Securities Regulation & Investor Protection

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International Financial Law
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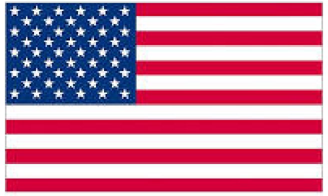
Main areas

- Scope of securities regulation
- Financial Crisis & market failures
- Types of securities
  - Stocks and bonds
- Regulatory Dimensions
  - Policy goals
  - Regulatory Strategies
- Exchanges
- Regulation
  - International (IOSCO)
  - US Law
  - EU Law

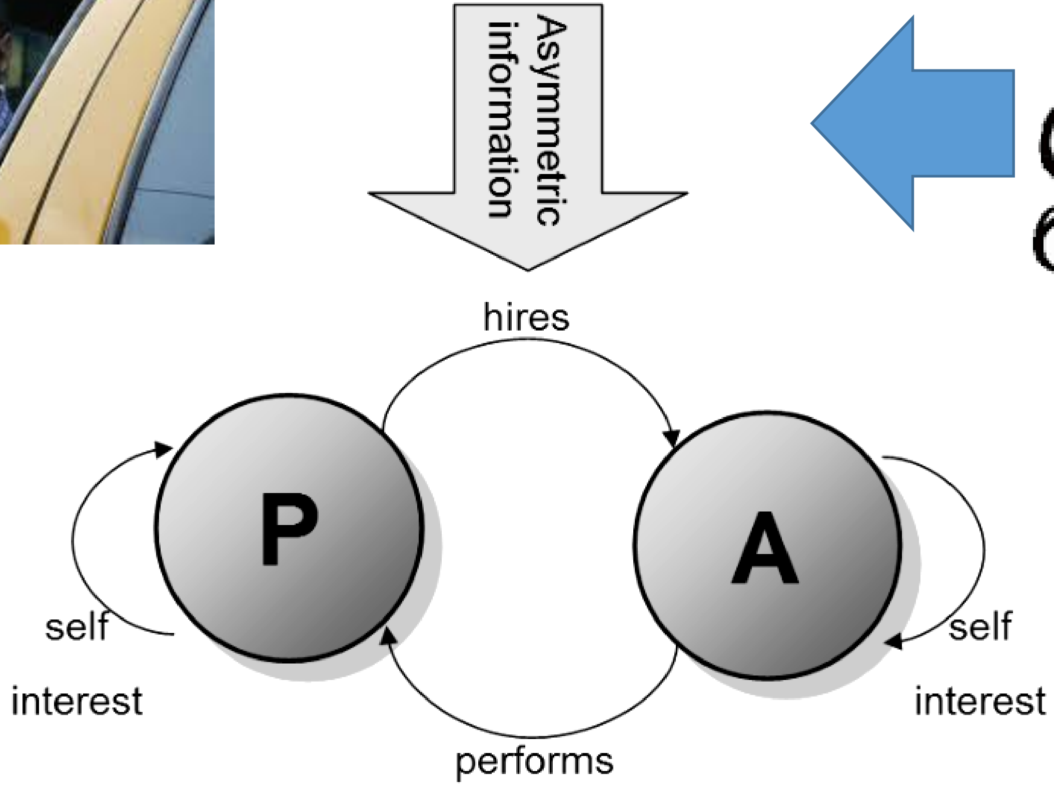


The Goals

- Market efficiency
  - low transaction costs
  - High liquidity
  - Market Integrity
    - Price fomation
      - Efficient Capital Market Hypothesis
- Financial Stability
- Investor Protection
  - Who to protect
    - Users
- Problems:
  - Information asymmetries
  - Principal – agent problem

Principal-Agent Model

Moral Hazard



Shareholders
Corporation

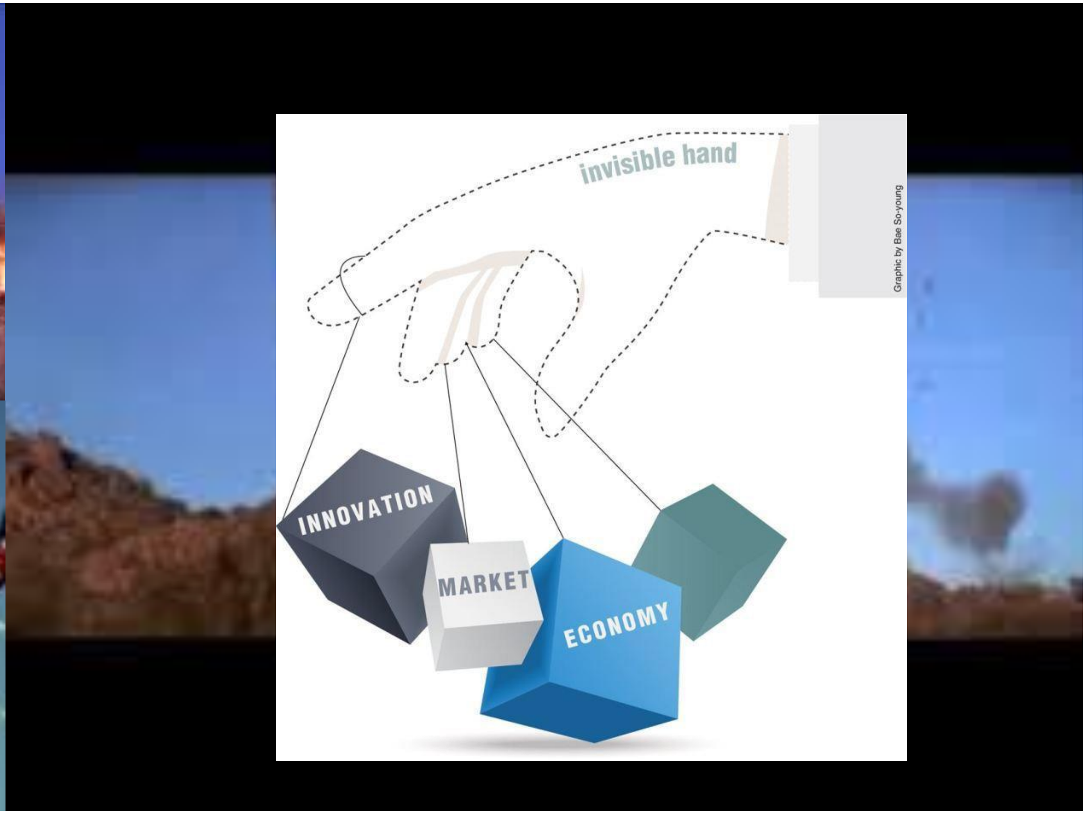
Directors

Adverse Selection

Scope

- Investor protection
- Disclosure, prospectuses, market abuse
- Financial intermediaries & Exchanges
- Financial stability & Financial innovation
- Minimum capital requirements
- Recovery and resolution
- Clearing of OTC derivatives
- Regulation of credit rating agencies

The starting point



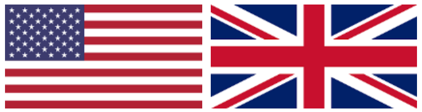
Bank-Based vs Market-Based Financial System

Bank-Based System

- Reliance on **banking industry** to allocate funds
- **Indirect Finance**:
  - commercial banks as financial intermediaries

Market-Based System

- Reliance on the **capital markets** to allocate funds



- **Direct finance**
  - securities issued directly to investors; role of securities firms (broker-dealers, investment banks) as financial intermediaries

Banking Regulation *versus* Securities Regulation

Capital Raising – Types of securities

- Equity
  - Common shares
  - Tracking stocks (typically has limited or no voting rights)
- Debt
  - Corporate bonds
  - Fixed-income securities *versus* floating-rate notes
  - Short-term debt securities
- Hybrids
  - Preference shares without voting rights
  - Convertible bonds

Why and How to regulate

Why - Dual Dimension

- **Market Effiency, Financial Stability, Investor Protection**
  - National:
    - Protect investors, Maintain fair and orderly markets, Facilitate capital formation
  - International (G20, Financial Stability Forum, IOSCO, BIS, European Authorities)
    - Protect from Systemic Risk, Avoid regulatory arbitrage
- **How - Different types of regulation**
  - Public regulation: A central regulator elaborates and provides the rules
  - Self-regulation: industry rep. develop and implement regulatory proposals
  - Principle-based regulation vs. Rule based regulation

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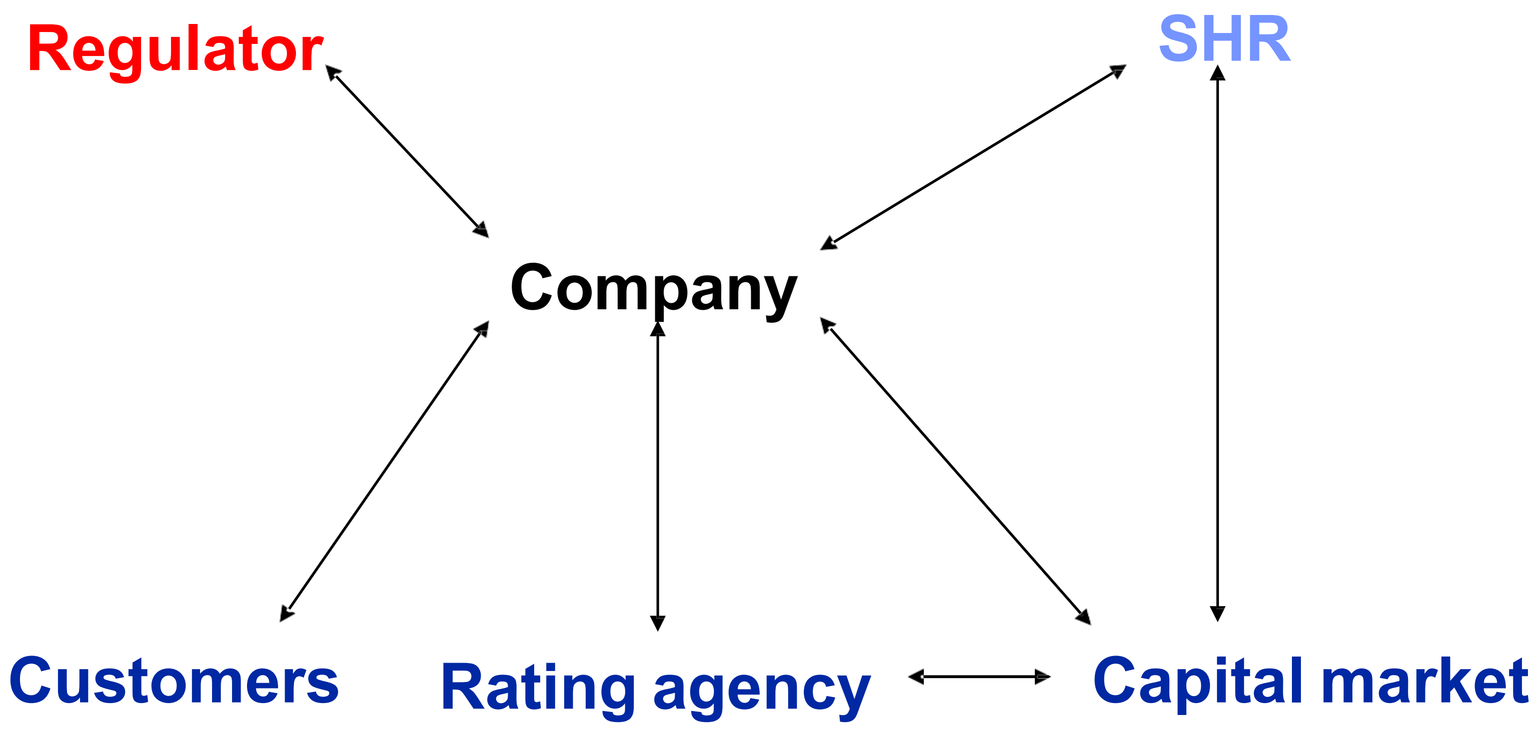
Modern Securities Markets – Complexity of the Principal-Agent Problem



Regulatory Strategies

Table 3.1 Strategies of Financial Regulation

Scope of obligations: Regulatory strategy	User	Firm	Sectoral
Ex ante strategies			
Entry regulation	Participation Profiling	Licensing Qualification requirements Product regulation Structural restrictions	Market power
Conduct regulation	Trading rules	Trading restrictions Conduct of business	
Information regulation	Education	Disclosure	
Prudential regulation		Balance sheet	Macroprudential
Governance regulation		Board structure Compensation regulation Risk management Ownership restrictions	
Ex post strategies			
Insurance	Insurance	Lender of last resort Bail-outs	Lender of last resort Bail-outs
Resolution		Resolution procedures	

Meaning of the term "*self-regulation*"

- Three sources of confusion:
- What is meant by "*self*"
  - Self as individual: Discipline of one's own conduct by oneself, tailored to the
  - circumstances of particular firms
  - Self as a collective group: of the conduct of its members or others.
- What is meant by "*regulation*":
  - "*command and control*" model of regulation
  - regulation by the market
  - voluntary decisions of each individual to control their own behavior.
- What is the nature of the state's involvement
  - no relationship with the state at all
  - A particular, corporatist arrangement.

Self-Regulatory Organizations (SROs)

- Examples:
  - National Association of Securities Dealers (NASD)
  - New York Stock Exchange (NYSE), Swiss Exchange (SIX)
  - Chicago Board Options Exchange
  - EFAMA, SFAMA
- SROs design rules governing their members' practices
- "Self-regulatory associations (SRAs) combine the governmental function of regulation with the institutional and often legal structure and interests of a private body. They impose conditions of membership and expulsion, they formulate their own rules and impose their own discipline".

IOSCO Principles

- Principle N. 6: “The regulatory regime should make appropriate use of Self-Regulatory Organizations (SROs) that exercise some direct oversight responsibility for their respective areas of competence and to the extent appropriate to the size and complexity of the markets”
- Principle N. 7: “SROs should be subject to the oversight of the regulator and should observe standards of fairness and confidentiality when exercising powers and delegated responsibilities”.
- Specific characteristics of SROs
  - have the capacity to carry out the purposes of governing laws, regulations and SRO rules, and to enforce compliance by its members and associated persons with those laws, regulations, and rules;
  - treat all members of the SRO and applicants for membership in a fair and consistent manner;
  - develop rules that are designed to set standards of behavior for its members and to promote investor’ protection.

PROs and CONs of Self-Regulation

PROs

- Achieve regulatory objectives at the lowest cost
- Faster bureaucratic and administrative processes for regulating (more rapid and flexible changes)
- Establishment of a public debate between companies belonging to a certain industry, which have an incentive to compete with each other in the determination of the better policies. (increased efficiency and effectiveness).

CONs

- Private regulators
  - Accountability and conflicts of interests
- More uncertain enforcement

Public Regulation

- Centralized control entirely in the hands and under the exclusive purview of government entities.
- No problems related to legitimacy of regulators
- More clear enforcement actions
- Risks
  - More complex bureaucratic process
  - Insufficient involvement of the best expertise
  - Excessive regulation (Over-Regulation)
    - The aim of protecting the public interest may have catastrophic effects (The best industry expertise

Self-Regulation vs Public Regulation

- XVIII – XIX century: Regulatory issues in the hands of market organizations (London Stock Exchange, Lloyds Corporation, NYSE)
- XX – XXI century
  - World War I – Wall Street Crash 1929 (Securities Laws)
  - Enron, Parmalat, Worldcom scandals (Sarbanes Oxley Act and similar reforms)
  - Financial crisis (2008):
    - **"An unprecedented series of reforms to restore financial stability and public confidence in the financial system"**
    - European Market Infrastructure Regulation (EMIR) Markets in Financial Instruments Regulation (MIFIR) Alternative Investment Fund Manager Directive (AIFMD) Short Selling Regulation (SSR), Dodd-Frank Act

Rule-based vs. Principle-based regulation

- Principle based regulation:
  - broad-based standards in preference to detailed rules; outcomes-based regulation; increasing senior management responsibility
- Benefits:
  - Flexibility; production of behaviours fulfilling the regulatory objectives; easier to comply with.
- Risks
  - legal obstacles
  - lack of certainty, proliferation of guidance
  - uncertainty in the distinction between minimum standards and best practice
  - an increasing gap between internal guidance and published principles, rules and guidance
  - accountability issues
  - unpredictability and the risk of over-zealous/hindsight-driven enforcement
  - inappropriate skills and mindset of regulators and regulated.
- FCA (UK); MAS (Singapore); SEC (Hong Kong); FINMA (Switzerland)

How to Regulate Trading venues

- Strategies
  - Institutionalization
    - Private vs Public Exchanges
  - Business Conduct Rules
    - Intermediaries
  - Transparency Requirements
    - Mandatory Disclosure
    - Traders: Pre-trade and post-trade data
  - Trading Strategy Bans
- Problems
  - Algorithmic trading & High Frequency Trading
  - Short Selling
  - Market Fragmentation

Stock Exchanges

- Public offers
  - Initial public offerings (IPOs) versus secondary offerings
  - Primary markets versus secondary markets
- Stock exchanges
  - Providing trading venues where buyers and sellers meet
  - Enhancing the liquidity of an issue
  - Providing an efficient price-formation process
  - Improving the allocation of capital
- Regulation versus self-regulation of stock exchanges
- [Securities trading outside exchanges]

Mandatory Disclosure

- **Goals**
  - Investor Protection
    - Information needed to decide on how to invest the savings
    - Investors not exploited by traders with superior information
    - Discourage of fraud, self-dealing and opportunistic behaviours
  - Agency Cost Reduction
    - Corporate governance & securities
    - Disclosure increases managerial consciousness
  - Price accuracy Enhancement
- **Rationale**
  - Information as a public good
  - Externalities
  - Agency Poblems

Investor Protection via Mandatory Disclosure

- Mandatory disclosure requirements on issuers
  - Primary markets:
  focus on addressing information asymmetry
    - Prospectus
  - Secondary markets:
  focus on promoting efficient pricing mechanisms and remedying agency problems
    - Periodic disclosure: e.g. annual information
    - Event-driven disclosure: material changes in issuer's fortune
- Sophisticated versus unsophisticated investors
- Exemptions:
  - On the basis of the characteristics of the offering: Smalls offerings (less than 150 persons)
  - On the basis of the characteristics of the issuer:
    - Foreign issuers
    - Small or high growth issuers

Initial Public Offering (IPO)

- File a registration statement
  - prospectus,
    - Info on business operations, financial health, management and risk factors.
    - Audited financial statements.
- Stock exchange standards
  - stock price, number of shares, number of shareholders, total market value.
- Underwriter
- Application to the exchange
- Listing

International Organization of Securities Commission (IOSCO)

- **General Characteristics**
  - **Private association of securities supervisors**
  - „Objectives and Principles of Securities Regulation” (2010)
  - Main objectives of securities regulation
    - Investor protection
    - Ensure markets are fair, efficient and transparent
    - Reduce systemic risk
- **International standards**
  - Investor protection
  - Disclosure & reporting standards for IPOs & secondary listings
  - Market abuse and insider dealing
  - Financial reporting and accounting (cross-reference work of International Accounting Standards Board)

IOSCO – The Challenge: Supervising Global Activities of Securities Firms

- The challenge: Supervising Global Activities of Securities Firms
  - Surveillance – information collection and assessment
  - Cooperation & coordination – bilateral exchange of information and investigations
  - IOSCO MMoU – cooperation and exchange of information (105 signatories as of February 2015)
  - Assessing home authorities of foreign firms
- The Home-host country rules to determine which regulator's rules will apply
  - Principle of consolidated supervision
  - The role of the host country regulator
  - How can the corporate group comply with both the home and host country rules for its global operations – what if reporting or capital requirements conflict?
    - IOSCO ambiguous about how to resolve conflicts between home-host except to encourage regulators to work together and cooperate

US Securities Regulation

- Federal laws
  - Securities Act of 1933
  - Securities Exchange Act of 1934
  - Dodd-Frank Act of 2010
- Regulatory authorities
  - Securities and Exchange Commission (SEC)
  - Commodity Futures Trading Commission (CFTC)
  - Financial Industry Regulatory Authority (FINRA) (self- regulatory authority)

EU Securities Regulation

- General characteristics
  - Regional implementation and enforcement
  - Extensive harmonization
  - Facilitating market access and improving capital flows
  - Creating a single EU financial market
  - Reducing the costs of raising capital
- Passport Mechanism
  - Regulation of prospectuses (Prospectus Directive)
  - Provision of investment services (MiFID II)
  - Management and marketing of collective investment schemes (UCITS)
  - Management and marketing of alternative investment funds (AIFMD)
  - Activities of central counterparties

EU – Investor Protection through Disclosure Requirements

- Prospectus Directive
  - Prior approval of the prospectus by the issuer’s home Member State
- Transparency Directive
  - Ongoing disclosure
  - Regulated information filed in the issuer’s home Member State
- Market Abuse Directive
  - Ad hoc disclosure
  - Misuse of inside information
    - Inside information
    - “… information of a <u>precise nature</u> which has not been made public, relating, <u>directly or indirectly</u>, to one or more issuers of financial instruments or to one or more financial instruments and which, if it were made public, would be likely to have a <u>significant effect</u> on the prices of those financial instruments or on the price of related derivative financial instruments.”
  - Dissemination of false or misleading impressions
  - Market Distortion
    - price manipulation

MiFID II – Main Objectives

Main objectives

- Capture additional trading activities and systems
- Broaden scope of pre-trade and post-trade transparency
- Interventionist powers for regulators
- OTC Derivatives Market
- New trading strategies and technologies
- Improving investor protection
- Level playing field
- Improved Data Collection and Consolidation
- Address adverse effects of market fragmentation

Shadow banking, Private Credit Funds and Digital Disruption & Stablecoin

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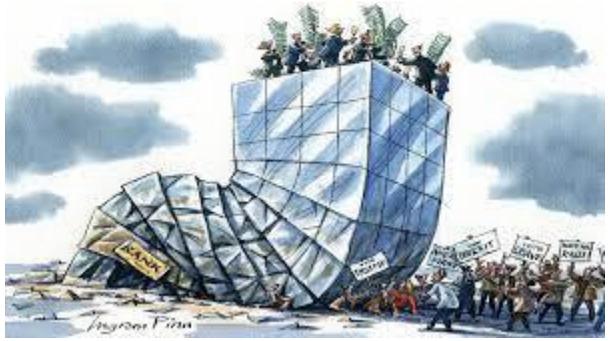
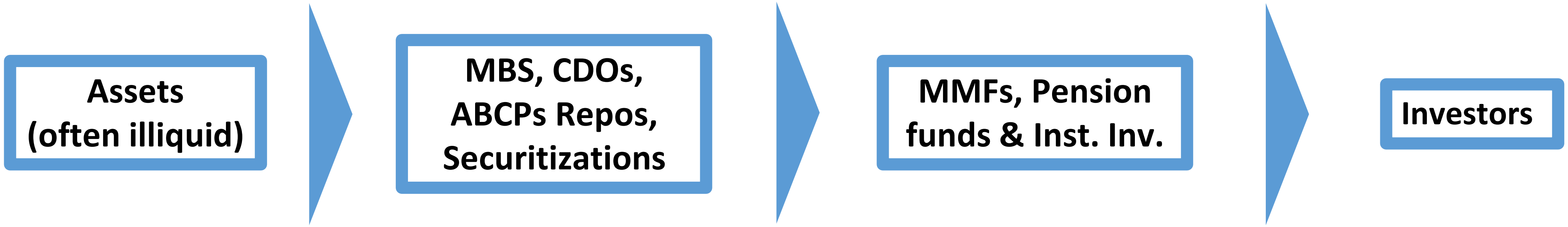
BANK


HEDGE FUNDS
SPECIAL PURPOSE ENTITIES
STRUCTURED INVESTMENT VEHICLES
MUTUAL FUNDS



Shadow banking

- A network of financial institutions and financial instruments



- Connect commercial & consumer borrowers to investors in capital markets
- Economic functions: the ones generally associated with the traditional banking system.
- A new paradigm

Shadow Banking System II

- A global phenomenon
  - Investment banks plus “collective investment schemes”
- The main driving forces:
  - **Financial need**
    - a growth in the demand of collateral for financial transactions
  - **Regulation**
    - **Banking Regulation**
    - **DeRegulation of Financial Services**
  - **Competition**
  - **Innovation in capital markets: Financial Engineering**

Credit institutions

- **What is a bank**

European Regulation 575/13, Article 4.1:

- Credit Institution means an undertaking the business of which is to take deposits or other repayable funds from the public and to grant credits for its own account

Bank Holding Company ACT(c) **§1841.** Bank Defined.—For purposes of this chapter—

- (1) In general.—Except as provided in paragraph (2), the term “bank” means any of the following:
  - (A) An insured bank as defined in section 3(h) of the Federal Deposit Insurance Act [12 U.S.C. 1813(h)].
  - (B) An institution organized under the laws of the United States, any State of the United States, the District of Columbia, any territory of the United States, Puerto Rico, Guam, American Samoa, or the Virgin Islands which both—
    - (i) accepts demand deposits or deposits that the depositor may withdraw by check or similar means for payment to third parties or others; and
    - (ii) is engaged in the business of making commercial loans.

Economic Function

- **Credit Transformation: Transformation involving a bank's <u>credit risk</u>.**
  - Investing in securities with a lower credit standing (thus a higher yield) than the bank's funding instruments.
  - A bank's attempt to generate returns through credit mismatches between assets and liabilities.
  - Examples:
    - Bank may carry out credit transformation by lending to (lower-rated) AA borrowers while issuing AAA (higher-rated) liabilities.
    - derivatives as a key tool of their credit transformation strategies. To that end, they use securitization with imbedded credit derivatives in addition to name-specific credit default swaps to reduce risk (and total capital) in their credit investment portfolios.

- **Size Transformation:**
  - Small deposits by different types of depositors pooled to issue large loans to seekers of funds.
  - 5000 small deposits with the bank to the tune of €1000 each, will allow the bank to provide a sizable loan of €5000,000 to a company seeking to finance machinery equipment.
- **Maturity Transformation:**
  - A bank invests in assets that have a longer duration than its liabilities (funding requirements).
  - The funding of long-term assets with short-term liabilities (where a bank makes long-term loans using funds that are borrowed at short-term interest rates).
- **Liquidity Transformation:**
  - The use of short-term debts like deposits to finance long-term investments like loans.

The Landscape of Non-bank financial institutions (NBFIs or Private Funds)

- Hedge Funds
  - Offer sophisticated investors access to a diverse range of investment strategies and potential for higher returns, but they also come with higher fees, risks, and limited liquidity compared to traditional investment options.

- Private Equity Funds
  - offer investors the opportunity to participate in the growth and transformation of privately-held companies, often with the potential for higher returns compared to public market investments. However, they also come with higher risks, longer investment horizons, and limited liquidity.

- Venture Capital Funds
  - provide financing to early-stage and high-growth companies in exchange for equity ownership.
  - Successful investments can generate substantial returns for investors and drive positive societal impact through job creation and technological advancements.

Growing Role of NBFIs in the Financial System

- UK banks' exposures to NBFIs, particularly to highly leveraged entities such as hedge funds, have increased to over 20% of total bank assets.
- Globally, NBFIs now represent more than half of total financial assets, up from ≈ 42% a decade ago (FSB 2025).
- Growth has been driven by asset managers, hedge funds, and private credit funds, supported by prolonged low interest rates and investor demand for yield.
- These linkages highlight the need for robust counterparty-risk management, especially in prime-brokerage and repo markets.

Leverage and Systemic Risk

- Leverage across NBFIs remains a significant source of systemic vulnerability.
- In core sterling markets, leveraged investors provide liquidity in normal conditions but can trigger disorderly deleveraging under stress.
- Market concentration, crowded positions, and opacity amplify contagion when funding conditions tighten.
- Episodes such as the 2022 LDI crisis showed how leverage in non-bank sectors can rapidly spill over to government-bond markets.

Expansion of Private Markets

- Private-credit and private-equity markets have grown sharply over the past 15 years, with assets tripling since 2010.
- These markets support long-term business financing but are often highly leveraged, illiquid and opaque.
- Private credit funds now play a larger role in corporate and real-estate lending, increasing their sensitivity to interest-rate and refinancing shocks.
- Interlinkages with banks through funding lines, derivatives, and servicing arrangements strengthen the potential for risk transmission.

Funding Structures and Liquidity Risks

- Many NBFIs rely on short-term wholesale or repo funding backed by longer-dated or illiquid assets.
- Margin calls and collateral re-pricing can generate rapid deleveraging, as observed in the gilt-market stress (2022–23).
- Liquidity mismatches in open-ended and hedge-fund structures remain a key vulnerability.
- Supervisors are promoting improved liquidity-management tools and swing-pricing mechanisms to limit procyclicality.

Regulatory and Resilience Measures

- The Bank of England and international authorities are advancing reforms to strengthen market resilience:
  - Increased central clearing in core funding markets.
  - Design of a contingent NBFI repo facility to provide liquidity backstops.
  - Enhanced data collection on leverage and interconnectedness across funds and dealers.
  - Ongoing international cooperation on NBFI leverage via the *Financial Stability Board (NBFI Workstream)*.

Policy Coordination and Data Gaps

- The FSB and IOSCO have prioritised closing data gaps on leverage and liquidity exposures.
- The BoE, ECB, and Federal Reserve are improving cross-border data-sharing frameworks.
- Despite progress, visibility of offshore and multi-jurisdictional funds remains limited.
- Lack of granular reporting could delay early detection of systemic stress in non-bank finance.

Implications for Financial Stability and Growth

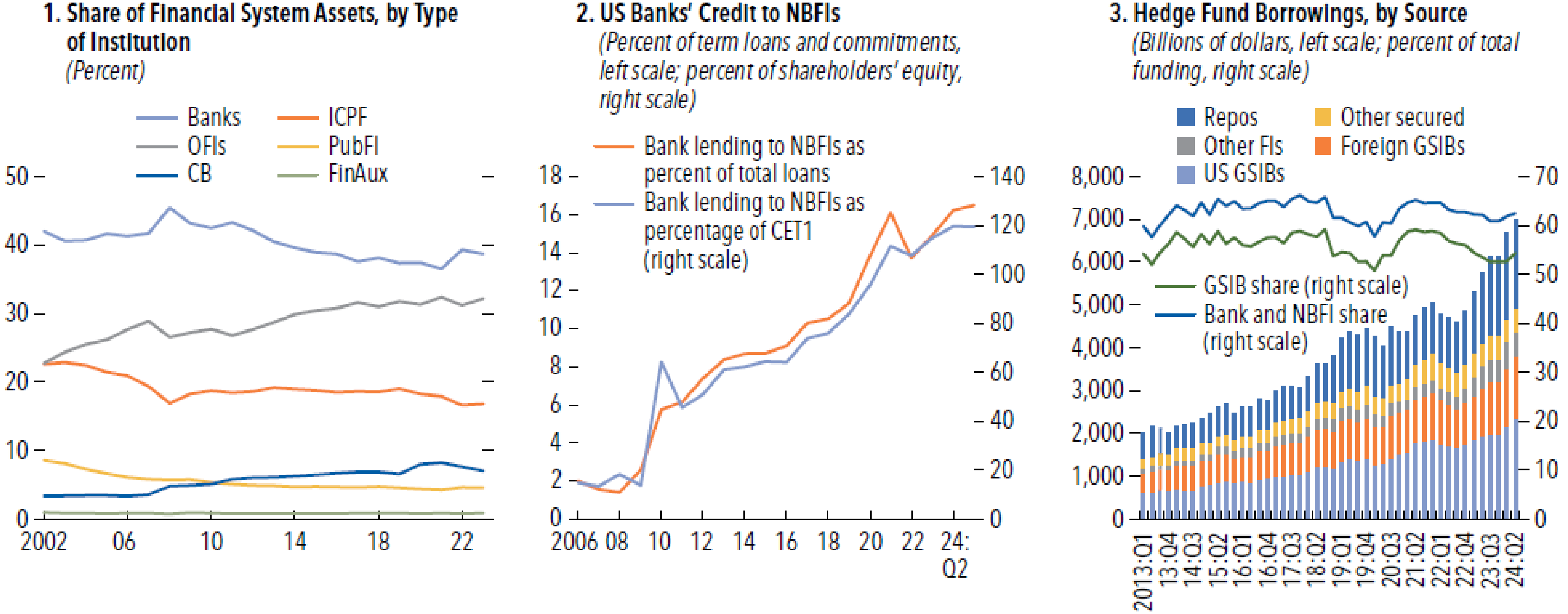
- The shift toward market-based and private credit finance raises concerns about refinancing transparency and resilience under stress.
- Unmonitored leverage and data gaps could amplify shocks to credit availability and asset prices.
- A global shock affecting rates or liquidity could force NBFIs to sell assets simultaneously, reducing market depth.
- Maintaining stability requires coordinated oversight, consistent data, and clear lender-of-last-resort frameworks for market-based finance.

Figure 1.8. Financial Stability's Increasing Dependence on Resilience of Nonbank Financial Intermediaries

Investment funds are growing faster than banks, insurers, and pension funds.

Bank interlinkages with nonbank financial intermediaries are growing strongly ...

... and some of these intermediaries, such as hedge funds, have become quite dependent on bank funding.



Sources: CEIC; Federal Reserve, Consolidated Financial Statements for Holding Companies (Form Y-9C); Financial Stability Board; S&P Capital IQ Pro; and US Securities and Exchange Commission, Office of Financial Research, aggregation of data from Form PF.

Note: Panel 1 shows the simple average across 29 countries reporting exposures to the Financial Stability Board. Panel 2 refers to credits provided by bank holding companies. Credit includes loans and credit commitments but excludes derivatives. The right axis in panel 3 refers to the proportion of hedge funds' borrowings from GSIBs and from GSIBs plus other financial institutions (OFIs). "OFIs" includes both banks other than GSIBs and nonbank financial intermediaries (NBFIs). "Other secured" includes debt instruments, other than loans, from sources other than financial institutions. Data labels in the figure use International Organization for Standardization (ISO) country codes. CB = central bank; CET1 = common equity tier 1 capital; FIs = financial institutions; FinAux = financial auxiliaries; GSIB = global systemically important bank; ICPF = insurance companies and pension funds; OFIs = other financial institutions, including money market funds, hedge funds, captive financial institutions and money lenders, central counterparties, broker-dealers, finance companies, trust companies, and structured finance vehicles; PubFI = public sector financial institutions; Repos = repurchase agreements.

Source: IMF, Global Financial Stability Report, April 2025, Figure 1.8.