Chapter 2 Overview of Financial System

Where does a marketplace exist? Anywhere

Three functions of a market:

1. Transmit Information
2. Provide Incentives
3. Distribute Income

Prices are the major indication of the condition in the market.

Examples: Oil Prices, quantities of oil

A) Function of Financial Markets - 2 Methods: Direct and Indirect

LENDERS --> DIRECT FINANCE --> BORROWERS

1. Households	--> Financial -->	1.Businesses
2. Businesses	Markets	2.Government
3. Government		3.Households
4. Foreigners		4.Foreigners

" --> Indirect Finance --> "

Uses Financial Intermediaries

who use the financial markets

--> Fund Flow

Direct Finance is when lenders take their funds directly to the market and buy securities that is they buy them directly.

Def: **Securities or financial instruments** - claims on the borrower's future income or assets.

Def: **Borrowing** - Use of funds on a promise to repay, usually based upon future income.

Def: **IOU or liabilities or debt**- a commitment to repay the money (or principle) in the future, plus interest, examples: Bonds, deposits and promissory notes (a checking account is an IOU by the bank)

Savings are what allows people to borrow.

Always remember that when we talk about interest, there are two sides to the coin -

Savers desire high interest rates
Borrowers desire low interest rates

Question: Who desires inflation? (Fisher's Equation)
Savers or borrowers?

B) Structure of Financial Markets

Provides funds for borrowers from lenders.

1. Debt and Equity Markets

Two types of markets to raise funds: Debt markets and Equity markets

a. Debt Markets

examples: a bond or a mortgage

Def: **maturity** - the time (term) to a security's expiration date

Short-term: one year or less

Intermediate-term: one to ten years

Long-term: ten years or longer

b. Equity Markets

example: common stock

Def: **Equity** - claims to share in the net income (income after expenses and taxes) and the assets of a business firm

So there are two basic methods of raising funds:

i) The borrower agrees to pay the lender the principle amount plus yearly interest, in the case of a bond type security.

ii) Equity ... The borrower pays a portion of the profits (dividends) plus market value in the case of a stock. Equities are considered long term because they have no maturity date.

NOTE THAT FINANCIAL MARKETS INCREASE THE EFFICIENCY OF THE ECONOMY BY DOING THIS.

Def: **Dealers** - hold and own securities thus they have a much larger risk

Def: **Brokers** - represent a firm just middlepersons called investment bankers.

2. **Primary** and **Secondary Markets** - Reading

3. **Exchanges** and **Over-the-Counter Markets** - Reading

4. **Money** and **Capital Markets** - Reading

For Tuesday .... Write down the definitions in these three sections.

C) Function of Financial Intermediaries - Reading

What is financial intermediation? How does it function? Why use a financial intermediary instead of directly dealing with a broker or dealer? How important are financial intermediaries relative to securities markets?

Now we will briefly discuss the banks, securities and regulation:

D) Financial Intermediaries

(Or Depository Institutions) usually means Banks and we will follow the book in calling DIs Banks.

Transparency Table3.1 Sources and Uses of Funds

What does this mean, Sources of Funds?
Right, where the borrower or liability holder gets the funds.

What does Uses of Funds mean?
Right, the securities in which DIs invest your funds.

You must know the basic types of liabilities and assets for each DI.
Do a few quickly.

Transparency Table 3.2 Value of Assets

- Note the explosion in the value of Assets in the past 10 years.

1 DIs
~ 12,000 Commercial Banks
~ 2500 Savings Banks + ~500 Mutual Savings Banks
~ 15,000 Credit Unions

2 Contractual - Usually a signed contract and thus payouts are much more predictable. This allows the company to invest in a more certain senerio. More able to take advantage of long term and higher yielding securities.
- Fire and Casualty Ins. Cos. must be more liquid due to their uncertain payout.
- Note also Pension Funds

3 Investment Intermediaries

Finance Cos. - Consumer types of goods usually
Mutual Funds - a pool of investors with the same inv. objectives and goals
Money Market Mutual Funds - Very important and much like a glorified checking account

E) Financial Market Instruments

1. Money Market [Least Risky]

THE MONEY MARKET, WHICH DEALS IN SHORT-TERM SECURITIES, IS MORE LIQUID AND THUS MOST FREQUENTLY USED. With less than 1 year to maturity thus they are Safer and there is less volatility.

Transparency Table 3.3 Money Market Instruments

a. Negotiable Bank Certificate of Deposit (CD):

* Large denomination ($100,000) but usually $1 million or more.
* The bank's quality is the quality of the CD.
* Issued by Banks only since '61, skyrocketed since 1970.
* Big banks carry lower interest rates than small regional ones.

Very important in recent banking behavior (liability mgmt).

b. U.S. T-Bills - 3, 6 and 12 months maturities

no coupons (or "Zero Coupon" bonds) -- they sell at a discount

Become familiar with this term "discount":

--> it means the price is lower in today's market than at maturity

e.g.: $894 --> $1000 etc.

The return is only the capital gain as it is called. There is no interest.

** DEFAULT IS IMPOSSIBLE WITHOUT THE COLLAPSE OF THE U.S. GOVERNMENT.

They are SAFE AND LIQUID (i.e. easily tradeable).

Banks use these to balance with their risky loans.

The dollar value of all Treasuries is > NYSE by 10 times!

c. Commercial Paper.

* Unsecured promisory notes of large, nationally known corporate firms.
* Minimum is $25,000
* Less than 270 days to maturity or must be registered with the SEC
* Sold at a discount. More risky thus they have a lower cost to the issuer than bank loans and are thus a cheaper way of borrowing. Once the SEC registration process is involved then costs skyrocket.

Examples: GMAC -- AT&T

d. Bankers' Acceptances

* Bank Draft (a Promissory note or check)
* Written by a firm, guaranteed by a bank, payable at some future date to the exporter - funds to be deposited by the importer the issuer (writer) With this "acceptance" the check is more likely to be accepted abroad. These are over 100 years old. What happens is that they are often sold at a discount on the open market, much like treasury bills.
* 600% increase in the last 20 years.
* Usually less than 180 days.
* Secured by the goods traded.
* The bank pays if the importer defaults.

*** <u>Of course, for a fee</u>

* <u>Internationally</u> more easily accepted and traded like T-bills.

e. Repurchase Agreements

* Short term collateralized loans.

* GM uses $1 M to buy T-bills from a bank - agreed to buy back from GM at $1 M plus.interest. (T-Bills are the collateral.)

* Overnight to a few days.

* New innovation (1969) which has become important source of funds to banks!

f. Eurodollars

* U.S. dollar denominated deposits in foreign banks.

* Any bank can borrow these deposits. IMPORTANT RECENTLY.

* The bank's quality is the quality of the Eurodollars so only intern'tlly known

* $1 million minimum

g. Federal Funds or "Fed" funds -

* Not the Federal Reserve Bank fund but the bank's own reserves.

* Needed to satisfy the bank's reserve requirements. These are overnight borrowings by banks from each other when one has an excess and the other a need for reserves to meet reserve requirements.

* Banks only need a bi-weekly average of required reserves.

* **Fed funds rate** is a barometer of the "tightness" of credit.

2*Transparencies Following the News - Money Market Rates*

2. Capital Market Instruments

THE CAPITAL MARKET OR LONG-TERM DEBT MARKET IS MORE OFTEN USED BY BANKS, CORPORATIONS, INSURANCE AND PENSION FUNDS.

Far more price fluctuation as their maturity date is over one year, thus they are more risky investments... BUT ALSO BETTER AVERAGE ANNUAL RETURNS.

Transparency Table 3.4 Capital Market Instruments

a. Stocks

* Equity Claims
* Usually less than 1% are new issues.
* Rest is traded.
* Over 60 % of the value of stocks (>$4 t) held by individuals
  Rest by pension funds, mutual funds, insurance companies

b. Mortgages.

* Loans to individuals or business firms to purchase housing, land or real estate.
* Collateral is the house or land
* Largest debt market in the U.S.
* 2 X redid what business is

[Box 3.2]

Secondary Market

Fannie Maes, FNMA

Ginnie Maes, GNMA

* guaranteed by Federal Government.

Freddie Macs, FHLMA - Residential, Now private (1990)

* 1970 Ginnie Mae - guaranteed others not
* Mortgage Backed Securities - FNMA bonds for example

2/3 roads owned by these

1/3 roads by Savings and Loans and Banks.

c. Corporate Bonds

* long term bonds issued by corporations with strong credit ratings

Typically:

* 2 interest payments per year
* face value @ maturity date
* "Convertible" -- not ragtop - convertible to stock

added plus. i.e.: Desirable

* Less liquid than U.S. government bonds.

The corporate bond market is one-half of the stock market in size but new issues are much greater thus the bond market sets the new issue price.

Buyers: Life Ins, Pension Funds and Households

d. U.S. Government Securities

* Long-term to finance the deficit or refinance mature notes
  a) Notes - one to 10 years
  b) Bonds - greater than 10 years
* Often greater than $100 billion per day traded
* Highly liquid

* Held by "Fed," banks, households, foreigners.

e. U.S. Government Agency Securities

* Much like Treasuries, especially those guaranteed by the U.S. gov't

i) FHLB - Federal Home Loan Bank, Loans to Savings - Holdover *

ii) Farm Credit System

 * '87 bailout by Congress

 * Created Farmer Mac - Secondary Market for Ag. loans

iii) <u>Sallie Mae</u> - Student Loan Marketing Association (<u>GSL's)</u>

 * Helps provide liquidity to the banks and thus provided for more student loans - NOW what will happen as the government does this today,

Transparency SALLIE MAE

iv) REFCO - To help finance the Savings and Loan bailout.

v) FHA - Housing Authority

vi) Export-Import Bank

f. State and Local Government Bonds

* Municipal Bonds, Schools, Roads, etc.

* Risky

 Example: [WPPSS] <u>Municipal Utilities</u>

Transparency WPPSS

* Tax-exempt, Federally and sometimes locally exempt from taxes

--> Commercial Banks usually invest heavily in these as they are in a high income (profit) tax bracket.

Two Types:

a) GO or General Obligation bonds, these bonds are backed by the full taxing power of the governmental entity

b) Revenue bonds are only backed by user charges - utilities, so the regulatory agencies tend to let most increases in price happen.

g. Consumer and Bank Commercial Loans

* No secondary markets in these so they are the least liquid.
* Banks and finance cost make these.

F) **Regulation of the Financial System** - Read this section.

Transparency Table 3.5 Agencies

The financial sector is one of the most heavily regulated in our economy.

Regulation:

a. **Provides information to investors** - Standard and Poor, Moody's Aaa etc.

b. Ensures Soundness

1. State Banking and Insurance commissions and comptroller of the currency (Fed)

   examine and Charter all DIs.

2. Bookkeeping Regulations and Accounting

   Required public information and periodic inspections.

3. Asset regulations - limit riskiness

note Chapter 5 and Money

Riskiness

4. Insurance against loss

FDIC, NCUSIF and NDGC

<u>Competition Restrictions</u>

5. Restrictions on branches

6. Regulation Q - Banks not able plus exceed maximum interest rate ~4% on savings.

c. <u>Improved Control over Monetary Policy</u>

--> Fractional Reserve System

Required Reserves

d. <u>Encouragement of Home Ownership</u>

American Way of Life

Apple Pie and Home Ownership

-- Congress