# Chapter 1

# An Introduction to Money and the Financial System

**Chapter Overview**

Chapter 1 introduces students to the five parts of the financial system and to the five core principles that will be used throughout the text as each topic is covered. The organization of the text is also discussed.

Learning Objectives: Establish an understanding of

* The parts of the financial system
* The core principles of money and banking
* Special features and organization of the book

**Important Points of the Chapter**

This section of the instructor’s manual will highlight key points made in each chapter; these may be the “big questions” (and their answers) raised in the chapter introduction, or may be “timeless lessons” that students will use well into the future.

**Application of Core Principles**

A key feature of the text is the distillation of 5 core principles, which are defined in this chapter and used as organizing themes throughout the rest of the book. While the 5 principles will be fully treated in the chapter outline below, it is worth listing them here; they are:

1. **Time has value.**
2. **Risk requires compensation.**
3. **Information is the basis for decisions.**
4. **Markets determine prices and allocate resources.**
5. **Stability improves welfare.**

Students and instructors should look for the icons in the text that signal that a core principle is being applied.

**Teaching Tips/Student Stumbling Blocks**

* Students should note that they will be asked to apply the core principles to different topics; see the problems at the end of this chapter for examples.
* You may wish to present the list of five core principles often in your presentations.
* It also might be helpful for students to create a reference list of the five core principles and keep it in a handy spot; the inside front cover of their class notebook, perhaps.
* It will be helpful to find out if the students in your class have already taken statistics or not; it will help you plan how you will cover Chapter 5 (which includes discussion of concepts like the mean, expected value, variance, and standard deviation).
* Have students use a spreadsheet to keep track of the purchases they make in a week, indicating the types of transactions, amounts, and methods of payment. Collect and, if possible, combine the spreadsheets to point out trends or patterns. For example, does method of payment change with size of transaction? Is cash used more often by some students than others (due to, for example, whether or not the person lives on campus)?

**Features in this Chapter**

This instructor’s manual will provide, on a chapter-by-chapter basis, brief summaries (and page references) for the four types of inserts found in the chapters of the text. The four types of inserts (and their general descriptions) are:

* *Your Financial World*: These inserts provide basic guidelines for applying economic theory to the bread-and-butter financial decisions that you make nearly every day.

The first “Your Financial World” insert appears in this chapter. Titled “Guard Your Identity,” it explains how little personal information thieves need to steal someone’s identity. Students are also urged to check their financial statements for unfamiliar charges or cash withdrawals. Finally, information is provided about government resources to help prevent identity theft.

* *Applying the Concept*: These inserts show how to put theory into practice and provide real-world examples of the ideas introduced in the chapter (drawn primarily from history or from relevant public policy debates).
* *In the News*: Each chapter closes with an article drawn from the financial press in order to provide practice in reading the financial news and to help develop an understanding of the daily financial news. Each is followed by a brief summary that points out the lesson(s) of the article.
* *Tools of the Trade*: Many chapters include these inserts that may concentrate on practical knowledge relevant to the chapter, or provide brief reviews of basic economics needed for understanding something in the chapter, or which address specific questions.
* *Lessons from the Crisis:* These inserts cover episodes from the financial crisis of 2007-2009 to give a frame-work for understanding the crisis and to highlight the relevance and power of the ideas in the book.

**Additional Teaching Tools**

Each chapter of this instructor’s manual will provide suggestions for other materials that can be used to illuminate the topics covered in the chapter, usually a current events topic or issue of interest to students.

**Virtual Tools**

Each chapter of this instructor’s manual will provide suggestions for websites that provide more information on the topics covered in the chapter or which are good sources of data or other relevant materials.

**For More Discussion**

Each chapter of this instructor’s manual will provide suggestions for questions that can be raised to provoke class discussion on the topics covered in the chapter.

# Chapter Outline

## I. The Five Parts of the Financial System

## The financial system has five parts, each of which plays a fundamental role in our economy. The parts are:

### Money: used to pay for purchases and store wealth.

### Financial instruments: used to transfer resources from savers to investors and to transfer risk to those best equipped to bear it.

### Financial markets: allow us to buy and sell financial instruments quickly and cheaply

### Financial institutions: provide a myriad of services, including access to financial markets, and collect information about prospective borrowers to ensure that they are creditworthy.

### Government regulatory agencies: responsible for making sure that the elements of the financial system operate in a safe and reliable manner.

### Central banks: monitor and stabilize the economy.

## While the essential functions of these five categories endure, their physical form is constantly evolving.

### Money has evolved from coins to paper money to today’s electronic funds transfers.

### Financial instruments: where once investing was an activity reserved for the wealthy, today’s small investors have the opportunity to purchase shares in “mutual funds.”

### Financial markets have evolved from trading places to electronic networks. Transactions are cheaper and markets offer a broader array of financial instruments than were available even 50 years ago.

### Financial institutions: Today’s banks are more like financial supermarkets offering a huge assortment of financial products and services for sale.

### Regulations: Dodd Frank Wall Street Reform and Consumer Protection Act is largest regulatory change since the 1930s.

### Central banks: what had been government treasuries have evolved into the modern central bank that controls the availability of money and credit in such a way as to ensure low inflation, high growth, and the stability of the financial system. Policy makers strive for transparency in their operations, which were once shrouded in mystery. Recent financial crises have compelled central banks to experiment with new tools.

## We must therefore develop a way to understand and adapt to the evolutionary structure of the financial system.

## One way to do that is to discuss money and banking within a framework of core principles that do not change over time; this is the focus of the next section.

# The Five Core Principles of Money and Banking

## Time has value

### The first core principle is that time has value.

### As a result of interest, time affects the value of financial transactions.

## Risk requires compensation.

### The world is filled with uncertainty; some possibilities are welcome and some are not.

### To deal effectively with risk one must consider the full range of possibilities: eliminate some risks, reduce others, pay someone else to assume particularly onerous risks, and just live with what’s left.

### Investors must be paid to assume risk and the higher the risk the higher the required payment.

### Car insurance is an example of paying for someone else to shoulder a risk you don’t want to take. Both parties to the transaction benefit.

#### Drivers are able to shelter their wealth in the event that they cause an accident in which someone is seriously injured.

#### The insurance companies pool the premiums that policyholders pay and invest them. Even though some of the premiums will have to be paid out to settle claims there is still a good chance to make a profit.

### With even these first two principles we can understand the valuation of a broad set of financial instruments; for example, lenders charge higher rates if there is a chance the borrower will not repay.

## Information is the basis for decisions.

### Most of us collect information before making decisions, and the more important the decision the more information we collect.

### The collecting and processing of information is the foundation of the financial system.

### Some transactions are arranged so that information is NOT needed; for example, stock exchanges are organized to eliminate the need for costly information gathering and thus facilitate the exchange of securities.

### In one way or another, information is the key to the financial system.

## Markets determine prices and allocate resources.

### Markets are the core of the economic system; they are the place, physical or virtual, where firms go to issue stocks and bonds, and where individuals go to purchase assets.

### Financial markets are essential to the economy, channeling its resources and minimizing the cost of gathering information and making transactions.

### Well-developed financial markets are a necessary precondition for healthy economic growth.

### Markets determine prices and allocate resources and thus are sources of information.

### By attaching prices to different stocks or bonds, markets provide the basis for the allocation of capital.

### Financial markets do not arise by themselves; they require rules to operate properly and authorities to police them.

### Even well-developed markets can break down.

### For people to participate in a market it must be perceived as fair, and this creates an important role for the government: when the government protects investors, financial markets work well (otherwise they don’t).

## Stability improves welfare.

### Reducing volatility reduces risk.

### Only government policymakers can reduce some risks.

### By stabilizing the economy monetary policymakers eliminate risks that individuals can’t eliminate, and so improve everyone’s welfare in the process.

### Stabilizing the economy is the primary function of central banks.

### A stable economy grows faster than an unstable one.

# Special Features of this Book

## The very first special feature of every chapter in this book is its introduction – each one presents a real-world example that leads to the big questions the chapter is designed to answer.

## The text of each chapter presents the economic and financial theory needed to understand the topics covered.

## Each chapter also contains a series of inserts that apply the theory; there are five types of inserts:

### *Your Financial World*: These inserts provide basic guidelines for applying economic theory to the bread-and-butter financial decisions that you make nearly every day.

### *Applying the Concept*: These inserts show how to put theory into practice and provide real-world examples of the ideas introduced in the chapter (drawn primarily from history or from relevant public policy debates).

### *Lessons from the Crisis:* These inserts cover episodes from the financial crisis of 2007-2009 and from the European banking and government debt crisis that began shortly thereafter to give a frame-work for understanding the crisis and to highlight the relevance and power of the ideas in the book.

### *In the News*: Each chapter closes with an article drawn from the financial press in order to provide practice in reading the financial news and to help develop an understanding of the daily financial news. Each is followed by a brief summary that points out the lesson(s) of the article.

### *Tools of the Trade*: Many chapters include these inserts that may concentrate on practical knowledge relevant to the chapter, or provide brief reviews of basic economics needed for understanding something in the chapter, or which address specific questions.

# The Organization of this Book

## The book is organized into five sections.

## Each section uses core principles to illuminate a particular part of the financial system and apply economic theory to the world around us.

## Each chapter concludes with a list of terms introduced in that chapter, a summary of the lessons of the chapter, and a set of problems.

**End of Chapter Sections**

1. Key Terms -- A listing of all the technical terms introduced (in bold red) and defined in the chapter. The key terms are defined in full in the glossary at the end of the book.
2. Using FRED: Codes for Data in This Chapter –A table identifying economic and financial data highlighted in the chapter together with the data code (identifier) that is used to retrieve the data in FRED.
3. Chapter Lessons -- A list of the key lessons in the chapter summarized in the form of an outline that matches the chapter headings—a format designed to aid comprehension and retention.
4. Problems -- Each chapter contains two types of problems at varying levels of difficulty: (1) conceptual and analytical problems and (2) data exploration problems using FRED. The problems are designed to reinforce the lessons in the chapter. The data exploration questions ask you to manipulate economic and financial data from FRED (Federal Reserve Economic Database), the extensive online resource maintained and provided free of charge by the Federal Reserve Bank of St. Louis. FRED allows you to find, transform, and graph data directly online or to download the data into a spreadsheet for further analysis. Many of the graphs in this book are based on data in FRED. Simple instructions for using FRED can be found in Appendix B of this chapter. More detailed information (including helpful tutorials) is available on the FRED Web site (research.stlouisfed.org/fred2/).

**Terms Introduced in Chapter 1**

central bank

European Central Bank

Federal Reserve System

financial institution

financial instrument

financial market

financial system

information

markets

money

regulatory agencies

regulation

risk

stability

supervision

time

**Lessons of Chapter 1**

1. A healthy and constantly evolving financial system is the foundation for economic efficiency and economic growth. It has six parts:

* 1. Money is used to pay for purchases and to store wealth.
  2. Financial instruments are used to transfer resources and risk.
  3. Financial markets allow people to buy and sell financial instruments.
  4. Financial institutions provide access to the financial markets, collect information, and provide a variety of other services.
  5. Government regulatory agencies aim to make the financial system operate safely and reliably.
  6. Central banks stabilize the economy.

2. The core principles of money and banking are useful in understanding all six parts of the financial system.

* 1. Core Principle 1: Time has value.
  2. Core Principle 2: Risk requires compensation.
  3. Core Principle 3: Information is the basis for decisions.
  4. Core Principle 4: Markets determine prices and allocate resources.
  5. Core Principle 5: Stability improves welfare.