Semester Two, 2017

FINS1612

Capital Markets and Institutions

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CH01 – A MODERN FINANCIAL SYSTEM: AN OVERVIEW.

INTRODUCTION

MONEY

- A commodity that is universally accepted as a *medium of exchange*.
  - Also, *unit of account* & *store of value*.
- Allows specialisation in production.
- Solves the divisibility problem → concept of barter and trade.
- Facilitates saving.

Global Financial Crisis (GFC 2008): Traced to the collapse of the housing market in the United States and the consequence of that collapse for the market for mortgage-related securities.

Short Selling: The sale of a financial product that the seller does not own. The seller has a view to repurchasing the product at a lower price.

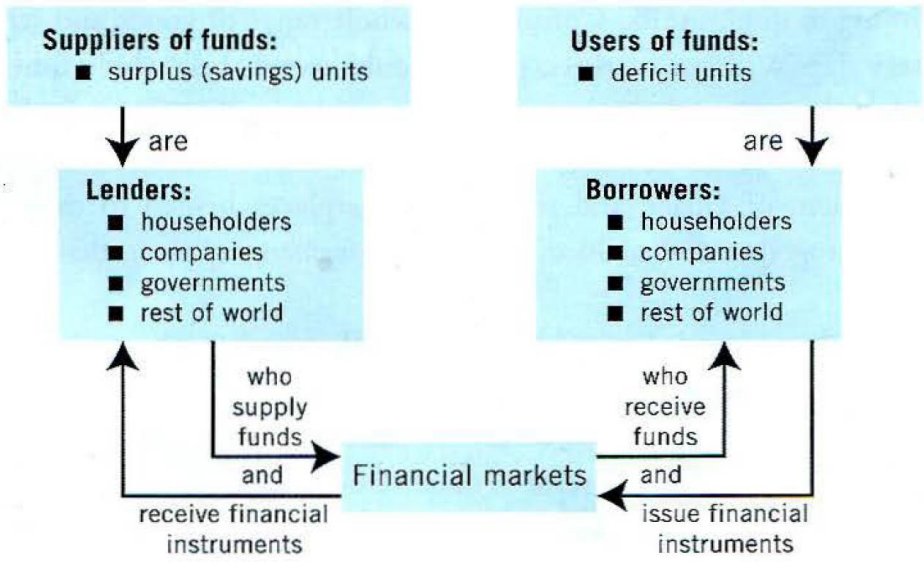
ROLE OF MARKETS

Facilitate exchange of goods & services by:

- Bringing opposition parties together.
- Establishing rates of exchange (i.e. prices).

Markets brought people together and enabled the **double coincidence of wants** (a transaction between two parties that meets their mutual needs) that is necessary before an exchange can occur.

FIGURE 1.1 FINANCIAL MARKETS AND FLOW OF FUNDS RELATIONSHIP



FUNCTIONS OF A FINANCIAL SYSTEM

Financial System: Comprises a range of financial institutions, instruments & markets; overseen by central bank; supervised by prudential regulator.

- **Financial Instruments**: Issued by a party raising funds, acknowledging a financial commitment and entitling the holder to specified future cash flows.
- **Flow of Funds**: Movement of funds through a financial system.
- **Surplus Units**: Savers or providers of funds; funds available for lending or investment.
    - Saving allows consumption in the future to be independent of future levels of earned income.
- **Deficit Units**: Borrowers or users of funds for capital investment and consumption.
- **Rate of Return**: The financial benefit gained from investment of savings, expressed in percentage terms.

ATTRIBUTES OF FINANCIAL ASSETS

- **Return / Yield**: The total financial benefit received (interest and capital gain) from an investment, expressed as a percentage of the amount invested.
- **Risk**: The possibility or probability that an actual outcome will vary from the expected outcome; *uncertainty*.
- **Liquidity**: Access to cash and other sources of funds to meet day-to-day expenses and commitments.
    - Ability to sell an asset within a reasonable time at current market prices and for reasonable transaction costs.
- **Time-Pattern of Cash Flows**: The frequency of periodic cash flows (interest and principal) associated with a financial instrument.

- **Asset Portfolio**: A combination of assets, each comprising attributes of return, risk, liquidity and timing of cash flows.
    - List of assets held by a saver.
    - Depends on whether the saver is risk-averse, risk-neutral or a risk-taker.
- **Portfolio Restructuring**: The buying and selling of assets and liabilities to best meet current savings, investment and funding needs.

EFFICIENT FINANCIAL SYSTEM

- The financial system is also a provider of financial & economic information to market participants. Information affects price & investment decisions.
- Financial system creates a range of financial instruments that possess different combinations of the four attributes → encourages saving.
    - Savings are available for investment capital, which contributes to economic growth.
- Directs savings to the most efficient users.
- Combination of assets & liabilities comprising the desired attributes of return, risk, liquidity and timing of cash flows.

Monetary Policy: Actions of a central bank that influence the level of interest rates to achieve economic outcomes; primary target is inflation.

Inflation: An increase in prices of goods & services over time; measured by the *consumer price index (CPI)*.

FINANCIAL INSTITUTIONS

Financial institutions can be classified into five categories – based on differences between the institutions' source of funds & use of funds.

1. **Depository Financial Institutions**: Accept deposits and provide loans to customers.
    - Obtain a large proportion of funds from deposits lodged by savers.
    - Provision of loans to borrowers in the household & business sectors.
    - Examples: commercial banks, credit unions.
2. **Investment Banks & Merchant Banks**: Specialist providers of financial & advisory services to corporations, high-net-worth individuals and government.
    - Provision of advisory services for corporate and government clients.
        - Advising clients on mergers & acquisitions, portfolio restructuring, financial risk management.
    - May provide loans but are more likely to advise and assist clients to raise funds directly from capital markets.
3. **Contractual Savings Institutions**: Offer financial contracts such as insurance & superannuation; large investors.
    - Liabilities are mainly contracts that specify that, in return for periodic payments, the institution will make specified payouts to the holder of the contract if & when a specified event occurs.
        - Large pool of cash generated & invested, due to the periodic cash receipts.
    - Examples: life insurance offices, general insurers, superannuation funds.
4. **Finance Companies & General Financiers**: Borrow funds direct from markets to provide loans and lease finance to customers.
    - Raise funds by issuing financial instruments such as commercial paper, medium-term notes and bonds in the money markets & the capital markets.
    - Use these funds to make loans and provide lease finance to customers in the household & business sector.
5. **Unit Trusts**: Investors buy units issued by the trust; pooled funds invested.
    - Formed under a trust deed and are controlled & managed by a trustee.
    - Attract funds by inviting public to purchase units in a trust.
        - Funds obtained from the sale of units are pooled and invested by funds managers in asset classes specified in the trust deed.
    - Trusts generally specialise in certain categories of investments. ↓
    - Examples: equity trusts, property trusts, fixed-interest trusts and mortgage trusts.

Securitisation: Non-liquid assets are sold into a trust; the trustee issues new securities; cash flows from the original securities are used to repay the new securities.

FINANCIAL INSTRUMENTS

A legal document, known as a *financial instrument*, is prepared when a user of funds obtained finance from a provider of funds, which clearly defines the contractual agreement.

EQUITY

- **Equity**: The sum of the financial interest an investor has in an asset; an ownership position.
    - Ownership interest in an asset.
- **Ordinary Share / Common Stock**: The principal form of equity issued by a corporation; bestows certain rights to the shareholder.
    - Ordinary shareholder is entitled to a share of the profits of the business.
        - **Dividend**: That part of a company's profit that is distributed to shareholders.
    - Value of a corporation's share may increase over time, representing a *capital gain*.
    - In the event of failure of a corporation, shareholders are entitled to the residual value of any remaining assets, after the claims of all other creditors and security holders have been paid.
- **Hybrid (Quasi-Equity) Security**: Financial instrument that incorporates the characteristics of both debt & equity (e.g. preference shares).
    - Preference shareholders also rank above ordinary shareholders in asset claim, if the company is placed in **liquidation**.
        - The legal process of winding up the affairs of a company in financial distress.

DEBT

- **Debt**: Loan that must be repaid.
    - Short-term – money market instrument.
    - Medium to long-term – capital market instrument.
- **Debt Instruments**: Specify conditions of a loan agreement; issuer/borrower, amount, return, timing of cash flows, maturity date.
    - Entitle the holder to a claim (ahead of equity holders) of the income stream & assets of the borrower, if the borrower defaults on loan repayments.
    - **Secured Debt**: A debt instrument that provides the lender win a claim over specified assets if the borrower defaults.
        - Otherwise, unsecured debt.
    - **Negotiable Debt Instrument**: A debt instrument that can be sold by the original lender on the financial market.
        - Examples: commercial bills & promissory notes can be sold in money markets.
        - Otherwise non-negotiable (e.g. term loan obtained through a bank).

DERIVATIVES

- **Derivative Instrument**: A synthetic security that derives its price from a physical market commodity or security mainly used to manage risk exposures.

Derivative contracts are used to manage an exposure to an identified risk. Four basic types:

- **Futures Contract**: An exchange-traded agreement to buy or sell a specific commodity or financial instrument at a specific price at a predetermined future date.
    - Standardised contracts that are traded through a futures exchange.
- **Forward Contract**: An over-the-counter agreement that locks in a price (interest rate or exchange rate) that will apply at a future date.
    - Like a futures contract but more flexible.

- **Option Contract**: The right, but not the obligation, to buy or sell a commodity or security at a predetermined exercise price; the option buyer pays a premium to the option writer.
- **Swap Contract**: An arrangement between two parties to swap future cash flows; interest rate swaps & currency swaps.

Derivative instruments are different from equity & debt in that they do not provide actual funds for the issuer. Risks associated with equity or debt issues may be managed using derivative contracts.

FINANCIAL MARKETS

MATCHING PRINCIPLE

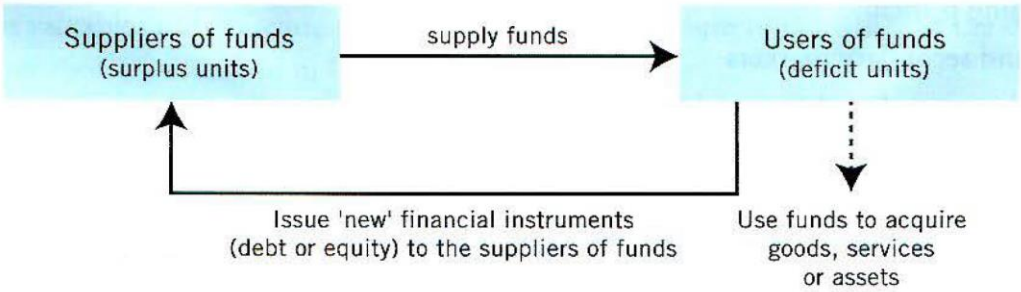
Lack of adherence to this principle accentuates the effects of frozen money markets with the 'sub-prime' market collapse.

- **Matching Principle**: Short-term assets (e.g. working capital and inventories) should be funded with short-term liabilities and longer-term assets should be funded with longer-term liabilities & equity. Examples:
  - Seasonal inventory funded by overdraft.
  - Equipment funded by debentures.
- **Overdraft Facility**: A fluctuating credit facility provided by a bank; allows a business operating account to go into debit, up to an agreed limit.
- **Bonds**: A long-term debt instrument issued directly into the capital markets that pays the bond-holder periodic interest coupons and the principal is repaid at maturity.

PRIMARY & SECONDARY MARKET TRANSACTIONS

- **Primary Market Transaction**: The issue of a new financial instrument; funds are obtained by the issuer. Examples:
  - When a corporation issues additional ordinary shares to raise equity funding for a project, it is conducting a primary market transaction in the capital markets.
  - Government sells long-term bonds to finance spending on capital works.
  - Individuals who borrow money from a bank to finance the purchase of a house.

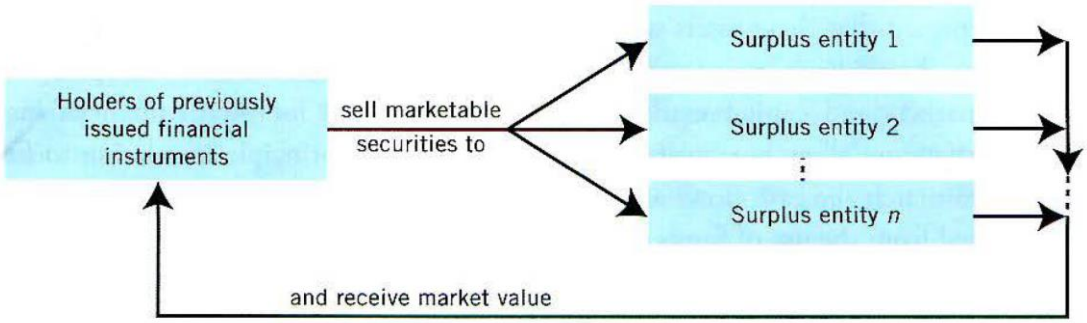
FIGURE 1.2 PRIMARY MARKET TRANSACTIONS



- **Secondary Market Transaction**: The buying & selling of existing financial securities; transfer of ownership, no new funds raised by the issuer.
  - Instruments traded in the secondary markets were initially created in primary market transactions.

- Example: an investor who buys shares (equity) issued by a corporation decides to sell them, the sale of these shares is regarded as a secondary market transaction.
- Have no direct impact on the amount of funding raised or available to the company.
- Overcome two potential obstacles; savers' preferences for liquidity and risk aversion.
- Provides liquidity, which facilitates the restructuring of portfolios of security owners.
- **Security**: Financial assets that are traded in a formal secondary market (e.g. ASX).

FIGURE 1.3 SECONDARY MARKET TRANSACTIONS



DIRECT FINANCE & INTERMEDIATED FINANCE

- **Direct Finance**: Funding obtained direct from money markets & capital markets.
  - When funds are raised in the primary market, the contractual agreement is between the provider of funds & the user of funds.
    - Funds are not provided by a financial institution.
  - **Broker**: An agent who carries out the instructions of a client.
    - Does not provide finance, but receives a fee or commission.
  - **Dealer**: Makes a market in a security by quoting both buy (bid) & sell (offer) prices.
  - Examples: share issues, corporate bonds, government securities.
  - **Credit Rating**: The assessment by a credit rating agency of the creditworthiness of an obligor to a financial obligation.

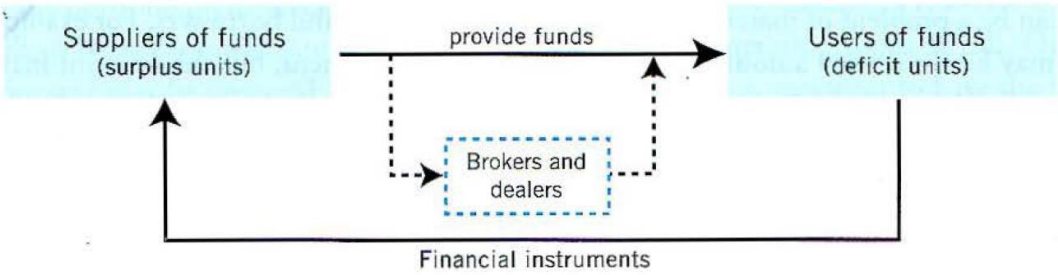
ADVANTAGES

- Removes the cost of a financial intermediary.
- Allows the borrower to diversify funding sources by accessing both the domestic & international money & capital markets.
  - Reduces the risk of exposure to a single funding source or market.
- Enables greater flexibility in the type of funding instruments used to meet different financing needs.

DISADVANTAGES

- Problem of matching the preferences of lenders & borrowers.
- Liquidity & marketability of a security. Not all financial instruments have an active secondary market through which they may be sold.
- Search & transaction costs associated with direct issue can be quite high.
- Difficult to assess the level of risk of investment in a direct issue.
  - **Default Risk**: The risk that a borrower may not meet financial commitments such as loan repayments when they are due.

FIGURE 1.4 DIRECT FINANCIAL FLOWS

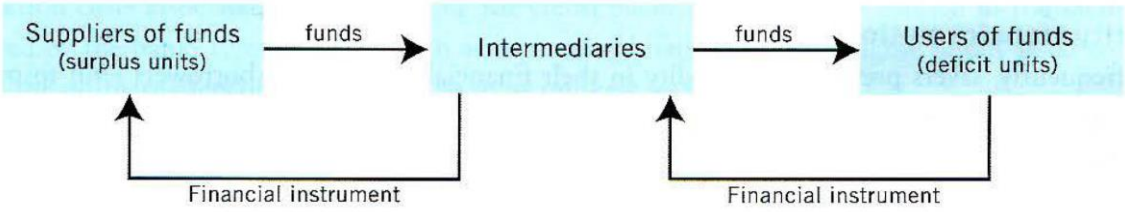


- **Intermediated Finance**: Financial transaction conducted with a financial intermediary (e.g. bank deposits and bank loans); separate contractual agreements.
    - Intermediary has an active role in the relationship between saver & user of funds.

ADVANTAGES

- **Asset Transformation**: The ability of financial intermediaries to provide a range of products that meet customers' portfolio preferences.
- **Maturity Transformation**: Financial intermediaries offer products with a range of terms to maturity.
    - **Liability Management**: Where banks actively manage their sources of funds (liabilities) to meet future loan demands (assets).
- **Credit Risk (diversification and) Transformation**: A saver's credit risk exposure is limited to the intermediary; the intermediary risk is exposed to the credit risk of the ultimate borrower.
    - **Liquidity Transformation**: Measured by the ability of a saver to convert a financial instrument into cash. Savers generally prefer more, rather than less, liquidity in their investments.
- **Economies of Scale**: Financial & operational benefits gained from organisational size, expertise and volume of business.

FIGURE 1.5 INTERMEDIATED FINANCIAL FLOWS



WHOLESALE & RETAIL MARKETS

- **Wholesale Market**: Direct financial flow transactions between institutional investors & borrowers.
    - Involves larger transactions.
- **Retail Market**: Financial transactions conducted with financial intermediaries mainly by individuals and small-to-medium sized businesses.
    - Involves smaller transactions.

MONEY MARKETS

- **Money Markets**: Wholesale markets in which short-term securities are issued & traded.
  - Highly liquid securities;
    - Term to maturity < 1 year.
    - Highly standardised form.
    - Deep secondary market.
  - No specific infrastructure or trading place.
  - Enables participants to manage liquidity.
- Money market brings together institutional investors that have a surplus of funds and those with a short-term shortage of funds.
  - **Institutional Investors**: Participants in the wholesale markets (e.g. funds managers, insurance offices, banks).

FIGURE 1.7 MONEY-MARKET PARTICIPANTS AND INSTRUMENTS

Market participants	Money-market instruments
Central bank	Exchange settlement account funds
Commercial banks	Treasury notes
Superannuation funds	Government bonds (less than 12 months to maturity)
Investment banks and merchant banks	Commercial bills
Finance companies	Promissory notes (commercial paper)
Insurance offices	Deposits (11 am and 24-hour call)
Funds managers (including unit trusts)	Negotiable certificates of deposit
Building societies and credit unions	Inter-bank loans
Cash management trusts	Repurchase agreements (repos)
Corporations	

MONEY-MARKET SUBMARKETS

- **Inter-Bank Market**: The lending & borrowing of very short-term funds by banks operating in the payments system.
- **Bills Market**: An active money market for the issue & trading of bills of exchange.
  - **Discount Securities**: Short-term securities issued with a face value payable at maturity.
    - Does not pay interest and sold today at a discount to the face value.
- **Commercial Paper**: Promissory notes (discount securities) issued into the money market by corporations with a good credit rating.
- **Negotiable Certificates of Deposit**: A discount security issued by the bank.

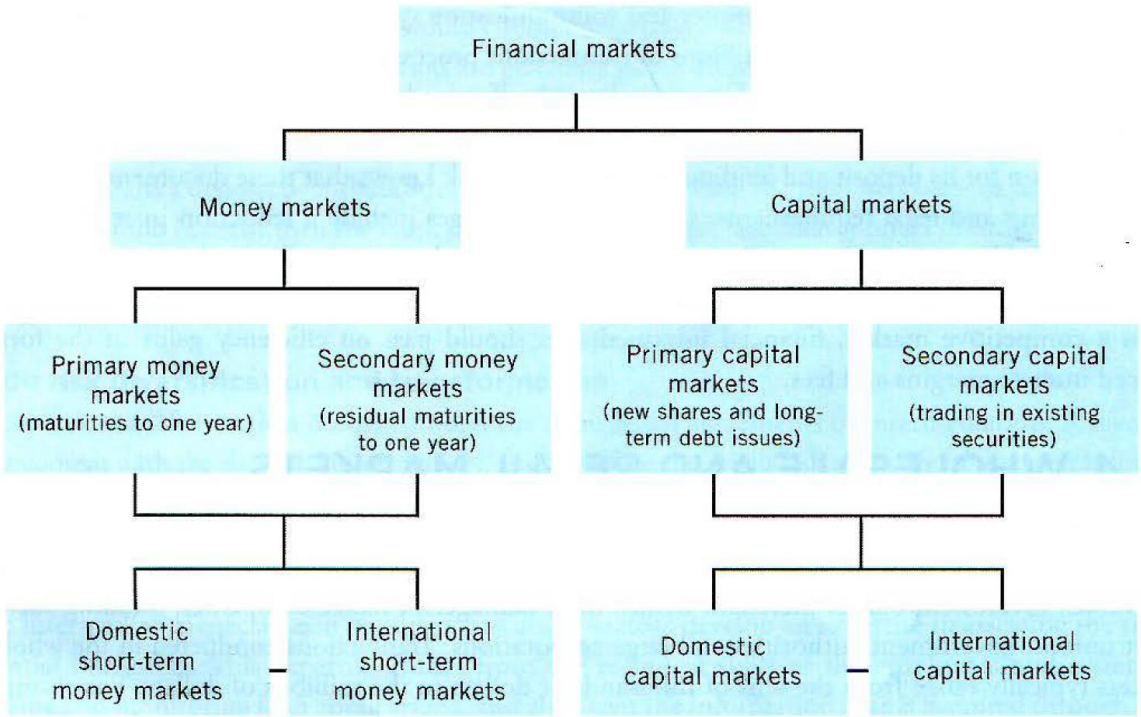
CAPITAL MARKETS

Capital Markets: Markets for longer-term funding; includes equity, corporate debt & government debt, and is supported by the foreign exchange & derivative markets.

- **Equity Markets**: Facilitate the issue of financial securities that represent an ownership interest in an asset (e.g. stock market).

- **Corporate Debt Markets**: Facilitate the issue & trading of debt securities issued by corporations (e.g. discount securities, bonds).
    - Medium-to-longer-term debt instruments:
        - Term loans.
        - Debentures.
        - Unsecured notes.
        - Subordinated debt.
        - Lease arrangements.
        - Securitisation.
        - Commercial property finance.
- **Government Debt**: Government borrowing for short-term liquidity needs, or longer-term budget capital expenditures (e.g. T-notes, Treasury bonds).
    - **Crowding Out**: Government borrowing that reduces the net amount of funds available for other lending in the financial system.
- **Foreign Exchange Markets**: Markets that facilitate the buying and selling or foreign currencies.
- **Derivatives Markets**: Markets in synthetic risk management products; futures, forwards, options, swaps.

FIGURE 1.6 STRUCTURE OF THE MONEY AND CAPITAL MARKETS



CH02 – COMMERCIAL BANKS.

MAIN ACTIVITIES

Commercial banks provide a full range of financial services.

- **Asset Management**: A bank restricts growth in its lending to the level of funds available from its depositor base.
- **Liability Management**: Where banks actively manage their sources of funds (liabilities) to meet future loan demand (assets).
    - Borrow directly from domestic & international capital markets.
    - Provision of other financial services.
    - **Off-Balance-Sheet Business**: Transactions that represent a contingent liability and therefore are not recorded on the balance sheet.

SOURCES OF FUNDS

ASSET	LIABILITIES
Personal and housing finance	Current account deposit
Commercial lending	Call deposit
Lending to Government	Term Deposit
Other bank assets	Certificates of deposit
	Bill acceptance liabilities
	Debt liabilities
	Foreign currency liabilities
	EQUITIES
	Loan capital (hybrid securities) and shareholders' equity

- **Current Account Deposits**: Liquid funds held in a cheque account.
    - Cheques drawn to purchase goods & services.
- **Call (or demand) Deposits**: Funds held in a savings account that can be withdrawn on demand.
    - Low interest payments → represents low risk and highly liquid nature of funds.
- **Term Deposits**: Funds lodged in an account for a predetermined period (one month to five years) and a specified fixed interest rate.
- **(Negotiable) Certificate of Deposit**: A short-term (30 to 180 days) discount security issued by a bank. Face value repayable at maturity.
    - **Negotiable Security**: A financial instrument that can easily be sold into a deep and liquid secondary market.
- **Bill of Exchange**: A short-term money-market discount security. Face value repayable at maturity.
    - **Acceptance**: A bank puts its name on a bill issued by a third party. Bank accepts primary liability to repay the face value of the bill at maturity.