



## Notes – Topic 11

### Topic 11: Money and Banking

- I. What is money?
  - a. Sounds like an easy question, but it's not.
  - b. Average answer is "currency." Not totally correct.
  - c. Fiat Money. National currency issued exclusively by national monetary authority.
    - i. Has no intrinsic value besides the value of the paper it's printed on.
    - ii. Has value strictly because the government says it has value and people *believe* that it has value.
    - iii. Crucial that people believe/trust in the issuing agency's responsibility.
  - d. Currency is not the only kind of money.
    - i. Before the 20<sup>th</sup> century, practically no fiat money existed.
    - ii. Money before the 20<sup>th</sup> century meant precious metals.
    - iii. In WWII POW camps, cigarettes were money.
    - iv. In some primitive cultures, commodities like shells or beads were money.
    - v. Even the narrowest definition of money includes demand deposits in banks (checking accounts)
  - e. Money must serve three functions. Anything fulfilling all three is money.
    - i. Medium of Exchange
      1. Most important characteristic of money.
      2. Money is generally accepted by sellers and public in exchange for goods and services.
      3. Money represents generalized purchasing power.
      4. Necessary precondition for rapid growth is monetization of trade.
        - a. Very little chance we'd be as advanced today if money hadn't been introduced.
        - b. Reduces transactions-costs of trade (costs associated with establishing enforceable economic contracts).
        - c. Alternative is barter economy
          - i. Goods/services traded directly for other goods/services.
          - ii. Very inefficient.
          - iii. To buy a throwrug, must first find a seller (must always do that, even with money).
          - iv. Then must find something to trade that the seller wants and considers equal in value.
          - v. Double-Coincidence of Wants: Very unlikely that two people will both have something the other wants.
      - d. Everyone accepts money, so transactions are very simple.
    - ii. Unit of Account
      1. Convenient benchmark for expressing relative prices of all goods/services.
      2. Without money we'd need to determine the relative cost of every good/service in terms of every other good/service.
      3. With money, only need to establish the value relative to money.
    - iii. Store of Wealth
      1. Wealth can be stored in many forms – stocks, bonds, collectables, etc.
      2. "Park" unspent income for future use.
      3. Money considered financial asset with two unique features
        - a. Pays very little or no interest. (bank accounts might pay some). Disadvantage.

- b. Perfectly liquid. Huge advantage.
          - i. Liquidity → Difficulty of converting wealth to generalized purchasing power.
          - ii. Money *is* generalized purchasing power, so such a conversion is automatic.
          - iii. Example: Converting real estate is rather difficult
          - iv. Money is the only perfectly liquid store of wealth.
- II. Measuring the Money Supply
- a. Total quantity of money in circulation at a given time in a given economy.
  - b. Not a straightforward process to measure. Some items may or may not count.
  - c. Common Measurements
    - i. M1
      - 1. Minimum stock of items that *must* be counted – everyone agrees.
      - 2. National currency (cash)
      - 3. Demand deposits. Checking accounts, etc with *no restrictions*.
      - 4. Traveler's Checks.
    - ii. M2
      - 1. Everything in M1
      - 2. All other assets against checks can be written, even if there are restrictions.
    - iii. L (for Liquidity)
      - 1. Everything in M2
      - 2. All assets with maturities under one year, even if you can't write checks against them.
    - iv. There are gradations within each definition: M2a, M2b, etc.
  - d. No measure is recognized as the “best” measure.
  - e. M2 is probably the most used.
  - f. New financial assets (“near money”) make measurement still more difficult.
  - g. Credit cards absolutely are not money by any definition. In fact, they are a liability.
- III. Fractional Reserve Banking and the Creation of Money
- a. Banks serve as the mediator between savers and investors.
  - b. Stocks, bonds, mutual funds and banks all serve to channel money from people with excess income to people with ideas of how to use it.
  - c. Banks have been far more important throughout history and look to remain so.
    - i. Only very large companies can really use stocks/bonds.
    - ii. Outside nations like the United States, banks are still the main source of funding for all firms.
    - iii. Only banks can create money (expanding the money supply).
  - d. Parable of the Goldsmith
    - i. People store gold with the goldsmith for safety.
    - ii. Goldsmith gives receipt that can be used to retrieve gold.
    - iii. Rather than retrieving the gold, people would just exchange their receipts – first form of paper currency.
    - iv. Since only a certain amount of gold is ever withdrawn before it can be replenished with new deposits, the goldsmith loans out the rest of the gold at interest.
    - v. Now in addition to the receipts in circulation, there's also extra gold in circulation – the money supply has been expanded.
  - e. Modern banks
    - i. Accept deposits of money – gold.
    - ii. Public can write checks against their deposits – receipts.
    - iii. Banks lend a large fraction of their deposits back out.
  - f. Reserves
    - i. Cash kept on reserve called “reserves”
    - ii. Ratio of reserves to deposits called “Reserve Ratio” (or RR).  $RR = \text{Reserves} / \text{Deposits}$

- iii. Central Banks require a minimum percentage to be held as reserves. "Required Reserves"
- iv. Reserves held in excess of the requirement are called "Excess Reserves"
- v. Banks typically try to keep reserves as close to the requirement as they can – un-loaned funds earn no profit.
- vi. During downturn/recession banks typically do hold a little extra.
- vii. To push reserves too close to zero risks not having enough money to meet withdrawals at a time.

#### IV. Trust and Regulation

- a. Depositors *know* that most of their money gets loaned out.
- b. Public will only deposit money if they trust the bank to invest their money wisely.
- c. Bank Panic / Bank Run
  - i. Many depositors simultaneously lose their faith in the bank and want to withdraw their balances.
  - ii. Causes
    - 1. General fears about banking
    - 2. Specific fear about a particular bank.
    - 3. Psychology
      - a. News reaches the public that the bank has been making risky loans.
      - b. Depositors will rush to the bank to withdraw.
      - c. Even if there's nothing wrong, the depositors showing up *are* a problem – there's never enough money to meet *everyone's* demands.
  - iii. Before 1924, banks would just have to shut their doors without paying everyone.
    - 1. If bank wasn't really in trouble, deposits would eventually get their money back, just not right away.
    - 2. If bank really was insolvent, they could lose everything.
  - iv. Federal Deposit Insurance Corporation (FDIC)
    - 1. Insures deposits to \$100,000 per account.
    - 2. Every bank pays part of its reserves into a fund managed by the FDIC.
    - 3. If the bank fails, the fund is drawn down.
    - 4. Advantage is that it prevents crises from starting in the first place – nobody wants to withdraw their balances if they know they've got insurance anyway.
    - 5. Disadvantage: Moral Hazard
      - a. When insured, people become less cautious about avoiding the insured event.
      - b. If deposits are safe anyway, the public will be more inclined to deposit in a bank taking more risks so they can earn more interest.
- d. The S&L Crisis: The Perils of Deposit Insurance
  - i. 1980s.
  - ii. Before 190s, banking very tightly regulated, as a result of the Depression's banking failures.
  - iii. Savings & Loans (S & Ls): Small town, smalltime banks.
    - 1. Mainly residential mortgage loans.
    - 2. Not able to pay high interest, but very safe so very attractive.
    - 3. Insured by FSLIC.
  - iv. In the 80s, government began deregulating S & Ls.
  - v. S & Ls suddenly able to loan more freely.
  - vi. Began making riskier loans to get more cash (needed lots of money quickly).
  - vii. Banks with no high-risk loan experience suddenly making high-risk loans on insured deposits.

- viii. When risky loans started failing, the government proposed double-or-nothing.  
Pay off first batch of risky loans with more risky loans.
- ix. S & Ls just kept multiplying losses.
- x. Government eventually had to pay off the depositors and shut them down.
- xi. Taxpayers had to cover the difference between what the FSLIC had collected and the billions of dollars left in bad deposits.
- xii. Big political differences in solution ideas:
  - 1. Left: Go back to heavy regulation.
  - 2. Right: Don't insure deposits in the first place.
  - 3.