



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

MBA

BANK & FINANCIAL ECONOMICS

Week 4

Monetary policy

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Transforming Education; Transforming Lives



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BROAD Lecture Overview

- Financial Markets: definition and types and role
- Money Markets
- Capital Markets
 - Bond Markets
 - Equity Markets
 - Derivatives
- Valuation
- Financial Markets Regulation
- Global Financial Markets
- Financial Institutions, definition and role



Lecture Overview

- Financial Markets: definition and types and role
- Securities Traded

Overview of Financial Markets

- A **financial market** is a market in which financial assets (securities) can be purchased or sold
- Financial markets facilitate financing and investing by households, firms, and government agencies

Overview of Financial Markets

- Participants that provide funds are called **surplus units**
 - e.g., households
- Participants that enter markets to obtain funds are **deficit units**
 - e.g., the government, firms
- Some units are simultaneously surplus and deficit.
 - e.g., firms, commercial banks

Overview of Financial Markets

- Financial markets provide for financial intermediation
 - What is an intermediary?
 - They facilitate financial savings (Surplus Units)
 - And borrowing / investment (Deficit Units)
- Financial markets provide payments system
- Financial markets provide means to manage risk
- A major participant in financial markets is the central bank, because it controls the money supply

Types of Financial Markets

- Financial markets can be distinguished by the maturity structure and trading structure of its securities
- **Money versus capital markets**
 - The flow of short-term funds is facilitated by **money markets**
 - The flow of long-term funds is facilitated by **capital markets**
- **Primary versus secondary markets**
 - **Primary markets** facilitate the issuance of new securities
 - e.g., the sale of new corporate stock or new Treasury securities
 - **Secondary markets** facilitate the trading of existing securities
 - e.g., the sale of existing stock
 - Securities traded in secondary markets should be **liquid**

Types of Financial Markets

- **Organized versus over-the-counter markets**
 - A visible marketplace for secondary market transactions is an organized exchange
 - Some transactions occur in the over-the-counter (OTC) market (a telecommunications network)

Primary vs. Secondary Markets

– PRIMARY

- New Issue of Securities
- Exchange of Funds for Financial Claim
- Funds for Borrower; an IOU for Lender

– SECONDARY

- Trading Previously Issued Securities
- No New Funds for Issuer
- Provides Liquidity for Seller

Securities Traded in Financial Markets

- Money market securities
 - **Money market securities** are debt securities with a maturity of one year or less (e.g. Treasury Bills, commercial paper, negotiable certificates of deposit)
 - Characteristics:
 - Liquid
 - Low expected return
 - Low degree of risk

Securities Traded in Financial Markets

- Capital market securities
 - **Capital market securities** are those with a maturity of more than one year
 - Bonds and mortgages
 - Stocks
 - Capital market securities have a higher expected return and more risk than money market securities

Money vs. Capital Markets

– Money

- Short-Term, < 1 Year
- High Quality Issuers
- Debt Only
- Primary Market Focus
- Liquidity Market--Low Returns

– Capital

- Long-Term, > 1Yr
- Range of Issuer Quality
- Debt and Equity
- Secondary Market Focus
- Financing Investment--Higher Returns

Organised - Over the counter Markets

– Organized

- Visible Marketplace
- Members Trade
- Securities Listed
- New York Stock Exchange

– OTC

- Wired Network of Dealers
- No Central, Physical Location
- All Securities Traded off the Exchanges

Securities Traded in Financial Markets

- **Bonds**

- long-term debt obligations issued by corporations and government agencies
- specify the amount and timing of interest and principal payments

- **Stocks** (equity)

- certificates representing partial ownership in corporations
- Investors may earn a return by receiving dividends and capital gains
- higher expected return and higher risk than long-term debt securities

Debt vs Equity Securities Traded

Debt Securities: Contractual obligations (IOU) of Debtor (borrower) to Creditor (lender)

- Investor receives interest
- Capital gain/loss when sold
- Maturity date

Debt vs Equity Securities Traded

Equity Securities: Claim with ownership rights and responsibilities

Investor receives dividends if declared

Capital gain/loss when sold

No maturity date—need market to sell

Securities Traded in Financial Markets

- **Derivative securities** are financial contracts whose values are derived from the values of underlying assets
- **Example:** futures, options, interest/exchange rate swaps
- **Speculating** with derivatives allow investors to benefit from increases or decreases in the underlying asset (no need of buying the assets)
- **Risk management (Hedging)** used to reduce a firm's risk.



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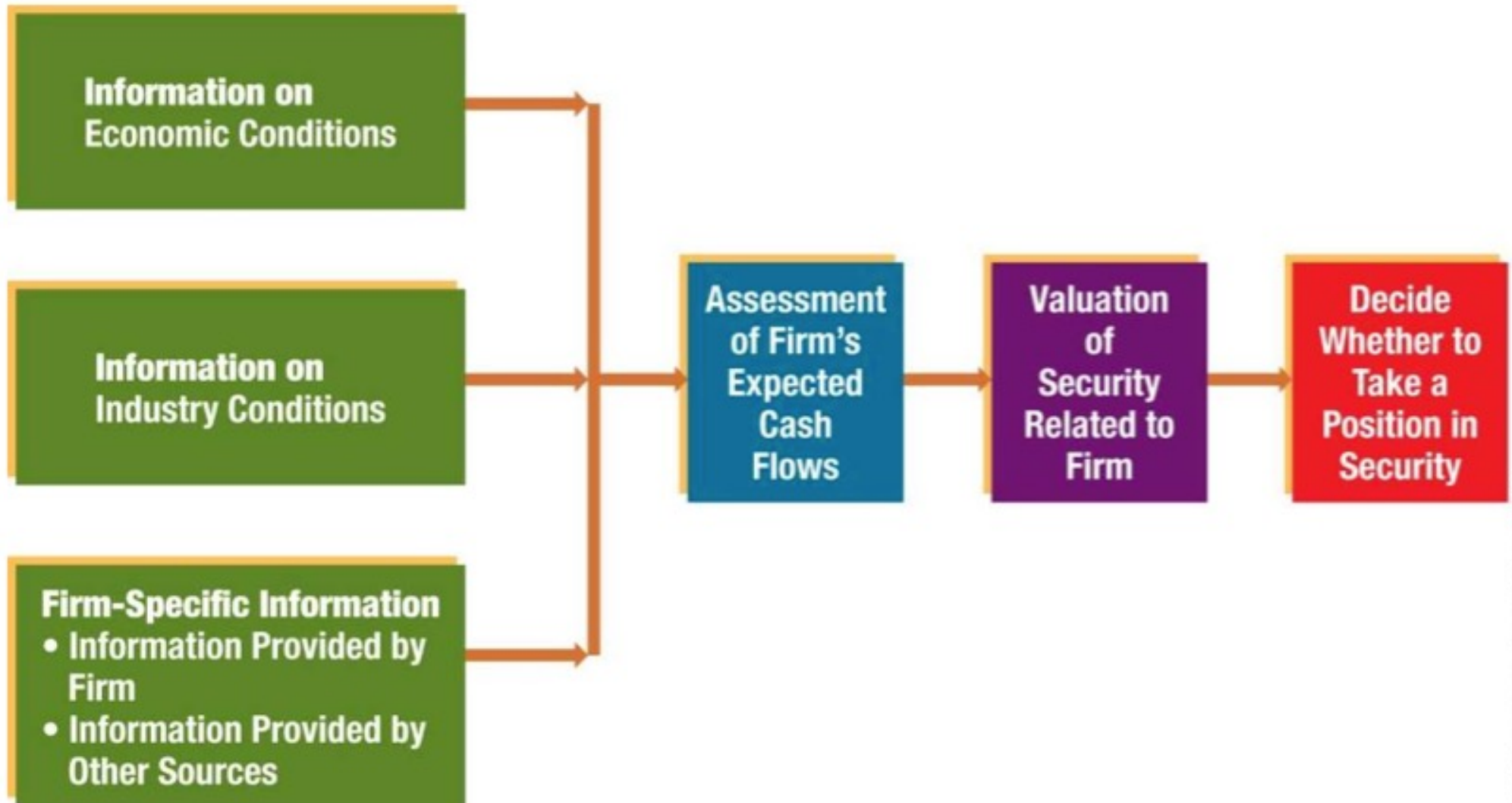
20 minute break

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Use of Information to make



Valuation of Securities

- Value a function of:
 - Future cash flows
 - When cash flows are received
 - Risk of cash flows
- Present value of cash flows discounted at the market required rate of return
- Value determined by market demand/supply

- Value changes with new information

Valuation of Securities

- Securities are valued as the present value of their expected cash flows, discounted at a rate that reflects their uncertainty
- Market pricing of securities
 - Different investors may value the same security differently based on their interpretation of information
- Impact of valuations on pricing
 - Information on Economy, Industry, Firm specific Information
 - Impact on equilibrium market price (which demand and supply for the security are equal)
 - Favorable information results in upward valuation revisions; unfavorable information results in downward revisions
 - Securities reach a new equilibrium price as new information becomes available

Market Efficiency

- Security prices reflect available information
- New information is quickly included in security prices
- Investors balance liquidity, risk, and return needs

Market Efficiency

- Markets are **efficient** when security prices fully reflect all available information
 - Securities are rationally priced.
 - Price **uncertainty** because different investors hold differences in:
 - Risk preference
 - Desired liquidity
 - Tax status

- Example: US Treasuries, other sovereign debt

Market Efficiency

- Impact of asymmetric information
 - **Asymmetric information** is information a firm's managers have that is not available to investors
 - The valuation process is influenced by the financial statements that are used to derive cash flow estimates
 - Securities may be **mispriced** because of
 - Flexibility in accounting guidelines
 - Overestimation of earnings
 - The asymmetric information problem can be reduced if managers frequently disclose financial data and information to the public or through **increased regulation**

Market Efficiency

- Market efficiency has three forms
 - **Weak**
 - Prices reflect all past information, move randomly
 - Trading rules will not work
 - **Semi strong**
 - Prices reflect all publically available information
 - Prices react to new data, investors can't beat market
 - **Strong**
 - All public and private information is embedded in prices
 - Prices reflect all data, investors can't beat market

Financial Market Regulation

- Why do Governments regulate markets?
- To Promote Efficiency
 - High level of competition
 - Efficient payments mechanism
 - Low cost risk management contracts

Financial Market Regulation

- Why do Governments regulate markets?
- To Maintain Financial Market Stability
 - Prevent market crashes
 - Circuit breakers
 - Federal Reserve discount window
 - Prevent Inflation--Monetary policy
 - Prevent Excessive Risk Taking by Financial Institutions

Financial Market Regulation

- Why do Governments regulate markets?
- To Provide Consumer Protection
 - Provide adequate disclosure
 - Set rules for business conduct
- To Pursue Social Policies
 - Transfer income and wealth
 - Allocate saving to socially desirable areas
 - Housing
 - Student loans

Financial Market Regulation

- Many regulations attempt to ensure that businesses disclose accurate information
- Disclosure
 - **The Securities Act of 1933** intended to ensure complete disclosure of relevant financial information on publicly offered securities

Financial Market Regulation

- Disclosure
 - **The Securities Exchange Act of 1934** extended the disclosure requirements to secondary market issues
 - Illegal: misleading financial statement, price manipulative trading strategies.
 - **Financial Services and Markets Act 2000 (UK)** where the operation of FSA was established.

Regulatory Authorities

Some of the most important ones are:

- Securities Exchange Act (SEC, 1934, USA)
- Financial Services Authority (1997, FSA, UK)
- Commodity Futures Trading Commission (CFTC, 1974, USA)

Regulatory Authorities

Some of the most important ones are:

- Securities and Exchange Board of India (SEBI, 1988, India)
- China Securities Regulatory Commission (CSRC, 1992, Beijing)
- Central Banks (Fed, BoE, ECB, PBoC etc)

Financial Market Regulation

- Regulatory response to financial scandals
 - Enron, WorldCom, Bear Sterns, Lehman Brothers and other scandals involved
 - Exaggerated earnings
 - Failure to disclose relevant information
 - Auditors not meeting their responsibilities
 - Existing regulations were not completely prevent fraud

- Required firms provide more complete and accurate

Financial Market Regulation

- Increased regulation is existing or emerging in these areas:
 - Provision of more complete and accurate **financial information**
 - More restrictions to ensure proper **auditing** by auditors
 - Proper oversight by the firm's **board of directors**



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Global Financial Markets

- Financial markets vary among countries in terms of
 - **The volume of funds** transferred from surplus to deficit units
 - The **types of funding** that are available
- How financial markets influence economic development
 - Many countries have converted to market-oriented economies
 - Allows businesses and consumers to obtain financing
 - Many Eastern European countries allowed for **privatization**, the sale of government-owned firms to individuals
 - Financial markets in these countries ensure that businesses can obtain funding from surplus units
- Developing countries: slow development of financial markets.

Global Financial Markets

- Increased international funds flow
 - Increased disclosure of information
 - Reduced transaction costs
 - Reduced foreign regulation on capital flows
 - Increased privatization

Results: Increased financial integration as capital flows to highest expected risk-adjusted return

Global Financial Markets

- Global integration
 - Many financial markets are **globally integrated**
 - Participants move funds out of one country's market and into another
 - Foreign investors serve as key surplus units in a country by purchasing domestic securities
 - Domestic investors serve as key surplus units for foreign countries by purchasing foreign securities
 - Market movements and interest rates have become more correlated between markets
 - Euro area (not always, not now).

Global Financial Markets

- Global integration
 - **Financial market integration within Europe**
 - Elimination of regulations
 - Merging of some European stock exchanges (e.g. Euronext is a merger of the Amsterdam Stock Exchange, Brussels Stock Exchange, and Paris Bourse in 2000, the Borsa Italiana was acquired by the LSE in 2007)
 - Adoption of the **euro**
 - **Barriers to global integration**
 - Lack of information about foreign companies
 - Different accounting regulation
 - Excessive cost of executing international transactions

Global Financial Markets

- International Financial transactions require **exchange of currencies**
- Role of the foreign exchange market
 - The **foreign exchange market** facilitates the exchange of currencies
 - Financial intermediaries serve as brokers and/or dealers in foreign exchange markets



Foreign exchange market

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- Exchange rate is market price of a currency

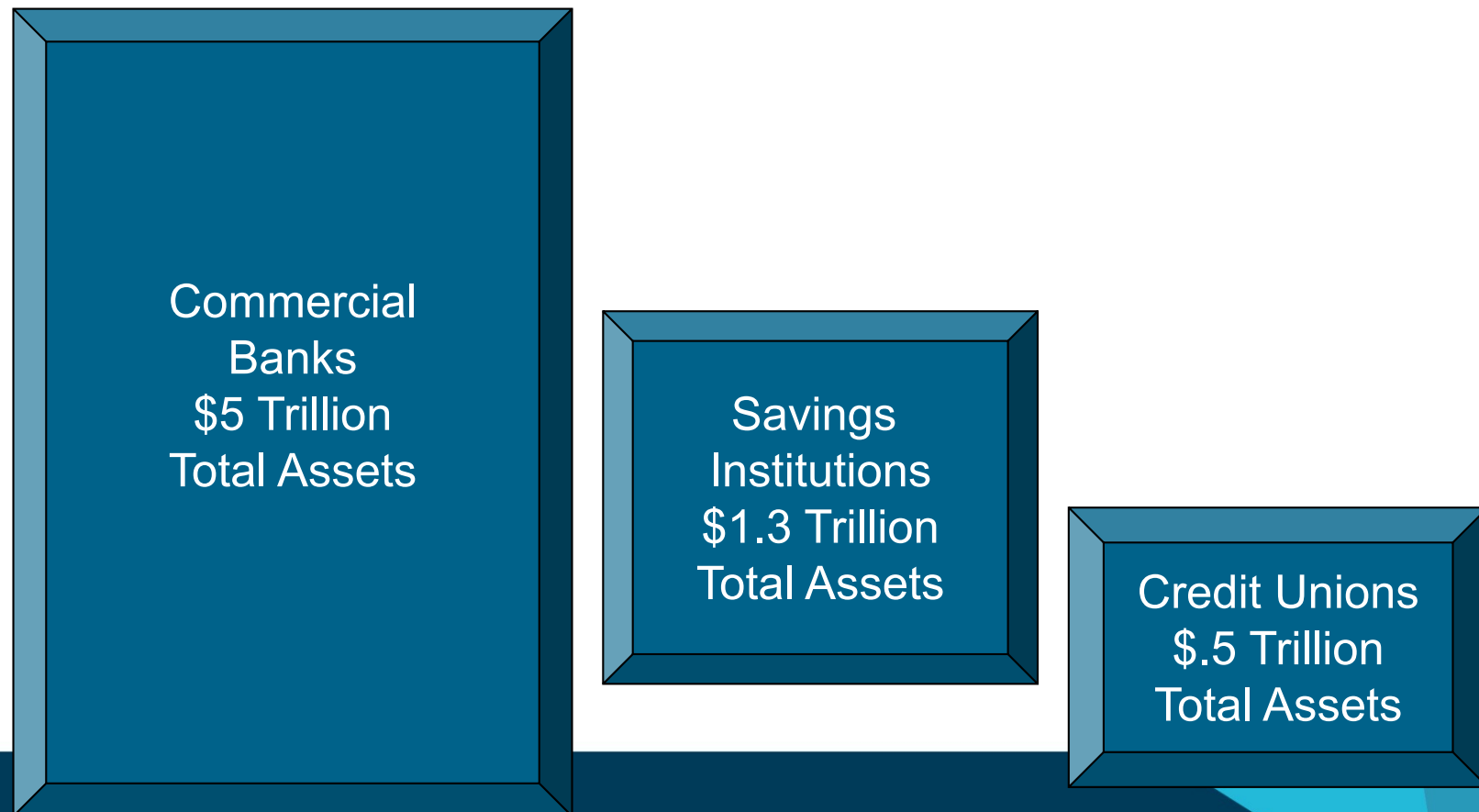
• Concept of fair value (PPP Interest Rate Parity)

Role of Institutions in Markets

- Information processing
- Serve special needs of lenders (liabilities) and borrowers (assets)
 - By denomination and term
 - By risk and return
- Lower transaction cost
- Serve to resolve problems of market imperfection

Role of Institutions in Markets

Types of Depository Financial Institutions



Types of Nondepository Financial Institutions

- Insurance companies
- Mutual funds
- Pension funds
- Securities companies
- Finance companies
- Security pools

Role of Nondepository Financial Institutions

- Focused on capital market
- Longer-term, higher risk intermediation
- Less focus on liquidity
- Less regulation
- Greater focus on equity investments

Role of Institutions in Markets

- If markets were perfect financial intermediaries wouldn't be necessary
- In a **perfect** market:
 - All **information** about any securities for sale in primary and secondary markets would be continuously and **freely available** to all investors
 - All information identifying investors interested in purchasing securities as well as investors planning to sell securities would be freely available

– All securities are infinitely **divisible**

- Markets are **imperfect**

Role of Institutions in Markets

- Role of **depository institutions**
 - Depository institutions accept deposits from surplus units and provide credit to deficit units
 - Depository institutions are popular because:
 - Offer deposit accounts (liquid)
 - Repackage funds -> customize loans
 - Accept the risk of loans
 - Have expertise in evaluating creditworthiness
 - Diversify their loans

Role of Institutions in Markets

- **Commercial banks**

- Are the most dominant depository institution
- Offer a wide variety of deposit accounts
- Transfer deposited funds by providing direct loans or purchasing debt securities
- Serve both the public and the private sector

Role of Institutions in Markets

- **Savings institutions**

- Include savings and loan associations ("S&L" or "thrift" in US, building societies and trustee savings banks in UK) and savings banks
- Are mostly owned by depositors (mutual)
- Concentrate on residential mortgage loans

Role of Institutions in Markets

- **Credit unions**
 - Are nonprofit organizations
 - Restrict their business to credit union members
 - Tend to be much smaller than other depository institutions

Role of Institutions in Markets

- Role of **non depository financial institutions**
 - Non depository institutions generate funds from sources other than deposits
- **Finance companies**
 - Obtain funds by issuing securities
 - Lend funds to individuals and small businesses

Role of Institutions in Markets

- **Mutual funds**

- Sell shares to surplus units
- Use funds to purchase a portfolio of securities
 - Some focus on **capital market securities** (e.g., stocks or bonds)

- **Money market mutual funds** concentrate on money market securities

Role of Institutions in Markets

- **Securities firms**
 - **Brokerage, Underwriting, Advisory Services**
 - **Broker** function
 - Execute securities transactions between two parties
 - Charge a fee in the form of a **bid-ask spread**

Role of Institutions in Markets

- **Securities firms**

- Investment banking function

- **Underwrite** newly issued securities

- **Dealer** function

- Securities firms make a market in specific securities by adjusting their inventory

- e.g. Morgan Stanley, Goldman Sacks

Role of Institutions in Markets

- **Insurance companies**

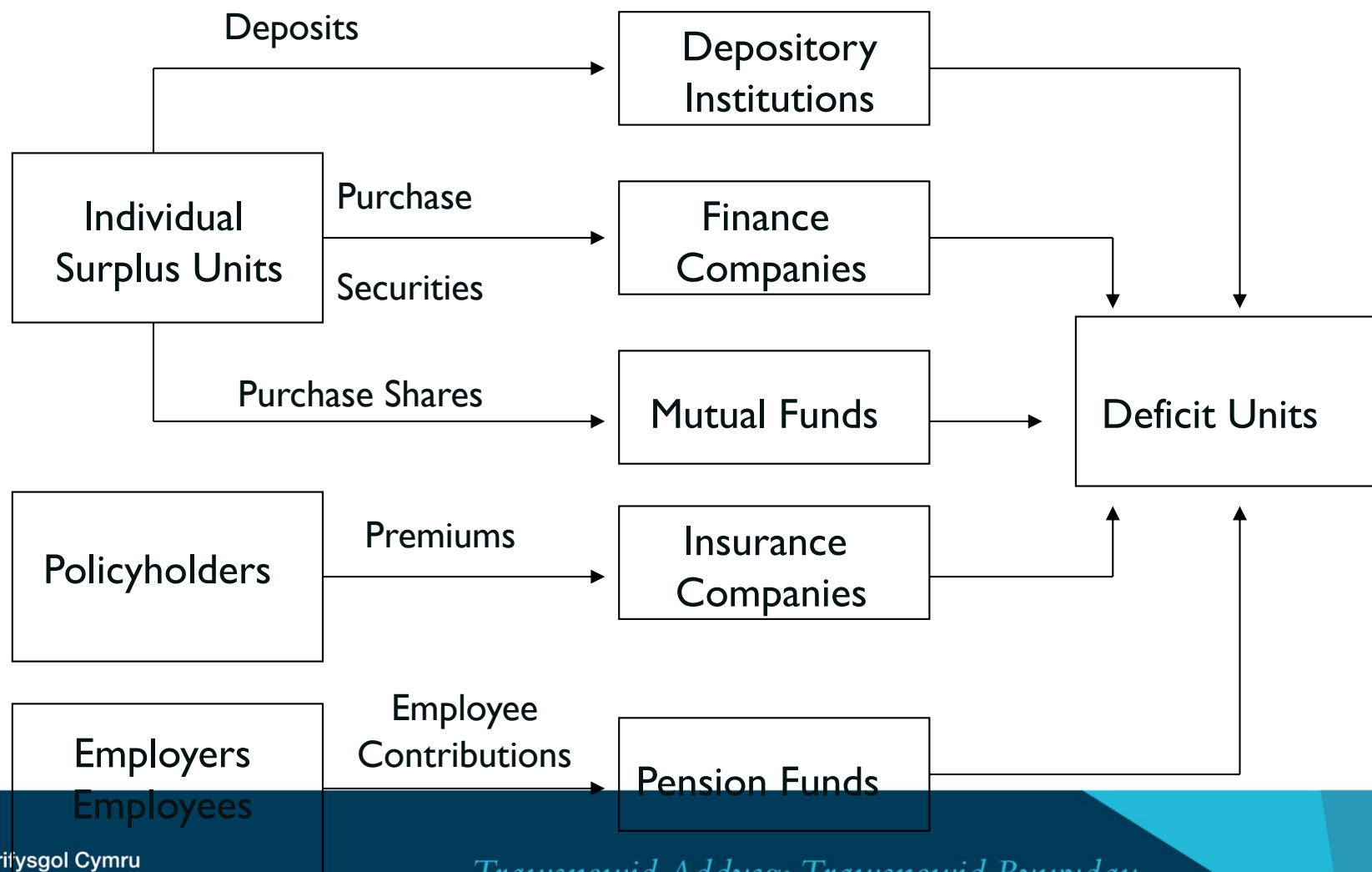
- Provide insurance policies to individuals and firms for death, illness, and damage to property
- Charge premiums
- Invest in stocks or bonds issued by corporations

Role of Institutions in Markets

- **Pension funds**

- Offered by most corporations and government agencies
- Manage funds until they are withdrawn from the retirement account
- Invest in stocks or bonds issued by corporations or in bonds issued by the government

Comparison of Roles among Financial Institutions



Overview of Financial Institutions

- Consolidation of financial institutions
 - **1980-2000s: Reduction in regulations** has resulted in more opportunities to capitalize on:
 - Economies of scale
 - Economies of scope
 - Mergers have resulted in financial conglomerates
 - Consolidation may increase expected cash flows or reduce risk, or both

Global Expansion by Financial Institutions

- Various financial institutions have expanded through international mergers, resulting in:
 - More services to clients
 - An international customer base

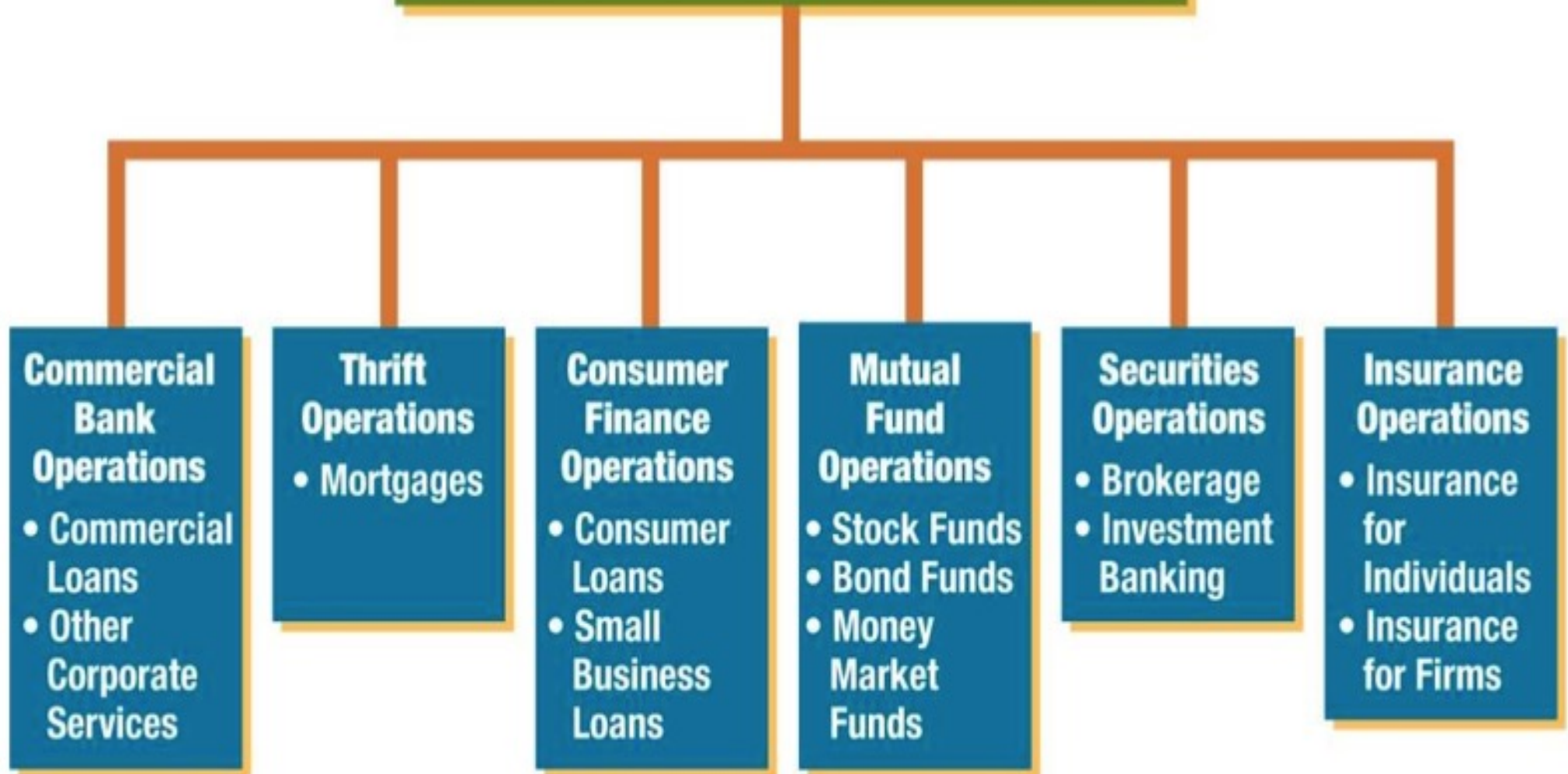
Global Expansion by Financial Institutions

- An international customer base
- e.g. Bank of America acquired Merrill Lynch in 2008, Lloyds TSB and HBOS merger in 2008)
- The introduction of the euro has increased international mergers

Organisational Structure of a

Financial Institution

Holding Company of a Financial Conglomerate





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