with a mass market. Rather than selling shares to investors individually (and incurring the costs of doing so), issuers can more easily find a market for their shares in mutual funds.

## Structures and Types of Mutual Funds

Like stocks and bonds, mutual funds may be actively or passively managed. As you read in Chapter 13 “Owning Stocks” and Chapter 14 “Owning Bonds and Investing in Mutual Funds,” actively managed funds provide investors with professional management and the expected research, analysis, and watchfulness that goes with it. Passively managed **index funds**, on the other hand, are designed to mirror the performance of a specific index constructed to be representative of an asset class.

Mutual funds are structured in three ways:

1. Closed-end funds
2. Open-end funds
3. Exchange-traded funds

**Closed-end funds** are funds for which a limited number of shares are issued. Once all shares have been issued, the fund is “closed” so a new investor can only buy shares from an existing investor. Since the shares are traded on an exchange, the limited supply of shares and the demand for them in that market directly determines the value of the shares for a closed-end fund.

Most mutual funds are **open-end funds** in which investors buy shares directly from the fund and redeem or sell shares back to the fund. The price of a share is its **net asset value (NAV)**, or the market value of each share as determined by the fund’s assets and liabilities and the number of shares that exist. Here is the basic formula for calculating NAV:

$$\text{NAV} = \frac{\text{market value of fund securities} - \text{fund liabilities}}{\text{number of shares outstanding}}$$

Demand for shares is reflected in the number of shares outstanding, because the fund can create new shares for new investors. NAV calculations are usually done once per day at the close of trading, when mutual fund transactions are recorded.

The NAV is the price that the fund will pay you when you redeem your shares, so it is a gauge of the shares' value. It will increase if the market value of the securities in the fund increases faster than the number of new shares.

**Exchange-traded funds (ETFs)** are structured like closed-end funds, but are traded like stocks. Shares are traded and priced continuously throughout the day's trading session, rather than once per day at the end of trading. ETFs trade more like individual securities; that is, if you are trying to time a market, they are a nimbler asset to trade than open- or closed-end funds.

Originally designed as index funds, exchange-traded funds now target just about every asset, sector, and economic region imaginable.

Table 14.4.1 compares the features of closed-end funds, open-end funds, and ETFs.

**Table 14.4.1 Fund Features**

	<b>Closed-End</b>	<b>Open-End</b>	<b>ETF</b>
<b>Number of Shares</b>	Limited	Unlimited	Limited
<b>Trades</b>	End of the trading day	Fund sponsor	Continuously
<b>Traded with</b>	Other shareholders (after the fund closes)	End of the trading day	Other shareholders

Shares of closed-end funds and exchange-traded funds are bought and sold on exchanges, much like shares of stock. You would go through a broker to make those transactions. Shares of open-end funds may be bought and sold directly from the fund sponsor, a mutual fund company, or investment manager. You can make those transactions at any of the company's offices, by telephone, or online. About 40 per cent of all mutual fund transactions are done directly (without a broker) through a retirement plan contribution or a mutual fund company (The Investment Company Institute, 2009).

Some other types of mutual funds are shown in Table 14.4.2. Some research companies, such as Morningstar, track as many as forty-eight different categories of mutual funds.

**Table 14.4.2 Other Types of Mutual Funds**

<b>Mutual Funds</b>	<b>Definition</b>
<b>Funds of funds</b>	Mutual funds that own shares in other mutual funds rather than in specific securities. If you decide to use mutual funds rather than select securities, a fund of funds will provide expertise in choosing funds. Funds of stocks and bonds that manage portfolio risk based on age or the time horizon for liquidity needs.
<b>Lifestyle funds</b>	Lifestyle funds perform both security selection and asset allocation for investors, determined by the target date. For example, if you were now thirty years old, you might choose a lifestyle fund with a target date of thirty-five years from now for your retirement savings. As the fund approaches its target date, its allocation of investments in stocks and bonds will shift to carry less risk as the target nears. Lifestyle funds are used primarily in saving for retirement; many are created as funds of funds.
<b>Leveraged funds</b>	Funds that invest both investors' money and money that the fund borrows to augment the investable assets and thus potential returns. Because they use borrowing, leveraged funds are riskier than funds that do not use leverage.
<b>Inverse funds</b>	Funds that aim to increase in value when the market declines, to be countercyclical to index funds, which aim to increase in value when the market rises. Inverse funds, also called "bear funds," are set up to perform contrary to the index. Since most economies become more productive over time, however, you can expect indexes to rise over time, so an inverse fund would make sense only as a very short-term investment.

## Mutual Fund Fees and Returns

All funds must disclose their fees to potential investors: sales fees, management fees, and expenses. A **load fund** charges a sales commission on each share purchase. That sales charge (also called a **front-end load**) is a percentage of the purchase price. A **no-load fund**, in contrast, does not charge a sales commission, because shares may be purchased directly from the fund or through a discount broker. The front-end load can be as much as 8.5 per cent, so if you plan to invest often or in large amounts, that can be a substantial charge. For example, a \$5,000 investment may cost you \$425, reducing the amount you have to invest and earn a return.

A fund may charge a **back-end load**, actually a deferred sales charge, paid when you sell your shares instead of when you buy them. The charge may be phased out if you own the shares for a specified length of time, however, usually five to seven years.

A fund may charge a management fee on an annual basis. The management fee is stated as a fixed percentage of the fund's asset value per share. Management fees can range from 0.1 per cent to 2.0 per cent annually. Typically, a more actively managed fund can be expected to charge a higher management fee, while a passively managed fund such as an index fund should charge a minimal management fee.

A fund may charge an annual distribution fee, also calculated as not more than 1.0 per cent per year of the fund's asset value. Some mutual funds charge other extra fees as well, passing on fund expenses to shareholders. You should consider fee structure and rate when choosing mutual funds, and this can be done through calculations of the expense ratio.

Taken together, the annual management, distribution, and expense fees are measured by the **management expense ratio (MER)**—the total annual fees expressed as a percentage of your total investment. MER costs “are deducted before the fund's performance returns are calculated” (Kapoor et al., 2015, p. 356). Therefore, if your return is 15 per cent and your MER is 2 per cent, you will receive a return of 13 per cent. That may not sound like much, but it means that if the fund earns a 5 per cent return, your net return may be less than 3 per cent (and after taxes, it's even less). When choosing a fund, you should be aware of all charges—especially annual or ongoing charges—that can affect your investment return.

Owning shares of a mutual fund means owning shares in a pool of assets. The returns of the fund are the returns of those assets: interest, dividends, or gains (losses). Income may come from **interest distribution** if the fund invests in bonds or interest-producing assets or as **dividend distribution** if the fund invests in stocks.

Mutual funds buy and sell or “turn over” the fund assets. Even passively managed funds need to rebalance to keep pace with their benchmarks as market values change. The **turnover ratio** is the percentage of fund assets that have been turned over or replaced in the past year, a measure of the fund's trading activity.

Turnover can create capital gains or losses. Periodically, usually once per year, the fund's net capital gains (or losses) are distributed on a per share basis as a **capital gains distribution**. You would expect turnover to produce more gains than losses. The more turnover, or the higher the turnover ratio, the greater the capital gains distributions you may expect.

Unless you have invested in a tax-exempt savings plan such as an RRSP, interest and dividend distributions are taxable as personal income, as are capital gains, including capital gains distributions. A higher turnover ratio may mean a higher tax expense for capital gains distributions. Most open-end mutual funds allow you the option of having your income and gains distributions automatically reinvested rather than paid out, which means that you may be paying taxes on earnings without ever “seeing” the money.

## Mutual Fund Information and Strategies

All mutual fund companies must offer a prospectus, a published statement detailing the fund's assets, liabilities, management personnel, and performance record. You should always take the time to read

it and to take a closer look at the fund's investments to make sure that the fund will be compatible and appropriate to your investment goals.

For example, suppose you have an investment in a TSX Index fund and now are looking for a global stock fund to complement and diversify your holdings in domestic (Canadian) equities. You go to the website of a large mutual fund company offering hundreds of funds. You find a stock fund called "Global Stock Fund": it sounds like it's just what you are looking for. Looking closer, however, you can see that this fund is invested in the stocks of companies in Germany, Japan, and the United Kingdom. While they are not Canadian stocks, those economies are similar to the US economy—perhaps too similar to provide the diversity you are looking for.

Or suppose you are looking for a bond fund to create income and security. You find a fund called the "Investment Grade Fixed Income Fund." On closer inspection, however, you find that the fund does not invest only in investment grade bonds but that the *average* rating of its bonds is investment grade. This means that the fund invests in many investment grade bonds, but also in some speculative grade bonds, to achieve higher income. While this fund may suit your need for income, it may not be appropriate for your risk tolerance.

Mutual fund companies make this information readily available online and in prospectuses. You should always make the extra effort to be sure you know what's in your fund. In addition, mutual funds are widely followed by many performance analysts. Ratings agencies such as Morningstar and investment publications such as *Barron's* and *Forbes* track, analyze, and report the performance of mutual funds. That information is available online or in print and provides comparisons of mutual funds that you may find helpful in choosing your fund. For more information on Canadian mutual funds, please see the FUNDATA website.

In print and online newspapers, mutual fund performance is reported daily in the form of tables that compare the average returns of funds from week to week. Reported average returns are based on the net asset value per share (NAVPS). Investors can use this information to choose or compare funds and track the performance of funds they own.

In conclusion, since a mutual fund may be made up of any kind or many kinds of securities (e.g., stocks, bonds, real estate, and commodities), it is not really another kind of investment. Rather, it is a way to invest without specifically selecting securities, a way of achieving a desired asset allocation without choosing individual assets.

The advantages of investing in a mutual fund are the diversification available with minimal transaction costs and the professional management or security selection that you buy when you buy into the fund.

Compared to actively managed funds, passively managed or index funds offer similar diversification, but with lower management fees and expense ratios because you aren't paying for market timing or security selection skills. The turnover ratio shows how passive or active the fund management is.

Performance history has shown that actively managed funds, on average, do not necessarily outperform passively managed funds (Malkiel, 2007).

Since they usually have higher fees, any advantage created by active management is usually cancelled out by their higher costs. Still, there are investors who believe that some mutual funds and mutual fund managers can, on average, outperform the markets or the indexes that provide the benchmarks for passively managed funds.

### *Key Takeaways*

1. Mutual funds provide investors with:
  - diversification,
  - security selection, and
  - asset allocation.
2. Funds may be actively or passively managed.
3. Index funds mirror an index of securities, providing diversification without security selection.
4. Funds of funds provide the investor with pre-selected funds.
5. Mutual funds may be structured as:
  - closed-end funds,
  - open-end funds, or
  - exchange-traded funds.
6. Some funds are structured to achieve specific investment goals:
  - lifestyle funds with target dates to minimize liquidity risk through asset allocation,
  - leveraged funds to increase return through using debt, and
  - inverse funds to increase return through active management with the expectation of a down market.
7. Mutual fund costs may include:
  - a sales charge when shares are purchased, or front-end load,
  - a sales charge when shares are sold, or back-end load,
  - a management fee while shares are owned, or
  - a distribution fee while shares are owned.
8. The management expense ratio is the total mutual fund cost expressed as a percentage of the funds invested.
9. Fees vary by:
  - fund sponsor,
  - fund strategy (active or passive), and
  - fund sales (direct or through a broker).
10. Returns from a mutual fund include returns on the securities it owns, including:
  - interest distributions,
  - dividend distributions, and

- capital gains distributions.
11. A fund prospectus details the fund's investment holdings, historic returns, and costs. Mutual fund ratings in the financial media are another source of information.

## Exercises

1. Read Investopedia's article "Mutual Funds: The Costs." What is your management expense ratio (MER)? Do mutual funds with higher expenses generally earn higher returns?
2. Review Investopedia's article on "Mutual Funds: How To Read A Mutual Fund Table." What do the columns mean? What is being compared? What can you learn from mutual fund tables that may help you choose funds or track the performance of funds you own? Share your ideas with classmates.
3. In your personal finance journal, record your study of a fund you choose to track. Read the prospectus, check its ratings, and compare its week-to-week performance with that of similar funds in the mutual funds table in the financial section of a newspaper. Record your observations, questions, and commentary as you go about deciding hypothetically whether or not to invest in that fund.

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# 15. Career Planning

## INTRODUCTION

Some people know what they want to do at an early age. For most people, however, the path is just not that clear. Career planning and development can be a process of trial and error as you learn your abilities and preferences by trying them out. Sometimes a job is not what you thought it would be, and sometimes you are not who you thought you would be. The better your decision-making process, the more objective and methodical it is, the less trial and error you will have to endure.

Your financial sustainability depends on having income to support your spending, saving, and investing. A primary component of your income—especially earlier in your adult life—is income from your wages or salary—that is, from working, or selling your labour. Your ability to maximize the price that your labour can bring depends on the labour market you choose and your ability to sell yourself. Those abilities will be called on throughout your working life. You will make job and career choices for many different reasons. This chapter looks only at the financial context of those choices.

### 15.1 CHOOSING A JOB

#### *Learning Objectives*

1. Describe the macroeconomic factors that affect job markets.
2. Describe the microeconomic factors that influence job and career decisions.
3. Relate life stages to both microeconomic factors and income needs.
4. Describe how relationships between life stages, income needs, and microeconomic factors may affect job and career choices.

A person starting out in the world of work today can expect to change careers—not just jobs—an average of seven times before retiring (Baum and Ma, 2007).

Those career changes may reflect the process of gaining knowledge and skills as you work or changes in industry and economic conditions over several decades of your working life. Knowing this, you cannot base career decisions solely on the circumstances of the moment. However, you also cannot ignore the economics of the job market.

You may have a career in mind but have no idea how to get started, or you may have a job in mind but have no idea where it may lead. If you have a career in mind, you should research its **career path**, or sequence of steps that will enable you to advance. Some careers have a well-established career path; for example, careers in law, medicine, teaching, or civil engineering. In other occupations and professions, career paths may not be well defined.

Before you can even focus on a career or a job, however, you need to identify the factors that will affect your decision-making process.

## Macro Factors of the Job Market

The job market is the market where buyers (employers) and sellers (employees) of labour trade, but it usually refers to the possibilities for employment and its rewards. These will differ by field of employment, types of jobs, and geographic region. The opportunities offered in a job market depend on the supply and demand for jobs, which in turn depend on the need for labour in the broader economy and in a specific industry or geographic area.

The economic cycle can affect the aggregate job market or employment rate. If the economy is in a recession, the economy is producing less, and there is less need for labour, so fewer jobs are available. If the economy is expanding, production and its need for labour are growing.

Typically, a recession or expansion affects different industries in different ways. Some industries are cyclical and some are countercyclical. For example, in a recession, consumer spending is often down, so retail shops and consumer goods manufacturers—in cyclical industries—may be cutting jobs. Meanwhile, more people are continuing their education to improve their skills and the chances of getting a job, which is harder to do in a recession, so jobs in higher education—a countercyclical industry—may be increasing.

Global events such as an outbreak of war, the nationalization of a scarce natural resource, the price of a critical commodity such as crude oil, the collapse of a vital industry, and so on, may also cause changes in the global economy that affect job markets.

Another macroeconomic factor is change in technology, which can open up new fields of employment and make others obsolete. With the advent of digital cameras, for example, even single-use conventional cameras are no longer being manufactured in great quantity, and film developers are not needed as much as they once were. However, there are more jobs for developers of electronic cameras and digital applications for creating images and using digital images in communications channels, such as mobile phones.

A demographic shift can also change entire industries and job opportunities. A historical example, repeated in many developing countries, is the mass migration of rural families to urban centres and

factory towns during an industrial revolution. Changes in the composition of a society, such as the average age of the population, also affect job supply and demand. Baby booms create demand for more educators and pediatricians, for example, while aging populations create more demand for goods and services relating to elder care.

Social and cultural factors affect consumer behaviour, and consumer preferences can change a job market. Demand for certain kinds of products and services, for example—organic foods, hybrid cars, clean energy, and “green” buildings—can increase job opportunities in businesses that address those preferences. Changes in demand for a product or service will change the need for labour to produce it.

If you are entrepreneurial and intend to be self-employed, your job opportunities may be affected by the ease with which you can start and maintain a business. Ease of entry, in turn, may be affected by macro factors such as the laws and regulations in the province where you intend to do business and the existing competition in the market you are entering.

The labour market is competitive, not just at an individual level but on a global, industrywide scale. As transportation and especially communication technology has improved, many steps in a manufacturing or even a service process may be outsourced to foreign labour. That competition affects the Canadian job market as jobs are moved overseas, but it also opens new markets in developing economies. You may be interested in an overseas job, as Canadian companies open offices in Asia, South America, Africa, or elsewhere. Globalization affects job markets everywhere.

## Micro Factors of Your Job Market

Whether you are employed or self-employed, whether you look forward to going to work every day or dread it, employment determines how you spend most of your waking hours during most of your days. Employment determines your income and thus your lifestyle, your physical well-being, and to a large extent your emotional satisfaction. Everyone has a different idea about what a “good job” is. That idea may change over a lifetime as circumstances change, but some specific micro factors will weigh on your decisions, including your:

- abilities,
- skills,
- knowledge, and
- lifestyle choices.

**Abilities** are innate talents or aptitudes—what you are capable of or good at. Circumstances may inhibit your abilities or may even cause disabilities. However, you can often develop your abilities—and

compensate for disabilities—through training or practice. Sometimes you don't even know what abilities you have until some experience brings them out.

When Lori says she is “good with people” or when Skyler says that he is a “natural athlete,” they are referring to abilities that will make them better at some jobs than others. Abilities can be developed and may require upkeep; athletic ability, for example, requires regular fitness workouts to really be maintained. You also may find that you lack some abilities, or think you do because you've never tried using them.

Usually, by the time you graduate from high school, you are aware of some of your abilities, although you may not be aware of how they may help or hinder you in different jobs. Also, your idea of your abilities relative to others may be skewed by your context. For example, you may be the best writer in your high school, but not compared to a larger pool of more competitive students. Your high school or university career office may be able to help you identify your abilities and skills and apply that knowledge to your career decisions.

Your job choices are not predetermined by your abilities or apparent lack thereof. An ability can be developed or used in a way you have not yet imagined. A lack of ability can sometimes be overcome by using other talents to compensate. Thus, ability is a factor in your job decisions, but certainly not the only one. Your knowledge and skills are equally—if not more—important.

**Skills** and **knowledge** are learned attributes. A skill is a process that you learn to apply, such as programming a computer, welding a pipe, or making a customer feel comfortable making a purchase. Knowledge refers to your education and experience and your understanding of the contexts in which your skills may be applied.

Education is one way to develop skills and knowledge. In secondary education, a vocational program prepares you to enter the job market directly after high school and focuses on technical skills such as baking, bookkeeping, automotive repair, or building trades. A university preparatory program focuses on developing general skills that you will need to further your formal education, such as reading, writing, research, and quantitative reasoning.

Past high school or a year or two of college, it is natural to question the value of more education. Tuition is real money and must be earned or borrowed, both of which have costs. There is also the opportunity cost of the wages you could be earning instead. As mentioned in the introduction, financial education will help to build financial literacy and self-sufficiency among youth so that they can make the right financial choices when it comes to their education, make the most of their earnings, and avoid the heavy debt and financial challenges that many Canadians are currently experiencing.

“Education is so important,” explains Elder Kewistep. “With a degree it opens the door. If you go further, the door will open even more” (Elder Kewistep, Video 3).

However, education adds to your earning power significantly by raising the price of your labour.

The more education you have, the more knowledge and skills you have. The smaller the supply of labour with your particular knowledge and skills, the higher the price your labour can command. This relationship is the rationale for becoming specialized within a career. However, both specialization and versatility may have value in certain job markets, raising the price of your labour.

More education also confers more job mobility—the ability to change jobs when opportunities arise, because your knowledge and skills make you more useful, and thus valuable, in more ways. Your value as a worker or employee enables you to command higher pay for your labour.

Not only are you likely to earn more if you are better educated, but you are also more likely to have a job with a pension plan, health insurance, and paid vacations—benefits that add to your total compensation (Baum and Ma, 2007).

Your choices will depend on the characteristics and demands of a job and how they fit your unique constellation of knowledge, skills, personality, characteristics, and aptitudes. For example, your knowledge of finance, visual pursuit skills, ability to manage stress and tolerate risk, aptitude for numerical reasoning, enjoyment of competition, and preference to work independently may suit you for employment as a stockbroker or futures trader. Your manual speed and accuracy, verbal comprehension skills, enjoyment of detail work, strong sense of responsibility, desire to work regular hours in a small group setting, and preference for public service may suit you for training as a court stenographer. Your word fluency, social skills, communication skills, organizational skills, preference to work with people, and desire to lead others may suit you for jobs in education or sales. And so on.

**Lifestyle choices** affect the amount of income you will need to achieve and maintain your lifestyle and the amount of time you will spend earning income. Lifestyle choices thus affect your career path and job choices in key ways. Typically, when you are beginning a career and have few, if any, dependents, you are more willing to sacrifice time and even pay for a job that will enhance your skills and help you to progress along your career path. As a journalist, for example, you may volunteer for an overseas post; or as a nurse you may volunteer for extra rotations. As a computer programmer, you may assist in the development of open source software.

As you advance in your career, and perhaps become more settled in your life—for example, by starting a family—you are less willing to sacrifice your personal life to your career, and may seek out a job that allows you to earn the income that supports your dependents while not taking away too much of your time.

Your income needs typically increase as you have dependents and are trying to save and accumulate wealth, and then decrease when your dependents are on their own and you have accumulated some wealth. Your sources of income shift as well, from relying on income from labour earlier in your life to relying on income from investments later.

When your family has grown and you once again have fewer dependents, you may really enjoy fulfilling your ambitions, as you have decades of skills and knowledge to apply and the time to apply them. Increasingly, as more people retain their health into older age, they are working in

retirement—earning a wage to improve their quality of life or eliminate debt, turning a hobby into a business, or trying something they have always wanted to do. Your life cycle of career development may follow the pattern shown in Table 15.1.1.

**Table 15.1.1 Life Cycle Career Development**

Life Stage	Career Concerns
Exploration and establishment	Develop your skills, acquire knowledge, explore jobs, start earning income, gain experience
Growth	Advance your career, leverage knowledge and skills, increase earnings
Accomplishment	Achieve your goals, maximize earnings, build on success and reputation
Late career	Redirect knowledge and skills, contribute, mentor successors

Regardless of age, your lifestyle choices will affect your job opportunities and career choices. For example, you may choose to live in a specific geographic region based on its

- rural or urban location,
- proximity to your family or friends,
- differences or similarities to where you grew up,
- cultural or recreational offerings,
- political characteristics,
- climate, and
- cost of living.

Sometimes you may choose to sacrifice your lifestyle preferences for your ambitions, and sometimes you may sacrifice your ambitions for your preferences. It’s really a matter of figuring out what matters at the time, while keeping in mind the effect of this decision on the next one.

## Key Takeaways

1. Macroeconomic factors affect job markets, including:
  - economic cycles,
  - new technology or obsolescence,
  - demographic changes,
  - changes in the global economy,
  - changes in consumer preferences, and
  - changes in laws and regulations.
2. Job markets are globally competitive.
3. Microeconomic factors influence job and career decisions, including:
  - abilities or aptitudes,
  - skills and knowledge, and
  - lifestyle choices.
4. Microeconomic factors and income needs change over a lifetime and typically correlate with age and stage of life.
5. Job and career choices should realistically reflect income needs.

## Exercises

1. Record in your personal finance journal your work history and current thoughts about your future work life. What jobs have you held? In each job, what experience, knowledge, or skills did you acquire or develop? What are your future job preferences, and why do you prefer them? Do you have a planned career path? What potential advantages and opportunities do your preferences or plans offer? What potential disadvantages and costs may your preferences or plans entail?
2. Go online to find out the differences in definition between an occupation and a vocation, profession, trade, career, and career path. Which combination of concepts best describes the approach you plan to take to satisfy your needs for income from future employment?
3. In your personal finance journal, list your most important job skills, aptitudes, and preferences on which you plan to expand or build a career. Then list the specific job skills you feel you need to develop further through additional education or experience. How and where will you get those skills and at what cost? Next, describe the lifestyle you hope to support through income from future employment. What aspects of that lifestyle would be easiest for you to modify or sacrifice for your career or income goals?

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## 15.2 FINDING A JOB

### *Learning Objectives*

1. List and describe venues for finding job opportunities.
2. Explain the value of networking.
3. Trace the steps in pursuing a job opportunity, specifically your cover letter, resumé, and interview.
4. Identify the critical kinds of information that should be provided in a job offer.

A job search is a part of everyone's life, sooner or later. It may be repeated numerous times throughout your career. You may initiate a job search in hopes of improving your position and career or changing careers, or you may be forced into the job market after losing your job. Whatever the circumstances, when you look for a job you are seeking a buyer for your labour. The process of having to "sell" yourself (your time, energy, knowledge, and skills) is always revealing and valuable.

### Finding a Job Market

Before you can look for a job, you need to have an idea of what job market you are in. The same macro factors that you consider in your choice of career may make your job search easier or harder. Ultimately, they may influence your methods of searching or even your job choice itself. For example, as unemployment has increased in the wake of the most recent financial crisis, the labour market has become much more competitive. In turn, job seekers have become much more creative about advertising their skills—from broader networking to papering a neighborhood with brochures on windshields—and more accepting of job conditions, including lower compensation.

Knowing the job classification and industry name will focus your search process and make it more efficient. Once you understand your job market, look at the macro and micro factors that affect

it along with your personal choices. For example, knowing that you are interested in working in business, transportation, or the leisure and hospitality industry, you are ready to research these fields more and plan your job search accordingly.

You are looking for a buyer of your labour, so you need to find the markets where buyers shop. One of the first things to do is find out where jobs in your field are advertised. Jobs may be advertised in:

- networking websites such as LinkedIn,
- trade magazines,
- professional organizations or their journals,
- career fairs,
- employment agencies,
- employment websites,
- government websites,
- company websites, and
- your university's career development office.

Consider Sandy, for example, who is graduating with a bachelor's degree in administration and a certificate in hospitality, tourism, and gaming entertainment management from First Nations University of Canada. Her dream job is to work for a resort location. There are several websites and journals that provide useful information about the industry. They also list upcoming trade conferences that may be a good opportunity for Sandy to meet some people in the industry.

Browsing online, Sandy learns about a big job fair coming to her region, sponsored by a chamber of commerce and an economic development agency. This is her chance to meet recruiters in her industry and find out about actual opportunities. Each prospective employer will have a table, and Sandy will go from table to table, getting information, dropping off her resumé, and possibly setting up interviews.

She also plans to register with an employment agency that specializes in hotel management for smaller hotels and inns. The agency will screen her application and try to match her with appropriate jobs in its listings. For a specified time, it will keep her resumé on file for future opportunities.

Sandy's strategy includes posting her resumé on employment websites, such as Monster.ca, and Careerbuilder.ca. Browsing jobs online, Sandy discovers that there is a strong seasonal demand for hospitality workers at First Nations resorts and casinos in different locations throughout Canada, and this gives her an idea. If the right choice doesn't come up right away, maybe a summer job working for one of these resorts and casinos would be a good way to develop her knowledge and skills further while looking for her dream job in management.

Sandy needs to research destinations as well as businesses, and she wants to talk with people directly. She knows that cold calls—calling potential employers on the phone as a complete unknown—is the

hardest way to sell herself. In any industry, cold calling has a much lower success rate than calling with a referral or some connection—otherwise known as networking.

**Networking** is one of the most effective ways of finding a job. It can take many forms, but the idea is to use whatever professional, academic, or social connections you have to enlist as many volunteers as possible to help in your job search. LinkedIn is a business- and employment-oriented social networking service that is available online and via mobile apps. According to popular theory, your social networks can be seen as assets that potentially help you build opportunities and wealth. The number and positions of people you can network with and the economically viable connections you can have with them are a form of capital—that is, **social capital**. Another example of a networking group is the Aboriginal Government Employees' Network (AGEN) in Regina, Saskatchewan. This organization partners with, promotes, and supports workplace environments that are committed to the recruitment, retention, and advancement of Indigenous employees throughout Saskatchewan's government ministries, agencies, boards, commissions and Crown corporations. AGEN's vision is to provide a network that supports current and future Indigenous employees through personal and professional development while promoting Indigenous cultural awareness.

Word of mouth is a powerful tool, and the more people know about your job search, the more likely it is that they or someone they know will learn of opportunities. Sandy's strategy also includes joining online career networking sites, such as LinkedIn, and discussion lists for people in the hospitality industry. Sandy finds a helpful Yahoo! group called The Innkeeper Club and posts a query about what employers look for in a manager.

While Sandy was in university getting her degree and certificate in hospitality management, her best friend from high school was happily styling hair in a local salon. Sandy never thought to network through her friend, but it turns out that one of her friend's clients has a sister who helps to manage a First Nations casino and resort in central Saskatchewan, and they are thinking about hiring someone to manage their hotel. Her friend passed along her name and resumé to her client's sister and she has an interview in a week.

That's how networking works—you just never know who may be helpful to you. The obvious people to start with are all the people that you know: former professors, former employers, friends, family, friends of family, friends of friends, family of friends, and so on. The more people you can talk with or send your resumé to (i.e., the more people you can impress), the greater the chances that someone will make an offer.

Another good networking strategy is to call or email people working in the industry, especially individuals who are currently in or just above the position you'd like to have, and ask to talk with them about their work. If you make it clear that you are not asking for or expecting a job offer from them, many people will be happy to take a half hour to discuss their jobs with you. They may have valuable tips or leads for you or be willing to pass along your name to someone else who does.

## Selling Yourself: Your Cover Letter and Resumé

To get a job you will have to convince someone who does not know you that you are worth paying for. You have an opportunity to prove that in your cover letter and resumé and again in your interview.

The **cover letter**, whether mailed or emailed, is your introduction to your prospective employer. You have three paragraphs on one page to briefly introduce yourself and show how you can make a profitable contribution to the company. The objective of the cover letter is to get the reader to look at your resumé with a favourable impression of you created by the letter.

Your first paragraph should establish your purpose in making contact, the reason for the letter. You should make it clear what job you are applying for and why you are making this particular contact. If someone referred you, mention him or her by name. If you met the addressee previously, remind him or her where and when that was—for example, “It was great to chat with you at the Jobs Fair in Saskatoon last week.” The more specifically you can identify yourself and separate yourself from the pool of other job seekers, the better.

The second paragraph of your cover letter should summarize your background, education, and experience. All this information is on your resumé in more detail, so this is not the place to expound at length. You want to show briefly that you are qualified for the position and have the potential to make a contribution.

Your third paragraph is your opportunity to leave the door open for further communication. Make it clear where and how you can be reached and how much you appreciate the opportunity to be considered for the position.

The **resumé**—the summary list of your skills and knowledge—is what will really sell you to an employer, once you have made a good enough impression with the cover letter to get him or her to turn the page. A good resumé provides enough information to show that you are willing and able to contribute to your employer’s success—that it is worth it to hire you or at least to talk to you in an interview.

List the pertinent facts of where and how you can be reached: address, phone number, and email address. Your qualifications will be mainly education and experience. List any degrees, certificates, or training you have completed after high school. Be sure to include anything that distinguishes your academic career, such as honours, prizes, or scholarships.

List any employment experience, including summer jobs, even if they don’t seem pertinent to the position you are applying for. You may think that being a camp counsellor has nothing to do with being a radiology technician, but it shows that you have experience working with children and parents, have held a position where you are responsible for others, and that you are willing to work during your school breaks, thus showing ambition. If you are starting out and can’t be expected to have lots of employment experience, employers look for hints about your character—things like ambition, initiative, responsibility—that may indicate your success working for them.

Internships and co-op terms that you did in university or high school are also impressive, as they show your willingness to go beyond the standard curriculum and learn by working—something an employer will expect you to continue to do on the job too. While you are in school, you should recognize the value added by experiential learning and the positive impression that it will make. An internship or co-op term can also give you a head start in networking if your supervisor will be a good reference or source of contacts for you. The internship may even result in a job offer; you may not necessarily want to accept it, but at the very least, having an offer to fall back on takes some of the pressure off your search.

For each job, be clear about the position you held and the two most important duties or roles you performed. Don't go into too much detail, however; the time to expand on your story is in the interview.

If you have done internships or volunteer work, or if you are a member of civic or volunteer organizations, be sure to list those as well. They are hints about you as a person and may help you to stand out in the pool of applicants.

A common mistake is to list too much extra information on your resumé and to focus too much on what you want—for example, by stating an objective such as “to obtain a great position in hotel management.” Your employer cares about what you can do for the company, not for yourself. The following are some tips for developing your resumé:

- Avoid adjectives or adverbs when describing your past performance. If you were an achiever in school, that will be reflected in your grades, degrees, honours, and awards. “Hype” can sound boastful; besides, you can discuss your performance in detail at the interview.
- Be honest and state your case without exaggeration. It is easier than ever for employers to check on your history, and they will. Falsification of information on your resumé may become grounds for dismissal if you are hired.
- Don't include personal details unless they are strongly relevant to the job you are seeking. Employers typically do not want to know that you love dogs or were raised in Singapore.
- Be correct. Proofread your resumé and have someone else proof it as well. This is your opportunity to make a good impression. Any error indicates not just that you made an error, but that you are sloppy, lazy, or willing to let your work go public with errors.
- Keep it to one page, if possible. Employers are typically looking at many resúmes to fill one position, so make it easy and quick for the reader to see how qualified you are.

A myriad of sample resúmes and sample cover letters may be found online, but be wary of templates that may not fit you or your prospective job. Employers in your field may have particular expectations for what should be on your resumé or how it should be structured. Maybe you should list your skills or perhaps your education first. Perhaps it would be preferable to list your past employment experiences in reverse chronological order (with your most recent job first). Advice about how to

write a resumé is plentiful, but there is no one right or best way. Choose an appropriate style and format for your job category that will present you in the best possible light as a prospective employee.

Many employers want you to fill out an application form independently of or instead of a resumé. They may also ask for references, especially from former employers who are willing to recommend you. Be aware that hirers and human resources department personnel routinely follow up on references and letters of recommendation. Read the article “How to Fill Out a Job Application” on [thebalancecareers.com](http://thebalancecareers.com) to find out more about filling out employment applications.

There are also many resources available in print and online to help you write a good resumé.

## **Selling Yourself: Your Interview**

The interview—a face-to-face conversation with a prospective employer—is your chance to get an offer. You want to make a good personal impression: dress professionally but in clothes that fit well and comfortably; be polite and cordial but also careful not to assume too familiar a tone.

You may be asked a series of predetermined questions, or your interviewer may let the conversation develop in a more open-ended manner. The interviewer may let you establish its direction in order to learn more about how you think. But however the conversation is guided, you want to be able to showcase your suitability for the job and what you bring to it.

Table 15.2.1 identifies some questions employers commonly ask in job interviews.

**Table 15.2.1 Questions Prospective Employers Commonly Ask**

Tell us a little about yourself and what brings you here today. Why did you leave your last job?
Why do you want this job? What do you know about us? Why do you want to work for us?
How does your education/background/experience make you a good fit for this job? Why do you think you're the best person for the job? What qualities and skills can you bring to the job?
Do you feel you have strong communication skills/technology skills/writing skills (etc., as relevant)?
What can you do for our company? How will you be an asset to us? How can you help us improve our efficiency/productivity/products/services/bottom line (etc., as relevant)?
What are your career goals? Where do you see yourself in five years' time?
Are you a team player? Have you had much experience working as part of a team? What was your contribution to the team? What were the results of the team effort?
What are your strengths and weaknesses? What successes and failure have you experienced in your career so far?
How would you handle a situation in which ...? What would you do if ...? Have you ever had a problem with ...?
What is your ideal job? What qualities do you look for ideally in a position/company/boss/coworker?

Be prepared for interviewers who prefer to focus on general behavioural questions rather than on job-specific questions. **Behavioural interviews** emphasize your past actions as indicators of how you might perform in the future. The so-called STAR Method is a good approach to answering behavioural questions, as it helps you to be systematic and specific in making your past work experiences relevant to your present job quest. The **STAR Method** is a process of conveying specific situations, actions, and outcomes in response to an interviewer's question about something you did.

- **Situation:** Give specific details about the situation and its context.
- **Task:** Describe the task or goal that arose in response to the situation.
- **Action:** Describe what you did and who was involved.
- **Result:** Describe the (positive) outcome. (Reeves, 2009)

For example, a typical behavioural interview may include the following exchange:

*Question:* We are looking for someone who is willing to take initiative in keeping our office systems working efficiently and who can work without a lot of direct supervision. Does that describe you?

*Answer:* Absolutely. For example, in my last job I noticed that the office supply system was not working well. People were running out of what they needed before letting me know what to order (**Situation**). I thought there needed to be a better way to anticipate and fill those needs based on people's actual patterns of use (**Task**). So, I conducted a poll on office supply use and used that information to develop a schedule for the automatic resupply of key items on a regular basis (**Action**). The system worked much more smoothly after that. I mentioned it in my next performance review, and my boss was so impressed that she put me in for a raise (**Results**).

There are some questions employers should *not* ask you, however. Unless the information is a legal requirement for the job you are interviewing for, antidiscrimination laws make it illegal for an employer to ask you your age; your height or weight; personal information such as your racial identity, sexual orientation, or health status; or questions about your marital status and family situation, such as the number of children you have, whether you are single, or if you are pregnant or planning to start a family.

It is also important for you to prepare a few questions that you can ask your interviewer. They could be about the company's products or services, the company's mission or goals, the work you would be doing, who you would be reporting to, where you would be located, and the opportunities for advancement. You want your questions to be specific enough to show that you have already done some research on the company, its products, and markets. This is a chance to demonstrate your knowledge of the job, company, or industry—in other words, that you have done your homework—as well as your interest and ambition.

Unless your interviewer mentions compensation, don't bring it up. Once you have the job offer, then you can discuss compensation, but in the interview you want to focus on what you can do for the company, not what the company can do for you.

You can also use the interview to learn more about the company. Try to pick up clues about the company's mission, corporate culture, and work environment. Are people wearing business attire or "business casual"? Are there cubicles and private offices or a more open workspace? Are people working in teams, or is it more of a conventional hierarchy? You want to be in a workplace where you can be comfortable and productive. Be open-minded—you may be able to work quite well in an environment you have never worked in before—but think about how you can do your best work in that environment.

After your interview, send a thank-you note, and follow up with a phone call if you don't hear back. You may ask your interviewer for feedback—so that you can learn for future interviews—but don't be surprised (and be gracious) if you don't get it. Always leave the door open. You never know.

## Accepting an Offer

A job offer should include details about the work you will be performing, the compensation, and the opportunity to advance from there. If any of that information is missing, you should ask about it.

In many jobs—especially in entry-level positions—you may be asked to do many things, so the job description may be fairly vague. Your willingness to do whatever is asked of you (within the law and according to ethical standards) should be compensated by what you stand to gain from the job—in pay or in new knowledge and experience or in positioning yourself for your next job. Some jobs are better looked at as a kind of graduate education.

Your **compensation** includes not only your wages or salary, but also any benefits that the employer provides. As you read in previous chapters, benefits may include health and dental insurance, disability insurance, life insurance, and a retirement plan. Compensation also includes time off, sick days, and vacation days. You should understand the company's policies and flexibility in applying them.

Know what your total compensation will be and whether it is reasonable for the job, industry, and current job market. Asking around may help, especially in online discussion groups with relative anonymity. People are often reluctant to disclose their compensation, and companies discourage sharing this information because it typically reveals discrepancies. For example, people hired in the past may be receiving less (or more) pay than people hired recently for the same position. In addition, the gender gap—in which men receive higher pay than women in the same position—is often a problem.

To gauge how reasonable a job offer is, you can look at the research on pay scales or find statistical averages by profession or region collected by various professional associations. Online resources include simple salary comparison calculators, such as the one at [salary.com](http://salary.com). You will also find data and related articles linking salaries to specific job titles, area codes, provinces, educational levels, and years of work experience on websites such as PayScale.

Realistically compare the job offer to your needs. Different geographic areas have different costs of living, for example, so the same salary may afford you a very different lifestyle in Regina than in Vancouver. Your employment compensation is most likely an important source—perhaps your only source—of income. That income finances your plan for spending, saving, and investing. A budget can help you to see if that income will be sufficient to meet your financial goals. If you already have financial responsibilities—student loans, car loans, or dependents, for example—you may find that you can't afford the job.

You can negotiate your compensation offer; many employers expect you to try, but some will just stand by their offer—take it or leave it. Your ability to negotiate depends in part on the number of candidates for that particular job and how quickly the employer needs to fill it. You will find guidelines

online for evaluating job offers and negotiating your compensation, as well as a simple “Job Offer Checklist,” on the CollegeGrad webpage Job Offer Negotiation.

In some cases, your employer may offer you a contract, a legal agreement that details your responsibilities and compensation and your employer’s responsibilities and expectations. As with any contract, you should thoroughly understand it before signing. If you will be employed as a member of a trade or labour union under a **collective bargaining** agreement, the terms of the contract may be applicable to all union members and therefore not negotiable by individual employees.

It is exciting to get a job offer, but don’t let the excitement overwhelm your good sense. Before you accept a job, you should be sure that you can live with it. You never really know what a job is like until you start, but it is better to go into it optimistically. When you are just starting a career or trying one out, it is most important to be able to learn and grow in your job, and you may have a period of “paying your dues.” But if you are really miserable in a job, you won’t be able to learn and grow, no matter how “golden” the opportunity is supposed to be.

### *Key Takeaways*

1. Venues for finding jobs include:
  - trade magazines,
  - professional organizations or their journals,
  - career fairs,
  - employment agencies or “headhunters,”
  - employment websites,
  - company websites,
  - government websites, and
  - your university’s career development office.
2. Networking is a valuable way to expand your job search.
3. Selling your labour to a prospective employer usually involves sending a cover letter and resumé, filling out an application form, and/or having an interview.
  - The cover letter should get a prospective employer to read your resumé.
  - The resumé should get the employer to offer you an interview.
  - The interview should get the employer to offer you the job.
4. A job offer includes information on the job, compensation (including benefits), and opportunities for advancement.
5. Accepting a job offer may involve:
  - evaluating the offer in relation to your needs,
  - examining a job contract, or
  - negotiating the compensation.

## Exercises

1. In what sector of the economy or in what industry will you seek a job or develop your career? Record or chart your thoughts in your personal finance journal. What are the reasons for your choices? What education, knowledge, skills, aptitudes, preferences, and experiences do you bring to them?
2. In your personal finance journal, list all the individuals and groups you can think of to tell about your job search or career development quest. Include their contact information. Write a message you could adapt, as needed, for each audience to send when you are ready. Then go online to research other individuals and groups you could include in your networking or could go to for more information about job opportunities.
3. Write or revise your resumé and draft a general cover letter you could adapt for different job openings. Network with classmates to get critiques and ideas for clarifying or improving these tools to attract a prospective employer. What other supporting documents could you include in your job application?
4. How will you prepare for a job interview? Read “In a Near-Death Event, a Corporate Right of Passage,” a *New York Times* interview with John Chambers the CEO of Cisco Systems, about corporate leadership and recruitment.
5. Anticipate the questions you may be asked in an interview. For example, what could you say in a behavioural interview? For edification and fun, collaborate with classmates to do mock job interviews. Videotape your interviews. As an employer, would you hire yourself? What interviewing preparations and skills do you think you need to work on?

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## 15.3 LEAVING A JOB

### *Learning Objectives*

1. Describe the processes of voluntary job loss.
2. Describe the processes of involuntary job loss.
3. Identify the financial impacts of an involuntary job loss.
4. Identify major federal legislation that addresses employment issues and describe its importance in labour markets.

Statistically, it is almost impossible for you to expect to have one job or career for your entire working life. At least once, and possibly many times, you will change jobs or even careers, in which case you will have to leave your current or former job and find another. Handling that transition can be difficult, especially if the transition is not what you would have preferred. How you handle that transition may affect your success or satisfaction with your next position.

You may leave your job voluntarily or involuntarily. When you leave voluntarily, presumably you have had a chance to make a reasoned decision and have decided that the net benefits of moving on are more than the net benefits of staying.

### Leaving Voluntarily

You may wish to leave a job and move to another in order to:

- move to a position with more responsibility, opportunity to advance, or compensation;
- be in a more compatible work environment or corporate culture;
- learn a new skill;
- become self-employed by beginning an entrepreneurial venture; or
- make a transition from a military to a civilian job.

In other cases, you may leave employment permanently or temporarily because you wish to:

- further your education;
- assume family care, for example of a child or parent;
- take time off for recreation; or
- retire.

Whatever your motivation for leaving your job, your decision should make sense; that is, it should be based on a reasoned analysis of how it will affect your life. If you have dependents, you will have to consider how your decision may affect their lives too.

Since your job is a source of income, leaving your job means a loss of that income. You need to consider how you can maintain or change your current use of income (i.e., your spending and saving levels) with that loss.

If you are changing jobs, your new job will replace that income with new income that is more than, equal to, or less than your old paycheck. If it is equal to or more than your former income, you may maintain or even expand your spending, saving, and investing activities. Extra income will provide you with more choices of how to consume or save. If it is less than your former income, you will have to decrease your spending or saving to fit your current needs. Your budget can help you foresee the effects of your new income on your spending and saving.

If you are leaving employment, then there will be no replacement income, so your spending and saving activities should reflect that loss, unless you have an alternative source of income to replace it. If you are going on to graduate school, perhaps you have a fellowship or scholarship. If you are assuming family care responsibilities, perhaps another family member has offered financial support. If you are retiring, you should have income from invested capital (e.g., your retirement savings) that can be used to replace your wages or salary.

If you are initiating the job change, be sure you try to cause the least disruption and cost to your employer. Let your employer know of your decision as soon as it is practical, and certainly before anyone else in the company knows. Two weeks' notice is the convention, but the more notice you can give, the less inconvenience you will cause. Offer to help train your successor or be available to provide information or assist in the transition. The more cordially you leave your job, the better your relationship with your former employer will be, which may reflect well on you in future networking.

If you participated in a defined contribution retirement plan, you own those funds to the extent that you are vested in your employer's contributions and have contributed your own funds. You can leave those funds as they are invested, or you can transfer them to your new job's plan and invest them differently. There may be some time limits to doing so, and there may be tax considerations as well, so be sure you consult with your former employer and understand the tax rules before moving any funds.

The decision to leave a job and perhaps to leave employment means leaving non-income benefits that can create opportunity costs, including:

- intellectual or emotional gratifications of the work,
- enjoyment of your colleagues, and
- opportunities to learn.

If you have had a negative work experience, leaving may allow you to reduce boredom, eliminate job dissatisfaction, end conflict, avoid unwanted overtime, or reduce stress, but these are reasons for leaving a job that you probably should not share with a new or prospective employer.

As you can see, many micro and macro factors may enter into a decision to leave a job. You spend many of your waking hours working, and deciding to change jobs is about much more than just income. But it is still a decision about income, so you should carefully weigh the effects of that decision on your financial well-being.

## Leaving Involuntarily

If you leave your job involuntarily, you will have to make adjustments for a loss of income that you were not planning to make. That may be difficult, but not necessarily as difficult as you think.

Involuntary job loss may be due to your employer's decision, an accident or disability, or unexpected circumstances such as the acquisition, merger, downsizing, or closing of the company you work for. Your employer also may decide to lay you off or fire you. A layoff implies a temporary job loss due to a circumstance in which your employer needs or can afford less labour.

If the layoff is due to an economic recession when there is less demand for the product you create, then it may be affecting your entire industry. That would mean you would have a harder time finding a similar job. If layoffs are widespread enough, however, there may be federal, provincial, or local government programs aimed at helping the many people in your situation, such as a retraining program or temporary income assistance.

You may get laid off because your employer is no longer as competitive or profitable and so has to cut costs, or because the company has lost financing. If the layoffs are specific to your employer, you may be able to find a similar position with another company or you may be able to establish your own competitive business in the same industry.

When you are fired, the employer permanently terminates your employment based on your performance. **Involuntary termination**, or getting fired, will cause a sudden loss of income that usually requires sudden adjustments to spending and saving. You may have to use your accumulated savings to finance your expenditures until that income can be replaced by a new job.

An injury or illness—to you or a dependent—may create a temporary or permanent involuntary job loss. It usually also means a period of unemployment. Depending on the circumstances, your employer may be willing to help ease the transition, perhaps by offering you a more flexible schedule, adjusting your responsibilities, or providing specialized equipment to enable you to do a job.

By law, employers may not discriminate against people with disabilities so long as they are able to do

a job. A **job accommodation** is any reasonable adjustment to a job or work environment that makes it possible for an individual with a disability to perform or continue to perform job duties.

If you become disabled and unable to work, you may be able to replace some or all of your wage income with insurance coverage, if you have disability insurance that covers the specific circumstances (as discussed in Chapter 10 “Personal Risk Management: Insurance”). If your disability is permanent, you may qualify for federal assistance through the Canada and Quebec Pension Plans. Workers’ compensation plans are also available in each province and territory; these plans provide medical, financial, and rehabilitative assistance to workers who have a disability due to a work-related accident or illness. Some employers also provide disability income protection for their employees through group insurance plans. Medical insurance policies include disability coverage; the extent of one’s coverage is dependent on the cost of one’s premium, the insurance company, and policy details. Provincial governments and territories also have social programs that provide some insurance against disability (Kapoor et al., 2015). If someone else is liable for your disability, in the case of an accident or through negligence, his or her insurance coverage may provide some benefit, or you may have a legal claim that could provide a financial settlement.

If your employer initiates your job change, be sure to discuss his or her obligations to you before you leave. Some employer responsibilities are prescribed by law. Other responsibilities are prescribed by union contract, if applicable, and some are conventions or courtesies that your employer may—or may not—choose to extend.

**Severance** is compensation and benefits offered by your employer when you are laid off. Under Canadian federal law, “an employee has the right to collect severance pay if they have completed at least 12 consecutive months of continuous employment before their layoff or dismissal resulted in a termination of employment. They are entitled to two days’ regular wages for each full year that they worked for the employer before their termination of employment. The minimum benefit is five days’ wages” (Employment and Social Development Canada, 2017). Your employer is also not required to “pay” for your remaining sick days or vacation days or to extend your benefits, including retirement contributions or life insurance, unless specified in a contract.

## Employment Protection

Federal and provincial laws govern relationships between employers and employees. A large part of employment law addresses hiring and firing issues as well as working conditions. You should be familiar with the laws that apply where you work (as they differ by province and sometimes by county) so that you understand your responsibilities to your employer.

Workers can sue a company for **wrongful discharge**—that is, for being fired for any reason barred by an employment law. Employers often seek to protect themselves from suits by requiring terminated employees to sign a form releasing the company from liability.

Companies have ethical standards for dealing with the hiring and firing of employees, but they may also have informal practices for encouraging unwanted employees in good standing to leave. Employment laws cannot protect workers against some unethical practices, but they have clauses that prohibit **retaliation** against employees who invoke those laws or enlist government assistance to enforce them. The laws also protect **whistleblowers** who report employer infractions to government authorities.

The federal government provides employment insurance through the Employment Insurance program to employees who lose their jobs through no fault of their own (Government of Canada, 2016). You must meet eligibility requirements to qualify, and the benefits are limited, although they may be extended in certain circumstances.

Your job and eventually your career will play many roles in your life. It will determine how you spend your time, who you spend your time with, where you live, and how you live. It will probably be a primary determinant of income and therefore of how much you can spend, save, and invest. How you chose to spend, save, and invest is up to you, and your financial decisions can have far-reaching consequences. The more you know and the more you understand, the more you can make decisions that can allow you to realize your dreams.

### *Key Takeaways*

1. You can expect to leave a job at least once in your career.
2. You can leave a job voluntarily or involuntarily.
3. You may leave voluntarily to change jobs or to leave employment, temporarily or permanently.
4. You may leave a job involuntarily through a layoff, disabling accident or injury, or firing.
5. Leaving a job involuntarily means a sudden loss of income.
6. Involuntary job loss may be compensated with severance and/or employment insurance.
7. Federal, provincial, and local laws address employment issues, including hiring, working conditions, compensation, and dismissal. These laws exist to protect workers.

### *Exercises*

1. What do you look for in a job? Record in your personal finance journal the characteristics of a job

that you value most when seeking a job and the characteristics that bother you the most or would cause you to consider leaving a job voluntarily. Take an online job satisfaction survey or collaborate with classmates to develop questions for a job satisfaction survey that you can administer to other students. What do you find are the top ten characteristics of a great job offering a lot of job satisfaction?

2. View the following list of reasons for leaving a job at <https://www.thebalancecareers.com/reasons-for-leaving-a-job-2061664>.

Have you ever cited one of those reasons as the reason you left your job? For each item on the list, brainstorm with classmates why it would or would not be useful to use such a reason in a job interview. What does the item say about you as a worker or as an employee?

3. Record in your personal finance journal the outcome of every job you have held. For each job, have a column for listing your reason(s) for taking it and another column listing your reason(s) for leaving it. Also, note what you liked most and least about each job. Do you notice any patterns emerging in the data about your job history? Is there anything about those patterns that you would like to change?

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# Video Interviews with Elders

In order to incorporate Indigenous world views and perspectives into this textbook, eight Elders from FNUniv were interviewed during 2017 and 2018. For quick identification and access, the full set of interviews with Elders is listed below, along with a brief explanation of the focus of each interview.

NOTE: *The following Elder videos are the copyright of each interviewee and licensed under a CC BY-NC-SA 4.0 International License. Include the name of the Elder, title of the interview, and license, when referencing these videos. The video interviews with Elders were produced by Terry Massey, Strictly Social.*

## **Elder Willie Ermine PhD**

1. A. *“A Culture of Sharing” (1:28)*



B. *“Counter-narrative: The importance of the giveaway” (3:32)*



2. *“Giving what you treasure to get what you need” (1:02)*



3. *“Indigenous values: The stigma of hoarding” (1:03)*



## **Elder Florence Allen**

1. *“Planning for the unexpected” (4:08)*



## **Elder Gilbert Kewistep**

1. *“Planning for future generations” (0:47)*



2. *“The role of history and the effect of the Indian Act” (1:34)*



3. *“Importance of post-secondary education” (0:42)*



**Elder Audrey Cochrane**

1. *“Raising grandchildren and the ways of living on the land” (2:26)*



2. *“The importance of sharing with community” (0:46)*



**Elder Margaret Reynolds**

1. *“Financial self-sufficiency through self-employment”* (1:49)



2. *“Reusing and saving”* (1:45)



3. *“The value of money”* (0:27)



4. *“Money management and sharing” (1:10)*



5. *“The value of giving money to family in need” (0:48)*



6. *“Money as a sickness” (1:17)*



7. *“The role of mutual and trust funds in caring for grandchildren” (0:36)*



**Elder Rose Bird**

1. *“Financial autonomy: the effect of colonization and the residential school system” (4:26)*



2. *“Learning how to budget” (2:47)*



3. *“Lessons learned from family” (0:23)*



4. *“Saving for emergencies” (0:22)*



**Elder Norma Jean Byrd**

1. *“Introduction” (1:14)*



2. *“Value of money and saving” (0:32)*



3. *“Gardening, meat and root cellars” (0:32)*



4. *“Importance of a will” (0:50)*



5. *“Indigenous people living off the land” (0:42)*



6. *“Housing and clothing as a child” (1:30)*



**Elder Millie Anderson**

1. *“Introduction” (4:19)*



2. “Banks/First paycheque” (0:56)



3. “Beading” (2:12)



4. “Learning how to manage money” (1:38)



5. *“Living off the land”* (1:25)



6. *“Savings”* (1:06)



# Modifications made to Personal Finance

## General modifications

- Removed Chapter 13 “Behavioral Finance and Market Behavior” from the original version
- Removed Chapter 14 “The Practice of Investment” from the original version
- Updated all sections with Canadian content and spelling, and revised narratives (examples) to reflect a Canadian readership
- Added Indigenous content throughout the text, including perspectives and information derived from Elder interviews
- Updated information in tables and relevant examples
- Transferred manuscript into Pressbooks and recreated tables in the Pressbooks table template in order to adapt and customize this textbook for different courses and audiences
- Combined the chapters on bonds and mutual funds into one chapter
- Replaced US-based financial information with relevant Canadian content throughout the textbook
- Removed some exercises and adapted numerous others at the end of each chapter section in order to ensure the relevant Canadian resources were included
- Added new tables to reflect the Canadian financial and economic system
- Revised sections of Chapters 1, 4, 5, 6, 7, 9, 10, and 11
- Replaced endnotes with Chicago reference style

## Front Matter

- Created a new cover, title page, and revised the book title to better reflect the audience and aim of this adapted textbook
- Added a new preface and author introduction
- Added Elder interviews
- Created a table of contents

## Chapter 1

- Updated information on financial advisors and references to professional organizations for a Canadian context, including Table 1.4.1 “References to Professional Organizations”

- Modified the discussion on employment and participation rates
- Replaced US-specific tables with Canadian content

## Chapter 2

- Added Indigenous perspectives on the basics of personal finance and the importance and development of financial literacy
- Modified exercises to include Canadian content

## Chapter 3

- Added information from the Financial Consumer Agency of Canada on the key components of financial planning and options for personal finance planning software

## Chapter 4

- Added time value of money exercises to build student confidence in basic math equations
- Modified some of the language explaining the time value of money

## Chapter 5

- Enhanced content with Indigenous perspectives on budgeting and saving money

## Chapter 6

- Significantly adapted the chapter to focus on the Canadian tax system, including a detailed review of tax jurisdictions, tax brackets, and taxation with regard to Indigenous peoples

## Chapter 7

- Updated information on the Canadian banking system and institutions
- Added information on Indigenous banking and financing
- Enhanced content with information on Indigenous traditional resource management practices
- Added information on Canadian savings instruments
- Updated the section on credit—kinds, cost, and use of credit, credit ratings, credit troubles and protection, insolvency—with Canadian content
- Updated the section on debt—uses (student loans), risk (interest rates), and cost—with Canadian content

## Chapter 8

- Added information on federal, provincial, and territorial consumer affairs offices throughout Canada
- Updated information on consumer scams and how to protect yourself with facts from the Canadian Competition Bureau
- Added information on purchasing and financing a car in Canada

## Chapter 9

- Enhanced the benefits and drawbacks analysis on renting versus home ownership
- Added an overview of the Canada Mortgage Housing Corporation
- Added an explanation of the importance of determining one's gross debt service and total debt service ratios when considering the purchase of a home and inserted links to convenient online calculators (e.g., a mortgage calculator)
- Added information on the mortgage pre-approval and qualifying process
- Replaced US-specific tables with Canadian content
- Added a standard home inspection checklist
- Added content on financing the purchase of a home in Canada
- Added Canadian content to, and expanded on certain terminology in, the section on monthly mortgage payments
- Added information on housing for Indigenous peoples in Canada

## Chapter 10

- Added information on risk management, risk avoidance, risk reduction, and risk assumption
- Outlined the different Indigenous insurance companies and insurance companies in Canada that serve primarily First Nations clients
- Added information on tenant's insurance
- Adapted for Canadian health insurance, auto insurance, and life insurance

## Chapter 11

- Added Canadian content on projecting needs and estimating expenses with regard to retirement planning
- Introduced defined benefit and contribution plans in Canada
- Added discussion of public pensions in Canada and personal retirement plans (e.g., RRSPs, TFSAs)
- Updated information on wills and estate planning, trusts and gifts, with Canadian content

## Chapter 12

- Added a section on creating an investment climate to support the growth of Indigenous entrepreneurs and businesses
- Added information on socially responsible investing

## Chapter 13

- Added Canadian content on stocks and exchanges

## Chapter 14

- Identified and described various Canadian federal, provincial, and municipal government bonds and mutual funds

## Chapter 15

- Revised career planning and job search scenarios with Canadian examples
- Revised information on employment protection and voluntary or involuntary job loss with Canadian content
- Enhanced chapter content with information on Indigenous employment networks

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