Market Failure and Government Intervention Cheat Sheet

Important Definitions:

Market Failure = The failure of the free market to allocate resources in an optimum and efficient manner and to achieve social goals like equity
Government Intervention = Government implementation of market or non-market oriented policies so as to correct market failure
Externalities = Occur when there are third party costs (negative) or benefits (positive) associated with the production or consumption of a good
Demerit goods = Goods that the government deems to be undesirable for consumers and the rest of society but are over-consumed by society
Merit goods = Goods that the government deems to be desirable for consumers and the rest of society but are under-consumed by society
Public goods = Goods that are non-excludable and non-rivalrous
Allocative Efficiency = Situation where society produces and consumes a combination of goods and services that maximise society's welfare.

Sources of Market Failure:

1. Externalities
    - Definitions:
        - Occur when there are third party costs or benefits associated with the production or consumption of a good
    - Effects:
        - Negative externalities ⇒ MEC is the divergence
        - Positive externalities ⇒ MEB is the divergence
        - Externalities in production ⇒ Divergence between MPC and MSC
        - Externalities in consumption ⇒ Divergence between MPB and MSB
    - How to explain:
        1. Private costs and benefits (brief)
        2. Divergence in MC/MB curves due to external costs/benefits
        3. Free-market outcome (MPB = MPC) since economic agents only pursue self-interest
        4. Socially optimal output (MSB = MSC)
        5. Over/Underproduction of the good
        6. Deadweight welfare loss
            - Difference between MSB and MSC
        7. Allocatively inefficient
    - Solutions:
        - Taxes/Subsidies
        - Quotas
        - Tradable Permits
        - Government Provision (Positive externalities)
        - Education
            - ∴ Must educate about mindset change to care about social

outcomes (appeal to their sense of social responsibility)

2. Merit
    - Definitions:
        - Goods that the government deems to be good and desirable for consumers and the rest of society
    - Causes:
        - Imperfect Info
            1. Explain why the government considers the good a merit good
            2. State that consumers underestimate/overestimate their private benefits and/or costs of consuming the goods
            3. State that demand under imperfect information is lower than the demand under perfect information
            4. Free-market outcome
            5. Socially optimal output
            6. Underconsumption of the good
            7. Deadweight welfare loss
            8. Conclusion
        - Positive Externalities in Consumption
        - Excessive income inequality → Equity concerns
            1. Explain why the government considers the good a merit good
            2. Individual's ability to consume goods and allocation of resources in the free market is based on the dollar vote
            3. Free market does not respond to the needs and wants of people with insufficient dollar votes
            4. Demand with excessive income inequality is lower than the demand without excessive income inequality
            5. Free-market outcome
            6. Socially optimal output
            7. Underconsumption of the good
            8. Deadweight welfare loss
            9. Conclusion
    - Solutions:
        - Subsidies
        - Government Provision
        - Education (esp for imperfect info)
3. Demerit Goods
    - Definitions:
        - Goods that the government deems to be harmful and undesirable for consumers and the rest of society
    - Causes:
        - Imperfect Info
        - Negative Externalities in Consumption
    - Solutions:
        - Taxes
        - Education (esp for imperfect info)
4. Public Goods
    - Definitions:

        - Goods that are non-excludable and non-rivalrous
        - Non-excludable = Impossible or very costly to exclude non-payers from consuming the good once it is provided
        - Non-rivalrous = Consumption of the good by an additional person does not reduce the amount available to the others
    - How to explain:
        - State and explain why the good is non-excludable
        - Non-excludability ⇒ Free-rider problem ⇒ Consumers send the wrong price signal of zero market demand ⇒ No effective demand ⇒ TR=0 ⇒ No profit-maximising firm will produce the good when TR=0 ⇒ Missing market problem
        - State and explain why the good is non-rivalrous
        - Non-rivalry ⇒ MC (of allowing an additional user to consume the good)=0 ⇒ Allocatively efficient at P=MC=0 ⇒ However, no firm will produce at P=0 ⇒ Allocatively inefficient for the government to allow a private firm to produce the good
        - Need for the government to intervene in the market for public goods to solve the missing market problem and make it available at the price of zero for the consumers.
    - Solutions:
        - Government Provision
5. Imperfect Info
    - Types:
        - Merit/Demerit goods
        - Persuasive advertising
            - Firms oversell the benefits and undersell the costs of the good by giving misleading information ⇒ Consumers unaware of true costs and benefits of the good ⇒ DD under imperfect info > DD under perfect info ⇒ Overconsumption of the good
            - Consumers pressured into consuming the good through scare tactics/time limited deals
        - Asymmetric information
            - Difference in level of knowledge between consumer and producer
            - Knowledge of one party derived solely from the other party ⇒ Can inform the other party in a way that increases DD/SS so that that party can benefit from it through higher TR/lower TE
            - e.g. Doctors and patients
            - e.g. Insurance agencies and consumers
    - Effects:
        - Consumers underestimate/overestimate their private benefits/costs of consuming the goods
        - DD under imperfect info lower/higher than under perfect info
    - Solutions:
        - Taxes/Subsidies

        - Education
6. Market Dominance
    - Effects:
        - High allocative inefficiency
        - Possibly high productive inefficiency
        - ↓ Consumer surplus
        - Exacerbates income disparity due to exorbitant profits of monopolist
    - How to explain:
        - Profit-maximising firm choose to set output at output level where MR = MC and MC is rising ⇒ P>MC ⇒ Allocatively inefficient at profit-max level
        - High market share ⇒ Highly price inelastic demand curve ⇒ ↑ extent of P>MC ⇒ ↑ extent of allocative inefficiency
    - Solutions:
        - Economic inefficiency
            - Per-unit subsidies to increase output
            - Anti-trust
                - Curb collusive behaviour
                - Preventing mergers/acquisitions
            - Pro-competition laws
                - Increase level of competition by reducing BTE
            - Privatisation + Price regulation (MC/AC pricing)
            - Nationalisation
        - Income inequality
            - Anti-trust/Pro-competition laws
                - Increase level of competition by reducing BTE
            - Privatisation + Price regulation (MC/AC pricing)
            - Nationalisation
            - Lump sum tax on monopolist
7. Immobility of Factors of Production
    - Sources:
        - Occupational Immobility = Barriers to mobility of factors of production between different industries
            - Industry-specific skilled labour and capital inputs
        - Geographical Immobility = Barriers to movement of decision makers (households/firms) between areas
            - Labour unable/unwilling to move to regions where there is higher demand for their skills due to
                - Family and social ties
                - Financial costs involved
                - Differences in cost of living between regions
    - Effects:
        - Structural unemployment
        - High unemployment ⇒ Resources not fully utilised ⇒ Loss of potential output ⇒ Productive inefficiency
        - Hysteresis

        - Those laid off for prolonged periods may become deskilled and demoralised ⇒ ↓ Productive capacity of the country
    - Solutions:
        - Vocational training/Education for workers
        - Ads/Job fairs for job situations in other regions
        - More affordable rental costs/property costs
8. Income Inequality
    - Causes:
        - Globalisation
            - Developed countries:
                - Inflow of cheap foreign labour depresses wages for domestic unskilled labour to a greater extent than for skilled labour ⇒ ↑ income inequality
            - Developing countries
                - Some industries grow faster than others due to specialisation and international trade ⇒ ↑DD for workers in industries which the country specialises in ⇒ Faster ↑ in wages of workers in industries which the country specialises in compared to other workers
        - Different DD-SS conditions in the market for different jobs
            - Could be due to strong trade unions/discrimination in which case is undesirable
            - However, usually desirable as it is allocatively efficient
        - Monopoly power
        - Unequal factor endowments for non-wage incomes (e.g. rent, interest, profits)
        - Inequalities in access to education
            - e.g. Private schools that have higher quality education
            - e.g. Tuition centres
    - Effects:
        - Free market allocates goods and services based on dollar votes and hence, income level
        - Income determines effective demand (i.e. willingness + **ability** to consume) which is what matters in a market based system
        - High income ⇒ Higher dollar votes ⇒ Able to determine what should be produced ⇒ Profit maximising firms divert scarce resources into production of luxury goods for the rich, away from necessities for the poor ⇒ Over-allocation of resources into production of luxury goods and under allocation of resources into necessities ⇒ Society's welfare not maximised ⇒ Allocative inefficiency
        - In the case of merit goods, the problem of allocative inefficiency becomes more acute: Ideally, all citizens should have a minimum level of healthcare/education services. However, low income workers are willing to consume some essential goods & services but are unable to afford them

        - Effective DD under income inequality, DD_0, is lower than DD under perfect income equality, DD_1 ⇒ Free market allocates scarce resources based on dollar vote ⇒ Produce at output where DD_0=SS
        - However, socially optimal output level is where DD_1=SS ⇒ Under-consumption of education ⇒ Misallocation of resources as free market does not respond to the needs and wants of those that do not have the ability to pay ⇒ Allocative inefficiency ⇒ DWL
        - Reduces mSOL of residents in the country
        - Can be desirable if it pushes workers to raise productivity to get higher wages
    - Solutions:
        - Tax (Progressive) + Redistribution of income through transfer payments
        - Skills upgrading for low income workers
        - Tightening of immigration policy for unskilled foreign workers
        - Minimum wage

Types of Government Intervention:
<u>Taxes</u>

- Specific Indirect Tax/Pigouvian Tax
    - How it works:
        - Tax = Compulsory payment made to the government
        - Levy a specific tax (on output/pollutants) = Value of MEC at output OQ_s
        - Increases COP ⇒ ↑ MPC + ↓ SS curve by Indirect Tax
        - ↓ Free market equilibrium output level to socially optimal output
        - Over allocation corrected ⇒ DWL eliminated
        - (Externalities) External costs are internalised
    - Targets:
        - Goods with negative externalities
        - Demerit Goods
        - Imperfect info
    - Advantages:
        - *Tax revenue to finance other projects
        - *Allows market forces to operate
            - Price can continue to serve its functions
        - *Financial incentive for behavioural changes if tax is levied on pollution rather than the product
            - e.g. Spur firms to adopt new technologies to reduce negative externalities
        - *Flexibility to adjust tax rates
        - Effects more certain
        - Easily implemented
    - Limitations
        - *Difficult to accurately value external costs ⇒ Imperfect info ⇒ May still be

allocatively inefficient after tax
        - *Effectiveness restricted by PED → For price inelastic goods, higher tax required to achieve desired reduction in output
        - Regressive tax (poor have to pay larger proportion of income) ⇒ Exacerbates income inequality
        - Administrative costs incurred in collecting information to assess amount of taxes that is payable
        - ↑ Taxes ⇒ ↑COP ⇒ ↑P of G&S ⇒ Inflation + ↓ Export competitiveness
        - Does not address the root cause of imperfect information
        - High taxes may be politically unpopular
            - Penalises firms in countries with such a system ⇒ Less competitive in the global market (esp for pollution)

<u>Subsidies</u>

- Subsidy
    - Effects:
        - Subsidy = Payment made to consumers (direct)/producers (indirect) by the government and is equivalent to a decrease in the cost of production
        - For Indirect:
            - Government provides indirect subsidies = Value of MEC/MEB at output OQ_s
            - Decreases MPC (rightward shift) by Indirect Subsidy
            - ↑ Willingness and ability to produce ⇒ ↑SS by private firms
        - For Direct:
            - Government provides indirect subsidies = Value of MEB at output OQ_s
            - Increases MPB (rightward shift) by direct subsidy
            - ↑ Purchasing Power ⇒ ↑ Willingness and ability to pay ⇒ ↑DD
        - ↑ Free market equilibrium level to socially optimal level
        - Under consumption corrected ⇒ DWL eliminated
        - (Externalities) Positive externalities internalised
    - Targets:
        - Goods with positive externalities
        - Merit Goods
        - Imperfect info
        - Income Inequality
    - Advantages
        - Easily implemented → Most effective for positive externalities
        - Allows market forces to operate
        - Flexibility to adjust subsidies
        - Effects more certain
    - Limitations
        - Needs to be financed ⇒ Opportunity costs

        - Higher tax rates might discourage work effort, savings and investment
    - Imperfect info
    - Needs to have appropriate level of subsidies so that the people do not become over dependent on subsidies from the government

<u>Direct Government Provision</u>

- Complete Provision
    - How it works:
        - Government supplies all of the good/service for free funded through taxes as the free market does not provide public goods
    - Targets:
        - Public goods
    - Advantages:
        - Solves missing market problem (only feasible option)
    - Disadvantages
        - Lack of profit motive ⇒ May be X-inefficient
        - Difficult to measure the social benefits and social costs since it displaces the price mechanism → no signalling function
            - Need to estimate value of the good to consumers via cost-benefit analysis in order to decide how much of the good to produce
            - Estimate through surveys/votes → However, not very accurate as consumers do not have to pay for it ⇒ May over declare the benefit to them
        - Needs to be financed through tax revenue ⇒ Opportunity costs
- Supplement Private Provision
    - Effects:
        - Government supplies some of the good/service at a cost/for free in addition to private provision
    - Targets:
        - Merit goods
        - Goods with positive externalities
    - Advantages:
        - Control over supply of goods (can produce at allocatively efficient output)
        - Control over quantity, quality and affordability
    - Disadvantages
        - Lack of profit motive ⇒ May be X-inefficient
            - Employees have no incentive to keep costs low
        - Difficult to measure the social benefits and social costs since it displaces the price mechanism → no signalling function
            - Need to estimate value of the good to consumers in order to decide how much of the good to produce and the price to charge using cost-benefit analysis
            - Estimate through surveys/votes

        - Needs to be financed through tax revenue ⇒ Opportunity costs
- Nationalisation
    - Effects:
        - Acquisition of private firm by public sector
    - Targets:
        - Market dominance
    - Advantages:
        - Control over supply of goods (can produce at allocatively efficient output)
        - Control over quantity, quality and affordability
        - Where there are high barriers to entry due to high startup costs ⇒ Private firms unable to undertake such production during initial years of heavy losses
        - Due to social/political reasons e.g. production of notes, weapons, nuclear fuels which are of strategic importance
    - Disadvantages
        - Lack of profit motive ⇒ May be X-inefficient
        - Needs to be financed ⇒ Opportunity costs

<u>Government Regulation</u>

- Quota
    - Effects:
        - Impose limit on quantity produced at socially optimal output level, OQ_S where MSB=MSC
        - Lowers output level from free market equilibrium output level to socially optimal output level
        - Eliminates deadweight welfare loss
    - Targets:
        - Goods with negative externalities
    - Advantages:
        - Easy to implement
        - Greater certainty than taxes
    - Disadvantages:
        - Displaces price mechanism ⇒ Price no longer performs signalling function
            - Government needs to predict socially optimal output level
            - However, Imperfect info → Difficult to determine socially optimal level ⇒ May still be allocatively inefficient if quota greater/lower than socially optimal output level
        - No market-based incentives to reduce below quota
        - Difficult to enforce + High costs for enforcement
        - Politically unpopular
        - Penalties must be sufficiently harsh
- Banning of certain goods/services (i.e. extreme case of quota)
    - Effects:

        - Reduces output of the good/service to 0
    - Targets:
        - Goods with negative externalities
        - Demerit goods
    - Advantages
        - Easy to implement
        - Greater certainty
        - Allocatively efficient if MSC is so high/MSB is so low that MSB=MSC at output of 0
    - Disadvantages
        - High costs for enforcement
        - Possible for rules to be side stepped
        - Displaces price mechanism ⇒ May lead to formation of black market
        - May be allocatively inefficient as unable to reap marginal social benefits
- Tradable permits
    - Effects:
        - Impose quota on total permits in the market at socially optimal output level of pollutants
        - Lowers output level from free market equilibrium output level to socially optimal output level
        - Eliminates deadweight welfare loss
        - Permits can be traded among firms
            - Extra permits sold by firms to firms that require more permits
            - Penalises buyer and rewards the seller
        - Price of permits determined by market DD and SS (set by no. of permits ⇒ perfectly price inelastic supply)
    - Targets:
        - Goods with negative externalities (Mainly for pollutants)
    - Advantages
        - Flexibility in progressively changing number of permits issued ⇒ No need for accurate valuation of external costs
        - Firms with lower abatement cost can sell their permits to firms with higher abatement cost ⇒ Lower costs incurred by society
            - Abatement cost = Cost of reducing pollution
        - Greater certainty than taxes
        - Incentive for firms to reduce pollution further through R&D
    - Disadvantages
        - External costs may be underestimated ⇒ No. of permits too high ⇒ Permits underpriced ⇒ Little incentive to reduce output
        - Makes market less competitive → Favours bigger firms which have the ability to pay for permits + Availability of funds to invest in environmentally friendly production technology
        - Imperfect info → Difficult to determine socially optimal level
        - Difficult to distribute in a fair way
        - Difficult to enforce + High costs for enforcement

        - Politically unpopular
            - Penalises firms in countries with such a system ⇒ Less competitive in the global market
        - Penalties must be sufficiently harsh

Public Education

- How it works:
    - For imperfect info:
        - Raise awareness of true costs/benefits to individual
    - For externalities:
        - Knowledge of externalities does not affect consumers' choices as they still only pursue self interest
        - Change mindset of individual to care more about social outcomes
        - Appeal to firm's/individual's sense of social responsibility
    - Change consumers' taste and preferences to/away from good/service
    - Encourages/discourages demand for the good/service towards DD under perfect info
    - Corrects under/overconsumption of the good
    - Reduces deadweight loss
- Targets:
    - Goods with externalities
    - Merit/Demerit goods (imperfect info)
    - Imperfect info
- Advantages
    - Long term solution
    - (For imperfect info) Targets the root of the problem that is imperfect info and changes the behaviour of the individuals themselves
- Disadvantages
    - Difficult to change mindset of some individuals (esp for externalities)
    - Expensive
    - Requires long time
    - Difficulty in collecting and disseminating all necessary info
- Should be used in conjunction with other punitive measures in the short term e.g. Taxes

Targeting Market Dominance

Taxes/Subsidies

- Lump Sum tax on monopolist
    - Effects:
        - Impose lump sum tax on the monopolist
        - ↑TFC ⇒ ↑AC but MC constant ⇒ Profits continue to be maximised at MC=MR ⇒ ↓ Supernormal profits ⇒ ↓ Income inequality
    - Targets:

        - Market dominance
    - Advantages
        - Tax revenue can be used to subsidise smaller firms/redistribute to lower income households
    - Disadvantages
        - ↓ ability to engage in R&D ⇒ ↓ Dynamic efficiency
        - Does not address allocative inefficiency due to monopoly power of the firm
        - Conflicts with goals of economic growth as it may discourage domestic and foreign investment ⇒ ↓AD
- Per unit subsidy
    - Effects:
        - Provide per unit subsidy to firms
        - Reduces MC such that profit maximising output where MC=MR of firm is at allocatively efficient output level
        - Reduces AC
    - Targets:
        - Market dominance
    - Disadvantages:
        - Further increases supernormal profits of monopolist ⇒ Exacerbates income inequality
        - Needs to be financed ⇒ Opportunity costs

<u>Price Regulation</u>

- MC Pricing
    - Effects:
        - Prices set at P=MC
        - Output increased to socially optimal output level OQ_S where P=MC
        - Allocatively efficient output is achieved
        - Corrects underproduction
        - Eliminates deadweight welfare loss
    - Targets:
        - Market dominance
    - Advantages
        - ↓P and ↑Q, CS
        - Reduces supernormal profits of the monopolist ⇒ Reduces income inequality
    - Disadvantages
        - Results in losses for the firm ⇒ Need for govt funding to subsidise firm due to subnormal profits ⇒ Opportunity cost incurred
        - OR need to use 2 part tariff where users pay fixed sum in order to obtain access to the services and then pay per unit price which reflects the marginal cost of production

        - Imperfect info → Firm may distort information about demand and cost curves to charge higher prices
- AC Pricing
    - Effects:
        - Prices set at P=AC
        - Output increased to output where P=AC, towards socially optimal output level
        - Reduces extent of allocative inefficiency
        - Reduces underproduction
        - Reduces deadweight welfare loss
    - Targets:
        - Market dominance
    - Advantages
        - Monopolist is allowed to break even (i.e. normal profits)
        - ↓P and ↑Q, CS
        - Reduces supernormal profits of the monopolist ⇒ Reduces income inequality
    - Disadvantages
        - Still allocatively inefficient
        - Imperfect info → Firm may distort information about demand and cost curves to charge higher prices

<u>Legislation</u>

- **Anti-trust laws
    - Effects:
        - Prohibits anti-competitive practices (e.g. collusion, price fixing, predatory pricing, mergers/acquisitions)
        - Allows break up of monopolies
        - Prevents some mergers/acquisitions from occuring
        - Prevents firms from gaining monopoly power ⇒ ↓ extent of allocative and productive inefficiency + ↓ supernormal profits ⇒ ↓ income inequality
    - Targets:
        - Market dominance
    - Advantages:
        - Easy to implement
        - Short implementation time
        - Monopolists compelled to comply through harsh penalties
    - Disadvantages:
        - Difficult to enforce + High costs of enforcement
        - Penalties must be sufficiently harsh
        - Hard to prove anti-competitive agreements/practices
        - Break up of monopolies may reduce ability of firms to reap iEOS
        - Cannot be used for natural monopolies as market demand is unable to support more than one firm

        - May produce wasteful duplication (e.g. 80% of people want to watch World Cup finals and other 20% of people want to watch opera → If there were 2 competing stations, both stations would screen the match BUT If there was a 2-channel monopoly, they would screen the match on one channel and the opera on the other channel
- Liberalisation/Deregulation
    - Effects:
        - Reduce BTE to encourage new entrants into industry to increase competition
        - Decrease demand and increase PED for individual existing firms
        - Reduce extent of allocative inefficiency and equilibrium price
        - Reduce supernormal profits ⇒ ↓ income inequality
    - Targets:
        - Market dominance
    - Advantages:
        - Easy to implement
        - Short implementation time
    - Disadvantages:
        - Requires financing if government chooses to subsidise high start-up costs ⇒ Opportunity costs
        - Increased competition may reduce output of firms ⇒ Reduced ability to reap iEOS

Targeting Factor Immobility

- Occupational immobility
    - Education/Retraining policies for sunrise industries
        - Invest in retraining schemes for unemployed
            - Equip unemployed with skills needed to become employed in industries that need more labour
        - Tailor education policies towards needs of the industries
            - e.g. Reintroduction of further maths as Singapore has a need for more engineers
        - Subsidise vocational training by private firms
            - Positive externalities in consumption ⇒ Underconsumption of vocational training
    - Protectionism for sunset industries
- Geographical immobility
    - Increase awareness and information on job situations
    - Subsidise costs of relocating to the new location
        - e.g. Build housing close to working location to provide workers that migrate to that area to work and subsidise rental; Build schools for workers' children in the area
    - More efficient transport network within the country
- Limitations:

- Long time period for effects to be seen
- Workers may be resistant to new policies
- Some may require government funding ⇒ Opportunity cost incurred

Targeting Income Inequality

- Minimum wage
  - How it works:
    - Set minimum wage above the free market equilibrium wage ⇒ Workers who are able to find jobs are paid the minimum wage and become better off due to the higher wages ⇒ Narrows income gap as unskilled labour earns higher wages
  - Examples:
    - Progressive wage model in Singapore where wages of low skilled workers are set to earn a higher entry level basic wage of at least $1000
  - Limitations:
    - Results in surplus of labour ⇒ May increase unemployment as firms cut back on number of workers employed ⇒ Some workers worse off as they are retrenched
    - Raises cost of production to firm ⇒ ↓ attractiveness to foreign and domestic investment + {Wage-push inflation ⇒ Domestic goods become relatively more expensive ⇒ ↓X + ↑M}
    - Wage push inflation ⇒ ↑ cost of living ⇒ Diminishes increase in real incomes
  - Evaluation:
    - Reduce minimum wage floor + Complement with retraining policies
- Raise productivity to increase demand for workers through training programmes
  - How it works:
    - Subsidies + Incentives for employers to send workers for skills upgrading courses ⇒ ↑ productivity of workers ⇒ ↑DD for these workers ⇒ ↑ wages for better skilled workers ⇒ ↓ income gap
  - Examples:
    - Skills Development Fund
    - Workfare Training Support scheme → Govt subsidises employers up to 95% of fees incurred in sending low income earners for approved upgrading courses + Workers get cash incentives for completing the upgrading courses
    - SkillsFuture Credit Scheme → Encourage individuals to take ownership of their skills development and lifelong learning by providing Singaporeans aged 25 and above a $500 opening credit
  - Limitations:
    - Requires financing ⇒ Opportunity costs
      - May increase DD-pull inflation in SR

        - Takes a long period of time
        - May not guarantee improved labour productivity
        - Enrolment by workers into such courses may be low due to poor employer support
        - Success depends on receptiveness of workers since learning curve for each worker is different (e.g. older workers)
        - Limit to how much productivity of low wage workers can increase in order to seek higher wages
    - Evaluation:
        - Use education campaigns/advertisments to raise awareness and correct imperfect info about the training courses
        - Ensure that courses offered are updated constantly so that labour force remains dynamic and employable in industries that align with Singapore's CA
        - Offer retraining and upgrading courses in different languages to improve receptivity and enhance effectiveness of these programmes
- Tighten immigration policy for low skilled workers
    - How it works:
        - ↓SS of foreign unskilled labour ⇒ ↑ wages for domestic unskilled labour, ceteris paribus ⇒ ↓ income gap
    - Examples:
        - Raise foreign worker levy
        - Restrict no. of work permits issued
    - Limitations:
        - Reduces productive capacity of the economy
        - Increases cost of production to firm as ↓SS of workers ⇒ ↑ wages ⇒ ↓ attractiveness to foreign and domestic investment + {↑COP ⇒ ↓AS ⇒ Wage-push inflation}
    - Evaluation:
        - Review criteria for employment of low skilled workers to augment local labour supply instead of restricting all types of low-skilled foreign workers
- Progressive taxes + Redistribution of income through transfer payments
    - How it works:
        - Higher income groups pay a higher marginal tax rate → Additional dollar of income is taxed at a higher rate than the last ⇒ ↓ disposable income of higher income earners as they pay a higher proportion of their income in taxes
        - Tax revenue used to finance transfer payments to lower income families
    - Limitations:
        - ↓ disposable income due to higher taxes ⇒ ↓ opportunity cost in consuming an extra hour of leisure ⇒ Disincentive to work assuming substitution effect outweighs income effect
        - ↑ unemployment benefits ⇒ Less incentive to work
        - ↓ disposable income ⇒ ↓ savings ⇒ ↓SS of loanable funds ⇒ ↑ir ⇒ ↓I

        - Administrative costs of redistribution programme → Okun's leaky bucket (poor receive less than what is collected from the rich)
- Government provision of merit and public goods
    - How it works:
        - Government largely subsidises key services such as education, healthcare and public housing ⇒ Poor able to afford these necessities regardless of income level ⇒ ↓ financial burden on the lower income groups ⇒ Frees up disposable income for other goods and services ⇒ Addresses problems created by income inequality
        - ↑ standards of education and healthcare ⇒ ↑ social mobility ⇒ Future generations not trapped in vicious poverty cycle
        - e.g. Financial Assistance Scheme in schools and Edusave accounts for students
    - Limitations:
        - Require financing ⇒ Incurs high opportunity cost
        - Rich also able to enjoy subsidies for these goods ⇒ Even greater opportunity cost incurred
    - Evaluation:
        - Need more stringent means testing system in order to better sieve out the higher income earners who should not be eligible for such subsidies