Basic definitions and concepts

Transformation of the financial system

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Essential readings

1. Mishkin, F. S., and Eakins, S. G. (2009). *Financial Markets and Institutions*, 7th edition. Pearson. – Chapters 1-2, 9-11, 15.

Economics and finance

- Economics – a social science that studies the production, consumption and distribution of goods and services, with an aim explaining how economies work and how their agents interact
  - focuses on the optimization of valued goals
- Finance – a fund management science, which deals with the interrelation of the concepts of time, risk and money
  - focuses entirely on the maximization of wealth

Functions of finance

1. Facilitating the exchange of goods and services – monetary function
2. Mobilizing and pooling savings from a large number of investors – financial intermediation
3. Allocating society's savings to its most productive use (reducing information and transaction costs)
4. Diversifying and reducing liquidity and intertemporal risk
5. Monitoring managers and exerting corporate control

Structure of the financial system

- Financial markets
- Securities (financial instruments)
    - Debt instruments
    - Equity instruments
- Financial intermediaries

Financial system and financial infrastructure

- Financial system – the system of all financial intermediaries and financial markets and their relations with respect to the flow of funds to and from households, governments, business firms, and foreigners, as well as financial infrastructure
- Financial infrastructure – the set of institutions that enables effective operation of financial intermediaries and financial markets:
    - payment systems
    - credit information bureaus
    - collateral registries

Financial system participants

Lenders/Savers	Borrowers/Spenders	Intermediaries
Individuals/Households	Individuals	Banks
Companies	Companies	Insurance companies
Government	Governments	Pension funds
	Municipalities	Mutual funds
	Public corporations	

Borrower $\leftrightarrow$ Lender

Issuer$\leftrightarrow$ Investor

Seller $\leftrightarrow$ Buyer

Types of the financial system model

- Financial market-based system (US, UK)
  - Relies on the capital market and on segmented banking
  - High economic and organizational prerequisites for the efficiency
- Bank-based system (continental Europe, Japan)
  - Collects short-term deposits
  - Handles transfers of funds to business
  - Integration of banking and commerce – close relationship between banks and firms
  - Well capitalized to cover ordinary banking risks

Financial market

- Financial market is a mechanism that allows people and entities to buy and sell financial securities, commodities and other fungible items of value at low transaction costs and at prices that reflect supply and demand
- Financial markets facilitate:
  - The raising of capital (capital markets)
  - The transfer of risk (derivatives markets)
  - The transfer of liquidity (money markets)
  - International trade (currency markets)

Structure of financial markets

- Nature of the financial securities traded
  - Primary market
  - Secondary market
- Forms of organization
  - Organized exchanges
  - Over-the-counter (OTC) markets
- Maturity of financial instruments traded
  - Capital markets
  - Money markets
- Forms of trade intermediation
  - Quote-driven dealer markets
  - Order-driven markets
  - Brokered markets

Types of financial markets

- Capital markets
  - Stock markets
  - Bond markets
- Commodity markets
- Money markets
- Interbank markets
- Derivatives markets
- Futures markets
- Insurance markets
- Foreign exchange markets

Taxonomy of financial intermediaries (1)

Depository institutions

- Commercial banks
  - Retail banking
    - Private banking
  - Wholesale banking
- Savings and loan associations (USA) / Cooperative banks (Germany, Italy) / Mortgage banks (Buildings Societies in the UK)
- Credit unions (USA) / Savings banks (Germany)
- Contractual savings institutions
  - Insurance companies
  - Pension funds

Taxonomy of financial intermediaries (2)

Investment intermediaries

- Mutual funds
- Finance companies
- Investment (merchant) banks
- Securities firms
    - brokers
    - dealers
- Clearing banks

Why financial markets are regulated?

- Asymmetric information – a situation in which one party of the transaction has more or superior information compared to another
- Consequences of asymmetric information:
  - Adverse selection – immoral behavior that takes advantage of asymmetric information before a transaction (ex ante)
  - Moral hazard - immoral behavior that takes advantage of asymmetric information after a transaction (ex poste)
    - Principal-agent problem – stockholders (principals) own firm's equity, but usually they are not managers
- How asymmetric information influences financial structure?

How to reduce/solve problems arising from asymmetric information

- Reducing adverse selection:
  - Private production and sale of information – activities of information agencies and rating agencies
  - Government regulation – to ensure that firms disclose full information to potential investors
  - Financial intermediaries – loans are insured by collateral; banks produce more accurate valuations of firms
- Reducing moral hazard
  - Monitoring (auditing)
  - Government regulation to increase information
    - Standard accounting practices
    - Criminal penalties for fraud
  - Financial intermediaries active in the equity market
  - Debt contracts

Transformation or transition

- Changes of the economic system as a whole
- For our purposes, it is the process of changing an economic system from centrally planned economy to a free market after some major political changes (former Soviet Union countries and communist bloc countries of Europe) or deliberate choice (China)
- The process is characterized by the changing and creating of institutions

Forms of economic system

- Traditional economy
  - Barter economy
- Market economy
- Planned economy
- Mixed economy

Transition process

- Early reform steps
  - Price liberalization
  - Liberalization of foreign trade
  - Restructuring and privatization
  - Elimination of state aids for companies
  - Set of capital and financial market
  - Liberalization of proprietorship
- Long-term tasks
  - Legal framework
  - Changes in justice (especially, competition policies)

Economic transition (IMF definition)

- Liberalizing economic activity, prices, and market operations, along with reallocating resources to their most efficient use
- Developing indirect, market-oriented instruments for macroeconomic stabilization
- Achieving effective enterprise management and economic efficiency, usually through privatization
- Imposing hard budget constraints, which provides incentives to improve efficiency
- Establishing an institutional and legal framework to secure property rights, the rule of law, and transparent market-entry regulations

Transformation approaches

- Gradualism
  - Slow pace of reforms
  - All negative factors could be limited
  - Optimistic situation in business
  - Social pressures
- Shock therapy
  - Quick pace of reforms
  - Basic reforms in short time horizon
  - Accompanied by stabilization policy and withdrawal of government interventions

Key components of modern financial system

- Stable money and money markets
- Sound banks and banking systems
- An effective central bank
- Stable public finances and markets for government debt securities
- Efficient securities markets for business firms' debts (bonds) and equities (stocks)
- Sound insurance companies and insurance markets
- Corporations with limited liability to facilitate equity share issuance and ownership

Choice of the financial system model

- The quality of information about private firms?
- Investors' behavior?
- Possibilities for savings?
- Is a bank-based financial structure better than a market-based one to foster economic development?
- Historically transition economies choose bank-based system
    - Universal banking
    - Foreign bank entries are preferable
    - Control and monitoring (creditor rights, contract enforcement, accounting standards)
    - Securities markets should provide informational feedback because they provide prices for different types of assets

Finance and economic growth

- The development of financial markets and institutions is a critical and inextricable part of the growth process
- Relationship between financial development and economic growth is a long-debated issue
- Theory does not point to obvious growth benefits from having a large and developed financial sector in the economy
- Channels to growth:
  - capital accumulation
  - technological innovation
- There are important non-linearities even in the intermediation-growth relationship
  - most of the growth benefit comes through enterprise credit
  - most of the credit growth in advanced countries over recent years has been in household credit

Financial development

- Financial deepening
  - the extent to which past savings has been transformed into investments
  - measures as increase in the ratio of financial assets to GDP
  - indicates how effectively financial institutions have mobilized savings for investment
- Financial broadening
  - an increase in the variety of financial institutions and instruments (including different types of securities, market participants, growth of institutional investors)
  - implies a greater choice for savers and investors

Financial development

- What type of financial development is integral to the growth of the economy?
- An effective financial system facilitates the sharing of information between investment projects and potential investors for an efficient allocation of risk on satisfying temporal terms
- The complex of interacting markets provides multiple channels for revealing and responding to economic shocks

How to assess financial development?

	Institutions	Markets
Depth	Private sector credit to GDP	Stock market capitalization to GDP
	M2 to GDP	Private debt securities to GDP
	Deposits to GDP	Public debt securities to GDP
	Gross value added of the financial sector to GDP	Stocks traded to GDP
Access	Accounts per thousand adults	Ratio of domestic to total debt securities
	Branches per 100,000 adults	Ratio of private to total debt securities
	% of firms with line of credit	Ratio of new corporate bond issues to GDP
Efficiency	Net interest margin	Turnover ratio for stock market
	Lending-deposits spread	Price synchronicity (co-movement)
	Non-interest income to total income	Liquidity/transaction cost
	Profitability (ROE, ROA)	Quoted bid-ask spread for government bonds
	Level of competition (HHI)	
Stability	Capital adequacy ratios	Volatility of stock price index
	Asset quality ratios	Volatility of sovereign bond index
	Liquidity ratios	Vulnerability to earnings manipulation
		Price/earnings ratio

Financial development and economic growth

- Financial development is important not only for fostering the economic growth process, but also for dampening the volatility of the growth process
- Which specific types of financial development are crucial for economic development? Countries with better functioning banks and markets grow faster
- The impact of financial sector deepening on firm performance and growth is stronger for SMEs than for large enterprises

Readings for the next topic

1. Mishkin, F. S., and Eakins, S. G. (2009). *Financial Markets and Institutions*, 7th edition. – Chapters 14, 17-18.
2. Judis, J.B. (2009). *Debt Man Walking*. US Department of State eJournal, vol.14, 5, pp. 9-12.
3. Vedder, R. (2009). *The Evolving Global Financial System*. US Department of State eJournal, vol.14, 5, pp. 27-30.
4. Wyman. O. (2009). *The Future of the Global Financial System*. World Economic Forum's World Scenarios Series. [EXCERPT]