저축 투자

18. Saving, Investment, and the Financial System

Seoul National University

Questions in this chapter

- What are the main types of financial institutions in the U.S. economy, and what is their function?
- What are the three kinds of saving?
- What's the difference between saving and investment?
- How does the financial system coordinate saving and investment?
- How do govt policies affect saving, investment, and the interest rate?

Financial Institutions

- The **financial system**:
  the group of institutions that helps match the saving of one person with the investment of another.
  직접
- **Financial markets**: institutions through which savers can directly provide funds to borrowers. Examples: 채무의 증서
  - 채권 The **Bond** Market. A bond is a certificate of indebtedness.
  - 주식 The **Stock** Market. A stock is a claim to partial ownership in a firm.
    주인 회사
- **Financial intermediaries**: institutions through which savers can indirectly provide funds to borrowers. Examples:
  - 간접 Banks 은행
  - **Mutual funds** - institutions that sell shares to the public and use the proceeds to buy portfolios of stocks and bonds

Mutual fund 회사들

정부가 얼마의 돈을 빌렸고, 언제까지 갚겠다!　　정부채

삼성전자 주식회사 채권

일백만
일백만
三星電子株式會社 第80回社債券
金壹百萬원整
제 80 회
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1991년 11월 26일
三星電子株式會社
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무보증

주식: 회사의 지분을 증명

現代商船株式會社 株券
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西紀 1999年 7月 15日

운용실적

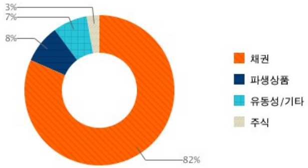
(기준일 : 2014년 11월 18일)

· 구분	· 3개월	· 6개월	· 1년	· 3년	· 설정이후
펀드수익률	2.04%	4.93%	8.19%	11.42%	11.24%
비교지수	-	-	-	-	-
표준편차	1.99%	2.05%	2.77%	4.31%	-

· 비교지수 : 없음
· 위험정보 : 표준편차는 연환산한 값임

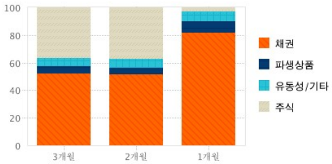
자산구성

(기준일 : 2014년 09월 18일)



자산비중 3개월 추이

(기준일 : 2014년 09월 18일)



미래에셋
mutual fund

주요보유종목 TOP 5

(기준일 : 2014년 09월 18일)

	· 종목별	· 비율
1	SK텔레콤	4.91%
2	TIGER 반도체	4.81%
3	아모레퍼시픽	4.80%
4	삼성전자우	4.12%
5	현대위아	4.12%

주요보유채권 TOP 5

(기준일 : 2014년 09월 18일)

	· 종목별	· 비율
1	국고0575-1809	10.53%
2	국고03250-1809(13-5)	9.78%
3	국고0275-1803(13-1)	8.22%
4	국고0400-1509	7.01%
5	산금13신이0300-1016-1	6.99%

Different Kinds of Saving

쓰거나

$Y - T = C + \text{Saving}$

$\text{Saving} = (Y - T) - (C)$

GDP $(Y - T)$ → 가처분소득

(소득) 세금

- **Private saving**
  - = The portion of households' income that is not used for consumption or paying taxes
  - = $Y - T - C$
- **Public saving** 정부 $\text{Saving} = (T) - (G)$
  - = Tax revenue less government spending
  - = $T - G$
- **National saving** = Pri Sa + Pub Sa = $Y - C - G$
  - = private saving + public saving
  - = $(Y - T - C) + (T - G)$
  - = $Y - C - G$
  - = the portion of national income that is not used for consumption or government purchases

Saving and Investment

$S = I +$ 순해외투자
($If.\ NX \neq 0$)

- Recall the national income accounting identity:
  $Y = C + I + G + NX$
- For the rest of this chapter, focus on the $\underbrace{\text{closed economy case}}_{NX=0}$:
  $Y = C + I + G$
- Solve for I:
  $I = Y - C - G = (Y - T - C) + (T - G) =$ National saving
- $\boxed{\text{Saving=Investment}}$ in a closed economy

$$I = Y - C - G = S$$

Budget Deficits and Surpluses

- Budget surplus
  - = an excess of tax revenue over govt spending
  - = T – G
  - = public saving
- Budget deficit
  - = a shortfall of tax revenue from govt spending
  - = G – T
  - = – (public saving)

EXAMPLE

- Given:
  $Y = 10, \quad C = 6.5, \quad G = 2, \quad G - T = 0.3$

  - Public Saving $= T - G = ?$ -0.3
  - Taxes $= T$? 1.7
  - Private Saving $= Y - T - C = ?$ 1.8
  - National Saving $= Y - C - G = ?$ 1.5
  - Investment $= I = ?$ 1.5

The Meaning of Saving and Investment

- **Private saving** is the income remaining after households pay their taxes and pay for consumption.
- Examples of what households do with saving:
  - Buy corporate bonds or equities 회사채, 주식
  - Purchase a certificate of deposit at the bank 은행 예금
  - Buy shares of a mutual fund mutual fund 구입
  - Let accumulate in saving or checking accounts

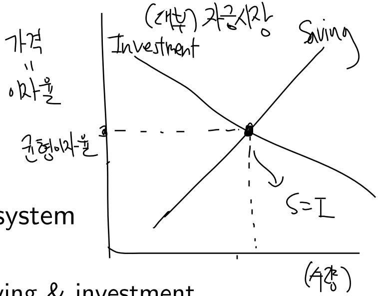
    저축

The Meaning of Saving and Investment

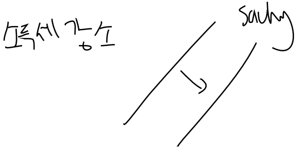
- **Investment** is the purchase of new capital.
- Examples of investment:
  - General Motors spends $250 million to build a new factory in Flint, Michigan.
  - You buy $5000 worth of computer equipment for your business.
  - Your parents spend $300,000 to have a new house built.

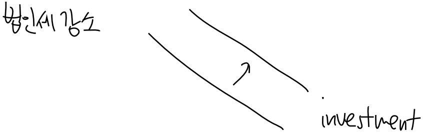
Remember: In economics, investment is NOT the purchase of stocks and bonds!

The Market for Loanable Funds



- A supply–demand model of the financial system
- Helps us understand
  - how the financial system coordinates saving & investment
  - how govt policies and other factors affect saving, investment, the interest rate
- Assume: only one financial market
  - All savers deposit their saving in this market.
  - All borrowers take out loans from this market.
  - There is one interest rate, which is both the return to saving and the cost of borrowing.





The Market for Loanable Funds

The **supply** of loanable funds comes from saving:

- Households with extra income can loan it out and earn interest.
- Public saving, if positive, adds to national saving and the supply of loanable funds. If negative, it reduces national saving and the supply of loanable funds.

The **demand** for loanable funds comes from investment:

- Firms borrow the funds they need to pay for new equipment, factories, etc.
- Households borrow the funds they need to purchase new houses.

Equilibrium

- (SUPPLY) An increase in the interest rate makes saving more attractive, which increases the quantity of loanable funds supplied.
- (DEMAND) A fall in the interest rate reduces the cost of borrowing, which increases the quantity of loanable funds demanded.

- The interest rate adjusts to equate supply and demand.
- The eq'm quantity of L.F. equals eq'm investment and eq'm saving.

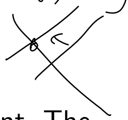
Budget Deficits, Crowding Out, and Long-Run Growth

$T = G$

$\Rightarrow G\uparrow \Rightarrow T < G \Rightarrow$ 정부적자 $\Rightarrow$ Saving $\downarrow$ ($\because$ Sa = Pub Sa + Pvt Sa)

이자율 $\uparrow$ Investment $\downarrow$

Saving



- Our analysis: Increase in budget deficit causes fall in investment. The govt borrows to finance its deficit, leaving less funds available for investment.
- This is called **crowding out.** 밀어내기 효과
- Recall from the preceding chapter: Investment is important for long-run economic growth. Hence, budget deficits reduce the economy's growth rate and future standard of living.

$$Y = C + \underset{\downarrow}{I} + \underset{\uparrow}{G}$$

$G\uparrow \Rightarrow I\downarrow$

$G\downarrow \Rightarrow I\uparrow$

The U.S. Government Debt

- The government finances deficits by borrowing (selling government bonds).
- Persistent deficits lead to a rising govt debt.
- The ratio of govt debt to GDP is a useful measure of the government's indebtedness relative to its ability to raise tax revenue.
- Historically, the debt-GDP ratio usually rises during wartime and falls during peacetime–until the early 1980s.

CONCLUSION

- Like many other markets, financial markets are governed by the forces of supply and demand.
- One of the Ten Principles from Chapter 1: "*Markets are usually a good way to organize economic activity.*"
  Financial markets help allocate the economy's scarce resources to their most efficient uses.
- Financial markets also link the present to the future:
  They enable savers to convert current income into future purchasing power, and borrowers to acquire capital to produce goods and services in the future.

SUMMARY

- The U.S. financial system is made up of many types of financial institutions, like the stock and bond markets, banks, and mutual funds.
- National saving equals private saving plus public saving.
- In a closed economy, national saving equals investment. The financial system makes this happen.
- The supply of loanable funds comes from saving. The demand for funds comes from investment. The interest rate adjusts to balance supply and demand in the loanable funds market.
- A government budget deficit is negative public saving, so it reduces national saving, the supply of funds available to finance investment.
- When a budget deficit crowds out investment, it reduces the growth of productivity and GDP.