An overview of the financial system and the financial instruments

ECO 420 Lecture 1.2.

Petar Stankov

petar.stankov@gmail.com

13 Jan. 2010

Outline

Motivation

ACER computers

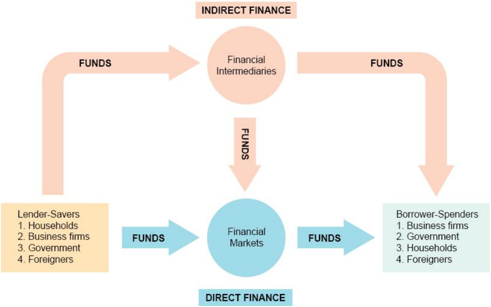
ACER computers needs money for launching their new model. Where do they get it?

- Financial markets
- The banks
- Own resources

In this lecture: overview of the financial markets, and instruments.

The function of financial markets

The main function of financial markets is to channel funds. How? From whom? To whom?



In *direct finance*, borrowers borrow funds directly from lenders in financial markets by selling them securities.
In *indirect finance*, borrowers borrow funds from the financial intermediaries.

The importance of financial markets

Why is the channeling function important?

- Markets create value: savers get interest rate that they can spend after
- Markets create value: investors make profits over and above the interest payments that they can reinvest
- What about you, yuppies?;-)

Debt and Equity Markets

A firm or an individual can obtain funds in a financial market in two ways:

- issue a debt instrument (a bond)

Definition: A bond and its Maturity

A bond is a debt security that promises to make payments periodically for a specified period of time until a specified date.
The maturity of a debt instrument is the number of years until that instrument's expiration date.

- issue equities, such as stocks

Definition: A stock (equity)

Stocks (equities) are claims to a share in the net income (income after expenses and taxes) and the assets of a business

Term Structure of the Debt and Equity

A debt instrument is:

- short-term, if its maturity is less than a year
- long-term, if its maturity is ten years or longer
- intermediate-term, if its maturity is between 1 and 10 years

Equity instruments are only long-term! Why? They do not have a maturity.

Primary and Secondary Markets

What is a primary market?

Definition: Primary Markets

A primary market is a financial market in which new issues of a security, such as a bond or a stock, are sold to initial buyers by the corporation or government agency who wants to borrow funds.

What is a secondary market?

Definition: Secondary Markets

A secondary market is a financial market in which securities that have been previously issued can be resold.

Primary and Secondary Markets

Things to remember about primary and secondary markets:

- A firm acquires new funds only when its securities are first sold in the primary market
- Once the security is sold on the primary market, those who trade it on the secondary markets win or lose money
- However, for whom do you think the secondary market is most relevant?

Organization of a Secondary Market

Secondary markets are organized in two ways:

- **Exchanges**: where buyers and sellers of securities meet in one central location to conduct trades. Examples?
- **Over-the-counter markets**: dealers at different locations who have securities and stand ready to sell them. They are usually computer-traded.

Money and Capital Markets

What is the difference between money and capital markets?

- **Money markets**: a market where short-term securities are traded (maturity less than 1 year)
- **Capital markets**: a market where long-term securities are traded – bonds and equity with maturity of more than 1 year

What are the instruments on the money market:

- **United States Treasury Bills**: U.S. government debt issued in 3-, 6-, and 12-month maturities to finance the federal government
  - pay no interest but sold at a discount
  - least risky bonds due to very low risk of *default*. Why?
- **Certificates of Deposit (CODs)**: a debt instrument, sold by a bank to its depositors, that pays annual interest of a given amount and at maturity, pays back the original purchase price
- **Commercial Papers**: Commercial paper is a short-term debt instrument issued by large banks and big corporations, such as General Motors and AT&T that serves as a substitute for issuing bonds or taking loans
- **Repurchase Agreements (REPOs)**: short-term loans (usually with a maturity of less than two weeks) in which Treasury bills serve as *collateral*
- **Federal (Fed) Funds**: overnight loans between banks

Amounts outstanding on the money market:

Table 1 Principal Money Market Instruments

Type of Instrument	1970	1980	1990	2002
	Amount Outstanding ($ billions, end of year)			
U.S. Treasury bills	81	216	527	888
Negotiable bank certificates of deposit (large denominations)	55	317	543	1,177
Commercial paper	33	122	557	1,321
Banker's acceptances	7	42	52	9
Repurchase agreements	3	57	144	470
Federal funds*	16	18	61	29
Eurodollars	2	55	92	213

*Figures after 1970 are for large banks only.

Sources: Federal Reserve Flow of Funds Accounts; Federal Reserve *Bulletin*; *Banking and Monetary Statistics, 1945–1970; Annual Statistical Digest, 1971–1975; Economic Report of the President.* www.federalreserve.gov/releases/z1

What does this table show us?

- **Corporate stocks**: claims on the net income and assets of the corporations
  - by far the largest component on the capital market
  - considered a risky instrument for investors
- **Mortgages**: loans to households or firms to purchase housing, land, or other real structures, where the structure or land itself serves as collateral for the loans
- **Mortgage-Backed Securities**: securities in which mortgages are bundled and sold on the secondary market
- **Corporate Bonds**: long-term bonds issued typically by large corporations paying interest twice per year, and paying off face value at maturity date
- **Convertible corporate bonds**: bonds with the option of converting into a stock any time before maturity
- **U.S. Government Securities**: long-term debt of the US treasury to finance government deficits

Amounts outstanding on the US capital market:

Table 2 Principal Capital Market Instruments

Type of Instrument	1970	1980	1990	2002
	Amount Outstanding ($ billions, end of year)			
Corporate stocks (market value)	906	1,601	4,146	11,734
Residential mortgages	355	1,106	2,886	6,930
Corporate bonds	167	366	1,008	2,699
U.S. government securities (marketable long-term)	160	407	1,653	2,169
U.S. government agency securities	51	193	435	2,305
State and local government bonds	146	310	870	1,442
Bank commercial loans	152	459	818	1,345
Consumer loans	134	355	813	1,757
Commercial and farm mortgages	116	352	829	1,461

Sources: Federal Reserve Flow of Funds Accounts; Federal Reserve *Bulletin*; *Banking and Monetary Statistics, 1941–1970*. http://www.federalreserve.gov/releases/z1

Financial Intermediaries

Three large types of financial intermediaries:

- Depository institutions (banks): accept deposits, make loans
  - Commercial banks
  - Saving and loan associations (S&Ls)
  - Credit unions
- Contractual saving institutions
  - Pension funds
  - Insurance companies
- Investment intermediaries
  - Finance companies
  - Mutual funds
  - Money market mutual funds

Financial Intermediaries

How much are they worth?

Table 2 Principal Financial Intermediaries and Value of Their Assets

Type of Intermediary	1970	1980	1990	2002
	Value of Assets ($ billions, end of year)			
Depository institutions (banks)				
Commercial banks	517	1,481	3,334	7,161
Savings and loan associations and mutual savings banks	250	792	1,365	1,338
Credit unions	18	67	215	553
Contractual savings institutions				
Life insurance companies	201	464	1,367	3,269
Fire and casualty insurance companies	50	182	533	894
Pension funds (private)	112	504	1,629	3,531
State and local government retirement funds	60	197	737	1,895
Investment intermediaries				
Finance companies	64	205	610	1,165
Mutual funds	47	70	654	3,419
Money market mutual funds	0	76	498	2,106

Source: Federal Reserve Flow of Funds Accounts: www.federalreserve.gov/releases/Z1/LevelTables.

And now...