MICRO

Desirability/ Microeconomic objectives
- Allocative efficiency (what type and how much of each good to produce to maximize society's welfare) → deadweight loss to society, loss in societal welfare
- Productive efficiency (produce at lowest cost at every given output level) (MES for society, any point on LRAC for producer) (any point above the LRAC – x efficiency)
- Dynamic efficiency (PE over time – lower costs through R&D)
- Distributive efficiency/equity (equitable distribution of resources, spread of opportunities and wealth, goes to those who need the goods the most. But usually demand is determined by dollar votes, the poor doesn't get a say)
- CS/PS (CS maximised at P=MC) (CS is defined as the diff between how much consumers are willing to pay and what they actually pay) → consumer welfare
- Consumer choice → consumer welfare

How to determine effects on firms:
- Costs (MC, AC, whether TR falls below TVC → then shutdown), revenue, profits. Costs fall during recession as derived demand for FOP falls.
- Demand (shift in MR and AR) – oligopoly will fall from supernormal to normal profits, monopolistic competitive firm fall from normal to subnormal, may shut down. Oligopoly can deal with fall in demand better as they can tap on past profits to manage their losses. Can retain or increase demand by differentiating goods – sell inferior goods as well as normal so revenue can increase from sale of inferior goods. MC firms might not have the profits to undergo product differentiation.
- Type of good (YED) – if there is a recession, income falls, good with YED>1 suffer a greater fall in demand.

1. **Shifts of demand and supply, PED, YED, CED**
   - Usually 25 markers
   - Study: PED and burden of tax incidence

There have been large changes in the price of crude oil over the past few years. Discuss what determines whether consumers or producers are more likely to bear the cost of these oil price changes.
   - Talk about more than just crude oil market
   a. Case of fall in SS of oil on related markets
      - Refined oil has inelastic demand for oil, greater burden on consumers
   b. Case of increase in demand of oil
      - Increase in oil prices → increase in CS and PS

Tax incidence:

   - impact of tax is that which falls on the person when tax is first levied. Always the producer, but the burden can be shifted to the consumer through an increase in price. Burden depends on relative elasticity of demand and supply.
   - Imposition of tax will cause COP to increase, supply decrease (produce less goods at every price level), price adjustment process → price increases

- However, price does not increase by full amount of tax as demand curve is downward sloping.
- When demand is inelastic compared to supply, greater burden on consumers
- When supply is inelastic compared to demand, greater burden on producers
- Talk about consumer expenditure and producer revenue
- Talk about CS and PS (CS is above price level below demand curve, PS is below price level above supply curve) → both fall due to tax

2. Economies of scale

IEOS:
- Technical - Specialisation and division of labour
- Marketing (buy in bulk, discount)
- Financial (low interest rates due to good credit ratings)

IDOS:
- Complexity of management – red tape, slow to respond to changes, owners and management wants different things, principle agent problem
- Strained relationships – relationships between employers and workers sour, attitude becomes sloppy

EEOS:
- Economies of concentration – concentrated labour, infrastructure

EDOS:
- Increased strain on infrastructure
- Resources grow scarce, rising factor prices and COP

3. Barriers to entry
Natural: market share and hence market dominance, exploit EOS, LRAC falls

Artificial:
- advertisements to increase demand that new entrants cannot afford to spend on
- R&D efforts to increase quality of good as well as to increase efficiency
- Cut price, price war as monopolies can sustain losses for longer due to supernormal profits
- Patents, so other firms cannot produce same goods. No substitutes, PED inelastic, increase market power

4. Market failure and government intervention

Merit Good
- Government deems these goods as socially desirable, but consumers under consume, resulting in allocative inefficiency. Under consume for 2 reasons:
- Imperfect information – unaware of effect on personal well-being
- Positive consumption externality – consumers are aware of but ignore the positive effects on third parties generated by their consumption, i.e. MEB of consumption

5. Market structure

- No. of buyers and sellers (determines mutual independence, market share and price setting ability)
- BTE (determines profit levels)
- Nature of product (homogenous/differentiated)
- Imperfect information

Natural Monopoly
A natural monopoly occurs in an industry where LRAC and LRMC falls over a wide range of output levels such that there may be room only for one supplier to fully exploit all of the internal economies of scale, reach the minimum efficient scale and therefore achieve productive efficiency.

Small firms
- Small because they are prestige markets – high price, so demand is not so high
- Fresh produce (perishable) or specialised products (limited market)
- Personalised services, direct attention, so cannot have mass production
- Reach MES at low o/p levels. Any advantages of large scale production are more than outweighed by disadvantages. Optimum size is small

Co-existence of small and big firms
- MES is reached at small output level (EOS exhausted at low levels), and then there is constant cost over a range of output.
- Small and big firms can remain competitive on the same LRAC
- Marketed can be segmented: small firms cater to niche markets, big firms cater to general markets. E.g. Ferrari and Porsche are luxury brands, small companies, but bigger companies like Toyota and Honda produce for the mass market

Perfectly Competitive
Many buyers and sellers (negligible market share, no price setting ability)
Low BTE (makes normal profits in long run)
Homogenous
Perfect information

What to know:
How it sets its price, supernormal profits in short run, normal profits in the long run
Its equilibrium price is determined by market forces of supply and demand
When COP rises, reduces profitability of producers, produce less units at every price level, so supply of good decreases. Price increases (talk about price adjustment process), PC firm is a price taker, so it has to accept the increase in price, and its price changes.

Monopolistic Competition
Many buyers and sellers (insignificant market share, little price setting ability, low mutual interdependence)
Low BTE (normal profits in LR)
Slightly differentiated
Almost perfect information

Oligopoly
Few buyers and sellers (significant market share, great price setting ability, dependent)
High BTE (supernormal profits)
Differentiated
Imperfect information

What to know:
Rational firms produce at profit maximizing output level MR=MC, where price is P_0, avoids changing its price

How to explain the kinked demand curve:
Above P_0, demand is price elastic as when a firm raises its price, the rest of the firms will not follow and raise their prices as they want to capture the lost market share. Quantity demanded will fall more than proportionately when price increases, so PED > 1. Below P_0, demand is price inelastic as when one firm lowers its price, the rest of the firms will also lower price in fear or losing their market share. Quantity demanded will increase less than proportionately if all firms reduce their prices, so PED < 1.

How to explain the region of indeterminancy and **aversion to price changes**:
When COP increases, firms will choose to absorb the increase in COP as long the rise of cost lies between the two limits of the region, will not pass on the rise in COP to consumers. Able to do so as they have supernormal profits to absorb the extra costs. Hence price does not fluctuate much.

Monopoly
Recessions put weak firms out of business whilst strong firms use a recession to become more efficient Discuss the extent to which firms faced by high levels of competition are more vulnerable to closer due to a recession

Explain why BTE are a key determinant of a firm's pricing behaviour

Pricing behavior: Assume that firms price at profit maximizing output MR=MC
BTE: Market impediments that prevent the entry of new firms into the new market. It confers market power to firms, affecting pricing behavior. E.g. natural, artificial

Examples of Monopolistic Competitive (low BTE), Monopoly (high BTE)
Characteristics → Behaviour

Characteristic
Monopolist (Pharmaceutical firm with patented drug), significant barriers to entry (legal)

Behaviour
Price setter with very high degree of market power, ability to set high prices by restricting output
Substantial BTE prevents the entry of new firms to compete and erode supernormal profits
Hence when MR=MC, P>AC, supernormal profits in short and long run.

MACRO

Marshall Lerner's
Impossible Trinity (interest rate, exchange rate, free capital movement)
Tinbergen Theil (multiple policies at once)

1. International Trade

FTA
What FTA brings about – increased exports (transfer of G&S), increased I (movement of capital)

What affects extent of gains of trade:
1. Degree of similarity or difference in CA
   - If CA is in different industries, both countries gain more
   - If CA is in similar industries, the one that has more CA/is more export competitive stands to win (potentially, the country with less CA in production will suffer a loss due to less X as other country is their winning competitor)
2. Percentage of X of GDP
3. Attractiveness of country for FDI

Inflation
Anticipated inflation – economic agents (households, firms and government) are able to make accurate predictions of inflation
Unanticipated inflation – inflation that is volatile from year to year such that it becomes difficult for economic agents to correctly predict the rate of inflation in the near future. Economic agents make errors in their inflation forecasts. Actual inflation may end up well below, or significantly above expectations

Costs of both: Worsened income distribution

Costs of anticipated:
   - Shoe-leather and menu costs. More trips to ATM to withdraw cash for transactions, loss in efficiency and increase in opportunity cost. Menu has to be frequently updated.

Costs of unanticipated:
   - uncertainty, confused price signals
   - producers mistake increase in the price of their product as an increase in the relative price of their product i.e. they think inflation is increase in price of their product and that demand increased and wrongly allocate more resources to its production

Solutions:
   - modern technology has largely reduced shoe-leather costs (e.g. card payments reduced shoe-leather costs).

- Trade unions may exercise their collective bargaining power to negotiate with employers for increases in money wages to at least equal inflation
- Companies can adjust prices and lenders can adjust interest rates. Businesses may also seek to hedge against future price movements by transacting in "forward markets". For example, most of the major airlines buy their aviation fuel several months in advance in the forward market, partly as a protection against fluctuations in world oil prices.

DEFINITIONS

Public debt – total amount of financial liabilities held by the government
GDP per capita – monetary value of all final goods and services produced within a geographical boundary within a period of time divided by population size
Material SOL – amount of goods and services consumed
Non-material SOL – crime rates, literacy rates, mortality rates, pollution
Inflation – persistent rise in GPL

MICRO & MACRO

Why has there been an increase in government expenditure in the past years?

MICRO:
1. To correct externalities or to provide for public goods
   - E.g. terrorism, greater expenditure for direct provision of defence (explain why it is non-rivalrous and non-excludable)
   - Non-excludable: When a good or service is provided, it is difficult to exclude non-payers from consuming the good (free rider problem). No one has the incentive to pay when they can get it for free, so producers cannot collect revenue from consumers, and are unwilling to provide. Cannot be provided through free market, so through government.
   - Non-rivalrous: Consumption of good by one person does not reduce the amount available for the next consumer. This means that the marginal cost of serving an additional user is 0. Allocatively efficienct provision takes place when price equals marginal cost of consumption, which is 0. Profit maximising firms will not provide goods at price=0, but any non-zero price will discourage consumers from consuming the good. So free market cannot provide, government has to provide.
   - E.g. healthy lifestyle, government subsidises sports programs and Active SG campaigns to internalise MEB in consumption and reduce imperfect information which hence increases demand for sports
2. For greater equity
   - E.g. income inequality has been worsening, low-skilled labour suffering unemployment due to loss of CA in their industries, plus displacement due to cheaper foreign labour. While high-skilled workers in industries with CA have increase in demand for their services, greater income. Policies to upgrade low-skilled lowers (Skills Future)
   - Spending on the elderly (Pioneer Generation Package) to build more inclusive society

MACRO:
1. To boost economic growth and employment in light of recession
2. To reduce structural UN and have growth in the long run through increasing productivity (a repeat of point 2 of micro, should write this instead)

Should budget deficit be a concern?

THESIS: Yes it should be a concern

1. When there is large and persistent budget deficit, leads to national debt, negative economic outlook (like in Greece), C and I decrease (people save, investor confidence decreases), AD decrease, reverse multiplier effect, NY decreases more than proportionately
2. Crowding out effect – govts borrow more to finance debt, increase demand for loanable funds as they compete with private firms and institutions, cause i/r to increase. This discourages I and C on big ticket items

3. Rise in future taxes – deficit financed by rise in taxes in the future, C and I decrease in the future, SOL decrease and little EG
4. DD-pull inflation – if G is not helping to increase AS, economy will be operating on Keynesian range, depletion of scare resources causes bidding up of factor prices, inflation without an increase in national income as full employment level has not increased.

*link all I to AS

ANTI-THESIS: No it should not be a concern
1. Fiscal drag – when AD increases due to G, tax revenue collected also increases as NY increases, assuming progressive tax system. T increases, G on unemployment benefits decreases, deficit is corrected (if deficit is in the short term)
2. Increase in AS in LR – effects not seen now but spending on infrastructure will help to increase NY while dampening dd-pull inflation, AG and PG without inflation.

Raising barriers to trade in the midst of a global downturn would be disadvantageous

THESIS: It is disadvantageous

1. Raising barriers to trade leads to decline in trade, decreases export revenue for countries dependent on trade, X-M decrease, AD decrease, reverse multiplier effect, NY decrease more than proportionately
2. Breeds inefficiency due to lack of competition, cost of domestically produced goods still high and not producing on LRAC → fall in CS, allocative inefficiency, productive inefficiency, deadweight loss to society.
3. Cost push inflation – price of imports increase, price of raw materials and imports that the country is reliant on increase, general price level increases. Fall in CS, loss in consumer welfare. Also loss in consumer choice due to reduction of imports, loss in consumer welfare.

THESIS: Loss in benefits of free trade
1. Goes against theory of CA – loss of benefits from specialisation and trade, which is higher global output and consumption
2. Unable to exploit EOS, unit costs increase.

ANTI-THESIS: It is advantageous
1. Maximising export revenue, minimising import expenditure, X-M increase, AD increase, NY increase, EG
2. Stimulate domestic consumption when imports are restricted. Given it is a recession, external demand is weak so countries need to depend more on domestic consumption. Domestic industries expand, hire more workers and UN decreases
3. Protects sunsets industries who have lost CA, buy time to restructure the economy and retrain workers to allow them to join industries with CA
4. Protects infant industries who were dominated by imports and unable to grow – restriction of imports will allow space for them to grow and become more competitive and develop greater CA, and then finally released in to the international

market when they are competitive and big enough and can survive in the LR. Reduces imported inflation as the country is less reliant on imports for this industry.

CONCLUSION:
Raising trade barriers may benefit the country in the short run, but will bring harm to the global economy in the long run. In the short run, can improve trade balance and generate domestic employment. However in the long run, there is decline in global trade, less production and consumption of goods, less economic growth and more inefficiency as countries are not purchasing imports of lower and more competitive prices. Effect is great on small open economies like SG as our economic growth is very reliant on trade and we cannot exploit EOS with our small domestic market, unlike other big economies like US and China where they can still rely on their domestic market for growth.

Why should merger be encouraged?

THESIS:
1. Allows firms to increase their scale of production, reap IEOS – technical in terms of specialisation and division of labour, marketing because buy in bigger quantities and receive discounts, financial due to improved credit ratings in the long run. Average cost is reduced, and assuming revenue remains the same, profits increase. Firms can pass on cost savings to consumers, increase consumer surplus and consumer welfare.
2. With greater supernormal profits, there is incentive to innovate and achieve dynamic efficiency. Investing in R&D may lead to discovery of more efficient technology, reduce costs, increase price competitiveness. Also helps to improve the quality of goods, increase non-price competitiveness. Increase in quality can increase demand for goods, increase revenue and hence profits
3. If firms export their goods, a reduction in cost can make the exports more export-competitive as export prices are reduced. Assuming PEDx>1, demand for exports will increase more than proportionately, increase export revenue, improve X-M, increase AD, NY, EG. Also improve BOP

ANTI-THESIS:
1. Merger leads to firm having greater market share and market dominance. Less competition, less incentive to remain cost efficient and may result in X-efficiency when they are not producing on the LRAC as they have no incentive to keep prices low. Leads to productive inefficiency, and this raise in costs could be passed on to consumers in terms of prices, reduce CS and consumer welfare
2. With greater market power and price setting ability, firm can set P>>MC. To maximise profits, they raise prices and restrict output, reducing consumer surplus at the expense of increasing producer surplus. This leads to allocative inefficiency where socially optimal output level is not achieved, loss in societal welfare
3. Accumulation of supernormal profits in the hands of the firm, leads to income inequity between producers and consumers
4. Increase in UN due to duplication of business, some workers made redundant

CONCLUSION
Should merge as it brings about many benefits to producers, consumers and society. However government should intervene to ensure that merged firms remain competitive and do not profit at the expense of consumers given their market dominance.