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Financial Markets

Lecture 1

Intro + Interest Rates

purpose of fin mkts: to transfer funds from savers to borrowers

- How does a firm acquire funds to purchase a new "widget maker"?

- A firm may produce a widget in one month, but will not get paid for the widget until several months later. Where does it ~~acquire~~ acquire the funds to produce the widget?

security: claim on issuers future income or assets

bond: a debt security that promises to make periodic payments

interest rate: the cost of borrowing funds common stock share of ownership in a corporation NB: higher share price means that the firm can raise a larger amount of funds

foreign exchange mkt

→ if 1 EUR = 1 USD then

100 EUR of European goods costs 100 USD
100 USD of American goods costs 100 EUR

depreciation of USD

→ if 1 EUR = 1,25 USD then

100 EUR of European goods costs 125 USD
100 USD of American goods costs 80 EUR

so (all else equal) depreciation of USD will cause Americans to import fewer European goods + cause Europeans to import more American goods

financial intermediaries

→ banks accept deposits & make loans

↑ commercial, S&L, credit unions & mutual savings banks

"classical" {
- deposits – savings accounts, checking, etc.
- loans – home, auto, etc.

but other financial institutions – insurance companies, finance companies, pension funds, mutual funds & investment banks – have been growing at the expense of "classical" banks (It's a Wonderful Life)

MONEY accepted as payment for goods or services & in repayment of debt

→ BUT WHO "PRINTS" IT?

How much money should be supplied?

→ contraction of money supply (all else equal) causes:

- production of goods & services to fall
- unemp rate to rise

→ But printing "too much money"
(i.e. a high rate of money growth)
causes inflation rate to be high
(i.e. prices rise at a rapid rate)

→ if inflation rate exceeds interest rate

- real value of savings falls
- real value of debt falls

"real" – in terms of goods & services that a dollar can purchase

~~inflation~~

→ unexpectedly high inflation punishes savers and rewards borrowers

→ (all else equal) an increase in the money supply reduces interest rates

→ (all else equal) an increase in gov't budget deficit raises interest rates

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purpose of fin mkts to channel funds from savers to borrowers

- lenders/savers – households, but also businesses + state + local gov'ts
- borrowers/spenders – federal gov't, but also households + businesses
- generally assume that borrowers have profitable investment opportunities tho that's not always true, eg borrowing to buy a home

debt + equity mkts

- debt – bond or mortgage
- equity – common stock – claims to share of net income or assets
  - dividend payments
  - no maturity date
  - residual claimant – debt holders paid before equity holders

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primary vs. secondary mkts

→ primary mkt is where new issues are first sold

→ secondary mkt is where previously issued securities ~~~~ are resold

PRIMARY

→ investment banks assist in the initial sale of securities thru underwriting – guarantee of a price for the securities + then sells them to the public

SECONDARY

→ stock exchange
forex mkts
futures mkts
options mkts

brokers ≡ agents of investors
dealers buy + sell at stated prices

→ NB: corporation only acquires new funds when security is sold on primary mkt but the liquidity that secondary mkts provide make those securities more desireable

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exchange vs. over the counter (OTC)

→ exchange is central location to conduct trades (NYSE, AmEx, CBoT)

→ OTC dealers in different locations buy + sell from own inventory

money mkt vs. capital mkt

→ money mkt where short-term debt instruments are traded

less than one year

→ capital mkt where longer term debt instruments + equities are traded

→ short-term securities tend to be more liquid than longer term securities + have smaller fluctuations in prices so corporations + banks use $\boxed{\text{them}}$ to earn interest on funds that they will only have temporarily

the money market

function of financial intermediaries

example: saver deposits money at bank
bank then lends (makes loan) to borrower

financial intermediaries are more important source of financing than securities mkts

→ transaction costs you don't have to hire a lawyer to draft contract
the intermediary already has one ready

→ risk sharing asset transformation
(into products that have risk characteristics that buyer of asset is comfortable with)
and diversification (asset portfolio)

→ asymmetric information

the umbrella example

- costs $12 to produce a good one
- costs $2 to produce a bad one

if perfect info + perfect competitn, the price of a good one would be $12 + the price of a bad one would be $2 <u>but</u> if asymmetric info, then only the producer knows which good, which bad

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- asymmetric info in finance
  borrower has better info on investment opportunity than the lender

BEFORE LOAN ORIGINATED

- adverse selection occurs when potential borrowers are the ones most likely to have an undesireable outcome

AFTER LOAN ORIGINATED

- moral hazard occurs when borrower engages in an activity that makes him/her less likely to be able to repay

- financial intermediaries can screen out bad credit risks (overcoming adverse selection) and monitor their borrowers (overcoming moral hazard)

financial intermediaries

- depository – banks, S+L, credit unions, mutual savings banks
- contractual savings institutions – life insur, fire + casualty insur, pension funds
- investment intermediaries – finance companies mutual funds, money mkt mutual funds

- depository (aka banks) take deposits and make loans to businesses + consumers, esp. mortgages

- contractual savings institutions take premiums from policies or pension contributions and purchase long-term bonds + equities

- finance companies sell a debt instrument +/or issue stocks + bonds and use the proceeds to make consumer + business loans
    - GMAC
    - GE Financial etc.

- mutual funds + money mkt mutual funds sell shares and use the proceeds to invest in stocks + bonds (i.e. "standard" mutual fund) or in money mkt instruments

    → money mkt mutual funds allow shareholders to write checks against the value of their share holdings

Regulation of the Financial System

→ increases information to investors

- SEC requires corporations issuing securities to disclose info on sales, assets & earnings to public
- SEC restricts insider trading

(response to Stock Mkt Crash of 1929)

→ ensures safety & soundness of intermediaries

- restrictions on entry (need charter)
- disclosure – examiners inspect their books (bookkeeping must follow strict principles)
- restrictions on assets & activities
  - → capital supporting bank assets must be of a certain quality (eg not common stock)
- deposit insurance FDIC
- restrictions on interest rates
  - → until 1986, Fed set max rate on savings deposits
  - → once upon a time, zero interest on checking deposits

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MONEY $$$

money – what is accepted as payment for purchases – medium of exchange

– unit of account

sold $10 worth of bananas +
$5 worth of apples
$15 worth of fruit ← SUM

instead of: 20 bananas + 8 apples } cannot sum these

– store of value – money allows you to sell good or service one day purchase sth else next week

fiat money – paper currency as legal tender

checks

electronic payment – direct deduction from bank account

e-money – debit cards

money aggregates

$\boxed{M1}$ = currency
+ checkable deposits
+ traveller's checks
+ demand deposits

} narrow

used directly as medium of exchange

$\boxed{M2}$ = M1
+ savings deposits
+ money mkt deposit accounts
+ money mkt mutual fund shares
+ small-denomination time deposits

can be quickly converted to cash (very liquid)

non-institutional → + money mkt mutual fund shares

less liquid

$\boxed{M3}$ = M2
+ large-denomination time deposits
+ money mkt mutual fund shares
+ Eurodollars (US dollars deposited in foreign banks)

institutional → + money mkt mutual fund shares