

Chapter 2

Financial Markets and Institutions

Financial Management (MGCM10018)

Preview

- This chapter introduces the **financial environment**.
 - A general understanding
- Outlines
 - The importance of **financial markets and institutions**
 - The flow of savings to corporations
 - Functions of financial markets and intermediaries
 - The crisis of 2007-2009

Importance of Financial Markets and Institutions (2.1)

- Corporations have to **be good at finance** in order to survive and prosper
- Both investment and financial decisions are made in a financial environment.
 - **Two segments of financial environment**
 - Financial markets
 - Financial institutions

Apple Computer as Example

<i>April 1976:</i> Apple Computer Inc. founded	Mike Makkula, Apple's first chairman, invests \$250,000 in Apple shares.
<i>1976:</i> First 200 computers sold	Parts suppliers give Apple 30 days to pay. (Financing from accounts payable .) 创始基金
<i>1978–79</i>	Apple raises \$3.5 million from venture capital investors.
<i>December 1980:</i> Initial public offering	Apple raises \$91 million, after fees and expenses, by selling shares to public investors.
<i>May 1981</i>	Apple sells 2.6 million additional shares at \$31.25 per share.
<i>April 1987</i>	Apple pays its first dividend at an annual rate of \$.12 per share
<i>Early 1990s</i>	Apple carries out several share repurchase programs.
<i>1994</i>	Apple issues \$300 million of debt at an interest rate of 6.5%.
<i>1996–97:</i> Apple reports a \$740 million loss in the second quarter of 1996. Lays off 2,700 employees in 1997.	Dividend is suspended in February 1996. Apple sells \$661 million of debt to private investors in June 1996. The borrowing provides “sufficient liquidity” to execute Apple’s strategic plans and to “return the company to profitability.”
<i>September 1997:</i> Acquires assets of Power Computing Corp.	Acquisition is financed with \$100 million of Apple stock.
<i>2004:</i> Apple is healthy and profitable, thanks to iMac, iPod, and other products.	Apple pays off the \$300 million in long-term debt issued in 1994, leaving the company with no long-term debt outstanding.
<i>2005–13</i>	Apple’s profits grow rapidly. It invests in marketable securities, which accumulate to \$147 billion by June 2013.
<i>2012–13</i>	Apple announces plans to pay out \$100 billion to shareholders over the next 3 years. It also borrow s a record \$17 billion.
<i>From start-up to 2013</i>	Apple stockholders reinvest \$104.6 billion of earnings. Thus Apple’s balance sheet for June 2013 shows cumulative retained earnings of \$104.6 billion.

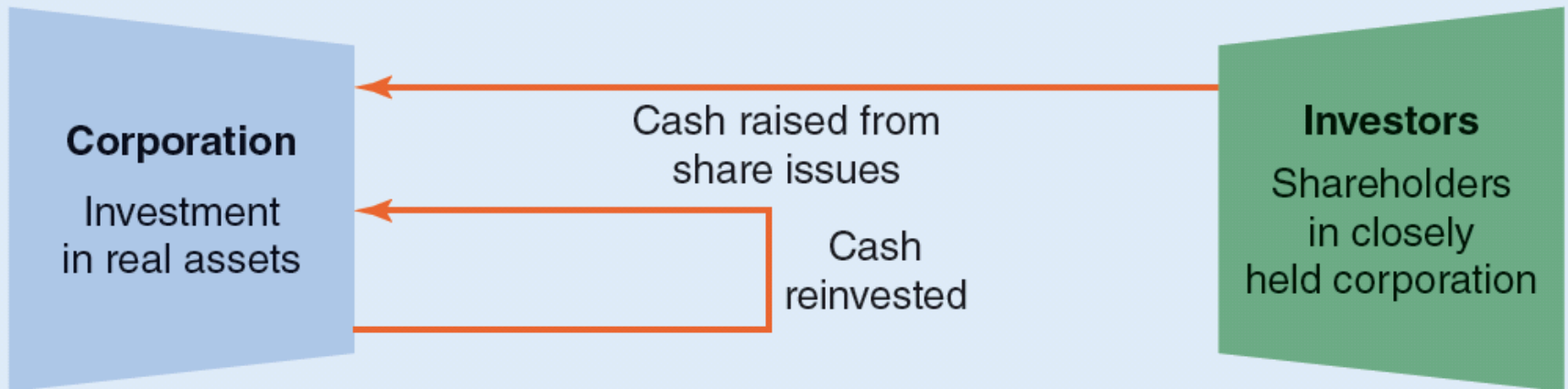
Apple Example

- If Apple had been forced to operate in a country with a **primitive** financial system,
 - Would we have iMac, iPods, iPhone, or iPads?
 - Definitely not.
- A **modern** financial system offers financing in many different forms,
 - Depending on the company's age, its growth rate, and the nature of its business

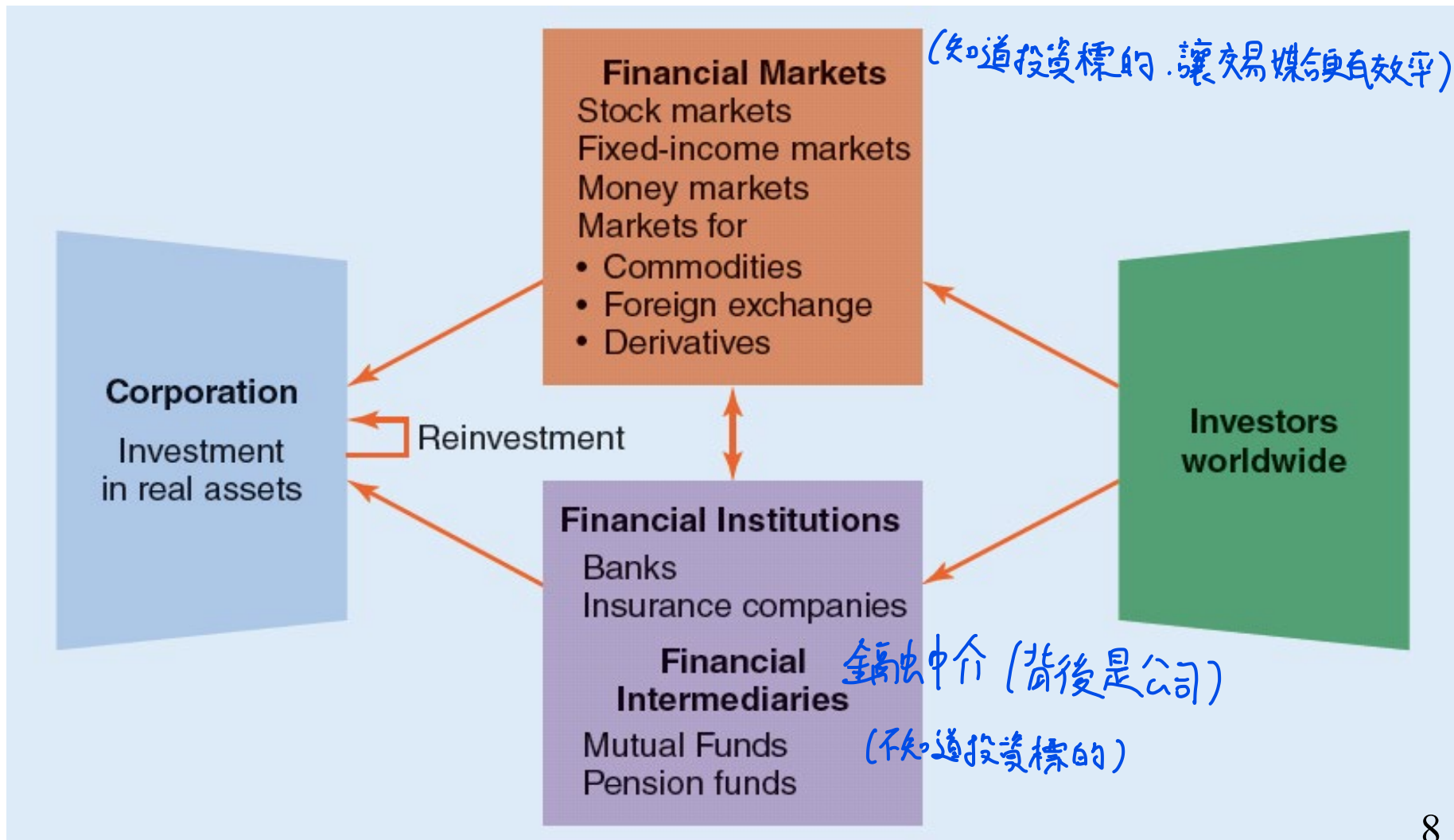
Flow of Savings to Corporations (2.2)

- The money that corporations invest in real assets comes from **savings by investors**.
 - There can be many steps on the road between savings and corporate investment.
 - The road can pass through financial markets, financial intermediaries, or both

The Flow of Capital: Closely Held Corporations



The Flow of Capital: Public Corporations



SEO (seasoned equity offering)

f4 { 證交所
期交所(衍生性)
櫃檯買賣 (over the counter, 包含公司債, etc.)
集保中心(清算)

The Stock Market

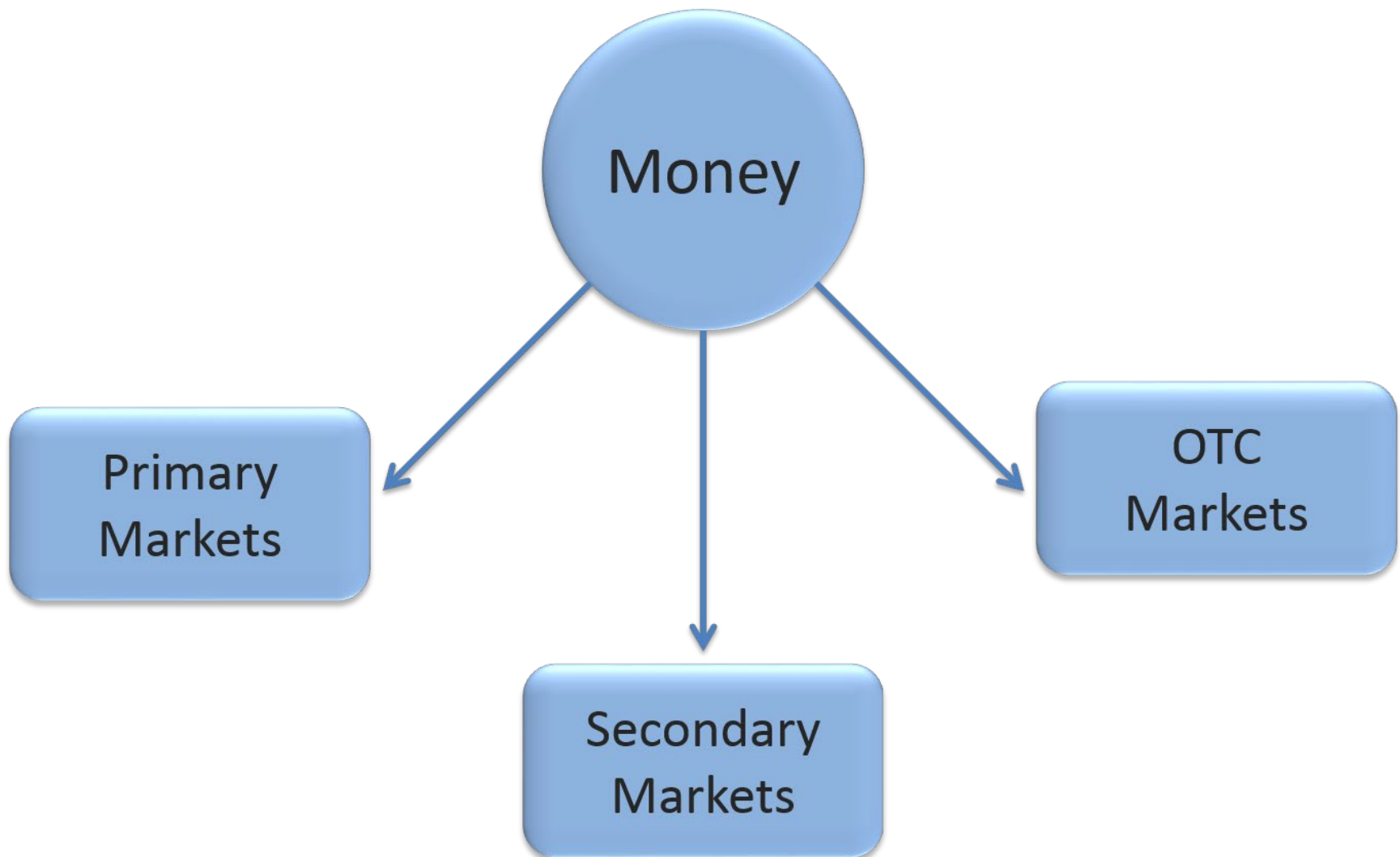
- A **financial market** is a market where securities are issued and traded.
 - A security is a traded financial asset.
- The **stock market** is probably the most important financial market.
 - Firms can decide to **go public** by issuing shares of stocks on organized exchange.
 - The first issue is called an **initial public offering (IPO)**.
 - This is known as primary issue, and it is sold in the primary market. 初級市場(第一次) { IPO
SEO (已上市新發行)

The Stock Market (continued)

- **Primary market** is the market for sale of new securities by corporations.
- The purchases and sales of existing securities are known as **secondary transactions**,
 - and they take place in the secondary market. 次级市場
- Note that stock market are also called **equity market**,
 - Since stockholders are said to own the common equity of the firm.

The Debt Market

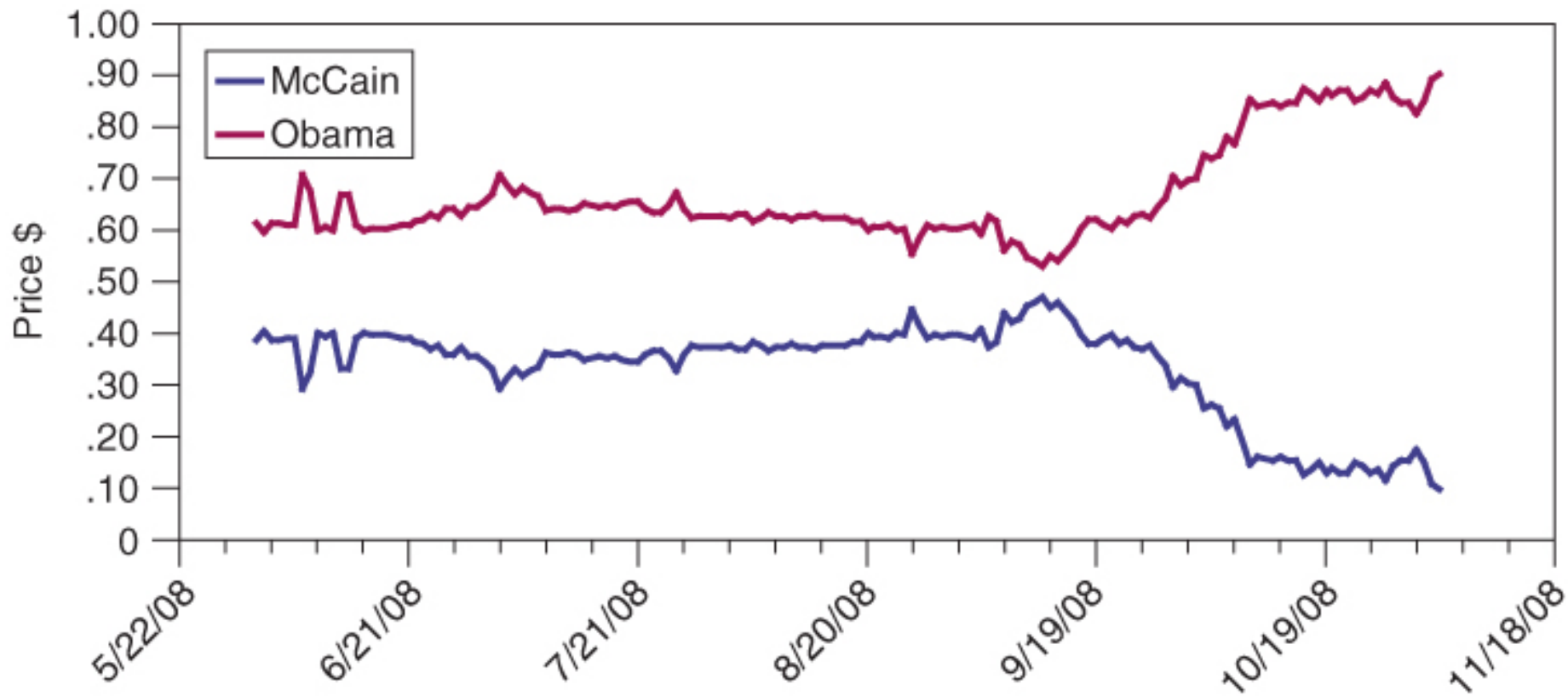
- Debt securities are also traded in the financial markets.
 - Mostly traded **over the counter (OTC)** through a network of banks and securities dealers.
- Bonds are traded in **fixed-income market**. 固定收益市場
 - Since bonds are more complex than stocks, the fixed-income market is mostly OTC.
 - **Capital market**: market for **long-term** debts
- **Money market**: market for **short-term** financing
 - Such as a commercial paper with maturity in less than 1 year.



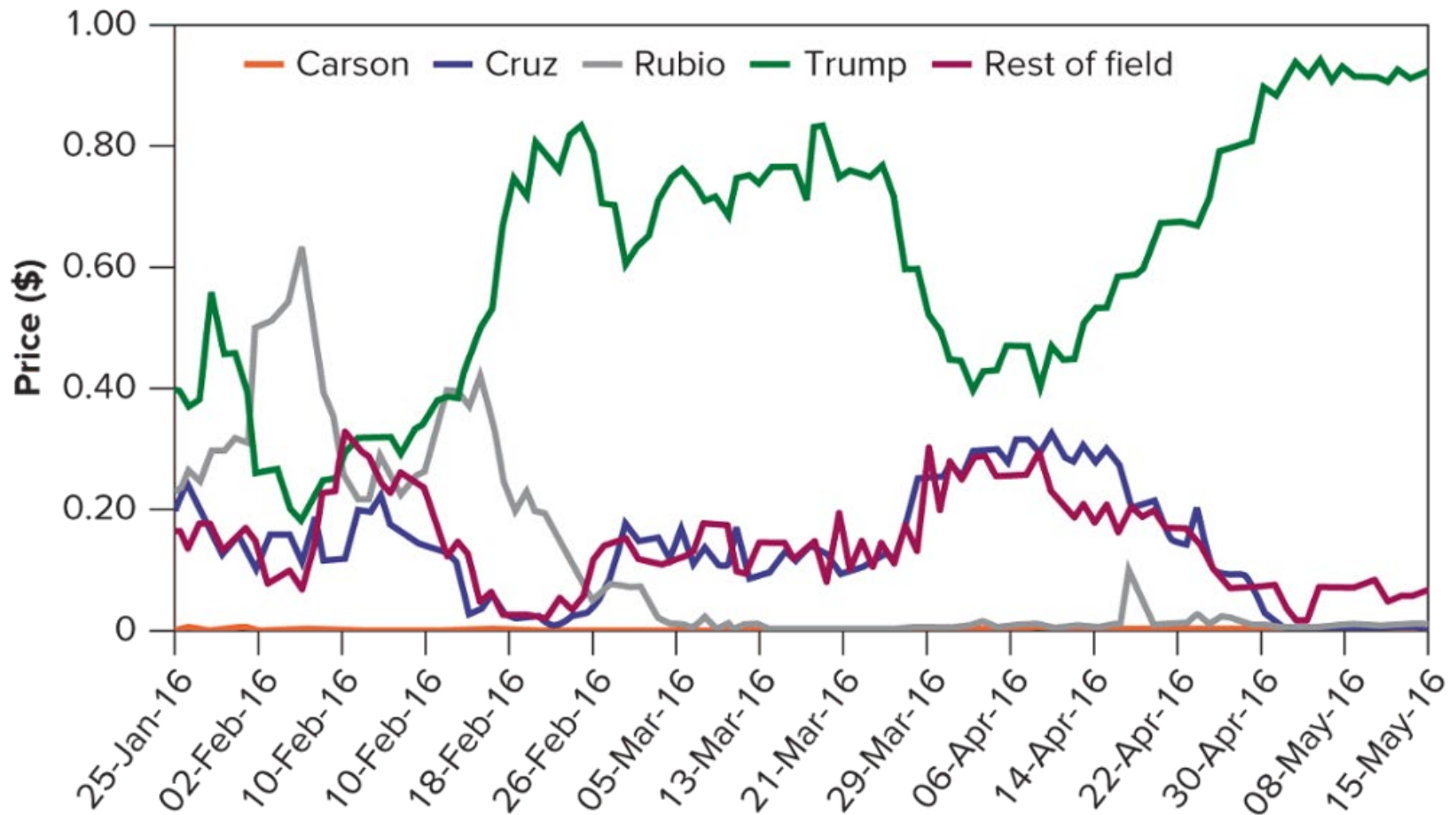
Other Financial Markets

- Foreign exchange markets
 - Trading one currency to another
 - Mostly OTC and 24 hours
- Commodities markets
 - Examples: corn, wheat, cotton, oil, gold, silver
- Derivatives markets (衍生性市場)
 - For futures, options, or swaps

Presidential futures prices, 2008 election



Republican Convention Nomination Market, 2016 election



Financial Intermediaries

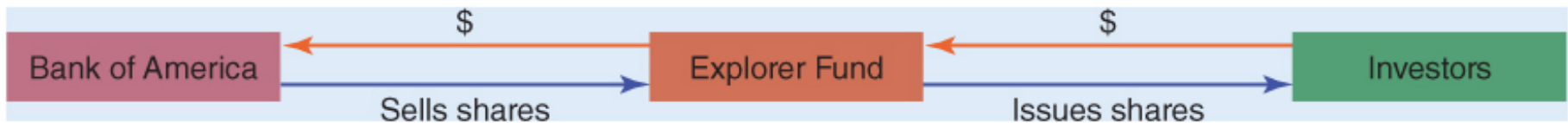
- A **financial intermediary** is an **organization** that raises money from investors and provides financing for individuals, corporations, and other organizations.
 - For corporations, intermediaries are important sources of financing.
 - A financial intermediary invests money in financial assets
 - Rather than in plant, equipment, or other real assets.

Financial Intermediaries (continued)

- **Mutual fund** 共同基金
 - An investment company that pools the savings of many investors and invests in a portfolio of securities
 - It raises money by selling shares to investors.
 - It offers investors **low-cost diversification** and professional management.
 - The mutual fund managers usually try their best to **beat the market**.
 - A management fee would be charged.

Financial Intermediaries (continued)

- Mutual fund example
 - Vanguard's Explorer Fund
 - Held a portfolio of nearly 600 stocks
 - Market value of \$10 billion (2010)



- There are about 7,600 mutual funds in the U.S.

Financial Intermediaries (continued)

- **Hedge fund** 避險基金 (槓桿)
 - A private investment pool that opens to wealthy or institutional investors.
 - It is lightly regulated.
 - It follows **complex, high-risk**, and more **speculative** strategies than mutual fund.
 - Only in **wholesale** business. (no retail)
 - It compensates most talented managers with performance-related fees.

Financial Intermediaries (continued)

- **Pension fund** (退休基金)
 - A fund set up by an employer to provide for employees' retirement.
 - Defined-contribution plan (固定提撥)
 - A percentage of employees' paycheck is contributed to the fund.
 - Employees take away their balances in the fund when they retire.
 - Defined-benefit plan. (固定給付)
 - It is designed for long-term investment.

Financial Institutions

- **Financial institution** can be a bank, insurance company, or similar financial intermediary.
 - On one hand, they accept deposits or sell insurance policies.
 - To provide financial services and obtain money.
 - On the other hand, they make loan to individuals, business, and other organizations.
 - To also provide services and make use of the money.

Financial Institutions (continued)

- **Commercial banks** are major sources of loans for corporations.
 - There are nearly 7,000 commercial banks in the U.S.
 - They provide debt financing for companies and a place for depositors to park their money safely and withdraw it as needed.



Financial Institutions (continued)

(XX證券, 投顧)

- **Investment banks** advise and assist companies in raising financing. (承銷, 代售)

- For example, they underwrite stock offerings.

- They purchase new shares from issuing company and resell to investors.

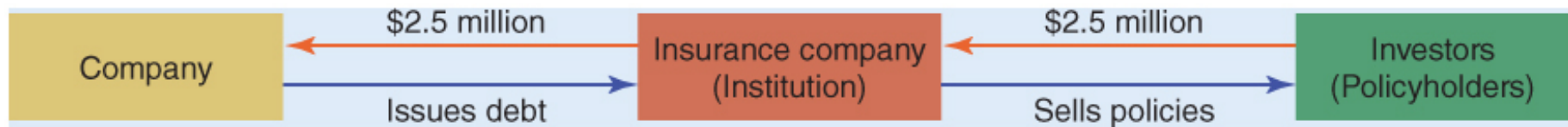
- ☆ ▫ They also advise on takeovers, mergers, and acquisitions.

- ☆ ▫ They offer investment advice and manage investment portfolios for others.

(台灣不允許代操)

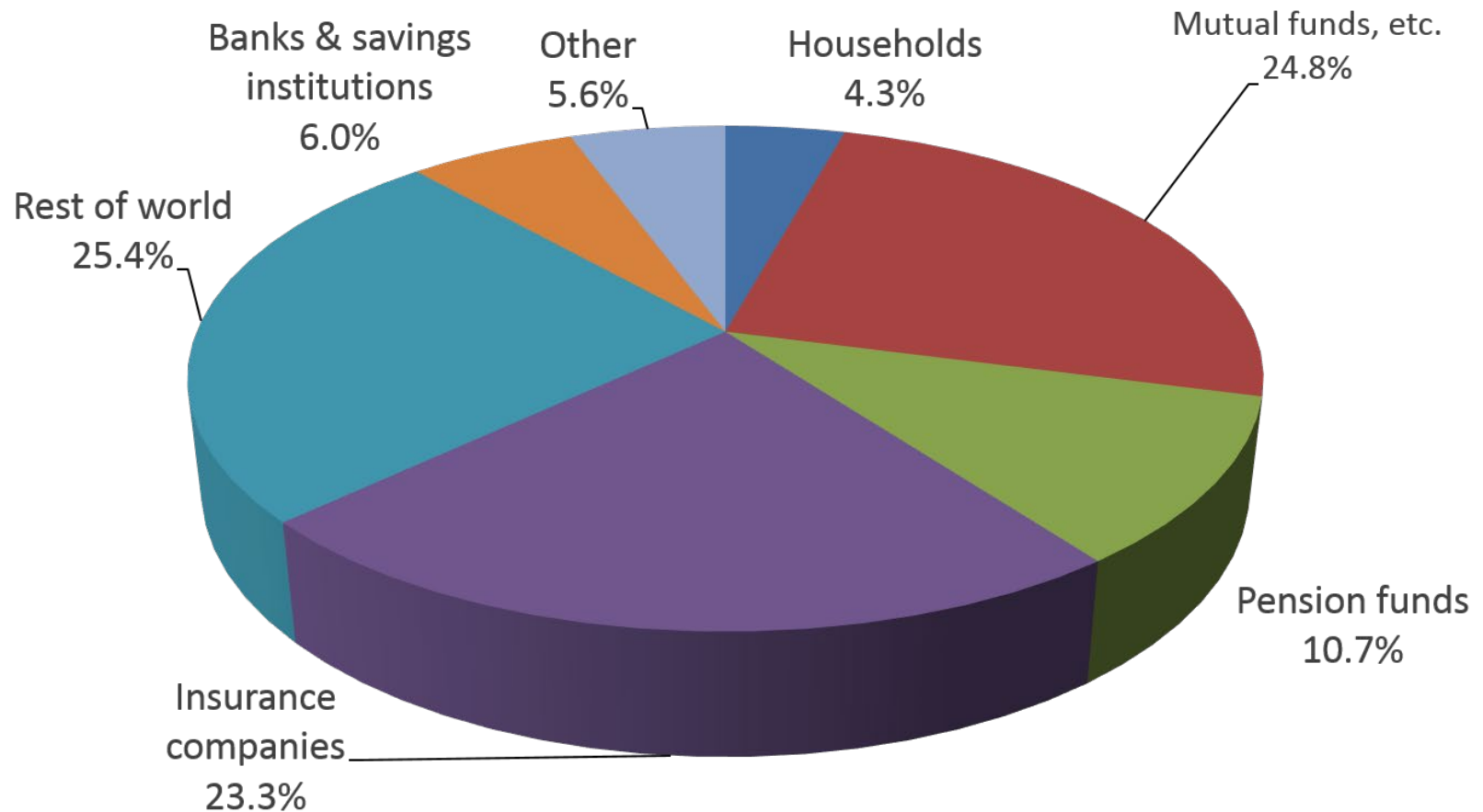
Financial Institutions (continued)

- **Insurance companies** sell insurance policies.
 - They use the money for investments in stocks, bonds, real estates, direct loans, and derivatives.



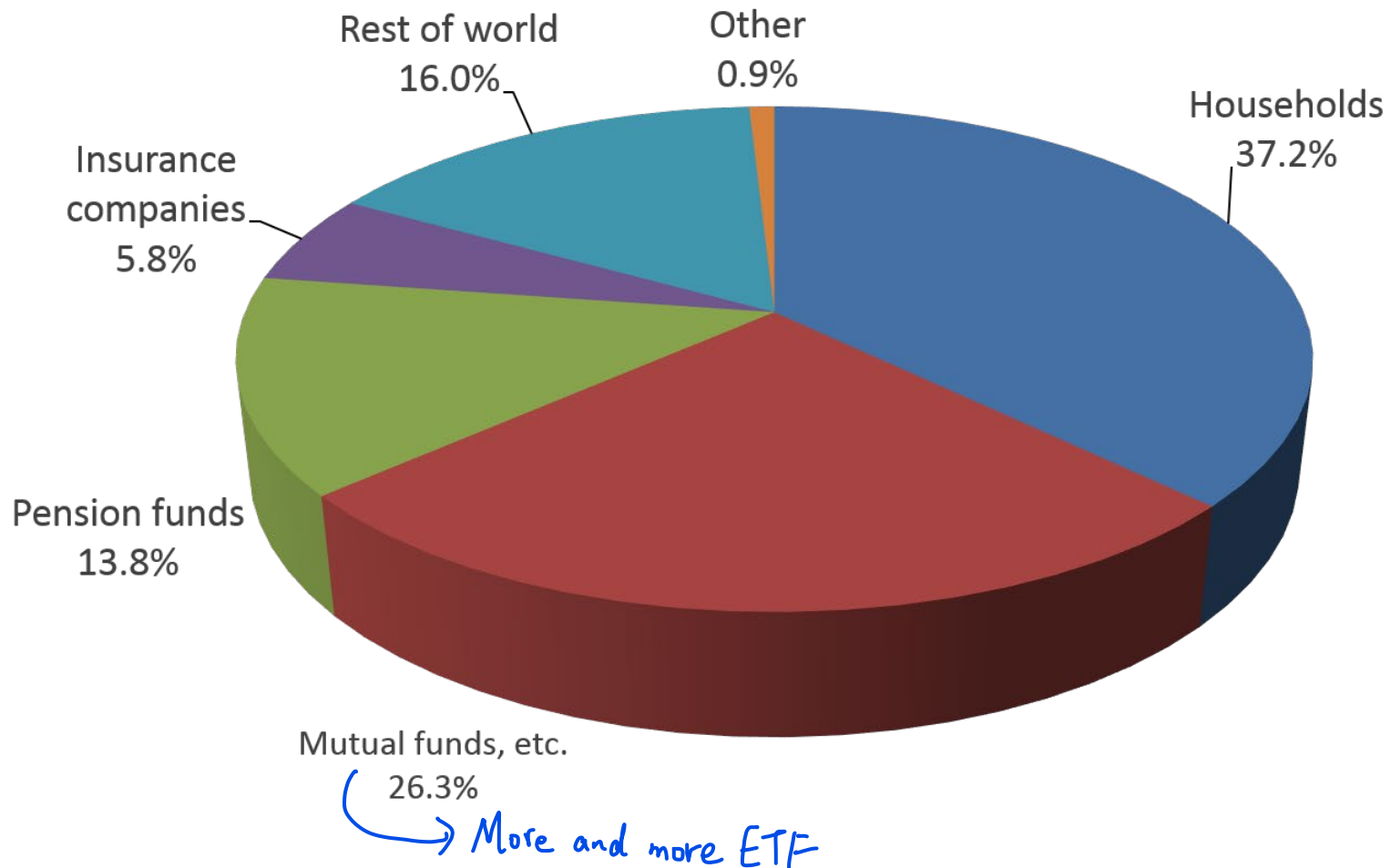
(基本都由法人持有)

Holdings of Corporate & Foreign Bonds, 3rd Quarter 2015



= Stocks

Holdings of Corporate Equities, 3rd Quarter 2015



Functions of Financial Markets and Intermediaries (2.3)

- Transporting cash across time
 - Examples: borrowing (business loan, budget deficit), short selling, retirement savings
- Risk transfer and diversification
 - Examples: homeowner insurance, index funds, exchange traded fund (ETF) 不用透過理專
- Provide Liquidity
 - **Liquidity** is the ability to turn an investment back into cash when needed.

Functions of Financial Markets and Intermediaries (continued)

- The payment mechanism
 - Examples: checks, credit card, electronic transfers
- Information channel
 - Commodity prices
 - Interest rates
 - Company value
 - Cost of capital
 - Minimum acceptable rate of return on capital investment

Credit Rating	Interest Rate
Aaa	5.11%
Aa	5.70
A	5.98
Baa	6.32
Ba	7.34
B	8.49

- Market Capitalization (\$ millions)

	Number of Shares	×	Stock Price	=	Market Capitalizat ion
Callaway Golf (ELY)	93.8	×	\$8.76	=	\$821
Alaska Air Group (ALK)	124.7	×	\$80.77	=	\$10,074
Entergy (ETR)	178.5	×	\$75.92	=	\$13,551
Yum! Brands (YUM)	408.7	×	\$77.77	=	\$31,875
General Electric (GE)	9,331.0	×	\$30.34	=	\$283,091

The Crisis of 2007-2009 (2.4)

- Subprime mortgages
 - ◻ NINJA loans (二胎貸款) No income, no job, no asset
- Mortgage-backed securities
- Housing bubble
- Financial derivatives
 - ◻ Credit default swaps (CDS)
- Domino effect leads to liquidity crisis
 - ◻ Banks are reluctant to lend out money
- Global chain reaction

The Crisis of 2007-2009 (continued)

- Who are responsible?
 - U.S. Fed for easy money
 - Government for encouraging banks to expand credit on low-income housing
 - Rating agencies
 - Bankers
 - Managers
 - They were aware that subprime debt was likely to end badly.
 - A typical example of **agency problem**.