ANGLO-CHINESE JUNIOR COLLEGE
JC2 Economics

H2 INTERNATIONAL TRADE

Section A: TRADE POLICY DECISIONS AND THEIR IMPACT ON THE ECONOMY

Section B: GLOBALISATION AND ITS IMPACT ON THE ECONOMY

Textbook References:

1. *Principles of Economics, Case, Fair & Oster, Ch 34 pg 697-702, 705-710*
2. *Principles of Macroeconomics, An Asian Edition, Mankiw, Quah & Wilson, Ch 31 pg 702-711, Ch 32 pg 733-746*
3. *Principles of Macroeconomics , O'Sullivan, Sheffrin, Lim & Seevaratnam, Ch 29 pg 778-820;*

WHAT IS THIS TOPIC ABOUT?

International trade allows countries to focus on the industries in which they can be most productive and efficient. In this way, free trade often raises the standard of living of both producers and consumers.

International trade offers many benefits to countries:

- They can increase their aggregate demand and increase national income through exports, and they can obtain goods that they cannot produce or are inefficient in, through imports.
- Free trade promotes mutual benefits to countries, in terms of greater efficiency in production and use of resources, as well as improvements in economic growth and standard of living.

In the real world, however, free trade may pose macroeconomic problems to trading countries.

- Failure to keep up with rising competitiveness of trade partners, for example, can cause a country to lose its export competitiveness and face the problems arising from worsening trade balance, slowing economic growth and rising unemployment.
- Countries may therefore resort to using tariff and non-tariff barriers to restrain the entry of imports into their domestic markets in order to achieve greater macroeconomic stability. Although free trade offers economic benefits, and protectionism leads to economic costs in various forms, the latter may exist in countries' trade policies in varying degrees.

LEARNING OUTCOMES

Enduring Understanding:

- Although free trade offers economic benefits, it also exposes countries to macroeconomic instability.
- Although protectionism involves economic costs, countries may resort to protectionism to safeguard their domestic economic interests, and to achieve greater macroeconomic stability.

Conceptual Mastery:

Students will be able to explain:

- The theory of comparative advantage as a basis of free trade
- The arguments for free trade
- The reasons, methods and consequences of trade restrictions (protectionism)
- The factors affecting globalisation
- The benefits and costs of globalisation on different economic agents

Essential Questions:

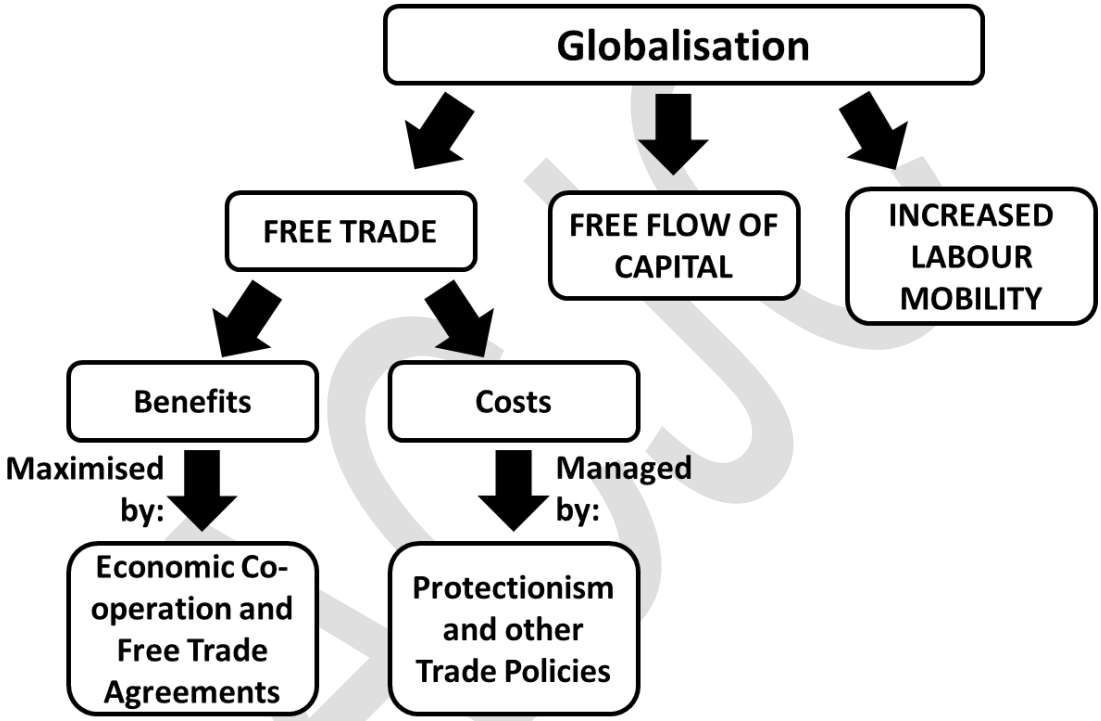
1. Would countries be better off with free trade or protectionism?
2. How may a government respond to a dynamic international trade environment in trying to achieve its macroeconomic aims?

Overview:

Globalisation refers to the development of an increasingly global economy. It is characterised by **free trade of goods and services, free flows of capital, and labour mobility**.

In Section A of this set of notes, we will learn more about the benefits and costs of free trade of goods and services. The facilitation of free trade happens through economic cooperation and free trade agreements amongst different countries. In mitigating the costs of free trade, governments may turn to protectionism measures (restrictions to trade) or other trade policies.

In Section B, we will explore the topic on globalisation, the factors driving it and the challenges and opportunities that arise.



Pre-lecture Reading –

Article 1: Why Asean is good for Singapore

Singaporeans should be more positive about the regional grouping, given the many benefits it offers - not just its huge market potential but also the less immediately obvious ones like peace, without which economic growth would be impossible

Asean brings enormous benefits to Singapore and Singaporeans. The best way to demonstrate this is to remind Singaporeans that our domestic market consists of 5.6 million consumers. Under the Asean Economic Community, the ambition is to integrate the 10 economies into a single market and production base. This means that our domestic market is not 5.6 million but 628 million consumers.

The Asean economy is one of the fastest-growing economies in the world. It is currently the world's seventh-largest economy. It is predicted that, by 2030, Asean could become the fourth-largest economy in the world. In addition, Asean has a large and growing middle class, and a relatively young population.

Unlike the protectionist trend elsewhere, Asean remains committed to free trade, regional integration and open economies. As an example, Asean is currently driving the negotiation of a mega free trade agreement, involving Asean and six other economies, called the Regional Comprehensive Economic Partnership (RCEP). When concluded, RCEP will be one of the biggest free trade areas in the world.

Source: The Straits Times, 9 January 2018

Article 2: Asean has benefited all living in the region: PM Lee Hsien Loong

As Prime Minister Lee Hsien Loong highlighted in his speech, food items from the region - like Thai rice, Vietnamese coffee and Filipino dried mangoes - are readily available in Singapore at "very affordable prices", thanks to the free flow of goods and services among Asean countries.

This is among the ways that people have benefited from the 10-nation grouping, which has brought peace, economic growth and prosperity to the people in the region since it was formed in 1967, he said.

"Asean has benefited all of us who live in South-east Asia, including Singaporeans," he added, expressing the hope that Singaporeans would get to see more aspects of the grouping this year.

Source: The Straits Times, 13 January 2018

Question:

What are some ways Singapore has benefitted from regional economic integration?

What are some challenges Singapore may face due to free trade?

SECTION A: TRADE POLICY DECISIONS AND THEIR IMPACT ON THE ECONOMY

Previously, we studied the four macroeconomic goals of sustainable and inclusive economic growth, low unemployment, low and stable inflation, as well as healthy balance of payments. In trying to achieve these goals, the government has to consider the global context. In an increasingly interconnected world, it is important to account for the benefits and costs that arise from free trade and globalisation.

1. FREE TRADE

Free trade refers to the **exchange of goods and services between countries without any barriers** obstructing the flow of imports into a country, or exports out of a country.

1.1 The Theory of Comparative Advantage

Countries may specialise in producing goods they have a relative advantage in, and trade with other countries for goods they have a relative disadvantage in. Engaging in free trade brings about greater benefits to a country's economy, and this is supported by the Theory of Comparative Advantage.

The theory explains the appropriate pattern of specialisation and trade based on differences in the opportunity cost of production between countries. Differences in opportunity cost of production is due to the different factor endowment in the country, for example, big countries with larger population size will thus have a larger labour force.

The theory states that:

- Countries can realise economic benefits by exporting products they have a **relative cost advantage** (lower opportunity cost than the other country) in, and importing products they have a relative cost disadvantage (higher opportunity cost than the other country) in.
- Specialisation and trade will result in a **higher world output and both trading countries will benefit**. Such gains can be made, even if a country has an absolute advantage over the other, which means it can produce that same good using fewer resources than the other country.

An example to illustrate the theory of comparative advantage:

Assumptions of model:

- Only 2 countries
- Only 2 products produced
- Perfect factor mobility between the two products' industries within the country
- Constant returns to scale in production, i.e. assuming there are no economies of scale, hence no change in costs even if more output is produced

Before Trade and Specialisation:

Using the United Kingdom (UK) and Portugal as an example:

Differences in factor endowment: The UK has high skilled labour and a high level of technology, while Portugal has an abundance of low skilled labour.

Without specialisation and trade, using all resources, each country can produce the following units of machines OR shoes:

Country	Shoes (units)	Machines (units)
UK	100	20
Portugal	50	5

In this example, the UK has the absolute advantage in producing both shoes and machines, as it can produce more of both goods than Portugal using one unit of resource. Based on absolute advantage theory, it does not seem beneficial for the UK to trade with Portugal.

However, the **theory of comparative advantage** shows that specialisation and trade is still feasible and beneficial, by **comparing the relative opportunity costs** incurred by each country in the production of both goods.

With Specialisation:

Countries should specialise in producing the goods that they incur a lower opportunity cost* in.

Opportunity cost of producing shoes and machines:

Country	Shoes (units)	Opportunity cost of 1 shoe	Machines (units)	Opportunity cost of 1 machine
UK	100	0.2 machines	20	5 shoes
Portugal	50	0.1 machines	5	10 shoes

For every pair of shoes produced, Portugal forgoes fewer units of machines than the UK. This means that Portugal has a **lower opportunity cost** in producing shoes and has a **comparative advantage** in producing shoes. Therefore, Portugal should specialise in producing shoes

Meanwhile, the UK with a comparative advantage in producing machines should specialise in producing machines.

Production with specialisation:

Country	Shoes (units)	Machines (units)
UK	0	20
Portugal	50	0

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After specialising, the UK will import shoes from Portugal, while Portugal will import machines from the UK.

**Opportunity cost is the next best alternative forgone.*

To calculate opportunity cost of producing 1 unit of shoes:
For the UK to produce 100 pairs of shoes, they have to forgo 20 units of machines.
Thus, opportunity cost of producing 1 pair of shoes is 20 ÷ 100 = ***0.2*** *units of machines.*

Can you calculate the opportunity cost of producing 1 machine for the UK?

What about the opportunity costs for Portugal?

Deciding the Terms of Trade:

Both the UK and Portugal must agree on a trading price for trade to occur. This is known as the "terms of trade" (see section on page 8), and looks at the price of exchanging shoes and machines.

In the trading of machines:
From the table above, the opportunity cost in the UK of each machine is 5 pairs of shoes. Thus, the value of a machine in the UK is at 1 unit of machine = 5 pairs of shoes. Therefore, the UK would be willing to **sell** 1 unit of machine for 5 pairs of shoes or more.

For Portugal, the opportunity cost of each machine is 10 pairs of shoes. Thus, the value of 1 machine in Portugal is at 1 unit of machine = 10 pairs of shoes. Therefore, Portugal, would be willing to **buy** 1 unit of machine with 10 pairs of shoes or less.

Mutual trade between the UK and Portugal will take place only if the international terms of trade falls between 5 and 10 pairs of shoes for 1 unit of machine, i.e.

5 pairs of shoes < 1 unit of machine < 10 pairs of shoes

In the trading of shoes:
The opportunity cost in the UK of each pair of shoes is 0.2 machines, and so the value of 1 pair of shoes in UK is at 1 pair of shoes = 0.2 machines. Therefore, the UK would **buy** 1 pair of shoes for 0.2 machines or less.

For Portugal, the opportunity cost of each pair of shoes is 0.1 machines. Thus, the value of 1 pair of shoes in Portugal is at 1 pair of shoes = 0.1 machines. Therefore, Portugal would **sell** 1 pair of shoes for 0.1 machines or more.

Mutual trade will take place only if the international terms of trade falls between:

0.1 machines < 1 pair of shoes < 0.2 machines

In summary:
For both countries to gain from free trade, the terms of trade for a good must lie within the opportunity costs of the two countries.

Selling the machines to Portugal must bring more revenue to the UK than selling in its own country.

Similarly, Portugal must be able to buy the machines from the UK at a lower cost than producing them on its own.

After Specialisation and Trade:

Let us assume that the terms of trade agreed on is:

- **1 machine = 8 pairs of shoes**

Recall that UK should specialise in the production of machines and import shoes from Portugal and Portugal should specialise in the production of shoes and import machines from UK.

In the production and consumption of shoes and machines for the UK:

- Assuming that UK needs 16 machines:

	Shoes (pairs)	Machines (units)
Without Trade	**20**	**16**
Specialisation	0	20
With Trade	**32**	**16**

Recall that the UK can produce either 100 shoes OR 20 machines.
By producing 16 machines, the remaining resources used to produce 4 machines can be used to produce 20 shoes.

In the production and consumption of shoes and machines for Portugal:

- Assuming that Portugal needs 4 machines:

	Shoes (pairs)	Machines (units)
Without Trade	**10**	**4**
Specialisation	50	0
With Trade	**18**	**4**

Since the terms of trade are 1 machine = 8 pairs of shoes, the UK can trade 4 machines for 32 pairs of shoes with Portugal.

As seen in the above example, by specializing and then trading, Portugal will be able to consume more pairs of shoes than before. In fact, both countries would even be able to consume more machines and shoes, than without specialization and trade. This is also known as ***gains from trade***.

1.2 Terms of Trade (TOT)

The above example only captures the case of trading shoes and machines, and only between 2 countries. However, in reality, a country exports and imports many goods and services and with many trading partners. To look at a country's overall terms of trade, we use the **terms of trade index (TOT)**, which captures the average price of all exports and imports in a country.

The prices of all export and imports in a country are captured in the use of the TOT Index, which is **the ratio of a country's export price index to its import price index, multiplied by 100**. The terms of trade measure the rate of exchange of one unit of exported good/service for one unit of imported good/service when two countries trade with each other.

$$\textbf{Terms of trade index} = \frac{\textbf{export price index}}{\textbf{import price index}} \times \textbf{100}$$

- **For a country with a TOT of 2:**
  This means that the export price is twice the import price, say $20 vs. $10. Thus, for every unit of export sold, the country can exchange for 2 units of imports.

- **For a country with a TOT of 1/3:**
  This means that the export price is 1/3 the import price, say $10 vs. $30. Thus, for every unit of export sold, it can exchange for 1/3 unit of import. This also means that the country must sell 3 units of exports in order to exchange for 1 unit of import.

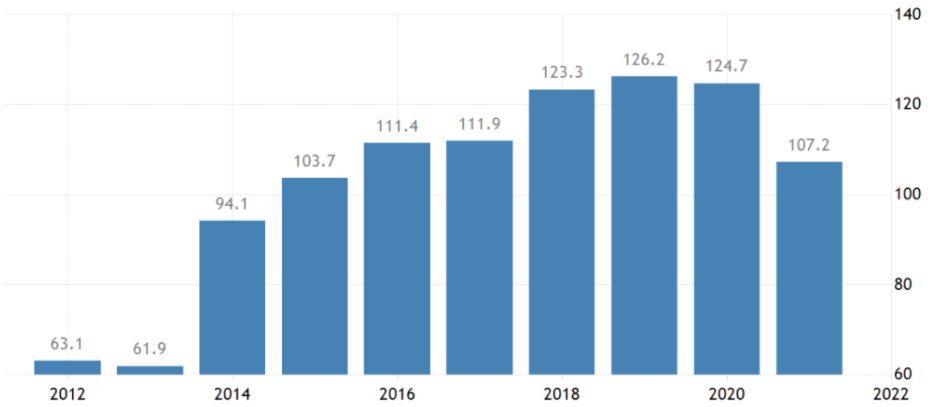
A country's terms of trade is said to have improved when it increases, i.e. for every unit of export, they are able to purchase more imports.

The gains from trade to countries depends on their export and import prices. An exporting country will gain more when the export prices are **higher**, because they are able to buy more units of imports for each unit of export sold.

Developing countries often have unfavourable terms of trade as compared to developed countries. Scan to QR code below to find out why:

Apply what you have learnt:

India's Terms of Trade:



How has India's terms of trade changed from 2012 to 2020? Does that mean their Terms of Trade have improved or worsened?

What could have happened to cause this change?

Scan the QR code below to find out more about India's Trade:

1.3 Dynamic Comparative Advantage

Comparative advantage is dynamic. This means that it can change over time. Some economies find they have enjoyed a comparative advantage in one product for several years only to face increasing competition as foreign rival firms enter their markets and cause domestic firms to lose their comparative advantage.

The following factors are important in determining the relative opportunity costs of production and how it can change over time.

Factors that cause a change in comparative advantage:

- **The quantity and quality of factors of production available**
  - The size and productivity of the available labour force as well as the stock and productivity of the capital goods can change a country's comparative advantage. For example, Singapore tries to improve the quality of its labour force and increase the stock and quality of capital available through education and investments; it allows the country to develop new areas of comparative advantage.
  - Similarly, a depletion in natural resources could erode a country's comparative advantage over time. For example, the destruction of the Great Barrier Reef in Australia could cause them to lose their comparative advantage in tourism services.
- **Improving physical capital such as infrastructure (such as transport or information and communications technology)**
  - The speed and reliability of communicating with foreign clients to provide good and prompt response is important in establishing a reputation and expertise in some industries. These are very crucial for a country to establish a comparative advantage in sectors such as services.
  - Thus, Singapore tries to improve her infrastructure such as transport networks, as well speed and reliability of information and communications technology in terms of wireless networks
- **Level of technology and product cycles**
  - This factor is related to the Product Cycle Theory, which postulates that for the same product, different countries would have the comparative advantage in this good at different stages of the product cycle.
  - This usually applies to manufactured goods which typically have three stages in its product cycle, i.e. new product stage (invention), maturing product stage (growth) and standardised product stage (mass production).
  - Let us take the example of Apple's iPhone. The invention was first made known to the world in January 2007 and released in June that year. Today, Apple neither manufactures the components nor assembles them into a finished product. The components of iPhone come from a variety of suppliers from Germany, Netherlands, the US, China, South Korea, Taiwan, Japan and Singapore. The assembly is mostly done in Shenzhen, China by Foxconn, a Taiwanese firm.
  - As R&D and patents are important in boosting the competitive edge of firms in some industries (e.g. smartphone or pharmaceuticals), the

high level of R&D present in **developed countries** will give them a comparative advantage in the **invention stage** of a product cycle.

- This advantage in the production of iPhones would then shift to other countries during other stages of the product cycle, e.g. at the **mass production stage**, the comparative advantage would likely shift to **developing countries** which offer a much **lower cost of labour** and land.

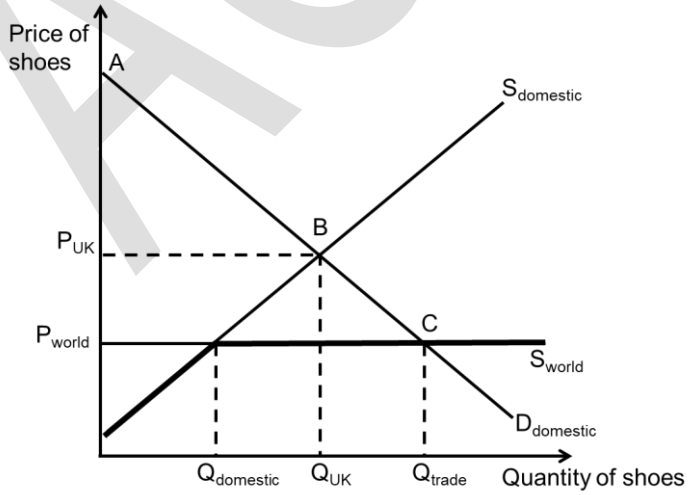
1.4 Benefits of Free Trade

Benefits to consumers:

i) Higher consumer surplus due to lower prices

- Consumers enjoy lower prices for imported goods which their country does not have a comparative advantage in producing. (Recall the example of the UK importing shoes from Portugal.)
- Before trade: Figure 1 shows that equilibrium price of shoes in the UK is at P_{UK} and equilibrium quantity at Q_{UK}.
- After free trade: Assuming that there are an infinite number of firms in the world market willing and able to produce shoes at P_{world}, the world supply is perfectly price elastic and price is at P_{world}. The price of shoes in the UK falls from P_{UK} to P_{world},
- The equilibrium quantity of shoes rises from Q_{UK} to Q_{trade}.
- At the price of P_{world}, domestic firms are willing able able to produce $Q_{domestic}$ number of shoes, while (Q_{trade}-$Q_{domestic}$) would be the number of shoes imported from Portugal.
- Hence, consumer surplus increases from $AP_{UK}B$ to $AP_{world}C$. There is a gain in consumer surplus of $P_{UK}BCP_{world}$

Fig. 1 **Market for shoes in the UK with and without trade**



Note to students:
The diagram should be used as part of the analysis in explaining the benefits of free trade to consumers.

ii) Higher consumer welfare due larger variety of goods and greater choice

- Some imports may be of better product design, reliability or previously unavailable products (e.g. due to climate). Thus, some goods will better cater to the tastes and preferences of consumers, regardless of price.

Benefits to producers:

i) Higher profits due to greater revenue from new markets

- There will be a new and bigger market for firms as they are able to export their products abroad and enjoy higher demand for their goods and services. With a higher demand, there is higher price and quantity, this results in higher total revenue earned.

ii) Higher profits due to lower costs

- With more markets, firms now produce at a higher output and are able to increase its scale of production. They can enjoy larger internal economies of scale resulting in lower per unit cost of production, reducing the firms' average cost curve.
- Firms are now able to import raw materials and intermediate products for their production, which may have previously been inaccessible or more costly domestically. This lowers the unit production cost as well.

Try it yourself:
Recall the topic on Firms and Decisions.

Using 2 separate firm's AR/AC diagram, how do you represent the above explanation on the profits earned by firms due to (i) higher demand and (ii) falling costs?

iii) Greater ability to engage in R&D

- Due to higher profits earned and increased competition, firms will have a greater ability and incentive to engage in R&D to remain competitive by diversifying and developing new products.
- The better quality products reduce the price elasticity of demand (PED is more price inelastic). As such, when firms raise prices of their goods, the Qd falls by less than proportionately.
- The gain in revenue from the higher price is larger than the loss in revenue due to the fall in Qd, resulting in a higher overall total revenue and hence profits for the firms.

Benefits to the government and economy:

<table>
<tr><th></th><th>Aggregate Demand</th><th>Aggregate Supply</th></tr>
<tr><td rowspan="2">Possible Effects on AD / AS</td><td>• Higher demand for a country's exports leads to a rise in net exports. AD rises, assuming the rise in X revenue is greater than the rise in M expenditure due to substitution effect.</td><td>• Imports of cheaper raw materials or inputs leads to lower domestic cost of production of firms and increases SRAS.
• Imports of raw materials which are domestically unavailable leads to expansion in productive capacity and increase in LRAS.</td></tr>
<tr><td colspan="2">• Entry of imports makes domestic firms face more competition. As such, to protect their profit margin, the firms will compete more aggressively by cutting costs.
• This leads to greater efficiency which lowers cost of production of firms hence increasing SRAS.
• This pressure from competitors also incentivises firms to increase their export competitiveness, hence boosting net exports and AD.</td></tr>
<tr><td>Impact on the economy</td><td colspan="2"><u>Economic growth</u>
• Assuming the economy has spare capacity, the increase in X> increase in M → net exports rise → AD increases → RNY increases via the multiplier process →actual economic growth
<u>Unemployment</u>
• RNY increases → increased production of output → increased demand for FOP, including labour → increased employment → lower UnE
<u>Inflation</u>
• The increase in quantity of FOP due to imports → increase in LRAS → even if the AD continues to rise, the greater spare capacity can help to push down unit COP → dampens inflationary pressures from strong AD
• Fall in cost of imported raw materials → rise in SRAS → fall in GPL → prevents/moderates cost-push inflation
<u>Balance of Trade</u>
• Assuming increase in X revenue > increase in M expenditure → net export revenue increases → net inflow into current account → BOT improves, ceteris paribus</td></tr>
</table>

2. ECONOMIC CO-OPERATION AND FREE TRADE AGREEMENTS

Now that we understand the benefits of free trade, let us explore how a country can reduce trade barriers to allow for smoother trade flow between countries.

Trade barriers can include import quotas, import tax and even subsidies to domestic exports. These will be explained in the subsequent section.

2.1 Economic Integration

Economic integration occurs when two or more nations join to form a free-trade zone. It encourages greater mobility of products and resources between countries. The more integrated economies become, the fewer the trade barriers and the more economic and political coordination there is between countries. With economic cooperation/integration, member countries accord preferential treatment to each other.

a) Free Trade Agreement (FTA)

This is a legally binding agreement between two or more countries to reduce or eliminate barriers to trade and facilitate the cross-border movement of goods and services between the territories of the member countries.

- An FTA that is signed by only two countries is called a **bilateral FTA** while one that is signed by more than two countries is called a **multilateral FTA**.

b) Regional Trade Agreements (RTA)

Regionalism refers to the formation of a trade bloc among countries in a **particular region**.

- An RTA must meet 2 stipulations set by the WTO:
    - The agreement must lower trade barriers within the regional group.
    - The agreement cannot raise trade barriers for non-participating members.
- Each agreement is subject to approval by WTO, which will reconcile the rules of the specific RTA with those governing multilateral trade agreements.
- Regional trade blocs offer more flexibility (e.g. which sectors to liberalise) since the economic structures and priorities of the member countries are more similar compared to those from different regions.
- RTAs usually encompass both the elimination of trade barriers and measures that facilitate investment between member countries.
- There has also been a trend towards trade agreements between countries outside regional boundaries, such as between EU-Latin America, Chile-Singapore, etc. APEC (formed in 1989) is a form of open regionalism where participating countries come from different regions.

Good to know (FOR AWARENESS): Examples of Major FTAs

European Union (EU)	Association of Southeast Asian Nations (ASEAN)	North American Free Trade Agreement (NAFTA)
• A European trading bloc which comprises 27 countries (of the 27 countries, 16 have the same currency- the euro) • The largest free-trade zone in the world • In 1993, all tariffs and trade barriers were dropped among the member countries • Citizens can now travel among member countries without passports	• Comprises Brunei, Indonesia, Malaysia, Philippines, Thailand, Singapore, Vietnam, Laos, Myanmar and Cambodia Goals: • To accelerate the economic growth, social progress and cultural development in the region through joint endeavours • To increase ASEAN's competitive edge as a production base in the world market through the elimination of tariffs and non-tariff barriers within ASEAN	• Agreement signed by the U.S., Mexico and Canada • All 3 countries agreed to establish North America as a free-trade zone • All tariffs eliminated over a 10-15 year period and restrictions on most investments removed • Has led to expansion of trade but the agreement is currently challenged by the U.S. (led by President Trump) due to a large trade deficit with Mexico

Note: Refer to the annex for information on the World Trade Organisation (WTO) and Singapore's FTA network.

2.2 Arguments for Free Trade Agreementss

Note that the arguments for Free Trade Agreements (FTAs) are largely similar to the benefits of free trade. Do note that the benefits of free trade and FTAs are on consumers, producers, and the entire economy. Students are expected to understand those benefits and analysed them when answering questions pertaining to benefits of free trade.

However, the following are some additional benefits that are specific to Free Trade Agreements.

Additional Benefits to Economy from FTAs

- Moving higher the value-added chain, improve our Terms of Trade

FTAs go beyond trade expansion; it can support industries in moving up the value-added ladder and knowledge chain. For Singapore, FTAs signed have been designed to do so. For example, in order to develop an integrated manufacturing centre in the region, Singapore's FTAs have been crafted such that labour-intensive production is outsourced to low-cost countries (such as the developing countries in ASEAN) while initial R&D and final stages of high-end processing are conducted domestically, where Singapore has the comparative advantage in.

- Greater inflow of Foreign Direct Investment (FDIs) – Actual and Potential Economic Growth

Regional Trade Agreements / Free Trade Agreements can smoothen trade negotiations → positions country as a more attractive destination for FDIs → increase in Investment Spending / Expenditure (I) of AD → stronger actual economic growth and greater employment opportunities.

In the long term, the investment in physical and human capital → increase quantity of resources and improve quality of resources → expand the country's productive capacity (LRAS) → achieve potential economic growth.

The attainment of both actual and potential economic growth can help the country achieve sustained economic growth, increase in real national income without strong inflationary pressures.

2.3 Arguments against FTAs (to also include arguments against free trade in section 3.1)

As much as Free Trade Agreements & free trade confers much opportunities and benefits to countries, it is not without economic costs.

Costs to Consumers

- Critics of regionalism have warned that the formation of regional trading blocs such as ASEAN, European Union (EU) and NAFTA (North American Free Trade Agreement) encouraged inward looking trade, rather than multilateral one. Countries tend to buy from members of the bloc rather than from those outside. As a result, this can lead to trade diversion.
- Trade diversion occurs when lower-cost imports from non-member countries are replaced by higher-cost imports from member countries. This reduces consumer surplus because trade moves away from the theory of comparative advantage. Specialisation in the production of goods is no longer by the most efficient countries (that have the lowest opportunity cost) → consumers end up paying higher prices for the same goods and services.

Costs to Producers

- Possible diseconomies of scale due to over-expansion and problems within firms such as communication and coordination issues → higher unit average cost (AC) incurred by firms. If the increase in average revenue (AR) that comes from greater markets is insufficient to cover the increase in average cost → profits for these firms may fall.
- Firms in similar industries as compared to the regional countries face higher competition → if they are more inefficient than their competitors → face fall in demand for their goods and services, loss in revenue and eventually a fall in profits. Sub-normal profits may cause the firms to shut down if the average revenue cannot even cover the average variable cost.

Costs to Government & Economy

- Shut down of firms may result in unemployment within the country.
- Higher competition from firms of other countries (members of FTA) → less efficient domestic firms earn less profits and those who shutting down → loss of tax revenue (due to fall in corporate tax collected) for the government → worsens government's budget position.
- Risk of retaliation by trade partners (who are not in the FTA) which would adversely affect economic growth and other macroeconomic aims.
  - **a)** Countries not part of the FTA may impose trade barriers on the countries in FTA/RTA as a form of retaliation → reduce exports competitiveness of these RTA / FTA countries → reduce demand for

the exports → reduce AD and hence, fall in real national income and worsens actual economic growth.

In summary, free trade is not always beneficial to all countries.

Despite the arguments in favour of free trade and increasing trade openness, protectionism is still widely practiced. Lawrence Mishel, a nationally recognized economist, and the president of the Economic Policy Institute once wrote, "The winners have never tried to fully compensate the losers, so let's stop claiming that trade benefits us all."

Therefore, not all countries embrace free trade with open arms. In the next section, let us learn about the **protectionistic measures** that some countries adopt to further their own economic and national interests.

Article: The US-China trade row

Donald Trump campaigned for election on a promise to make trade fairer for the US, and his push to do so has him fighting with some of America's oldest trading partners.

The US has been embroiled in a tit-for-tat trade battle on several fronts over the past few months. The one that's creating the most interest is the conflict with China, as the world's two largest economies wrangle for global influence.

China has accused the US of launching the "largest trade war in economic history."

Mr Trump has imposed taxes on imports from China, Mexico, Canada and the EU, to encourage consumers to buy American products. All of these countries have retaliated. The US president's hard line on trade, which also saw him withdraw from the Trans-Pacific Partnership trade pact (TPP) last year, marks a striking change from the free trade policies that have governed the exchange of goods for decades.

Mr Trump says he wants to stop the "unfair transfers of American technology and intellectual property to China" and protect jobs. Tariffs, in theory, will make US-made products cheaper than imported ones, so encourage consumers to buy American. The idea is they would boost local businesses and support the national economy.

Tapping into economic discontent, Trump has argued for protectionism and asserted that decades of free-trade policies were responsible for the collapse of the American manufacturing industry. He has been feeding on the perception among many Americans that globalisation has brought more pain than gain. For example, by bringing cheap consumer goods into the country, domestic jobs have been lost and wages depressed. Outsourcing of jobs to cheaper markets has also been a concern.

But many US companies and industry groups have testified to the US Trade Representative's Office that by reducing trade, their businesses are being harmed instead.

Source: BBC, 18 September 2018

Questions:

1. What are some challenges that could arise from free trade?

2. What are the possible undesirable consequences of protectionism?

3. TRADE RESTRICTIONS: PROTECTIONISM

So far, we have seen how trade can bring benefits to countries. Yet, when we look around the world, we often see countries erecting barriers to trade.

This is because governments know that trade involves costs as well as benefits. Just like in any decision-making process on policy options, governments would weigh the benefits and costs of their trade policies. The choice is **NOT** between whether to engage in free trade or not to trade at all. Countries certainly do not ban trade altogether. Instead, **they consider the extent to which they should trade**. This main reason is because free trade does not necessarily result in equal benefits to all trading partners. In fact, countries that rely heavily on trade are more vulnerable to external economic conditions.

In Singapore, external economic performance and trade policies of our trading partners can easily affect our domestic economy due our openness to trade. Similarly, developing countries that export a narrow range of commodities can be easily affected by changes in the price of the exported commodities.

Due to the problems that may arise from engaging in free trade, some governments engage in trade restrictions.

3.1 Arguments for Protectionism

Note that the arguments presented here can also be used to argue against free trade / FTAs.

To reduce loss consumer surplus due to foreign monopolies:

- Establishment of foreign-based monopoly can lower consumer surplus, in terms of higher prices and lack of variety / choices**.** Competition from abroad could drive domestic producers out of business and establish foreign monopoly within the domestic market.

Infant Industry* Argument

- Young industries in each country may have a difficult time competing with established industries in other countries. A protected infant industry might have the potential to mature into a strong industry worldwide because of a real, but yet-to-be-developed comparative advantage. If such an industry is undercut by large and established foreign firms, the comparative advantage might never develop. Without protection, these infant industries are unlikely to survive competition from abroad.
- These industries are too small **to benefit from the cost savings and/or earn enough revenue to compete effectively.** These benefits include:
  - Economies of scale
  - Experience and expertise of workers and managers
  - Sufficient support facilities such as communications, transport network, specialist research and development
- Hence, the main motive behind **infant industry argument** is to create a more level playing field for the young industries to compete

*__Infant industry__: An industry that has a potential comparative advantage but is too young to realise its potential yet.

with established industries. This is particularly likely in the developing/less developed countries.

- For the development of a new area of comparative advantage, a period of temporary protection may be needed for this growing industry to have the opportunity to benefit from:
  - **Cost-savings** via the improvement of productivity and efficiency
  - **Higher revenue** in terms of growing demand as the infant industry establishes its reputation. Moreover, the development of the protected industries may lead to the expansion of other related industries through input-output relationships. For example, the rise of China's manufacturing industries stimulated its steel sector.
- Though the infant-industry argument has logical validity, to apply protection successfully, the government would need to determine which infant industries can achieve economic maturity and therefore deserving of protection. This is a very difficult decision-making process for the government.
- Note that: Many economists may be sceptical about the infant industry argument because of the government's possible vested interest, political pressures, and the difficulty of removing protectionist measures such as tariffs and subsidies even after the specified protected period is well over.

Prevent unfair competition by trading partners due to:

- **Dumping by foreign manufacturers**
  - Dumping is the practice of selling exports at prices which are lower than domestic prices or production costs. This is a practice of price discrimination, which enables the manufacturer to benefit from foreign markets or to monopolise the foreign markets through predatory pricing**.** Dumping, if proven true by WTO; is an illegal practice in international trade agreements.
  - Dumping by foreign producers can result in domestic firms having a smaller share of the domestic markets, leading to a fall in demand for goods from domestic firms and lower total revenue earned → lower profit margin for domestic firms (ceteris paribus).
- **Cheap labour due to exploitation (argument by developed countries against developing countries)**
  - Domestic producers in developed countries consider themselves to be subjected to unfair foreign competition. This argument is based on the belief that there is labour exploitation in some developing countries. Domestic producers of developed countries must therefore be protected against imports from countries which pay workers very low wages because of not treating their workers fairly (e.g. poor living conditions, long working hours).

Prevent negative impact on macroeconomic aims
Note to students: The achievement of these macroeconomic aims will thus be the benefits of protectionism.

Protectionism may help to prevent rise in unemployment

- A country's comparative advantage in particular products/stage of production can easily be lost to another country with greater efficiency and technological improvements. (or it can be due to changes in the factor endowments, e.g. increase in pool of skilled labour)
- Failure to adjust to market trends can lead to large scale demand-deficient unemployment. Similarly, failing to keep up with technological advances in other countries can lead to structural unemployment as well.
- Therefore, *temporary* protection may be considered necessary to give affected home industries sufficient time to adjust, retrain workers, develop new products or even diversify/go into new industries. This will thus prevent a sudden and large decline in domestic employment.

Protectionism may help to improve balance of trade position

- A persistent balance of payments deficit has undesirable effects on the economy – fall in aggregate demand, hence actual economic growth, borrowing from overseas and hence external debt.
- Restrictions on imports will be easier and a faster way for domestic government to improve its BOT trade account rather than by increasing exports. Increasing exports is more dependent on the reaction of foreign households and foreign countries, which domestic government has less control over.
- Restrict imports → demand for imports fall → spend less on import (import expenditure), assuming that the PED for imports is more than 1 → improve BOT position.

Non-economic arguments

Strategic reasons, e.g. the national- security argument: Need to build up home defence industry or to ensure that the country is self-sufficient in terms of food supply.

SLS Activity: What are the possible effects of protectionism on an economy?	
Economic Growth:	Unemployment:
Inflation:	Balance of Payments:

3.2 Types of Protectionism

The intent of protectionist trade policy can be broadly classified as follows:

- To switch domestic demand from more expensive imports to cheaper domestically produced goods: this is done by making imports artificially more expensive and/or domestic goods artificially cheaper. Prices in this case are distorted by using import tariff, import quota and domestic subsidy (these will be briefly explained in the following section).
- To achieve political motives: to put pressure on and weaken politically unfriendly countries (by using embargoes).

a) Tariffs

A tariff is a tax that is imposed on importers and their imported goods. A specific tariff is a tax calculated as a fixed amount of money per unit of import.

Students are required to graphically illustrate how tariffs work in exams.

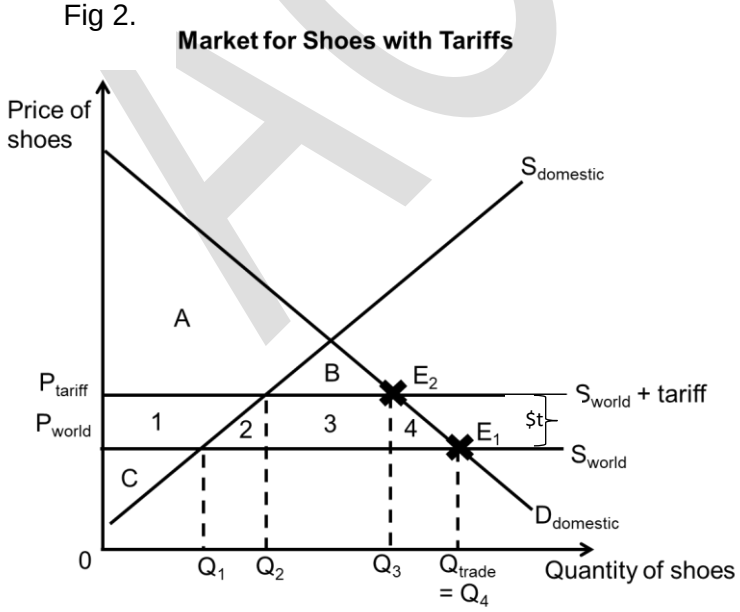
With reference to the diagram below:

Under free trade, domestic price cannot differ from world price. The domestic producers will have to sell their shoes at the world price Pw. This is because if domestic producers were to sell shoes at a price higher than Pw, they will lose all consumers to the foreign producers, assuming that the shoes are close substitutes to one another.

After the imposition of the specific tariff of $t per unit,

- The supply curve of imports will shift up to Sworld + tariff since the tariff is added to the price of every unit of import sold in the country.
- Domestic prices will thus increase from Pworld to Ptariff.

Fig 2.



Objective 1: Tariffs reduce imports and increase domestic production:
At this higher price,

- Quantity demanded for shoes falls from Q_4 to Q_3.
- More domestic firms are willing and able to sell shoes, and domestic production increases from Q_1 to Q_2.
- Overall, the volume of imports will fall from Q_1-Q_4 to Q_2-Q_3.
- Hence, import tariffs allow domestic firms to enjoy higher domestic demand and gain greater producer surplus. This can be seen by the original producer surplus before tariffs, triangle area C, to the new producer surplus of area C + 1.

Objective 2: Government revenue increase
In addition, the government receives area 3 in tariff revenue.
This is calculated by the amount of tax per unit ($ multiplied by quantity of imports).

Limitation of tariffs:
However, the tariffs have also resulted in a welfare loss to society.

- Consumers now consume fewer shoes than before (Q_3 instead of Q_4) at a higher price, so there is a total welfare loss of area 4 due to a lower consumption.

- Q_1-Q_2 pairs of shoes are now produced by relatively more inefficient domestic firms (these shoes were previously produced by more efficient foreign firms). There is a welfare loss of area 2 due to this inefficiency.

The following table summarises the changes in the economy once tariffs are imposed:

	Free Trade	**With Tariff**	**Implication of using tariff**
Market Equilibrium	E_1, where $D_{dom} = S_{world}$	E_2, where $D_{dom} = S_{world + tariff}$	-
Pricing	P_{world}	P_{tariff}	Price increases
Qty demanded by consumers	Q_4	Q_3	Decrease in quantity demanded by Q_3Q_4
Qty supplied by domestic firms	Q_1	Q_2	Increase in quantity supplied by domestic firms by Q_1Q_2
Qty of imports	Q_1 - Q_4	Q_2 -Q_3	Reduce imports from: Q_1Q_4 to Q_2Q_3
Consumer Surplus	Area A+B+1+2+3+4	Area A+B	Loss of consumer surplus by **total area 1 + 2 + 3 + 4**
Domestic Producer Surplus	Area C	Area C+1	Gain in producer surplus to domestic producers of **area 1**
Government Tax revenue	-	Area 3	Gain in government tax revenue by **area 3**
Deadweight Loss	-	Area 2+4	**Area 2:** reflects production inefficiency because of cost of domestically producing Q_1Q_2

			Area 4: reflects the loss of consumer surplus due to lower qty

The tariff diagram on the previous page is useful to explain:

- ✓ Arguments for protectionism:
  - Reduce unemployment, as more jobs are created as domestic production increases from Q_1 to Q_2
  - Improvement to Balance of Trade as qty imports fall from Q_1Q_4 to Q_2Q_3
- ✓ Arguments against protectionism
  - Tariffs result in higher prices and lower quantities consumed
  - Welfare loss of area 2+4 is incurred

b) Import Quotas

Quotas are quantity restrictions on imports, which leads to a fall in supply of imports. This fall in supply will raise price, subsequently reducing the quantity consumed.

The effect of a quota can be seen in the following diagram:

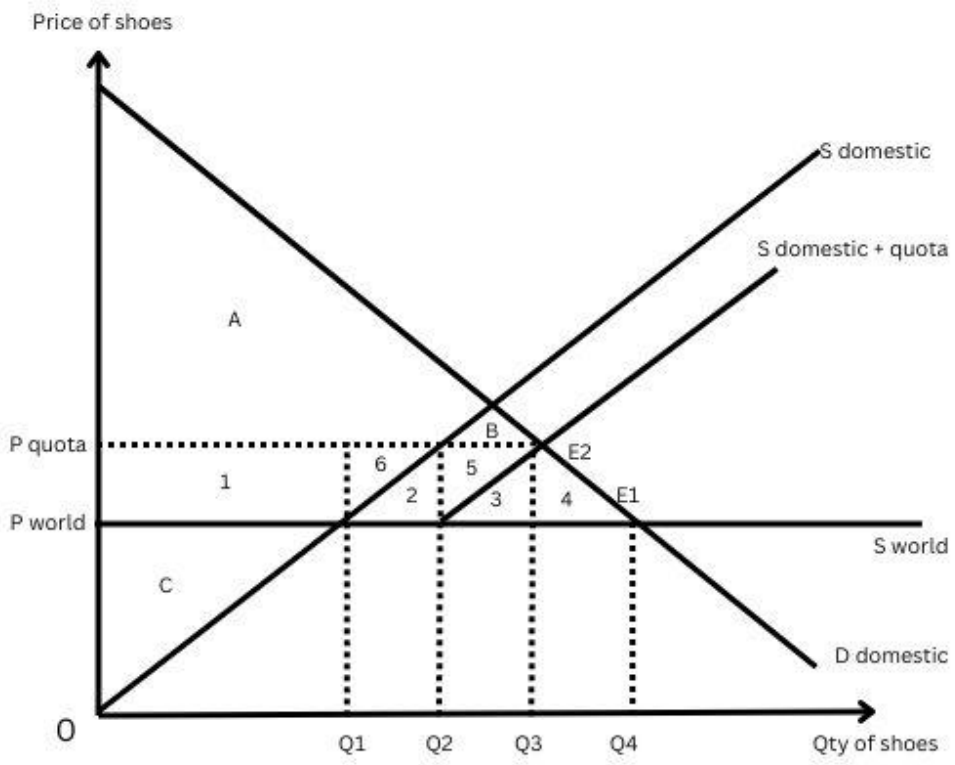


Figure 3. Market for Shoes (effects of imposition of quota)

Initially, before the quota is imposed, the domestic quantity demanded was Q_4, while the domestic producers are only supplying to Q1 units.

Assume the government imposes a quota of Q_1Q_2. Domestic producers will produce up to Q_1 while Q_1Q_2 is imported. However, there is now a shortage of Q_2Q_4 at price P_{world}. This shortage creates an upward pressure on price. Since importers are not allowed to supply more shoes, domestic producers begin to enter the market, attracted by the higher price of shoes. The entry of more producers increases the domestic supply, hence the line shift right to (S domestic + quota).

This is added to demonstrate to students how the price adjustment process takes place. As price increases, quantity supplied increases along (S domestic + quota) line and quantity demanded decrease along (D domestic) line until a new equilibrium is reached at E2. ~~The domestic supply curve shifts right to $S_{domestic}$ + quota and a new equilibrium is reached at E_2 with a higher price of P_{quota} and lower quantity demanded of Q_3.~~

Overall, domestic production increases to $0Q_1 + Q_2Q_3$. There will be a gain in producer surplus from Area C to Area C+1+5, i.e., gain in producer surplus by Area 1+5.

Take away this line as the price of imports and the domestic goods are the same with the imposition of the import quota. ~~higher prices of imports at P_{world} due to the quota policy will cause a switching of domestic demand away from more expensive imports to domestic goods and services.~~

Limitations of Import Quotas

Quota will result in a loss of consumer surplus from Area A+B+1+2+3+4+5+6 to Area A+B, i.e., loss of consumer surplus by Area 1+2+3+4+5+6. This is because consumers now consume fewer shoes (Q_3 instead of Q_4), and at a higher price of P_{quota}.

Quotas will also result in welfare loss to society due to the following:

- This line is being replaced with an added elaboration in bullet point 3. ~~Loss of consumer surplus - Consumers now consume fewer shoes (Q_3 instead of Q_4), at a higher price than before, so there is a welfare loss of area 4 due to loss of consumer surplus from lower consumption.~~
- Area 3: Loss of efficiency in use of resources - Q_2Q_3 shoes are now produced by relatively more inefficient domestic firms (these shoes were previously produced by more efficient foreign firms). This inefficiency results in a welfare loss of area 3.
- Area 4: Consumption inefficiency – Domestic consumers are consuming less shoes, and hence there is a welfare loss of Area 4.
- Area 6+2: This is the quota rent, which is the additional revenue gained by the foreign producers. This may be considered to be a welfare loss since the benefit is enjoyed by the foreign producers.

c) Subsidies for domestic firms

Some variations of subsidy include:

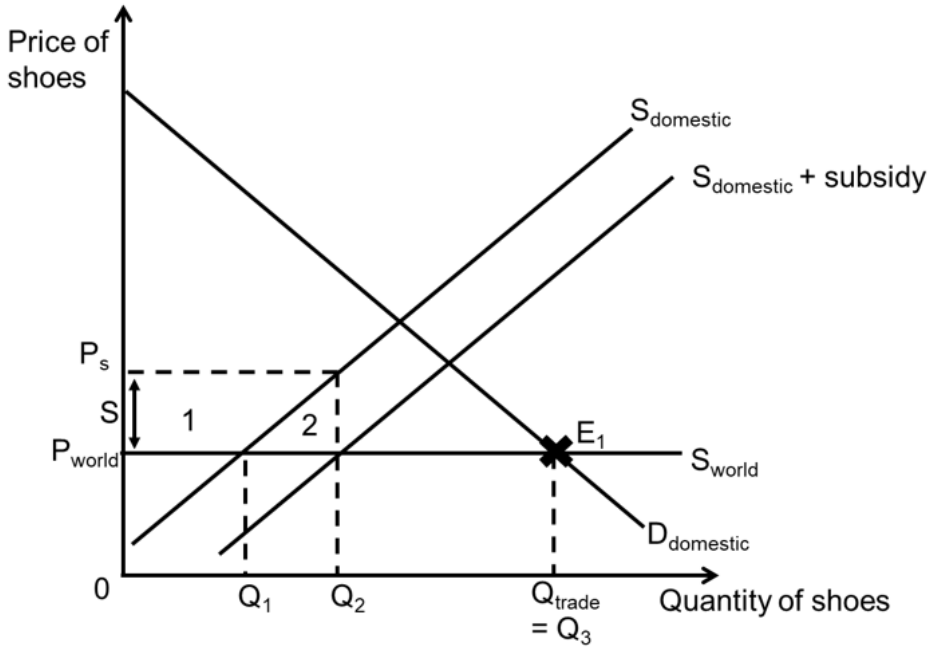
- Subsidy for the home production of domestic goods: This makes prices of domestically-produced goods artificially cheaper than imported substitutes. This leads to a fall in import expenditure, and

an increase in domestic consumption expenditure. This is called the substitution effect.

- Subsidy for the production of exports: This will make prices of exports artificially lower, hence become more competitive in the international markets. Export revenue would then increase.

The impact of a subsidy can be explained using the diagram below:

Fig 4. **Market for Shoes with Subsidy**



Before the subsidy is implemented, market equilibrium is at E_1. (domestic producers sell from 0 to Q1 units, while foreign producers sell from Q1 to Q3 units)

Subsidies lower the cost of production for domestic producers, shifting the domestic supply curve to the right by the amount of subsidy given. The market price remains at P_{world}, so total quantity demanded remains at Q_3.

However, domestic producers increase production from Q_1 to Q_2, because they now receive S amount of subsidy for each unit produced. Foreign producers supply the rest, which is now Q_2Q_3.

The government incurs the cost of \$S x 0Q2, which is areas 1 + 2 for the subsidy.

Limitations of subsidies:
However, the subsidies have also resulted in a welfare loss to society.

- Q_1Q_2 units of shoes are now produced by relatively inefficient domestic firms (these shoes were previously produced by more efficient foreign firms). There is a welfare loss of triangle area 2 represented by this inefficiency.

Subsidies is an inefficient use of government budget → worsens government budget position and hence, incur opportunity costs.

Subsidies for exporting firms may cause firms to divert resources to subsidised industries that cater to the overseas market, to earn higher profits. As a result, the supply of non-subsidised goods in the domestic market may fall, leading to an even higher prices and reduced consumer surplus for domestic consumers.

3.3 Arguments Against Protectionism (Arguments for Free Trade)

Note that the arguments against protectionism are similar to the reasons why countries trade, as discussed in earlier section 1.4.

The following are specific additional arguments against protectionism:

- **Subsidising domestic firms** is an **inefficient use of government budget.** Wastage of resources due to protection of inefficiencies may slow down structural adjustments. For example, in the protection of the infant industry, they may grow to be complacent and lack to incentive to raise efficiency. This may cause them to **lose their comparative advantage,** adversely affecting the government's macroeconomic aims.
- The diversion of government funds from economic and social development projects to protect the industries is another form **misallocation of resources** (higher opportunity cost).
- In addition, as firms divert resources to the production of exports to cater to the overseas market, supply of goods in the domestic market may fall, leading to **rising prices** and reduced welfare for domestic consumers.
- In the case of import tariffs or quotas, resources could have been imported at lower prices if there were no tariff or quota imposed → increase in unit cost of production → higher general price levels as firms pass this on to the consumers, resulting in cost-push inflation. At the same time, the higher costs of production leads to a fall in production of goods and services → reducing RNY and raising unemployment.

4. TRADE POLICIES

This section looks at specific trade policies that governments can use to to lower imports and raise exports, to address macroeconomic problems such as large and persistent balance of trade/payments deficit, weak economic growth and high unemployment.

When faced with the problem of a **large and persistent balance of trade deficit**, the government may have to intervene. If the country's exchange rates are allowed to float freely, any balance of trade disequilibrium (deficit or surplus) should automatically be corrected by the resulting depreciation and appreciation respectively. If the exchange rates are not allowed to float freely, adjustment to equilibrium is not automatic.

In Section 3.2, we covered a few types of trade policies collectively known as protectionist policies. In this section, we will be covering various other policies that can influence a country's imports and exports so that the government can achieve their macroeconomic aims.

Trade policies refer to policies which influence a country's imports and exports. They can be:

- Policies to lower/restrict import-spending
- Policies to raise/promote export-revenue

Both policy directions are aimed to raise net export revenue, and hence improve the balance of payments position, increase AD, and encourage economic growth.

This section explains various forms of policies that can influence a country's imports and exports.

4.1 Expenditure-Reducing Policies

a) Contractionary (or otherwise known also as Deflationary) policies

The government may use **contractionary demand-side policies** (fiscal and monetary policies) to reduce expenditures on imports.

- Such policies will reduce aggregate demand and hence reduces national income. This contracts the economy, reducing household incomes and hence, causing reductions in the amount spend on imports. Thus, fall in import expenditure improves the balance of payments through current account.
- The weakening of aggregate demand from contractionary policies will also lower domestic inflation, especially in times of high inflationary pressures due to strong AD. With a relative lower domestic inflation, it can help to improve the price competitiveness of exports, hence increasing the demand for country's exports and raising export revenue → reduce trade/ current account deficit.

Factors affecting their effectiveness:

- The greater the marginal propensity to import* (or the greater the positive income elasticity of demand for imports), the greater the fall in import expenditure given a fall in income level, hence the greater the success of a deflationary policy in correcting the BOP deficit through current account.
- There is a possible conflict between external and internal macroeconomic objectives as contractionary policies can slow down the country's actual economic growth and may lead to a rise in unemployment rate.

*The **marginal propensity to import** is the amount imports increase or decrease with each unit rise or decline in disposable income.

4.2 Expenditure-Switching Policies

While expenditure-*reducing* policies focus on influencing spending on imports, expenditure-*switching* policies focus on influencing spending away from imports, and towards domestic goods and services.

These policies aim at increasing the prices of foreign goods relative to domestic goods to:

- Switch the expenditure of domestic households from imported goods to domestic goods to reduce import expenditure.
- Switch the expenditure of foreign households away from their own domestic goods to consume more of domestic exports, to raise our export revenue.

a) Depreciation/devaluation of the currency

- A **weaker exchange rate** will make a country's exports cheaper in foreign currencies and imports more expensive in the domestic currency. This raises the demand for exports and hence, greater export revenue earned from more price competitive exports and reduces import expenditure from dearer imports that could then improve the current account balance and trade.
- For countries adopting a floating exchange rate system, the central bank can achieve the exchange rate depreciation through intervention in the foreign exchange market, i.e. by selling the domestic currency and buying foreign currencies. In a fixed exchange rate system, the central bank will deliberately devalue its own currency.

Factors affecting its effectiveness:

- **Price elasticity of demand for exports and imports**
  - Depreciation of currency can improve BOP deficit only if **the Marshall-Lerner condition** is fulfilled i.e. sum of price elasticity of demand for exports and price elasticity of demand for imports is greater than one:

$$\mathbf{| PED_{exports} + PED_{imports} | > 1}$$

  - Simply put, if the demand for exports and imports are sensitive enough to price changes, currency depreciation can be effective in correcting the BOP deficit.

For a detailed explanation of the Marshall-Lerner condition, refer to your **External Macro Issue** lecture notes.

- **Price elasticity of supply of exports**
  - This refers to the availability of spare capacity and mobility of factors of production, so that production of final goods and services can be increased more and faster, to meet the rise in demand for goods for exports.

- **Time lags: The J-curve effect**

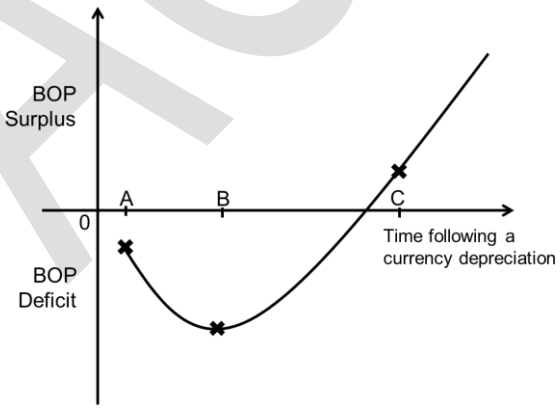
  Given favourable conditions (e.g. demand for exports and imports are both price elastic enough for the Marshall-Lerner condition to hold) a depreciation of currency should lead to an improvement in the current account balance.

  However, in the short run, such effects may not materialise. This is because the price elasticities of demand for exports and imports may be very low in the short run. This is due to:

  - Imperfect information: It takes time for buyers to realise that prices have changed and switch their consumption accordingly. It also takes time for consumers to change their consumption habits from one brand to another.
  - Established contracts: Since most international trade is done on a contractual basis, orders cannot be cancelled immediately. Buyers will have to wait for the contracts to expire before switching to other suppliers.

  There is thus an initial worsening of the BOP deficit before it eventually improves. In the figure below, depreciation takes place at time A. From time A to B, demand is very price inelastic and Marshall-Lerner condition does not hold. From time B onwards, demand has become more price elastic and the BOP position improves.

Fig 5. **The J-curve effect**



Weak global economic outlook

Foreign households may be suffering from poor economic growth in their home countries → fall in household incomes. Despite the cheaper export prices in view of a weaker currency → willingness to consume these exports may be low → the extent of the rise in export demand may be less significant → leading to a small increase in X-revenue, which may not be sufficient to correct the country's BOT position.

b) Use of trade barriers (i.e. import restrictions)

Import tariffs, quotas and/or exchange controls may be used to restrict imports. The lower imports will improve the country's BOP deficit. However, such a policy would conflict with the objective of free trade and bring about problems arising from protectionism such as retaliation of trade partners.

Refer to Section 3.2: Types of Protectionism for more details on this policy.

4.3 Supply-Side Policies

This aims to boost export sales rather than reduce spending on imports (although domestic consumers may switch to buy domestic products too).

b) Encourage Exports

The government can give export incentives such as providing subsidies and tax rebates for the export industries to help promote and boost the country's exports.

Recall how subsidy on exports can help to boost export demand and hence, increase export revenue.

c) Increase domestic productivity

Increasing labour productivity through higher government spending on research and development and improvement in technology lowers unit cost of production and increases the supply of goods → reduce in domestic prices.

This will not only help to cater for the domestic demand, and hence reduce the demand for imports; it will also help in increasing the supply of goods for exports. This measure is unlikely to be objectionable since it does not disadvantage any other country "unfairly" in the process. Increasing productivity can also lead to economic growth.

In summary:

- If the fundamental reason underlying a country's BOT deficit and unemployment problem is its inability to compete effectively with foreign producers, protectionism does not correct this problem. Require supply-side policies to improve the country's export competitiveness and enhance attractiveness to FDIs.
- Shutting imports from developing countries will hinder protected industries' ability to grow. It will also prevent firms in developed countries from gaining access to cheaper resources / FOPs, and perhaps better quality resources for their production, hence affecting their export competitiveness.
- Protectionism, if considered necessary, must only be a **short-term measure** as it causes waste of resources (production inefficiency) and welfare loss (lower real income, loss of consumption) for domestic consumers.

SECTION B: GLOBALISATION AND ITS IMPACT ON THE ECONOMY

In the previous section, we learnt about the benefits and costs of free trade. Free trade is one aspect of a larger concept known as globalisation. In this section, we study what globalisation encompasses and how it has impacted economies.

1. DEFINITION OF GLOBALISATION

Globalisation refers to the development of an increasingly global economy. It is characterised by **free trade of goods and services, free flows of capital, and labour mobility**.

It results in an **expansion of the volume and variety** of cross-border transactions of goods and services, capital flows, as well as greater mobility of labour between countries.

2. FACTORS DRIVING GLOBALISATION

a) Technological innovation

Increased technological innovation allows for greater development and use of artificial intelligence (AI), cloud data storage and big data computing. These technological innovations improve process efficiency and labour productivity, reducing unit cost of production → allowing greater volume of capital flows such as FDIs to be more easily accessible across countries.

One example of technological innovation is the **Internet of Things** (IoT). Scan the QR code below to find out more:

b) Improvement in transportation

Increased speed and reduced cost of transportation, such as air travel costs, shipping and containment costs. Jet planes are now more fuel efficient, making transportation of goods and services across countries possible within a matter of hours. This makes it faster and cheaper to access goods and services, boosting the trading of goods and services across countries. It also increases the ease of labour to migrate abroad for better paying jobs.

c) Improvement in communication infrastructures

Increased speed and reduced cost of telecommunications, especially due to the development of internet. This allows international transactions to occur more easily, e.g. foreign direct investment (FDIs) and hot money short-term capital flows. It also allows outsourcing of jobs possible such as information processing and customer call centre jobs from developed countries to less developed countries such as India.

Since goods and services can be produced anywhere in the world, it enhances specialisation and trade along the lines of theory of comparative advantage.

d) Development of multilateral and bilateral ties / economic cooperation

More trade negotiations and agreements forged between countries → help to bring down trade and migration barriers, increase flows of both short and long term capitals.

Governments have the incentive to bring down trade barriers as it helps to expand markets and earn greater exports revenue. This is in line with the

comparative advantage theory → the free-er the trade, the greater the specialization and hence, more volume of goods and services transacted.

3. BENEFITS OF GLOBALISATION

The benefits of globalisation are like to be similar to the benefits of free trade. You may find these benefits covered in Section 1.4.

The following are **additional** benefits specific to globalisation that students can include in their answers.

The benefits of free trade covered in **Section 1.6** can also be included in the benefits of globalisation

Benefits to Consumers

- **Job opportunities and higher wages**: With increased labour mobility, workers are able to seek better paying jobs in other countries. (Although domestic wages could also be pushed down due to an influx of foreign labour)

Benefits to Producers

- **Increased level of specialisation and healthy competition:** Globalisation fosters countries and firms to specialise in the production of certain products according to their comparative advantage. The specialisation increases efficiency and reduce unit cost of production, which helps to increase profit margins. It also introduces international competition into domestic sectors, which encourages profit-motivated firms to reduce production costs and increase the quality of products they produce.
- **Increased opportunity to offshore and import raw materials/ intermediate products at a lower cost:** Globalisation allows firms to shift a part of their production abroad (this is known as offshoring) more easily, where wages and cost of production could be lower. It also enables firms to import raw materials and intermediate products at lower costs.
- **Lower wages due to higher labour mobility**: with lower barriers to migration, firms can now enjoy a higher supply of labour and hence lower wage costs, thus lowering production costs.

Recall from previous Section 1.6, there are various macroeconomic objectives that can benefit from free trade. These benefits are the same as that from globalisation.

Try the following activity yourself to check your own understanding.

How does higher trade and foreign direct investment improve a country's actual and potential growth? '

Illustrate the effects using the AD/AS diagram.

The following point is an additional and unique benefit to an economy due to globalisation.

Reduced income inequality for more inclusive global growth (Greater equality across different countries)

- Globalisation is usually associated with gains in terms of improvement in national income and living standards. These gains can be felt in both rich and poor countries. As a result, there is lower income inequality across countries. (Note that the extent of benefits may still differ across countries, depending on factors such as the Terms of Trade)
- Higher national income and production leads to increased demand for labour and resources in developing countries. This causes wages and income levels to increase, especially for the lower income households.
- Higher economic growth also reduces poverty indirectly, as government receives more tax revenue to spend on the poor and social welfare programmes for redistribution.
- For example, the strong growth and rapid increases in per capita incomes in China and India have been attributed significantly to their more open economic policies in recent years.

Evaluating the Benefits of Globalisation

There has been much debate among economists as to whether globalisation closes the gap between rich and poor countries. The final outcome of globalisation on the income gap between rich and poor countries depends on factors such as:

- The **extent of willingness** of both groups of countries to bring down their trade barriers
- The use of foreign aid and government resources to **improve infrastructure** and factors of production in the country by poor countries. This would then increase business opportunities for firms, and the attainment of macroeconomic goals and thereby improve the standard of living of its citizens.
- **Choice of policies** by the government, which can allow for more equal opportunities for education and training in order to improve labour mobility, as well as redistributing the gains from globalisation.

4. COSTS OF GLOBALISATION

The costs of free trade covered in **Section 3.1** can also be included in the costs of globalisation.

While there are many benefits countries stand to enjoy from globalisation, there can also be many problems associated with the increased flow of goods and services, capital and labour across countries.

Costs to Consumers

i) Exchange rate volatility and uncertainty in consumption decisions

- Globalisation, which involves the increased trading of goods and services and capital flows between countries, causes the demand and supply of currency to change more often and faster.

- This means that in a free exchange rate market system, a country's exchange rate would be more volatile. It can then be harder for consumers to make decisions of importing foreign goods and services as the relative prices between countries will fluctuate more often.

Costs to Producers

i) Exchange rate volatility and uncertainty in production decisions

- With a more volatile exchange rate, it is also harder for producers to make decisions about importing foreign raw or secondary products for production as the relative prices will fluctuate more often.
- Firms may also experience more fluctuations in export revenue, as foreign consumers face changing relative prices of goods and services, due to volatility of the exchange rate.

ii) Fall in profits for uncompetitive firms

- While firms are able to access external markets, they are also more susceptible to more competition. As a result, firms who lose out in process efficiency, price or quality competitiveness in their goods will experience in fall in profits or even shut down.

Costs to Governments / the Economy

i) Higher inflation

- The increase in a country's net exports and foreign direct investment will lead to increase in AD, which may result in demand-pull inflation in certain economies that are operating near full employment.
- Economies that are dependent on raw and/or secondary materials which are imported from other countries could be more vulnerable to cost-push imported inflation. For example, Singapore imports rice from countries like Thailand and Vietnam. Singapore would be vulnerable to imported inflation if rice shortages arise in Thailand.

ii) Greater demand-deficient / structural unemployment

Globalisation may cause job losses due to:

- Competition from cheaper imports reduces consumer demand for domestic goods and so domestic production decreases
- Production plants relocate to other countries which offer lower labour costs
- Outsourcing jobs to foreign countries; and
- Advancements in technology, due to foreign capital inflow.
    - For example, many developed countries have purchased services from abroad, e.g. services in managing phone call centres, auditing, designing and processing of X-rays and scans, from developing countries like India.
    - An economy might face a fall in domestic consumption as consumers switch to imported products, or lower net exports due to loss of export competitiveness compared to other countries. This can lead to a fall in aggregate demand, causing national output to fall (negative growth).

- Should an economy experience a fall in national output and production, firms will require less factors of production, including labour. Then, there would be an increase in demand-deficient unemployment.
- Job loss arising from the above forces can generate structural unemployment if the retrenched become permanently unemployed. This is due to lack of skills required to match available jobs in new growth industries that the country might be developing.
- Technology transfer from FDIs may cause certain jobs and skills to become obsolete, leading to a rise in structural unemployment.

iii) May worsen income distribution

- Globalisation, could lead to the loss of certain lower-skilled jobs in industrialised countries. This is because MNCs can shift their operations quite freely across borders, making these workers easily substitutable. Alternatively, because domestic production is easily substituted by relatively cheaper imports from developing countries, demand for these workers falls. Thus, these lower-skilled workers will tend to see a decrease in their incomes due to globalisation.
- On the other hand, high skilled workers in these developed countries tend to enjoy higher wages due to globalisation that creates higher demand for these workers. This is the result of the comparative advantage in developed countries typically lie in the production of higher value-add goods and services, which require the specialty of these high-skilled workers.

iv) Impact on sustainable economic growth & lower standard of living

- There are concerns that globalisation will lead to greater carbon emissions, from the greater volume of trading and countries burn more fossil fuels to generate greater and faster production of output.
- To lower business costs, the uneducated labour may be exploited (e.g. low wages, poor and unsafe working conditions) so as to earn maximum profit margins.
- Greater and faster utilisation of natural resources as compared to the renewal / replenishment rate → leaving future generations to have lower stock of resources → reduce potential growth for the future
- Lower the non-material living standards of citizens, as well as reduce the sustainable economic growth over time if resources are depleted.

4.1 Mitigating the Costs of Globalisation

Is globalisation a desirable economic option for countries? Or should countries refuse to plug in to global forces and be more domestically oriented in economic policies? In reality, globalisation creates both winners and losers:

- Globalisation allows countries to reap the benefits of greater competition, new markets, greater economies of scale and higher economic growth. However, these benefits co-exist with potential risks of economic instability, and other costs stated above.
- The challenge to every economy is how to **maximise the net gains** and how best to spread the gains from globalisation among the population. Governments and producers should consider what they can

do to **minimise the costs** brought about by globalisation. The following are some guiding questions regarding how producers and governments can react to globalization:

Producers

- In light of increasing competition from foreign producers, how would production and investment decisions change?
- In light of exchange rate volatility and the uncertainty of production costs, how can producers tweak their production techniques?

Government

- In light of rising structural unemployment and widening income gaps, as well as demand-deficient unemployment due to domestic producers losing competitiveness, what policies are needed?
- Should the government encourage retraining and education opportunities to help the unemployed gain skills needed for the available jobs?
- Should the government introduce social welfare and progressive measures, to reduce the income gap?
- Should the government provide subsidies for research and development, to improve the export competitiveness of domestic producers, and achieve economic growth to reduce demand-deficient unemployment?

In each of the above challenges arising from market openness, the antidote lies mainly in the strategies adopted by firms and the policies that the government adopts to minimise those threats and to maximise the gains.

Note to students:

The firms' strategies have been covered in the JC1 topic of *Firms and Decisions (Part II)*, while government policies are covered in *Macroeconomic Policies*, as well as Section 4 of this set of notes.

SLS Activity – Independent Learning

Article: Important for leaders to address 'negative aspects' of globalisation: ESM Goh

While the economic benefits of globalisation are clear, it is important for leaders to put in place policies to address the "negative aspects" of globalisation, Emeritus Senior Minister Goh Chok Tong said today.

The Emeritus Senior Minister noted that the US had taken a step back from the multilateral Trans-Pacific Partnership trade deal. "To get the US to come on board, we can add the word 'fair' to free trade. Free trade that is deemed to be unfair can create problems for countries such as the US," Mr Goh said at the panel, titled “Globalisation & Free Trade: The Asian Perspectives”.

In the course of globalisation there are "winners" and "losers" - those who can adjust to domestic and international competition, and those who lag behind relatively, Mr Goh remarked during the panel. The "negative aspects" of globalisation for some countries are in the shift of jobs from the developed countries to the developing countries, he said.

Mr Goh said that to deal with the impact on their countries, political leaders have to adjust their policies. The US, for example, is renegotiating free trade agreements and the border adjustment tax to address domestic problems. I don’t believe that it is possible to stop globalisation, but we have to address the negative aspects, through capacity building, creating jobs, training, and re-education."

Source: Channel News Asia, 25 March 2017

<u>Questions</u>:

1. **Do you agree with the claim “it is not possible to stop globalisation”?**

2. **How can political leaders “adjust their policies” to deal with the negative impacts of globalisation?**

END OF TOPIC REFLECTION

Students should be able to:		Checklist
1	Explain the Theory of Comparative Advantage and how it is a basis of trade between countries	
2	Evaluate how free trade positively and negatively impact: 1. Consumers 2. Producers 3. Government	
3	Define and explain Free Trade Agreements (FTAs) using different examples	
4	Evaluate the impacts of FTAs on: 1. Consumers 2. Producers 3. Government	
5	Explain different trade policies imposed by government to restrict trade between countries and/or correct a BOP deficit	
6	Explain the negative implications of trade restrictions on: 1. Consumers 2. Producers 3. Government	
7	Define and explain globalisation and the factors that promote it	
8	Evaluate the impacts of globalisation on: 1. Consumers 2. Producers 3. Government	
9	Consider mitigating strategies to maximise the gains from globalisation and minimise the costs of globalisation	