

Fiscal and Financial System
in Japan

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MONEY
(MISHKIN, CHAPTER 3)

Functions of Money

Money functions as

(1) A Medium of Exchange

Money is paid to buy goods or services.

(2) A Unit of Account

The price of every good or service is expressed in terms of money.

(3) A Store of Value

Your income in the form of money can be saved until tomorrow without any erosion. (*)

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Money as a Medium of Exchange

Money promotes **economic efficiency** by minimizing the time we spend in exchanging goods and services.

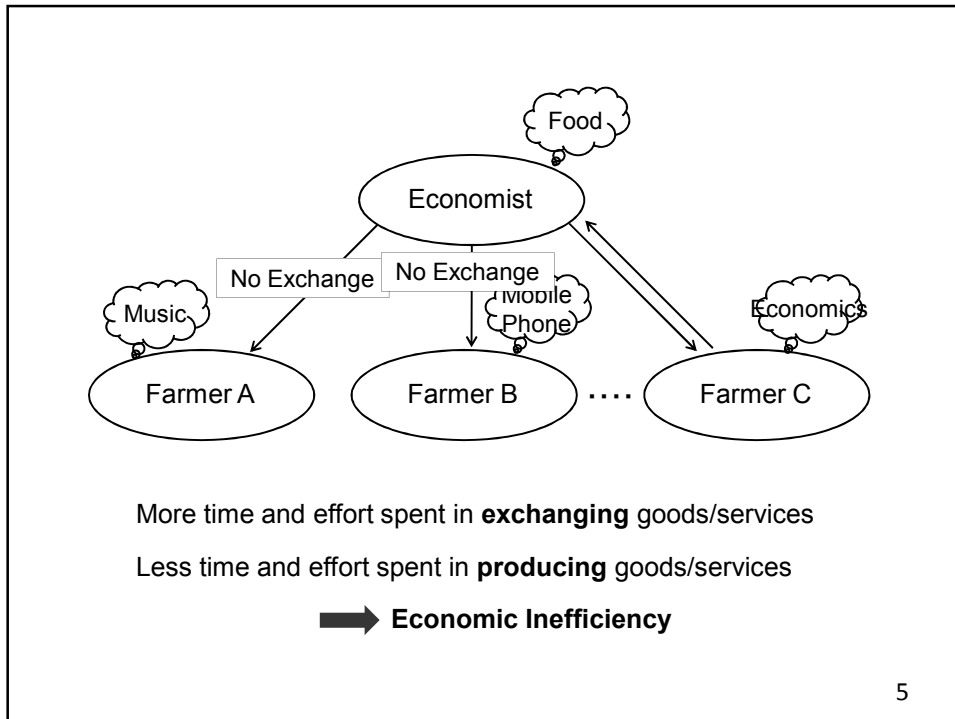
Without a medium of exchange, we must exchange goods **directly** for other goods.

Barter Economy

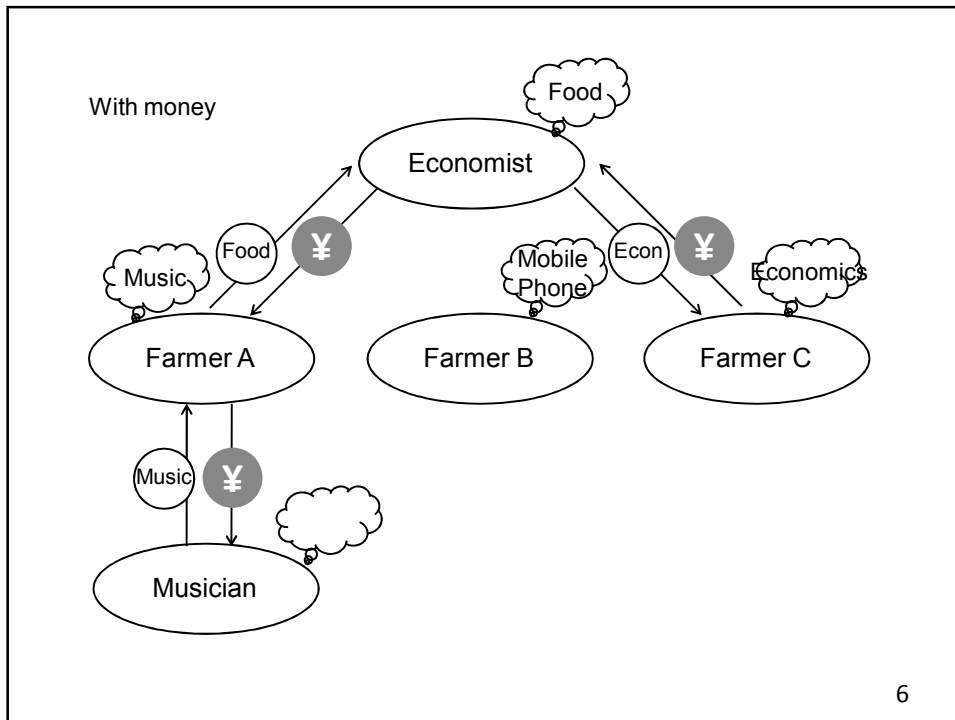
An economist, who wants to eat, has to find a farmer who has food **and** wants to learn economics.

Double Coincidence of Wants

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Money as a Unit of Account

How many “prices” do we need
in the world of 4 goods/services?

| | Bread | Mobile Phone | Music | Economics Lecture |
|-------------------|-------|--------------|-------|-------------------|
| Bread | | | | |
| Mobile Phone | | | | |
| Music | | | | |
| Economics Lecture | | | | |

$$\begin{aligned}\text{Number of Prices} &= (4 \times 4 - 4)/2 = (4 \times (4 - 1))/2 \\ &= (N \times (N - 1))/2 \quad \text{for } N \text{ goods}\end{aligned}$$

This function is more critical as the economy grows more complex.

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Money as a Store of Value

Money is used to save purchasing power from the time
when your income is received until it is spent.

A fisherman has to eat or exchange all of what he has caught
immediately, because it will rapidly deteriorate.

By exchanging it for money,
he can hold part of the money for future use.

- Why do people hold money rather than other assets
which give more yields?
- Can money save purchasing power without erosion?

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Liquidity

Money is the most **liquid** of all assets.

Liquidity: the relative ease with which a given asset can be converted into a medium of exchange

Money is itself a medium of exchange, hence no conversion is needed.

No conversion cost
= **High liquidity**

Bonds, stocks, real estates can be converted only at costs.

With conversion cost
= **Low liquidity**

Because of its high liquidity, people are willing to hold part of their wealth in the form of money, though it gives no yield.

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Inflation

How good a store of value money is depends upon the level of prices.

If the prices are doubled, the same amount of money can buy half as many goods/services as before.

High level of inflation

- ➡ Rapid decline in purchasing power of money
- ➡ People reluctant to receive money
- ➡ Barter economy with economic inefficiency

Controlling inflation is one of the major goals of national governments or central banks.

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How to Measure Money Stock

Close relationship between money stock and overall economic activity

We need to know the change in money stock.

We need to measure money stock.

But what should be included in money stock?

Cash currency off course.

Current deposits also.

How about **ordinary deposits**? **Time deposit**?

Definitions by the **Bank of Japan (BOJ)**

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M1

M1 = Cash Currency in Circulation
+ Deposit Money

Deposit Money : Demand Deposits

{ Current Deposits
Ordinary Deposits
Deposits at Notice
Special Deposits
Deposits for Tax Payments

Checks and Notes

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M2

A broader definition of money than M1

$$\begin{aligned} \mathbf{M2} &= \text{Cash Currency in Circulation} \\ &+ \text{Deposit Money} \\ &+ \text{Quasi-Money} \\ &+ \text{CDs} \end{aligned}$$

Quasi-Money : Time Deposits
Fixed Savings
Installment Savings
Foreign Currency Deposits

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M3 and L

M3 is a broader definition of money than M2.

M3 covers the same range of financial products as those of M2, but **the range of financial institutions surveyed in M2 is more limited.**

$$\begin{aligned} \mathbf{L} &= \mathbf{M3} + \text{Pecuniary Trust} + \text{Investment Trust} \\ &+ \text{Bank Debentures} \\ &+ \text{Straight Bonds Issued by Banks} \\ &+ \text{CPs Issued by Financial Institutions} \\ &+ \text{Government Bonds} \\ &+ \text{Foreign Bonds} \end{aligned}$$

L includes various components that are considered to have some degree of liquidity.

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Which definition should we depend on?

Do they tend to move together or differently?

Research has been conducted on which money stock is closely tied to movements in the economy's total output, the price level, and interest rates.

You can find a more detailed explanation at the BOJ's website :

<http://www.boj.or.jp/en/type/exp/stat/exms01.htm>