Topic 1 : Financial Assets and Overview of Financial Market

EE431

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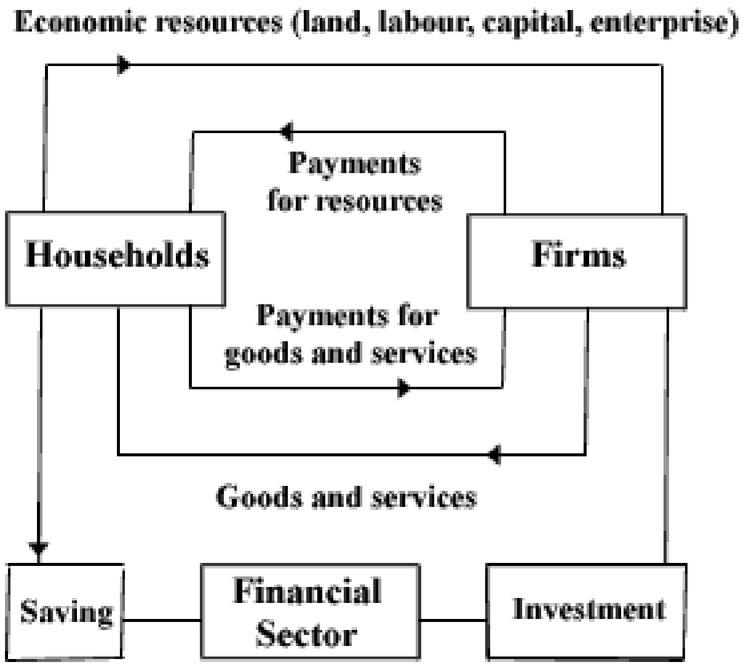
1 Introduction



- Money is not, properly speaking, one of the subjects of commerce; but only the instrument which men have agreed upon to facilitate the exchange of one commodity for another. It is not the wheels of trade: It is the oil which renders the wheels more smooth and easy." David Hume, Of Money , 1752.
  - Money is anything that is accepted in payment for goods and services or in the repayments of debts
  - Throughout the history of the world, many things have served as money: gold, silver, cows, horses, cigarettes, and more.

1.1 Functions of Money:

- Medium of exchange : promotes specialization and efficiency, reduces transaction costs
- Unit of account: reduces transaction cost by reducing the number of prices

- Store of value : we do not always want to spend our income immediately upon receiving it. It provides more liquidity (the relative ease with which as asset can be converted into a medium of exchange)
- suggested podcast : https://www.stlouisfed.org/education/economic-lowdown-podcast-series/episode-9-functions-of-money

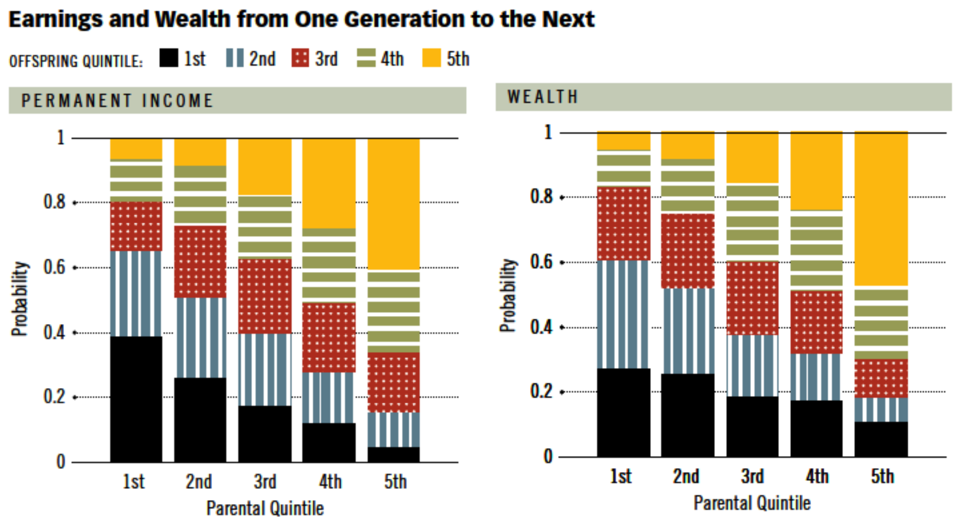
1.2 Money, Wealth and Income

- Money refers to what is actually accepted as payment for goods, services, and debts.
- Income refers to earnings during a period of time, such as a year.
- Wealth refers to the accumulated assets/property at a point is time.
- What's this difference?

  Example:

  - If I own $2 million worth of diamonds but no cash or bank accounts
  - I am wealthy but I do not have any money.
  - Suppose you win a $25 million lottery prize which you take as a lump sum, put the cash under your bed, and then quit your job.
    * You would be wealthy, you would have a lot of money, but your income will be zero.
  - Suppose a computer genius in Silicon Valley blows all of his income every year on food, parties, vacations even though he earning $250,000 per year.
    * He has a high income, but is not wealthy if he has accumulated no assets.
- Discussion:
  - **Which Persists More from Generation to Generation—Income or Wealth?**
  - **Why should we care about intergenerational mobility -** the changes in a family's economic status between successive generations**?**

- **If inequality were increasing, economic mobility would beome more importnat topic of discussion.** Do you agree?
- **What is it that makes one society more economically mobile than another?**



Source: https://www.stlouisfed.org/publications/regional-economist/july-2016/which-persists-more-from-generation-to-generation-income-or-wealth

"NOTE: Each panel shows the population in the study broken down into five quintiles, with each quintile having roughly the same number of people. The 1st quintile represents those at the bottom of the income/wealth ladder, and the 5th quintile represents those at the top. How should these figures be interpreted? Follow this example: In the Permanent Income panel, those born into the 1st quintile have a 39 percent chance of ending up there themselves. In the Residual Wealth panel, residual wealth is defined as wealth net the effect of permanent income and education. (In the middle panel, wealth is just assets minus liabilities.)"

Which Persists More from Generation to Generation—Income or Wealth?
By George-Levi Gayle , Andrés Hincapié

"**Do you earn more money than your parents? Do you have more wealth, i.e., assets minus liabilities, than your parents**? Economists use the answers to these questions to determine what is called **intergenerational mobility**—the changes in a family's economic status between successive generations. **Why should we care about intergenerational mobility?** Being able to do better than one's parents is part of the American Dream. Also, a society with intergenerational mobility might have less economic inequality across generations.

It is well-documented that income and wealth inequality, i.e., the size of the differences in income or wealth between the haves and the have-nots, has increased significantly over the past 40 years.1 If there were no inequality, then economic mobility would probably not be a topic of discussion because parents would have no economic advantage to bequeath. However, inequality exists, and as it increases, the need for economic mobility becomes more important. Policies that promote economic mobility can reduce inequality in the next generation.

What is it that makes one society more economically mobile than another? Are there factors that can promote economic mobility? In discussing such questions, economists have come up with two possible approaches to these challenges: (1) **the economic opportunity structure** and (2) **economic growth**. Economic growth promotes mobility by raising earnings or wealth for the entire population, all else being equal. ... The economic opportunity structure can promote economic mobility by helping the poor escape poverty (perhaps with the help of free preschool, for example) or by limiting the advantage of those who grew up privileged (by imposing inheritance taxes, for example, so that they have less to pass down to the next generation). ... "

For more details you may read the whole article. The source is below.
https://www.stlouisfed.org/publications/regional-economist/july-2016/which-persists-more-from-generation-to-generation-income-or-wealth

1.3 Real Assets and Financial Assets

- **A real asset** is an entity that generates a flow of goods or services over time; example, land, people, factories, inventions, business plans, goodwill, reputation, need not be tangible.

- **A financial asset** is a legal contract that gives its owner a claim to payments. Examples include currency ($), stocks, bonds, bank deposits,bank loans, etc

  - Market is the interaction between buyers and sellers
  - Financial market is a market for financial assets

  Financial markets and financial intermediaries perform the function of channeling funds from agents who have saved funds and want to lend to agents who need funds and want to borrow.

  Financial asset is promise to repay cash (or any valuables) in the future, an asset that derives value because of a contractual claim.

- Other words, financial products, financial claims, securities

  - Financial asset is different from general goods and services
  - its price depends on “future return” “risk” and “liquidity
  - “rate of return”, unit = percent
  - Stock A, price = $100, expected to rise by $10, Stock B, price = $10, expected to rise by $2

1.4 Information Theory

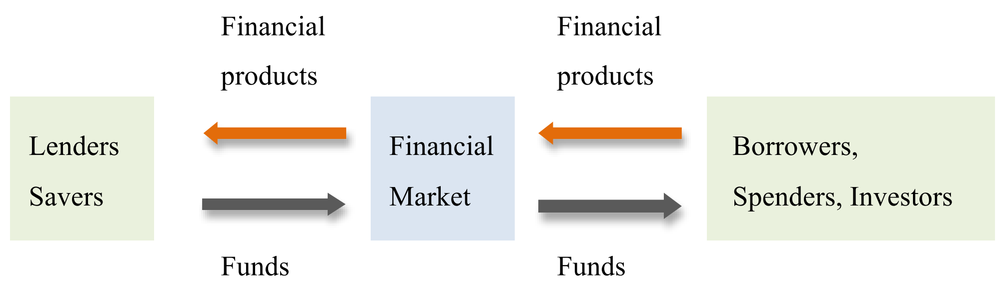
1. Search goods: their quality is known ex ante
2. Experience goods :their quality is known ex post
3. Credence goods: their quality may never be established, even ex post

- Characteristics of financial assets : Topic 2 - 4
- Financial Institution : Topic 5
- Asymmetric information in the financial market : Topic 6 - 8
- Asymmetric information $\rightarrow$ market failure $\rightarrow$ role of financial intermediation and financial regulations
- Transaction in financial market promotes "saving" and "investment" : flow of funds from savers to investors
- direct investment VS. indirect investment
- economic investment VS financial investment
- We will mention “investment” and “investors” many times in this class.
- The term “investors” is often used loosely, and we will often use the term loosely in this class.
  - When a firm builds a factory or when a person buys a house, that is investment.
  - When a person buys stock, that is, strictly speaking, savings. However, the purchase of a share of stock is commonly called investment, and stockholders are called investor.

2 Flow of funds : borrowers (deficit spending unit), lenders (surplus spending unit)

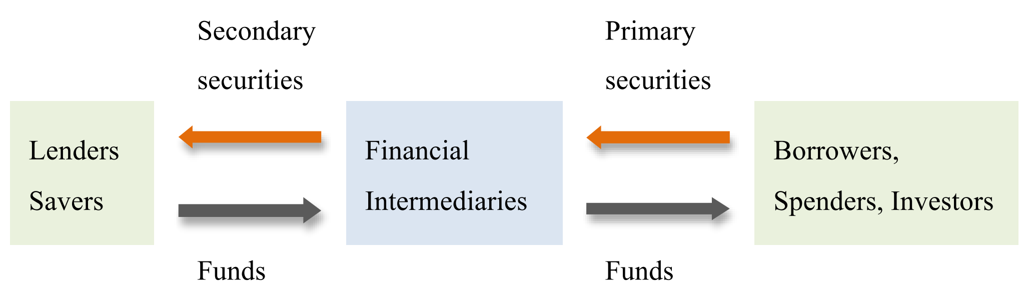
2.1 Direct Finance :

borrowers borrow funds directly from the lenders by selling them securities



2.2 Indirect Finance :

Financial intermediary stands between the lenders and the borrowers and help transfer funds from one to the other



Example : Direct (D) or Indirect (I) finance

- deposit money into a bank
- buy a newly issued bond from PTT PLC. at Kasikorn Bank
- buy a government bond at BOT
- buy an insurance plan from an insurance company
- give your friend a loan
- your friends put money into your business and both of you share in the profits (or losses) of the business

Note : Different roles of financial institutions.

- The process of indirect finance using financial intermediaries is called financial intermediation
- Financial Intermediaries are important because of transactions costs and asymmetric information

3 Structure of financial markets

3.1 Primary and secondary market:

(classified by seasoning of the claims)

- .... market = market in which newly-issued securities are sold to initial buyers by the corporation or government borrowing the funds.

  - .... market = market in which previously-issued securities are traded.
  - Note that the originally issuer or borrower receives funds only when its securities are first sold in the .... market; the issuer does not receive funds when its securities are traded in the .... market.

  - In Economics, is primary market more important than secondary market?

- Importance of secondary market: promote liquidity, provide information necessary for the financial asset price determination in the primary market.

  - They allow the original buyers of securities to sell them before the maturity date, if necessary. That is, they make the securities more liquid.
  - They allow participants in the primary markets to make judgements about the value of newly-issued securities by looking at the prices of similar, existing securities that are traded in the secondary markets.
  - Notice that most financial economics theories focus on activities in the secondary market.

3.2 Money and capital market

(classified by maturity)

- Short-Term (maturity < 1 year) Money Market

- LongTerm (maturity > 1 year) Capital Market

3.3 Debt and equity market

(classified by the nature of the claims)

- Debt instrument = a contractual agreement by the issuer of the instrument (the borrower) to pay the holder of the instrument (the lender) fixed dollar amounts (interest and principal payments) at regular intervals until a specified date (maturity date) when a final payment is made

- Equity = a contractual agreement representing claims to a share in the income and assets of a business

- A key feature distinguishing equity from debt is that the equity holders are the residual claimants: the firm must make payments to its debt holders before making payments to its equity holders.

Debt Instrument	**Equity instruments**
Buyers of debt instruments are suppliers (of capital) to the firm, not owners of the firm	Buyers of common stock are owners of the firm
Debt instruments have a finite life or maturity date	Common stock has no finite life or maturity date
Advantage is that the debt instrument is a contractual promise to pay with legal rights to enforce repayment	Advantage of common stock is potential high income since return is not fixed or limited
Disadvantage is that return/profit is fixed or limited	Disadvantage is that debt payments must be made before equity payments can be made

3.4 Derivative market

- A derivative is a financial instrument whose value depends on (or derives from) the value of other, more basic underlying assets.

- for example;

  - Forward contract : a contract to buy or sell a specified amount of a designated asset at a date known in the future, is not traded on organised exchanges
  - Futures contract : a contract to buy or sell a specified amount of a designated asset at a date known in the future, is traded on organised exchanges
  - Option: contract that gives the owner the right but not obligation to buy or sell a specified asset at a stipulated price

- Throughout this course, we'll be considering various aspects of the role that these various financial instruments and financial intermediaries play in the economy as a whole.

  - With all of these definitions in hand and collected in one place, we'll always be able to refer back to this overview if we need to remember how a particular type of financial instrument works or what a particular role of financial intermediary play.

3.5 Example

Example 1:

"IF THE banks won't lend you money, might a stranger? Probably not, to judge by recent data from Prosper, an American peer-to-peer lending marketplace (a place where people can lend their own money to other people).

Peer-to-peer lending, the website, which lets lenders bid against each other on the interest rates they are prepared to offer to specific borrowers, has seen an increase in demand from subprime borrowers as access to bank credit has tightened."

Source: Economist (2007)

Explain the difference between direct finance and indirect finance. What is the method for direct financing mentioned in the news: bank lending, peer-to-peer financing or none?

Example 2:

News 1. "The Stock Exchange of Thailand Index hit a new 18-year high, ahead of the Bank of Thailand's policy rate meeting today. The Thai bourse ended the morning session at 1,540.12 points, gaining 8.05 from the previous closing. The index further rallied in the afternoon, despite foreign net-sells this month, to end the day at 1,546.64 points on turnover of Bt63 billion."

Source: The Nation)

News 2. "Supalai Public Company Limited (SPALI) is offering a 5-year unsecured debentures with the issue size of THB 745 million. The coupon rate has been determined at 3.73 per cent per annum. The interest is payable semi-annually."

Source: ThaiBMA

- Specify which piece of news talks about primary market and which piece of news talks about secondary market.
- Specify which piece of news talks about debt market and which piece of news talks about equity market.

Example 3:

"Financial Intermediation, Markets, and Alternative Financial Sectors", Allen et al (2012)

In addition to the traditional ways of raising finance through banks and equity and bond markets, we focus on alternative financing sources. These include internal finance through retained earnings and external financing channels that include funds from family and friends of the firm owners in the form of equity and/or debt, private credit agencies, trade credits, and many other forms.

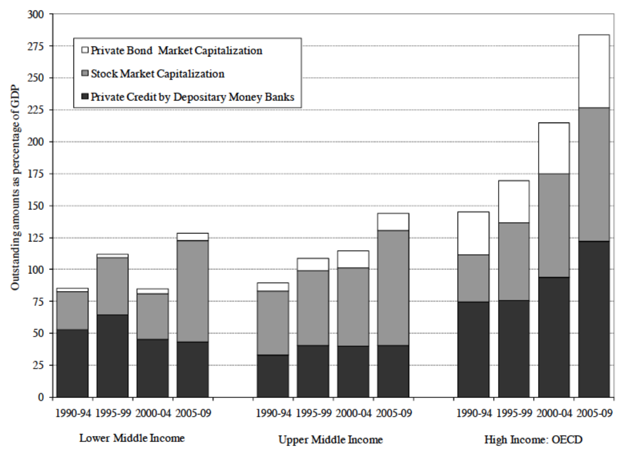


Figure 1. Financial markets and intermediaries around the world over the last two decades. This figure shows private bond market capitalization, stock market capitalization, and private credit by depositary money banks as a percentage of GDP. The income classification is from the World Bank. The data source is the Financial Structure Dataset (Beck and Demirgüç-Kunt (2009)).

We argue and provide evidence that while traditional financing channels, including financial markets and banks, provide significant sources of funds for firms in developed countries, alternative financing channels provide an equally important source of funds in both developed and developing countries. Alternative finance is often the dominant source of funds for firms in fast-growing economies. In these economies and during early stages of economic growth, conducting business without using the law and legal system and relying on alternative finance as the main source of external funds for corporate sectors, as witnessed in China and other Asian economies, can be a superior model. On the other hand, in more developed economies with low and predictable growth, legal and other formal institutions can play a more important role in supporting finance and commerce, and the role of markets and banks in corporate financing also becomes more significant.

"You wanted to talk to me about money. I did indeed. Let me test your reaction to the following story:

On 22 August 22, 1994, two retired musicians, **Bill Drummond and Jimmy Cauty, flew to Jura**, in the Inner Hebrides off the west coast of Scotland. They **brought with them a cameraman, a journalist** (Jim Reid of The Observer) **and twenty thousand £50 notes, bundled and tightly wrapped in plastic bags. A million pounds.** (It's worth about £1.5 million or $2.5 million in today's money.) Drummond and Cauty had, it is said, emptied their bank accounts to put the money together.

In the early hours of the next morning, **the four men travelled to a remote boathouse**, and with the rain hammering down outside, Cauty and Drummond made a small pile of these bundles of notes while the others acted as witnesses. Drummond and Cauty stripped out a £50 note each, **lit them with a cigarette lighter, and set the rest of the money ablaze.** When the dense blocks of cash would not catch, they pulled out the notes three or four at a time, crumpled them and threw them on the fire. The whole job took a couple of hours.

What a waste! Do you think so?

When Drummond and Cauty appeared as guests on a television chat show, Ireland's The Late Late Show, hosted by Gay Byrne, they got a hostile reception as they discussed their "art." There were sharp questions from Byrne, and the studio audience were was furious at the senseless destruction. Couldn't the men have given the money to a good cause instead?

Drummond protested: "If we'd gone and spent the money on swimming pools, Rolls Royces, I don't think people would be upset. It's because we've burned it that people are upset. And I know that this is a kind of corny thing to say and it doesn't really stand up but seeing as you're talking about the charity angle . . . us burning that money doesn't mean there's any less loaves of bread in the world, any less apples, any less anything. The only thing that's less, is a pile of paper."

At that point, Byrne challenged Drummond and said that there could have been more apples or bread in the world if they'd used the money wisely. The audience applauded Byrne and jeered Drummond as he tried to continue.

You're going to tell me Byrne was wrong and Drummond was correct. Am I right? .... "

Source: **"The Undercover Economist Strikes Back**" by Tim Harfords