

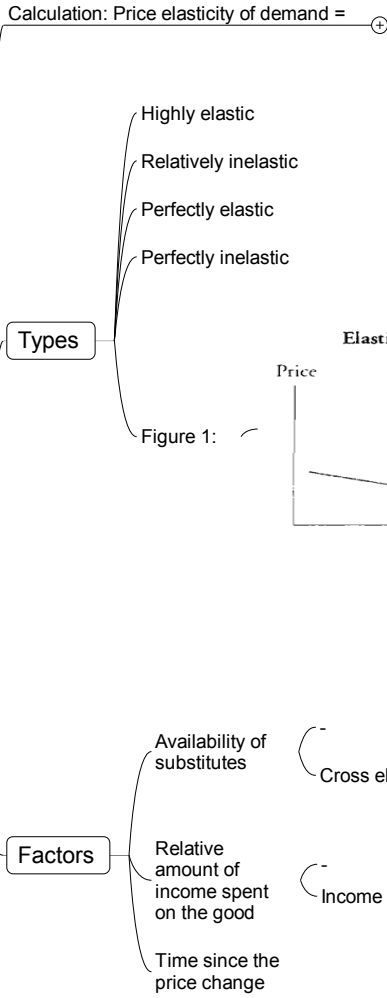
CFA LEVEL 1

STUDY SESSION 04, 05 & 06

ECONOMICS

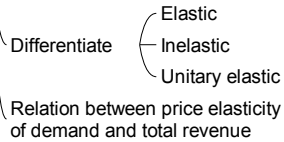
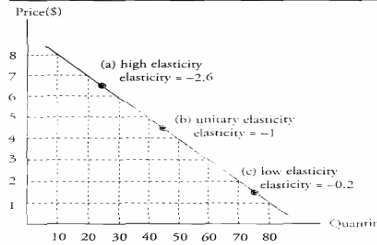
13. Elasticity

Price elasticity of DEMAND

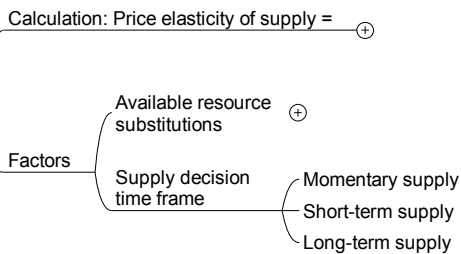


b. On a straight-line demand curve

Figure 3: Price Elasticity Along a Linear Demand Curve



Price elasticity of SUPPLY

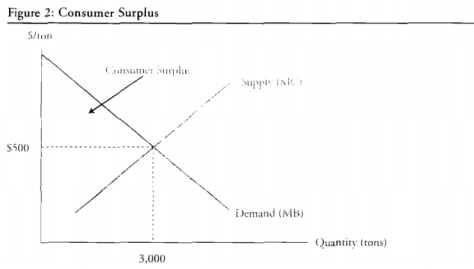


14. Efficiency And Equity

a,b,c,d. EFFICIENCY

- b. Marginal Benefit (MB)
 - =Demand curve
 - Consumer surplus = Value - Price
- c. Marginal Cost (MC)
 - =Supply curve
 - Producer surplus = Price - Cost
- a. Allocative efficiency
 - MB = MC
- a,d. Efficient quantity
 - Where D and S intersect (Equilibrium)

Consumer surplus



Efficient markets & optimal resource utilization

- Inefficiency and Deadweight loss (DWL)
 - Overproduction
 - Underproduction

e. Inefficiency

- Obstacles to efficiency
 - Price controls
 - Ceilings
 - Floors
 - Taxes
 - Trade restrictions
 - Subsidies
 - Quotas
 - Monopoly
 - External
 - Costs
 - Benefits
 - Public goods
 - Common resources

f. EQUITY: Fairness principles (2 schools of thoughts)

- Utilitarianism ⊕
- Symmetry principle ⊕

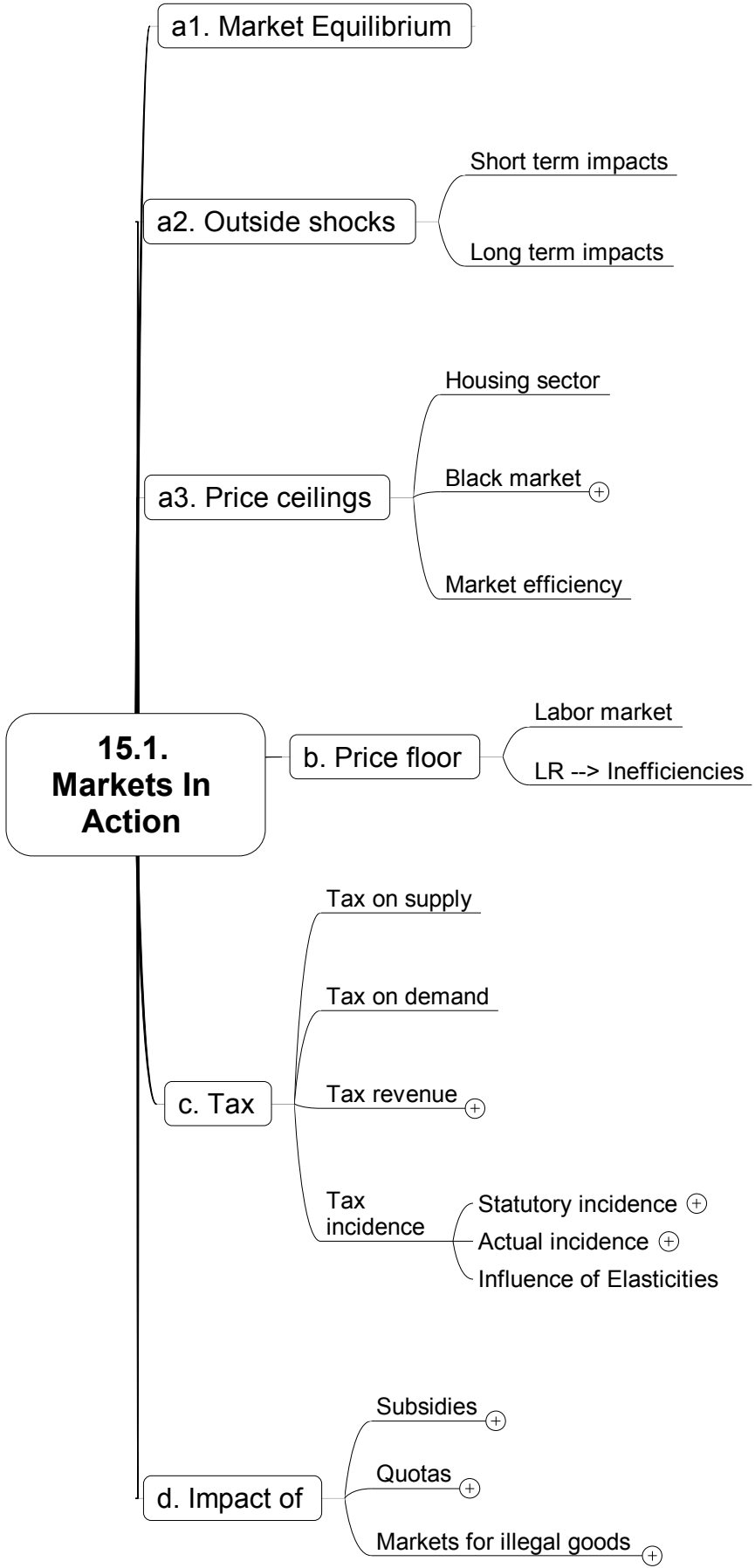


Figure 5: Elasticity of Supply and Tax Incidence

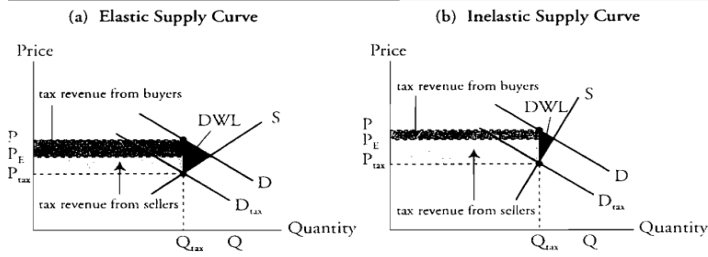
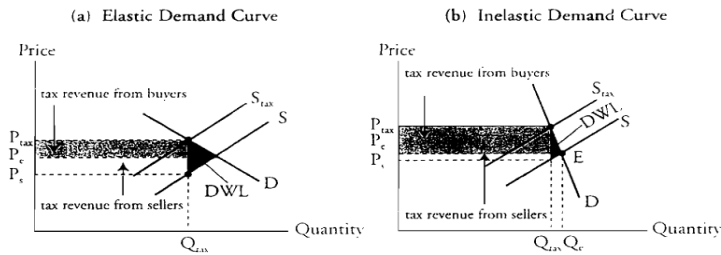


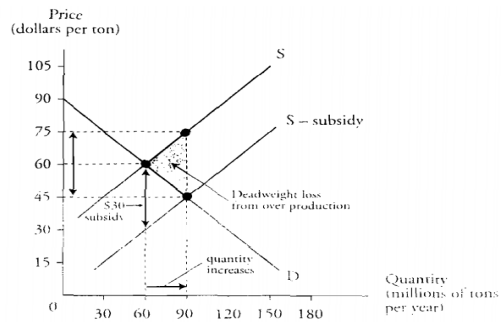
Figure 6: Elasticity of Demand and Tax Incidence



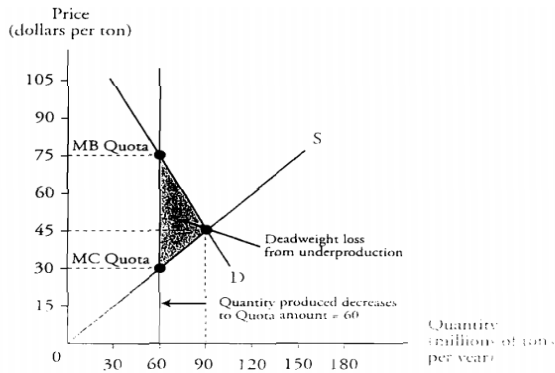
c. Tax

15.2. Markets In Action-Figures

Subsidies

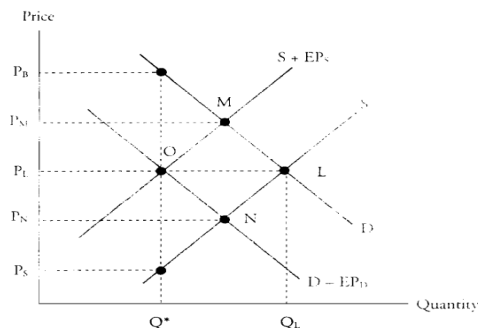


Quotas



d. Impact of

Markets for illegal goods



16. Organizing Production

a. Opportunity cost

Definition ⊕

Including

Explicit costs

Implicit costs

Own Capital-
Implicit rental rate

Time and financial
resources of owners

Definition ⊕

Economic depreciation ⊕

Foregone interest

Normal profit ⊕

Foregone wages

Relation to economic profit ⊕

b. Constraints on Profit maximization

Technology ⊕

Information

Market constraints ⊕

c. Efficiency

Technological efficiency (TE) ⊕

Economic efficiency (EE) ⊕

Relationship EE-->TE

d. Ways to organize productions

Command system ⊕

Incentive system

is _____ ⊕

Principal- agent problem

Agents (managers & workers) do not have the same motives & incentives as the firm's principals (owners)

Reduced by

Ownership

Incentive pay

Longer term contracts

e. Types of business organization

Proprietorship ⊕

Partnership ⊕

Corporation ⊕

f. Concentration measures

2 primary measures

Four firm concentration ratio ⊕

Herfindahl-Hirschman Index ⊕

Limitations ⊕

g. Firm coordination vs. Market coordination

Market coordination

Firm coordination

Lower transaction costs

Economies of scale

Economies of scope

Economies of team production

17. Output And Costs

a. Decision time frame

- Short run ⊕
- Long run ⊕

b. Product of labor

- Total
- Marginal
- Average

Marginal returns

c. Costs

- Total
 - Fixed
 - Variable
- Marginal
 - MC curve
- Average
 - ATC
 - AFC
 - AVC
- Example ⊕

Total cost curves ⊕

d. Production function

- Output = $f()$
 - Capital
 - Labor
- Diminishing returns
- Diminishing marginal product of capital
- Example ⊕

Costs

- Short run
- Long run
 - Economies of scale
 - Savings due to mass production
 - Specialization of labor and machinery
 - Experience
 - Diseconomies of scale
 - Increasing bureaucracy
 - Problems motivating a larger workforce
 - Greater barriers to innovation & entrepreneurial activity
 - Increased principal-agent problems

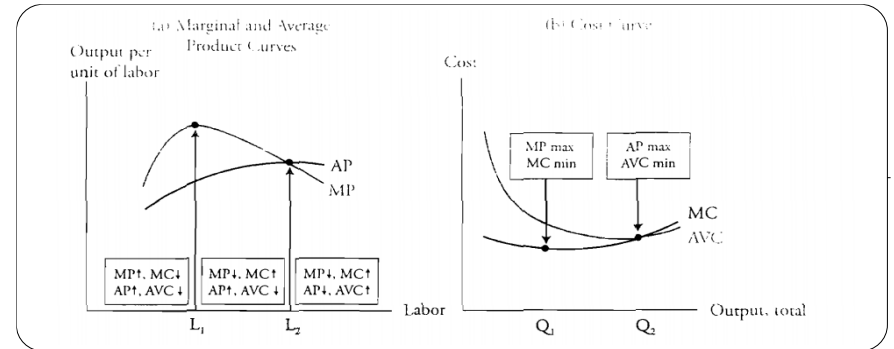
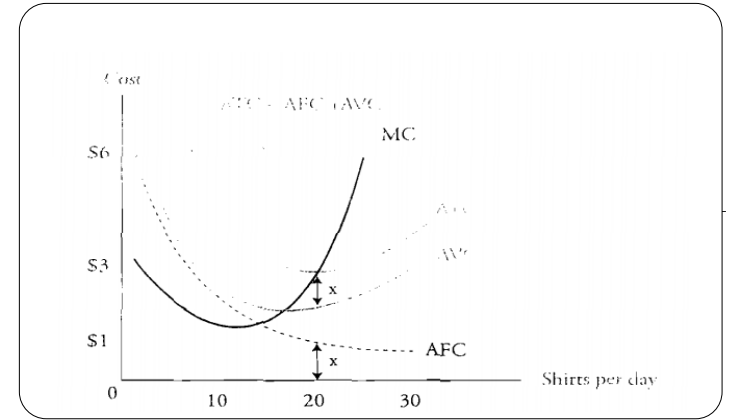
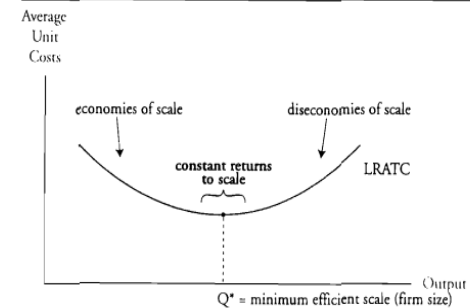


Figure 9: Long-Run Average Total Cost



18. Perfect Competition

a. Characteristics of perfect competition

- Price taker market
- Identical products
- Large number of independent firms
- Each seller is small relatively
- No barriers to entry & exit
- Demand curve for
 - Market
 - Firm

b. Profit maximization output

- MC
- MR
- Economic P&L
- Price taker

Figure 2: Profit-Maximizing Output For A Price-Taker

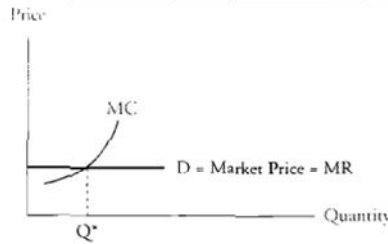
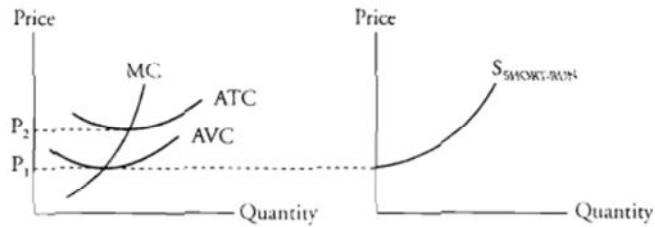


Figure 6: Short-Run Supply Curves

(a) Firm Supply

(b) Market Supply



SR supply curve

c.

- LR equilibrium is impacted by
 - Changes in demand
 - Entry and Exit
 - Changes in plant size

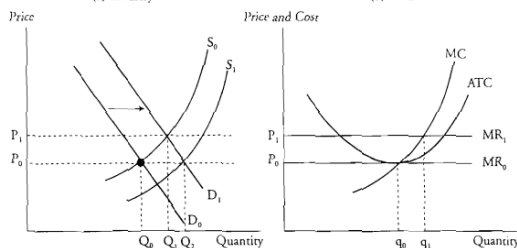
d. Price, output & economic profit are affected by

- Permanent change in demand
- Changes in technology

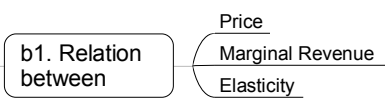
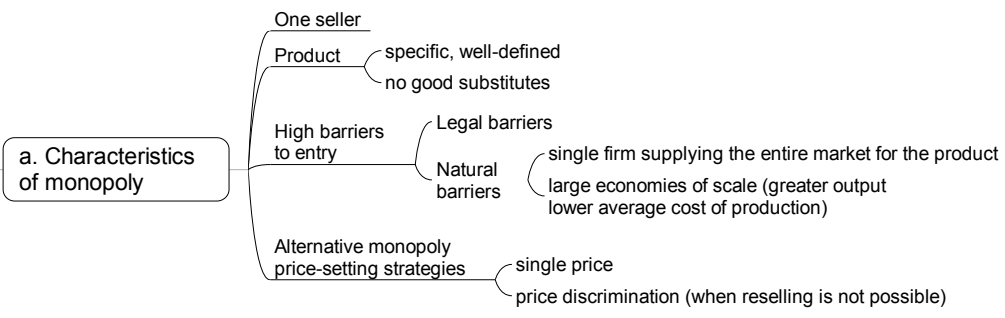
Figure 8: Effects of a Permanent Increase in Demand

(a) Industry

(b) Firm



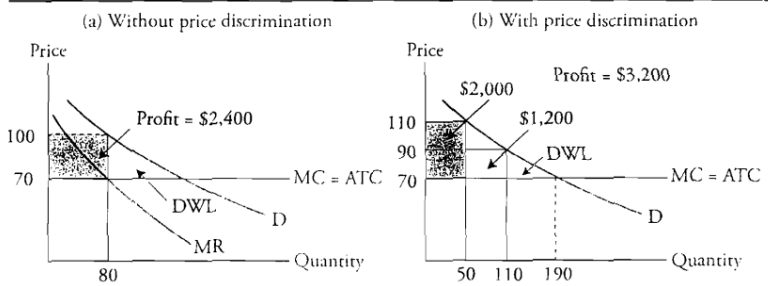
19. Monopoly



b2. Profit-maximizing price and quantity

c. Price discrimination & efficiency

Figure 2: Effect of Price Discrimination on Output and Operating Profit



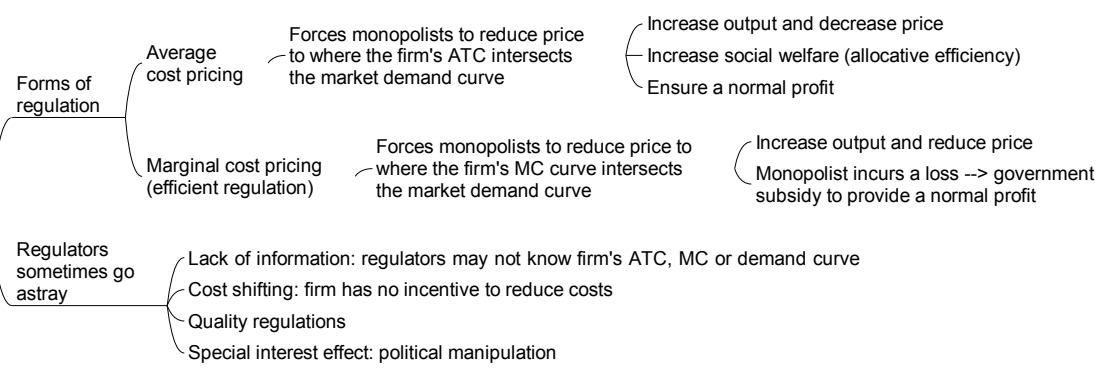
Diagram

- For price discrimination to work, seller must
- Face a downward-sloping demand curve
 - Have at least 2 identifiable groups of customers with different price elasticities of demand for the product
 - Be able to prevent the customers paying the lower price from selling the product to the customers paying the higher price

d. Consumer and Producer surplus redistributed

e1. Potential gains from monopoly

e2. Regulation of a natural monopoly



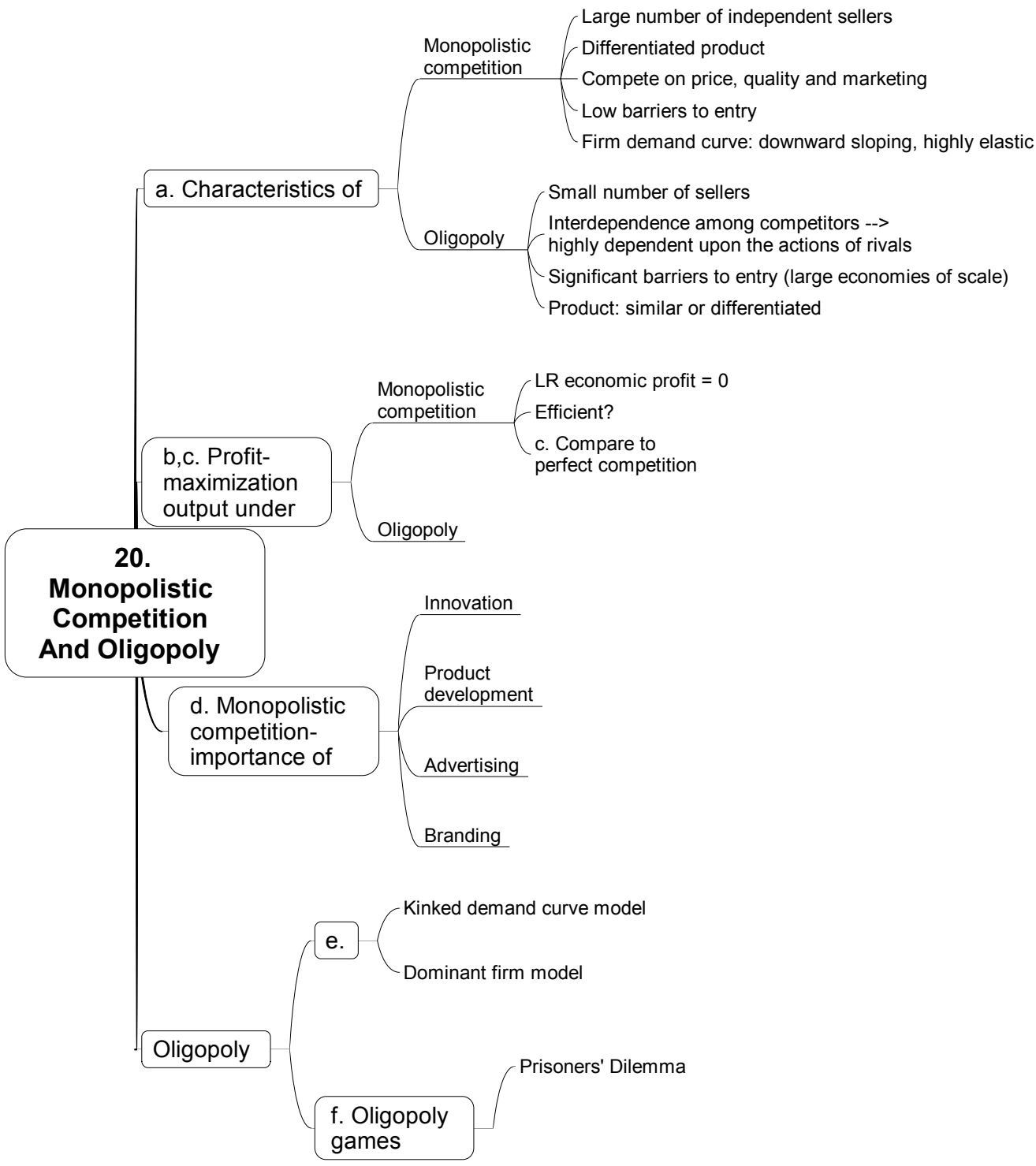
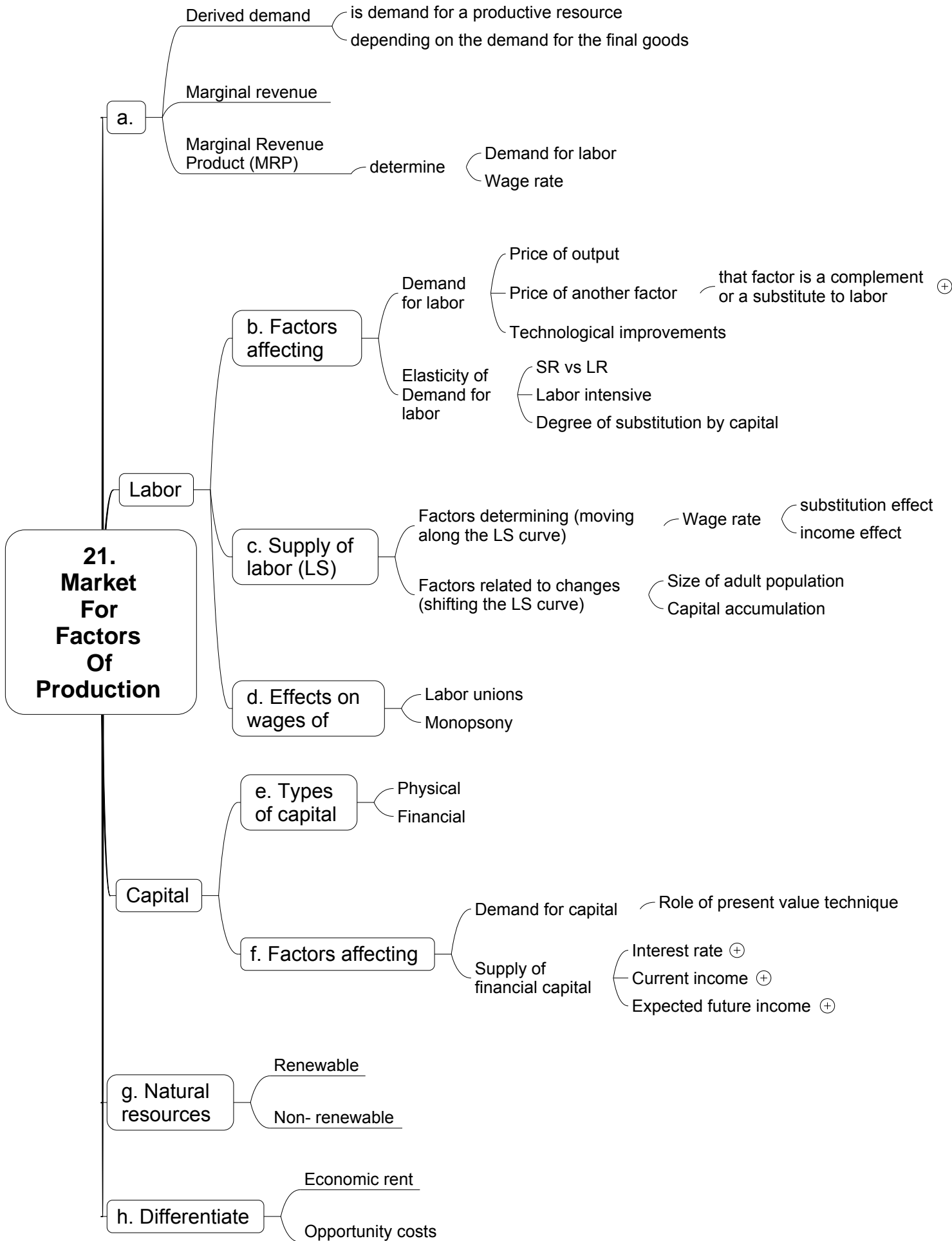


Figure 7: Prisoners' Dilemma for Two Firms

	<i>Firm B honors</i>	<i>Firm B cheats</i>
Firm A honors	A earns economic profit B earns economic profit	A has an economic loss B earns increased economic profit
Firm A cheats	A earns increased economic profit B has an economic loss	A earns zero economic profit B earns zero economic profit



21. Market For Factors Of Production

a.

Derived demand — is demand for a productive resource depending on the demand for the final goods

Marginal revenue

Marginal Revenue Product (MRP) — determine — Demand for labor, Wage rate

b. Factors affecting

Demand for labor — Price of output, Price of another factor — that factor is a complement or a substitute to labor ⊕, Technological improvements

Elasticity of Demand for labor — SR vs LR, Labor intensive, Degree of substitution by capital

Labor

c. Supply of labor (LS)

Factors determining (moving along the LS curve) — Wage rate — substitution effect, income effect

Factors related to changes (shifting the LS curve) — Size of adult population, Capital accumulation

d. Effects on wages of

Labor unions, Monopsony

e. Types of capital

Physical, Financial

Capital

f. Factors affecting

Demand for capital — Role of present value technique

Supply of financial capital — Interest rate ⊕, Current income ⊕, Expected future income ⊕

g. Natural resources

Renewable, Non-renewable

h. Differentiate

Economic rent, Opportunity costs

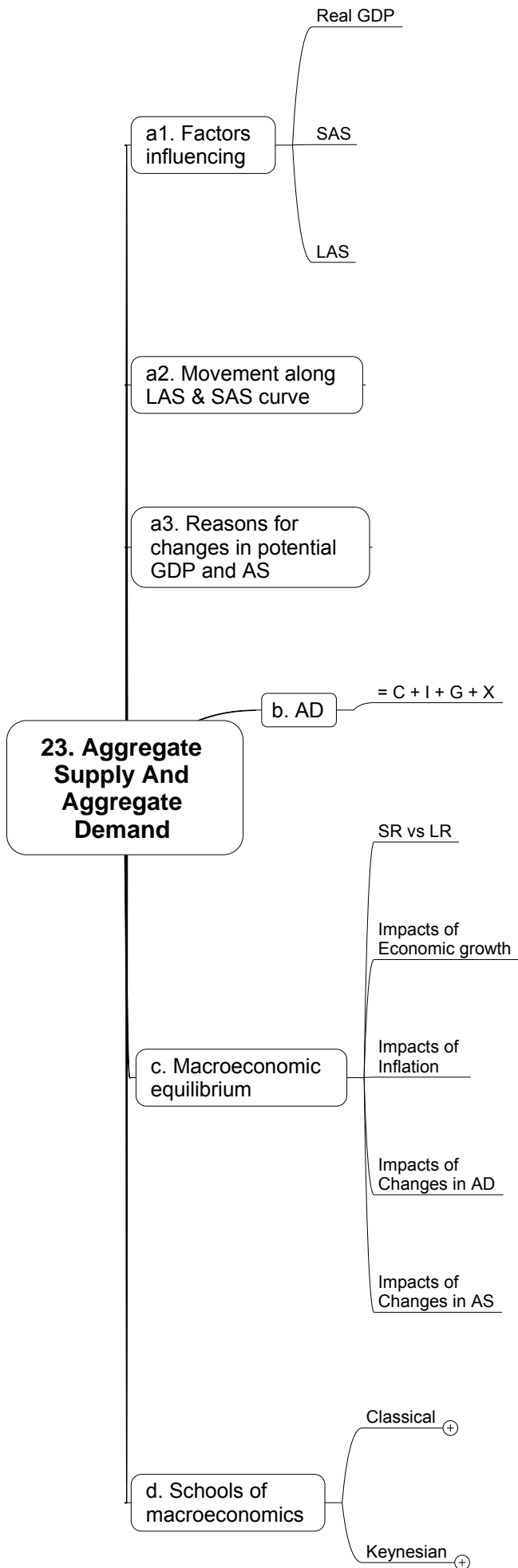
22. Monitoring Jobs And The Price Level

a,b,c. Labor

- a. Define "unemployed person" (last 4 weeks, laid off, waiting, next 30 days)
- a. Discouraged workers
- a. Labor market indicators
 - Unemployment rate= ⊕
 - Labor-force participation rate= ⊕
 - Employment-to-population ratio= ⊕
 - b1. Aggregate hours
- b2. Real wage rate ⊕
- c. Types of unemployment
 - Frictional ⊕
 - Structural ⊕
 - Cyclical ⊕
- c. Full employment
 - Natural rate of unemployment
 - Potential GDP

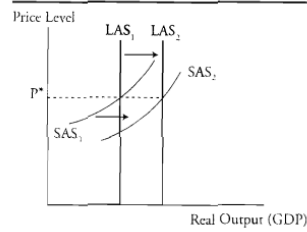
d. CPI

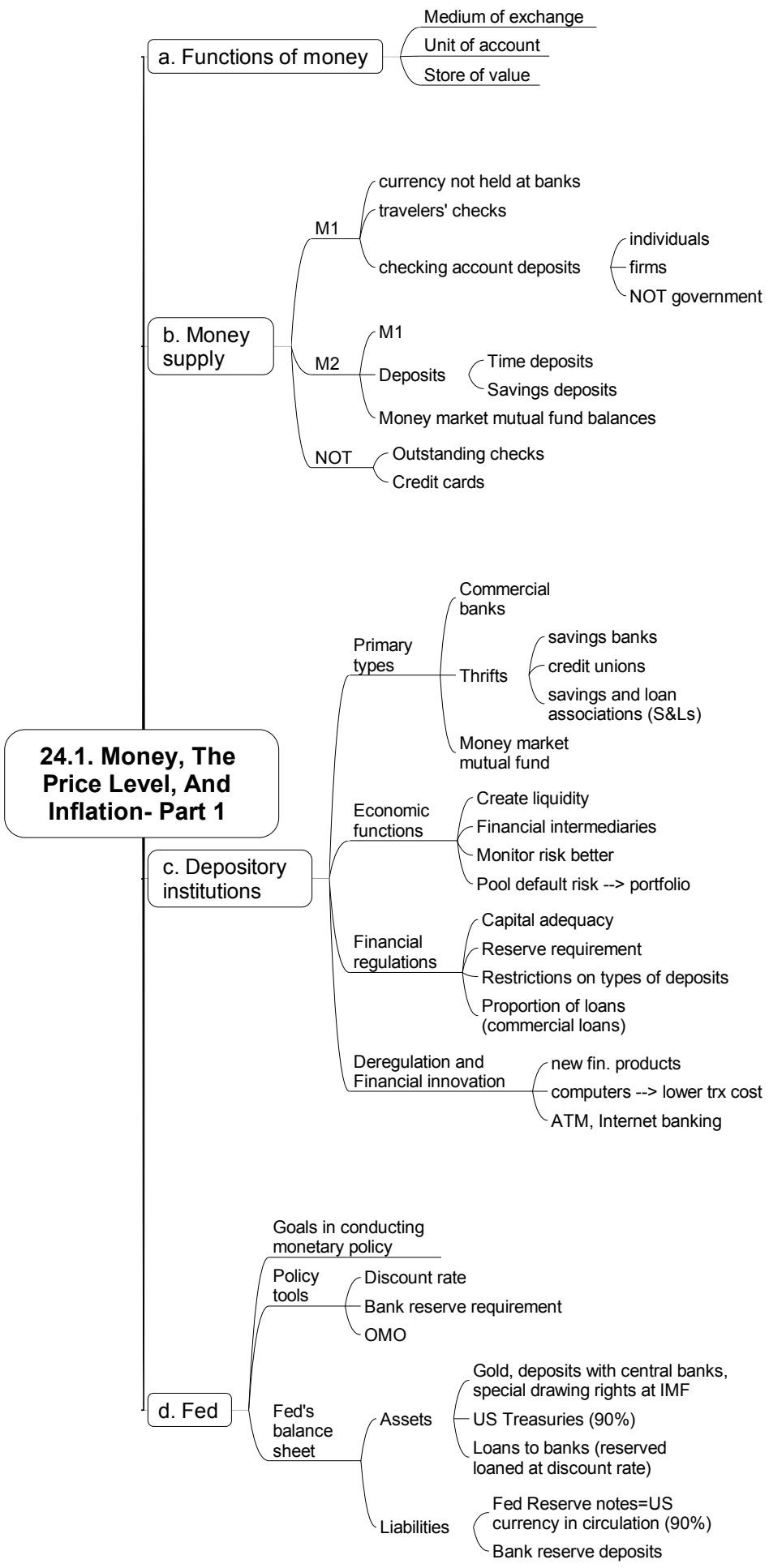
- BLS's calculation
 - Select CPI basket
 - Conduct monthly price survey
 - Calculate CPI= ⊕
- Inflation rate= ⊕
- CPI bias
 - New goods
 - Quality changes
 - Commodity substitution
 - Outlet substitution



In Figure 2, we illustrate the effects on LAS and SAS that would result from an increase in full-employment GDP due to an increase in labor, capital, or an advance in technology. Long-run aggregate supply increases to LAS_2 and short-run aggregate supply increases to SAS_2 .

Figure 2: An Increase in Potential GDP





a. Functions of money

- Medium of exchange
- Unit of account
- Store of value

b. Money supply

- M1
 - currency not held at banks
 - travelers' checks
 - checking account deposits
 - individuals
 - firms
 - NOT government
- M2
 - M1
 - Deposits
 - Time deposits
 - Savings deposits
 - Money market mutual fund balances
- NOT
 - Outstanding checks
 - Credit cards

24.1. Money, The Price Level, And Inflation- Part 1

c. Depository institutions

- Primary types
 - Commercial banks
 - Thriffs
 - savings banks
 - credit unions
 - savings and loan associations (S&Ls)
 - Money market mutual fund
- Economic functions
 - Create liquidity
 - Financial intermediaries
 - Monitor risk better
 - Pool default risk --> portfolio
- Financial regulations
 - Capital adequacy
 - Reserve requirement
 - Restrictions on types of deposits
 - Proportion of loans (commercial loans)
- Deregulation and Financial innovation
 - new fin. products
 - computers --> lower trx cost
 - ATM, Internet banking

d. Fed

- Goals in conducting monetary policy
- Policy tools
 - Discount rate
 - Bank reserve requirement
 - OMO
- Fed's balance sheet
 - Assets
 - Gold, deposits with central banks, special drawing rights at IMF
 - US Treasuries (90%)
 - Loans to banks (reserved loaned at discount rate)
 - Liabilities
 - Fed Reserve notes=US currency in circulation (90%)
 - Bank reserve deposits

24.2. Money, The Price Level And Inflation- Part 2

e. Creation of money

Fractional reserve banking

Required reserve ratio

Multiplier effect

f.

Monetary base = Fed notes, coins + Banks' reserve deposits at FED

Money multiplier= \oplus

Quantity of money

g. Money

Definition

currency in circulation + checking account deposits + traveler's checks

Supply of money

determined by central bank
independent of interest rate

Demand for money

Households & firms

affected by

Changes in real GDP
Financial innovations

h1. Interest rate determination

h2. SR and LR effects of money on Real GDP

i. Quantity theory of money

25.1. US Inflation, Unemployment, And Business Cycles- Part 1

a. Differentiate

- Inflation
- Price level

b. Inflation processes

Demand pull

Cost push

Figure 1: Demand-Pull Inflation

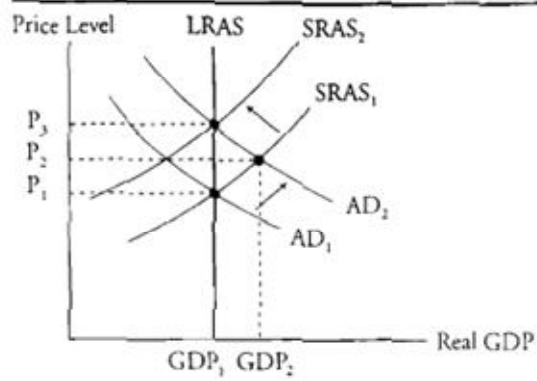
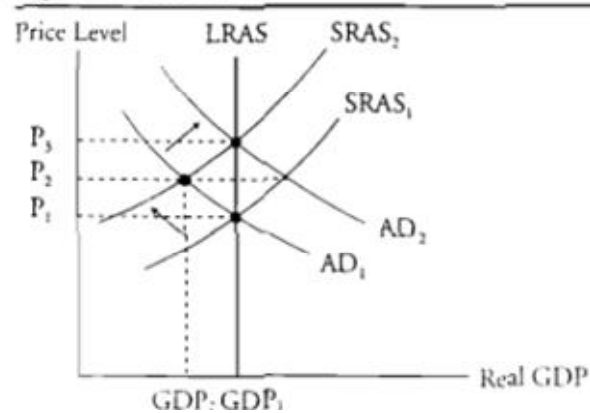


Figure 2: Cost-Push Inflation



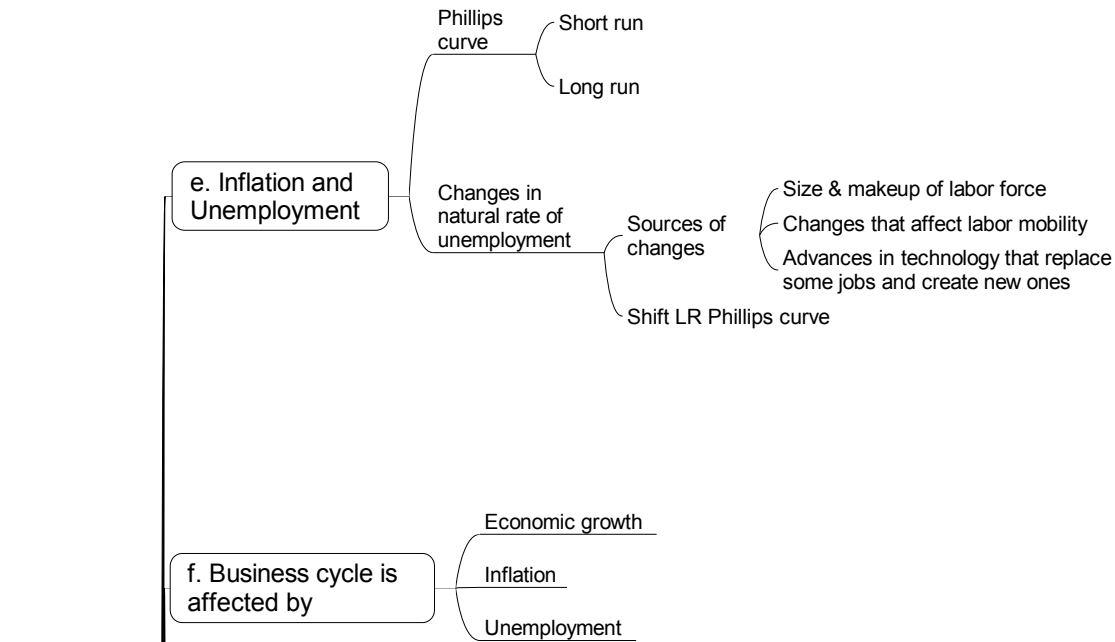
c. The costs of anticipated Inflation

d. Relation

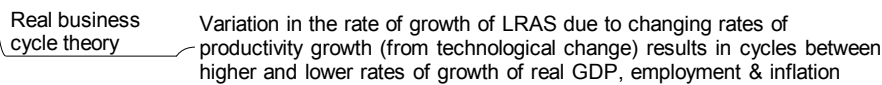
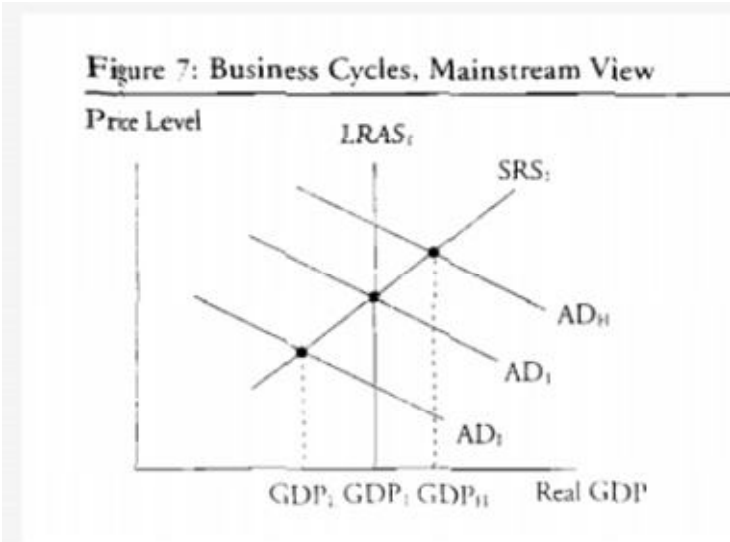
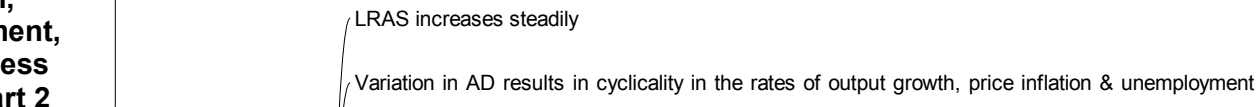
- Inflation
- Nominal interest rate
- D&S of money

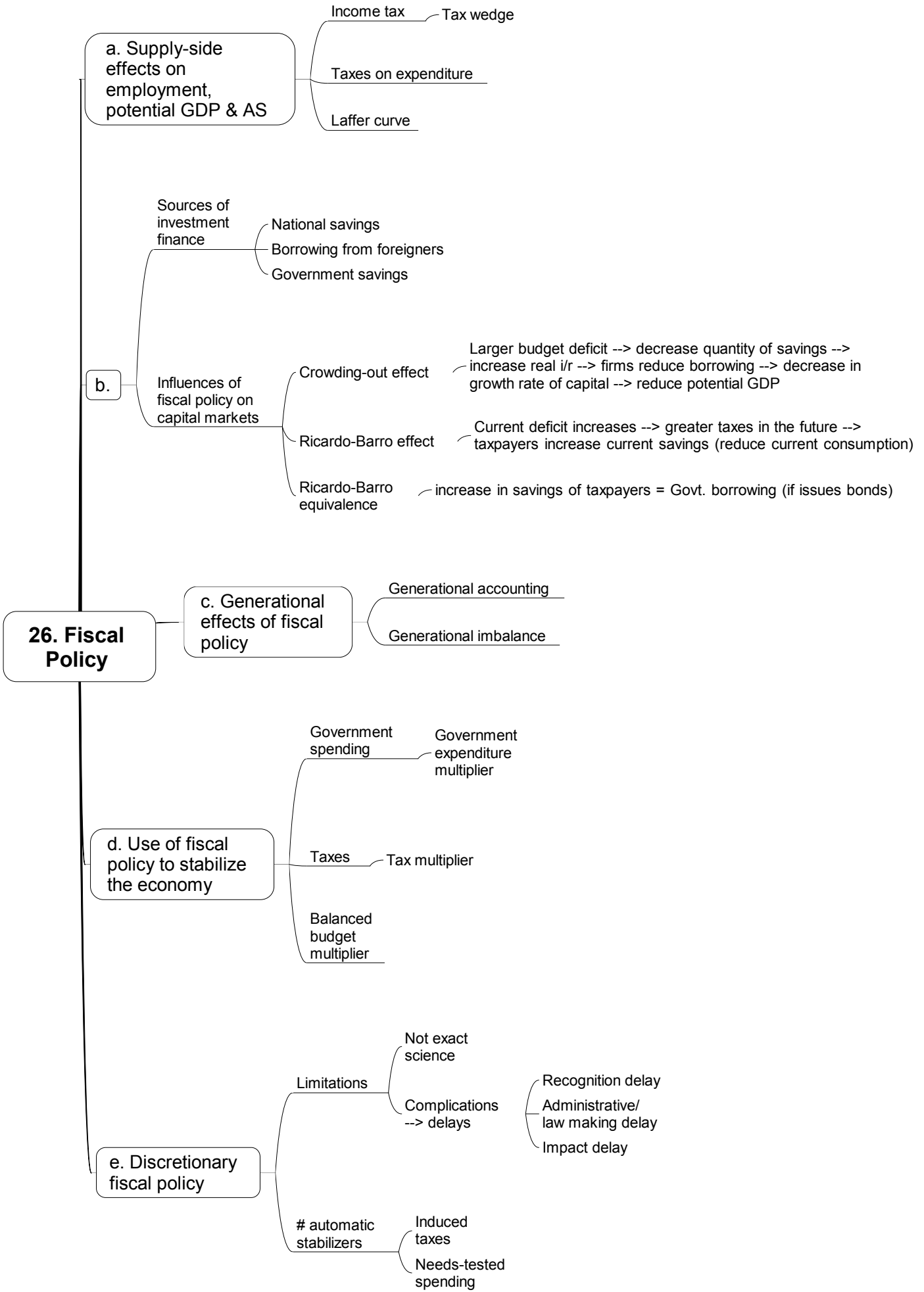
higher rates of growth of money supply lead to

- higher rates of inflation
- higher rates of expected inflation
- higher nominal interest rates



25.2. US Inflation, Unemployment, And Business Cycles- Part 2





a. Supply-side effects on employment, potential GDP & AS

- Income tax — Tax wedge
- Taxes on expenditure
- Laffer curve

b.

- Sources of investment finance
 - National savings
 - Borrowing from foreigners
 - Government savings
- Influences of fiscal policy on capital markets
 - Crowding-out effect
 - Larger budget deficit --> decrease quantity of savings --> increase real i/r --> firms reduce borrowing --> decrease in growth rate of capital --> reduce potential GDP
 - Ricardo-Barro effect
 - Current deficit increases --> greater taxes in the future --> taxpayers increase current savings (reduce current consumption)
 - Ricardo-Barro equivalence
 - increase in savings of taxpayers = Govt. borrowing (if issues bonds)

c. Generational effects of fiscal policy

- Generational accounting
- Generational imbalance

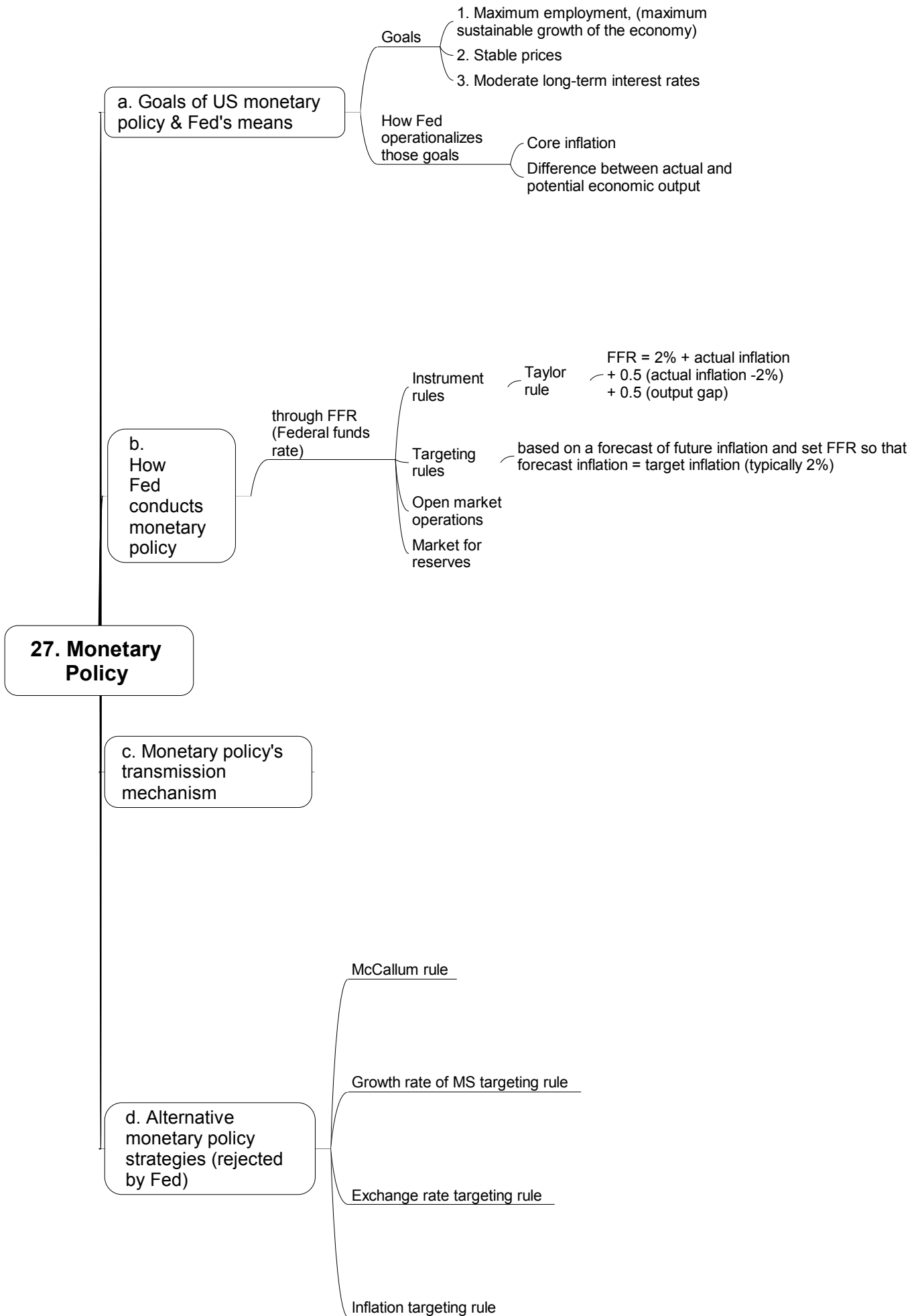
26. Fiscal Policy

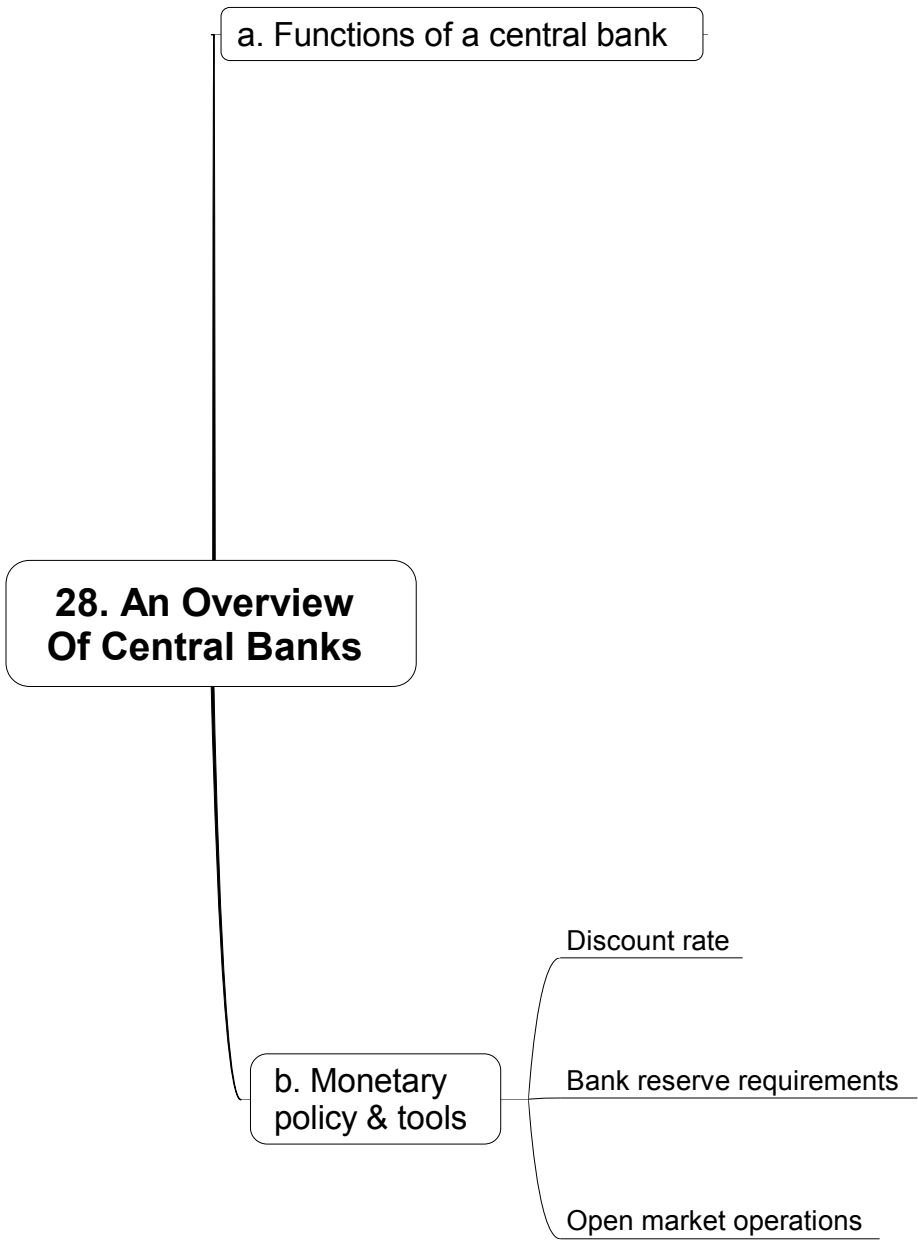
d. Use of fiscal policy to stabilize the economy

- Government spending — Government expenditure multiplier
- Taxes — Tax multiplier
- Balanced budget multiplier

e. Discretionary fiscal policy

- Limitations
 - Not exact science
 - Complications --> delays
 - Recognition delay
 - Administrative/law making delay
 - Impact delay
- # automatic stabilizers
 - Induced taxes
 - Needs-tested spending





a. Functions of a central bank

**28. An Overview
Of Central Banks**

b. Monetary
policy & tools

Discount rate

Bank reserve requirements

Open market operations