Note:

The building blocks under Macroeconomics refer to standard phrasing which earn you content marks. As the chapters in macroeconomics are all inter-related, it is good to structure different content parts in your brain as building blocks. And so in essays and higher order CSQ questions you can spam the relevant building blocks :)

The section under Microeconomics is just notes to keep in mind for exams.

# **Macro Economics**

# **Building blocks**

# Brief multiplier effect (need if end goal is unemployment)

- Change in autonomous component of AD causes a more than proportionate change in RNY
- The multiplier effect is based on the proposition that expenditure (order!) generates income and income (RNY) leads to expenditure (Cd) (remember that E comes before Y in the alphabet). Or reversely, "based on the proposition that fall in expenditure causes fall in income, and fall in income leads to fall in expenditure."
  - OR The change in autonomous component of AD causes a change in RNY, *inducing* a smaller change in Cd due to leakages in the form of savings, taxes and imports which in turn causes further rounds of change in RNY and induced Cd
- The cycle repeats and at each successive round, the decrease in income gets smaller and smaller because of leakages in the form of savings, taxes and imports.
- Eventually, the multiplier process ends when the fall in withdrawals equals the decrease in initial injection and the economy returns to equilibrium at a lower national income.

AD analysis: unplanned fall in inventories > firms increase production > derived demand for labour increases > factor payment is paid to households > increase in real national income induces another round of increased AD via the multiplier effect that is based on the proposition that expenditure creates income and income creates expenditure > this process repeats until total increase in withdrawals is equal initial increase in injection > RNY increases more than proportionately > Y0 to Y1 > illustrating actual economic growth

# **Briefer multiplier effect**

- (AD increases)
- The multiplier effect is based on the proposition that expenditure generates income and income generates expenditure (order!)
- Country will have a more than proportionate increase in RNY

## $\text{MPM} \rightarrow \text{k size}$

# (why SG multiplier is small)

- SG lacks natural resources
- Import reliant, imports a lot of raw materials, semi-finished goods and finished goods → high MPM
- Most of the expenditure leaks out in the form of imports
- Less resources are repumped back in the circular flow to further increase expenditure and income in each successive round
- Decrease in AD is smaller as compared to if the multiplier size was large

# $\text{MPC} \rightarrow \text{k size}$

# (why achieving inclusive growth helps)

- The poor have not met their basic necessities -> their MPC is high
- When there is an increase in autonomous component of AD, income increases, inducing a smaller increase in Cd
- Part of the increase in income is leaked out in the form of savings, taxes and imports
- As MPC is large, the increase in Cd takes up a large proportion of the increase in income
- The increase in Cd then increases income a second time, which then induces yet another increase in Cd that is even smaller
- This process repeats until initial injections is equal to total increase in withdrawals
- As the leakage is a small part of the increase in income due to large MPC, this process repeats for many rounds
- The more than proportionate increase in RNY is larger
- Size of multiplier is large

# AD analysis (Eli's story)

- AD=C+I+G+(X-M)
- AD increases from AD0 to AD1
- Sales exceeds production
- Leading to unplanned fall in inventories
- Firms then increase production (Y0 to Y1)

• By employing more factors of production such as labour

### Demand deficient unemployment analysis

- Derived demand for labour increases
- More labour is employed
- More factor payment is paid

#### Demand pull inflation analysis

- Near full employment
- Lack spare capacity
- (due to increased production from AD analysis), derived demand for FOP increases
- Shortage of FOP
- Prices of FOP are bidded up
- COP increases
- Profitability decreases
- To protect profit margins, firms increase prices
- Consumers also bid up prices in order to obtain goods in a situation where "too much demand is chasing after too few goods" / "too much goods chase after too few demand"
- GPL increase from P0 to P1

## $\textbf{AD} \rightarrow \textbf{SRAS}$

Fall AD  $\rightarrow$  Increase UNN  $\rightarrow$  QQT  $\rightarrow$  SRAS

 $\rightarrow$  Autonomous savings increase, firms expect hh to save for rainy days, expect dd for goods to fall, I decrease, *if rate of capital accumulation is less than rate of capital depreciation*, qty of capital falls

Side note: in recession, doesn't make sense to say decrease in supply of labor so wages increase. Instead, say supply of *factor inputs in general* decreases, so COP increases.

#### **SRAS** analysis

- → Used for cost push deflation
- Increased productivity
   More output produced using the same inputs

- Increased quantity of labour Supply of labour increases Downward pressure on wages
- COP decreases
- Profitability increases
- SRAS increases (SRAS0 to SRAS1)
- Partly increase production (Y0 to Y1)
- To remain price competitive
- Pass on lower COP in terms of lower prices (P0 to P1)
- Reduces inflationary pressure

#### $\mathsf{SRAS} \to \mathsf{RNY}$

• Wealth, interest, trade effect

## LRAS analysis

- Increase productivity/quality More output can be produced using the same amount of factor inputs
- 2) Increase quantity Increase ability to produce
- Productive capacity increases
- LRAS increases from LRAS0 to LRAS1
- Full employment level of output increases from Yf0 to Yf1
- Potential economic growth

## Money supply indirect transmission mechanism (MS $\rightarrow$ i/r)

- Money market graph: shift from <u>MS0 to MS1</u>, holding LP constant.
- Surplus QdQs at initial interest rate r0
- Downward pressure on i/r
- I/r (<u>r0 to r1</u>) and quantity of money (Q0 to Q1) changes

## Interest rate effect

- Decrease in interest rate
- Firms' perspective:
  - Cost of borrowing decreases
  - Expected net rate of returns to investment / profitability increases

- Firms are profit maximizers
- Increase I
- Net lender households' perspective:
  - Rate of returns to savings decreases
  - Opportunity cost of consumption decreases
  - Increase amount borrowed
  - Increase C
- Net borrower households' perspective:
  - Cost of borrowing decreases
  - Increase amount borrowed
  - Increase C

## Money supply direct transmission mechanism (MS $\rightarrow$ AD)

- Increase money supply via quantitative easing through the direct mechanism
- Households and firms have excess liquidity
- They have an optimal proportion of their wealth to hold as cash
- Now they have more cash than the optimal amount
- Firms increase I, households use some of the excess liquidity to buy financial assets and goods and services → increase C

#### Hot money effect (i/r $\rightarrow$ e)

- Increased domestic interest rate
- Country is a more attractive hot money destination
- SG is an economy with free capital mobility
- In search of higher rates of return / rate of return to speculators' money increases
- Hot money inflows increase, hot money outflow decreases
- Demand for currency (by speculators) increases, supply of currency (by currency holders) decreases
- Shortage of currency in FOREX market
- Upward pressure on exchange rate
- Currency appreciates

#### Fiscal policy – tax

- Reduce personal income tax rate > increase disposable income > increase purchasing power > increase C
- Reduce corporate tax rate > increase post-tax profits > increase expected net rate of return to investment > firms are profit maximizers > increase I
- AD increase

Link to decreasing BOT deficit due to increase in tax rates

- AD analysis
- RNY decreases
- Pp decreases
- Assuming imports are normal goods (YED>0)
- Import expenditure decreases

## Fiscal policy – G

- Gov increase gov expenditure by investing in infrastructure
- Firms do not need to build their own infrastructure
- Decrease initial capital outlay/initial cost of investment
- Enjoy EEOS
- Increase profitability/expected net rates of returns to investment
- Increase I
- Increase AD (both G and I)

# Structural unemployment analysis

- Must give examples !!!
- Structural change: jobs require skills to utilise technology
  - Eg supermarkets utilise more technology by employing more self-checkout counters
- Skills mismatch: 1. job requirement (with eg) + 2. possessed skill of workers
  - Eg in sunrise industries such as cybersecurity, demand for high-skilled workers who can utilise technology is increasing. However, due to mismatch of skills, low-skilled workers do not possess required skills to utilise technology.
- Reduce/worsen mismatch between job-seekers and skills required by job openings

# SSP – structural unemployment

- I. Subsidy for skills retraining programmes
  - A. Skillsfuture, where subsidies are given for courses, and households receive wage compensation
  - B. [Reskilling] workers have skills needed for economy that has experienced structural change > reduce mismatch of skills possessed by job-seekers and skills required by job openings > reduce structural unemployment
  - C. [Upskilling] Improve labour productivity > LRAS analysis
- II. Subsidies for apprenticeship programmes
  - A. Shopee apprenticeship programme
  - B. Reduce cost of employing unskilled workers

- C. Increase willingness and ability of firms to hire unskilled labour
- III. Refundable Investment Credit (RIC) scheme (expenditure-switching policy) Allows firms that adopt productivity enhancing technologies to use their credits to offset payable corporate tax
  - A. Increase quality competitiveness of exports
    - 1. Incentivise firms to engage in research and development
      - a) (Increase FDI inflow = greater R&D = increased quality)
    - 2. Increase quality of exports
    - 3. Change taste and preferences towards exports
    - 4. Domestic households switch from imports to domestically produced goods
    - 5. Foreign households switch to country's exports
    - 6. Increase demand for exports > increase export revenue
    - 7. Decrease demand for imports > decrease import expenditure
    - 8. Reduces trade deficit
  - B. Increase price competitiveness of exports
    - (or like relaxation of immigration policies > increase labour force > increase supply of labour > surplus > downward pressure on wage rate > decrease COP)
    - 2. Increase quality / quantity > increase LRAS
    - 3. Decrease COP > increase SRAS
    - 4. Decrease GPL
    - Improve export price competitiveness > Px decrease > PEDx>1 cuz many close substitutes > more than proportionate increase in Qty dd > export revenue increase
    - (substitution effect) cuz Px decrease due to increase ss > domestic consumers switch from exports to imports (XED>0) > decrease dd for imports > decrease M expenditure > the larger the XED, the larger the decrease in M
    - 7. Reduce trade deficit

# Short run stabilisation supply side policy

- wage subsidy

2001, 2020, 2021 – Under the Job Credit Scheme, the government provides cash grants to employers to preserve employees' jobs.

- Reduction in employers' CPF contributions
  - COP falls, SRAS analysis, partly increase output, partly pass on lower cop in terms of lower price to remain price competitive
  - Through the wealth, trade and interest effects, RNY increases. Due to the trade effect, when GPL falls, foreigners buy more of domestic exports,

increasing income-induced export expenditure, illustrated by movement along AD. Hence RNY increases.

# e/r > BOT (& AD for school version): MLC

MLC (PEDx+PEDm > 1) holds cuz

PED x > 1: many close substitutes eg tourism, substitutes in bangkok thailand, japan PED m < 1: SG lack natural resources > imports final goods and services, raw materials & semi finished goods > import reliant

## Material SOL analysis

- Higher income for all households
- Assuming population size remains the same / rate of increase in income exceeds rate of increase in population
- Income per capita increases
- Assuming income is not too unevenly distributed
- Each household has Increase in purchasing power
- Increase ability to consume goods and services
- To fulfil material needs and wants
- Increase material SOL
- \_
- Higher inflation
- Assume nominal income constant
- % change in real Y = % change in nominal Y % change in inflation rate
- Real national income fall
- Pp erode
- Assume population unchanged
- Assume income inequality is not too uneven
- Each household can buy less goods and services to fulfill material needs and wants
- Decrease Material SOL

# Non material SOL analysis

- To maintain current SOL
- Take up more jobs to increase nominal income
- Less leisure time
- More physical and mental stress
- Lower quality of life
- Decrease non material SOL
- \_
- Unemployment

- Assume constant tax rates
- Less personal income tax collected
- Less pp
- Consume less goods and services
- Less G&S tax collected
- Less tax revenue
- Spend less on public goods such as street lighting
- Less safety
- Lower quality of life and non material SOL

## Inclusive growth

- Equal opportunity for all segments of population + Fair distribution of resources
- Increase RNY  $\rightarrow$  assuming constant tax rates  $\rightarrow$  increase in gov tax revenue
  - → assuming gov spends tax revenue on <u>redistributive policies</u> (eg direct subsidies for lower-income households such as the Workforce Income Supplement) → transfer payments to lower income hh → increase disposable income for lower income workers → reduce income gap between rich and poor → attain inclusive growth
  - OR → assuming gov spends tax revenue on <u>subsidies for skills upgrading</u> <u>and retraining</u> → makes retraining programmes cheaper for lower income households → they forgo less of their income and can take time off work to participate in skills retraining → lowers their marginal cost → Marginalist principle, will undergo skills retraining when MB > MC → increase productivity → since wages are tied to the output of a worker → wages increase → reduce income gap between rich and poor → attain inclusive growth
- Structural unemployment → decrease dd for low-skilled workers (eg in construction industry), decrease wages of low-income earners + increase dd for high-skilled workers (eg in finance industry), increase wages of high-income earners → increase wage gap and income inequality
- Rich are taxed more, poor are taxed less → redistribution of income → tax effect, decrease AD, sustained EG not attained
  - Use for why some policies aimed at attaining inclusive growth are not suitable in times of economic recession. Eg "Discuss whether achieving IG should remain a priority during an economic downturn.": KR1: Policy achieving IG, eval on extent of effect of increase in AD using poor people's MPC. KR2: Policy achieving inclusivity, but not sustained EG

#### **BOP** analysis

\* keywords: *increase/decrease* debit/credit transactions, improve/worsen (do not use increase/decrease, that's for DBQ about BOT)

\* flow concepts

Event  $\rightarrow$  explain  $\rightarrow$  *change* in debits/credits  $\rightarrow$  worsen/improve sub-category, category, BOP

Content: BOP: (1) CA = BOT + Income balance = BOT + Pri income (aka **net** income from abroad) + Sec income (aka **net** current transfers) (2) KFA. BOP = CA – KFA Thinking process:

- Debit, credit:
  - Debit: money outflow
  - Credit: money inflow
- KFA:
  - KFA improve:
    - For SG: SG is an international financial hub, dowan money to flow out. Capital outflow increase → Money inflow increase → Credits increase → KFA improves
    - Convention: more capital is better. Credits increase → Capital outflow increase → KFA worsen
- CA:
  - Increase debits = worsen CA
- BOP:
  - BOP = CA KFA
  - Proportional to CA
    - Improve CA = improve BOP
  - Inversely proportional to KFA
    - Worsen KFA = (KFA become more negative) = BOP improve

# Event:

Increase FDI inflow

- short run → *increase* in long-term capital flows → *increase* debit transactions → for SG: KFA worsens, for other countries following the convention, KFA improves → CA improves (SG) / CA worsens (convention) → BOP improves/ worsens
- long run → repatriation of profits back to FDI's country of origin → increase in debits → primary income balance worsens → CA worsens → BOP worsens

# **Global competitiveness**

- Includes BOTH export (price and quality) competitiveness and having a healthy and attractive business environment to attract FDI
- 1. Export competitiveness

- Export price comp
  - Event → price of exports → PED of exports → Qd of exports → Export revenue → export price competitiveness
  - Cannot be like increase price of exports so lose export price competitiveness. Missing gaps.
- Export quality comp
  - Event → higher COP → firms' profits decrease → less ability to engage in product innovation → quality of local exports increase less than exports from other countries → consumers' T&P change to be less in favour of local exports → decrease dd → decrease X revenue
    - Reverse engineer! Quality ← innovation ← profits

# 2. Attractiveness to FDI

 $\circ$  Event  $\rightarrow$  marginalist principle  $\rightarrow$  decrease inflow of FDI

# **Past Mistakes**

1. Increase in unemployment does NOT directly lead to fall in labour force Increase UNN > in the long run, households are unmotivated to work, become unwilling to work, leave labour force or quality of labour deteriorates > decrease size of labour force > decrease qty of labour

# **Evaluation**

# <u>General</u>

- 1) Characteristic of economy
  - a) Size of multiplier
  - b) Export-oriented economy (proportion of X in AD)
- 2) State of economy
  - If economy is near full employment level of output > there are few number of unemployed resources that can be used to increase output > decrease in i/r leads to small increase in derived demand for resources > small decrease in demand-deficient unemployment
- 3) Root cause
  - a) Inflation in SG is mostly cost-push
    - SG lacks natural resources > highly dependent on imports of raw materials, semi-finished goods, final goods > increase foreign prices > SG firms do not have many domestic substitutes to switch to > COP increase > imported cost-push inflation

- b) BOT deficit is not a cause for concern if it's caused by import of capital > LRAS analysis > Yf increase > can produce more goods in future for export > in the future BOT will increase
- 4) Existing government policies
  - a) Limit effect on exchange rate: SG operates under a managed float exchange rate system, where SGD is allowed to fluctuate within an undisclosed policy band that is consistent with underlying economic conditions.
- 5) Time
  - a) Eg compare between policy A that increases actual EG and policy B that increases export price competitiveness. In the short run, when there is a greater need to increase EG, policy A is better. In the long run, when there is a greater need to increase price comp, B is better.
  - b) Supply side policy: given that singapore's production is largely high-skill intensive, advanced technology from R&D will take a long time to develop
- 6) Unintended consequences
  - a) On other macro goals
  - b) Side effects (eg ss side policy has dd effects)
- Discuss how far policy choice should depend on the root cause. Other KRs will be other evaluative criteria. Typical evaluation points are tweaked into content points.

# <u>Specific</u>

• J curve effect

Consumers need time to source for substitutes to switch to, firms need time to renegotiate contracts > they need time to make adjustments to demand > |PEDx + PEDm| may not >1 > MLC may not hold in the short term > opposite effect on BOT may occur in short term

• (appreciation -> FDI -> KFA)

[policy] MAS adopts a gradual appreciation stance > in the long term > profits of FDI after converting back to home currency increase > increase FDI inflow > worsen KFA > increase BOP surplus

+

# [investment climate]

Refundable Investment Credit (RIC) scheme: firms that innovate can use credits gained to offset corporate income tax payable. Attracts FDI.

• i/r -> I

# [Business expectations]

If economic growth is high > firms expect households to save less for rainy days > firms expect demand for products to be high > firms expect profitability and net rate of return to investment to be high > positive business outlook > rightward shift of MEI curve\_MEI is interest elastic > decrease in interest rates lead to more than proportionate increase in I > large increase in AD

In a recession > firms expect households to save for rainy days > firms expect demand for its goods and thus revenue and profit to be low > negative business outlook > MEI is interest inelastic > fall in interest rates lead to less than proportionate increase in I > small increase in AD

• FP G

# [Crowding out effect]

If gov does not have required fiscal budget to finance G > it may finance its investment in infrastructure by borrowing from domestic sector > **demand for loanable funds** increase > increase interest rate > firms face higher cost of borrowing > profitability, expected net rates of returns to investment decreases > firms are profit maximizers > private firms reduce I > crowd out private investment

- Might need to increase tax in future to finance public debt. Decrease future SOL
- Financial strain on fiscal budget  $\rightarrow$  fiscal budget deficit  $\rightarrow$  public debt
- Substitution effect

# (progressive income tax)

Decrease post tax profit > firms are profit maximizers > invest less > AD and LRAS fall Decrease opportunity cost of leisure > less attractive to work and move into higher income bracket > work less > quantity of labour decrease > LRAS decrease Decrease actual growth + slow potential growth = sustained growth not achieved

- contextualise : especially so in developed countries
- VS income effect: especially so in LDCs
- Skill retraining ss side policy: receptiveness of workers

(Marginalist Principle)

- MPC is high: workers need to take time off work to be retrained → forgo income they could have earned had they used the time to work instead of retrain → esp for lower skilled workers who need to earn income to meet basic needs
- MPB is low: fast changing work requirements → skills learnt may become obsolete quickly

- Summative eval: depends if govt subsidises skill retraining, strain on gov budget cuz subsidy must be large and sustained.

# CSQ

- Explain unintended consequence of higher envt standards on BOT
  - Use SRAS analysis to explain increase in Price
  - XED>0, switch to relatively more price competitive imports, dd for imports increase, M increase
- Explain how world recession affects SG's economic growth [4]
  - must link world recession to fall in global real national income
  - marks for explanation of effect of event, AD analysis, multiplier.
- DBQ: describe BOT from year A to year 2
  - 1m dir: BOT deficit or surplus
  - 1m magnitude: deficit/surplus increased or decreased
  - this applies to current account and government budget balance as well

# Notes

- Discuss whether policy A or B is better to achieve aim amidst a global recession.
  - Context given. Must be used for summative evaluation in weighing policies. (ie. which policy is better depends on which policy better increases economic growth, given that there is a global recession (fall in X)).
- Discuss the extent to which rising wages outpacing productivity growth will negatively impact Singapore's global competitiveness
  - Scope: KR must have both export competitiveness and attractiveness to FDI
  - At the start of the essay, set up what "rising wages outpacing productivity growth" means. (overall increase in COP)
  - Do not bring in other macroeconomic aims irrelevant
- Keyword interpretation:
  - Competitiveness = export competitiveness. Price & quality competitiveness.
  - Self-sufficient
    - increase reliance on yourself, switch from imports to domestic goods
    - decrease reliance on others
  - **Resilient**:

- Export competitiveness
- AND attractiveness to FDI (link to I > AD > EG & UNN) (more productive labour attracts FDI, cuz the firms produce high value-added goods and seek out productive, high skilled labour)
- Even though the qn keyword is resilient, you should make sure the endpoint is macro aims.
- Possible eval: If policy (eg increasing foreign workers) increases reliance on foreign workers, it makes sg more vulnerable, less resilient.
- For qns on **open** economy, KR1 is a direct effect on open economy, KR2 is indirect effect.

# Globalisation

- Why is India against removal of import tariffs?
  - Distil. What is the qn asking? (benefits of protectionism)
  - Benefits of protectionism/Costs of free trade --> MUST LINK EXTRACT TO MACROECONOMIC AIMS. Phrase ur topic sentence: Protect against dumping / Protect domestic employment.
  - Think of points before finding evidence

# CONTENT:

- 1. Causes of globalisation
  - a. Technology
    - i. Eg faster internet speed, 5G broadband network When a worker decides whether or not to relocate to a foreign country to work, MB: additional wages worker would earn from working in the foreign country rather than in his home country MC: air transportation fees, housing fees, as well as international call charges when he calls his family from overseas to keep in touch with them. improvements in comm tech > decreased international call charges > decrease MC > MB>MC > worker will relocate > flow of labour across countries increases
  - b.
- 2. Effects of globalisation
  - a. Benefits of globalisation
  - b. Costs of globalisation = Benefits of protectionism
    - i. Contagion effect

<ul> <li>Globalisation → countries are more interdependent in terms of supply and demand (need to <i>explain</i> globalisation as a cause)</li> <li>Set up a scenario with external supply shock (eg Covid, 2020) → freer trade of factor inputs, SRAS analysis, cost push inflation, recession, SOL analysis. (include AD analysis only if have too much time)</li> </ul>	- Protectionism
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### ii. Employment

<ul> <li>Freer labour flows between countries. Firms in developed countries outsource production to less-developed countries with lower per unit cost of production due to lower minimum wage rates.</li> <li>Structural unemployment analysis of low-skilled workers in developed countries</li> </ul>	- Infant and senile argument
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3. Policies

# Micro

# **Building Blocks**

### Ch2:

- Event: eg economic growth > Change income > change pp > change ability > assume normal goods YED>0 > change willingness > change demand
- Must explain determinant and relationship
  - Eg as both ICEVs and EVs perform the same function of transporting consumers → they are both substitutes in consumption
  - Eg as there are many other modes of transportation  $\rightarrow$  there are many close substitutes in consumption  $\rightarrow$  PED>1

- Direct subsidy on EVs → they do NOT increase Y (for all goods)! Only increase pp for EVs. Thus cannot bring in YED.
- Impacts on market: just P and Q, if use elasticity alr.
- Link from economic growth to labour market
  - either economic growth > increase in real <u>national</u> output > firms increase production ...
  - or economic growth > increase in real national income > increase pp > YED>0 > increase demand for goods > increase derived demand for labour

# **Micro CSQ**

- Direction and magnitude
  - Explain the reason for the large increase in X. [2]
    - 1m direction: increase (ddss framework)
    - 1m magnitude: large (elasticity, more than proportionate)
- When using XED,
  - Make sure it is supply shift that causes change in price
  - Explain why XED>0 (substitute): eg they both provide similar purpose of providing protein
- Identify concept tested:
  - Eg ELMS allows farmers to receive government payments → interpret as indirect subsidy.
    - Identify increase in post-subsidy revenue. \*PED is NOT relevant for post-subsidy TR to increase.
- Income:
  - Total revenue of producer (market of good)
  - Wage (labour market)
  - Depends on extract
- No part of the question is redundant. You must answer every part of the question.
  - In the event that the parts in the question lead to contrasting effects, and yet the question dictates a certain effect, it is fineeeee.
    - Eg Explain how subsidy increases income of farmers, as a result of doing the right thing. Part 1: doing the right thing → decreases TR. Part 2: subsidy: increases TR. Explain both, don't try to force fit explanation for part 1 to lead to increase in TR when it doesn't.
- Predominantly micro CSQ can feature macro questions.
- Income

- Real/nominal income only if the event involves change in price (inflation). % change real Y=% change nominal Y - % change in GPL
- Disposable income only if the event involves subsidy/tax. Yd=Y tax + subsidy
- Always identify the class of policy. Eg ELMS is an indirect subsidy. Workfare Income Supplement is government transfers.

# **Market Failure**

- MPB:
  - for consumers: be clear about the MPB of consuming food. X
     "Satisfaction" (vague). MPB refers to the nutrients gained from consuming unhealthy food.
  - for firms: MPB = revenue gained
- MPC:
  - for consumers:  $\times \underline{\text{cost}}$  of buying food  $\underline{\mathbb{V}}$  expenditure of buying food
  - for firms: cost of fop
- Identify market failure source(s), whether it is regarding consumption or production. If consumption, do everything in consumers' POV. If production, do everything in producers' POV. Eg reduction in subsidy (tax) increase MPC of producers cuz increase cost of selling. Don't link to producers passing on higher costs in terms of increased price —> consumers internalize MEC. Cuz market failure graph is based on the POV u are taking, so stick to it.
- If no market failure was set up previously, 1 KR is setting up of market failure.
- Tax/subsidy building blocks:
  - 1) tax/subsidy amount equal to MEB/MEC at Qs
  - 2) internalize
  - 3) shift curve
  - 4) new quantities, over/under consumption/production eliminated, DWL eliminated, allocative efficiency achieved
- Inequity is not a market failure, it is a separate issue. Wrong to state ... arises to another market failure due to inequity. Should be: this leads to inequity.
- Discuss whether policy A would reduce allocative inefficiency
  - $\circ~$  KR: market failure set-up and workings of policy
  - evaluation: limitation of policy.
- Discuss whether policy A should be implemented to address market failure
  - DM type, not policy
  - KR: market failure set-up, working of policy, <u>unintended consequences</u>

- Even if this question was set in a predominantly micro CSQ, unintended consequence should consider macro goals such as SOL
- $\circ$  evaluation: cost-benefit analysis, which outweighs the other.
- Information failure; asymmetric information
  - Define
  - Set up which stakeholder has more information
  - Essence of market failure: economic agent with less information will not be willing to pay high price for good, as they do not know whether good is high or low quality —> Other economic agent with more info will only be willing to offer low quality good —> economic agent with less info only can buy low quality good —> MB < MC, lower welfare, inefficient allocation of resources

# Firms

• use graph and elasticity to explain change in revenue:

marks for:

- 1. economic concept
  - eg increase taste and preference towards firm A's goods > increase demand
  - 2. eg make goods from firm A less substitutable > demand becomes more price inelastic
- 2. graph
  - 1. increase dd is illustrated by shift of AR from AR0 to AR1. dd=AR
  - 2. state changes in price and output
- 3. revenue explanation
  - 1. less/more than proportionate change in output
- Firm strategies
  - PD: state definition, conditions, exemplification of conditions, market graph (P and Q axes. Market graph acceptable only for PD)
    - Eval: firms may not have accurate estimation of PED
  - Product innovation: shift TASTES AND PREFERENCES
    - Eval: market structure, willingness/ability to innovate
  - Process innovation: firms pass on lower cost in terms of lower price (no IEOS, IEOS is a LR concept). Increase price competitiveness. Draw shifting of LRMC and LRAC
    - Eval: takes long time

- Advertisement: salience effect
  - Eval: less effective if other firms are also engaging in advertising, TR may not increase
  - Eval: involves additional cost. If additional cost outweighs additional increase in TR, then profit may not increase
- economies of scale
  - (output increase more than proportionately to increase in input due to increasing returns to scale)
  - increase in cost due to increased production is spread over an even larger output
  - LRAC falls
- BTEs
  - EITHER increased profit of existing firms (if any) > potential entrants are prevented from entering market
  - OR decreased profitability of potential entrants > potential entrants are prevented from making profit
  - [3m] identify and explain 2 BTEs. Qn wants 2 different examples of BTEs, not categories of BTEs. 1 mark for definition: a BTE is an impediment that prevents new firms from competing on an equal basis as existing firms.
  - Content:
    - Natural
      - nature of industry: natural monopoly. high capital outlay. MES occurs at a high level of output. existing firms produce at large output. enjoy very high technical eos. produce at lower ac than entrants.
      - nature of product: control of essential FOPs/limited access to market
    - Artificial
      - o legal
      - firm strategies eg advertising, limit pricing

## Content:

- IEOS:
  - plant/technical EOS:
    - specialisation & div of labour
    - better utilisation of indivisible fop
  - risk bearing
  - o financial

- managerial
- Marketing
- EEOS
  - concentration (training facilities, maintenance)
  - information (share r&d)
  - disintegration (outsource)
- Explain impacts of high market dominance on society (essay)
  - 1 cause, 1 effect --> adopt thesis-antithesis approach
  - Society --> MUST write about EFFICIENCY
- PVICE
  - Price
    - High market dominance (B) > High price setting ability > firm faces downward sloping demand curve > small number of firms/low level of competition © > little close substitutes > PED<1 > when price inc, qty dd dec less than proportionately
    - / IEOS, enjoy lower prices
  - Innovation
    - Process innovation
      - IEOS, lower ave cost, productive efficiency, lower price
    - Product innovation
  - Consumer welfare
  - Efficiency
    - Allocative efficiency
      - P>MC, DWL
    - Productive efficiency
      - X inefficiency
        - Due to lack of competition > firm becomes complacent > become lax about cost controls, spend on unnecessary items such as gold taps > produce at higher average cost, above LRAC
        - Although firm produces at higher ave cost, it can still earn supernormal profit because of high BTEs
    - Dynamic efficiency
      - Product & process innovation
  - Eval: whether net cost or gain depends on level of competition
- Price rigidity
  - Mutual interdependence, price rigidity, kinked demand curve theory

- Price elastic above, inelastic below
- $\circ~$  Explain cases when firm increases and decreases price  $\rightarrow$  decrease TR and profit cuz deviate from profit max outcome
- Explain MC can vary between a range, P and Q will still remain constant at profit max point

# **General CSQ**

- Don't just quote words from extract. Quote the full thing (including example, details, extract number).
- Eval: when you use the word "if", remember to explain why you supposed so. Eg If healthier food is more expensive (why?), consumers are less willing to switch to healthier food. (why?) More ex cuz higher COP. Less willing to switch cuz net utility derived from consumption of healthier food is less than that from consumption of unhealthy food. Keep asking WHYYYY!!
- Eval must be from extract. You are constrained. If you offer a theoretical eval, it will be rehearsed.
- Summative eval must take a stand.
- determining topic
  - if qn is on effects on PS of a market > PS of <u>all</u> producers > ddss
- qns about effects using graphical illustration
  - strategy: before, during, after
  - eg before: PC mkt, P0, Q0. during: collude, restrict output, increase price. after: new supply, P1, Q1
- marks allocated for extract evidence for 3-5 mark qns
- 8m hots csq 1 intermediate evaluation + 1 summative evaluation
  - (summative eval is a further weighing of ur evaluation so summative eval should not bring in new eval points. eg of summative eval: depends on ...
     - the ... refers to thing u wrote about in intermediate eval). Need to value add, make a stand.
- comparison qns
  - similarities & differences
  - difference:
    - compare extent of change
    - phrasing: increase was largest for A, followed by B, and then/finally C. (need the "then", cuz "and" doesn't imply that C is last place)
- Always good to give definitions

- Eg qn asking for effects on consumer surplus
- Mark allocation: dir & magnitude
  - Eg explain the reason for the large increase. 1m increase (EG--> PP--> YED>0 --> dd increase). 1m larger (eg YED>1, more than proportionate increase)