

SUMMARY OF FINANCIAL MARKETS AND INSTITUTIONS		
1	Why Study Financial Markets and Institutions?	<p>1. Activities in financial markets have direct effects on individuals' wealth, the behavior of businesses, and the efficiency of our economy. Three financial markets deserve particular attention: the bond market (where interest rates are determined), the stock market (which has a major effect on people's wealth and on firms' investment decisions), and the foreign exchange market (because fluctuations in the foreign exchange rate have major consequences for the U.S. economy).</p> <p>2. Because monetary policy affects interest rates, inflation, and business cycles, all of which have an important impact on financial markets and institutions, we need to understand how monetary policy is conducted by central banks in the United States and abroad.</p> <p>3. Banks and other financial institutions channel funds from people who might not put them to productive use to people who can do so and thus play a crucial role in improving the efficiency of the economy.</p> <p>4. Understanding how financial institutions are managed is important because there will be many times in your life, as an individual, an employee, or the owner of a business, when you will interact with them. "The Practicing Manager" cases not only provide special analytic tools that are useful if you choose a career with a financial institution but also give you a feel for what a job as the manager of a financial institution is all about.</p> <p>5. This textbook emphasizes an analytic way of thinking by developing a unifying framework for the study of financial markets and institutions using a few basic principles. This textbook also focuses on the interaction of theoretical analysis and empirical data.</p>
2	Over view of Financial System	<p>1. The basic function of financial markets is to channel funds from savers who have an excess of funds to spenders who have a shortage of funds. Financial markets can do this either through direct finance, in which borrowers borrow funds directly from lenders by selling them securities, or through indirect finance, which involves a financial intermediary that stands between the lender-savers and the borrower-spenders and helps transfer funds from one to the other. This channeling of funds improves the economic welfare of everyone in the society. Because they allow funds to move from people who have no productive investment opportunities to those who have such opportunities, financial markets contribute to economic efficiency. In addition, channeling of funds directly benefits consumers by allowing them to make purchases when they need them most.</p> <p>2. Financial markets can be classified as debt and equity markets, primary and secondary markets, exchanges and over-the-counter markets, and money and capital markets.</p> <p>3. An important trend in recent years is the growing internationalization of financial markets. Eurobonds, which are denominated in a currency other than that of the country in which they are sold, are now the dominant security in the international bond market and have surpassed U.S. corporate bonds as a source of new funds. Eurodollars, which are U.S. dollars deposited in foreign banks, are an important source of funds for American banks.</p> <p>4. Financial intermediaries are financial institutions that acquire funds by issuing liabilities and, in turn, use those funds to acquire assets by purchasing securities</p>

		<p>or making loans. Financial intermediaries play an important role in the financial system because they reduce transaction costs, allow risk sharing, and solve problems created by adverse selection and moral hazard. As a result, financial intermediaries allow small savers and borrowers to benefit from the existence of financial markets, thereby increasing the efficiency of the economy.</p> <p>5. The principal financial intermediaries fall into three categories: (a) banks—commercial banks, savings and loan associations, mutual savings banks, and credit unions; (b) contractual savings institutions—life insurance companies, fire and casualty insurance companies, and pension funds; and (c) investment intermediaries—finance companies, mutual funds, and money market mutual funds.</p> <p>6. The government regulates financial markets and financial intermediaries for two main reasons: to increase the information available to investors and to ensure the soundness of the financial system. Regulations include requiring disclosure of information to the public, restrictions on who can set up a financial intermediary, restrictions on the assets financial intermediaries can hold, the provision of deposit insurance, limits on competition, and restrictions on interest rates.</p>
3	What do interest rates Mean and What is their role in Valuation?	<p>1. The yield to maturity, which is the measure that most accurately reflects the interest rate, is the interest rate that equates the present value of future cash flows of a debt instrument with its value today. Application of this principle reveals that bond prices and interest rates are negatively related: When the interest rate rises, the price of the bond must fall, and vice versa.</p> <p>2. The real interest rate is defined as the nominal interest rate minus the expected rate of inflation. It is a better measure of the incentives to borrow and lend than the nominal interest rate, and it is a more accurate indicator of the tightness of credit market conditions than the nominal interest rate.</p> <p>3. The return on a security, which tells you how well you have done by holding this security over a stated period of time, can differ substantially from the interest rate as measured by the yield to maturity. Longterm bond prices have substantial fluctuations when interest rates change and thus bear interest-rate risk. The resulting capital gains and losses can be large, which is why long-term bonds are not considered to be safe assets with a sure return. Bonds whose maturity is shorter than the holding period are also subject to reinvestment risk, which occurs because the proceeds from the short-term bond need to be reinvested at a future interest rate that is uncertain.</p> <p>4. Duration, the average lifetime of a debt security's stream of payments, is a measure of effective maturity, the term to maturity that accurately measures interest rate risk. Everything else being equal, the duration of a bond is greater the longer the maturity of a bond, when interest rates fall, or when the coupon rate of a coupon bond falls. Duration is additive: The duration of a portfolio of securities is the weighted average of the durations of the individual securities, with the weights reflecting the proportion of the portfolio invested in each. The greater the duration of a security, the greater the percentage change in the market value of the security for a given change in interest rates. Therefore, the greater the duration of a security, the greater its interest-rate risk.</p>
4	Why do interest rates change?	<p>1. The quantity demanded of an asset is</p> <p>(a) positively related to wealth,</p> <p>(b) positively related to the expected return on the asset relative to alternative</p>

		<p>assets,</p> <p>(c) negatively related to the riskiness of the asset relative to alternative assets,</p> <p>(d) positively related to the liquidity of the asset relative to alternative assets.</p> <p>2. Diversification (the holding of more than one asset) benefits investors because it reduces the risk they face, and the benefits are greater the less returns on securities move together.</p> <p>3. The supply-and-demand analysis for bonds provides a theory of how interest rates are determined. It predicts that interest rates will change when there is a change in demand because of changes in income (or wealth), expected returns, risk, or liquidity, or when there is a change in supply because of changes in the attractiveness of investment opportunities, the real cost of borrowing, or government activities.</p>
5	How Do Risk and Term Structure Affect Interest Rates?	<p>1. Bonds with the same maturity will have different interest rates because of three factors: default risk, liquidity, and tax considerations. The greater a bond's default risk, the higher its interest rate relative to other bonds; the greater a bond's liquidity, the lower its interest rate; and bonds with tax-exempt status will have lower interest rates than they otherwise would. The relationship among interest rates on bonds with the same maturity that arise because of these three factors is known as the <i>risk structure of interest rates</i>.</p> <p>2. Several theories of the term structure provide explanations of how interest rates on bonds with different terms to maturity are related. The expectations theory views long-term interest rates as equaling the average of future short-term interest rates expected to occur over the life of the bond. By contrast, the market segmentation theory treats the determination of interest rates for each bond's maturity as the outcome of supply and demand in that market only. Neither of these theories by itself can explain the fact that interest rates on bonds of different maturities move together over time and that yield curves usually slope upward.</p> <p>3. The liquidity premium theory combines the features of the other two theories, and by so doing is able to explain the facts just mentioned. It views long-term interest rates as equaling the average of future short-term interest rates expected to occur over the life of the bond plus a liquidity premium. This theory allows us to infer the market's expectations about the movement of future short-term interest rates from the yield curve. A steeply upward-sloping curve indicates that future short-term rates are expected to rise, a mildly upward-sloping curve indicates that short-term rates are expected to stay the same, a flat curve indicates that short-term rates are expected to decline slightly, and an inverted yield curve indicates that a substantial decline in shortterm rates is expected in the future.</p>
6	Are financial markets efficient?	<p>1. The efficient market hypothesis states that current security prices will fully reflect all available information because in an efficient market, all unexploited profit opportunities are eliminated. The elimination of unexploited profit opportunities necessary for a financial market to be efficient does not require that all market participants be well informed.</p> <p>2. The evidence on the efficient market hypothesis is quite mixed. Early evidence on the performance of investment analysts and mutual funds, whether stock prices reflect publicly available information, the random-walk behavior of stock prices, or the success of so-called technical analysis, was quite favorable to the efficient market hypothesis. However, in recent years, evidence on the small-firm effect, the January effect, market overreaction, excessive volatility, mean</p>

		<p>reversion, and that new information is not always incorporated into stock prices suggests that the hypothesis may not always be entirely correct. The evidence seems to suggest that the efficient market hypothesis may be a reasonable starting point for evaluating behavior in financial markets, but it may not be generalizable to all behavior in financial markets.</p> <p>3. The efficient market hypothesis indicates that hot tips, investment advisers' published recommendations, and technical analysis cannot help an investor outperform the market. The prescription for investors is to pursue a buy-and-hold strategy—purchase stocks and hold them for long periods of time. Empirical evidence generally supports these implications of the efficient market hypothesis in the stock market.</p> <p>4. The stock market crashes of 1987 and 2000 have convinced many financial economists that the stronger version of the efficient market hypothesis, which states that asset prices reflect the true fundamental (intrinsic) value of securities, is not correct. It is less clear that the stock market crashes show that the weaker version of the efficient market hypothesis is wrong. Even if the stock market was driven by factors other than fundamentals, the crashes do not clearly demonstrate that many of the basic lessons of the efficient market hypothesis are no longer valid as long as the crashes could not have been predicted.</p> <p>5. The new field of behavioral finance applies concepts from other social sciences, such as anthropology, sociology, and particularly psychology, to understand the behavior of securities prices. Loss aversion, overconfidence, and social contagion can explain why trading volume is so high, stock prices get overvalued, and speculative bubbles occur.</p>
7	Why do Financial institutions exist?	<p>1. There are eight basic facts about U.S. financial structure. The first four emphasize the importance of financial intermediaries and the relative unimportance of securities markets for the financing of corporations; the fifth recognizes that financial markets are among the most heavily regulated sectors of the economy; the sixth states that only large, well-established corporations have access to securities markets; the seventh indicates that collateral is an important feature of debt contracts; and the eighth presents debt contracts as complicated legal documents that place substantial restrictions on the behavior of the borrower.</p> <p>2. Transaction costs freeze many small savers and borrowers out of direct involvement with financial markets. Financial intermediaries can take advantage of economies of scale and are better able to develop expertise to lower transaction costs, thus enabling their savers and borrowers to benefit from the existence of financial markets.</p> <p>3. Asymmetric information results in two problems: adverse selection, which occurs before the transaction, and moral hazard, which occurs after the transaction. Adverse selection refers to the fact that bad credit risks are the ones most likely to seek loans, and moral hazard refers to the risk of the borrower's engaging in activities that are undesirable from the lender's point of view</p> <p>4. Adverse selection interferes with the efficient functioning of financial markets. Tools to help reduce the adverse selection problem include private production and sale of information, government regulation to increase information, financial intermediation, and collateral and net worth. The free-rider problem occurs when people who do not pay for information take advantage of information that other</p>

		<p>people have paid for. This problem explains why financial intermediaries, particularly banks, play a more important role in financing the activities of businesses than securities markets do.</p> <p>5. Moral hazard in equity contracts is known as the principal–agent problem, because managers (the agents) have less incentive to maximize profits than stockholders (the principals). The principal–agent problem explains why debt contracts are so much more prevalent in financial markets than equity contracts. Tools to help reduce the principal–agent problem include monitoring, government regulation to increase information, and financial intermediation.</p> <p>6. Tools to reduce the moral hazard problem in debt contracts include collateral and net worth, monitoring and enforcement of restrictive covenants, and financial intermediaries.</p> <p>7. Conflicts of interest arise when financial service providers or their employees are serving multiple interests and have incentives to misuse or conceal information needed for the effective functioning of financial markets. We care about conflicts of interest because they can substantially reduce the amount of reliable information in financial markets, thereby preventing them from channeling funds to parties with the most productive investment opportunities. Three types of financial service activities have had the greatest potential for conflicts of interest: underwriting and research in investment banking, auditing and consulting in accounting firms, and credit assessment and consulting in credit rating agencies. Two major policy measures have been implemented to deal with conflicts of interest: the Sarbanes-Oxley Act of 2002 and the Global Legal Settlement of 2002, which arose from a lawsuit by the New York attorney general against the 10 largest investment banks.</p>
8	Why Do Financial Crises Occur and Why Are They So Damaging to the Economy?	<p>1. A financial crisis occurs when a disruption in the financial system causes an increase in asymmetric information that makes adverse selection and moral hazard problems far more severe, thereby rendering financial markets incapable of channeling funds to households and firms with productive investment opportunities, and causing a sharp contraction in economic activity.</p> <p>2. There are several possible ways that financial crises start in countries like the United States: mismanagement of financial liberalization or innovation, asset-price booms and busts, or a general increase in uncertainty when there are failures of major financial institutions. The result is a substantial increase in adverse selection and moral hazard problems that lead to a contraction of lending and a decline in economic activity. The worsening business conditions and deterioration in bank balance sheets then triggers the second stage of the crisis, the simultaneous failure of many banking institutions, a banking crisis. The resulting decline in the number of banks causes a loss of their information capital, leading to a further decline of lending and a spiraling down of the economy. In some instances, the resulting economic downturn leads to a sharp decline of prices, which increases the real liabilities of firms and therefore lowers their net worth, leading to a debt deflation. The further decline in firms' net worth worsens adverse selection and moral hazard problems, so that lending, investment spending, and aggregate economic activity remain depressed for a long time.</p> <p>3. The most significant financial crisis in U.S. history, that which led to the Great Depression, involved several stages: a stock market crash, bank panics, worsening of asymmetric information problems, and finally a debt deflation.</p>

		<p>4. The financial crisis starting in 2007 was triggered by mismanagement of financial innovations involving subprime residential mortgages and the bursting of a housing price bubble. The crisis spread globally with substantial deterioration in banks' and other financial institutions' balance sheets, a run on the shadow banking system, and the failure of many high-profile firms.</p> <p>5. Financial crises in emerging market countries develop along two basic paths: one involving the mismanagement of financial liberalization or globalization that weakens bank balance sheets and the other involving severe fiscal imbalances. Both lead to a speculative attack on the domestic currency and eventually to a currency crisis in which there is a sharp decline in the currency's value. The decline in the value of the domestic currency causes a sharp rise in the debt burden of domestic firms, which leads to a decline in firms' net worth, as well as increases in inflation and interest rates. Adverse selection and moral hazard problems then worsen, leading to a collapse of lending and economic activity. The worsening economic conditions and increases in interest rates result in substantial losses for banks, leading to a banking crisis, which further depresses lending and aggregate economic activity.</p> <p>6. The financial crises in Mexico in 1994–1995, East Asia in 1997–1998, and Argentina in 2001–2002 led to great economic hardship and weakened the social fabric of these countries.</p>
9	Central Banks and the Federal Reserve System	<p>1. The Federal Reserve System was created in 1913 to lessen the frequency of bank panics. Because of public hostility to central banks and the centralization of power, the Federal Reserve System was created with many checks and balances to diffuse power.</p> <p>2. The formal structure of the Federal Reserve System consists of 12 regional Federal Reserve banks, around 2,800 member commercial banks, the Board of Governors of the Federal Reserve System, the Federal Open Market Committee (FOMC), and the Federal Advisory Council.</p> <p>3. Although on paper the Federal Reserve System appears to be decentralized, in practice it has come to function as a unified central bank controlled by the Board of Governors, especially the board's chairman.</p> <p>4. The Federal Reserve is more independent than most agencies of the U.S. government, but it is still subject to political pressures because the legislation that structures the Fed is written by Congress and can be changed at any time.</p> <p>5. The European System of Central Banks has a similar structure to the Federal Reserve System, with each member country having a National Central Bank, and an Executive Board of the European Central Bank being located in Frankfurt, Germany. The Governing Council, which is made up of the six members of the Executive Board (which includes the president of the European Central Bank) and the presidents of the National Central Banks, makes the decisions on monetary policy. The Eurosystem, which was established under the terms of the Maastricht Treaty, is even more independent than the Federal Reserve System because its charter cannot be changed by legislation. Indeed, it is the most independent central bank in the world.</p> <p>6. There has been a remarkable trend toward increasing independence of central banks throughout the world. Greater independence has been granted to central banks such as the Bank of England and the Bank of Japan in recent years, as well as to other central banks in such diverse countries as New Zealand and Sweden. Both theory and experience suggest that more independent central banks produce</p>

		<p>better monetary policy.</p> <p>7. The theory of bureaucratic behavior suggests that one factor driving central banks' behavior might be an attempt to increase their power and prestige. This view explains many central bank actions, although central banks may also act in the public interest.</p> <p>8. The case for an independent Federal Reserve rests on the view that curtailing the Fed's independence and subjecting it to more political pressures would impart an inflationary bias to monetary policy. An independent Fed can afford to take the long view and not respond to short-run problems that will result in expansionary monetary policy and a political business cycle. The case against an independent Fed holds that it is undemocratic to have monetary policy (so important to the public) controlled by an elite that is not accountable to the public. An independent Fed also makes the coordination of monetary and fiscal policy difficult.</p>
10	Conduct of Monetary Policy: Tools, Goals, Strategy, and Tactics	<p>1. The three basic tools of monetary policy are open market operations, discount policy, and reserve requirements. Open market operations are the primary tool used by the Fed to control interest rates.</p> <p>2. The conduct of monetary policy involves actions that affect the Federal Reserve's balance sheet. Open market purchases lead to an expansion of reserves and deposits in the banking system and hence to an expansion of the monetary base and the money supply. An increase in discount loans leads to an expansion of reserves, thereby causing an expansion of the monetary base and the money supply.</p> <p>3. A supply-and-demand analysis of the market for reserves yields the following results: When the Fed makes an open market purchase or lowers reserve requirements, the federal funds rate declines. When the Fed makes an open market sale or raises reserve requirements, the federal funds rate rises. Changes in the discount rate may also affect the federal funds rate.</p> <p>4. The monetary policy tools used by the European Central Bank are similar to those used by the Federal Reserve System and involve open market operations, lending to banks, and reserve requirements. Main financing operations—open market operations in repos that are typically reversed within two weeks—are the primary tool to set the overnight cash rate at the target financing rate. The European Central Bank also operates standing lending facilities that ensure that the overnight cash rate remains within 100 basis points of the target financing rate.</p> <p>5. The six basic goals of monetary policy are price stability (the primary goal), high employment, economic growth, interest-rate stability, stability of financial markets, and stability in foreign exchange markets.</p> <p>6. A nominal anchor is a key element in monetary policy strategy. It helps promote price stability by tying down inflation expectations and limiting the time inconsistency problem, in which monetary policy makers conduct monetary policy in a discretionary way that produces poor long-run outcomes.</p> <p>7. Inflation targeting has several advantages:</p> <ul style="list-style-type: none"> (1) It enables monetary policy to focus on domestic considerations; (2) stability in the relationship between money and inflation is not critical to its success; (3) it is readily understood by the public and is highly transparent;

		<p>(4) it increases accountability of the central bank; and</p> <p>(5) it appears to ameliorate the effects of inflationary shocks. It does have some disadvantages, however: (1) Inflation is not easily controlled by the monetary authorities, so that an inflation target is unable to send immediate signals to both the public and markets; (2) it might impose a rigid rule on policy makers, although this has not been the case in practice; and (3) a sole focus on inflation may lead to larger output fluctuations, although this has also not been the case in practice.</p> <p>8. There are two types of bubbles, credit-driven bubbles, which are highly dangerous and so deserve a response from central banks, and bubbles driven solely by irrational exuberance, which do not. Although there are strong arguments against having monetary policy attempt to prick bubbles, appropriate macroprudential regulation to reign in credit-driven bubbles can improve the performance of both the financial system and the economy.</p> <p>9. Because interest-rate and aggregate policy instruments are incompatible, a central bank must choose between them on the basis of three criteria: measurability, controllability, and the ability to affect goal variables predictably. Central banks now typically use short-term interest rates as their policy instrument.</p> <p>10. Because predicting the Federal Reserve's actions can help managers of financial institutions predict the course of future interest rates, which has a major impact on financial institutions' profitability, such managers value the services of Fed watchers, who are experts on Federal Reserve behavior.</p>
11	The money markets	<p>1. Money market securities are short-term instruments with an original maturity of less than one year. These securities include Treasury bills, commercial paper, federal funds, repurchase agreements, negotiable certificates of deposit, banker's acceptances, and Eurodollars.</p> <p>2. Money market securities are used to "warehouse" funds until needed. The returns earned on these investments are low due to their low risk and high liquidity.</p> <p>3. Many participants in the money markets both buy and sell money market securities. The U.S. Treasury, commercial banks, businesses, and individuals all benefit by having access to low risk short-term investments.</p> <p>4. Interest rates on all money market securities tend to follow one another closely over time. Treasury bill returns are the lowest because they are virtually devoid of default risk. Banker's acceptances and negotiable certificates of deposit are next lowest because they are backed by the creditworthiness of large money center banks.</p>
12	The bond market	<p>1. The capital markets exist to provide financing for longterm capital assets. Households, often through investments in pension and mutual funds, are net investors in the capital markets. Corporations and the federal and state governments are net users of these funds.</p> <p>2. The three main capital market instruments are bonds, stocks, and mortgages. Bonds represent borrowing by the issuing firm. Stock represents ownership in the issuing firm. Mortgages are long-term loans secured by real property. Only corporations can issue stock. Corporations and governments can issue bonds. In any given year, far more funds are raised with bonds than with stock.</p>

		<p>3. Firm managers are hired by stockholders to protect and increase their wealth. Bondholders must rely on a contract called an indenture to protect their interests. Bond indentures contain covenants that restrict the firm from activities that increase risk and hence the chance of defaulting on the bonds. Bond indentures also contain many provisions that make them more or less attractive to investors, such as a call option, convertibility, or a sinking fund.</p> <p>4. The value of any business asset is computed the same way, by computing the present value of the cash flows that will go to the holder of the asset. For example, a commercial building is valued by computing the present value of the net cash flows the owner will receive. We compute the value of bonds by finding the present value of the cash flows, which consist of periodic interest payments and a final principal payment.</p> <p>5. The value of bonds fluctuates with current market prices. If a bond has an interest payment based on a 5% coupon rate, no investor will buy it at face value if new bonds are available for the same price with interest payments based on 8% coupon interest. To sell the bond, the holder will have to discount the price until the yield to the holder equals 8%. The amount of the discount is greater the longer the term to maturity.</p>
13	The Stock Markets	<p>1. There are both organized and over-the-counter exchanges. Organized exchanges are distinguished by a physical building where trading takes place. The over-the-counter market operates primarily over phone lines and computer links. Typically, larger firms trade on organized exchanges and smaller firms trade in the over-the-counter market, though there are many exceptions to this rule. In recent years, ECNs have begun to capture a significant portion of business traditionally belonging to the stock exchanges. These electronic networks are likely to become increasingly significant players in the future.</p> <p>2. Stocks are valued as the present value of the dividends. Unfortunately, we do not know very precisely what these dividends will be. This introduces a great deal of error to the valuation process. The Gordon growth model is a simplified method of computing stock value that depends on the assumption that the dividends are growing at a constant rate forever. Given our uncertainty regarding future dividends, this assumption is often the best we can do.</p> <p>3. An alternative method for estimating a stock price is to multiply the firm's earnings per share times the industry price earnings ratio. This ratio can be adjusted up or down to reflect specific characteristics of the firm.</p> <p>4. The interaction among traders in the market is what actually sets prices on a day-to-day basis. The trader that values the security the most, either because of less uncertainty about the cash flows or because of greater estimated cash flows, will be willing to pay the most. As new information is released, investors will revise their estimates of the true value of the security and will either buy or sell it depending upon how the market price compares to their estimated valuation. Because small changes in estimated growth rates or required return result in large changes in price, it is not surprising that the markets are often volatile.</p>
14	The Mortgage Markets	<p>1. Mortgages are long-term loans secured by real estate. Both individuals and businesses obtain mortgage loans to finance real estate purchases.</p> <p>2. Mortgage interest rates are relatively low due to competition among various institutions that want to make mortgage loans. In addition to keeping interest</p>

		<p>rates low, the competition has resulted in a variety of terms and options for mortgage loans. For example, borrowers may choose to obtain a 30-year fixed-rate loan or an adjustable-rate loan that has its interest rate tied to the Treasury bill rate.</p> <p>3. Several features of mortgage loans are designed to reduce the likelihood that the borrower will default. For example, a down payment is usually required so that the borrower will suffer a loss if the lender repossesses the property. Most lenders also require that the borrower purchase private mortgage insurance unless the loan-to-value ratio drops below 80%.</p> <p>4. A variety of mortgages are available to meet the needs of most borrowers. The graduated-payment mortgage has low initial payments that increase over time. The growing-equity mortgage has increasing payments that cause the loan to be paid off in a shorter period than a level-payment loan. Shared-appreciation loans were used when interest rates and inflation were high. The lender shared in the increase in the real estate's value in exchange for lower interest rates.</p> <p>5. Securitized mortgages have been growing in popularity in recent years as institutional investors look for attractive investment opportunities. Securitized mortgages are securities collateralized by a pool of mortgages. The payments on the pool are passed through to the investors. Ginnie Mae, Freddie Mac, and private banks issue pass-through securities. Securitized mortgage securities separate the lending risk from the lender and lead to increasing risky loans.</p> <p>6. Subprime loans increased in volume from being a negligible portion of the mortgage loan volume in the 1990s to 17% by 2006. Zero-down loans along with underqualified borrowers led speculative growth in home prices and a subsequent collapse when default rates and lack of real demand became public.</p>
15	The Foreign exchange Market	<p>1. Foreign exchange rates (the price of one country's currency in terms of another's) are important because they affect the price of domestically produced goods sold abroad and the cost of foreign goods bought domestically.</p> <p>2. The theory of purchasing power parity suggests that long-run changes in the exchange rate between two countries' currencies are determined by changes in the relative price levels in the two countries. Other factors that affect exchange rates in the long run are tariffs and quotas, import demand, export demand, and productivity.</p> <p>3. In the short run, exchange rates are determined by changes in the relative expected return on domestic assets, which cause the demand curve to shift. Any factor that changes the relative expected return on domestic assets will lead to changes in the exchange rate. Such factors include changes in the interest rates on domestic and foreign assets as well as changes in any of the factors that affect the long-run exchange rate and hence the expected future exchange rate.</p> <p>4. The asset market approach to exchange rate determination can explain both the volatility of exchange rates and the rise of the dollar in the 1980–1984 period and its subsequent fall.</p> <p>5. Forecasts of foreign exchange rates are very valuable to managers of financial institutions because these rates influence decisions about which assets denominated in foreign currencies the institutions should hold and what kinds of trades should be made by their traders in the foreign exchange market.</p>
16	The international Financial System	<p>1. An unsterilized central bank intervention in which the domestic currency is sold to purchase foreign assets leads to a gain in international reserves, an</p>

		<p>increase in the money supply, and a depreciation of the domestic currency. Available evidence suggests, however, that sterilized central bank interventions have little long-term effect on the exchange rate.</p> <p>2. The balance of payments is a bookkeeping system for recording all payments between a country and foreign countries that have a direct bearing on the movement of funds between them. The official reserve transactions balance is the sum of the current account balance plus the items in the capital account. It indicates the amount of international reserves that must be moved between countries to finance international transactions.</p> <p>3. After World War II, the Bretton Woods system and the IMF were established to promote a fixed exchange rate system in which the U.S. dollar, the reserve currency, was convertible into gold. The Bretton Woods system collapsed in 1971. We now have an international financial system that has elements of a managed float and a fixed exchange rate system. Some exchange rates fluctuate from day to day, although central banks intervene in the foreign exchange market, while other exchange rates are fixed.</p> <p>4. Controls on capital outflows receive support because they may prevent domestic residents and foreigners from pulling capital out of a country during a crisis and make devaluation less likely. Controls on capital inflows make sense under the theory that if speculative capital cannot flow in, then it cannot go out suddenly and create a crisis. However, capital controls suffer from several disadvantages: They are seldom effective, they lead to corruption, and they may allow governments to avoid taking the steps needed to reform their financial systems to deal with the crisis.</p> <p>5. The IMF has recently taken on the role of an international lender of last resort. Because central banks in emerging market countries are unlikely to be able to perform a lender-of-last-resort operation successfully, an international lender of last resort like the IMF is needed to prevent financial instability. However, the IMF's role as an international lender of last resort creates a serious moral hazard problem that can encourage excessive risk taking and make a financial crisis more likely, but refusing to lend may be politically hard to do. In addition, it needs to be able to provide liquidity quickly during a crisis to keep manageable the amount of funds lent.</p>
17	Banking and the Management of Financial Institutions.	<p>1. The balance sheet of commercial banks can be thought of as a list of the sources and uses of bank funds. The bank's liabilities are its sources of funds, which include checkable deposits, time deposits, discount loans from the Fed, borrowings from other banks and corporations, and bank capital. The bank's assets are its uses of funds, which include reserves, cash items in process of collection, deposits at other banks, securities, loans, and other assets (mostly physical capital).</p> <p>2. Banks make profits through the process of asset transformation: They borrow short (accept deposits) and lend long (make loans). When a bank takes in additional deposits, it gains an equal amount of reserves; when it pays out deposits, it loses an equal amount of reserves.</p> <p>3. Although more liquid assets tend to earn lower returns, banks still desire to hold them. Specifically, banks hold excess and secondary reserves because they provide insurance against the costs of a deposit outflow. Banks manage their assets to maximize profits by seeking the highest returns possible on loans and securities while at the same time trying to lower risk and making adequate provisions for liquidity. Although liability management was once a staid affair, large (money center) banks now actively seek out sources of funds by issuing</p>

		<p>liabilities such as negotiable CDs or by actively borrowing from other banks and corporations. Banks manage the amount of capital they hold to prevent bank failure and to meet bank capital requirements set by the regulatory authorities. However, they do not want to hold too much capital because by so doing they will lower the returns to equity holders.</p> <p>4. Off-balance-sheet activities consist of trading financial instruments and generating income from fees and loan sales, all of which affect bank profits but are not visible on bank balance sheets. Because these offbalance- sheet activities expose banks to increased risk, bank management must pay particular attention to risk assessment procedures and internal controls to restrict employees from taking on too much risk.</p> <p>5. A bank's net operating income equals operating income minus operating expenses. Adding gains (or losses) on securities and net extraordinary items to net operating income and then subtracting taxes yields net income (profits after taxes). Additional measures of bank performance include the return on assets (ROA), the return on equity (ROE), and the net interest margin (NIM).</p>
18	Financial Regulation	<p>1. The concepts of asymmetric information, adverse selection, and moral hazard help explain the eight types of financial regulation that we see in the United States and other countries: the government safety net, restrictions on financial institutions' asset holdings, capital requirements, financial institution supervision, assessment of risk management, disclosure requirements, consumer protection, and restrictions on competition.</p> <p>2. Financial innovation and deregulation increased adverse selection and moral hazard problems in the 1980s and resulted in a banking crisis in the United States.</p> <p>3. The Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991 recapitalized the Bank Insurance Fund of the FDIC and included reforms for the deposit insurance and regulatory system so that taxpayer losses would be minimized. This legislation limited the use of the too-big-to-fail policy, mandated prompt corrective action to deal with troubled banks, and instituted risk-based deposit insurance premiums. These provisions have helped reduce the incentives of banks to take on excessive risk and so should help reduce taxpayer exposure in the future.</p> <p>4. The parallels between the banking crisis episodes that have occurred in countries throughout the world are striking, indicating that similar forces are at work.</p> <p>5. The Dodd-Frank Act of 2010 is the most comprehensive financial reform legislation since the Great Depression. It has provisions in five areas: (1) consumer protection, (2) resolution authority, (3) systemic risk regulation, (4) Volcker rule, and (5) derivatives.</p> <p>There are five areas that future regulation needs to address: (1) capital requirements, (2) compensation, (3) GSEs, (4) credit rating agencies, and (5) the dangers of overregulation.</p>
19	Banking Industry: Structure and Competition	<p>1. The history of banking in the United States has left us with a dual banking system, with commercial banks chartered by the states and the federal government. Multiple agencies regulate commercial banks: the Office of the Comptroller, the Federal Reserve, the FDIC, and the state banking authorities.</p> <p>2. A change in the economic environment will stimulate financial institutions to search for financial innovations. Changes in demand conditions, especially an</p>

		<p>increase in interest-rate risk; changes in supply conditions, especially improvements in information technology; and the desire to avoid costly regulations have been major driving forces behind financial innovation. Financial innovation has caused banks to suffer declines in cost advantages in acquiring funds and in income advantages on their assets. The resulting squeeze has hurt profitability in banks' traditional lines of business and has led to a decline in traditional banking. Restrictive state branching regulations and the McFadden Act, which prohibited branching across state lines, led to a large number of small commercial banks. The large number of commercial banks in the United States reflected the past <i>lack</i> of competition, not the presence of vigorous competition. Bank holding companies and ATMs were important responses to branching restrictions that weakened the restrictions' anticompetitive effect.</p> <p>4. Since the mid-1980s, bank consolidation has been occurring at a rapid pace. The first phase of bank consolidation was the result of bank failures and the reduced effectiveness of branching restrictions. The second phase has been stimulated by information technology and the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994, which establishes the basis for a nationwide banking system. Once banking consolidation has settled down, we are likely to be left with a banking system with several thousand banks. Most economists believe that the benefits of bank consolidation and nationwide banking will outweigh the costs.</p> <p>5. The Glass-Steagall Act separated commercial banking from the securities industry. Legislation in 1999, however, repealed the Glass-Steagall Act, removing the separation of these industries.</p> <p>6. The regulation and structure of the thrift industry (savings and loan associations, mutual savings banks, and credit unions) parallel closely the regulation and structure of the commercial banking industry. Savings and loans are primarily regulated by the Office of the Comptroller of the Currency, and deposit insurance is administered by the FDIC. Mutual savings banks are regulated by the states, and federal deposit insurance is provided by the FDIC. Credit unions are regulated by the National Credit Union Administration, and deposit insurance is provided by the National Credit Union Share Insurance Fund.</p> <p>7. With the rapid growth of world trade since 1960, international banking has grown dramatically. U.S. banks engage in international banking activities by opening branches abroad, owning controlling interests in foreign banks, forming Edge Act corporations, and operating international banking facilities (IBFs) located in the United States. Foreign banks operate in the United States by owning a subsidiary American bank or by operating branches or agency offices in the United States.</p>
20	The Mutual Fund Industry	<p>1. Mutual funds have grown rapidly over the last two decades. The growth has been partly fueled by the increase in the number of investors who are responsible for managing their own retirement. Increased liquidity and diversification, among other factors, have also been important. There are currently over 8,700 separate mutual funds with over \$10 trillion in net assets.</p> <p>2. Mutual funds can be organized as either open- or closed-end funds. Closed-end funds issue stock in the fund at an initial offering and do not accept additional funds. Most new funds are organized as openend funds and issue additional shares when new money is received. The net asset value (NAV) of the shares is computed each day. All trades conducted that day are at the NAV.</p>

		<p>3. The primary classes of mutual funds are stock funds, bond funds, hybrid funds, and money market funds. Stock and bond funds can be either actively managed by investment managers or can be structured as index funds that contain the securities in some index, such as the S&P 500.</p> <p>4. Hedge funds attempt to earn returns by trading on deviations between historical security relationships and current market conditions.</p> <p>5. The mutual fund industry has been subject to widely publicized scandals for violating SEC regulations and internal policy. Most abuses centered on market timing and late trading by investors receiving privileged treatment in exchange for large deposits with the funds. Conflicts of interest created by fee structures that reward investment managers more for total assets than for returns are partly responsible.</p>
21	Insurance Companies and Pension Funds	<p>1. Insurance companies exist because people are risk-averse and prefer to transfer risk away from themselves. Insurance benefits people's lives by reducing the size of reserves they would have to maintain to cover possible loss of life or property.</p> <p>2. Adverse selection and moral hazard are problems inherent to the insurance business. Many of the provisions of insurance policies—including deductibles, application screening, and risk-based premiums—are aimed at reducing their effects.</p> <p>3. Insurance is usually divided into two primary types, life insurance and property and casualty insurance. Many life insurance products also serve as savings vehicles. Property and casualty insurance usually has a much shorter term than most life insurance.</p> <p>4. Because life insurance liabilities are very predictable, these insurers are able to invest in long-term assets. Property and casualty insurance companies must keep their assets more liquid to pay out on unexpected losses.</p> <p>5. Pension plans are rapidly growing as a longer-lived generation plans for early retirement.</p> <p>6. There are two primary types of pension plans: defined-benefit and defined-contribution. Defined-benefit plans pay benefits according to a formula that is established in advance. Defined-contribution plans specify only how much is to be saved; benefits depend on the returns generated by the plans.</p> <p>7. The largest public pension plan is Social Security, which is a pay-as-you-go system. Current retirees receive payments from current workers. Many people are concerned that as the number of retirees increases, the amount paid in to the Social Security system will not be sufficient to cover the sums being paid out.</p> <p>8. Most private pension plans are insured by the Pension Benefit Guarantee Corporation, which pays benefits when a plan's sponsor goes bankrupt or is otherwise unable to make payments.</p>
22	Investment Banks, security Brokers and Dealers, and Venture Capital Firms	<p>1. Investment banks are firms that assist in the initial sale of securities in the primary market and, as securities brokers and dealers, assist in the trading of securities in the secondary markets, some of which are organized into exchanges. The Securities and Exchange Commission regulates the financial institutions in the securities markets and ensures that adequate information reaches prospective investors.</p> <p>2. Underwriting involves the investment banking firm's taking ownership of the stock issue by purchasing all of the shares from the issuer and then reselling</p>

		<p>them in the market. Issues may be oversubscribed, undersubscribed, or fully subscribed, depending on whether the price is set correctly.</p> <p>3. Investment bankers assist issuing firms by providing advice, filing documents, and marketing issues. Investment bankers often assist in mergers and acquisitions and in private placements as well.</p> <p>4. Securities brokers act as go-betweens and do not usually own securities. Securities dealers do buy and sell securities and by doing so make a market. By always having securities to sell and by always being willing to purchase securities, dealers guarantee the liquidity of the market.</p> <p>5. Investors may place an order, called a <i>market order</i>, to buy a security at the current market price. They may also set limits to the lowest price at which they will sell their security or the highest price they will pay for a security. Orders of this type are called <i>limit orders</i>.</p> <p>6. Some brokerage houses provide research and investment advice in addition to conducting trades on behalf of customers. These are called <i>full-service brokers</i>. <i>Discount brokers</i> simply place orders. Brokerage houses also store securities, advance loans to buy securities, and offer cash management accounts.</p> <p>7. Private equity investments include both venture fund investing and capital buyouts of public companies. A typical venture fund investment includes pooling funds from investors to use to support a new company until it is able to go public. In a capital buyout, investors' funds are again pooled, but this time they are used to buy a controlling interest in a public company that is then taken private.</p>
23	Risk Management in Financial Institutions	<p>1. The concepts of adverse selection and moral hazard explain the origin of many credit risk management principles involving loan activities, including screening and monitoring, development of long-term customer relationships, loan commitments, collateral, compensating balances, and credit rationing.</p> <p>2. With the increased volatility of interest rates that occurred in recent years, financial institutions became more concerned about their exposure to interest-rate risk. Income gap and duration gap analyses tell a financial institution if it has fewer rate-sensitive assets than liabilities (in which case a rise in interest rates will reduce income and a fall in interest rates will raise it) or more rate-sensitive assets than liabilities (in which case a rise in interest rates will raise income and a fall in interest rates will reduce it). Financial institutions can manage interest-rate risk by modifying their balance sheets and by making use of new financial instruments.</p>
24		<p>1. Interest-rate forward contracts, which are agreements to sell a debt instrument at a future (forward) point in time, can be used to hedge interest-rate risk. The advantage of forward contracts is that they are flexible, but the disadvantages are that they are subject to default risk and their market is illiquid.</p> <p>2. A financial futures contract is similar to an interest rate forward contract in that it specifies that a debt instrument must be delivered by one party to another on a stated future date. However, it has advantages over a forward contract in that it is not subject to default risk and is more liquid. Forward and futures contracts can be used by financial institutions to hedge against (protect) interest-rate risk.</p> <p>3. Stock index futures are financial futures whose underlying financial instrument is a stock market index like the Standard and Poor's 500 Index. Stock index futures can be used to hedge stock market risk by reducing systematic risk</p>

		<p>in portfolios or by locking in stock prices.</p> <p>4. An option contract gives the purchaser the right to buy (call option) or sell (put option) a security at the exercise (strike) price within a specific period of time. The profit function for options is nonlinear—profits do not always grow by the same amount for a given change in the price of the underlying financial instrument. The nonlinear profit function for options explains why their value (as reflected by the premium paid for them) is negatively related to the exercise price for call options, positively related to the exercise price for put options, positively related to the term to expiration for both call and put options, and positively related to the volatility of the prices of the underlying financial instrument for both call and put options. Financial institutions use futures options to hedge interest-rate risk in a similar fashion to the way they use financial futures and forward contracts. Futures options may be preferred for macro hedges because they suffer from fewer accounting problems than financial futures.</p> <p>5. Interest-rate swaps involve the exchange of one set of interest payments for another set of interest payments and have default risk and liquidity problems similar to those of forward contracts. As a result, interest-rate swaps often involve intermediaries such as large commercial banks and investment banks that make a market in swaps. Financial institutions find that interest-rate swaps are useful ways to hedge interest-rate risk. Interest-rate swaps have one big advantage over financial futures and options: They can be written for very long horizons.</p> <p>6. Credit derivatives are a new type of derivatives that offer payoffs on previously issued securities that have credit risk. These derivatives—credit options, credit swaps, and credit-linked notes—can be used to hedge credit risk.</p> <p>7. There are three concerns about the dangers of derivatives: They allow financial institutions to more easily increase their leverage and take big bets (by effectively enabling them to hold a larger amount of the underlying assets than the amount of money put down), they are too complex for managers of financial institutions to understand, and they expose financial institutions to large credit risks because the huge notional amounts of derivative contracts greatly exceed the capital of these institutions. The second two dangers seem to be overplayed, but the danger from increased leverage using derivatives is real.</p>
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