

H2 Economics Globalisation Essay Pack



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This document is intended as a comprehensive set of analytical points designed to answer most questions, based primarily on ideas raised in the NJC 2024 H2 Economics Chapter 15 Seminar Notes. While the primary function of this set of notes is to provide analytical answers, learning objectives are provided at the top of each essay as a study guide for content learning.

0 Definitions and Key Clarifications

International Trade is defined as the transaction in goods and services between countries.

- Trade can refer to both the volume (Q_x and Q_M) and value (X and M) of exports and imports.

A country has a **Comparative Advantage** over another country in the production of a good if it can produce it at a lower opportunity cost, i.e. it has to forgo less of other goods in order to produce it.

The **Theory of Comparative Advantage** states that trade can benefit all countries if they specialise and export the goods in which they have a comparative advantage in producing.

Dynamic comparative advantage refers to a country's comparative advantage changing over time due to changes in factor endowments.

Pattern of Trade refers to the trends in the flow of goods and services between countries. It reflects which countries trade with each other, the types of goods and services they exchange, and the volumes involved.

Trade liberalisation refers to the removal or reduction of trade barriers, such as tariffs, quotas, and regulations, to encourage free trade between countries.

Protectionism refers to the use of tariff and non-tariff policies as barriers to free trade imposed by a government to protect domestic industries.

Free trade agreements (FTAs) aim to lower trade barriers and promote international trade as well as capital flows between countries.

Globalisation refers to the increasing integration of national economies in terms of financial flows, trade, movement of factors of production, ideas, and changes in information and technology.

1 Theory of Comparative Advantage

- 1** In order for specialisation to be beneficial, it must be accompanied by exchange.
- (a)** Explain how benefits to the economy can arise from specialisation and exchange. [10]
- (b)** Very often these benefits are not fully achieved in domestic and international markets. Discuss the reasons for this. [15]

2014 'A' Levels P2

Learning Objectives

- Distinguish between comparative advantage and absolute advantage.
- Understand the theory of comparative advantage as a basis for specialisation and trade.
- Understand that free trade is traditionally considered to be an economic activity which benefits all countries.
- Analyse the reasons for not trading by discussing the limitations of the theory of comparative advantage.

1 (a) The theory of comparative advantage states that trade can benefit all countries if they specialise and export the goods in which they have a comparative advantage, meaning the country can produce those goods at a lower opportunity cost.

- *This suggests that even if a country can produce all goods at lower opportunity costs compared to other countries, countries involved can still benefit from trade if each country specialises in producing the goods for which it has the lowest opportunity costs and trades them for goods produced by other countries. Therefore, specialisation is considered to be the main benefit of free trade.*

Assume that two countries produce two homogeneous (identical) goods, whereby factors of production are homogeneous (equally productive) and perfectly mobile within the country but not homogeneous and immobile across countries. Further assume that there are constant returns to scale, no transport costs and no barriers to trade.

- *These assumptions are used as a basis for the limitations of the theory of comparative advantage. They can be used to explain why countries trade despite not having comparative advantage, or why countries do not trade despite apparently having comparative advantage.*

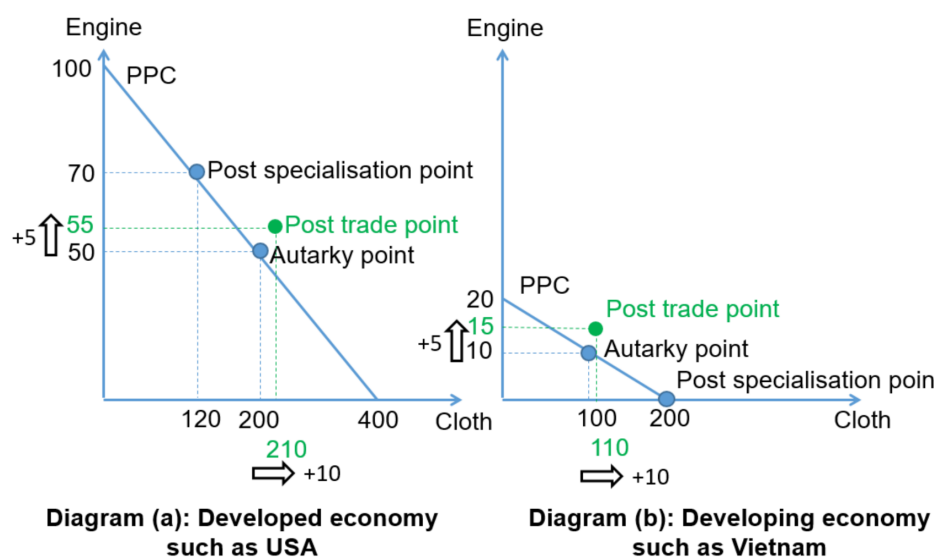
Before specialisation, if countries were self-sufficient, a country like the US may produce $0Q_{C1}$ units of cloth and $0Q_{E1}$ units of engines in Fig 1 while a country like Vietnam may produce $0Q_{C1}$ units of cloth and $0Q_{E1}$ units of engines in Fig 2.

- *Notice that Q_{C1} for the US is larger than Q_{C1} for Vietnam and the same is true for the output of engines. This implies that the US can produce both goods at a lower absolute cost and hence with less resources compared to Vietnam. Hence, the US has an absolute advantage in producing both goods.*
- *Hence, differences in absolute advantage is not the main reason for trade because then the US would have no incentive to trade at all in this scenario since it produces both goods at a lower cost.*

If the US and Vietnam have lower opportunity costs and thus comparative advantages in the production of engines and cloth respectively, they should specialise in the production of engines and cloth respectively, by allocating more resources to producing the respective goods. This would mean each country forgoes less of the next best alternative good in producing the good they specialise in and hence the same number of world resources are allocated more efficiently to produce a greater world output compared to the combined output of the countries when they tried to be self-sufficient and allocated resources to produce all the goods by themselves. (The US now produces $0Q_{C2}$ units of cloth and $0Q_{E2}$ units of engines in Fig 1 while Vietnam now produces $0Q_{C2}$ units of cloth and $0Q_{E2}$ units of engines in Fig 2.)

- *This is typically explained in textbooks and notes with numerical illustration. It is useful to read these resources, however, our syllabus states that while an understanding of the Theory of Comparative Advantage, in terms of opportunity cost, is required, numerical illustration of the Theory of Comparative Advantage is not required. A paragraph explaining the theory of comparative advantage without numerical illustration is provided in essay 4.*

Assuming a mutually beneficial term of trade which lies between the opportunity cost ratios of the countries involved in trade, the consumption point of each country as illustrated by point A in Fig 1 and point B in Fig 2 can go beyond their respective PPCs. The US consumption of cloth and engines have increased to Q_{C3} and Q_{E3} in Fig 1 while Vietnam's consumption of cloth and engines have increased to Q_{C3} and Q_{E2} in Fig 2. Both countries gain from higher consumption of both the goods with specialisation and trade thus residents of both countries can have higher material living standards as they consume more goods and services to satisfy more wants and needs, assuming no change in population size.



Key Requirement 2: (another benefit of specialisation & trade)

- *Required but not the focus of this part of the notes. It will be covered under Globalisation.*

Important Learning Points

1. Do not memorise the numbers in the diagram above. It is only important to label the extreme ends of each PPC (100 and 400 for the US, 20 and 200 for Vietnam) to demonstrate knowledge that despite having absolute advantage, the US can still benefit from trade due to differences in comparative advantage. The other values can be replaced with Q labels.
 - a. You must draw the autarky (self-sufficiency) point. You must draw the post-trade point. You do not have to draw the post-specialisation point. At the autarky point, the output of both goods must be lower than the output of both goods at the post-trade point.
 - b. The relative steepness of the slopes of the curves tells you which country has a comparative advantage in producing which goods. A steeper gradient tells you a country has comparative advantage in producing good Y, while a gentler gradient tells you a country has comparative advantage in producing good X. When a country's gradient becomes steeper, it gains a comparative advantage in producing good Y, and for good X when it becomes gentler.
2. Countries will export goods that they have a comparative advantage in while they import goods that they do not have a comparative advantage in. This is because they will be able to import the goods which they do not have a comparative advantage in by forgoing less of the production of the goods they specialise in, compared to if they were self-sufficient.
3. Factors of production must be immobile across countries because if they were mobile, then a country would simply import the factors of production from abroad which are more efficient at producing certain goods. Essentially, this would make it unclear whether trade is actually beneficial or not. In reality, factors of production can be immobile across countries due to regulations, but this is not necessarily the case.
4. Numerical analysis might be required for case study questions. Therefore, it is important to understand a few main things about numerical analysis. The terms of trade is considered to be mutually beneficial when it is between the opportunity cost ratios. In the example below, it is 1 wheat: (4, 10) cloth. Generally, we pick 1 wheat: 6 cloth because it's the midpoint. Anywhere between 4 to 10 cloth will be beneficial.

<u>Before Trade</u>	<u>After Trade (Desired Outcome)</u>
If Singapore gives up 1 wheat, Then Singapore gets 4 cloth	If Singapore gives up 1 wheat, Singapore wants to get > 4 cloth
If Malaysia gets 1 wheat Then Malaysia has to give up 10 cloth	If Malaysia gets 1 wheat Malaysia wants to give up < 10 cloth
Terms of Trade: 1 wheat: 6 cloth	

5. The Theory of comparative advantage is explained using a before-during-after approach.

1 (b) The benefits of specialisation and exchange may not be fully achieved in domestic and international markets because there are limitations to the theory of comparative advantage, stemming from the assumptions made above.

Firstly, the assumption that there are constant returns to scale in producing each good does not hold in reality, as there could be decreasing returns to scale or diseconomies of scale. Beyond a certain level of output, firms may start to see loss in productivity as the scale of production increases, causing output to increase less than proportionally to the increase in input. For example, when a country specialises too much in the production of a certain good, firms producing this good may expand to be excessively large, making them prone to greater bureaucracy and this could lead to miscommunication, which can be very costly in firms with complex interdependencies between departments, especially if these miscommunications involve liquidation damages. Hence, this increases average cost. This means that a country may lose its comparative advantage when it produces these goods on a large scale as producing each good at the higher output at an even higher average cost means more of the next best good which could have been produced using the resources is forgone. Hence, this diminishes the benefits of international specialisation as less world output than expected may be produced using the same level of input, causing consumption to be less than expected, hence the improvement in material standard of living is overstated.

- *Countries may therefore choose to not produce and trade goods in which they have current comparative advantage in those goods because if they continue to produce these goods past an output level, they will lose their comparative advantage.*
- *This point can also be explained using the concept of law of increasing opportunity cost which is illustrated using a PPC. This is provided in EJ and RI notes, but not in NJ Notes.*

To evaluate, this is not always the case because as a country specialises in the production of a particular good, firms producing that good may in fact gain average cost savings from economies of scale. For example, producing on a larger scale may allow the firm to use more efficient machinery which can increase output more than proportionally to input prices. Average cost of production will thus fall. This means that a country may be able to gain comparative advantage when it produces these goods on a large scale. Hence, this instead reinforces the benefits of international specialisation as even more world output can be produced using the same level of input. Since it is difficult to judge whether a firm's scale of production is excessively large, it would be difficult to determine, in certain cases, whether there are decreasing returns to scale. Hence, it is difficult to determine whether specialisation will overstate the increase in standard of living.

- *This evaluative point can be used to explain countries' patterns of trade. It may explain why countries trade in certain goods despite not having a comparative advantage in it. Notice that many of these points below can be altered to explain countries' patterns of trade.*

Secondly, traded goods are assumed to be homogeneous commodities such as steel, copper or wheat which are bought on the basis of price. In the real world, markets may be imperfectly competitive, with firms having some degree of monopoly power by differentiating their products from others. For instance, a Toyota car is different from a Volvo car and each car may require different combinations of resources to produce. Hence, if a country forgoes less of the alternative goods to produce a car, it may not necessarily have a comparative advantage in producing cars since this could be explained by the fact that the particular brand of car produced is less expensive than that produced by another country. Hence, it is far more difficult to conclude that a country has a comparative advantage in the production of a certain type of good if they do not produce the same good as another country with a lower opportunity cost. As such, the countries may not necessarily benefit from specialisation and exchange as resources may not in fact be allocated more efficiently to produce more output for the same level of input because the output produced may not be as high quality for example, and will not satisfy wants and needs as well as if countries were self-sufficient.

Thirdly, the theory of comparative advantage requires the terms of trade to lie between the respective opportunity cost ratios of the two countries in order for trade to be mutually beneficial. In reality, the terms of trade that are based on relative prices of the goods may be unfavourable to some countries, resulting in some countries becoming worse off. This may be due to the relative bargaining power of the trading countries. Larger countries typically have bigger economies and larger consumer markets. Smaller countries often want access to these large markets to sell their goods and services, making them more willing to accept terms that favour the larger country. Less developed countries specialising in agricultural commodities may also face unfavourable terms of trade relative to manufactured goods produced by the developed countries, due to the relatively lower world price of agricultural products. This is due to the relative abundance of commodity/ agricultural suppliers which drives down commodity/ agriculture prices. The country may still need to import a particular type of good, for example, it may need machinery to develop its infrastructure, so even though it has to export a large quantity of the good it specialises in to get a relatively small amount of the other good in return, it still trades.

- Hence the countries may not want to specialise in goods which have unfavourable terms of trade even though they have comparative advantage in those goods.

<u>Before Trade</u>	<u>After Trade (Desired Outcome)</u>
If Vietnam gives up 1 coffee, Then Vietnam gets 4 machinery	If Vietnam gives up 1 coffee, Vietnam wants to get > 4 machinery
If the US gets 1 coffee Then the US has to give up 10 machinery	If the US gets 1 coffee The US wants to give up < 10 machinery
Terms of Trade: 1 coffee: 3 machinery	

Fourth, transport costs are assumed to be negligible when in reality, transport costs will reduce and sometimes eliminate any comparative cost advantages. With transport costs, it is less favourable for countries to exchange goods and services because the additional cost of transport may mean that in order to purchase the goods it does not specialise in, a country has to sacrifice more goods to pay for the transport cost than if it were self-sufficient. Hence, the comparative cost advantages are offset by the cost increase due to transport costs, and the effective terms of trade, after accounting for transport costs, may not lie between the opportunity cost ratios of the two countries and hence are not mutually beneficial. Hence, countries will not import goods if the cost of transport is higher than the goods themselves. This is especially true for bulky, low-valued and/or perishable products, or if the country is much further away. Hence, the benefits of exchange are not reaped.

Fifth, countries might not be able to trade in goods according to their comparative advantage because of protectionist measures. Developing countries, for example, may face trade barriers from developed countries, imposed on goods in which the developing countries have comparative advantage (e.g. agriculture). Essentially, protectionist measures restrict free trade, so the benefits of specialisation and exchange are not reaped.

- *Analysis of a particular protectionist policy will be required here, but it will be provided in section 3.*
- *This point does not necessarily answer this question, though it is relevant in explaining the limitations of the theory of comparative advantage.*

Sixth, resources are assumed to be perfectly mobile within a country when they are not. Hence, if a country were to lose its comparative advantage in the production of a particular good, then firms face a lower demand for that good, so they will be forced to shut down plants producing that good and the derived demand for factors of production will fall. However, the factors of production may be immobile and cannot be re-deployed for the production of another good because they lack the skills to do so for example. For instance, low-skilled labour which is initially producing textiles may not be able to be employed to produce artificial intelligence services because they have not been trained to do so. Even though they may have the capacity to learn, this would take time, so the country will be producing at less than full employment, and may not be able to capitalise on its new comparative advantage. As such, despite apparently theoretically having comparative advantage, the country would not be able to specialise.

- *In fact, the government may therefore keep the steel industry operating (e.g. by introducing quotas) in order to protect its workers from becoming unemployed even though it does not have the comparative advantage anymore.*
- *This point also does not answer the question, but addresses the limitations of the theory of CA.*
- *It is notable that if there are no differences in opportunity costs across countries, then trade will not be beneficial since there is no terms of trade that will lie between the opportunity cost ratios of the two countries since the opportunity cost ratios of the two countries are equal. There would be no benefit reaped even if the countries traded.*

Important Learning Points

1. This essay uses a “if... but... then...” approach similar to essays explaining the limitations of using GDP to measure standard of living. This structure is generally used in paragraphs countering assumptions. Generally, the structure is “if there is comparative advantage but a certain assumption of the theory of CA is not true, then it cannot be concluded that the country will trade based on the theory of CA.” In this essay, the question specifically asks for limitations to the benefits of specialisation and trade. It is implicit that countries must trade, which is why we can only discuss factors that limit the benefits of trade, and not completely eliminate them.
2. There is a hierarchy of points. The points are ordered from top to bottom based on their significance and depth.

2 “We are restructuring to become more competitive, not less.” Mr Lim Hng Kiang, Minister for Trade and Industry.

(a) Explain why an economy’s comparative advantage might change over time. [10]

2015 ‘A’ Levels P2

Learning Objectives

- Understand the reasons for changes in opportunity costs between countries as a cause of changes in comparative advantage.
- Understand the reasons for differences in opportunity costs between countries as a cause of differences in comparative advantage.

2 (a) A country’s comparative advantage might change over time due to changes in factor endowments which would lead to changes in opportunity costs of production. Changes in factor endowments can be brought about by government policies, globalisation and discovery of new resources.

Key requirement 1: CA changes over time due to government policies. (Man-made cause)

A country’s CA could change over time due to changes in factor endowments within a country as a result of government policies. For example, with the emphasis on education by Singapore (e.g. Skillsfuture), this could lead to an abundance of high-skilled labour in Singapore. In turn, the costs of employing high-skilled labour would be lower due to, for example, relatively lower wages as a result of relatively higher supply of high-skilled labour. This would result in a gain in CA in the production of high-skilled labour-intensive goods such as IT electronics in Singapore. Another example would be the provision of subsidies in R&D by the Singapore government (e.g. Productivity and Innovation Credit). This will lower the cost of R&D for firms thus leading to a gain in CA in a technology driven industry such as pharmaceutical. By producing skilled labour intensive goods which the country is more efficient in, the country forgoes less of the unskilled labour intensive goods which the country is less efficient in producing. Hence, PPC shifts from PPC_0 to PPC_1 .

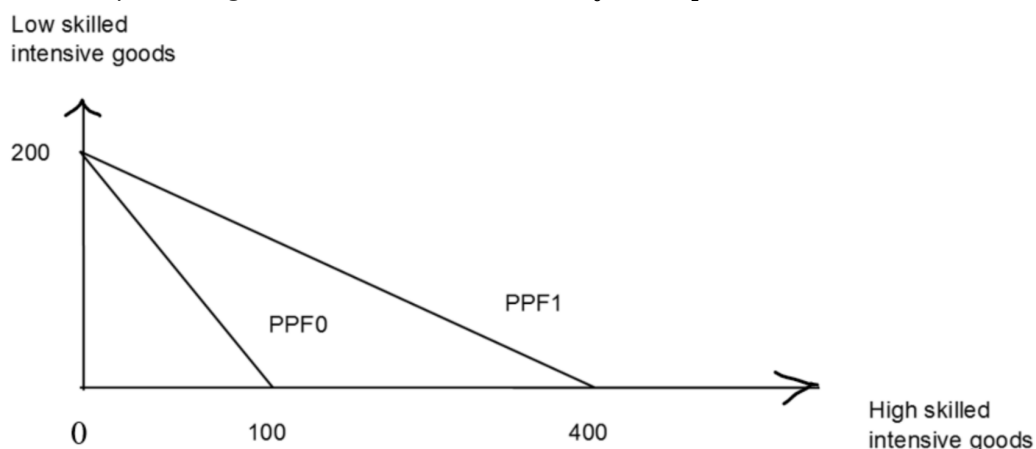


Fig 3: PPC curves

Key requirement 2: CA Changes over time due to globalisation (Natural cause)

Changing CA over time could be due to changes in factor endowments within a country as a result of globalisation. Globalisation refers to the increasing integration of national economies in terms of trade, financial flows, movement of factors of production, ideas, and changes in information and technology. With globalisation, labour resources and technology can easily flow between countries causing changes to factor endowments. For example, globalisation can bring about an influx of relatively cheaper foreign workers into Singapore, allowing Singapore to gain in CA in the service-oriented industry such as tourism as it can produce tourism services at a lower opportunity cost. On the other hand, globalisation allows some countries to gain access to new technology instead of relying on outdated technology, allowing countries to gain efficiency and substantial cost advantages, and thus gain CA in the production of high-tech goods as it can produce high-tech goods at a lower opportunity cost. For example, Singapore benefits from globalisation in the form of increase in FDI that is able to bring in new technology e.g. film and movie animation from LucasFilm.

Key requirement 3: CA Changes over time due to discovery of new resources (Natural cause)

Moreover, CA can change over time due to discovery of new resources or decline in existing resources. For instance, the Greenland Rare Earth Projects, a UK exploration company exploring the rare earth potential of Greenland. Rare earth elements are essential for high-tech technology e.g. hybrid cars, computers, cell phones, television — anything that uses microchips. Hence, the Greenland Rare Earth Projects allow for the production of high-tech products at a lower opportunity costs, affording Greenland CA in the production of these goods.

- *For such questions without much analysis, it is best to provide another point.*

Important Learning Points

1. The points provided should not simply be determinants of changes in opportunity costs. In order to maximise depth, it is important to provide a factor that affects a particular determinant, since this essay is relatively short. The breadth of the topic is hence determined by the factors chosen. For cause type questions in globalisation, this tends to be broken down into man-made causes (policies and strategies) and natural causes (market forces, natural phenomena, globalisation, etc.). The breadth should also cover demand factors and supply factors for this essay.
2. This essay discusses intertemporal comparison. It must be appropriately adapted if the question requires international comparison. Instead of discussing changes (increase and decrease), the essay should discuss differences (more and less), similar to what has been taught in limitations of using GDP as a measure of standard of living.
3. Ideally, a PPC should be drawn after each KR because the pair of goods selected for each point were not the same. But if time is a constraint, then just two PPCs will suffice.

3 No preamble given.

~~(a) Explain the theory of comparative advantage.~~ [10]

(b) To what extent does this theory explain the pattern of trade between Singapore and the rest of the world? [15]

2000 'A' levels P2

Learning Objective

- Analyse the reasons for trading despite having no comparative advantage by discussing the limitations of the theory of comparative advantage

V.C.D. Framework for Learning Patterns of Trade

Whenever discussing patterns of trade, you should consider factors which may affect:

1. Volume of trade ⇒ how much of a particular good is traded?
2. Composition of trade ⇒ Which countries does a country trade with and which goods does a country trade more of?
3. Direction of trade ⇒ does a country export or import these goods?

Singapore's Pattern of Trade: A few important points

1. Singapore's largest trading partners are China, Malaysia, the US and the EU, in that order. It also trades with some other countries in Asia, though not as much as the countries above. Notably, it imports a lot of services from Taiwan relative to how much it exports to Taiwan, and it exports a lot to Hong Kong relative to how much it imports from Hong Kong.
2. Singapore exports and imports a lot of petroleum as it is a transport hub. Transportation services also constitute the largest share of Singapore's exports and imports.
3. Singapore also exports and imports a lot of business management and financial services as it is a business and finance hub.

3 (b) Singapore's pattern of trade can be explained based on demand and supply factors. The theory of comparative advantage can explain Singapore's pattern of trade to a certain extent, but it has certain limitations, so there are other reasons explaining Singapore's pattern of trade.

Key Requirement 1a: Supply Factors: Theory of comparative advantage

As explained in essay 1, countries can gain from trade by specialising and exporting goods which they have a comparative advantage in producing since the world's resources are used more efficiently when resources are allocated to produce goods and services with the lowest opportunity costs. Singapore, having an abundance of high-skilled labour may have a comparative advantage in the production of high-skilled labour intensive goods and services such as semiconductor chips, finance services and business management services. As such, Singapore exports a large volume of such goods and services. (Composition and Volume)

Singapore also exports a large number of such goods and services because foreign firms outsource their production to Singapore. Due to Singapore's high-skilled workforce, its labour tends to be more productive than that in other countries in producing high-skilled labour intensive goods. Hence, it produces electrical components for example, at a lower opportunity cost, incentivising some firms like Mitsubishi Electric and Apple to shift some of their production activities to Singapore to benefit from the lower average cost of production reaped from external economies of scale, where there is a large pool of skilled workers which hence reduces training costs incurred by the firms since the workers already have sufficient skills. Hence, Singapore will tend to export more high technology goods and components as many multinational corporations (MNCs) outsource their production to Singapore, and afterwards import the goods or components from Singapore.

- *This may be seen as an extension of the theory of comparative advantage to the production of intermediate goods rather than final goods. It applies analysis of why opportunity costs differ which is covered in essay 2.*
- *Another way of explaining this point is to consider relative factor prices in foreign countries that arise due to differences in opportunity cost. For example, many MNCs locate the production of labour intensive products to countries such as China and Vietnam who have a comparative advantage in such labour-intensive production given the abundance of labour and hence these countries have a high labour to capital ratio. The assembly of final consumer products tends to be labour-intensive and is usually located in labour abundant countries such as China.*
- *It is important to note that firms typically outsource production in different stages to different countries. The entire production process does not need to take place in one country. For example, semiconductor chips and the programming for phones can be produced in Singapore, from which the components are exported to China, where the assembly of the phone itself can take place. Overall, this reduces the cost of production for the firm.*

Key Requirement 1b: Supply Factors: Transport costs

Another reason explaining Singapore's pattern of trade is transport costs. Singapore's second largest trading partner is Malaysia, which neighbours Singapore, despite both countries trading heavily in electronics and petroleum products. Neighbouring countries tend to have large volumes of trade with one another compared to other countries because importing goods from countries further away incurs greater transport costs, making it less favourable for countries to exchange goods and services. This is because the additional cost of transport may mean that in order to purchase the goods it does not specialise in, Singapore has to sacrifice more goods to pay for the transport cost than if it were self-sufficient. Hence, the comparative cost advantages may be partially or fully offset by the cost increase due to transport costs, and the effective terms of trade, after accounting for transport costs, may not lie between the opportunity cost ratios of the two countries and hence are not mutually beneficial. Hence, Singapore may instead opt to trade with nearby countries instead.

- *Some firms may want to locate their production nearer to their key markets to better serve their customers as well as reduce transport costs. This affects the type of goods that these countries export. This helps to explain the huge trade volume between Canada and USA despite the two countries having largely complementary industries.*

Key Requirement 2a: Demand Factors: Trade Policies (existence of trade barriers)

As a small, open economy, Singapore uses FTAs to strengthen its global economic presence and secure strategic trade relationships. Being dependent on trade, signing many FTAs allows Singapore to reduce dependence on any single market or trading partner, spreading risk and enhancing trade resilience. FTAs are used to build stronger diplomatic and economic ties with other countries, fostering cooperation on broader issues beyond trade, to maintain Singapore's traditional stance of diplomacy, being "friend to all, enemy to none" due to its small size and relative military weakness. The presence of protectionist measures or the presence of Free Trade Agreements may determine the trading partners of a country as well as the type and volume of goods and services to import or export.

- *It is important to include analysis of the workings of FTAs and Protectionist policies.*
- *Once again, it is important to link to previous factors which cause the inking of FTAs and implementation of protectionist policies. These reasons may be political in nature or may even be driven by supply factors. For example, the US and China have imposed trade barriers due to economic competition and political tensions, as both nations vie for global dominance and influence while addressing trade imbalances and unfair practices. These countries also have signed FTAs as a tool to exert influence or counter the presence of rival powers in certain regions. For instance, the U.S. and China use FTAs to extend their economic and political influence in Asia or Latin America.*

Key Requirement 2b: Demand Factors: Strength of currency

The Monetary Authority of Singapore (MAS) takes a stance of gradual appreciation of the Singapore dollar. As such, the Singapore dollar is considered to be relatively strong compared to other currencies around the world. As such, Singapore dollars can be exchanged in the FOREX market for more foreign currency to buy more foreign goods and services compared to currencies of other countries such as Malaysia. Hence, Malaysian goods are cheaper in terms of Singaporean currency compared to Singaporean goods. Assuming Malaysia has a price elastic demand for its exports ($|PED_x| > 1$) due to the high availability of substitutes, then the lower price increases quantity of exports demanded more than proportionately, which is why Malaysia is one of Singapore's largest trading partners as Singapore is far more willing and able to import more Malaysian goods than US goods for example, since the US dollar is considered to be stronger than the Singapore dollar.

- *Do not link the strength of currency to the inflation rate. Indeed, the MAS uses currency control to reduce inflationary pressures, but this does not make exports more price competitive. The main mechanism through which inflation is reduced is via cost-push inflation. Suppose that the Singapore dollar appreciates by 5%. Cost of production becomes 5% less. However, Singapore's exports become 5% more expensive. Even if firms pass on all cost savings in terms of lower prices, assuming export price $\neq$ cost of production, then appreciation will necessarily make exports more expensive.*

SGD: MYR	Average Cost of Production		Price of Exports	
1: 3	50 SGD	150 MYR	70 SGD	210
1: 4	37.5 SGD	150 MYR	57.5 SGD	230

Key Requirement 2c: Demand Factors: Income

The economic growth and development of particular countries and regions also affects patterns of trade. With economic growth, firms hire more factors of production by making more factor payments to them, increasing their income. Countries like Singapore which are generally considered developed countries tend to have higher income and the average citizen in Singapore tends to have a high income and high purchasing power, so they are more able to purchase more imports. This is particularly true of imports which are luxury goods with income elastic demand, so the volume of luxury goods and services traded is larger.

- *KR2b and KR2c are considered to be paragraphs with more depth despite being shorter as they include elasticity concepts to demonstrate a greater level of understanding of how exactly the pattern of trade is affected.*

Key Requirement 2d: Demand Factors: Tastes and preferences (non-homogeneity of products)

The pattern of trade of Singapore may be determined by the tastes and preferences for certain goods. For example, in the Durian season, it may be made known to consumers that the durians taste better by word of mouth or by advertisements. Consumers may shift their tastes and preferences towards Durians like mao shan wang durians and durian products. This hence increases the demand for mao shan wang durians, and hence increases the volume of durians imported. This also means Singapore imports more from countries selling durians. Additionally, Singapore lacks natural resources and hence is unable to produce a wider variety of goods with the resources it has. Hence, Singapore likely imports a wide range of the same type of goods from different countries to cater to consumers' unique tastes and preferences so as to provide greater variety to improve consumer choice. For example, Singapore imports different makes of cars and different brands of mobile phones from Europe, US, Japan and South Korea.

- *This explains why a significant part of trade is intra-industry in nature in other countries.*
- *Notice that because this is also a cause-type question, it is important to add depth by linking to a non-economic event that occurred (durian season, spreading by word of mouth) before linking to the actual determinant — tastes and preferences. Otherwise, the answer would be too short.*

On the other hand, Singapore's goods are quality competitive. For example, Singapore is a leading global producer of high-quality electronics and semiconductors. Companies like Broadcom and GlobalFoundries operate in Singapore, producing microchips, integrated circuits, and other components used in smartphones and computers. Singapore's electronics manufacturing is known for its advanced processes, high precision, and stringent quality control, making its products globally sought-after. Therefore, other countries have a high preference for Singapore's technology and hence there is high demand for Singapore's electronic products. Hence, a large proportion of Singapore's exports consists of electronics. Another example of this is Singapore's high quality air travel service with Singapore's Changi airport having consistently been ranked the world's best airport, as well as its top drawer service on its aircrafts. Hence, there is high demand for Singapore Airlines flight services, hence they constitute a large proportion of Singapore's exports.

To evaluate, due to Singapore's small size, it generally cannot produce at a large enough scale to enjoy significant economies of scale. As such, it tends to produce at a higher average cost of production, which is passed on to consumers in terms of higher prices. Hence, Singapore's exports tend to not be very price competitive. This hence weakens the effect of Singapore's quality competitiveness, as the higher price makes consumers abroad less willing and able to buy Singapore's products. Hence, the quality competitiveness of Singapore's products might be overstated.

Key Requirement 2e: Demand Factors: National Interests

For national security and strategic reasons, countries may be selective in the type of goods and services they import and export. A country may prefer to produce a good that is important for national security even if it does not have comparative advantage in the good. This reduces its import of the good, or may even result in the country exporting the good in order to gain economies of scale.

- *Do not select this point. It is severely lacking in depth as it contains no economic concepts. It is provided in order to spark thinking in case this comes out in a CSQ. In the case that it is required as a point, it is important to make links to economic concepts.*

Important Learning Points

1. Do not write all of these points. It will be impossible to complete the essay on time. These points are provided so as to provide you with a better understanding of the topic and as a way to spot potential questions.
2. As in the essay above, the points provided should not simply be determinants of patterns of trade. In order to maximise depth, it is important to provide a factor that affects a particular determinant, since this essay is relatively short. You should not select multiple points but provide brief analysis. Cambridge has on multiple occasions criticised this, categorising it as a characteristic of weak responses. Cambridge refers to such answers as "listing points", which they are not particularly fond of. Instead, pick two or three points which allow you to apply as many economic concepts as possible.
3. The breadth of the topic is also determined by the factors chosen. For cause type questions in globalisation, this tends to be broken down into man-made causes (policies and strategies) and natural causes (market forces, natural phenomena, globalisation, etc.). The breadth should also cover demand factors and supply factors for this essay.
4. Usage of returns to scale as a supply factor is also relevant for certain countries, but the point requires little to no adaptation from the previous essay, which is why the point was not included.
5. It is important to know how to adapt these points to be used for intertemporal and international comparison. Similar to the previous essay, the essay would be adapted to discuss changes and differences respectively.

2 Causes of Globalisation

- 4 An economist stated 'The trend towards globalisation leaves no room for protectionism.'
- (a) Account for the trend towards globalisation [10]
- ~~(b) Discuss whether you agree with the economist's view [15]~~

2009 'A' Levels P2

Learning Objectives

- Define globalisation and explain the key characteristics of the phenomenon.
- Explain the causes of globalisation with the theory of comparative advantage being the main cause.

4 (a) Globalisation is the increased integration of economies around the world, through the movement of goods, services, capital, labour (and knowledge) across international borders.

Key Requirement 1: The Theory of Comparative Advantage (Man-made causes)

There is a trend towards globalisation due to the theory of comparative advantage. If countries specialise according to their comparative advantage, this would mean each country forgoes less of the next best alternative good in producing the good they specialise in and hence the same number of world resources are allocated more efficiently to produce a greater world output compared to the combined output of the countries when they tried to be self-sufficient and allocated resources to produce all the goods by themselves. Assuming a mutually beneficial term of trade which lies between the opportunity cost ratios of the countries involved in trade, the consumption point of each country as illustrated by point A in Fig 1 and point B in Fig 2 can go beyond their respective PPCs. Both countries gain from higher consumption of both the goods with specialisation and trade thus residents of both countries can have higher material living standards as they consume more goods and services to satisfy more wants and needs, assuming no change in population size. Hence, in order to capitalise on the benefits of specialisation and trade, governments may reduce trade barriers via the inking of FTAs, which can allow for freer trade between countries based on their comparative advantage. For example, Singapore signed 26 free trade agreements over the years to develop its comparative advantage in the production of high value-added goods in industries such as semiconductor chips. In exchange, Singapore imports more than 90% of its food supply from abroad since it is a small sized country with a lack of natural resources to produce agricultural products for example, which it imports from Asian countries like Thailand. Trade between Thailand and Singapore is thus beneficial as both will be able to consume more goods. Singapore's consumption of agricultural products and semiconductor chips hence will increase from Q_{C1} to Q_{C2} and Q_{E1} to Q_{E2} in Fig 1 while Vietnam's consumption of agricultural products and semiconductor chips have increased from Q_{C1} to Q_{C2} and Q_{E1} to Q_{E2} in Fig 2.

Furthermore, a reduction in trade barriers can help to increase capital investment. For example, the corporate tax rates might be lowered in a particular country which might encourage firms from other countries to make foreign direct investments (FDI) into the country since they enjoy higher post-tax profitability without having to incur as much of the additional cost of a tax. In Singapore, the Refundable Investment Credit (RIC) Scheme is set to be implemented as a tax cut to firms which invest in fixed capital formation in Singapore. Such policies have led to an increase in FDIs by multinational corporations (MNCs) like Mitsubishi Electric and Apple with high-end production technologies in search of higher profits for their investments.

Other policies may have improved labour flow. For example, foreign worker quotas in Singapore were lowered over the years to allow for the inflow of more foreign talent so as to improve the quality and productivity of the labour force in Singapore. Recently, Singapore and China had agreed to have visa-free travel between countries for 30 days. Hence, legal barriers to labour flow which make it troublesome for labour to travel between countries are reduced via government policies. This would allow labour from all over the world, to migrate more freely to Singapore. Hence, this improves the efficiency of these processes, making it more favourable for labour from Myanmar and Bangladesh for example to migrate to Singapore.

Key Requirement 2a: Natural Causes: Improvements in transportation technology

Improvement in technology has enabled globalisation to occur. Improvement in transportation technology has led to declining sea transport costs and air freight costs, which have massively reduced the cost of transporting different goods and services, and enabled a greater flow of cross border trade in goods and services. Faster transport options e.g. due to intelligent transport networks which helps to avoid disruptions mean lower inventory holding costs and reduced warehousing expenses. Hence, with lower cost, firms are incentivised to shift production overseas as they can ship their goods back to their home markets cheaply, while reaping cost savings from producing a good in which a country has a comparative advantage in. Hence, firms may make more FDIs into other countries. Furthermore, this increases the flow of goods and services across borders as importing countries will incur lower transport costs, making them more willing and able to purchase these goods and services. Enhanced transportation networks also open new markets and regions that were previously difficult to access. This expanded accessibility can lead to increased trade opportunities by connecting producers with a wider range of consumers, thus increasing the flow of goods and services across borders.

Additionally, Improvements in transportation technology has allowed for greater labour flow. Recently, airlines such as AirAsia, Ryanair, and Jetstar offer no-frills services, allowing passengers to pay lower base fares. This competitive pressure forces even traditional airlines to lower their prices to stay competitive. Additionally, technological advancements and more fuel-efficient aircraft have helped airlines reduce operating costs, further contributing to lower airfares. This has allowed for lower cost of migrating to other countries, incentivising labour to move to other countries.

Key Requirement 2b: Natural Causes: Improvements in Communication Technology.

Improvements in communications have increased the volume of international transactions between businesses and freer flow of information globally. For example, faster internet connection allows for faster data downloads and upload speeds. Greater stability in connectivity has also allowed people immediate access to news, and communicate with others using their mobile devices while on the go. This makes it easier for firms to share information, find suppliers and customers leading to greater flow of cross border trade in goods and services and spread of technology. Rapid digitalization has modernised trade facilitation procedures and enhanced customs efficiency. Customs clearance processes have become more transparent and expedited through digitised systems. This reduces delays at border crossings, lowers trade-related costs, and encourages greater cross-border trade activity, increasing the flow of goods and services. Furthermore, cloud computing technology and faster internet networks have revolutionised how businesses operate and collaborate globally. Cloud computing lowers the barriers for businesses to enter new markets. Setting up physical IT infrastructure in a new overseas location can be time-consuming and resource intensive. Cloud services enable rapid deployment of IT resources, including servers, databases, and applications. This enables firms to set up new branches overseas, increasing the flow of capital across borders. The latest internet technologies, including high-speed broadband and the rollout of 5G networks, have also drastically improved global connectivity. This enhanced connectivity enables seamless communication across geographical boundaries, allowing businesses to engage in real-time conversations, video conferences, and information sharing. This rapid and reliable communication fosters greater trade opportunities hence as such intensifies the flow of goods and service between countries.

Better access and availability of improved communication infrastructure is also attractive to overseas investors, which could increase the inflow of foreign direct investment into the country. This is because of the time saved from faster and more effective communication, which hence streamlines processes of coordinating outsourcing and offshoring production. Hence, these processes are better managed and hence less costly since there would be less miscommunication.

Workers are also encouraged more to live and work overseas as they can communicate more easily with families and friends abroad, hence reducing the emotional cost of migration. This is especially with the advent of video call technology from Skype, and WhatsApp, which allow workers to simulate a face-to-face conversation, which provides a means to maintain a sense of closeness and connection with loved ones. Hence, this has reduced geographical immobility, increasing labour flow.

Important Learning Points

1. In H2 Economics, globalisation largely focuses on the increased integration of economies, and increased trade. Increased capital flow and increased labour flow are less important, with labour flow being much less important than capital flow (capital flow is still relatively important in discussions of globalisation. Labour flow is almost never touched on). That is why the bulk of the essay is focussed on trade. Nonetheless, as the question requires a discussion of the causes of globalisation, it is important to touch on the causes of capital flow and labour flow. Do not simply list all the examples provided without analysis. It is better to have a few developed examples than many undeveloped examples.
 - KR1: Theory of CA $\Rightarrow$ Greater Trade and Greater Capital Flow
 - KR2a: Transportation Technology $\Rightarrow$ Greater Capital Flow or Greater Trade
 - KR2b: Communication Technology $\Rightarrow$ Greater Labour Flow or Greater Capital Flow
2. Since trade, which inherently leads to increased integration of economies, is the focus of globalisation, we should be focusing on the causes of greater trade. As established in essay 1, the basis of trade is the theory of comparative advantage. Hence, one of the KRs must be about the theory of comparative advantage.
3. A skill we have developed in previous essays is not to directly use a determinant as a point, but rather to breadth out the essay based on man-made and natural causes. The theory of comparative advantage is actually a man-made cause because it is a theory. The event that causes the greater trade is governments capitalising on such a theory by signing FTAs. On the other hand, a natural cause is technological development, because this is a natural phenomenon that is the event that causes greater trade, FDI flows and capital flow.
4. There are far too many causes of globalisation to condense into a single essay. Therefore, the approach that we will take is to (1) understand some strong points so as to tackle a question if events are not provided as points in the preamble or extract and (2) understand possible other frameworks of understanding the causes of globalisation so as to tackle a question so as to be able to look out for events provided based on different determinants.

Alternative Framework 1:

Explain natural and man-made causes of globalisation, by considering governments as drivers of globalisation in trying to achieve economic goals and firms as drivers of globalisation in trying to maximise profits. For governments, you would link to microeconomic/macroeconomic objectives while for firms, you would link to revenue and cost.

Alternative Framework 2:

Consider determinants of each phenomenon under globalisation. For capital flow, consider how cost would be minimised and revenue would be maximised. For labour flow, consider how wage, standard of living, geographical immobility, occupational immobility may affect decisions made by labour with slight application of cost-benefit analysis. For hot money flows, consider how changes in interest rates and exchange rates would affect hot money flow.

3 Effects of Globalisation and Trade Policies

Learning Framework for Effects of Globalisation and Trade Policies

1. Do not study the effects of globalisation as a series of benefits and costs. In this chapter, a benefit to one party is a cost to another party and vice versa. That is simply how the world works. This is not to say that you should write a converse point, but rather, it is a framework to view evaluation for this chapter. Your evaluation will still focus on a criteria which determines whether a country incurs a cost or enjoys a benefit, but it is useful to consider what impact the benefit to one country can have on another in order to determine this reason. This will be exemplified in the essays below.
2. Some points are better than others. There are a myriad of points that you can use to answer questions. However, certain concepts which are more relevant to the topic of globalisation will tend to be the more important KRs. For example, the theory of comparative advantage should be brought in as a point whenever relevant, because that is the basis for trade. Likewise, the contagion effect is also a very contextualised point because it is the most direct effect of economies becoming increasingly integrated. The remainder of the points provided are more or less equal in value.
3. The content discussed under benefits of free trade are the costs of protectionism and vice versa for the benefits of protectionism. Do not study them as separate points as it will be a massive waste of time.
4. Protectionism is generally viewed as a negative policy. While it is required to know the key arguments for protectionism, you should note that Cambridge markers are very traditional, which tends to mean they are generally against protectionism. Hence, generally speaking, you should not ever glorify protectionism in any content.
5. While the 'A' Levels have technically never tested the impacts of globalisation on consumers and producers directly, the syllabus states that candidates should understand the benefits and costs of free trade and flows of capital and labour on consumers, producers and the government, meaning that there is a need to study these technically. Hence, I will provide pointers of how certain points can be linked to impacts on the other stakeholders. Generally, the effects on each stakeholder should be linked as shown below:
 - Consumers: Consumer Surplus/ Welfare
 - i. Price and Quantity of Goods (Material SOL)
 - ii. Quality and Variety of Goods (Non-material SOL)
 - Producers: Profits
 - i. Total Revenue
 - ii. Total Costs
 - Governments/ Economy: Macroeconomic (and microeconomic) objectives
 - i. Macroeconomic Objectives (main focus of syllabus)
 - ii. Microeconomic Objectives

5 Singapore's Prime Minister has stated that 'Globalisation will be under pressure, but it is imperative for countries to cooperate, for businesses to operate across many geographies, to tap resources, to bring skills and talents and experiences together, and then serve markets all around the world.'

(a) Explain the benefits and costs of globalisation to Singapore. [10]

(b) Discuss the most appropriate policy measures that the Singapore government should take to increase the benefits and reduce the costs of globalisation. [15]

2022 'A' Levels P2

Learning Objectives

- Explain the impact of increased trade and increased capital and labour flows on various economic stakeholders, with a focus on the government/ economy.
- Explain the impact of increased integration of economies on various economic stakeholders, with a focus on the government/ economy.

Examiner comments:

Stronger responses provided well explained economic reasons that supported an explanation of the benefits and costs of globalisation to Singapore. For example, some responses explained how exploitation of comparative advantage or the signing of FTAs (through the removal of tariffs) has benefited Singapore. These explanations were supported by appropriate diagrams. Vulnerability to economic problems of Singapore's trading partners (e.g. recession, inflation) to Singapore was the most popular 'cost of globalisation' explained. Mid-range responses were generic in approach (i.e. lack contextualization to Singapore) and gave several potential benefits and costs of just trade instead of globalisation (which goes beyond trade). Most of these responses also lacked reference to the underlying economic analysis. Weaker responses were not only generic but brief e.g. made generalised assertions which largely consisted of statements that Singapore would benefit or incur costs because of the free movement of goods, labour and capital.

Important Learning Points

1. The benefits of globalisation to one party are the costs to another party.
2. Quite obviously, do not write this entire essay. Pick one benefit and one cost of trade (must include benefits from exploiting theory of CA), together with one benefit and one cost of labour flow or capital flow. Cover each of the three phenomena in the entire essay.
3. Contextualisation is very important in this essay. There is a reason why the question asks for benefits and costs of globalisation to Singapore, not just benefits and costs of globalisation.
4. Points on SOL, Price, Quantity, Variety and Quality can be linked to effects on consumers, while points on competition, market size, and cost can be linked to effects on producers.
5. The answers for essay 5(b) will be provided after essay 7 to provide a better understanding of the effects of globalisation before addressing trade policies.

5 (a) Being a small and open economy, Singapore can benefit from globalisation via tapping on foreign demand for its exports, inflow of foreign capital and foreign labour to achieve internal stability (i.e. economic growth, low unemployment, and low inflation), external stability (i.e. healthy balance of payment and foreign reserves) and higher living standard. However, it also means that Singapore will be more vulnerable to external shocks and foreign competition.

Key requirement 1a: Benefits of Globalisation to Singapore

Unlike large economies (e.g. US, China) where there are large domestic markets that contribute significantly to their aggregate demand (AD), Singapore has a small domestic market and is thus export oriented for growth i.e. export revenue (X) takes up about 180% of Singapore's AD. Without much natural resources but with a ready pool of skilled labour, Singapore has a comparative advantage in capital intensive goods such as high-end electronics and pharmaceuticals products because Singapore can produce these goods at lower opportunity costs compared to countries that have vast amounts of natural resources such as oil and land but relatively smaller pool of skilled labour e.g. Vietnam and Malaysia in production of agricultural products and assembling of manufactured goods. Therefore, with freer flow of trade via globalisation, Singapore can produce and export capital intensive goods, thus increasing X.

- *The cost to consider in this case is that developing countries like Malaysia and Vietnam have an abundance of low-skilled labour and hence tend to specialise in low value-added production. The terms of trade of countries may not always be mutually beneficial. This may be due to the relative bargaining power of the trading countries. Larger countries typically have bigger economies and larger consumer markets. Smaller countries often want access to these large markets to sell their goods and services, making them more willing to accept terms that favour the larger country. Less developed countries specialising in agricultural commodities may also face unfavourable terms of trade relative to manufactured goods produced by the developed countries, due to the relatively lower world price of agricultural products. This is due to the relative abundance of commodity/ agricultural suppliers which drives down commodity/ agriculture prices. The country may still need to import a particular type of goods, for example, it may need machinery to develop its infrastructure, so they accept a terms of trade which is not favourable for them. As such, the import expenditure (M) of developing countries tends to be greater than their export revenue (X) as their exports are more expensive than their imports, assuming they import and export a similar level of goods and services.*

Singapore's balance of trade (X-M) in Singapore's current account would improve, and thus Singapore's balance of payment would improve. In turn, the increase in Singapore's foreign reserves from the net export earnings can also be used to help Singapore' managed its floating exchange rate e.g. use foreign currencies from export earnings to buy SGD so as to appreciate SGD to prevent imported inflation since Singapore is an import reliant economy i.e. imports most of its raw materials and goods due to its lack of natural resources.

- *This is a highly contextualised point. It contextualises the answer to a Singaporean context which will hence earn this answer the maximum marks attainable.*

An increase in X would also contribute significantly to an increase in Singapore's AD (i.e. $AD=C+I+G+(X-M)$) given Singapore's export oriented nature. This is illustrated from AD0 to AD1 in Diagram 1. Assuming aggregate supply (AS) constant, AD is now more than AS thus there will be an unplanned fall in stocks. Firms would increase production thus Singapore's national output would increase as illustrated from Y_0 to Y_1 i.e. actual growth. In turn, firms would increase employment of factor inputs such as labour i.e. demand for labour is a derived demand. As such, cyclical unemployment would decrease. More factor payment would also be paid thus Singapore's national income would increase. Via the multiplier effect where income generates expenditure and expenditure generates income, Singapore's national income would increase more than proportionately. Higher national income would also suggest that consumers can have greater access to goods and services for consumption, assuming no changes in the size of the population thus improving material living standards further.

Moreover, unlike firms in large economies that can enjoy internal economies of scale (IEOS) due to large scale of production, firms in Singapore are unable to enjoy IEOS given Singapore's small domestic market and if they only produce for Singapore's domestic market. With trade via globalisation, firms in Singapore can export to many countries and thus expand their scale of production to enjoy IEOS by catering to a larger consumer base. The decrease in average cost of production via, for example, specialisation and division of labour would help Singapore manage cost push inflation which in turn helps improve Singapore's export price competitiveness and thus improve Singapore's balance of payment and foreign reserves (as explained earlier). Also, Singapore can import cheaper inputs from countries that have comparative advantages in producing them and this would also help firms in Singapore lower their cost of production and eventually help Singapore manage cost push inflation. As illustrated in Diagram 2, the lowering of cost of production would shift SRAS0 to SRAS1 and thus lower the general price level from P_0 to P_1 .

- *The theory of CA or greater competition are equally valid arguments to explain why the general price level might fall in other essays. However, in this case, economies of scale is a far superior point because Singapore is also known for its small size, so this addresses the question requirements better.*
- *Naturally, the evaluation for this argument is diseconomies of scale. But obviously, this would not be a good argument considering Singapore was not initially producing on a large scale of production.*
- *Explanation via theory of CA: Increased Supply of Goods: When countries trade based on comparative advantage, they can import inputs at lower costs from countries that produce them more efficiently. This reduces production costs for firms, which can help lower the price of final goods.*
- *Explanation via competition: With freer trade, there is the introduction of many foreign firms which sell similar products as the relatively small number of domestic firms in Singapore needed to appeal to its small domestic market. Hence, with a greater number of sellers, this increases the number of substitutes available to domestic consumers, causing each firm's demand to become more price elastic, so profit-maximising firms will lower their prices to gain total revenue.*
- *This is a point on the benefits of globalisation to firms as it links to lower costs. However, be careful not to link greater competition to firms benefiting. Incumbent firms do not benefit from competition. Lower prices can also be linked to increasing consumer surplus easily.*

The theory of comparative advantage states that trade can benefit all countries if the countries involved specialise in and export the goods in which the country has a comparative advantage. When countries allocate scarce resources to specialise in producing goods in which they can produce with a lower opportunity cost, world output would be larger than before because world resources will be used more efficiently when countries specialise in producing goods which they have comparative advantage. The consumption point of each country as illustrated by Point X_2 in Diagram 1 can go beyond their PPC illustrated by PPC_1 . Hence, with freer trade, assuming population size remains relatively constant and that the greater amount of goods and services are distributed equitably, households in the domestic economy consume more goods and services at lower price to satisfy their wants and needs. Thus, material SOL increases. Singapore, lacking natural resources and being unable to produce a wider variety of goods with the resources it has, will also benefit from a greater variety of goods and services. Singapore imports a wide range of the same type of goods from different countries to cater to consumers' unique tastes and preferences so as to provide greater variety to improve consumer welfare. Hence, this would also increase non-material SOL.

- *This is a shorter version of the application of the theory of CA compared to previous essays. Generally, this should suffice. But for essays where the theory of CA is the focus, the longer version would be preferred. This is an alternative point to link to SOL. It should not be selected because while it is still contextualised to Singapore, the other point allows for more in depth AD analysis.*
- *Notice that this point is focused on greater consumption of goods and services as well as greater variety. These are also determinants of consumer welfare. Hence, this can be used as a point to answer questions related to consumer welfare.*
- *Technically, greater competition can be used to explain this point, but it is a more indirect point. Greater competition can be used to explain almost every point, but it is not used because it tends to be an indirect point. In this case, the theory of CA must be applied and as such it is a far better point. This is an issue of prioritisation. You should learn how to logically derive what points are better before you try to use experience to get a sense of what points are better.*

Globalisation not only entails freer trade but also freer labour flow. Being a small country with a small population thus limited skilled labour, globalisation affords Singapore to bring in foreign talents and workers to contribute to Singapore's economy. This is unlike populous economies (e.g. China, India) that can depend on their citizens to provide the necessary labour force. The increase in actual growth due to increase X explained earlier if not accompanied by an increase in potential growth would eventually lead to insufficient production to meet the increase in demand hence bidding prices upward thus resulting in demand pull inflation. The increase in foreign talents in Singapore due to freer labour flow makes possible the transfer of knowledge and technology from the foreign talents to Singapore's domestic workers thus improving the quantity and quality of Singapore's resources. The increase in Singapore's productive capacity would thus lead to potential growth illustrated by a rightward shift of Singapore's long run aggregate supply (LRAS). This would in turn help Singapore manage demand-pull inflation thus help Singapore achieve sustained growth i.e. non-inflationary growth.

- *The evaluation of this point is explained in a later paragraph.*

Globalisation not only entails freer trade but also freer capital flow. Being a small economy, Singapore is also dependent on foreign direct investment (FDI) for sustained growth. The increase in actual growth due to increase X explained earlier if not accompanied by an increase in potential growth would lead to insufficient production to meet the increase in demand hence bidding prices upward thus resulting in demand pull inflation. The inflow of FDI directed towards acquiring of capital and the technological spillover from FDI would improve the quantity and quality of Singapore's resources. The increase in Singapore's productive capacity would thus lead to potential growth illustrated by a rightward shift of Singapore's long run aggregate supply (LRAS). This helps Singapore manage demand-pull inflation thus helping Singapore achieve sustained growth.

- *Of course, FDI can be used to explain actual growth via investment expenditure, but it is not used here because we have already covered actual growth via X - M above. It would be repeated analysis.*
- *The evaluation here would be that capital flows ultimately depend on business prospects, meaning that countries which face poor business conditions such as an unstable economy, war, or other issues may not be a favourable climate for businesses to invest in. Such is actually the case in the US and China. With the ongoing US-China trade war, both of the superpowers have imposed severe trade and capital flow restrictions on the other superpower and as a result, firms divert their FDI to other countries, outsourcing their production to Singapore for example. Apple has announced plans to pump in over US\$250 million (S\$340 million) to expand its Ang Mo Kio campus in Singapore. Hence, other countries lose out as Singapore gains.*

Key Requirement 2: Costs of Globalisation to Singapore.

However, because of Singapore being export oriented for growth, Singapore is vulnerable to external shocks. Should there be a trade war among major export market of Singapore (e.g. China and US trade war where China and US are two of Singapore's four biggest trading partners), Singapore's trading partners would likely have lower income / experience slower growth / enter a recession thus would import less from Singapore given Singapore generally exports normal goods with positive income elasticity of demand i.e. when income of consumers in US and China decreases, the demand for Singapore's exports decreases. The decrease in X would worsen Singapore's BOP and decrease Singapore's AD significantly which in turn results in lower growth (or recession), employment and material living standard in Singapore. Moreover, being import-reliant would suggest that Singapore would be vulnerable to changes in global supply shocks as compared to other countries. For example, the 2019 drone attacks that crippled Saudi Arabia oil facilities and the 2022 Russo-Ukraine War has caused the price of crude oil to surge overnight and this eventually led to Singapore facing higher import prices. It has led to a decrease in short run aggregate supply (SRAS) as illustrated from SRAS0 to SRAS1 in Diagram 3 and hence causing imported inflation in Singapore i.e. general price level increases from P0 to P1.

- *The explanation in this paragraph has been intentionally shortened to statements because the key focus of this point is on the contagion effect (vulnerability to external shocks). This is also because a repetition of analysis is always redundant as it will not earn you additional credit. To be safe, adding "as explained above" will likely convey to the examiner that you understand the impact.*

Also, freer trade arising from globalisation would make Singapore more vulnerable to foreign competition. For example, when emerging economies like China move into exporting more capital intensive high-end electronics that Singapore used to have comparative advantage (CA) in, Singapore is likely to eventually lose its CA given China's scale of production that affords producers in China to enjoy significant internal economies of scale, allowing it to forgo less and less of other goods as it produces more capital-intensive goods. As such, Singapore would have to avoid a losing battle by gaining new grounds in areas of artificial intelligence and satellite manufacturing/servicing etc. As such, workers from the declining industries that lose CA are likely to be retrenched due to falling production and they might not have the skills required to join the rising industries that gain CA. This would increase structural unemployment in Singapore.

- *This is also a highly contextualised point because such an event is actually happening in the world today. The idea here is built on challenging the assumption that factors of production are perfectly mobile. The learning point here is to be creative with content and manipulate theories in order to find special points. Of course it would be useful to read the news, but that's kinda boring.*
- *This point, as with all points on structural unemployment, can then be linked to inequity. The argument for inequity is about the income gap, and is elaborated more on in the next essay.*

Furthermore, increased trade from globalisation would also lead to the introduction of many foreign firms which sell similar products as the relatively small number of domestic firms in Singapore needed to appeal to its small domestic market. Hence, with a greater number of sellers, this increases the number of substitutes available to domestic consumers. The market share of each firm hence decreases as some consumers switch away from the domestic firms' products to foreign products which may appeal to consumers' unique tastes and preferences better. Hence, domestic consumption decreases, resulting in the reduction in size of domestic firms, which hence produce less. There is hence lower derived demand for labour, increasing structural unemployment.

- *This is an evaluation of the point about larger market size. However, this point is a more indirect mechanism in explaining the greater unemployment resulting from greater trade because it does not incorporate the theory of CA. This is included for a deeper understanding of the issue.*

Moreover, should there be a sudden large-scale reversal of capital flows and investors' confidence are undermined, financial market distress and other risk scenarios may ensue. With globalisation, notwithstanding a generally sound domestic environment, contagion from crisis-hit countries could mean that the fallout from volatile capital flows would have significant negative impacts on Singapore's economy (e.g. worsening Singapore's balance of payment) given Singapore's reliance on FDI e.g. during the Asian crisis in 1997-1998, due to a loss of confidence in Singapore's economic outlook, there was major outflow of capital, which severely impacted its actual and potential economic growth, which also had implications on inflation and unemployment as explained above.

- *This point can be adapted to be about the inflow of FDI causing potential demand-pull inflation. It is not included here because Singapore's inflation is largely cost-push in nature and an incident of massive inflow of FDI has not occurred so there would be no contextualisation to Singapore.*

Furthermore, Singapore would also be vulnerable to hot money flows given its financial openness as a financial hub due to globalisation. For example, a sudden outflow of hot money due to the financial crisis would cause massive selling of Singapore dollar (SGD) for stronger foreign currency, causing it to depreciate and with a weaker currency, more SGD must be exchanged in the foreign market for foreign currency in order to obtain inputs. Hence, the price of imported inputs in terms of SGD increases. Being import reliant, Singapore would face imported inflation. Alternatively, the government might need to sell its foreign reserves for SGD in the FOREX market in order to maintain the strength of the SGD. The government might hence need to borrow from domestic banks, increasing national debt. On the other hand, a sudden inflow of hot money would cause SGD to appreciate but the stronger SGD would cause Singapore's exports to be more expensive in terms of foreign currency, causing Singapore to lose export price competitiveness. As explained previously, the resultant fall in export revenue would be severely damaging to Singapore. Hence, as a financial hub that is open to capital flow and has no control over its interest rates, Singapore would be vulnerable to capital flow arising from globalisation.

- *A point discussing the greater construction of factories leading to air pollution which worsens the non-material living standards is acceptable here, but it is certainly not the best point, compared to a very contextualised point discussing Singapore's policy trilemma. The content for this point will not be provided since it has been discussed in previous chapters.*
- *Likewise, exploitation of workers is not necessarily a contextualised point here. Foreign workers might suffer poor working conditions and low wages, but this is not so true for Singaporeans, who at best suffer from poor work-life balance. Nonetheless, the content for this point will be provided in the next essay which is in the context of a developing country.*
- *Likewise, offshoring of production leading to structural unemployment is not necessarily applicable to Singapore. Typically, it is the larger countries like the US, Germany, Italy with larger industries which tend to offshore their production.*

Moreover, if due to freer labour flow thus Singapore can attract foreign talents to Singapore, other countries can also attract Singapore's talent away from Singapore and to the other countries i.e. brain drain. If Singapore suffers a brain drain, it will decrease Singapore's productive capacity due to a decrease in the quantity and quality of Singapore's already limited labour resources and thus lead to slower potential growth. Furthermore, reliance on foreign labour would negatively affect Singapore's ability to navigate adroitly to external shocks thus making Singapore vulnerable. For instance, during the COVID-19 pandemic, Singapore's key sectors, particularly constructions, manufacturing and services were being squeezed due to border restrictions restricting labour flow in order to mitigate the spread of the virus. As a result, Singapore faced a major shock in its productive capacity as it had lost a significant portion of its labour force. The shortage of low-skilled workers, coupled with great imported inflation from a restriction in imports caused cost-push inflation to worsen. This was further exacerbated because having access to a ready pool of skilled foreign workers discourages firms from training up domestic workers and thus making reliance on foreign workers a long-term phenomenon, increasing the vulnerability from freer labour flow arising from globalisation.

Furthermore, the greater inflow of foreign talent could lead to a displacement of domestic workers. This was a major concern raised when Singapore signed the comprehensive economic cooperation agreement (CECA) with India in 2005 as it allowed for the inflow of Indian professionals, particularly those in the IT and software development sectors, to work in Singapore under more relaxed visa and work permit conditions. With some of these workers having greater skills than some of Singapore's domestic workers, there was a lower demand for domestic workers as firms could switch to employing high-skilled Indian workers who were willing to work for a lower wage. Hence, some domestic workers were retrenched. Low-skilled industries in Singapore like construction and bricklaying are primarily dominated by Bangladeshi and Burmese workers, which are willing to accept lower wages. Hence, the wage rate for these jobs was lowered, which meant that low-skilled workers would suffer a decrease in purchasing power and be less able to consume goods and services for the satisfaction of their wants and needs. Hence, material standard of living fell. Additionally, with Singapore transitioning to a knowledge-based economy, low-skilled workers which lack the proper skill sets to adapt to these structural changes may feel anxiety as their jobs become in lower demand. Even high-skilled labour will face greater challenges in finding jobs with more foreign talent. Ultimately, the greater competition for jobs is likely to cause high levels of stress, which might cause workers to work harder in order to maintain their value to employers. This leads to less leisure, resulting in even greater stress, hence worsening non-material standard of living.

- *Also, overcrowding is another issue in Singapore. With a high population density shown by our metro system — the mass rapid transit system — being packed to the brim even past peak hours, the influx of foreign workers would lead to an even more cramped environment. This leads to discomfort during daily commute to work, lowering non-material standard of living as well. This point was not selected as it lacks economic analysis.*
- *The evaluation of this point would be that SRAS increases due to lower wages, leading to lower cost-push inflation.*

Summary of Effects of Globalisation (Macroeconomics)			
Effects	Increased Trade	Increased Capital Flow	Increased Labour Flow
Standard of Living	1. ToCA $\Rightarrow$ MSOL 2. ToCA $\Rightarrow P_M \Rightarrow$ MSOL 3. ToCA $\Rightarrow$ Variety $\Rightarrow$ NMSOL 4. $(X - M) \Rightarrow AD \Rightarrow$ MSOL 5. Competition $\Rightarrow$ Variety + Quality $\Rightarrow$ NMSOL 6. Competition $\Rightarrow P \Rightarrow$ MSOL	1. $I \Rightarrow AD \Rightarrow$ MSOL 2. Factories $\Rightarrow$ Pollution $\Rightarrow$ NMSOL 3a. Exploitation of workers $\Rightarrow$ Low wages $\Rightarrow$ MSOL 3b. Exploitation of workers $\Rightarrow$ Poor working conditions $\Rightarrow$ NMSOL	1. Overcrowding $\Rightarrow$ NMSOL 2. Foreign Talent $\Rightarrow U_s \Rightarrow$ MSOL & NMSOL 3. Competition $\Rightarrow$ Lower wages $\Rightarrow$ MSOL
Economic Growth	1. $(X - M) \Rightarrow AD$ 2. Contagion Effect	1. $I \Rightarrow AD$ 2. $I \Rightarrow QQT \Rightarrow LRAS$ 3. Contagion Effect	1. Foreign Talent $\Rightarrow QQT \Rightarrow LRAS$ 2. $QQT \Rightarrow SRAS$ 3. Brain Drain
Employment	1. $(X - M) \Rightarrow AD \Rightarrow U_D$ 2. $M \Rightarrow C_d \Rightarrow U_D$ 3. ToCA $\Rightarrow U_s$	1. $I \Rightarrow AD \Rightarrow U_D$ 2. $I \Rightarrow QQT \Rightarrow LRAS \Rightarrow U_s$ 3. Offshore $\Rightarrow U_s$	1. Foreign Talent $\Rightarrow U_s$ 2. Competition $\Rightarrow$ Lower wages $\Rightarrow U_s$
Price Stability	1. ToCA <u>or</u> Competition <u>or</u> market size $\Rightarrow P \Rightarrow SRAS \Rightarrow GPL$ 2. $(X - M) \Rightarrow AD \Rightarrow GPL$ 3. Contagion Effect via SRAS	1. $I \Rightarrow AD \Rightarrow GPL$ 2. $I \Rightarrow QQT \Rightarrow LRAS \Rightarrow GPL$	1. Competition $\Rightarrow$ Lower wages $\Rightarrow SRAS \Rightarrow GPL$
Balance of Payments	1. $(X - M)$	1. $I \Rightarrow KFA$ 2. Hot Money $\Rightarrow KFA$	1. Remittances $\Rightarrow CA$
Exchange rate	1. $(X - M) \Rightarrow$ foreign reserves buy currency	1. Contagion effect via Hot Money	

Be selective in your choice of points. Pick points which address the question, and do not select all or even almost all the points. The new syllabus only requires 2 key requirements and focuses on depth of analysis, not breadth.

6 For many years the USA did not conduct normal trading relations with Vietnam. In 2001 a trade agreement was signed between the two countries which reduced tariffs, encouraged foreign investment and opened up export markets.

~~(a) How does the theory of comparative advantage explain why a developed country such as the USA might wish to trade with a developing country such as Vietnam? [10]~~

(b) Discuss what effect such a trade agreement might have on the economies of the participating countries. [15]

2003 'A' Levels P2

Learning Objectives

- Explain the impact of increased trade and increased capital flow on various economic stakeholders, with a focus on the government/ economy.

6 (b) Trade agreement - which affords trade and capital flows - can have both positive and negative effects on the economies of different participating countries in addition to the gains from specialisation and trade according to the theory of comparative advantage explained in part (a).

The agreement will encourage more foreign investment to flow from the developed country such as the US to the developing country such as Vietnam. As the US is more capital-abundant (i.e. higher capital to labour ratio) while Vietnam is more labour-abundant (i.e. higher labour to capital ratio), the US will gain by investing its capital in Vietnam to benefit from the relatively lower labour cost. However, this could lead to exploitation of the cheap labour by foreign companies which are mainly profit motivated, for example, by providing lower wages or poor working conditions as in developing nations, there are not as many trade unions to fight for workers rights. This would lead to lower purchasing power of the labour, decreasing their ability to purchase goods and services to consume to satisfy their wants and needs. Furthermore, poor working conditions like cramped dormitories for construction workers may lead to overcrowding which is highly uncomfortable. It could also lead to greater spread of diseases and sickness which worsens health. Hence, standard of living will decrease.

- *This point is typically argued for developing countries. It can be easily linked to equity, shown below.*

Furthermore, there could be more unequal distribution of income as the benefits of FDI may accrue mainly to the minority who are business-owners or landowners. On the other hand, the income of the cheap labour tends to stagnate as explained earlier. Hence, the increased national income is likely to be concentrated in the hands of the upper class, so that the rich get richer and the poor remain poor. Hence, there is a growing income gap, leading to greater inequity and since the benefits of growth are not equitably distributed, inclusive growth will not be achieved.

- *This point lacks depth of analysis. As such, it would be advisable to add diagrammatic analysis via two wage market diagrams. One for the higher income, and one for the lower income.*

Companies in the developed country may find that they can reduce their costs by outsourcing some of their operations or production processes to other countries, or relocating the operations to other countries with lower costs e.g. US companies may outsource some of their production processes or relocate the production line to Vietnam because of cheaper labour. This results in a fall in the derived demand for such workers in the developed countries, leading to workers initially working these jobs being retrenched, leading to increased unemployment. This may be a severe issue if workers are unable to learn new skill sets to cope with structural changes, resulting in a mismatch of skill sets and job opportunities, causing them to remain structurally unemployed. In the US, Offshoring of manufacturing jobs has led to structural unemployment in regions heavily reliant on industries like textiles, electronics, and automotive manufacturing.

Important Learning Points

1. Free trade agreements increase trade and capital flow. For the most part, increased labour flow is not an impact of signing more free trade agreements. The only exception to this is the CECA signed between Singapore and India.
2. This essay is included to provide content for the effects of globalisation which did not answer the previous question. It is not a full essay and points from the previous essay should be used to supplement the content provided here.
3. The contextualised way to explain decreasing tariffs will be explained in essay 5(b), which is found after essay 8.

recession and the obstruction of the Suez canal that triggered supply-chain breakdowns, have illustrated that an increasingly globalised world has made economies more efficient but less resilient. This has prompted many governments to make efforts to be more self-sufficient.

(a) Explain how globalisation has made economies 'more efficient but less resilient'. [10]

~~(b) Discuss the policies a government could use to become more self-sufficient and whether, on balance, these policies are beneficial. [15]~~

2023 RI Prelims P2

Learning Objectives

- Explain the impact of increased integration of economies on microeconomic objectives (Impact on Governments and Economy)

7 (a) Globalisation – the interconnectedness of economies through trade, capital flow and labour flow - has allowed for economies to become more efficient by allowing for more efficient use of resources, more productively efficient by lowering costs of production and/or more dynamically efficient due to improvement in R&D. However, globalisation has also made economies more interdependent and as a result less resilient because less able to withstand external shocks thus being more vulnerable to them.

Key requirement 1: Globalisation has made economies more efficient.

Globalisation which affords freer flows of trade have allowed economies to be more allocatively efficient. Lower barriers to trade allow economies to exploit comparative advantage thus engage in more trade. Economies can thus further specialise in their area of comparative advantage where they have lower opportunity costs of production than their trading partners and export those goods which they have comparative advantage in. Economies can thus allocate resources to goods which they have comparative advantage and divert resources away from other goods which they can import instead. With specialisation and trade afforded by globalisation, economies can achieve more productively efficient use of world resources evident by the increase in global output with the same amount of world resources, affording economies to consume beyond their PPC. Assuming this leads to greater satisfaction of wants and needs, the resources in the world are allocated so as to maximise societal welfare, so allocative efficiency is achieved.

- *It is important to explain that productive efficiency is achieved before explaining allocative efficiency. This is because in order for maximum societal welfare to be achieved, scarce resources must be employed in a way that maximises output. This is because if there is still potential to produce greater levels of output which can be consumed for the satisfaction of wants and needs, then welfare is not maximised.*

Globalisation which affords freer flows of trade have allowed economies to be more productively and dynamically efficient. Globalisation which leads to lower barriers to trade also affords firms to

engage in cost-saving strategies. For example, firms can outsource part of their production or offshore their production to countries with comparative advantage in production of certain goods, for example less developed countries tend to have comparative advantage in producing labour intensive goods like agricultural products, allowing firms to produce with lower opportunity costs. Alternatively, firms can source for cheaper imported inputs from countries with comparative advantage in providing such inputs, lowering firms' costs of production. Additionally, with the larger market, the demand for goods produced in industries with comparative advantage grows, causing the industries to grow in size with the formation of key industrial hubs, allowing them to reap economies of scale. For instance, in Singapore which exports semiconductor chips, the semiconductor industry has expanded significantly, which has led to a greater pool of skilled labour as many workers learn the skills required in order to work in such a lucrative industry. This hence lowers in-house training costs of firms in the industry since workers are already trained in production techniques. Overall, the fall in their cost of production helps economies to achieve productive efficiency – lowest cost combination in production.

- *Economies of scale reaped from specialisation and trade need not necessarily be from an expansion in firms' size. It can just as well be from expansion of the size of the industry.*
- *Do note that in our syllabus, the definition of firms being 'productively efficient' in microeconomics is that they are producing on the LRAC, where a "fixed level of output is being produced with the least cost combination of inputs". However, on a macro level, productive efficiency can also be defined to be "producing the maximum level of output for a given level of input". The overarching idea is the same in that if all firms produce a fixed level of output with the least cost combination of inputs, then the same number of inputs in the world will be employed in a way that maximises output for the least input. Indeed, there is a contradiction since that would mean firms would only be productively efficient when they produce on the MEC, where average cost is minimised, and yet, since every point on the LRAC is a level of output produced with the least cost combination of inputs, every point on the LRAC is productively efficient. Hence, we must fall back on first principles: diagrams are a tool for illustration. That means that both points of view, despite contradicting each other, can be argued if they are not argued in the same essay since you will not be presenting contradicting information to the marker! If I have not explained this clearly, there is at least comfort in the fact that the paragraph above does not use internal economies of scale, and you will not have to deal with such an issue. With that, provided below is the internal economies of scale argument if it comes out in CSQ.*
- *Internal economies of scale argument: with the larger global market size that exporting firms are exposed to, their scale of production is likely to increase, allowing them to reap internal economies of scale. For instance, they may be able to fully employ highly efficient automated machinery which comes in fixed productive capacity as mass production becomes more relevant. Hence, as they increase their inputs, the small increase in overhead costs is spread over an even larger output, causing the average cost of production to fall. As firms produce nearer to the minimum efficient scale, the industry produces with limited excess capacity and is able to maximise their level of output with their given level of resources.*

Furthermore, globalisation has led to greater capital flows. With more FDI into a country by MNCs, there are more substitutes of goods that were initially produced domestically. Furthermore, with

greater trade, there is also greater competition in the form of cheaper imported substitutes from countries with a comparative advantage in producing such goods, so each domestic firm faces a smaller consumer base thus a decrease in demand, which incentivizes domestic firms to conduct more R&D to improve quality of their goods to gain larger market share. They may also try to find new technologies to lower their cost of production via process innovation so that they are able to pass on lower costs as lower prices to consumers to be more price competitive. This will hence create an environment whereby consumers' changing tastes and preferences are met, and technology continually improves to lower the long run average cost of production. Hence, this leads to dynamic efficiency. Moreover, FDI may bring efficient technologies from their home countries which combine resources in new ways to produce more output. There is higher productivity, so there is a lower per unit cost of production, allowing firms to achieve productive efficiency as they are able to produce more output with the same number of resources.

- *This argument can also be linked to macroeconomic concepts like standard of living (greater appeal to tastes and preferences $\Rightarrow$ greater satisfaction of wants and needs) or inflation (lower cost of production are passed on to consumers in terms of lower prices hence general price level falls).*

The free flow of capital and labour also allows for allocative efficiency. This is because the price mechanism would suggest if there is a shortage of labour in a country, wages would be bidded up. Consequently, foreign workers in search of higher payment for their labour would migrate to these countries for a higher income so that they may have higher purchasing power to consume more goods and services for the satisfaction of their wants and needs. Moreover, firms are more likely to invest in countries with greater business prospects where more profits can be made. As such, fixed capital formation tends to occur in economies which have higher demand for capital intensive goods as there would be higher potential for firms to make more profit by making FDI there. Hence, with greater factor geographical mobility, capital would flow to countries which need it the most for economic growth and development, while labour would flow to countries which struggle with skill or labour shortages such as in ageing societies, thus alleviating unemployment. Overall, this would then allow them to produce the goods and services which are in demand in order to meet the needs and wants of countries to allow for society to attain the greatest level of satisfaction.

However, the greater flow of labour may lead to worsening dynamic efficiency in a country. With a greater quantity of low-skilled foreign labour which allows firms to produce output at a sufficiently low cost due to the low wages of such workers, firms may lose the incentive to undergo process innovation since they already make substantial supernormal profits with low labour costs. Hence, the lack of technological development to lower costs of production worsens dynamic efficiency.

Key requirement 2: Globalisation has made economies less resilient.

- *The content for this KR has been provided in essay 5. Consider revisiting it.*

Summary of Effects of Globalisation (Microeconomics)			
Effects	Increased Trade	Increased Capital Flow	Increased Labour Flow
Efficiency	1. ToCA $\Rightarrow$ PE $\Rightarrow$ AE 2. Market Size $\Rightarrow$ EOS $\Rightarrow$ PE $\Rightarrow$ DE 3. Competition $\Rightarrow$ AE & PE	1. Search for Returns $\Rightarrow$ AE 2. Technology $\Rightarrow$ PE $\Rightarrow$ DE	1. Labour market $\Rightarrow$ AE 2. Foreign talent $\Rightarrow$ PE 3. Foreign talent $\Rightarrow$ Lack of incentive to innovate $\Rightarrow$ DE
Equity	ToCA $\Rightarrow$ Income gap using wages DDSS diagram	Worker exploitation $\Rightarrow$ low wages $\Rightarrow$ income gap	Competition $\Rightarrow$ lower wages $\Rightarrow$ income gap

Important Learning Points

1. This set of points is rarely ever tested. It is here to provide additional content should Cambridge decide to be nasty and set a question like this. For the most part, this set of points are not as strong as the points covered in essay 5 and 6 and you should not write them.

8 “Across the globe, people are wondering why the US, usually the leader in free trade, is now

taking a protectionist stance.”

(a) Describe two different types of protectionist policy measure and explain how each type would affect trade. [10]

(b) Discuss the extent to which protectionism would be beneficial to an economy. [15]

2018 'A' Levels P2

Learning Objectives

- Distinguish between trade and free trade.
- Understand the workings of tariff and non-tariff protectionist policies to reduce free trade.
- Explain the impact of protectionist policies on various economic agents.
- Understand that protectionism is traditionally not viewed favourably.

8 (a) Protectionist policy measures are barriers to free trade imposed by a government. They include tariff and non-tariffs barriers.

Key requirement 1: Import tariffs

Tariffs are a tax on imported goods, designed to protect domestic industries from foreign competition by directly raising the price of imported goods.

- *Tariffs can be specific which is a fixed amount of tax charged per unit of the good or ad valorem where the good or service is taxed a certain percentage of the value/market price of the good.*

Before imposition of an import tariff (i.e. situation under free trade), D_{domestic} and S_{domestic} are the domestic demand and supply curves respectively and P_{autarky} is the domestic equilibrium price as illustrated in Fig 4. P_w represents the world price which is the price at which imports are sold. It coincides with S_{world} which is the world supply curve and is perfectly price elastic based on the assumption that the rest of the world can export as much as the countries want to import at P_w . As consumers would only want to pay the cheaper price P_w for the imported goods (instead of P_{autarky}), domestic producers will also have to charge P_w in the domestic market. At P_w , quantity demanded is at Q_{dw} but domestic producers are only willing and able to produce up to quantity supplied Q_{sw} thus $Q_{\text{sw}}Q_{\text{dw}}$ represents the quantity of the goods imported i.e. illustrated by distance M_w . Assume that with the imposition of a per unit tariff of P_wP_t , domestic price of the imported goods rises above its world price by the amount of the tariff, increasing the price of imported goods from P_w to P_t . At higher price P_t , domestic quantity demanded falls to Q_{dt} and domestic quantity supplied increases to Q_{st} . Quantity of imports decreases to $Q_{\text{st}}Q_{\text{dt}}$ i.e. illustrated by distance M_t . Therefore, protectionist policies such as import tariffs would decrease trade.

- For market intervention questions (this includes chapter 2), a before-during-after approach is very useful for analysis using diagrams. It is applied here.
- Note that world supply is not used to explain changes in quantity because the rest of the world is assumed to be able to export as much as the country wants to import.

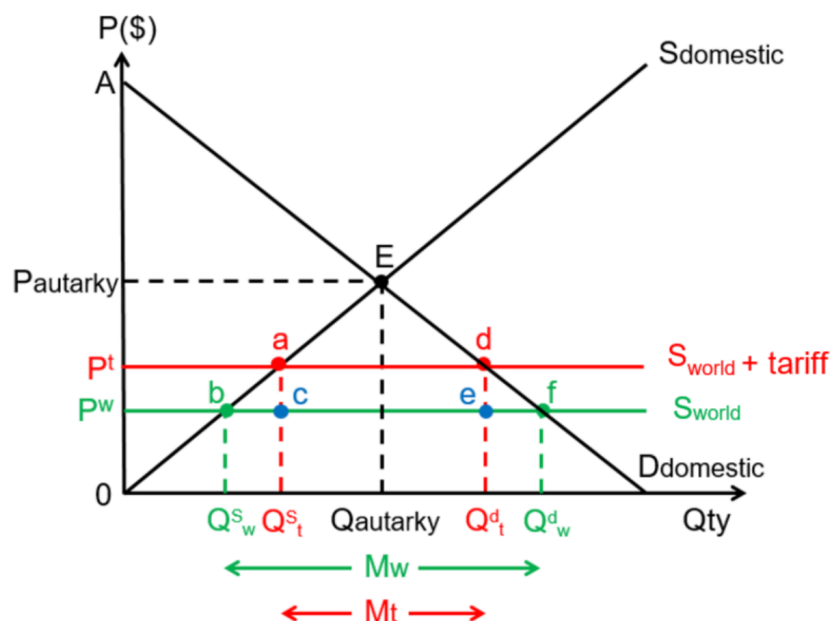


Fig 4: Import Tariff

Key requirement 2a: Import quotas

An import quota is an example of a non-tariff barrier where the importing country restricts the number of imported goods by specifying the maximum amounts of goods and services that can be imported at any given period of time.

- For example, a country may limit the amount of a specific model and make of imported cars per year.

Before imposition of an import quota (i.e. situation under free trade), D_{domestic} and S_{domestic} are the domestic demand and supply curves respectively and P_{autarky} is the domestic equilibrium price as illustrated in Fig 5. P_w represents the world price which is the price at which imports are sold. It coincides with S_{world} which is the world supply curve and is perfectly price elastic based on the assumption that the rest of the world can export as much as the countries want to import at P_w . As consumers would only want to pay the cheaper price P_w for the imported goods (instead of P_{autarky}), domestic producers will also have to charge P_w in the domestic market. At P_w , quantity demanded is at Q_{dw} but domestic producers are only willing and able to produce up to quantity supplied Q_{sw} thus $Q_{sw}Q_{dw}$ represents the quantity of the goods imported i.e. illustrated by distance M_w . Assume the country restricts the quantity imported to $Q_{sq}Q_{dq}$ (illustrated by distance M_q), domestic price will be driven up to P_q thus decreasing domestic quantity demanded to Q_{dq} and domestic producers will increase production to domestic quantity supplied Q_{sq} . Quantity imported decreases to $Q_{sq}Q_{dq}$ i.e. illustrated by distance M_q . Therefore, protectionist policies such as an import quota would decrease trade.

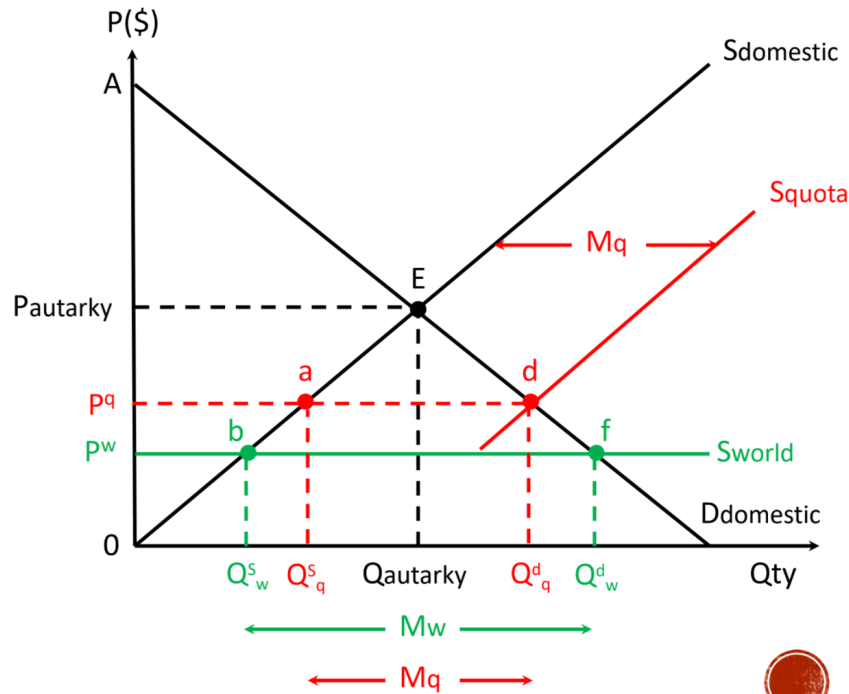


Fig 5: Import Quota

Key requirement 2b: Devaluation

Devaluation is the deliberate policy by the central bank via weakening of the domestic currency to make domestic exports cheaper in terms of foreign currency and to make imports more expensive in terms of domestic currency.

With the weakening of domestic currency, more domestic currency must be exchanged in the FOREX market for foreign currency in order to buy imports. Hence, imports become more expensive in terms of domestic currency, causing a fall in quantity demanded of imports as consumers switch away from the relatively more expensive imports to relatively cheaper domestically produced substitutes. Furthermore, with domestic currency weakening, each unit of foreign currency can now be used to purchase a greater number of exports as the price of exports are lowered in terms of foreign currency. Assuming a price elastic demand for exports due to there being a large number of substitutes in consumption ($|PED_x| > 1$), the fall in revenue from the fall in price would be smaller than the gain in revenue from the more than proportionate increase in quantity demanded, so export revenue increases. Assuming the Marshall-Lerner condition holds ($|PED_x + PED_m| > 1$) due to price elastic demand for exports explained above, there would be an increase in net exports ($X - M$) in the long run. Therefore protectionist policies such as devaluation would increase exports more than they decrease imports, so there is a net increase in trade.

- Note that PED_x and PED_m can be changed depending on how you argue it. In this case, to argue for an increase in trade, I let $|PED_x| > 1$. However, if the question were to ask for how protectionist policies might decrease trade, I would have to let $|PED_x| < 1$ and omit MLC as that argues $(X - M)$ increases..

Key Requirement 2c: Export subsidies

Export subsidies are unilateral payments to exporting firms to make the country's exports more competitive in the foreign markets. Export subsidies can take the form of cash payments to a domestic exporter or tax concessions, cheaper loans or cheaper raw materials.

- *Export subsidies reduce 'free' trade. Free trade is the exchange of goods and services between countries in the free market without government intervention. Hence, export subsidies are considered to be distortive and they restrict free trade. Furthermore, when countries retaliate, or become poorer as a result of export subsidies, this will indirectly reduce trade, as explained in part (b).*

With an export subsidy, in the short term, trade would likely increase. This is because export subsidies lower the post-subsidy/post-tax profits of domestic exporters, so they are more willing and able to increase production, illustrated by a downward shift of the supply curve by an amount P_0a equal to the per unit subsidy/ tax reduction/ etc. from S_0 to $S_0 + \text{subsidy}$. Hence, this leads to a surplus Q_DQ_S at the original export price where quantity supplied Q_S exceeds quantity demanded Q_D , causing a downward pressure on price to fall from P_0 to P_1 where quantity demanded increases from Q_0 to Q_1 . Hence, trade is increased as the quantity of exports increases.

However, assuming ($|PED_x > 1|$) due to there being a large number of substitutes, the fall in revenue from a fall in price is outweighed by the gain in revenue from the more than proportionate increase in quantity demanded, increasing export revenue in the domestic economy. This then increases import expenditure (M) in the foreign economy, causing a fall in their aggregate demand ($AD = C + I + G + (X - M)$) whereby sales exceed production, causing an unexpected increase in inventories which prompts firms in the foreign economy to reduce production. Hence, they make less factor payments to households providing the factors of production, causing a fall in real national income. Hence, when the purchasing power of the other countries fall, the demand for domestic exports to their countries fall, which causes a fall in equilibrium quantity and price of exports, causing a fall in export revenue in the domestic economy. Hence, trade is reduced in the long run as countries become poorer. Furthermore, if the other countries face the negative effects of the protectionist policies, such as a worsening trade deficit as other countries' import expenditure rises past their export revenue, the countries may retaliate and implement protectionist policies of their own to protect their domestic economy. In the extreme case, this might escalate into a trade war whereby countries continue to block trade from each other. Hence, overall, export subsidies have an effect on reducing trade.

- *Export subsidies is not a point that should be written, unless the question specifies it. Export subsidies first increase trade, so it is difficult to prove that it is a protectionist policy. The marker's comments for this essay specifically left out "export subsidies" as a policy written by stronger responses. Instead, the strongest answers' breadth covered tariff measures and non-tariff measures like import quotas and devaluation. Import quota diagrams varied in quality however, because it is a hard diagram to draw. Hence, given the chance, I would pick devaluation because under the stress of exam conditions, the diagram might be drawn wrongly. The analysis for export subsidies is only the first paragraph. This second paragraph is a paragraph that is written if you accidentally wrote export subsidies.*

Key Requirement 2d: Voluntary Restraint Arrangement (VRA) or Voluntary Export Restraints (VER)

VRAs and VERs are trade barriers in which foreign firms voluntarily limit the amount of their exports to a particular country in hopes of avoiding more stringent trade barriers.

- *The analysis here is effectively the same as an import quota. It's just that the phrasing is slightly different in that the amount of imports is not "set" but "agreed upon". The idea of "voluntary" must be conveyed. Given the choice between import quotas and VRAs, pick import quotas. It is less iffy because this policy is more so considered protectionism because this is a compromise reached when other countries threaten more serious protectionism measures.*

Key Requirement 2e: Technical and Administrative barriers

Technical and administrative barriers refer to licensing requirements, technical requirements, unreasonable standards pertaining to product quality and safety, or simply unnecessary bureaucratic red tape in customs procedures.

- *Japan and the European countries frequently require importers to obtain licences.*
- *The EU has set new environmental and labour standards for crops used to make biofuels.*
- *I would analyse this using cost-benefit analysis, based on the cost of extreme tediousness. Do not pick this point. Cost-benefit analysis is always a last resort.*

Key Requirement 2e: Embargo

An embargo is the partial or complete prohibition of commerce and trade within a particular country, in order to isolate it. Embargos may be implemented as a form of political sanction against another country.

- *An embargo is effectively the more extreme version of an import quota. It is treated as an import ban. I don't think you can even provide any real analysis because using the before-during-after approach effectively means you go in a circle since the price would simply be raised back up to P_{autarky} . I would just go with cost-benefit analysis with a lot of description if I was forced to write it. Obviously, do not pick this point, you will shoot yourself in the foot.*
- *Singapore example: Singapore bans the import of chewing gum*
- *Other countries examples: Other countries typically ban the export of drugs and guns.*

Important Learning Points:

1. Whenever policies are mentioned, state the objective of the policy. It is a standard part of the analysis. Always.
2. The breadth for protectionist policies is always tariff and non-tariff measures because this is how protectionist policies are broken down in the H2 Economics syllabus. Tariffs are the traditional method of protectionism, while other methods are not as traditional.
3. Protectionism reduces free trade. This implies that with protectionism, export revenue and import expenditure falls.
4. Do note that evaluation based on the price elasticities of the domestic demand and supply curve can be used. This will be covered in the appendix.

8 (b) Protectionism occurs when governments impose trade barriers to protect domestic industries from foreign competition. Protectionism can have benefits to an economy, but they may be limited or come with certain trade-offs.

Key Requirement 1: Benefits of Protectionism

An infant industry is a newly emerging industry in early stage of development with potential economies of scale to be reaped in the long run. Protecting certain newly established infant industries could lead to economic growth and justify the benefits of protectionism to an economy. During the initial period of operation, infant industry has only a small share of the domestic market thus when confronted with well-established foreign competitors who are already enjoying internal economies of scale and hence perhaps enjoy lower costs of production, the infant industry is not able to compete as it is not price competitive. If given time to address its initial problems such as inexperienced workers and managers, a lack of back-up facilities such as communication network, specialist research and development, the infant industry can be expected to gain larger market share and thus increase its scale of production to be more efficient, and hence realise its comparative advantage. Without protection, these infant industries will not survive against foreign competition as the infant industry is likely to suffer short term losses and likely to shut down despite being potentially profitable in the long run. For example in the 1950s the Japanese government restricted imports of cars and also imposed high tariffs on imported cars to protect its newly established automobile industry. Today, Japanese automobile makers have established a reputation in manufacturing cars.

Protectionism in the form of tariffs causes expenditure-switching effects and can lead to economic growth. The domestic firms may pass on their economies of scale in terms of lower prices to consumers relative to that of their trading partners, encouraging domestic consumers and firms to switch their expenditure away from foreign imports towards domestically produced goods and services, leading to a fall in import expenditure M and a rise in domestic consumption expenditure. The increase in consumption (C) and net exports ($X-M$) increases aggregate demand (AD) given $AD=C+I+G+(X-M)$. The increase in AD from AD_0 to AD_1 as illustrated in Diagram 2 leads to a more than proportionate increase in real output to Y_1 via the multiplier effect, which is based on the proposition that the increase in expenditure generates a rise in income, and a further increase in income generates further expenditure, achieving actual economic growth. As real national output rises, demand for resources including labour rises as the demand for labour is derived from the demand in output. Therefore, there is also a decrease in cyclical unemployment as more job openings are created.

- *For understanding, this would be illustrated by a rightward shift of the domestic supply curve in the tariff diagram such that P_{autarky} falls to a level below original world price. Do not actually draw this.*

To evaluate, protectionism brings about a conflict between the macroeconomic objectives of demand-pull inflation and actual economic growth, assuming the economy is operating at the intermediate range. The business sector cannot respond to an excess in aggregate demand by expanding real output as all available resources are nearly or already fully employed. As a result of the lack of spare capacity, prices of resources will be bidded up and firms would pass on the higher costs in terms of higher prices to consumers, leading to an increase in general price level from P_0 to P_1 as illustrated in Diagram 2. Therefore, on balance, the extent protectionism would be beneficial to an economy depends on the state of the economy e.g. whether the economy is near full employment. Nevertheless, the development of an infant industry can lead to an expansion of and thus an increase in investment in related domestic industries, and this would increase the economy's productive capacity especially when the investment embodies technological advancement. This can be illustrated by a rightward shift of the economy's LRAS curve and the increase in spare capacity might also help in reducing inflationary pressure.

Moreover, as import expenditure (M) decreases from $Q_{sw} \times P_{dw}$ to $Q_{st} \times P_{dt}$, Balance of Payments would improve as the Balance of Trade in the current account of BOP increases. Therefore, protectionism could also improve a persistent balance of payments deficit thus justifying the need to reduce imports to prevent the country from incurring high foreign debt or deplete its foreign reserves.

- *This point is typically accompanied by the tariff diagram analysis, or import quota analysis where relevant. However, since the analysis had already been mentioned in part (a), there is no point repeating it.*

To evaluate, protectionism is a short term measure and may not improve the trade deficit if the root cause of a persistent balance of payments deficit is due to changes in comparative advantage that renders a country's exports obsolete or from lagging productivity. As such, protectionism is at best a short-term solution to give a country time to restructure its economy. If protectionism is long term, instead, firms may become complacent and lack the incentive to innovate knowing that they will be protected in the long run. Hence, domestic exports continue to be lacking in quality or price competitiveness, meaning that the costs might outweigh the benefits.

Moreover, lower import expenditure (M) in the domestic economy translates to lower export revenue (X) in the foreign economy causing a fall in their aggregate demand causing a fall in real national income. Hence, when the purchasing power of the other countries falls, the demand for domestic exports to their countries fall, which causes a fall in export revenue in the domestic economy. Furthermore, if the other countries face the negative effects of the protectionist policies, the countries may retaliate and implement protectionist policies of their own to protect their domestic economy. In the extreme case, this might escalate into a trade war whereby countries continue to block trade from each other.

- *The extended version of this point is found in the previous essay.*

Protectionism also mitigates structural unemployment in senile or industries in decline, giving these old established industries time to modernise and be competitive in the face of foreign competition or loss of comparative advantage and protect workers' jobs as they are re-trained and equipped with skills in demand, reducing occupational immobility. If these industries are not protected, foreign competitors will likely out compete them by selling higher quality goods which appeal to consumers' changing tastes and preferences better, causing a fall in market share for the firms in senile industries. As such, these firms' production will decrease and the derived demand for low skilled labour falls, resulting in structural unemployment. For example, the US's automotive industry is one of her largest and oldest, supporting 9.9 million jobs. Protectionism has allowed domestic automakers to invest in newer technologies to produce small ultra-fuel-efficient cars, electric cars and autonomous vehicles that are high in demand in recent years.

- *Given the similarity between infant and senile industry, you should not be explaining both of them in response to the same question unless required by the question. If given the choice, the infant industry is a stronger argument. Because declining industries are more prone to shutting down, by statistics. Singapore is actually a rare case whereby senile industries do not die out.*

To evaluate, it is difficult to determine which industries are the infants/senile capable of achieving economic maturity and thus deserving protection. Protecting these industries over a prolonged period can cause the industries to remain perpetually as infants/senile as they remain complacent and do not take the opportunity to develop and grow, thus the potential comparative advantage might not materialise and thus resources are wasted. Even if an infant/senile industry is identified accurately, the industry receiving protectionism might turn complacent thus be inefficient. If so, protectionism breeds inefficiency and hence high opportunity costs incurred i.e. resources that can be allocated to more efficient use are allocated to inefficient industries.

- *Consider domestic subsidies as an alternative policy. A subsidy would lower the cost of production of domestic firms leading to an increase in production which would allow the firms to potentially enjoy internal economies of scale. However, subsidies are extremely costly, so they can only be used for a short period of time to boost these industries. Either way, these policies can only be used in the short run, and as such, must be accompanied by requirements for the senile/infant industry to innovate in order to become more dynamic, which, if not met, may lead to the termination of such protection or subsidies. The threat of no longer receiving governmental aid in the long run, leading to potential shutdown, would incentivise the firms to engage in R&D etc.*

A country that specialises and trades according to the theory of comparative advantage might over specialise in a limited number of goods and services, and become overly dependent on the production and export of these goods and services for growth. Given an external shock such as war, major trading partners having a recession, and changes in pattern of trade, the country might need to undergo painful readjustments such as reallocation of resources to produce armaments at expense of consumption goods, allowing sun-setting industries to fail, retraining of workers in order to minimise the damages from the external shock.

- *The impacts of such shocks should be covered at least partially. They are provided in essay 5(a)*

To evaluate, The benefits of promoting self-sufficiency via protectionism must be weighed against the forgone benefits from specialisation and trade. Careful selection of industries (e.g. industries that produced strategic and essential goods such as foodstuff and armament) and meticulous calibration (e.g. adjusting the degree of protection provided to ensure that the protected industries are not complacent etc) are therefore required to ensure long term net benefits.

Another benefit of protectionism is the prevention of dumping. Dumping occurs when foreign firms sell their goods below cost in domestic markets by making short term subnormal profits to undercut domestic firms' prices perhaps with the aim to gain monopoly power so as to raise prices in the long term to exploit long term profits. If successful, the domestic market demand would become more price inelastic due to the decrease in the number of domestic substitutes as a result of the shutting down of domestic firms, the foreign firms would gain market power and exploit it to increase prices. As domestic consumers have limited substitutes to switch to, quantity demanded would decrease less than proportionately and hence the foreign firm would gain long term profits at the expense of the survival of domestic firms and consumer welfare. I.e. higher prices with less variety. If so, domestic firms are facing unfair competition thus protectionism is needed to protect domestic firms and consumers.

To evaluate, It is very difficult for the domestic government to determine if dumping has occurred. For instance, if the lower prices in the domestic market is because the foreign competitors have comparative advantage, are practising price discrimination (i.e. prices in domestic market is higher as the demand is relatively more price inelastic as compared to foreign firms home markets), and/or because foreign firms are clearing stocks at lower prices, protectionism is not justified and domestic firms benefit at the expense of consumers (i.e. consumers face higher prices etc).

Key requirement 2: Explain the costs of protectionism to an economy i.e. argument against protectionism.

Protectionism goes against the principle of comparative advantage preventing countries from reaping the gains from specialisation and trade. The theory of comparative advantage states that trade can benefit all countries if the countries involved specialise in and export the goods in which the country has a comparative advantage. If countries were self-sufficient, scarce world resources are allocated less efficiently as countries do not produce goods with a lower opportunity cost, so world output would be smaller than if they specialised and traded. The resulting lower global output is of particular concern for small open import reliant, trade-dependent countries like Singapore. Singapore's small domestic market means a greater reliance on exports to drive economic growth; Singapore's exports stood at 173% of GDP in 2017 forming a much higher percentage of GDP than large countries such as the US.

- *Notice that the content here is a benefit of free trade. All of the points for costs of protectionism are derived from benefits of free trade. Likewise, all the benefits of protectionism are derived from costs of free trade. Hence, these paragraphs are provided to teach how to adapt content.*

Due to countries imposing protectionism importing less as illustrated from distance M_w to M_t in Diagram 1 (as explained in part (a) earlier), this could lead to a significant fall in demand for Singapore's exports and hence export revenue. The fall in net exports would lead to a more than proportionate fall in real output via the reverse multiplier effect and thus slower economic growth. Moreover, Balance of Trade in Current Account and hence Balance of Payments would also worsen. In addition, protectionism in the form of tariffs has the effect of raising prices of imported goods and reducing the quantity of imports available to consumers, lowering consumer welfare. From Fig 4, the imposition of a tariff increases the price of imported goods paid by domestic consumers from P_w to P_t resulting in a fall in consumer surplus represented by area $P_t d f P_w$. Producer surplus, however, increases by area $P_t a b P_w$, and Area $a b e c$ represents the tariff revenue from imports collected by the government. Nevertheless, the net loss in consumer welfare is illustrated by areas $a c b$ and $d f e$, which represents the deadweight loss to society. As the quantity of imported goods falls from M_w to M_t in Diagram 1, consumers have to contend with lower access to goods and services to meet their needs and wants, lower quality products and fewer varieties of goods. Therefore, material and non-materials living standards would be lowered. For example, protectionism in the Japanese automobile industry in the 1950s forced consumers to buy domestically produced cars built with inferior technology, which were more expensive and inferior to cheaper foreign made cars of better quality.

- *Considering this point, it would be illogical to suggest that tariffs may lead to an improvement in societal welfare with tariff revenue since graphical illustration has illustrated that even if the government were to fully use the tariff revenue for the production of public and merit goods for example, implying that the tariff revenue improves societal welfare, there would still be deadweight loss illustrating that overall, societal welfare still falls.*
- *This is actually an extension of the theory of comparative advantage. In our syllabus, the main way we explain the theory of comparative advantage is by considering opportunity costs. However, it can also be explained using the free trade diagram. This is explained in the appendix. Essentially, since there is welfare gained from greater consumption of goods and services at a lower price, then that must mean that welfare is lost if trade is restricted.*

Furthermore, protectionism could lead to greater inefficiency. Protectionism allows firms to remain inefficient, reducing firms' incentive to reduce cost as may be the case in protecting an infant industry. The reduced competition from foreign producers increases the market share and market power of domestic firms may cause such firms to become complacent and lax about cost controls incurring higher average cost at profit maximising output resulting in X-inefficiency. The lack of competitive pressure by foreign producers may also reduce the incentive of domestic firms to engage in research and development leading to dynamic inefficiency, leading to a lower potential level of real national output in future i.e. lowers potential growth. Furthermore, domestic consumers are charged a higher price than they would have paid without protectionism resulting in greater allocative inefficiency i.e. $P > MC$. In addition, protectionism affects the use of resources, re-allocating resources, diverting resources such as labour away from more efficient industries towards less efficient protected industries resulting in higher productive inefficiency.

Protectionism could invite retaliation from nations adversely affected. This is because protectionism practised by one country would disadvantage other countries e.g. causing other countries' trade deficits to increase because these countries would earn less export revenue and/or might increase import expenditure. For example as the US repeatedly raised tariffs on Chinese imports, China retaliated with tariffs imposed on US produced goods. India, too, retaliated with tariffs on US produced goods including almonds and apples as the US withdrew preferential trade treatment that allowed India exports to enter the US duty free. Tit-for-tat retaliation causes a competitive raising of trade barriers could lead to a trade war as each country cuts back on spending on imports from other countries, the consequent fall in the demand for each country's exports will cause a fall in net exports, leading to a decrease in real national output and slower actual economic growth. Each country will not be able to enjoy higher consumption that would have been possible as the total basket of goods and services consumed by the populace is smaller compared to what they could enjoy if the country were to specialise and trade according to comparative advantage.

The exports of one nation must be the imports of another. Beggar-thy-neighbour policies implemented for the purpose of achieving domestic full employment at the expense of other countries could both the country practising beggar-thy-neighbour policies and the affected countries worse off and thus an overall decline in global output. The extent in which one country is able to stimulate its economy through an excess of exports over imports would worsen some other country's unemployment problem by the resulting excess of imports over exports. In the long run, the country implementing protectionist measures would also be worse off since the consumers of affected countries would reduce consumption of imports and hence the country implementing protectionist measures export revenue falls as the national income of their trading partners fall.

Evaluative conclusion

In conclusion, there are several reasons why governments adopt protectionist policy measures. While protectionism has its benefits, it is not without costs. To evaluate, the extent to which protectionism would be beneficial to an economy depends on:

Type of economy:

Protectionism benefits larger economies like the US where domestic consumption and investment account for a significant proportion of GDP. Protecting domestic industries from foreign competition could safeguard and/or create jobs, reducing unemployment. On the other hand, small open trade dependent countries like Singapore could experience slower economic growth and/or fall into a recession as demand for export-dependent products in sectors like manufacturing, transport and storage are affected by the lower global and regional trade.

Different time periods.

In the short run, protectionism could be beneficial for an economy as domestic consumption and hence production is stimulated. In the long run, however, induced retaliation could negate the benefits intended of protectionism, and worse escalate into a trade war as retaliatory measures are imposed.

Types of industries in domestic countries.

If industry has potential comparative advantage then protectionism would be beneficial for domestic countries as well as for global trade in the long term. But if there is no obvious comparative advantage and that the industry is protected due to pressure groups or for political reasons, protectionism would only create inefficiency.

Learning Points

1. The benefits of globalisation can be used as the costs of protectionism and vice versa. Do not memorise them as separate points.
2. When discussing protectionism, it is always important to first discuss the policies before discussing their impacts.
3. 'An economy' can refer to either the economy that practises protectionism or the economy affected by other countries practising protectionism. This implies that there should be impacts on both the economies. It is advised that you cover the impacts on each country in separate paragraphs so as to avoid confusion for both you and the marker.
4. Take note that this essay uses a thesis-antithesis approach, which is not advised. You will notice that a lot of the points overlap with their evaluations, which makes such an approach very tedious. There is nothing wrong with the content, but it would also give the essay a back-and-forth approach which makes it slightly frustrating to read. Instead, you should use the costs as evaluations of the benefits. Thereafter, you can evaluate the extent of the cost and benefits in the evaluative conclusion based on "who, when, where".

Summary of Impacts of Protectionism		
Impact of Protectionism	Impact of Freer Trade	Impacted Economy
Infant Industry/ Senile Industry	$M \Rightarrow C_d \Rightarrow U_D$ $ToCA \Rightarrow U_S$	Protected Economy
BOT/ BOP	$(X - M)$	Protected Economy
Prevent Dumping	$Market\ size \Rightarrow P \Rightarrow SRAS \Rightarrow$ GPL	Protected Economy
Diversification/ Self-sufficiency	Contagion Effect	Protected Economy
Equalise Costs (provided in NJ notes; weak point)	$ToCA \Rightarrow P \Rightarrow SRAS \Rightarrow GPL$	Protected Economy
National Security	Contagion Effect	Protected Economy
Lower Global Output, Higher prices, Welfare Loss, Reduced Consumer Choice	$ToCA \Rightarrow MSOL$ $ToCA \Rightarrow P_M \Rightarrow MSOL$ $ToCA \Rightarrow Variety \Rightarrow NMSOL$	Trade-restricted Economy
Greater Inefficiency	$Competition \Rightarrow AE \ \& \ PE$	Domestic Economy

5 Singapore's Prime Minister has stated that 'Globalisation will be under pressure, but it is imperative for countries to cooperate, for businesses to operate across many geographies, to tap resources, to bring skills and talents and experiences together, and then serve markets all around the world.'

(a) Explain the benefits and costs of globalisation to Singapore. [10]

(b) Discuss the most appropriate policy measures that the Singapore government should take to increase the benefits and reduce the costs of globalisation. [15]

2022 'A' Levels P2

Learning Objectives

- Understand that free trade agreements are essentially policies promoting freer trade and increased capital flow. I.e. They are literally the opposite of tariffs.
- Understand what free trade area agreements are.

5 (b) Singapore should sign more free trade agreements (FTAs) and promote research and development (R&D) to increase the benefits of freer trade flow arising from globalisation. Singapore should also undertake infrastructure and human capital development to reduce the costs of freer capital flow arising from globalisation.

The Singapore government should sign more FTAs to increase the benefits of globalisation via freer trade explained in part (a). Since signing FTA with countries affords Singapore to enjoy 0% tariffs or preferential tariffs in foreign markets, Singapore's exports would be more price competitive in these foreign markets as compared to exports from non-FTA countries.

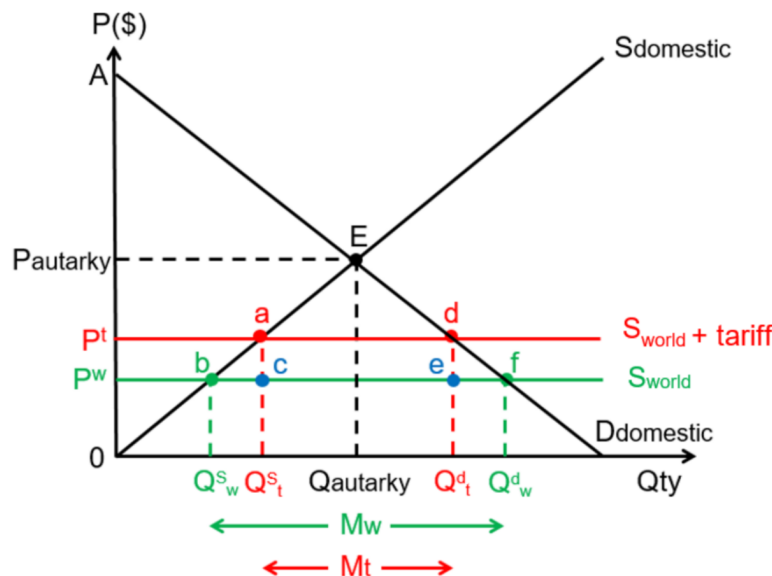


Fig 4: Tariff Diagram

As illustrated in Fig 4, prices of Singapore's goods in foreign countries that Singapore signs new FTA with would decrease, from P_t to P_w and the quantity of Singapore's exports would increase, from distance $Q_{st}Q_{dt}$ to distance $Q_{sw}Q_{dw}$. Singapore's export revenue (X) would thus increase from area $Q_{st}ceQ_{dt}$ to area $Q_{sw}bfQ_{dw}$. As explained in part (a), the increase in X would contribute significantly to an increase in Singapore's AD which in turn lead to higher economic growth, lower unemployment and improvement in living standards in export-oriented Singapore.

Evaluation: To evaluate, the effects of increasing Singapore's X via signing of FTA might not have increased the benefits of globalisation to Singapore significantly given Singapore's existing policy of gradual Singapore dollars (SGD) appreciation to keep imported inflation at bay. Singapore's exchange rate policy would partially offset the positive effects on Singapore's export price competitiveness as prices of Singapore's exports in terms of foreign currencies would be higher with stronger SGD. Therefore, Singapore should also implement policies to enhance Singapore's export quality competitiveness.

One such supply side policy that Singapore should undertake is R&D, for example via subsidies to offset the cost of R&D to firms, to improve the quality of Singapore's exports. Successful R&D would shift tastes and preferences towards Singapore's higher quality exports, increasing the demand for Singapore's exports and thus increasing Singapore's X. For example, R&D has afforded the use of advanced technology and stringent quality control in Singapore's export of water purification systems. Also, successful R&D would afford Singapore the ability to gain and shift into new areas of comparative advantage to avoid competition with low-cost producers in other countries like China. For example, emerging economies like China are also moving into the export of more capital-intensive high-end electronics and given China's large scale of production that affords producers in China to enjoy significant internal economies of scale, Singapore is likely to eventually lose its CA in these areas and thus losing the benefits of globalisation via freer trade explained in part (a). The adoption of R&D can help Singapore avoid a losing battle by helping Singapore gain new comparative advantages (CA) in areas of artificial intelligence and satellite manufacturing/servicing, thus increasing the benefits of globalisation via freer trade.

To evaluate, R&D is very expensive and thus would likely put a strain on the government budget. Nonetheless, these funds could likely be recouped in the long term due to Singapore's improvement in global competitiveness and from the new areas of CA gained. Policies to encourage R&D would however result in an increase in structural unemployment in Singapore. This is because workers from the sunseting industries that lose CA are likely to be retrenched due to falling production and they might not have the skills required to join the rising industries that gain CA but require new skills.

Nevertheless, by signing more FTAs would also help Singapore reduce the costs of globalisation. By affording foreign countries 0% tariffs or preferential tariffs in Singapore markets, firms in Singapore can enjoy lower cost of production due to lower prices of imported raw materials. Given that Singapore is an import reliant economy as explained in part (a), this would lead to an increase in Singapore's SRAS which in turn would help lower possible cost push inflation in Singapore due to negative supply shocks explained in part (a).

In addition, Singapore should also adopt policies to improve its attractiveness as a FDI destination to reduce the cost of globalisation arising from possible outflow of FDIs explained in part (a). This can be achieved via supply side policies such as infrastructure development and human capital development to improve Singapore's international competitiveness. For example, the development of Fusionopolis and Biopolis with infrastructures catering to pharmaceutical and biotechnological industries afford businesses there to enjoy external economies of scale. Therefore, instead of setting up costly independent research labs, businesses can co-pay for the use of shared research labs hence helps businesses to keep their cost low to earn higher profits. Also, policies such as low corporate tax rates of 17% thus allowing businesses to earn higher post tax profit also help Singapore retain FDI.

Improvement to Singapore's labour competitiveness can be achieved through enhancing policies aimed at continuous training such as SkillsFuture. Workers whose skills are more relevant thus more productive can produce more output per unit labour hour. This means that the cost of producing each unit of output will decrease thus profitability is higher. The resultant higher productivity and a ready pool of highly skilled agile workers would help Singapore attract and retain FDI.

To evaluate, the building of infrastructure and the training of workers are time consuming processes. For example, in Singapore where training is required for high value-added industries such as artificial intelligence (AI) not only requires training time to learn about machine learning and data science, time is also needed to learn about AI technologies. Nonetheless, it would better prepare Singapore for the greater concern of long-term structural shifts due to globalisation e.g. changing patterns of trade and CA. Also, the success of the measures would depend on the receptiveness of workers thus the effects can be uncertain. Workers might not be receptive to training because they would have to take time off work to be trained. As such, they might have to forgo income. Also, they might have an initial fear of the challenges they might face when learning new and yet advanced skills. In addition, since the benefits of retraining only occur in the future, the workers might also not see the value of being retrained especially when work requirements are fast changing.

In conclusion, given the nature of Singapore's economy, the Singapore government should sign more FTAs, promote RnD and develop infrastructure and human capital to increase the benefits and reduce the costs of globalisation. Nevertheless, each of these policies has its own limitations. Given the complexity of globalisation, involving not only freer trade flow but also freer capital and labour flow, the most appropriate policies Singapore should take is a complementary set of above mentioned policies aimed at different aspects of globalisations.

Important Learning Points:

1. The benefits of FTAs are the benefits of globalisation, excluding labour flow. This essay part was provided so as to provide the critical depth for tariff reduction because the other components have more or less been covered already.
2. Free trade area agreements (FTAA) are agreements between two or more countries in which some trade barriers are removed on trade between member countries but each nation retains its own barriers to trade with non-members. In general, most FTAs are of this nature.
 - It's like a club membership. If you're part of the club, then tariffs won't be imposed on you. But if you're not in the club, then you have to pay up.
 - The European Union allows for free trade between member states, but imposes tariffs on goods imported from other countries not in the EU. The US, Canada and Mexico are part of the North American Free Trade Agreement. (NAFTA). Singapore is part of the ASEAN Free Trade Area (AFTA) with Brunei, Indonesia, Malaysia, Philippines, Thailand, Cambodia, Laos, Myanmar and Vietnam.
3. FTAs are extremely important for Singapore, which by extension means Singapore would never practise protectionism, even though theoretically it can.
 - Singapore is a trade-reliant/ import-reliant/ export-reliant economy. Without free trade, Singapore might as well cease to exist as its economy would crumble. However, with the largest negative impact of freer trade being the contagion effect, this also means that Singapore must earn its right to trading with other countries by making sure its goods are quality competitive via supply side policies. Otherwise, if countries decide not to provide cheap imported inputs to Singapore, or restrict Singapore's exports, Singapore could suffer a tremendous hit to its economy.
 - Singapore is a knowledge-based economy. The greater inflow of capital is required as it brings in R&D and new technologies which can help boost the productivity of Singapore's economy, increasing its productive capacity and driving its services hub.
 - Singapore lacks natural resources. It is dependent on trade to provide the variety and quantity of goods and services it can provide to its citizens. In fact, 90% of Singapore's food supply is imported.
4. The World Trade Organisation (WTO) is a global international organisation dealing with the rules of trade between nations. Essentially, it liberalises trade, is a forum for governments to negotiate trade agreements and a place to settle trade disputes. The WTO has restricted trade only to protect consumers/ to prevent the spread of diseases.

9 2020 'A' Levels P1 Case Study

(e) Discuss whether an open economy such as that of Singapore would gain or lose from an ongoing US-China Trade war. [10]

2020 'A' Levels P1

Learning Objectives

- Understand the concept of trade and capital flow diversion.

9 (e) There can be both losses and gains for Singapore, directly and indirectly, from the ongoing US-China trade war given the openness of Singapore's economy. Singapore would be affected directly because both China and the US are Singapore's trading partners. Singapore would be affected indirectly because the trade war would have global effects which would in turn affect Singapore.

Key Requirement 1: Explain that Singapore might lose from an ongoing US-China trade war.

Singapore might lose due to worsening balance of trade / decreasing net exports and investors' confidence (and their associated effects) arising from the US-China trade war. When, for example, the US imposes tariffs on Chinese imports, it would increase the price of Chinese imports in the US thus Chinese goods in the US become less price competitive. A decrease in quantity demanded for Chinese exports in the US would result in a decrease in China's export revenue and hence a decrease in China's net exports (X-M). Given $AD = C + I + G + (X - M)$, the decrease in AD would result in China having lower real national income thus a lower purchasing power. Similarly for the case of the US is China imposes tariffs on the US. Extract 8 suggests that both China and US are major export markets for Singapore (i.e. China and the US are two of Singapore's four biggest trading partners) and export revenue amounted to 173% of Singapore's GDP in 2017. Therefore, both China and US would likely import less from Singapore because Singapore generally exports normal goods with positive income elasticity of demand i.e. when income of consumers in US and China decreases, the demand for Singapore's exports decreases. (X-M) for Singapore would decrease significantly thus worsening the current account in Singapore's balance of payment (BOP).

- *This is an application of the beggar-thy-neighbour point. The learning point here is that you should not memorise points as they are presented. Instead, memorise them as building blocks. Here, the premise of the beggar-thy-neighbour argument is that if protectionism is imposed, trade-restricted economies face a fall in national income, so they purchase less goods. The fundamental idea here focuses on the reduction in imports, not only the imports of the other country. Granted, this is a rather obvious point. However, this is the way of thinking that should be adopted for this chapter since the points cannot really be memorised. They are all just "arguments" or "theories" if you like, that you can apply to every essay depending on how you twist it. You need to be able to identify each step of the argument so that you can twist it to apply it.*

Moreover, Extract 8 also mentioned the global economy loses confidence and that would have a huge impact on the financial markets. This suggests that firms are pessimistic about future profitability of their investments and that it is more difficult for firms to borrow from banks to invest as banks are concerned about default risk, the decrease in firms' willingness and ability to invest would lead to a decrease in foreign direct investments (FDI) inflow into Singapore. Given that FDI takes up a large portion of investment expenditure (I) in Singapore's AD, investment expenditure in Singapore would decrease significantly. The significant decrease in (X-M) and I would lead to a significant decrease in Singapore's AD as illustrated from AD0 to AD1 in Diagram 1. Given labour is a derived demand, the decrease in Singapore's real national output would suggest demand for workers would decrease thus resulting in an increase in cyclical unemployment in Singapore. Via the reverse multiplier effect where income generates expenditure and expenditure generates income, Singapore's real national income would decrease significantly as illustrated from Y0 to Y1 (assuming SRAS0).

Furthermore, as the US and China are also major export markets of many other countries that import from Singapore, these countries would also experience a decrease in national income similar to that of Singapore. Extract 8 suggests that there are signs of weaker activity in Asia stemming from the US-China tensions (Extract 8) and that some estimates predict that a slowdown in China would lead to weaker export growth that will spill over to the rest of Asia and cut the region's GDP growth rate extensively. Therefore, Singapore would also likely experience a decrease in export earnings from these countries and thus cause further decrease in Singapore's national income and employment. As suggested by Extract 8, the damage from a prolonged trade war between US and China would be severe for an export-dependent Singapore.

Singapore might lose due to higher cost push inflation (and its associated effects) arising from the US-China trade war. In addition, Extract 8 also suggests that the trade war would disrupt global supply chains. Singapore, being a country with very limited natural resources, would have to import most of its raw materials, semi-finished goods and final goods. Therefore, the disruption to supply chains would significantly reduce the availability of imports to Singapore and thus increase the cost of production in Singapore. This is illustrated by the decrease in short run aggregate supply (SRAS) from SRAS0 to SRAS1 in Diagram 1. Producers would partially pass on the higher costs in terms of higher prices to consumers illustrated from P1 to P2 (assuming AD1) and would partially reduce production due to lower profitability as illustrated from Y1 to Y2. The higher cost of production thus contributes to cost push inflation and further decrease in Singapore's national income and employment. Overall, Singapore would likely suffer stagflation i.e. recession accompanied by inflation. Having higher cost of living due to inflation and lower access to goods and services for consumption due to decrease in national income/output, living standards in Singapore are likely to decrease.

Key requirement 2: Explain that Singapore might gain from an ongoing US-China trade war.

Nonetheless, Singapore might also gain from the ongoing US-China trade war given the openness of Singapore's economy. Singapore might gain due to changing patterns of trade (and its associated effects) arising from the US-China trade war. Extract 8 suggests that Southeast Asia has found some benefits as their patterns of trade have changed in response to the trade war. For example, when China imposed tariffs on the US, US goods in China would cost more to firms in China thus lower their profitability. Firms in China would diversify their sources of imports to other countries in an attempt to manage cost. Since Singapore and US are both skilled labour abundance economies thus specialises and export capital intensive goods (i.e. Singapore goods are close substitutes to US goods), Singapore might export more goods to China. Singapore openness to trade (e.g. FTA with China would make Singapore the obvious choice) would allow Singapore to leverage on this to gain deeper penetration into the Chinese markets.

- *This is the concept of trade diversion. It is an extension of logic from protectionism. Unfortunately, this point is more so based in the real world than in content provided in the notes. You should try to understand this point to get a better understanding of globalisation. However, the unfortunate fact is that sometimes, the 'A' level questions are not possible. That is why you simply have to rely on your aptitude in other questions to get the marks.*

Singapore might gain due to inflow of foreign direct investments (and its associated effects) arising from the US-China trade war. Similarly, investors who lose confidence to invest in China and/or the US due to the trade hostilities might find Singapore a safe haven for their investments given Singapore's pro-business environment, well-developed infrastructure, agile workforce and openness to capital flow. This is especially so for large investors, for example, MNCs that have strong financial ability to invest without borrowing much from banks. An increase in FDI inflow into Singapore would increase Singapore's AD which in turn increases Singapore's real national income/output and employment. The acquisition of capital and technology by FDI would also increase Singapore's productive capacity and thus contribute to Singapore's potential growth, shifting Singapore's long run average cost (LRAS) rightward.

In conclusion, given the small and open nature of Singapore's economy, there can be both gains and losses to Singapore from the ongoing US-China trade war. To evaluate, Singapore is likely to suffer a net loss because the limited gains from export revenue to China as explained above would likely be offset by the loss in export revenue US and other countries that buy Singapore's exports (as explained earlier). Even if Singapore is able to attract FDIs and contribute to Singapore's economy in the long term, Singapore's dependence on export for growth would suggest that Singapore would most probably suffer from the trade war at least in the short term. If the trade hostilities are prolonged due to tic-for-tac responses by the US and China, Singapore would eventually lose more than gain in the long term. Nonetheless, the extent of the loss could also depend on how Singapore reacts to the trade war. If Singapore can use appropriate policies to enhance its global competitiveness during the period of the trade war and diversify its exports.

Appendix: Global Market Diagrams

This section contains analysis that can and needs to be applied in some papers. Theoretically, you can derive this from first principles. I.e. definitions of demand and supply. However, it might be difficult to do so under time constraints. Hence, it is suggested that you read this section of the notes anyway so that you are more familiar with the diagrams. Furthermore, they will help to reinforce content taught. Do note that the focus of the H2 Economics syllabus is not on diagrams, but rather on analysis. Diagrams are a tool for illustration and should never be used as the core argument. With that, the analysis below is provided based on [this video playlist](#)¹.

A. Free Trade Diagram:

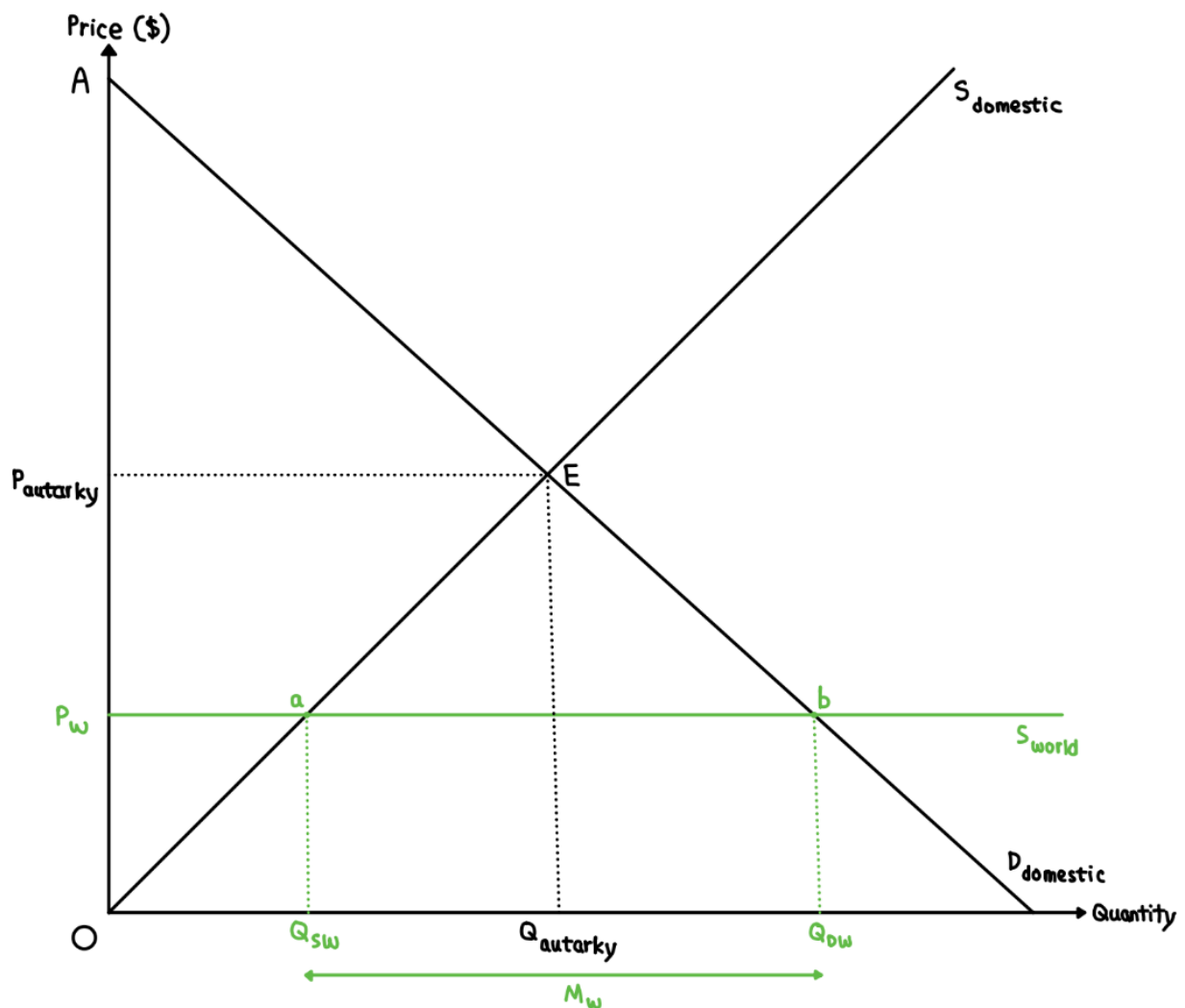


Fig 6: Free Trade

¹ The videos discuss a loss of efficiency to the world. Do not worry about this. For our purposes, the deadweight loss is the deadweight loss to consumers only.

The World Supply Curve

The world supply curve is assumed to be perfectly price elastic ($PES = \infty$) because countries with a comparative advantage in producing these goods are assumed to have a high endowment of the resources required to produce these goods, and hence have massive spare capacity, near infinite. Hence, the world is said to be willing and able to sell as much as the domestic economy is willing and able to buy.

A similar scenario is made in the case of a perfectly competitive firm where they have a perfectly elastic demand curve because the producer has an insignificant share of the market. In this scenario, it is the consumer (the domestic economy) which has an insignificant share of the market. Hence, it is the consumer who has no influence over world prices. For simplicity, we should ignore the domestic supply curve first. If the consumer demands a lower price (we assume that the domestic economy has no bargaining power and hence cannot change its terms of trade — this is the equivalent of assuming homogeneous products being sold by perfectly competitive firms), the world producers will simply not sell to this country as they would be able to sell their stock to the rest of the world. Conversely, the consumer would never bid prices up as they can already import as many goods as they want at the lower price.

- *Notice the similarities in the explanation to the explanation for why the AR curve is perfectly price elastic for a perfectly competitive firm. “The firm cannot raise its price as it will lose all its business. Neither does the firm have any incentive to lower its price because it can sell all its output at the existing market price.”*

Market Equilibrium

Before free trade i.e. autarky, the market equilibrium price and quantity is determined by domestic market demand and supply at P_{autarky} and Q_{autarky} . Once a country opens up to free trade, consumers have access to foreign goods. The foreign producer with the greatest comparative advantage in producing these goods will be willing and able to sell them at the lowest price P_w . As imports are perfect substitutes of domestically produced goods (since the free market is perfectly competitive, all the implications of a perfectly competitive market follow), consumers will switch away from relatively more expensive domestic goods to relatively cheaper imports. Hence, the demand for each domestic firm's products fall, causing them to lower their prices in order to remain price competitive. Likewise, all other sellers will be forced to sell at P_w , so P_w is the world price. At P_w , domestic producers are only willing and able to sell Q_{SW} of goods, but domestic consumers are willing and able to buy Q_{DW} of goods. However, since we have previously established that the world can export as much as the domestic market wishes to import, the remaining quantity demanded not satisfied by domestic producers (i.e. $Q_{\text{SW}}Q_{\text{DW}}$) will be imported. Quantity of imports is hence given by Q_{M} . Hence, import expenditure is $Q_{\text{SW}}P_wQ_{\text{DW}}$ while domestic consumption falls to P_wQ_{SW} .

An additional point is that the quantity transacted has increased from Q_{autarky} to Q_{DW} , which is consistent with the theory of CA in showing that consumption has increased.

Producer and Consumer Surplus

Before free trade, consumer surplus was given by AEP_{autarky} . After trade, quantity increased and price fell, so consumer surplus increased to AbP_w . However, producer surplus falls from $P_{\text{autarky}}EO$ to P_waO . (Do note that the world producer is also considered here. It is just that there is no producer surplus since there is no difference between the price that they actually receive – P_w and the price that they are prepared sell at since the supply curve is a horizontal line) Nonetheless, there is an overall gain in welfare of aEb , which suggests that resources are allocated more efficiently to maximise societal welfare, which is consistent with the theory of comparative advantage.

Changes in Domestic Demand and Supply

If domestic supply were to increase to such an extent that the autarky equilibrium has a price lower than P_w , then instead, the domestic economy gains a comparative advantage in the production of the particular good, and now becomes the world's primary exporter of the good, and world price falls to the new lower price. This is the argument used in the infant industry argument, whereby countries argue that if an industry expands to gain potential EOS, it may gain comparative advantage and be able to produce the good at an even lower opportunity cost than the world was able to.

If domestic demand were to decrease to such an extent that the autarky equilibrium has a price lower than P_w , that does not mean the domestic economy gains a comparative advantage. Instead, it means that consumers are so unwilling to purchase the particular product that the highest price they offer to world suppliers is lower than the price offered by other countries in the world. The world producer will simply not sell to the domestic market at all. Instead, the domestic market forces take over and the autarky equilibrium is the new equilibrium.

If domestic demand increases, then the quantity demanded at the world price increases while the quantity supplied at the world price remains the same. Hence, the quantity imported increases. If domestic supply decreases, then the quantity demanded at the world price increases while the quantity supplied at the world price remains the same. Hence, the quantity imported increases.

Application of Price Elasticity

Holding the fall in price constant, the more price elastic the domestic demand curve is, the greater the increase in quantity demanded at world price. Holding the fall in quantity supplied domestically constant, the quantity imported increases. The more price elastic the domestic supply curve is, the greater the decrease in quantity supplied domestically at world price. Holding the increase in quantity demanded constant, the quantity imported increases.

B. Import Tariff Diagram:

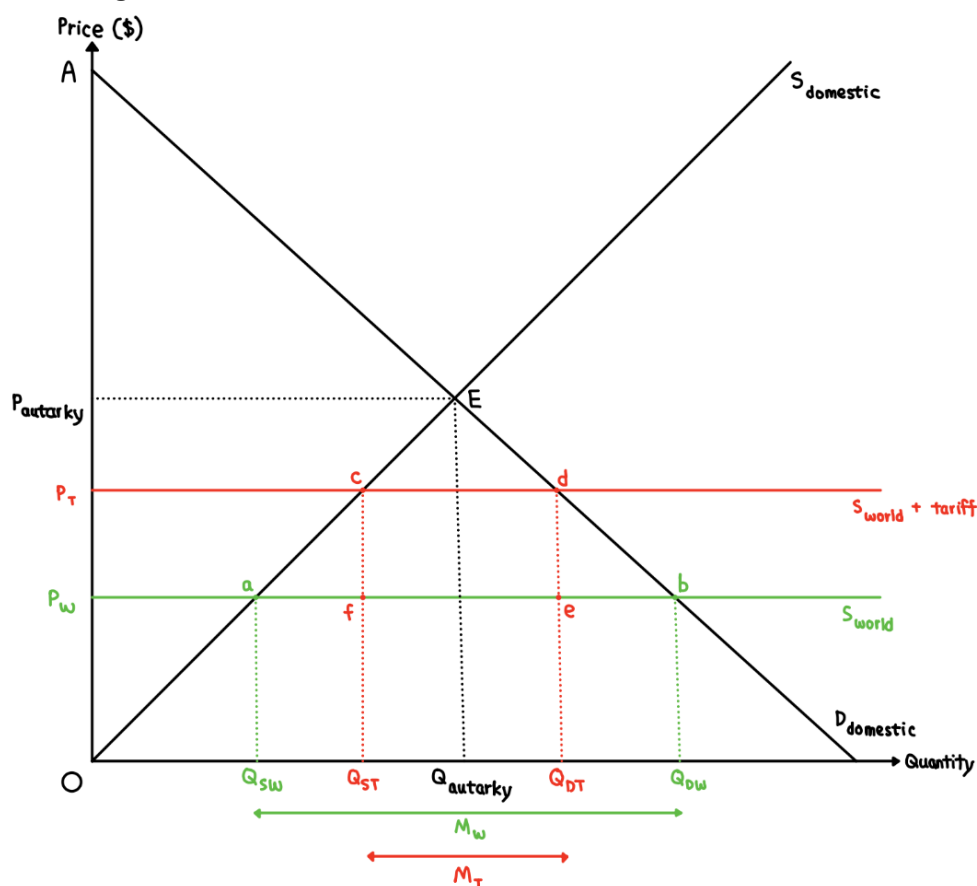


Fig 4: Import Tariff

Market Equilibrium

Before a tariff is imposed, the price of imports is the world price P_w , where quantity supplied is Q_{SW} and quantity demanded is Q_{DW} so quantity imported is M_w . Once a tariff is imposed, the prices of imports are forced up by the tariff imposed per unit $P_T P_w$, illustrated by the upward shift of the world supply curve. At the higher price, quantity demanded falls to Q_{DT} , as consumers switch away from relatively more expensive imports to relatively cheaper domestically produced goods. Hence, demand for domestic firms increases, resulting in these firms raising their prices. This will occur until domestic prices equalise with tariff prices at P_T . At P_T , the quantity supplied is Q_{ST} . It is important to take note here that the world producers do not become any less or more willing and able to sell the goods, because any change in quantity demanded in the domestic economy is negligible to the world producers since the domestic demand is a very small share of the market and hence any fall in revenue for the exporters is insignificant. Quantity imported falls to M_T . It is important to note that the price of imports received by the world producers is still P_w because a tariff of $P_w P_T$ is imposed on every unit of goods sold, so despite selling at the higher price P_T , they get deducted the same amount that they raise their prices by. Hence, import expenditure falls to $Q_{ST} c d Q_{DT}$, while domestic consumption increases to $P_T c Q_{ST} 0$. Once again, note that the theory of CA holds since overall, consumption decreases from Q_{DW} to Q_{DT} .

Producer and Consumer Surplus

Before tariffs, consumer surplus was AbP_w . After tariffs, since prices rose and quantity fell, consumer surplus decreased to AdP_T . However, producer surplus rises from P_wa0 to P_Tc0 . (There is no difference between the price that producers are prepared to sell at and the prices they actually receive because they do not receive the taxed amount) The tariff revenue is $cdef$. There is a net welfare loss to society. This is because even if we assume that all the tariff revenue is used to purchase public and merit goods to improve society's welfare, there is still the deadweight loss of acf and deb , which suggests that resources are not allocated as efficiently as compared to free trade. Hence societal welfare is not maximised.

Application of Price Elasticity

Holding the increase in price constant, the more price elastic the domestic demand curve is, the greater the fall in quantity demanded at world price. Holding the increase in quantity supplied domestically constant, the quantity imported decreases even more, so import expenditure falls even more, with the increase in domestic consumption remaining the same. The more price elastic the domestic supply curve is, the greater the increase in quantity supplied domestically at world price. Holding the decrease in quantity demanded constant, the quantity imported decreases even more, so import expenditure falls even more, with domestic consumption increasing even more.

Free Trade Agreement Diagram

The analysis of this diagram is essentially the opposite of the tariff diagram, so it has not been provided.

C. Import Quota Diagram:

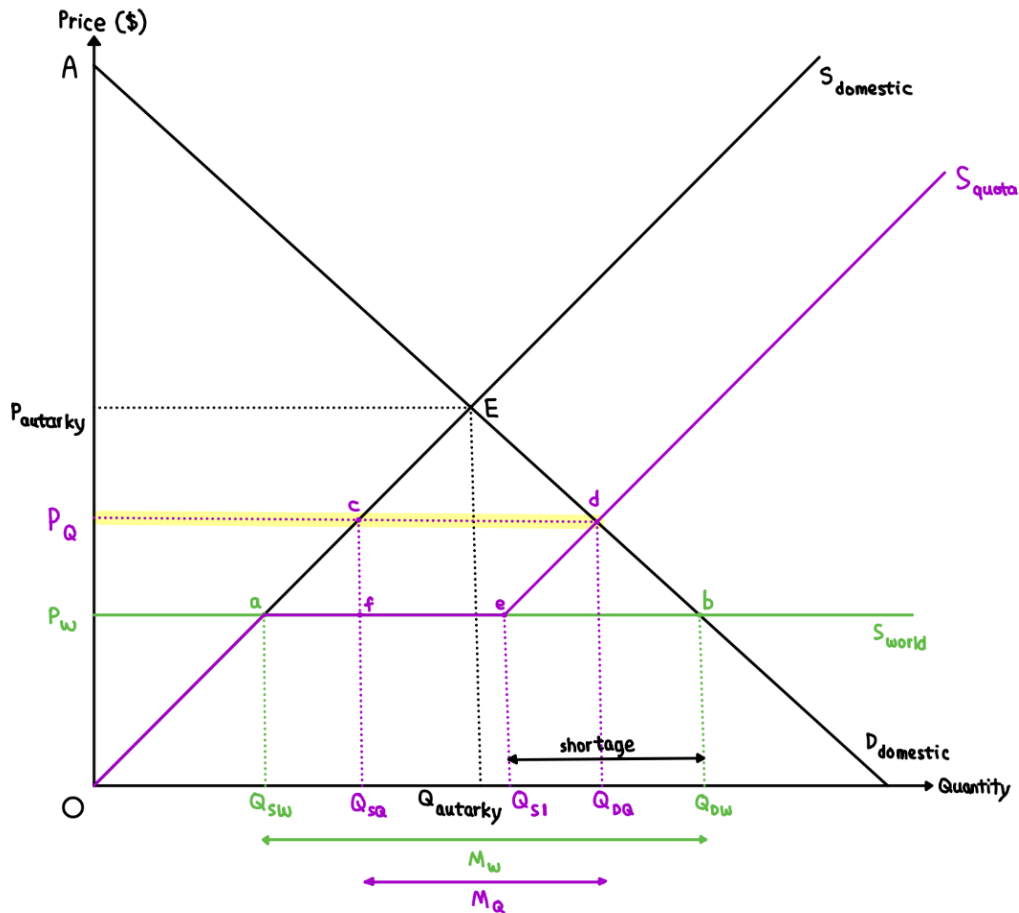


Fig 5: Import Quota

The Quota Supply curve.

The quota supply curve shows the quantity supplied of goods and services by domestic producers and world producers at every price point. In order to draw the diagram, you are first advised to draw the dotted line highlighted in yellow. This will help to determine what exactly the quota amount is, and what the price will increase to. In this case, it will be P_Q and the quota will be given by distance cd . This means that at P_Q , world producers can only sell cd additional units of the good. Since at every price point, world producers can only sell the same additional units of the good, there will be a parallel shift of the supply curve above the world price. The curve does not extend below the world price. This is because as established previously, below the world price, the world producers are not willing at all to sell the goods. Hence, after drawing the highlighted dotted line, based on point d , a line parallel to S_{domestic} will be drawn up to point e to illustrate the new quota supply curve, drawn in purple.

Market Equilibrium

Before a quota is imposed, the price of imports is the world price P_w , where quantity supplied is Q_{sw} and quantity demanded is Q_{dw} so quantity imported is M_w . Once a quota is imposed, the world suppliers can only sell the limited quantity that is legally allowed of Q_{sq} Q_{dq} . Hence, at original world price P_w the quantity supplied by the world is now only Q_{sw} Q_{s1} by legislation, and hence quantity demanded Q_{dw} exceeds quantity supplied Q_{s1} and there is a shortage of Q_{s1} Q_{dw} , causing an upward pressure on import prices to rise from P_w to P_q as quantity demanded falls to Q_{dq} . With the higher priced imports, consumers switch away from relatively more expensive imports to relatively cheaper domestically produced goods. Hence, demand for domestic firms increases, resulting in these firms raising their prices. This will occur until domestic prices equalise with the new import prices at P_q . At P_q , the quantity supplied is Q_{sq} . Quantity imported falls to M_q , which is the legislated amount. In this case, the price of imports received by the world producers actually does increase to P_t . Hence, whether or not import expenditure falls or rises is a much more difficult issue involving the relative price elasticity of the demand and supply curve, theoretically. Realistically, governments must have calculated that there would be a fall in import expenditure if they imposed the quota in the first place because otherwise they would not have imposed such a policy. Domestic consumption increases to P_q Q_{sq} 0 . Once again, note that the theory of CA holds since overall, consumption decreases from Q_{dw} to Q_{dq} .

Producer and Consumer Surplus

Before the quota, consumer surplus was AbP_w . After tariffs, since prices rose and quantity fell, consumer surplus decreased to AdP_q . However, producer surplus rises from P_w $a0$ to OP_q dea . (Now there is actually a difference between the price that the world producers are willing to sell at and the price that they actually receive). There is a net welfare loss to the society illustrated by deadweight loss edb . Hence, resources are not allocated as efficiently as compared to free trade. Hence societal welfare is not maximised.

Application of Price Elasticity

Holding the quota constant, the more price elastic the domestic demand curve is, the smaller the rise in prices required in order to reduce quantity demanded by the amount to reach the quota amount. Hence, with the quantity imported decreasing by the same amount but price increasing less, the import expenditure will fall even more. Holding price elasticity of supply constant, for the smaller rise in prices, the increase in quantity supplied will be less than before so the increase in domestic consumption will be smaller.

The more price elastic the domestic supply curve is, the smaller the rise in prices required in order to increase the quantity supplied by the amount needed to resolve the shortage. Hence, with the quantity imported decreasing by the same amount but price increasing less, the import expenditure will fall even more. Domestic consumption increases by the same amount because price increases less than before but quantity supplied increases proportionately more than before to offset this.