

Introduction to Finance

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FNT 615

Finance Concepts

Lecture 1



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Table of contents

- 1.1** What Is Finance?
- 1.2** The Role of Finance in an Organization
- 1.3** Importance of Data and Technology
- 1.4** Careers in Finance
- 1.5** Markets and Participants
- 1.6** Microeconomic and Macroeconomic Matters
- 1.7** Financial Instruments
- 1.8** Concepts of Time and Value

Lecture

1

What is Finance

Finance is fundamentally the study and practice of managing money over time, encompassing how individuals, businesses, governments, and other entities acquire funds, allocate them efficiently, invest them for growth, and mitigate associated risks to achieve specific economic goals. It revolves around the core principle that money has a time value meaning a dollar today is worth more than a dollar tomorrow due to its potential earning capacity through interest or investment and thus involves decisions on borrowing, lending, spending, saving, and forecasting future cash flows in an uncertain world.

Lecture

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Studying finance equips us with the analytical framework to navigate a world saturated by financial decisions, where ignorance of its principles can lead to catastrophic losses or missed opportunities, while mastery opens doors to high-impact careers and informed personal choices. In an era where financial markets influence daily life from smartphone stock trading apps to national debt crises understanding finance means decoding the language of value creation: why a company issues bonds instead of equity, how inflation erodes purchasing power, or whether a real estate investment justifies its leverage.

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At its essence, finance operates through three interconnected engines: capital acquisition, capital allocation, and performance monitoring. Capital acquisition involves sourcing funds from diverse channels: personal savings for an entrepreneur starting a venture, bank loans secured against collateral for expansion, equity crowdfunding from angel investors for tech startups, or sovereign bond issuances for governments funding infrastructure. Each method carries implicit costs: debt demands interest payments with fixed obligations that strain cash flow during downturns, while equity dilutes ownership but aligns investor interests with growth.

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Allocation then takes center stage, directing scarce resources toward their highest-value uses while hedging uncertainties. A multinational corporation might allocate billions across R&D for innovation, mergers for market dominance, dividends to appease shareholders, or share buybacks to boost earnings per share each evaluated via metrics like internal rate of return (IRR), which solves for the discount rate making NPV zero, or payback period measuring liquidity recovery time. Imagine Tesla in 2018: facing production hell with Model 3, it allocated capital aggressively to Gigafactory automation despite negative cash flows, betting on scale economies and EV demand surges; this high-risk bet paid off as revenues exploded, vindicating the finance-driven gamble on future hyper growth over immediate survival.

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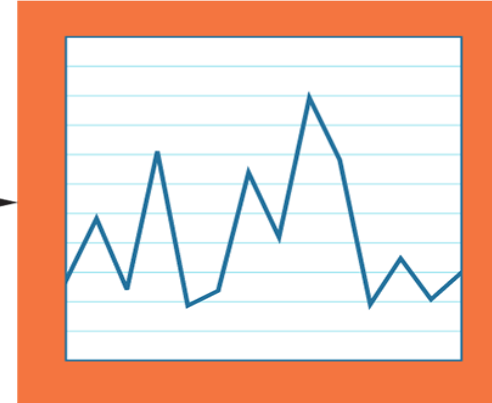
Ultimately, finance is humanity's toolkit for stewarding finite resources across infinite possibilities, demanding eternal vigilance against entropy be it inflation's silent theft or leverage's amplifying crashes.



Classify, summarize,
and analyze data.



Prepare financial reports.



Use financial reports
to evaluate the firm
and make decisions.

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The Role of Finance in an Organization

The role of finance within an organization transcends mere accounting; it serves as the strategic backbone that integrates long-term vision with daily execution through multifaceted functions including financial planning, forecasting, budgeting, analysis, and external stakeholder communication, ensuring the entity remains agile against unforeseen challenges like economic downturns or cost escalations by converting historical data into forward-looking, measurable, and adjustable plans. This begins with comprehensive financial planning that aligns with corporate goals, identifies funding sources and their costs, and develops budgets alongside contingency scenarios.

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In the budgeting process, the finance team collaborates across departments to delineate cash sources and applications, generating pro forma financial statements such as income statements, cash flow projections, and balance sheets that establish performance benchmarks; deviations trigger corrective actions, as seen in Apple's annual budgets allocating billions to AI R&D while maintaining high liquidity for opportunistic investments, preventing inefficient repetitions and amplifying past successes, extending to financial analysis via liquidity, profitability, and growth ratios benchmarked against competitors to pinpoint gaps and validate goal attainment.

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Importance of Data and Technology

Financial data is important for internal and external analysis of business firms. More accurate and timely data leads to better business and financial decision-making. Financial budgeting and forecasting rely on the creation of several types of financial statements including income statements, the statements of cash flow, and balance sheets, as well as the notes and assumptions used to create the financial statements. Insiders such as executive and middle managers use financial data to evaluate and reevaluate decision-making. Having current and accurate data is key to making consistent value-adding decisions for a firm. Data helps inform managers about how and when to finance projects, which projects to undertake, and necessary changes to make regarding physical, financial, and human resource assets.

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“Gut feelings” and “seat-of-the-pants” decision-making tend to be inconsistent with value maximization. Outsiders also use publicly available data about firms to make purchasing, investment, credit, and regulatory decisions. Customers, investors, lenders, suppliers, and regulators must be able to access a firm’s financial information. Investors need to determine how much they are willing to pay for a share of stock, banks need data to determine if a loan should be made, suppliers need financial information to determine if they should supply trade credit, and customers need to know that a firm has priced its products appropriately.

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Basic Data Types

Financial statements provide some of the data needed for decision-making. Firms summarize data and develop at least three essential financial statements or reports.

1. The income statement summarizes the flow of revenues and expenses over a specified period. Income statements for publicly traded companies are available quarterly.
2. Statements of cash flow identify actual receipt and use of cash over a period.
3. Balance sheets show the existing assets, liabilities, and equity as of a particular date.

These statements represent book values and reflect historical costs and accounting adjustments such as accumulated depreciation. Book values often differ significantly from market values.

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Market values look forward and reflect expectations, whereas book values represent what has occurred.

In addition to the internal data summarized on financial statements, firms and outside stakeholders also seek external sources of information. External data gathering includes surveys of customers and suppliers, market research, new product development, statistical analysis, agreements with creditors, and discussions with government officials. Broader macroeconomic data is also valuable as it applies to expected market demand, unemployment, inflation, interest rates, and economic growth.

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The Impact of Digitization

Data digitization makes the storage and transmission of data easier and more cost effective. Some data starts out as digital data, such as that from a Microsoft Suite product. The Excel files and Word documents we create are ubiquitous and easily stored and transmitted. Cloud storage and video conferencing are now the norm. Emails and Zoom meetings are quick, easy, and inexpensive ways to share and store information. Businesses now create an e-trail, or virtual paper trail, to document, verify, and share processes. Because data is now much easier to access, firms bear the added responsibility of ensuring that it is stored and secured properly so that individuals cannot inappropriately alter or delete information.

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Uses of Data

Taken together and separately, the internally generated financial statements can provide managers with a wealth of information to enable superior decision-making. Harvard Business School identifies six ways managers can use financial statements.

1. Measuring the impact of business decisions such as new software, marketing plan, or product line.
2. Aiding in the development of budgets by creating a starting point or future expectations.
3. Aiding in cost cutting or the reduction of duplicate activities.
4. Providing data-supported strategic planning and visioning.
5. Ensuring consistent data and content across departments.

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Careers in Finance

Careers in finance span diverse paths blending analytical rigor, strategic insight, and interpersonal skills, from corporate roles like CFOs shaping enterprise strategy to investment banking analysts valuing deals, portfolio managers optimizing returns, or fintech quants building algorithmic trading systems, each demanding proficiency in tools like Excel, Python for data analysis, and domain knowledge in derivatives or ESG metrics amid a sector projected to grow with AI integration and sustainable finance booms

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job titles and descriptions such as these:

- **Financial manager:** Oversees aspects of and produces reports about an organization's financial needs, uses, and related activities
- **Investment relations associate:** Prepares and presents company financial data to investors and other company stakeholders

Budget analyst: Reviews, plans, and evaluates an organization's financial activities.

- **Credit analyst:** Reviews financial and related information to determine the creditworthiness of potential clients and customers; typically works at commercial and investment banks, credit unions, and rating firms such as Moody's or Standard and Poor's.
- **Financial analyst:** Collects and examines data to plan future activities and evaluate past decisions.

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- **Personal financial advisor:** Provides advice to clients for short-, intermediate-, and long-term financial planning.
- **Loan officer:** Helps individuals and organizations apply for loans and typically works for depository financial institutions such as commercial banks.
- **Insurance underwriter:** Evaluates risk and establishes prices for insurance products such as life, property, and casualty insurance.
- **Financial examiner:** Evaluates and monitors the activities of depository institutions in an effort to assure proper practice and behavior.
- **Finance professor:** Teaches college classes, engages in economic and financial research, and provides community service by serving on boards and providing financial expertise.

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Financial Analyst Roles

market research.
financial forecasting.
Modeling.
cost analysis.
comparative valuations.

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Business (or Management) Analyst Roles

- Gathering information about problems to be solved or procedures to be improved
- Interviewing personnel and conducting onsite observations to determine the methods, equipment, and personnel that will be needed
- Analyzing financial data, revenues and expenditures, and employment reports, among other data
- Finding root causes for problems and proposing solutions that may include new systems, procedures, or personnel changes
- Presenting findings to decision makers
- Conferring with managers to ensure changes work

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Markets and Participants

Primary and Secondary Markets

Simply put, the primary market is the market for “new” securities, and the secondary market is the market for “used” securities. Think of the primary market as equivalent to the sale of new cars and the secondary market as equivalent to the sale of used cars. In practice, many market locales trade both new and used securities.

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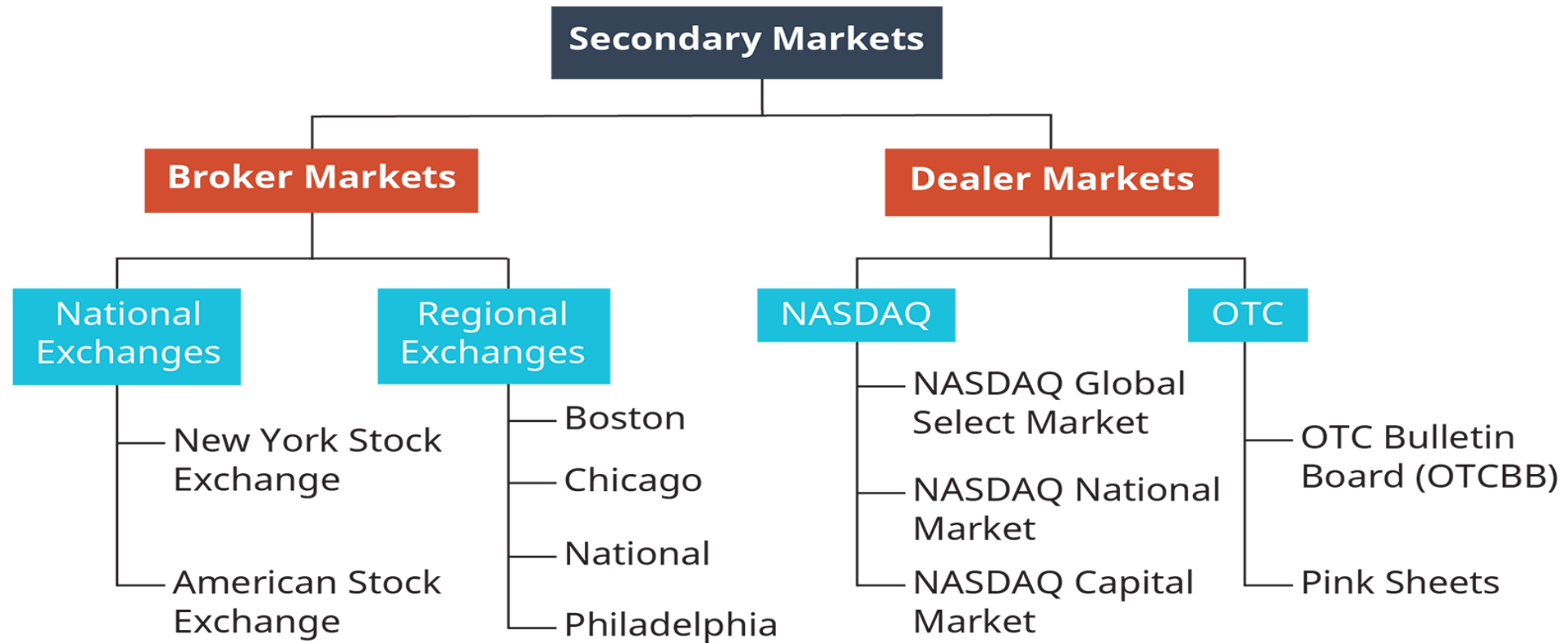
Key Market Players

Key market players in finance include dealers, brokers, financial intermediaries, and you and me. Each of these players facilitates the exchange of products, information, and capital in different ways.

The presence of these players makes financial transactions, easier, faster, and safer essentially more efficient.

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Dealers

Financial dealers own the securities that they buy or sell. When a dealer engages in a financial transaction, they are trading from their own portfolio. Dealers do not participate in the market in the same manner as an individual or institutional investor, who is simply trying to make their investments worth as much as possible. Instead, dealers attempt to “make markets,” meaning they are willing and able to buy and sell at the current bid and ask prices for a security.

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Brokers

Brokers act as facilitators in a market, and they bring together buyers and sellers for a transaction. Brokers differ from dealers who buy and sell from their own portfolio of holdings. These firms and individuals traditionally receive a commission on sales. In the world of stockbrokers, you may work with a discount broker or a full-service broker, and the fees and expenses are significantly different. A discount broker executes trades for clients. Brokers are required for clients because security exchanges require membership in the exchange to accept orders. Discount brokers or platforms such as Robinhood or E-Trade charge no or very low commissions on many of their trade executions, but they may receive fees from the exchanges. They also do not offer investment advice. Full-service brokers offer more services and charge higher fees and commissions than discount brokers.

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Microeconomic and Macroeconomic Matters

In the business setting, finance is the intersection of economics and accounting. Financial decision makers rely on economic theory and empirical evidence combined with accounting data to make informed decisions for their organization. Economics is the study of the allocation of scarce resources. Economists attempt to understand the how and why of human and financial capital allocation to governments, businesses, and consumers. We typically separate economics into two major areas, microeconomics and macroeconomics.

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Microeconomics

is devoted to the study of these decisions of allocation by individual businesses, persons, or organizations. Microeconomics helps us understand incentives and behavior, consumer choices and consumption, and supply and demand. Our understanding of microeconomics aids in financial forecasting, planning, and budgeting by understanding how individuals are likely to respond to changes in product or service functionality, price, supply, quality, marketing, or another firm-induced stimulus. Empirical research by individuals, businesses, academics, and government provide evidence of what is going on and suggest what may change or stay the same.

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Macroeconomics

Whereas microeconomics studies the decisions of individuals, macroeconomics examines the decisions of groups. Macroeconomic areas of study and concern include inflation, income, economic growth, unemployment and monetary policy impacts that cascade into financial markets and corporate strategies. These domains interweave seamlessly in finance: a telecom engineer's startup pricing AI software reflects micro cost-benefit analysis of R&D spend versus revenue forecasts, yet hinges on macro tailwinds like falling GPU costs from scale or Fed rate cuts spurring venture capital flows, underscoring that no financial decision operates in isolation but emerges from this micro-macro interplay driving asset values, credit availability, and risk premia across global economies.

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Importance of Macroeconomic Variables in Financial Markets

To make financial forecasts, managers need good information to understand the relationship among several economic variables. Working from small to large, sales forecasts estimate the likely price and quantity of goods sold. In doing so, the forecaster will consider local, regional, state, national, and international economic conditions. Inflation is an important macroeconomic variable that influences prices. Every quarter, financial information hubs, such as government agencies and regulatory bodies, release estimates about expected and current inflation.

This information informs policy makers how to adjust the money supply to meet target objectives.

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The unemployment rate helps inform financial forecasters about the expected cost of labor and the ability of employers to hire people if a firm plans to increase the production of goods or services. The stock market is a forward-looking macroeconomic variable and measures investor expectations about future cash flows and economic growth. Political economic variables such as changes in regulation or tax policy can also affect forecasting models.

Each of the variables we have identified inflation, interest rates, unemployment, economic growth, the stock market, and government fiscal policy are macroeconomic factors. They are beyond the scope and influence of individual firms, but combined, they play a critical role in establishing the market in which firms compete.

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Financial Instruments

The money market is the market for short-term, low-risk, highly liquid securities. “Short-term” refers to money market securities having maturities of less than one year, sometimes as short as overnight. “Low risk” specifically means that the probability of default by the issuer is very unlikely. Defaulting on money market instruments is not unheard of, but it is very rare. “High liquidity” means that money market instruments can generally be sold in a secondary market very quickly and at or near their current market value. Finally, money market securities are homogeneous, meaning that within an issue of securities, a single instrument is not unique.

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Capital Markets and Instruments

The capital market is the market for longer-term financial instruments. The capital market is similar to the money market. However, maturities are longer, default risk varies to a greater degree from low to high, and liquidity is less certain, as is the homogeneity of the financial instruments. Broadly, we separate capital market instruments into debt instruments traded in the bond markets and equity securities traded on the stock markets.

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Overall, capital markets play a vital role in the economy by efficiently allocating long-term resources, supporting investment and innovation, and enhancing financial stability. A well-functioning capital market contributes to economic development by ensuring that savings are transformed into productive investments, making it a central topic in finance and economics.

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Concepts of Time and Value

Economic value is not simply “price”. Price is what you pay; value is what you receive relative to what you give up. Economic value is created when resources are transformed into outcomes people care about comfort, speed, safety, prestige, reliability, profit, or reduced uncertainty and when those outcomes are scarce or hard to replicate. Value can be personal (the satisfaction a learner gets from mastering a skill) and market-based (the amount others are willing to exchange for it). The key is that value depends on preferences, constraints, and alternatives. If a good has many close substitutes, its economic value to buyers tends to be limited because they can switch. If a good is unique or solves a painful problem, its economic value rises because alternatives are weak.

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Economic value is also inseparable from trade-offs. Every choice has an opportunity cost: choosing one path means not choosing the next best one. Value therefore is relational rather than absolute; it is assessed against the best alternative available at that time. A student deciding whether to spend evenings on a part-time job or a demanding research project is performing a value comparison: immediate cash versus long-run capability. The “best” choice may differ across people because constraints differ: family responsibilities, scholarship conditions, health, or local job markets. Recognizing this prevents simplistic judgments about spending and saving. What looks like overspending for one person may be rational for another if it buys time, safety, or a critical resource.

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Time and value intersect through durability and timing of benefits. Some benefits decay quickly entertainment, fashion trends, short-lived excitement so their value is concentrated in the present. Other benefits persist skills, health, trust, infrastructure so their value extends into the future. When the benefit is durable, delaying or avoiding the spending can be costly because you lose time enjoying or using that durable benefit. When the benefit is fleeting, delaying often costs little and can even increase satisfaction by forcing better choice. This is a sophisticated way to teach students: not “save more, spend less,” but “match the timing of spending to the durability of the benefit.” It encourages disciplined spending rather than guilt-driven austerity.

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Market values are calculated using expected future cash flows discounted to today. Market values are the that consumers pay for a product. Economic value is what we believe consumers are actually willing to pay for a product, service, or experience. For example, the price of a football ticket may be \$10, but there are individuals who are willing to pay far more for the experience of watching a football on the big screen. Generally, the economic value is at least as great as the market value or current price of an asset.

One way to think about the difference between market value and economic value is that market value is what you have to pay, while economic value is what you are willing to pay.

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Summary

References

Julie Dahlquist, and Rainford Knight. (2022). Principles of finance. OpenStax.





Thank You