

Note: All definitions, summaries, and inspiration drawn from *The Economics of Money, Banking, and Financial Markets, Seventh Edition* by Frederic S. Mishkin

Financial institutions - the systems to be modeled

financial instruments - values or entities exchanged between nodes

node - an agent in the financial system, capable of possessing financial instruments

wealth - a value associated with the financial instruments possessed or attributed to a particular agent

spending - the operation by which the wealth of an agent decreases

borrowing - the operation by which the wealth of an agent increases

financial claim - a condition associated with a financial instrument ensuring that a node is entitled to all or at least a part of a financial instrument

asset - any financial claim or piece of property that is a store of value

security - a claim on the borrower's future income that is sold by the borrower to the lender

bond - a debt security that promises to make payments periodically for a specified period of time (time-dependent transfer)

interest rate - a function dictating the cost (or gain) of borrowing (or lending out) a financial instrument, indicates the amount to be paid to the lender

common stock (stock) - a share of ownership in a corporation, a security that is a claim on the earnings and assets of the corporation

For international markets; way down the road:

foreign exchange market - the financial market in which the conversion between international currencies is determined

conversion - a function for converting one form of currency to another, with the value returned being the

foreign exchange rate - the price of one country's currency in terms of another

financial intermediaries - nodes that borrow funds from people who have saved and in turn make loans to others
i.e. banks, insurance companies, NBFCs (non-banking financial companies), pension funds (retirement), and investment banks

banks - financial intermediaries that accept deposits and make loans. Examples include commercial banks, savings and loan associations, mutual savings banks, and credit unions

deposit - a function which subtracts from an agent's wealth and adds to the wealth of a bank, while ensuring a claim on that transferred wealth in the name of the node at hand

loan - a function which subtracts from an agent's (the lender's) wealth and adds to the wealth of another (the borrower), while ensuring a claim on that transferred wealth in the name of the lender

way down the road:

e-finance - a separate channel of delivering financial services electronically (different edge flavor)

money - anything that is generally accepted in payment for goods or services or the repayment of debts

money supply - the quantity of money in an economy (sum of money over all agents)

aggregate output - the total production of final goods and services in an economy

see [Textbooks/Economics.../Chapter1.cpp](#)

unemployment rate - a function that returns the percentage of available labor force unemployed

business cycles - the upward and downward movements of aggregate output produced in the economy (a plot of the aggregate output vs time)

recession - any time interval during which the slope a business cycle is negative

monetary theory - the theory that relates changes in the quantity of money to changes in economic activity

aggregate price level (price level) - the average price of goods and services in an economy

inflation - any time interval during which the slope of the aggregate price level vs time is positive

inflation rate - the rate of change of the price level, usually measured as a percentage change per year

monetary policy - the management of the money supply and interest rates (social philosophy or function), way down the road

central bank - the government agency that oversees the banking system and is responsible for the amount of money and credit supplied in the economy, a node in the network with the most influence; see Wheeler, Modeling Marx: An Exercise in Futility

fiscal policy - (social philosophy) policy that involves decisions about government spending and taxation

budget deficit - the excess of government expenditure over tax revenues, a function that returns an amount in a given currency

budget surplus - the excess of tax revenues over government expenditure, a function that returns an amount in a given currency

gross domestic product (GDP) - the value of all final goods and services produced in the economy during the course of a year;
see Textbooks/Economics.../Chapter1.cpp

aggregate income - the total income of factors of production (land, labor, capital) in the economy; for now, equivalent to the GDP;
see Textbooks/Economics.../Chapter1.cpp

Chapter 1 Summary

1. Activities in financial markets have direct effects on individuals' wealth, the behavior of businesses, and the efficiency of the economy.

Three financial markets deserve particular attention:

the bond market (where interest rates are determined),

the stock market (which has a major effect on people's wealth and on firms' investment decisions),

and the foreign exchange market (because fluctuations in the foreign exchange rate have major consequences for the American economy)

2. Banks and other financial institutions channel funds from people who might not put them to productive use to people who can do so and thus play a crucial role in improving the efficiency of the economy.

3. Money appears to be a major influence on inflation, business cycles, and interest rates. Because these economic variables are so important to the health of the economy, we need to understand how monetary policy is and should be conducted. We also need to study government fiscal policy because it can be an influential factor in the conduct of monetary policy.

4. This textbook stresses the economic way of thinking by developing a unifying analytic framework from the study of money, banking, and financial markets using a few basic economic principles. This textbook also emphasizes the interaction of theoretical analysis and empirical data.