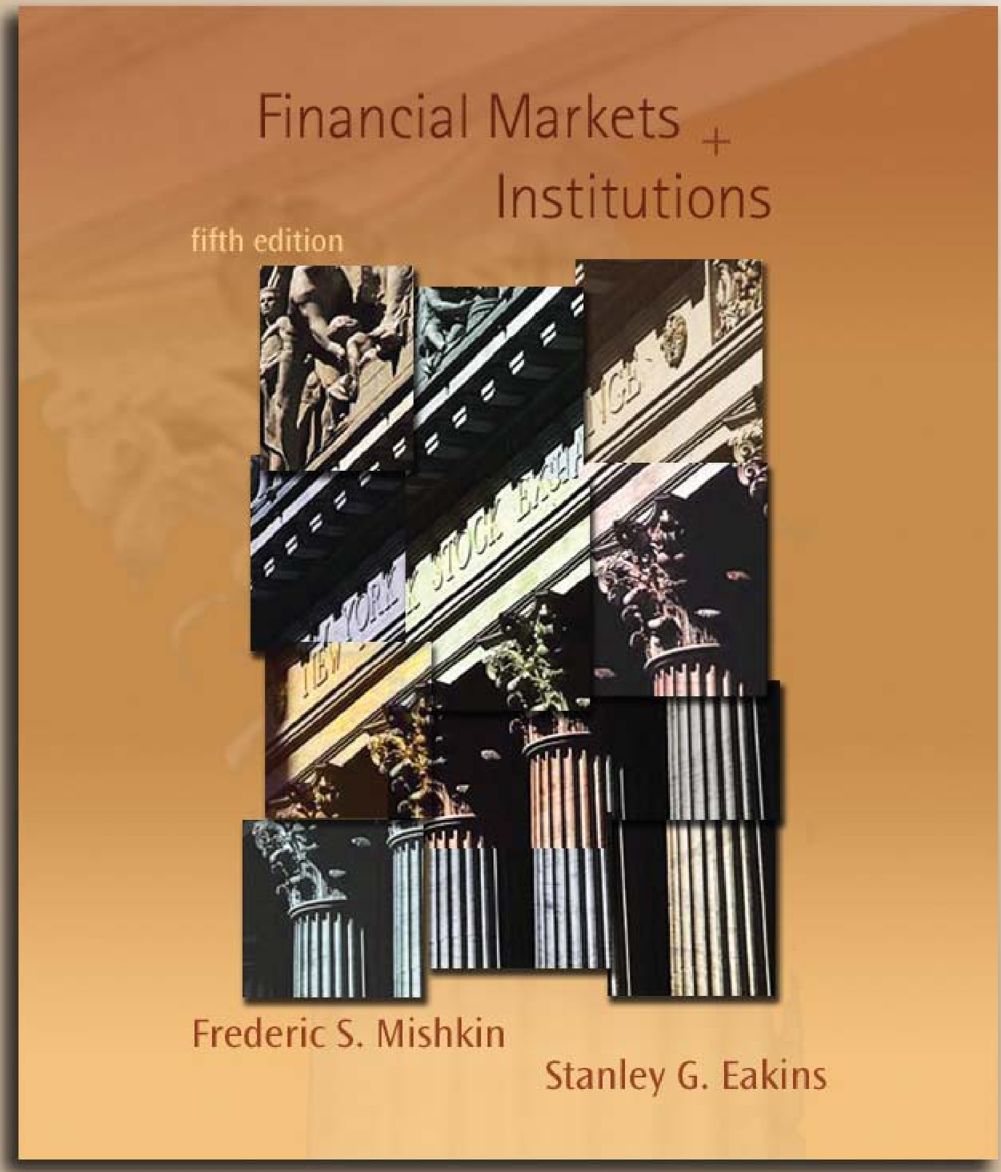


Class 1

Introduction to Financial Markets

Subject of this course: Financial institutions

- Basic questions
  - What?
  - Why?
  - How?
  - Whereto?

Financial markets

- *What*: Transfer funds from savers to borrowers
- *Why*: Promoting allocation efficiency and risk sharing
- *How*: Via the use of securities and financial intermediaries
- *Whereto*: That become more advanced to satisfy different demands

Major financial innovations

- Money
  - Skins (“bucks”) → coins → paper → electronic money
  - Lower costs of trade → enormous expansion of commerce, specialization of production
  - Functions: medium of exchange / unit of account / storage of value
- Stock market
  - Separation of ownership and control
  - Investors can diversify across many risky projects, with limited liability

Major financial innovations

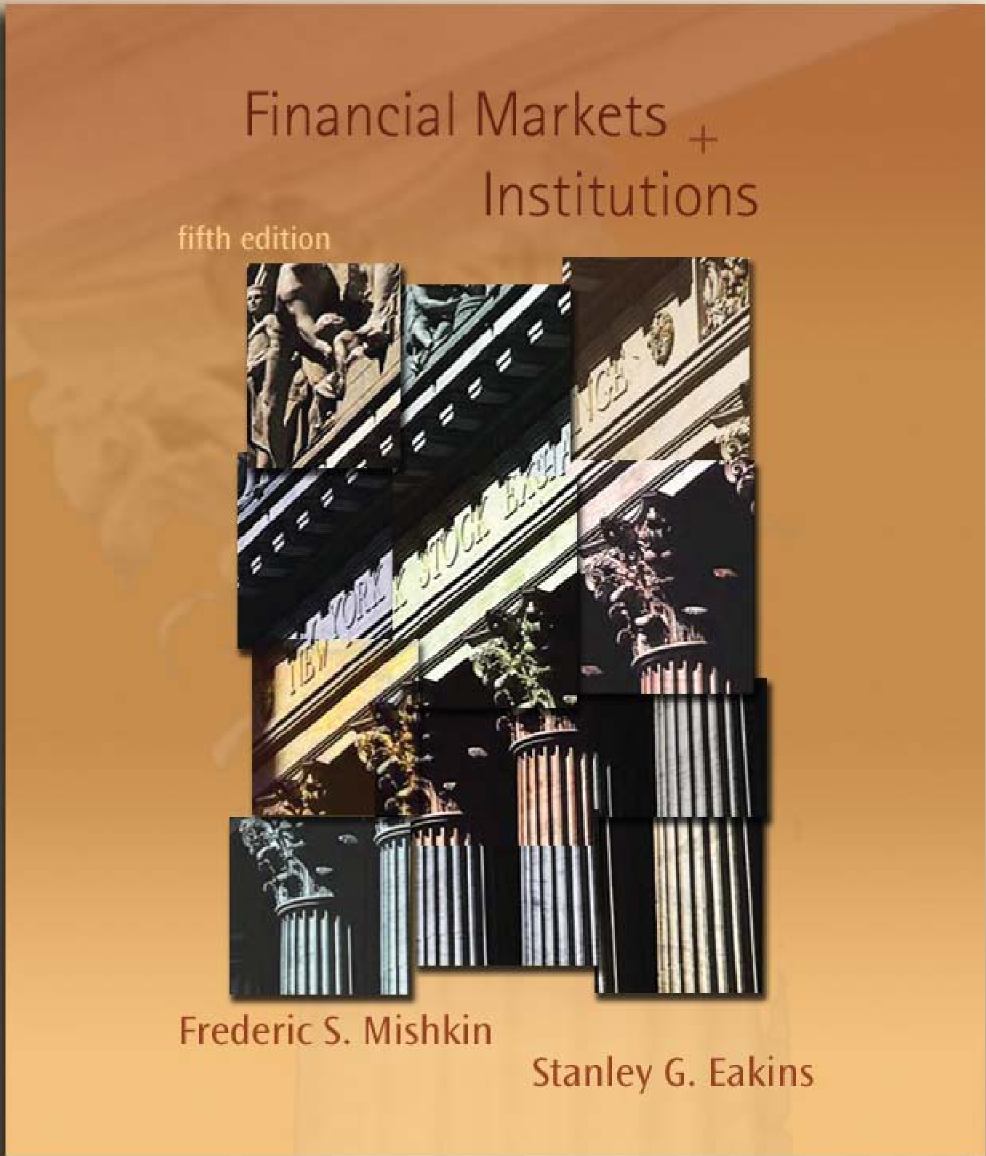
- Futures markets
  - Hedging future risks, e.g., grain / exchange rates / weather
  - Even without owning the underlying asset!
- Insurance for a car / house / health / life

Functions of financial markets

- Channeling funds from agents without investment opportunities: "Lender-Savers"…
- to those who have them: "Borrower-Spenders"
  – Households
  – Business firms
  – Government
  – Foreigners

Segments of financial markets

- Direct Finance: the "arm's-length system"
  - Borrowers borrow directly from lenders in financial markets by selling financial instruments
    - Claims on the borrower's future income or assets
    - Stocks, bonds, derivatives
- Indirect Finance: the "relationship-based system"
  - Borrowers borrow indirectly from lenders via financial intermediaries
    - Matching available funds and loan opportunities
    - Banks, investment companies (e.g., mutual funds)



Discussion topic

What explains the tremendous growth of the financial industry?

Financial development vs. economic growth

- Empirically: positive relation
  - Large economy needs a larger financial sector
  - Financial intermediaries help the real sector to allocate the funds more efficiently
  - Both driven by a third factor: e.g., saving rate, culture, legal and regulatory environment

How to measure financial development?

- Stock market size and liquidity
  - – Market equity cap to GDP
  - – # instruments (actively) traded locally, # IPOs
  - – Trading volume / turnover rate
  - – Transaction costs / bid-ask spread
- Banking system
  - – Bank credits to GDP

What explains the level of financial development?

- Protection of property rights
  - Laws and enforcement
- Openness of capital account
  - Liberalization leads to higher competition and diversification, lower cost of capital
  - But only after ensuring property rights

What explains the level of financial development?

- Legal origin
  - Common law countries: prevalent role of financial markets
    - Require transparency and protection of (small) investors
  - Continental Europe and Asia: led by financial intermediaries (banks)
    - FIs establish deep relations with the clients and have enough power to protect their interests
- Synergy between banks and financial markets

How does financial development contribute to economic growth?

- Increases allocation efficiency
  - Channeling resources to their most productive uses
- Allows risk sharing
  - Placing risks where they are best borne

Mini-case 1: micro-finance

- 2006 Nobel peace prize: for the first time to the financier
  - Grameen bank and its founder Muhammad Yunus (Bangladesh, PhD Vanderbilt 1969)
  - "for the efforts to initiate economic and social development from below"
- Typical example
  - A woman earns only 2 cents on the borrowed 9 cents
  - The whole village needed only $27 to buy the necessary materials!

Mini-case 1: micro-finance

- How to help the poor?
  - Financial aid? Bad incentives
  - Subsidies? Large costs
  - Loans? Too many defaults

Mini-case 1: micro-finance

- Banking for the poor
  - Loans granted to people with less than 2 sq.km, preferably women
  - Small loan ($ tens to hundreds) to the group
  - No collateral, (mutual) guarantees from the partners
  - Small fixed weekly payments
  - Flexible restructuring in case of temporary difficulties (after the 1998 flood)

Mini-case 1: micro-finance

- Results
  - 6.61 mln clients (97% women)
  - Loans totaling $5.72 bln with 11% default rate
  - Net profit over $15.2 mln in 2005
  - Helped 70 mln people to improve their living (out of 130 mln)

Overview of the financial system

- Security (financial instrument)
  – A claim on future income or assets
- Debt: fixed income instruments (bills, bonds, notes, etc.)
  – Periodic pre-specified payments for a specified period of time
  – Control rights only in case of bankruptcy
- Equity: (common) stocks
  – Share in residual value of the project (firm)
  – Control rights until bankruptcy
- Foreign exchange: relative prices of national currencies

Bond Market and Interest Rates

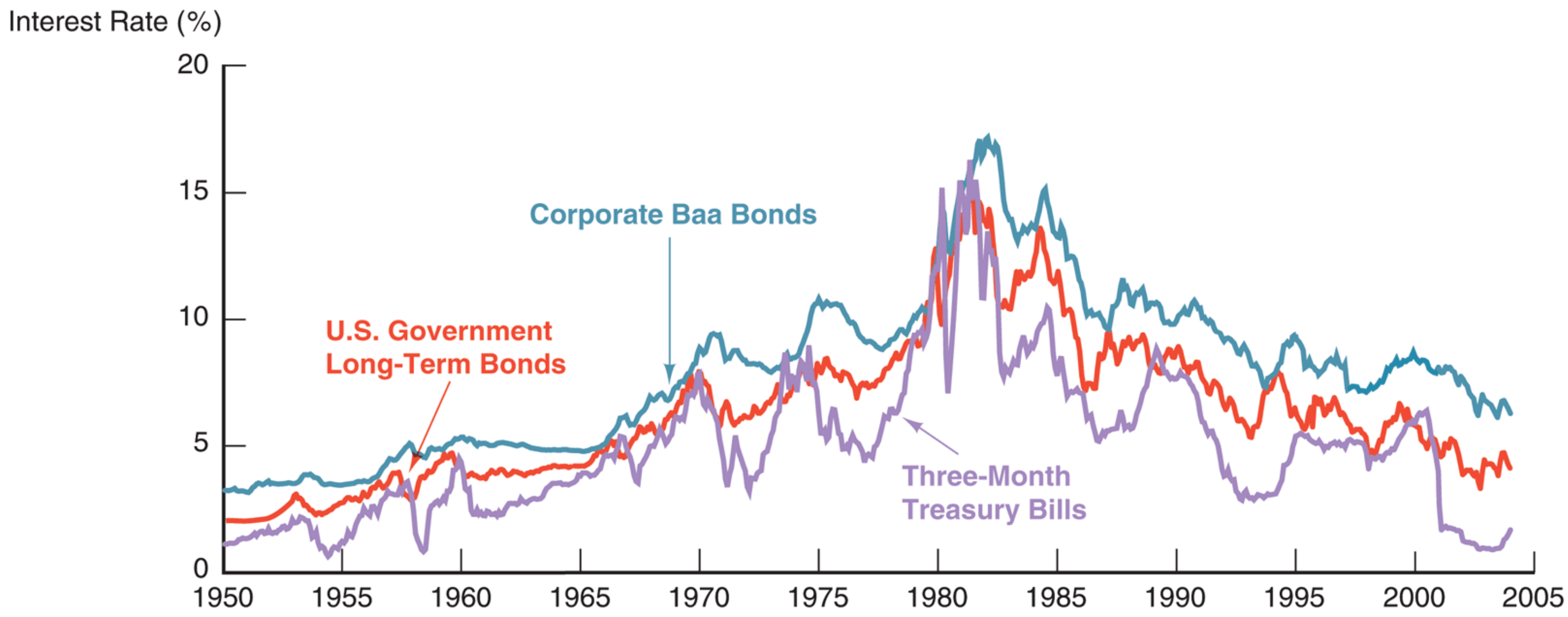


Figure 1.1 Interest Rates on Selected Bonds, 1950–2001

Complete list of interest rates
http://www.federalreserve.gov/releases

Stock Market

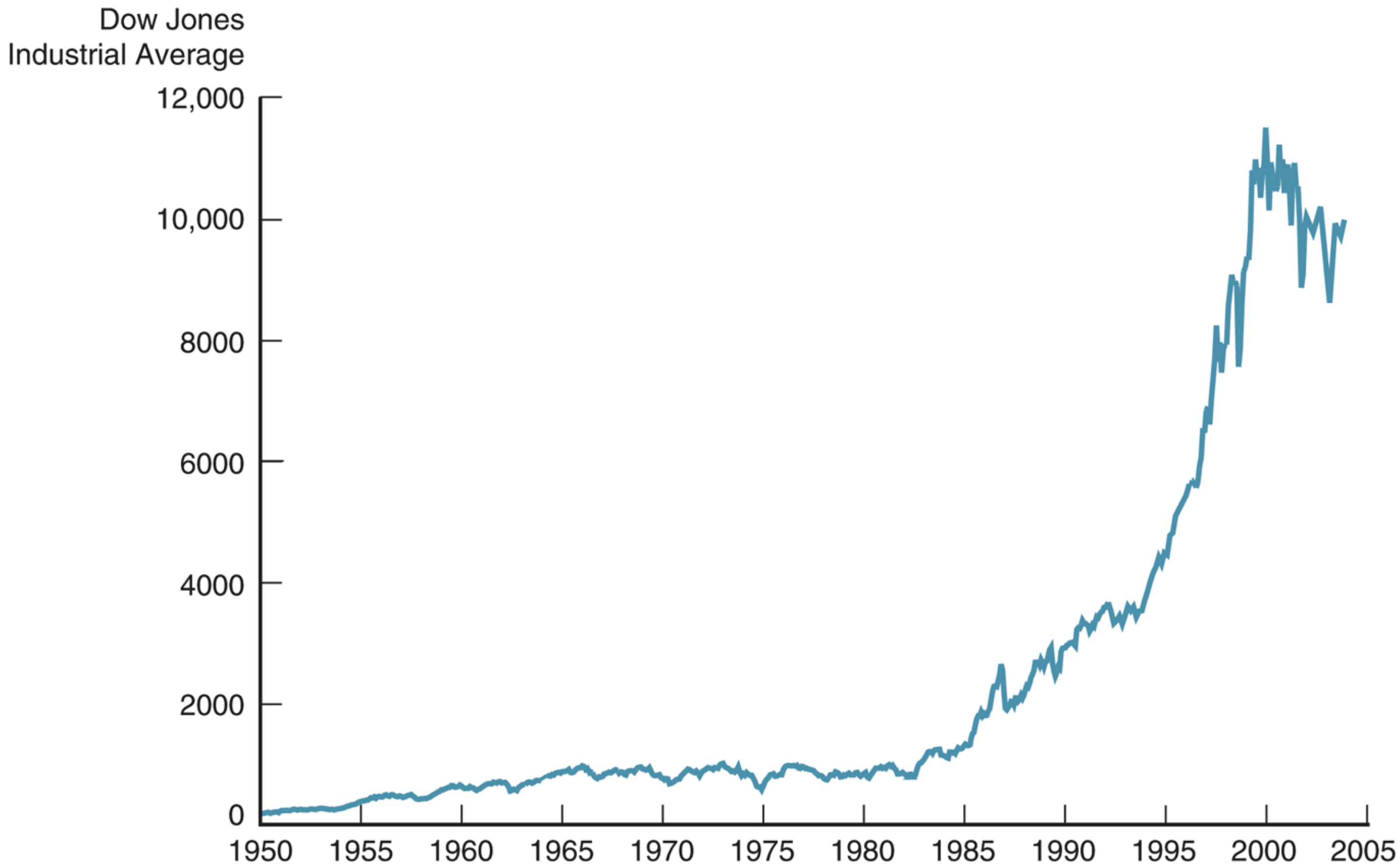


Figure 1.2 Stock Prices as Measured by the Dow Jones Industrial Average, 1950–2005

Foreign Exchange Market

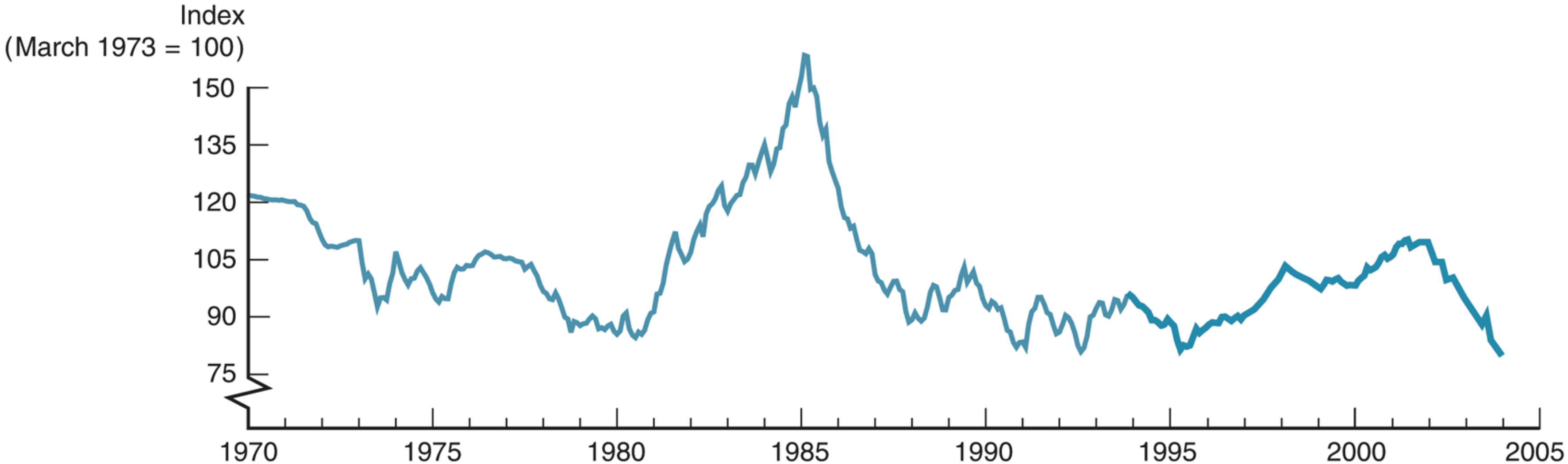


Figure 1.3 Exchange Rate of the U.S. Dollar for a Basket of Foreign Currencies, 1970–2004

Classification of financial markets

- Primary Market
  - New security issues sold to initial buyers
- Secondary Market
  - Securities previously issued are bought and sold

Classification of financial markets

- Exchanges
  - Trades conducted in central locations (e.g., New York Stock Exchange)
- Over-the-Counter (OTC) Markets
  - Dealers at different locations buy and sell

Classification of financial markets

- International Bond Market
  - Foreign bonds
  - Eurobonds (now larger than U.S. corporate bond market)
- World Stock Markets
  - U.S. stock markets are no longer always the largest—at one point, Japan's was larger

Functions of Financial Intermediaries (FIs)

- Engage in process of indirect finance
- Reduce transactions costs
  - Developing expertise
  - Taking advantage of economies of scale
- Provide liquidity
  - E.g., depositors can earn interest on the accounts and yet still convert them into goods whenever necessary

Functions of Financial Intermediaries (FIs)

- Reduce the exposure of investors to risk
  - Risk sharing: create and sell assets with lesser risk to one party in order to buy assets with greater risk from another party
- Mitigate asymmetric information problems
  - Adverse Selection (before transaction occurs): potential borrowers most likely to produce adverse outcome are ones most likely to seek loan and be selected
  - Moral Hazard (after transaction occurs): the borrower has incentives to engage in undesirable activities making it more likely that he won't pay the loan back

Types of Financial Intermediaries

- Depository Institutions
  - Commercial banks
- Contractual Savings Institutions
  - Insurance companies
  - Pension funds
- Investment Intermediaries
  - Mutual funds

Regulation of Financial Markets

- Increase Information to Investors: SEC
- Ensure the Soundness of Financial Intermediaries
  - Disclosure
  - Deposit Insurance: FDIC
- Improve Monetary Control
  - Reserve requirements: FRS