RAFFLES INSTITUTION

YEAR 6 H2 ECONOMICS 2023

GLOBALISATION AND THE INTERNATIONAL ECONOMY

ECONOMICS

CONTENTS:

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- International Movement of Labour
- Economic Cooperation and Trade Agreements

TUTORIAL PACKAGE

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This series of lectures focuses on the international trade theory and the effects of globalization on the economy. Students should be able to use economic theory to explain the case for free trade, the patterns of trade between countries and protectionism by countries. They should be able to acquire good knowledge of recent economic trends towards globalisation and examine its impact on trade in goods, capital flows and international movement of labour on the economy.

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GLOBALISATION AND THE INTERNATIONAL ECONOMY

Contents

References

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2. Lipsey and Chrystal. Positive Economics. Eighth Edition. Oxford University Press.
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Lecture Objectives:

At the end of the lectures, students should be able to:

- explain the theory of comparative advantage
- apply the theory of comparative advantage in explaining the gains from trade
- explain the benefits and costs of international trade
- explain determinants of pattern of trade between countries
- explain the general pattern of trade between Singapore and the rest of the world
- explain the arguments for and against protectionism
- explain the causes and trend towards globalisation
- explain and evaluate the impact of globalisation (flow of goods and services, capital and labour) on the macro-economy as well as the impact at the micro-economic level on households and firms.
- be aware of the different forms of economic co-operation and trade agreements between countries, e.g. Free Trade Agreements (FTAs).
- explain how economic agents like the producers and governments may respond to mitigate the negative impact of globalisation.

1 INTRODUCTION

Globalisation can be defined as the growing economic inter-dependence of countries worldwide through increasing volume and variety of cross-border transactions in goods and services, in flows of capital, as well as in labour migration. [1]

Refer to Section 6 for more information on globalisation and the factors affecting globalisation.

In today's world, no nation exists in economic isolation. With globalisation, all aspects of a nation's economy – its industries, service sectors, levels of income and employment, living standards – are linked to the economies of its trading partners.

2 INTERNATIONAL TRADE

International trade refers to the exchange of goods and services between countries, involving the use of different currencies and crossing international borders.

International trade arises because it is beneficial. For instance, trade allows a country to obtain goods and services that it does not produce or does not produce in sufficient quantities because it may lack the resources to do so. This is because countries are endowed with different amounts of factors of production, i.e. they differ in population density, labour skills, climate, raw materials, capital equipment, hence the **ability to supply** goods and services differs between countries. **Differences in demand** due to changes in taste and preferences between two countries could also lead to international trade even where both countries are equally cost-efficient in producing a particular good.

2.1 The Theory of Comparative Advantage

David Ricardo developed the classical theory of comparative advantage in 1817 to explain why countries engage in international trade. International trade can be mutually beneficial to all countries even when one country is more efficient (or more productive) at producing every single good than other countries, i.e., that country has an **absolute advantage** in all goods. According to the theory of **comparative advantage**, what matters is differences in relative efficiency or opportunity costs in producing goods between countries. As long as there are differences in the opportunity costs of producing specific goods among countries, all countries will benefit from specialising and exporting products in which they are relatively more efficient in producing (or producing them at a lower opportunity cost), and importing products in which they are relatively less efficient in producing (or producing them at a higher opportunity costs).

Note:
The theory of comparative advantage provides a **supply-side** explanation regarding why countries trade. There are also demand factors to explain why countries trade. Refer to section 3 for DD side factors.

Numerical Illustration of Theory of Comparative Advantage (Ricardian Model)[2]

Assumptions

1. Two countries – USA and China, and two goods – wheat and cloth.
2. Labour is the only factor of production; labour is homogenous (equally productive) within a country but heterogeneous (differences in labour productivity) between countries.
3. There is perfect mobility of labour within a country, but labour is immobile between countries.
4. A country experiences constant opportunity costs when it specialises and devotes more resources to the production of a good.
5. No transport costs and no trade restrictions.

[1] While it refers to a much wider phenomena which includes cultural and political trends, this lecture focuses on the economic effects.
[2] Numerical illustration is adapted from Positive Economics. Lipsey & Chrystal.

Table 1: Production pattern before specialisation

	Wheat	Cloth
USA	100	60
China	5	10
World Total	105	70

Assume that USA is able to produce more of both goods with the same amount of labour resource, meaning that USA has an *absolute advantage* over China in the production of both goods. Assume, however, that the opportunity cost of producing each good is different between the two countries. As shown in Table 1, assume that a unit of USA labour resource can produce either 100 units of wheat or 60 units of cloth while a unit of China labour resource can produce 5 unit of wheat or 10 units of cloth. We further assume that before specialisation and trade, both countries have 2 units of labour resource and each country initially devotes one unit of labour resource to wheat production and one unit to cloth production.

The production pattern before specialisation and trade in USA and China is reflected in Table 1 - USA will produce 100 units of wheat and 60 units of cloth while China will produce 5 units of wheat and 10 units of cloth.

Table 2: The opportunity cost of production

	Wheat	Cloth
USA	Gives up 0.6 units of Cloth	Gives up 1.67 units of Wheat
China	Gives up 2 units of Cloth	Gives up 0.5 units of Wheat

As shown in Table 2, to produce 1 unit of wheat, USA gives up 0.6 units metres of cloth, while China gives up 2 units of cloth. This implies that USA is relatively more efficient in producing wheat as the sacrifice of cloth production in producing 1 unit of wheat is much lower in USA than in China. Hence, USA has a comparative advantage in wheat production.

The loss of wheat production in producing one unit of cloth, on the other hand, is lower in China than in USA. Hence, China is relatively more efficient in producing cloth and thus has a comparative advantage in cloth production.

According to the theory of comparative advantage, USA should specialise in the production of wheat while China should specialise in the production of cloth.

Table 3: Production pattern with specialisation

	Wheat	Cloth
USA (Partial specialisation, transfer 1/10 of 1 unit of labour resource from cloth to wheat)	110	54
China (Complete Specialisation)	0	20
World Total	110	74

Assume that USA were to engage in partial specialisation and transfers one-tenth of one unit of labour resource from cloth production into wheat production, while China completely specialises in cloth production and transfers 1 unit of labour resource from wheat production to cloth production.

After specialisation, world production of wheat and cloth increases by 5 units and 4 units respectively. Comparing Tables 1 and 3, world production of wheat has increased from 105 to 110 units and world production of cloth has increased from 70 to 74 units for cloth. When both countries specialise in producing the good that they incur a lower opportunity cost in producing, this will lead to an improvement in global allocation of resources. Global

productive efficiency also increases which results in greater global output and in turn, the possibility of greater global consumption.

Table 4: Consumption after specialisation and trade

	Wheat	Cloth
USA	100	64
China	10	10
World Total	110	74

In order for trade to be mutually beneficial, the exchange ratio, or **terms of trade**, should lie between the opportunity costs of production between the two countries (refer to Table 2). USA will only gain if it exports 1 unit of wheat to China for more than 0.6 units of cloth, while China will only gain if it imports 1 unit of wheat for less than 2 units of cloth.

Assuming the rate of exchange is 1 unit of wheat: 1 unit of cloth in the international market, and that the US exports 10 units of wheat to China in exchange for 10 units of imported cloth. The consumption level after trade is shown in Table 4 - USA gains 4 units of cloth while China gains 5 units of wheat after specialisation and trade.

Thus, this numerical example shows that both countries benefit from a higher level of total output consumed. Specialisation and trade allow them to consume beyond what each country produces, i.e., consume beyond their production possibility curve, and in turn experience a higher material standard of living.

Terms of Trade
The terms of trade refer to the rate at which a country exchanges its exports for imports: **TOT = P_X / P_M**

International trade will result in greater consumption of goods and services for trading countries **only** if the terms of trade negotiated are acceptable. To gain from trade, not only must countries specialise in the good that they have comparative advantage in, but the terms of trade must lie between the two countries' domestic opportunity costs.

The terms of trade determine the distribution of gains from trade between countries and will affect a country's balance of trade and standard of living.

Refer to Appendix 1 on significance of Terms of Trade.

Diagrammatic Illustration of Theory of Comparative Advantage

Figure 1a (which is based on Table 1) shows the PPC of USA. If USA has 2 units of labour resource and USA devotes all its labour resource to the production of wheat, USA can produce maximum 200 units of wheat. If USA, on the other hand, devotes all its labour resource to the production of cloth, USA can produce maximum 120 units of cloth.

Figure 1b shows the PPC of China. If China has 2 units of labour resource and China devotes all its labour resource to the production of either wheat or cloth, China can produce either maximum 10 units of wheat or maximum 20 units of cloth. This shows that USA is relatively more efficient in producing wheat than cloth since USA has a comparative advantage in wheat production, i.e., the sacrifice of cloth production in producing 1 unit of wheat is much lower in USA than in China.

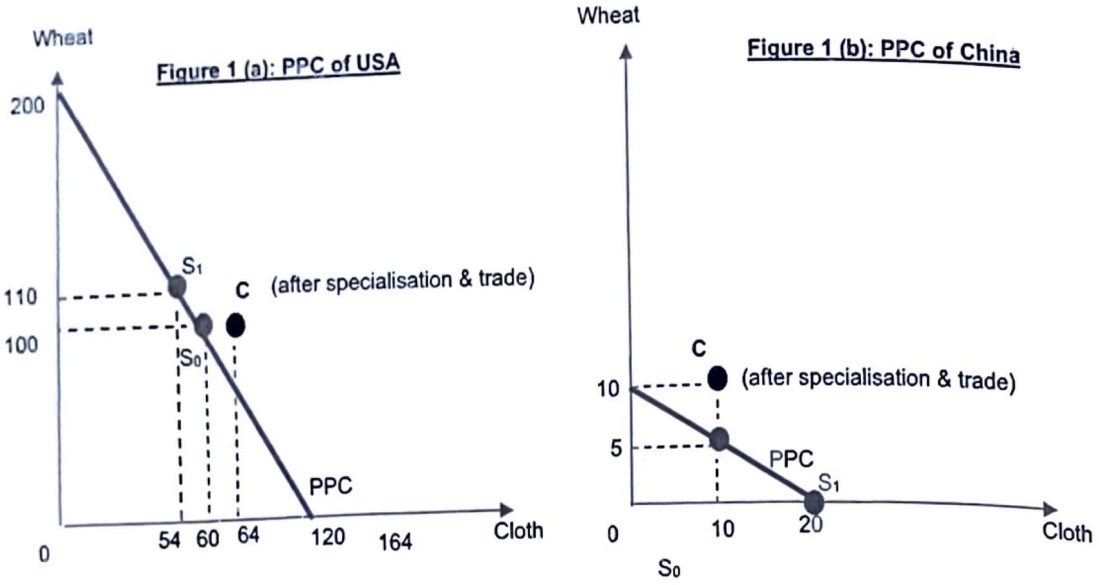


Figure 1 (a): PPC of USA

Figure 1 (b): PPC of China

Assume that before specialisation and trade, both countries have 2 units of labour resource each and each country initially devotes one unit of labour resource to wheat production and one unit of labour resource to cloth production. The production pattern before specialisation and trade in USA and China is reflected in Table 1 as before. USA will produce 100 units of wheat and 60 units of cloth, while China will produce 5 units of wheat and 20 units of cloth. Without specialisation and trade, consumption is bounded by each country's PPC.

With specialisation and free trade, USA having a lower opportunity cost in wheat production, will specialise partially in wheat production. If USA allocates 1/10 of its labour resource previously used in cloth production to wheat production, USA will produce at S_1 (54 units of cloth and 110 units of wheat) as shown in Figure 1a (which is based on Table 3). China having a lower opportunity cost in cloth production will specialise in cloth production. If China completely specialises in cloth production, it will produce at S_1 (20 units of cloth and 0 units of wheat) in Figure 1b. World production of cloth and wheat increases because of improved global efficiency when countries specialise according to their comparative advantage.

With specialisation and free trade, while production will still be constrained by each country's PPC, consumption is possible beyond each country's PPC if the terms of trade is mutually beneficial, meaning that the exchange ratio lies in between the opportunity cost of producing the good. If the rate of exchange is 1 unit of wheat : 1 unit of cloth in the international market and the US exports 10 units of wheat to China in exchange for 10 units of imported cloth, USA can consume 64 units of cloth and 100 units of wheat at point C in Figure 1a. Likewise China can consume 10 units of cloth and 10 units of wheat at point C in Figure 1b. The consumption possibility curves (CPC) for USA and China thus lie beyond each country's respective PPC, showing that both countries can enjoy a higher material standard of living after specialisation and trade.

Note:
You may illustrate the theory of CA via the numerical illustration **or** the diagrammatic illustration.

Thinking questions

- Do you think that countries that specialise based on comparative advantage will always gain equally or even gain at all from trade? Why? Why not?
- Do you think that it is feasible for countries to engage in total specialisation? Why? Why not?

2.2.1 Sources of Comparative Advantage

(a) International differences in factor endowments

Climate and resource endowments (e.g., skilled and unskilled labour, capital stock, amount of arable land) differ among countries. Such differences persist largely because the international mobility of resources is restricted to some extent.

Note:
Ricardo's model assumes only differences in labour productivity between countries as the source of CA. In reality, there are many different sources of CA.

Differences in factor endowments lead to differences in relative prices of factors of production between countries. These differences in turn affect the relative prices of goods and services. Countries can specialise in producing goods that require the factors for which they have abundant supply and can hence produce efficiently, while trading to obtain goods and services that they do not produce or produce less efficiently.

Examples

America has relatively abundant capital, skilled labour and arable land:

- Net exporter of products that are skilled, labour-intensive or technologically intensive such as chemicals, aircraft and precision instruments
- Net exporter of temperate-zone agricultural products such as wheat, corn and soybeans
- Net importer of less-skilled, labour-intensive products like clothing and shoes

Singapore is land and labour scarce, therefore produces goods that are relatively less labour and land-intensive:

- Exports machinery and equipment like disk drives, integrated circuits, computer parts
- Imports all raw materials/necessities such as rice

However, endowments may change over time, for instance if more savings lead to the accumulation of more capital, or an increase in years of educational opportunities raises the skill level of the labour force. But at each point in time, the factor endowment determines the productive potential of the economy, as well as its relative productivity in each good, and hence the comparative advantage of the country.

Lots of room to raise educational levels of Singaporeans

(b) Differences in technology

Differences in labour productivity between countries may arise because different countries are at different stages of development and hence have different intensities of research and development (R&D) activities and different speeds of absorption of new technologies.

Technology is itself internationally tradable and it does not provide in itself a basis for comparative advantage. Rather, it is the ability to continually keep ahead in the technological race that can give a country comparative advantage.

(c) Dynamic comparative advantage

Dynamic comparative advantage refers to a changing pattern in comparative advantage. David Ricardo's theory of comparative advantage assumes that comparative advantage is static. The theory overlooks the fact that additional resources can be made available to the trading nation because these factors of production can be created or imported, so comparative advantage can be gained over time.

Factor endowments can also be depleted over the course of several decades, particularly non-renewable resources such as coal, petroleum or natural gas. Comparative advantage can therefore also be lost over time.

Governments can establish industrial policies to promote opportunities for changes in comparative advantage over time. The Japanese were among the first to recognise that comparative advantage in a particular industry could be created through the mobilisation of skilled labour, technology, and capital; and that government can establish policies to promote opportunities for change through time. To reduce reliance on traditional industries due to intense global competition in these industries, the Singapore government has attempted to diversify the economy in new areas where potential comparative advantages may arise. These initiatives include developing a global hub for clean energy (e.g. solar, wind, smart grids), pharmaceuticals and biotechnology, digital media, and medical technology.

Transformation to digital economy 'a top priority' for Singapore

2.2 Limitations of Theory of Comparative Advantage

The gains from specialisation and trade are maximised if the following assumptions are met: (1) no transport costs; (2) no trade and currency restrictions; (3) labour is perfectly mobile between industries within a country but immobile between countries; (4) constant opportunity costs. If assumptions (1) to (4) are fulfilled, then the gains from specialisation and trade will be maximised. However, if they are not fulfilled, then the gains from specialisation and trade will be reduced or eliminated. Hence, when the assumptions of the theory of comparative advantage are not met, the amount of specialisation and trade that occurs in each country may be reduced.

(a) High transport costs

Transportation costs refer to the costs of moving goods, including freight charges, packing and handling expenses, and insurance premiums. Transport costs can add a significant margin to the price of a traded commodity. This has the effect of lowering the gains from specialisation and trade that arise from differences in opportunity costs of production between countries. For instance, a country may be able to produce bricks more cheaply than other countries, but their weight may make them too expensive to export. Hence transport costs limit the amount of specialisation and trade the country can have with other countries.

(b) Immobility of FOPs within a country

The theory of comparative advantage assumes that labour can move freely (within the country) into the specialised industry in which the country has a comparative advantage. In reality, a country may not be able to reallocate its labour quickly and efficiently between industries even though it would prefer to expand those industries it has comparative advantage in, and contract those it has a comparative disadvantage in. This thus makes it difficult for a country to realise and maximise the benefits from specialisation and trade.

(c) Increasing opportunity costs

Also, as a country increasingly specialises in the production of one good, it will have to use resources that are less and less suited to its production and which are more suited to other goods. The more specialised the country becomes, the higher the opportunity costs of producing the good which will reduce and eventually lead to a disappearance of its comparative cost advantage. When this happens, there will be no point in further specialisation. This helps explain why specialisation is not complete, i.e. countries will stop at the point when the domestic opportunity cost exceeds the terms of trade.

Note:
This explains why large countries tend to partially specialise rather than adopt full specialisation.

(d) Trade and currency restrictions (Protectionism)

The gains from specialisation and trade based on the theory of comparative advantage are contingent on free trade. Protectionist measures such as tariffs, quotas and exchange controls hinder world trade and reduce the gains from specialisation and trade.

Refer to Section 5 on Protectionism.

Section Summary

- A country has comparative advantage over another country in producing a good when the opportunity cost of producing that good is lower. This also implies that the country has a comparative disadvantage in the production of the alternative good.
- Specialisation is based on the relative opportunity costs between countries. When opportunity costs are the same across all countries, there is no comparative advantage and thus no possibility of gains from trade.
- When opportunity costs differ, it is always possible to improve global efficiency and increase world total production by a suitable re-allocation of resources within each country.
- The existence of artificial or natural barriers to free trade will lower the gains from trade that arise from comparative advantage.
- The theory of comparative advantage considers only the differences in factor endowments between countries. It is a supply side theory to why countries trade.

3 PATTERNS OF TRADE

The pattern of trade can be observed from:

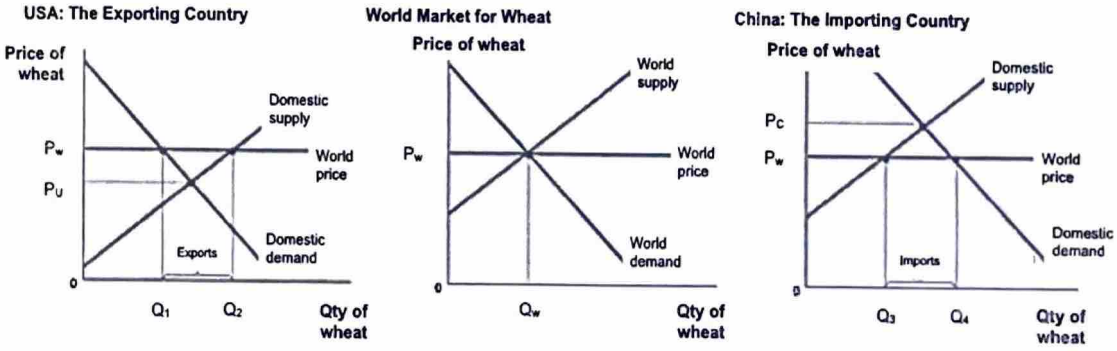
- the commodity composition of trade, i.e., which types of goods and services are being exported and imported. It includes trade in goods and services in different industries (inter-industry trade) as well as trade in goods and services within the same industry (intra-industry trade).
- the geographical composition of trade, i.e. the direction of trade in terms of whether a country is importing or exporting these goods and services, as well as who are its trading partners.

3.1 A Demand and Supply Analysis

The theory of comparative advantage considers only comparative cost differences due to differences in factor endowments. It does not consider how different levels of demand affects trade patterns. The following example will illustrate how differences in demand can lead to gains from trade.

As every international transaction has a buyer and a seller, the pattern of trade can be illustrated using a simple demand and supply analysis. When there is no international trade, equilibrium occurs at the price at which the market clears domestically, with the national quantity demanded equal to national quantity supplied. To discuss international trade, we need at least two countries. Assume that wheat is produced in only two countries, the US and China, and that there are no trade and currency restrictions.

Figure 2: Demand and Supply Analysis



Before trade, the domestic price of wheat is where the domestic demand and supply curves intersect from Figure 2. Assume that US pre-trade price, P_U, is lower than in China, P_C because demand is relatively higher in China.

Should the countries decide to trade freely, China would import wheat and US would export wheat as producers are attracted by the higher prices in China (since transacted price for wheat is at P_C), while Chinese consumers would find it cheaper to import wheat from US (since transacted is priced at P_U). When trade takes place, the additional supply into China, created by imports, reduces the market price paid by Chinese consumers, while the additional demand for exports increases the market price received by US producers.

After trade, as US exports wheat and China imports wheat, in the world market for wheat, the world price of wheat will eventually settle at a level like P_W, where the amount of wheat exported by US is exactly matched by the amount of wheat imported by China, i.e. $Q_1=Q_2$ is equal to $Q_3=Q_4$. This is consistent with the gains from trade.

3.2 Determinants of Inter-Industry Trade

Inter-industry trade refers to trade between countries where exports and imports consist of different types of goods across different industries. From the previous sections, these are the main determinants of inter-industry trade:

Key Point:
Comparative advantage and demand side factors affect a country's pattern of trade.

(a) Theory of CA: Differences in sources of comparative advantage

A country's pattern of trade is largely influenced by its comparative advantages and disadvantages. In general, it would export goods and services in which it incurs a lower opportunity cost in producing and import goods and services in which it would have otherwise produced at a higher opportunity cost.

For instance, Singapore's strategic location implies that it has a natural comparative advantage in transportation and maritime trade services. Singapore has been dubbed a 're-export[3]' economy, given that re-exports (excluding exports of oil) constitute roughly 50% of total exports. Examples of re-exports include electronic re-exports like parts of PCs, telecommunications equipment, and non-electronic re-exports such as jewellery, precious stones and pearls.

Singapore also has relatively more abundant skilled labour resources than countries like Malaysia and China, and hence has a lower opportunity cost in high value-added production such as chemical processing and manufacturing of electronic components such as microchips. As such, Singapore specialises and exports these goods to them. In turn, Singapore imports land and labour-intensive goods (for example, wooden products, textiles and food) from these countries because they have relatively more abundant land and labour.

(b) Demand factors such as population and income levels

Note:
The theory of CA provides a supply-side basis for trade. It is equally important to note the demand side reasons for why trade takes place.

Rising affluence of trading partners, changing taste and preferences as well as population size or demographics can also affect Singapore's pattern of trade with the rest of the world.

For example, as economies like China and Vietnam develop, they might need to import capital equipment produced by Singapore. Alternatively, as they enjoy increasing income in the course of development, they would be able to import more goods and services from Singapore. The increase in demand and subsequent gains from trade can be illustrated using the demand and supply analysis in Figure 2.

[3] Re-exports are goods that have been exported from Singapore in the same form as they have been imported.

(c) Limitations to theory of CA such as transport costs, artificial barriers to trade

In the case of both Malaysia and Indonesia, geography and transport costs probably explain their large volume of trade with Singapore, e.g. Singapore imports raw water from Malaysia rather than Alaska.

3.3 Determinants of Intra-industry trade

Intra-industry trade refers to **the simultaneous import and export of product within the same industry and can involve trade in differentiated products (horizontal specialisation) or trade in intermediate goods (vertical specialisation).**

Factors that affect the pattern of intra-industry trade include:

(a) Demand-side factors like tastes and preference

Differences in tastes and preferences between two countries could lead to trade even when a country has comparative advantage in a good. Because consumers value differentiated products and variety, they are willing to pay different prices for different products.

For instance, Singapore also imports goods that it has comparative advantage in, such as pharmaceuticals and personal computers from USA and Europe. Such intra-industry trade occurs as consumers prefer a variety of goods given their differing taste and preferences. Although Singapore produces heart stents with comparative advantage, some consumers prefer the branded stents made by the US and French pharmaceutical giants.

(b) Economies of scale from intra-industry specialisation

To exploit more fully the available internal economies of scale, countries with similar factor endowments can engage in horizontal intra-industry trade. Horizontal intra-industry trade enables countries with similar factor endowments to benefit from internal economies of scale by specialising in niche products. It provides a way to combine the lower long run average production costs that come from internal economies of scale and still provide competition and variety for consumers. For instance, continental car manufacturers such as Mercedes and BMW in Germany specialise in luxury cars, while Asian car manufacturers specialise in cost-efficient models.

Through trade, consumers will gain from having a wider choice of models, as the different tastes and preferences / income levels within each country can be catered to. This reason for trade is also especially relevant for small countries with small domestic markets, which are not large enough to support large-scale industries and reap IEOS without trade.

Think! Are you able to think of reasons to explain vertical intra-industry trade?

3.4 Singapore's Patterns of Trade

Singapore is a small and open economy. Singapore's total trade (which is the sum of exports and imports) amounts to approximately 300% of its GDP. Singapore is very dependent on exports for growth because of its small domestic market. Singapore is also heavily dependent on imported raw materials due to its lack of natural resources. As a proportion of world demand, however, Singapore's exports and imports are very low which results in Singapore being a price taker, meaning that Singapore's volume of exports and imports are not large enough to influence the world prices of exports and imports respectively. Much of the increase in bilateral trade linkages between Singapore and its major trading partners has been due to a significant increase in overlap in the composition of goods traded, or intra-industry trade.

It is important to know Singapore's pattern of trade with the Rest of the World.

A Summary of Singapore's Pattern of Trade with the Rest of the World

Major Trading Partners	
Top Trading Partners	Malaysia, United States, China, Indonesia, Japan, Thailand, South Korea, Hong Kong, EU
Other Trading Partners	Australia, India, Vietnam, Myanmar, Latin America, Eastern Europe

Major Industries/Exports/Imports	
Major Industries	Electronics, pharmaceuticals, chemicals, banking and finance, tourism, refined petroleum products
Major Exports	Machinery and transport equipment, petrochemical products, pharmaceutical products, miscellaneous manufactured products such as integrated circuits, petroleum-refined products, financial and business services
Major Imports	Electrical machinery, mineral fuels including oil, machinery including computers, precious metals, vehicles, food items

Source: http:singstat.gov.sg

3.5 Conclusion: Trade pattern is not static but dynamic

In general, the world prices of traded commodities are determined by the global supply and demand for these commodities. There are many factors that explain the direction and composition of trade. It is important to note that trade patterns are not static. There will be changes in the patterns of trade between countries over time.

This is due to possible changes in sources of comparative advantage, taste and preferences, and government policies. For instance, factor endowments and technology may change over time due to accumulation of more capital as result of increased savings, rise in skill level of the labour force as a result of education, and advancement in technology due to investment in research and development. At any point in time, the quantity and quality of factor endowment and technology determine the productive potential of the economy, as well as its relative productivity in each good and hence the comparative advantage of the country.

Section Summary

- A country's pattern of trade with other countries can be observed from the composition and direction of trade.
- Countries can engage in inter-industry trade and intra-industry trade.
- The trade pattern between countries can be explained by a variety of factors including differences in labour productivity and factor endowments between countries, demand factors, transport costs and so on.
- The trade pattern between a country and the rest of the world is not static but changes over time.

4 EFFECTS OF INTERNATIONAL TRADE

International trade brings about many benefits and costs for the countries involved, hence it is essential for us to analyse the impact of international trade on the economic well-being of countries.

4.1 Benefits of International Trade on the National Economy

4.1.1 Microeconomic benefits

1. Increase consumer welfare

(a) Higher consumption possibilities

According to the theory of comparative advantage, gains from specialisation and trade include an increase in global efficiency, which can in turn lead to an increase in world production and hence, world consumption. This will in turn enable individual countries to consume beyond their PPC, enjoy higher material welfare and increase consumer surplus as consumption of goods in each country is no longer restricted by its PPC.

Refer to Section 1 under the Theory of CA to see the gains from trade.

The increase in consumer surplus can also reflected by a lower prices and higher consumption levels (for import substitution markets).

(b) Greater variety and higher quality of goods and services

International trade allows us to expand our markets for both goods and services that otherwise may not have been available to us. It is the reason why we can pick between a Japanese, German or American car, or consume goods such as strawberries which we are unable to produce. This increases consumer choice, leading to greater consumer sovereignty.

2. Increases firms' profits

(a) Expands demand for firms

With trade, firms now have access to a larger consumer base, increasing total revenue and market share. Trade also allows firms to tap into markets which are expanding quickly from strong economic growth, fuelling the rise in demand (assuming positive YED).

(b) Lowers costs by exploiting available economies of scale

Economies of scale give countries an incentive to specialise and trade even in the absence of differences in resources or technology between countries.

(i) Internal Economies of Scale (IEOS)

Even if the opportunity costs of production between countries are the same, a country can still gain from specialisation and trade. By increasing their scale of production, firms in the country can experience internal economies of scale, and hence lower their long run unit costs of production. Ceteris paribus, profits can increase. The higher profits gained from these cost savings can be put into R&D so as to improve on the quality of goods produced and hence profits in the future.

Countries such as Singapore and Israel whose domestic markets are too small to exploit IEOS would find it prohibitively expensive to become self-sufficient as they have to produce everything at a high cost. Trade allows these smaller countries to specialise in producing a limited range of commodities on a larger scale such that they reap the available cost savings from IEOS. Exporting to other nations helps widen the market for their products and allows IEOS to be realised.

(ii) External Economies of Scale

External economies of scale occur when the cost per unit of output falls due to the expansion of the size of the industry rather than the size of any one firm. International trade can encourage the development of key industrial hubs. Very often, concentrating

production of an industry in one or a few locations reduces the industry's costs even if the individual firms in the industry remain small. For instance, in USA, the semiconductor industry concentrated in California's Silicon Valley, the investment banking industry concentrated in New York, the entertainment industry concentrated in Hollywood are examples of industries in USA where external economies of scale have played a key role in their development.

(iii) Learning by doing

Costs may also vary with the length of time that a product has been in existence if production performance improves. Through international trade, as a country specialises in the production of goods for export in certain industries, it is believed that countries gain experience in particular tasks, workers and managers would be more efficient and hence the unit cost of production falls in the industry. This is particular relevant to many knowledge-intensive and high-tech industries.

3. Improves Society's Welfare

(i) Exposure to foreign competition

International trade exposes domestic producers to foreign competition, preventing complacency. As the country opens up to foreign competition, the barriers to entry are also lowered.

Faced with competition, local producers will:

(a) face a check on their market power, reducing price-setting ability and hence improving **allocative efficiency**.

(b) strive for more efficient methods of production, **reducing x-inefficiency**.

(c) be more incentivised to engage in R&D and achieve **dynamic efficiency**. With competition, they are required to improve their product quality via product innovation and reduce costs via process innovation in order to compete in international markets.

(ii) Trade creation

As a result of international trade, consumers will be able to enjoy higher consumer surplus in import substitution industries, resulting in an overall increase in society's welfare. Similarly, producers in export-oriented industries will be able to enjoy higher producer surplus, leading to an overall increase in society's welfare.

Refer to Figure 2 on page 9. Are you able to illustrate the welfare effects?

4.1.2 Macroeconomic Benefits

(a) Stimulate economic growth, increase employment and improve BOT

(i) Enlarging the market

Trade is an important stimulus for economic growth, particularly for small and open economies. It enables firms to overcome the constraint of a small domestic market since they are able to produce for the wider international market, raising export volumes in the process. The opening up of economies to international trade also creates an environment that is conducive for domestic and foreign investment to take place. Increases in exports and investments lead to an increase in aggregate demand, and in turn increased employment levels and higher level of national income via the multiplier effect, generating actual growth and improving living standards in a country. This also leads to an improvement in the country's BOT.

Key Point:
International Trade improves economic performance of a country. You should be able to apply AD/AS framework to analyse the effects on the economy.

(ii) Facilitates transfer of technology and ideas (potential growth)

Trade brings with it an exchange of ideas and techniques. The transfer of technology and ideas from more advanced countries will help developing countries leapfrog stages in their economic development and they are able to avoid mistakes made by developed countries - Singapore's remarkable progress since 1965 is a good example of this.


Singapore: 50 Years of Science & Technology

(iii) Dynamic gains from trade

Dynamic gains from trade refer to the effect of trade on the acceleration of a country's growth rate and thus on the volume of additional resources made available to the trading country over time. Dynamic gains from trade hence make the country that engages in trade more productive.

International trade potentially leads to greater output and income and over time. This leads to higher savings and investments in equipment and manufacturing plants. The additional investment generally results in higher rates of economic growth. Moreover, opening an economy to trade can lead to increases in imported capital equipment, fostering higher productivity levels and potential growth. These gains from international trade grow larger over time. Empirical evidence has shown that countries that are more open to international trade tend to grow faster than closed economies.

For example, the dynamic gains from international trade for developing countries are as follows. Through international trade, developing countries obtain necessary resources for production through imports of capital goods (machinery, transport equipment, vehicles, power generation equipment, road building machinery) and raw materials. Such capital goods allow developing countries to produce better quality goods and services and more efficiently and consequently accelerate its economic growth.

(b) Lower inflationary pressures

For the importing country, the availability of relatively cheaper imported factors of production leads to lower costs of production. This will lead to an increase in aggregate supply and dampens cost-push inflationary pressure. Cheaper imported final goods and services will also lead to a lower consumer price index.

Foreign competition also prevents complacency among local producers. It is also difficult for companies to merge or gain monopoly control in an open economy. The rise in competition levels is beneficial to consumers since they will now be able to enjoy lower prices, leading to higher material SOL and consumer surplus.

4.2 Costs of International Trade

4.2.1 Microeconomic Costs

(a) Widening income disparities

Specialisation and international trade can lead to rapid growth in countries involved, but this can also cause widening income disparities within the country. A shift in the mix of goods a country produces will reduce the demand for some factors of production, while raising the demand for others. It tends to provide more opportunities for those in export-oriented industries. This rise in income disparity requires the need for the government to actively redistribute income to prevent social tension within the economy.

(b) Unfair competition and dumping

Dumping refers to the selling of goods in overseas markets below the marginal costs of production. The objective is to drive out rival producers in the importing country and

eventually monopolise the market, leading to higher prices imposed on consumers in the long run. Import-substituting industries in the receiving market may not be able to compete against such foreign exporters, and hence may not be able to develop. If production is subsidised by the government of the exporting country, this leads to unfair competition with producers in the importing countries. This could lead to allocative inefficiency and higher prices in the longer run.

4.2.2 Macroeconomic Costs

(c) Over-dependence on other countries – Susceptibility to external shocks

Being overly reliant on foreign countries as export markets makes a country susceptible to externally-induced cyclical unemployment when economic crises get transmitted from one country to another through channels such as trade and financial spill overs. This will also lead to a worsening of the country's BOT. To avoid such over-reliance, it is paramount for governments to diversify their exports and trading partners.

Singapore economy tipped for recession as US-China trade war slams imports, exports, manufacturing

Besides being negatively affected during economic crises, open economies are also susceptible to import-push inflation, especially when countries they import from face inflationary pressures. In addition, certain goods are basic, strategic or essential to a country, for instance food and water. Countries cannot afford to depend fully on foreign suppliers for such goods.

(d) Increased risk of structural unemployment

Singapore tops index measuring food security, but vulnerable to trade and climate-related risks

Specialisation due to trade by countries will mean narrowing its industrial/economic structure. The composition of goods and services produced and the types of jobs available will become limited. Changes in market conditions, e.g. falling demand or exhaustion of non-renewable resources will cause serious economic decline. An overly specialised economy will face structural rigidity and have difficulty recovering from an economic crisis.

Changing market conditions as well as free trade tend to result in structural decline of import-substituting industries that are no longer able to compete or adapt in the face of changing demand or emergence of more efficient competitors in other countries. This causes higher levels of structural unemployment where labour that is made redundant in those sunset industries are unable to find employment opportunities in sunrise industries due to a mismatch of skills.

Section Summary

- Specialisation and trade can lead to greater global productive efficiency and in turn greater production of world output. Trading partners can thus experience higher consumption levels that were previously unattainable.
- Free trade can allow economies, particularly small ones, to realise internal economies of scale, giving them cost advantages. Large economies also benefit from broadened markets.
- Micro and macroeconomic benefits of free trade include lowered prices and lowered inflationary pressures, increased choice, economic growth and improved balance of payments.
- The main disadvantages of trade are increased exposure to external shocks, as well as structural unemployment issues and widening income disparity.
- Governments need to put policies in place to tackle these disadvantages so that trade can have its trickle-down benefits for the whole economy.

5 PROTECTIONISM

As seen in the previous section, although international trade brings with it benefits, it involves costs too. For instance, free trade will cause a redistribution of income between individuals within the economy. In other words, some individuals will gain from free trade while others will lose. Hence, free trade policies will meet with major resistance among companies and workers that face losses in income and jobs because of competition from imports. Fairness in trade is another reason given for protectionism. Business firms and workers often argue that foreign governments give subsidies to their companies, giving foreign firms unfair competitive advantages.

The view that free trade is injurious and should be restricted is known as protectionism. **Protectionism is a policy of sheltering domestic industries from foreign competition through the imposition of trade barriers on imports.** Protectionist trade barriers consist of tariff restrictions and non-tariff trade barriers.

5.1 Methods of Protectionism

5.1.1 Tariffs

Tariffs are custom duties or taxes imposed on imports of goods or services by the government. A specific tariff is a tax calculated as a fixed amount of money per unit of the import. An ad valorem tariff, on the other hand, is a tax levied as a fixed percentage of the import price. In either case, the effect of a tariff is to raise the price of the imports.

Note: You are required to graphically illustrate how tariffs work in exams.

The objectives of tariffs are to (i) increase domestic production to reduce structural unemployment in import-substituting industries, and (ii) generate government revenue.

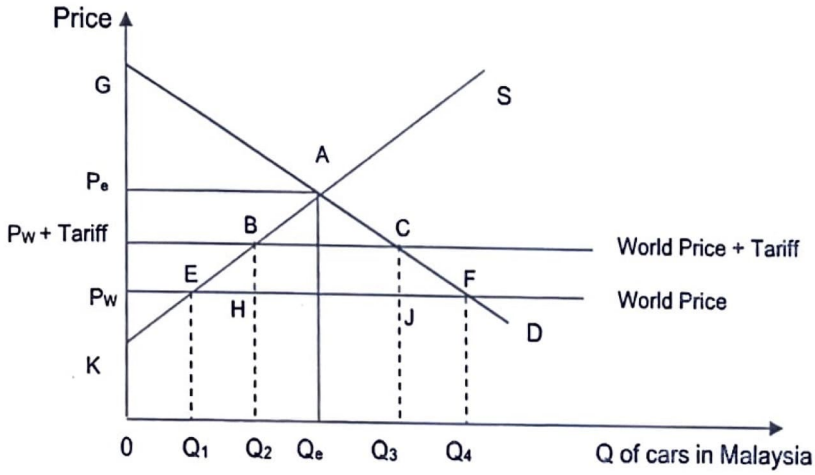


Figure 3: The effects of a specific tariff on the market for cars

Assumptions

- Foreign cars producers have a comparative advantage in cars production and assume that they are willing to supply all the cars that are demanded by Malaysia at world price P_W. The supply curve of imported cars in the Malaysia is thus perfectly price elastic.
- Malaysia is a small importing country of cars. Hence, Malaysia is a price taker in the global car market, meaning that Malaysia's purchase of imports is not large enough to influence world price.

In the absence of international trade, the domestic price of cars in the Malaysia is $0P_e$ while output is $0Q_e$.

Under free trade, domestic price cannot differ from world price. The domestic producers in Malaysia have to sell their cars at the world price, P_W because if domestic producers try to sell their cars at a price above P_W, they will lose all their customers to the foreign producers (assuming these cars are perfect substitutes).

At world price, $0P_W$:

- The level of domestic production is $0Q_1$
- The level of domestic consumption is $0Q_4$
- The volume of imports is Q_1Q_4 and import expenditure is Q_1EFQ_4
- Total consumer surplus is GFP_W
- Total domestic producer surplus is P_WEK

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

- Supply curve of imports shifts up by the amount of the tariff since the tariff is added to the price of every unit of import sold in the country imposing the tariff.
- Domestic price rises from $0P_W$ to $0P_W$ + tariff

Economic effects of tariffs on the national economy

Objective 1: Reducing imports and increasing domestic production

At P_W + tariff,

- Domestic production increases from $0Q_1$ to $0Q_2$
- Total revenue for domestic producers increases from $0P_WEQ_1$ to $0P_W$+tariffBQ_2 due to the expanded domestic production and higher price
- Domestic producer surplus increases by P_WEBP_W+tariff

Comment: The extent to which domestic producers in Malaysia are made better off depends on the extent to which domestic production in Malaysia can increase when the tax on imports is imposed. This in turn depends on the price elasticity of supply of cars by domestic car producers in Malaysia. The more price elastic the domestic supply for cars, the greater the increase in quantity supplied of domestic cars when a tariff is imposed, and vice versa.

Objective 2: The government revenue effect

At P_W + tariff, imports fall from Q_1Q_4 to Q_2Q_3. Foreign producers continue to receive $0P_W$ per unit sold. The government, however, gains because the government receives tax revenue from the extra amount paid by consumers for the imported quantity (area BHJC).

Disadvantage 1: The consumption effect

At P_W + tariff, tariffs force consumers to:

- Reduce total consumption of cars from $0Q_4$ to $0Q_3$
- Reduce their quantity demanded of imports from Q_4Q_1 to Q_3Q_2 and switch to relatively less efficient domestically produced substitutes

Consumer surplus with tariff is GCP_W+tariff:

- Tariffs make consumers worse off because consumer surplus falls by P_WFCP_W+tariff because consumers pay more for cars but consume less cars

Comment: The extent to which consumers in Malaysia are made worse off when a tariff is imposed depends on the price elasticity of demand for cars by consumers in Malaysia. The more price elastic the demand for cars by consumers in Malaysia, the greater the fall in quantity demanded for cars when a tariff is imposed.

Disadvantage 2: Deadweight loss to society

Areas EBH and JFC represent deadweight loss to society or efficiency losses. They arise because tariffs distort incentives to consume and produce.

Think: Will a large country like the US necessarily lose when it imposes a tariff on imports?

- Area EBH represents production distortion loss because resources are diverted from the relatively more cost-efficient foreign producers to the relatively less cost-efficient domestic producers.
- Area JFC represents consumption distortion loss because the loss in benefits from not consuming Q_3Q_4 as a result of the tariff is greater than the gain in resources saved in not consuming Q_3Q_4 units of cars.

Summary of effects of tariffs

	Effect	Area on diagram
Domestic producers	Gain in producer surplus	+ Area (P$_1$CBP$_w$)
Foreign producers	Loss in revenue	-[Area (EHQ_1Q_2) + (JFQ_3Q_2)]
Domestic consumers	Loss in consumer surplus	- Area (P_1EJP_w)
Government	Gain in tax revenue	+ Area ($BHJC$)
Society	Deadweight loss	- Area (EBH) and (JFC)

Unintended consequences

Tariffs can lead to unintended consequences in the economy. For instance, tariffs on essential factors of production like steel can affect related industries like the car manufacturing industry adversely by raising the price of imported steel and cost of production, leading to cost-push inflation.

In addition, the above tariff analysis assumes no retaliation. In reality, however, when a country imposes an import tariff (a tax on other countries' exports), other countries will often retaliate with similar measures. Hence, the country that imposes the import tariffs might find itself in a worse outcome than before it imposes the tariffs.

5.1.2 Non-tariff barriers

(a) Quotas

Instead of a tariff, the government can impose quotas. An import quota is a direct restriction on the quantity of some good that may be imported. For instance, the United States has a quota on imports of foreign cheese. Only certain firms are allowed to import cheese, where each firm is allocated the right to import a maximum amount of cheese each year. Consequently, quotas boost domestic production of cheese as consumers turn to consuming cheese from domestic producers. Domestic firms hence gain greater total revenue from the sale of more cheese sold.

Graphical illustration in **Appendix 2** of how imports quota affect trade

The effects of a quota are similar to that of a tariff. An advantage of quotas over tariff is that quotas provide a greater certainty of protection for local producers compared to tariffs. A disadvantage of quotas is that quotas displace the price mechanism in determining the amount of imports. This results in a loss of consumer sovereignty because consumers cannot decide on the quantity of imports they want to consume. An import quota also always raises the domestic price of the imported good and hence, consumer welfare is further reduced. It also does not generate any revenue for the government, unless the government decides to sell the right to import a good to firms.

(b) Subsidies

Export Subsidies

Governments may implement export subsidies to promote export industries thought to be crucial for the economy and / or to reduce the balance of trade deficit. Export subsidies are cash grants given by the government to domestic exporting producers to incentivise them to sell more goods overseas.

More information can be found in **Appendix 3**

Domestic Production Subsidies

In the context of trade protection, production subsidies are payments per unit of output granted by the government to domestic firms that compete with imports. The subsidy will allow the domestic firms to increase output level and reduce the amount of imports in the country.

Think: Are you able to illustrate the impact of subsidies on the imports of countries?

These subsidies have the effect of increasing the quantity of goods produced domestically, be it for exports or for domestic consumption. However as with all subsidies, there is opportunity cost incurred as these funds could have been directed elsewhere. For example, towards the production of merit goods like education or goods that generate positive production externalities like R&D etc.

(c) Foreign exchange controls

International trade is carried out in terms of foreign currencies, so the central bank's control over the purchase and sale of foreign currencies will limit the quantities as well as the types of imports and exports traded. Foreign exchange controls can be implemented through the following:

- Limits on the amount of foreign currencies made available to importers (financial quotas), residents travelling abroad, or for investments abroad.
- Charges made on people purchasing foreign currencies.

(d) Embargo

This is a complete ban on certain imports or exports, from or to certain countries. This could be done for social (e.g. with demerit goods) and political reasons. For example, in response to mounting international pressure to condemn Russia's invasion of Ukraine in February 2022, the UK and the EU have banned the export of luxury goods to Russia - including vehicles, high-end fashion and art. The US also banned all Russian oil and gas imports.

(e) New protectionist measures

These are subtler and less obvious forms of trade barriers (disguised restrictions).

- The implementation of technical specifications and standards which discriminate in favour of home producers e.g. safety and hygiene regulations on food and pharmaceutical products.
- Preferential treatment for domestic firms when awarding public sector contracts effectively limits the ability of foreign firms to complete on a level playing field to export similar goods and services to the country.
- Administrative regulations regarding import procedures may be so bureaucratic that it delays and therefore reduces the volume of imports.
- Voluntary export restraints (VER) or voluntary restraints agreements (VRA) where the exporting country is persuaded by the importing country to voluntarily reduce their exports under threats of all-round trade restrictions. VERs were negotiated by the US on textile, automobile, cars and shoes when home industries were threatened by more efficient, lower cost imports from Japan.

5.2 Benefits and Costs of Protectionism

The theory of comparative advantage shows how specialisation and free trade can achieve the greatest amount of production and consumption through the achievement of allocative efficiency on a global scale. Protection worsens global and domestic resource allocation. However, as free trade has created winners and losers, protectionism might be necessary to redistribute the gains from the winners to the losers.

Note: it is important to know the main arguments for and against protectionism.

(a) To protect an infant industry

An infant or newly established industry needs help in its initial stages because heavy initial costs are likely to be incurred and these costs cannot be completely covered by the initial small output. Time is needed to develop skilled management, reputation, exploit efficient technologies and to reap the advantages of large-scale production. The long run objective is to allow firms to be able to lower their long run average costs of production through the reaping of internal economies of scale and / or learning by doing, and thus be able to price their goods more competitively both at home as well as in international markets.

Since such industries have potential comparative advantage, a guaranteed home market will enable them to get over their teething problems and be able to compete on more equal footing. Without protection, a potentially efficient source of supply can be cut off.

Today's industrial giants had at one time or another resorted to protectionism against competition as a means of rapidly industrialising their economies. Such protection had been used by newly industrialising economies (NIEs) – Hong Kong, Singapore and Taiwan. In Singapore, protective duties covering some 300 items were imposed when it started industrialising in the early 1960s. But since 1970, these duties have been discouraged. Nowadays, very few of our import items are taxed or subjected to quotas.

Evaluation: It is difficult to identify with certainty, industries that are presently unprofitable, but which may acquire comparative advantage in the long run. The government may incorrectly choose industries without any potential comparative advantage.

It is also difficult to decide when the industry is fully and sufficiently established to do without protection. Some may remain as 'perpetual infants' that continue to be inefficient due to complacency, requiring continual protection for survival. Long-term protection may also lead to a lack of incentive to mature into strong and efficient producers that can compete internationally. Such infant industries remain not productive and innovative in terms of producing better quality products or producing goods more cost effectively than that of its international competitors. Consequently, this leads to a failure of such protected infant industries to compete internationally over the long-term may lead to higher levels of unemployment over time.

(b) To protect sunset / mature industries and reduce structural unemployment

In the mature industrialised economies, traditional industries may lose their comparative advantage in world markets as a result of technological progress (British textiles versus man-made fibres) or the emergence of new competitors exploiting the latest technology (British shipbuilding versus Japanese shipbuilding). Should these traditional industries (which are highly localised) be left unprotected and close down, massive regional structural unemployment would follow. By temporarily protecting these mature industries, the decline of the industry may be slowed down, and time is gained to switch resources into other areas of economic activity.

Evaluation: While protectionism is able to prevent short-term massive unemployment, protectionism under such circumstances will not increase total employment over the long term. It perpetuates domestic inefficiency as it prolongs the inefficient use of the economy's resources and leads to allocative inefficiency by depriving the other thriving

industries of valuable resources. It involves high opportunity costs as these resources could be channelled to develop potential industries that can contribute more significantly to the growth of the economy.

The problem is often a lack of willingness to restructure when a country loses its comparative advantage over time. If the developed country has lost its comparative advantage, it should re-look these industries and if necessary, let them shut down to divert resources to other more productive uses.

Overall, the argument hinges on the fact that retraining takes time. Trade protection here can be justified only as a short-term measure while retraining of workers take place. A better way to prevent structural unemployment and its associated negative effects would be to retrain the displaced labour so that they can be effectively re-channelled into other industries.

(c) To improve economic performance

(i) Reduce balance of trade (BOT) deficits

BOT deficits occur when imports expenditure exceed the exports revenue received for a country. The government may be prompted to impose restrictions on imports to reduce the BOT deficit. The ex-US President Donald Trump often cited the US trade deficit with China or Mexico as evidence of Americans 'losing' in trade.

Evaluation: This is at best a short-term measure to improve BOT deficit. In the long run, it is better to look at the root causes of the BOT deficit. For example, exports may be uncompetitive because of high inflation. The best remedy should be to raise the productive capacity of the economy through supply-side policies rather than the use of protective measures. Besides, such protectionist measures may invite retaliation from trading partners, resulting in a reduction of the country's exports and hence negating the original improvement in current account.

(ii) To increase national income and employment in times of recession

Protectionism here is an *emergency short-run measure* in times of a recession to avoid heavy retrenchments and unemployment. Money spent on imports will only create employment in foreign countries and not at home. The imposition of tariffs and quotas on imported goods creates jobs by raising the prices of imports and diverting consumption towards domestically produced goods. This is a powerful motive especially during periods of recession and economic stagnation. In the global financial crisis in 2009, advanced western countries such as the US resorted to the use of protectionist policies, including tariff increases and import quotas, in order to support their economies by sheltering them from foreign competition

Evaluation: Protectionist policies during the Great Depression referred to as 'beggar thy neighbour'. Even though the country that imposed them alleviated its own economic problems, they also worsened the economic problems of other countries. The partners who experienced a decline in export sales and consequently a lower employment level would trigger off similar retaliatory measures by imposing restrictions of their own. Thus, the original increase in domestic production may be offset by the fall in export revenue due to such retaliatory measures.

If the government's objective is to increase employment in the economy, demand-management policies or cost-cutting measures on the supply-side may be more appropriate.

(e) To protect against unfair trade practices

Dumping refers to the sale of goods in an overseas market below the marginal cost of production, which is often made possible with government subsidies. The objective is to

drive out rival producers in the importing country so that the exporter can eventually monopolise the market. The effect would be a reduction in domestic output and employment as domestic industries may not be able to compete against the foreign exporters. Prices would be increased after the collapse of the home industry.

For example, the US imposed tariffs on Chinese solar products in 2012 when the US Commerce Department decided that Chinese manufacturers were unfairly undercutting US solar manufacturers, after American solar panel manufacturers complained that Chinese manufacturers were taking advantage of massive loans from China's state-run banks.

Evaluation: Since dumping brings about market distortions that result in long-term damage for the domestic economy, protection is justifiable. However, the level of protection should only cover the difference between the export price and the domestic price paid by consumers in the exporting country. If foreign producers sell at a lower price in the international market than in its home market simply because of differences in demand conditions, the importing country's consumers can actually benefit in the long term from the lower prices. In this case, protectionism is not necessarily justified.

(f) To diversify the economy

This argument is based on the undesirable consequences of narrow specialisation and over-reliance on other countries. With a limited composition of goods and services produced, the types of jobs available in the economy will also be limited. Specialised industries are vulnerable to economic upheaval resulting from changes in tastes and technology. An economic decline in these industries may result in massive unemployment, given the structural rigidity of the economy. Greater diversity and greater self-sufficiency can reduce this risk. For example, Zambia is over reliant on her copper exports and Cuba on her sugar exports. Such countries can become too dependent on these industries for their economic growth and to earn foreign exchange to obtain foreign supplies of other goods. They may run the risk of not being able to obtain essential imports (like foodstuffs and cars) if trade is disrupted.

Evaluation: Such a policy may not be sound based on the theory of comparative advantage. However, theories of development have shown that there is justification for a balanced economic growth. Moreover, it is believed that the pattern of comparative advantage can change over time, either naturally (discovery of new raw materials) or as a result of deliberate policies (in the field of education, capital investment or technological research) to acquire the advantage. For example, the successes of then NIEs such as South Korea, Hong Kong, Singapore and Taiwan are seen to be based on acquired skills and government policies that created favourable business conditions.

Think! Are there other reasons for protectionism? Are these reasons justified?

5.3 Future Challenges in International Trade

Despite countries' pledges to enhance cooperation to restore global growth, such as to refrain from raising new barriers to trade, avoid export restrictions and prohibit measures to stimulate exports; protectionism has been on the rise across the globe since the financial crisis in 2008 plunged the world into a global recession and the onset of the trade war between the US and the rest of the world. As free trade brings about gains but also costs, these often create complicated policy challenges both at the domestic and international levels. While protectionism can be an effective short-term policy measure to minimise costs of free trade and to garner political favour from strong and powerful trade unions within their own economies, export-oriented countries such as China and Singapore will be the hardest hit by protectionist measures.

The pursuit of free trade, while beneficial to countries as a whole, must be accompanied by policies that ensure that the gains from free trade are being redistributed to those who are made worse off from free trade. In the short run, redistributive policies like greater progressivity in income taxes and transfers to compensate those made worse off need to be implemented. Policies that help those who are adversely affected by free trade adjust,

like job retraining and assistance in searching for new jobs, need to be in place. In the long run, mechanisms that ensure more equal access to health, education and financial services need to be present. Although they do not ensure that everyone will end up at the same point, the provision of opportunities to do well in life regardless of initial income level, combined with the promise of redistribution for those who fall behind, is more likely to build support for free trade than simply ignoring the discontent with it.

Section Summary

- Protectionist measures such as tariffs, quotas and export subsidies can be implemented to reduce the adverse effects arising from free trade. Reasons to engage in protectionism include protecting sunset industries, protecting infant industries, protection against unfair trade practices such as dumping and so on.
- Potential costs of protectionism include the breeding of inefficiency, complacency and higher levels of unemployment in the long-term. Retaliatory measures from trading partners could offset any initial gains, and total volume of world trade eventually declines.
- Protectionist measures are at best short-run measures to alleviate the adverse effects arising from free trade.

6 GLOBALISATION

Globalisation is the **growing economic inter-dependence of countries worldwide through increasing volume and variety of cross-border transactions, in goods and services, in flows of capital, and in labour migration.**

Globalisation involves (among other cultural and social trends):

- an increase in international trade in goods and services in the world economy
- an increase in international flow of capital including but not limited to foreign direct investment
- an increase in international migration of labour including human capital

6.1 Factors Affecting Globalisation

Globalisation is supported by two broad trends. The first is **technology advancement**, which has **sharply reduced the cost of communication and transportation** that previously divided markets. The second is **government policies that have reduced barriers to trade and investment** between countries. According to the theory of comparative advantage, these two trends have increased the gains from specialisation and international trade.

6.1.1. Improvements in technology

Improvements in technology is a key driver for globalisation to occur as it has reduced transport costs, reduced imperfect information and factor immobility, and delayed the onset of internal diseconomies of scale.

Key Point:
Technology has led to the increased international trade, movement of capital and labour flows.

(a) Transport technology

The theory of comparative advantage assumes zero transport costs. In reality, high transport costs impede international trade as they reduce the gains from specialisation and trade. This has led to incentives for technology advancement that has lowered transport costs significantly. For instance, modern cargo airplanes are more fuel efficient and have made it possible to transport goods between continents in a matter of hours. The emergence of large sized ships and containerization has also allowed internal (technical) economies of scale to be exploited, reducing the cost of moving goods around the world.

Refer to Appendix 4 for more information on the history of globalization.

With lower transport costs, it would mean that consumers find it cheaper to import more goods than to buy them locally, boosting trade. Furthermore, lower transport costs meant that firms are more willing to shift production to other countries to reap the benefits of lower cost of production (based on the comparative advantage of that country) via offshoring and / or outsourcing and earn higher profits as they can now produce cheaply and ship it back to their home markets and sell it at more competitive prices. Lower transport costs have also allowed the increased movement of labour in search of better jobs.

Thus, the decline in transport costs has paved the way for greater movement of goods (along the predictions of theory of CA, including trade in intermediate goods), capital and labour across countries, hence propelling globalisation.

(b) Communication technology

Improvements in technology has reduced communication costs via the internet. A 3-minute telephone call from the USA to Britain cost $12 in 1946, whereas today, it is almost free-of-charge. The internet has made the world more interconnected and increased the information available for firms and consumers – allowing firms to obtain consumer trends and market information more easily and quickly, while consumers are able to find other goods and services produced in other countries. This allows firms to export the goods to other countries, and consumers to import more foreign goods and services.
The internet also facilitates communication and agreements on trade contracts can be settled more quickly, even allowing consumers to order direct from international suppliers via eBay, Amazon or direct from brands via their online stores. Secure electronic payment systems such as Paypal have boosted cross border transactions and have led to an increase in imports and exports.

The improvement in communication technology has made outsourcing of jobs possible, such as information processing and customer call-centre jobs from developed countries to India and the Philippines where labour costs are lower. With the possibility of goods and services being produced anywhere around the world, it has resulted in further specialisation and trade in services along the lines of the theory of comparative advantage.

The greater access to foreign markets and outsourcing and / or offshoring of production allows for greater flow of investment across countries. Hot money has also seen greater flows across countries, with speculators having greater information at their fingertips to help them find the best rate of return for their short-term portfolio investments.

6.1.2. Economic Policies

(a) Removal of trade barriers

Another assumption under the theory of comparative advantage is the absence of trade restrictions, and the existence of trade barriers limits the volume of world trade. In the years since the Second World War up to the 2010s, many governments have adopted free-market economic systems, vastly increasing their own productive potential and creating a myriad of new opportunities for international trade and investment. The reduction in barriers to trade (both tariffs and non-tariff barriers) has mostly occurred through multilateral negotiations through the World Trade Organisation (WTO), and through the increases in the number and scope of regional FTAs[4], stimulating trade in goods and services. Taking advantage of new opportunities in foreign markets, corporations have built foreign factories and established production and marketing arrangements with foreign partners. Governments have the incentive to reduce trade

Refer to Appendix 7 on the role of WTO in facilitating freer trade.

[4] Free Trade Agreements (FTAs) are legally binding international treaties between two or more trading partners that seek to promote trade by reducing barriers to trade in goods, services and investments.

barriers because according to the theory of comparative advantage, the lower the international trade barriers, the greater the gains from specialisation and trade will be.

(b) Increase in market liberalisation

The 1980s saw a rise in market liberalisation and deregulation as many governments privatised or deregulated major service industries such as transport and telecommunications. For instance, in the UK, the previously nationalised telecommunications industry was privatised in 1984 to form BT Group. In Singapore, a wave of privatisation started in 1986, with the setting up of a Public Sector Divestment Committee, which examined state-owned enterprises and government-linked corporations for their readiness to be privatised. During this period, Singapore Airlines, Singtel, Keppel Corp, POSBank were all privatised, while many industries began to be deregulated.

Such actions ranging from deregulation to privatisation of state-owned enterprises liberated these industries to increase competition, attracting firms (both local and foreign) to enter these deregulated industries due to the potential profits to be made. As foreign investors entered the market, this resulted in an increase in capital inflows into the economy, enabling globalisation to occur. The same argument applies to financial deregulation that has reduced capital controls, increasing hot money flows between countries. The OECD estimates that global portfolio investment volume has grown from less than USD10 trillion in 1997, to close to USD50 trillion in 2010.

(c) Increase in education level and removal of immigration restrictions

A key tenet for global economic progress is the increase in education levels, which has reduced the immobility of factors, specifically labour. The increased literacy rate worldwide as well as the increased number of people having undergone tertiary education has reduced the occupational immobility of labour. Furthermore, there has been an increased in the participation of women in higher education and the workforce since the latter half of the 20th century. Coupled with the removal of immigration restrictions, for example with the integration of eastern bloc countries into the EU, cross-border migration of labour between EU countries have increased significantly, particular from countries such as Poland and Romania to the western European countries. This has increased the size and skills of the labour force for the recipient country, increasing the quantity and quality of labour resources to allow countries to deepen their human capital to achieve comparative advantage, further reaping the benefits of specialisation and trade to drive globalisation.

6.2 Effects of Globalisation

There are a wide range of both microeconomic and macroeconomic effects from globalisation. The effects can generally be categorised using the table below[5]:

Impact on source country (where the labour and capital flow out <u>from</u>)	**Impact on recipient country (where the labour and capital flows <u>to</u>)**
Microeconomic costs & benefits: impact on firm's profits, level of competition and externalities (hence efficiencies), prices and variety for consumers	Microeconomic costs & benefits: impact on firm's profits, level of competition and externalities (hence efficiencies), prices and variety for consumers
Macroeconomic costs & benefits: impact on macroeconomic goals	Macroeconomic costs & benefits: impact on macroeconomic goals

[5] The impact on flows of goods and services are omitted here as they are the same as the impacts of trade that you have learnt in the previous section.

6.2.1 Effects of Foreign Direct Investment (FDI)

Globalisation has brought about an increase in international flow of capital, including FDI. In a narrow sense, FDI refers to the acquisition or construction of new plants and equipment in a foreign economy. It may also include the movement of capital that involves foreign ownership and control of production facilities. This occurs when the parent company obtains sufficient shares in a foreign company to assume control.

FDI activities are carried out by multinational corporations (MNCs) because they operate in more than one host country. These corporations may be in any business activities like manufacturing, mining, extraction of minerals, business-service operations and even research and development (R&D). Examples of MNCs include Mitsubishi and Toyota from Japan and General Electric and ExxonMobil from USA. The activities undertaken by MNCs have led to the development of Global Value Chains.

Refer also to Appendix 6 for more information on Global Value Chains.

The impact of international capital flows may be discussed at both the macroeconomic level (KEI and SOL) and at the microeconomic level (effects on firms, households, and different groups of workers).

6.2.1.1 Benefits of FDI to the Recipient Country

For the recipient countries, FDI is actively courted because it generates effects such as economic growth and other positive spill over effects.

Macroeconomic benefits

(a) Sustained economic growth and increased employment

Key Point: FDI will improve economic performance of a country.

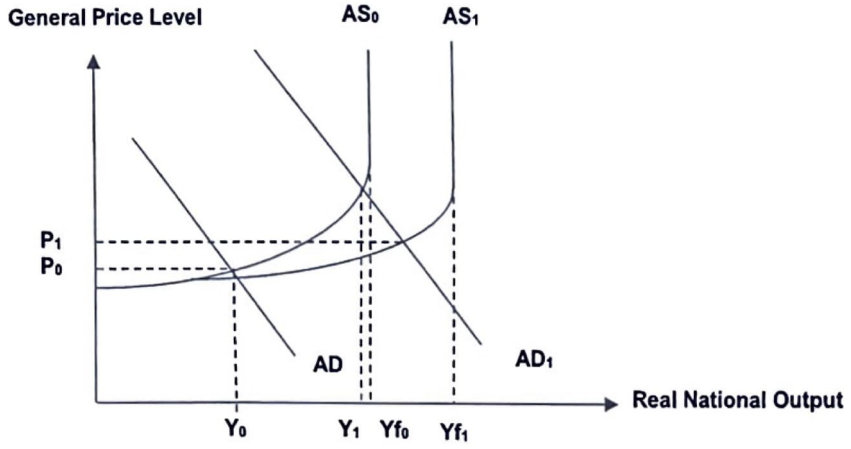


Figure 4: Effects of FDI on recipient

FDI inflows can supplement private domestic investment and lead to increase in demand for capital goods and services in the economy. In the short run, this will increase AD from AD_0 to AD_1 as shown in Figure 4, leading to increase in real national income and actual economic growth as seen from the increase in real national income from Y_0 to Y_1. This is especially important for developing economies which may suffer from low investment level due to low domestic savings. By establishing productive facilities in the recipient country, FDI can also create job opportunities. Moreover, by increasing demand for local workers, this will in turn raise wages for **all** workers in the recipient country, and not just those they employ.

Recall: the multiplier process – it also applies here with the rise in AD.

In the long run, FDI results in higher levels of fixed capital accumulation when foreign MNCs build up their production facilities. Moreover, they tend to bring with them technical and managerial expertise as well as new production technologies which are transferred

to the local workforce. These result in an improvement of the quantity and quality of resources which leads to higher levels of productivity, thus enhancing the recipient country's productive capacity. Higher productive capacity increases the AS from AS_0 to AS_1, as shown in Figure 4, generating potential growth.

The evidence shows that this has been especially pronounced in developing, in particular emerging, economies. The rapid growth of the 4 "Asian Tiger" economies of Hong Kong, Taiwan, South Korea and Singapore, was largely due to their ability to participate in trade and globalisation to a larger extent.

(b) Improvement in BOP

FDI inflows leads to an improvement in the capital and financial account of BOP. In addition, with the production and exports of goods by the foreign MNC from the recipient country, the recipient country's export revenue is expected to increase, leading to improvements in current account and hence BOP, ceteris paribus.

Microeconomic benefits

Domestic firms in the economy benefit from the transfer of management expertise as well as transfer of technology due to the presence of foreign MNCs in the industry. In Singapore, at the Biopolis, big pharmaceutical companies such as GlaxoSmithKline, Eli Lilly, and Eisai, together with many of the world's leading contract research organisations such as Quintiles, Covance, and ICON have located regional centres in the country. Such inflow of FDIs have been instrumental in developing Singapore's Biomedical Sciences industry. With shared scientific facilities and other services, domestic firms benefit from the interaction and collaboration between industry and public research laboratories. Through learning from and partnering leading industry players, domestic research institutions and firms can develop innovative and higher value products. Also, as more foreign MNCs with more advanced technology enter the domestic industries, it leads to increased competition and domestic firms in these industries would have to engage in product and process innovation in order to survive. Together, the inflow of FDI promotes dynamic efficiency in the host country.

Increased competition will also encourage domestic firms to minimise costs, which improves productive efficiency that may be passed on to consumers in the form of lower prices.

Recall: How a firm's AR and MR change, and hence the impact on price, quantity, and efficiency when there is greater competition.

Local monopolies might also face greater pressure due to foreign competition, leading to reduced market dominance in the country and reduce allocative inefficiency as firms now are less able to charge high prices.

Lastly, increased corporate tax revenue in the host country allows the government greater ability to redistribute to lower-income households to improve equity.

6.2.1.2 Costs of FDI to the Recipient Country

Macroeconomic costs

(a) Decreased domestic investment

FDI may substitute for domestic investment if foreign MNCs have an edge in technological or managerial expertise, accelerating obsolescence of traditional technologies adopted in developing countries and thus crowd out domestic investment, negating the improvement in RNY and possibly leading to structural unemployment.

The problem is aggravated by the footloose nature (i.e. highly mobile, and likely to shift operations) of MNCs, as they react very quickly to adverse changes in the host country. Hence an overdependence on foreign investment could cause the country to be susceptible to sudden FDI outflows.

(b) Worsening of balance of payments and exchange rate instability

The inflow of capital leads to an appreciation of the domestic currency, making imports relatively cheaper in domestic currency and exports relatively more expensive in foreign currency. This reduces the price competitiveness of the recipient country's goods, leading to a fall in RNY and a worsening of current account.

Activities related to FDI like capital inflows, import of inputs, repatriation of profits back to source country may also cause instability in the recipient country's exchange rate and make it difficult for long-term planning. Funds outflow is especially heightened during financial crises as MNCs may move funds rapidly out during periods of uncertainty which may make it even more difficult for governments of recipient countries to stabilize their economies.

Microeconomic costs

(a) Reduced competition among firms

Foreign firms may stifle efforts to develop the domestic industry. Small-medium enterprises (SMEs) may have difficulties competing against large MNCs. There is the likelihood of an increase in monopoly power within the industry, especially when a large foreign MNCs undercuts local competitors or is able to offer products of better quality, driving out the domestic firms from that industry. Such market dominance might lead to greater degree of allocative inefficiency

However, structural change is not necessarily a bad thing from the society's point of view. Competition weeds out inefficient firms, frees up scarce resources to be diverted to more productive sectors of the economy, as well as forces countries to innovate, move up the value chain and raise productivity – all of which raise potential growth and create quality jobs paying high wages. For example, Germany experienced some job losses since 1995, but saw a creation of 3 million jobs as it shifted to higher value-added sectors. This is what economist Joseph Schumpeter called "creative destruction".

(b) Negative production externalities

Many developed economies have stringent production requirements which require firms to use cleaner but more expensive production methods. On the other hand, developing economies have relatively less stringent environmental regulation of the activities of firms and this encourages many MNCs to re-locate their pollutive industries to these developing countries. Thus, FDI production activities may generate negative production externalities such as pollution which leads to a lower non-material SOL in the host country. Many MNCs have also been accused of subjecting workers to very poor working conditions and have done little to improve the workers' working conditions in developing countries.

However, research shows that the key contributor to negative production externalities globally is the higher level of production (which sometimes encourages deforestation), urbanisation and transport due to globalisation, rather than due to developing countries encouraging FDI in highly polluting industries. Furthermore, the growing level of education and communication technology has helped expose the poor working conditions of "sweatshops", hence firms are now less likely to engage in such actions.

(c) Widening income gap

Investment by MNCs using new technologies will usually benefit workers in the industrialised sectors (e.g., manufacturing) of an economy. As these industries expand with more inflow of FDI, workers in such industries are likely to learn new skills, enjoy better job prospects as well as higher wages. However, some non-trade sectors such as those providing localised services may remain stagnant. Therefore, small pockets of wealth may emerge in sectors with greater FDI inflows but workers in sectors with little /

no FDI inflows remain poor. This leads to unequal wage growth hence raising income disparities within the country.

Since the 1970s, lower-skilled European and American workers have seen the real value of their wages fall more than 20%, while workers in sectors such as banking and finance have seen the opposite.

Policy responses

To mitigate exchange rate instability, governments may need to exercise some control over their exchange rate or some form of control over capital flows, especially during an economic crisis, to ensure greater macroeconomic stability. Other possible measures may be in the form of restrictions on the maximum percentage of profits that can be repatriated to the source country. In addition, to mitigate the impact of FDI on domestic investments, the output of foreign MNCs may be subject to domestic content requirements on factor inputs, or foreign MNCs may need to tie up with local firms for any business ventures or may be banned altogether from investing in certain key industries.

Think: What other microeconomic and macroeconomic policies can be used to address these costs?

To mitigate the above microeconomic costs, governments may increase regulation in the relevant sectors. For example, they could implement regulation on anti-competitive behaviour of firms or to reduce negative production externalities on society. Supply-side policies like grants to encourage use of better technology may also be needed to help local firms compete with MNCs. Policies to improve the education and skills level of the workers as well as social programmes to re-distribute income via transfer payments and subsidies for essential goods are necessary to reduce the widening income gap and to ensure greater social stability.

6.2.1.3 Benefits of FDI to the Source Country

Macroeconomic benefits

(a) Actual growth and improvement in BOP

FDI expands the potential market of many MNCs. By investing abroad, MNCs can export to these untapped markets, which increases export revenue. FDI might also stimulate exports of machinery and other capital goods. This is because when subsidiaries are set up overseas, capital equipment and other material inputs needed to run the subsidiary are likely to come from the source country. Hence the increase in exports stimulates an increase in AD and fosters actual growth, and improves the current account.

Other industries in the source country may also find their exports rising over time. This is because when the recipient countries of the FDI develop and enjoy economic growth with higher levels of employment and incomes, this will encourage purchases of more goods and services, including imports from the source countries, generating higher export sales for other industries in the source countries.

Finally in the long-run, outward FDI will generate a return flow of income due to the profit repatriation by MNCs back to their source country, improving its current account and ceteris paribus, the BOP position.

Microeconomic benefits

(a) Increased profits for firms

When a firm moves its production facilities to other countries, it may do so because costs of production like labour costs in those countries are relatively lower. For example, Apple's manufacturing and assembly of its popular products like iPhones and iPads are done in Shenzhen, China, where the labour costs are relatively lower. Furthermore, there may be additional cost savings like transportation costs for the firm if the new production base is now closer to the targeted consumer market. Using the same example above,

Refer to Appendix 5 on the difference between outsourcing and offshoring.

Refer to Appendix 6 for more information on Global Value Chains

when iPhones and iPads are produced in China, Apple can enjoy further cost savings in terms of transportation costs because its Chinese market is at the doorstep of its production plant in China. Thus, outflows of FDI allow greater cost savings for the firms and allow them to enjoy a higher level of profits.

(b) Lower prices for consumers

Source country consumers can also enjoy improvement in consumer welfare when these firms pass on part of these cost savings from the goods are imported to the source country.

6.2.1.4 Costs of FDI to the Source Country

In the short run, the source country is likely to experience a worsening of the capital and financial account of its BOP with the outflow of investment.

Unemployment may increase too if the FDI outflow is an instance of out-sourcing or off-shoring as some of the workers are being retrenched because the firms re-locate their production facilities overseas. Structural unemployment may result, as low skilled workers in these industries are occupationally immobile and lack the skills to move into other growing industries. However, even though as much as up to 20% of MNC activity is outsourced / offshored, the loss of jobs is fewer than expected. The unemployment created is more due to technological advancement than relocation of production.

Lastly, the source country may also experience a loss of corporate tax revenue from these outward investing firms, as incomes that are eventually repatriated back to the source country may not be subject to tax. In fact, estimates indicate that more than USD$125 billion in tax revenue is lost globally due to this.

Policy responses

To mitigate the above negative impact of FDI outflow, there may be a case for governments to institute some degree of protectionism. (Refer to "protection of sunset industries" in the earlier section 5.2). However, the most effective policies in the long run should be to help identify industries that the economy may have potential comparative advantage and implement supply-side policies to upgrade the skills of workers so as to increase productivity levels and to equip workers with the relevant skills to take up appointments in these new industries.

6.3 Effects of International Labour Mobility

International migration is the movement of people from one country to another in which they plan to reside for a noticeable period of time. Labour flows across borders in response to differences in returns (wages), as long as these are large enough to outweigh the costs of moving from one country to another.

6.3.1 Benefits of International Labour Mobility to the Recipient Country

Macroeconomic benefits

An inflow of foreign workers also leads to an increase in the supply of labour in the recipient country. The resultant increase in the supply of labour in the respective markets lowers the wage rate, ceteris paribus. This lowers cost of production of the firms, benefitting producers in terms of higher profits. (Note that many migrant workers, especially those from developing countries, are willing to accept lower wages than the local workers and this may further reduce wage costs).

Recall: The effect on wages can be shown on a DD-SS diagram.

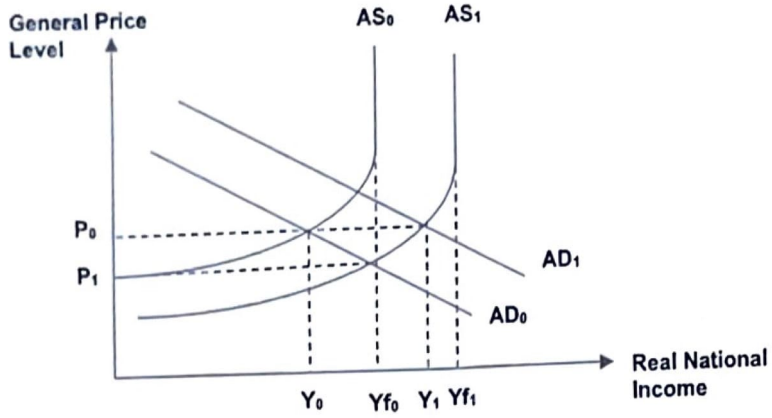


Figure 5: Effect of labour inflows on recipient

At the macroeconomic level, as firms increase output level due to lower cost of production, aggregate supply increases and hence the AS curve shifts downwards. In addition, the increase in labour supply, and in particular highly skilled foreign talent, will lead to increases in both the quantity and quality of labour. Where there is further transfer of skills and knowledge to domestic workers, it increases the productivity of the domestic labour force too, leading to potential growth. Hence rising labour inflows will shift the AS curve from AS_0 to AS_1, leading to increases in both actual growth (represented by the increase in real national income from Y_0 to Y_1) and potential growth (represented by increase in full employment level from Yf_0 to Yf_1).

In addition, the expansion of productive capacity due to the increase in labour inflows helps the country to dampen cost-push inflationary pressures. In Figure 5, GPL falls from P_0 to P_1. With a lower relative inflation rate, this will also boost export competitiveness. Furthermore, the influx of foreign workers also boosts consumption of domestically produced goods and service, and hence the increase in AD (not shown in diagram) will lead to actual growth, an increase in RNY and employment.

6.3.2 Costs of International Labour Mobility to the Recipient Country

(a) Widening income gap

While the recipient country experiences an increase in real national output due to labour migration, the gains may not be equally distributed. If the migrant workers come from countries poorer than recipient countries and are thus willing to work for lower wages than the domestic workers, this means that wages for jobs where migrant workers are in competition with locals may be depressed. This negative effect on wage rates falls mainly on the unskilled domestic workers who compete with and are substitutable by immigrants.

On the other hand, highly skilled domestic workers (who are also in the higher income group) are likely to be in much higher demand because of their higher productivity level. They are sought after not just by the domestic industries but also in the international labour market.[6] Thus, they are likely to keep their jobs, enjoy greater job prospects (locally and overseas), higher wages and higher wage increases. This contributes to the worsening income inequality as wages in such industries rise.

While statistics show that the absolute number of people who live in poverty has fallen with the rise in globalisation, the Gini coefficient in many countries has risen. In China, it almost doubled from around 0.2 to 0.4 in the last 3 decades.

[6] Globally, expatriates are paid roughly 3 times more than a local of the same position.

Policy responses

To mitigate the above, the government will need to ensure that training programmes are available for the low-skilled domestic workers who are negatively affected by the influx of foreign workers. Increase in the productivity of these domestic workers will make them less substitutable to the cheaper foreign workers. Furthermore, measures such as income support schemes, subsidies on education and public housing are necessary to reduce the negative effects of the widening income gap.

(b) Drain on government resources arising from immigration of unskilled labour

In the European Union (EU) where there is free mobility of workers among members of the EU, workers are allowed to stay in any member countries. Some member countries that provide generous welfare payments to the economically disadvantaged may attract an influx of unproductive foreigners who will enjoy welfare benefits at the expense of the domestic residents. This was alleged to be one of the key reasons behind Brexit, as immigrants were perceived have added on to the strain on scarce resources such as healthcare in the UK.

However, it has been counter-argued that the children of these immigrants will later enter the labour force and begin paying taxes to contribute to the economy. In fact, empirical evidence has shown that immigrants make a net positive contribution to public coffers, i.e., they contribute more in terms of tax payments than what they receive from welfare benefits.

(c) Increase in external cost and fall in non-material welfare

Inflow of foreign workers may bring about external costs associated with overcrowding, strain on infrastructure such as in transport and housing, higher crime rate and social tensions. The large influx of foreign workers particularly in an uncontrollable way can also add substantial pressure to public services like education and healthcare because it raises competition for scarce school places and hospital beds. In some countries where the healthcare is free, immigration puts unnecessary strain on the already overwhelmed healthcare system. Long queues and more patients needing medical treatment means that healthcare workers are unable to spend more care and time and hence offer better quality services to each individual. Non-material welfare can hence fall as a result.

Policy responses

Measures may be imposed to restrict inflow of foreign workers. In Singapore for instance, the influx of low-skilled workers has been restricted by the number of work permits granted by the government. The Dependency Ratio Ceiling (DRC) sets out the maximum permitted ratio of foreign workers to the total workforce that a company is allowed to hire. Varying levies are also imposed on foreign workers in the construction, manufacturing, marine shipyard and service sectors such as F&B.

6.3.3 Benefits of International Labour Mobility to the Source Country

Remittances from workers abroad can constitute a major contribution to GNP. Remittances are used to finance the purchase of basic consumption goods, housing, children's education, and health care. Hence remittances help in poverty reduction and improve living standards. A World Bank study indicated that remittances to developing countries grew 10% to US$689 billion in the year 2018.

Recall: GNP = GDP + net factor income from abroad

Remittances fall under "net factor income from abroad"

Remittances also play a huge role in the source countries' economy. It is a source of capital for small businesses and entrepreneurial activities. Households save excess repatriated income in banks, and this acts as a source of funds which can be used for

investment purposes. This, in turn, contributes to both actual and potential growth in the economy.

Finally, remittances also contribute to the balance of payments. Increases in remittances from workers who have emigrated leads to an increase in income flows from abroad in the current account, hence improving the BOP position of the country.

6.3.4 Costs of International Labour Mobility to the Source Country

(a) Brain Drain – Dampens potential growth

Brain drain involves the outward migration of highly educated and skilled people in search of better prospects in foreign countries. The source country will suffer a loss of human resources and thus face limitations to potential economic growth. Where skilled labour is already in short supply in the source country, the opportunity cost to the source country may be even larger than indicated by the market wage, for example there could be other benefits (positive externalities) that are forgone for the source country in terms of innovative ideas resulting in innovation and improvement in the level of technology. In addition, to the extent that the source country has subsidised the education of these people (that is, invested in the accumulation of human capital), the outward migration represents a wastage of scarce resources on which a social rate of return was expected. For example, India loses many of its brightest IT specialists and engineers to Silicon Valley in the US.

6.4 Role of Economic Cooperation and Trade Agreements

Note:
It is sufficient to be aware of the various forms of economic co-operation and trade agreements between countries.

Economic cooperation is often achieved by preferential trading arrangements between countries to reduce or eliminate trade barriers between them. This has encouraged closer economic integration between countries which is further drives globalisation. Preferential trading arrangements help improve market access by removing or reducing barriers for goods and services as well as labour. Such agreements typically include tariff reductions as well as removal or reduction of barriers to trade, investment, and labour movement. Preferential trading may take different forms with varying degree of restrictions; free-trade areas, customs unions, and common markets.

Free-trade areas - A free-trade area is where member countries reduce or remove tariffs and quotas between themselves but retain whatever restrictions each member chooses with non-member countries.

Examples of Free-trade areas:

- The Regional Comprehensive Economic Partnership (RCEP) is one of Singapore's most recent FTAs, signed between 15 countries: Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam, Australia, China, Japan, Republic of Korea, and New Zealand. It is currently the world's largest FTA, comprising about 30% of global GDP and about a third of the world's population.
- The TPP11, or the CPTPP (Comprehensive and Progressive Agreement for Trans-Pacific Partnership) comprising Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam.
- North American Free Trade Association (NAFTA) comprising USA, Canada and Mexico
- ASEAN Free Trade Area (AFTA) comprising Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Vietnam.

Customs unions - A customs union is like a free-trade area, but in addition, members must adopt *common* external tariffs and quotas with non-member countries.

Common markets - A common market is where member countries operate as a single market. Like a customs union, there are no tariffs and quotas between member countries and there are common external tariffs and quotas. But a common market goes further than this. A common market includes free capital and labour movement.

Examples of common markets:

- The European Single Market is a Common Market which comprises 27 member states consisting of Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, and Spain.

Monetary Union - Also known as a currency union is an intergovernmental agreement that involves two or more states sharing the same currency. A monetary union is accompanied by setting up a single monetary policy and establishing a single central bank.

Economic Union - A type of trade bloc which is composed of a common market with a customs union. The participant countries have both common policies on product regulation, freedom of movement of goods, services, and the factors of production (capital and labour) and a common external trade policy. The union requires the integration of monetary and fiscal policies (however for the EU, it does not have a fiscal union), so that member countries coordinate policies, taxation, and government spending related to the agreement. They also use a common currency.

Summary of Different Stages of Economic Integration

Type	No trade barriers	Common External Tariff	Factor and asset mobility	Common Currency	Common Economic Policy	Examples
Free Trade Area	✓					AFTA, CPTPP, US-Japan FTA
Customs Union (CU)	✓	✓				South African CU, European Union CU
Common Market	✓	✓	✓			European Single Market
Monetary Union (MU)	✓	✓	✓	✓		Euro, West African MU
Economic Union	✓	✓	✓	✓	✓	European Union[7]

[7] The European Union is not the same as the Eurozone. The European Union consists of those countries that meet certain membership and accession criteria, and the euro zone is a subset of those countries using the euro as their national currency.

6.4.1 Impact of Free Trade Agreements

The benefits and costs of Free Trade Agreements (FTAs) can be understood in terms of their impacts on consumers, producers, and the government. As the impacts of FTAs are essentially the same as the impact of free trade, movement of capital and labour discussed in the earlier sections, this section will analyse the impact of FTAs from the perspectives of consumers, producers, and the government.

6.4.1.1 Impact on Consumers/Employees

Consumers benefit from FTAs as it can lead to lower prices. Firstly, FTAs remove tariffs between member countries, leading to cheaper imports as trade is conducted with countries with comparative advantage in the production of imports. Secondly, domestic producers may hence be forced to cut costs to compete with imports. This would not only promote productive efficiency, but as these cost savings are passed on to consumers, consumer surplus would increase.

Consumers also get to enjoy a wider variety of goods and services. Even for a particular good or service, intra-industry trade means that consumers get to enjoy different brands or varieties within.

However, cheaper imports might cause some domestic firms to shut down or scale back production. As output falls, firms may lay off existing workers. This can lead to structural unemployment in a country if retrenched workers lack the skills to move into new sectors that demand a different skillset.

6.4.1.2 Impact on Producers

Producers may benefit in the form of higher profits. The removal of tariffs on their products due to FTAs will mean that goods can be more price competitive in importing countries. The access to a larger market will increase the demand for their product and increase total revenue and profits, ceteris paribus. With a larger scale of production, there would be greater scope for specialisation and division of labour within the firm and more significant EOS that can be enjoyed, leading to a fall in average costs and higher profits.

Recall: What types of EOS can a firm enjoy?

However, some domestic firms will suffer. As imports enter a country, they would compete with domestic firms selling substitute products. Firms that are not able to compete with cheaply priced imports may hence be forced to shut down.

6.4.1.3 Impact on Government

FTAs can help a government achieve its macroeconomic goals. Due to the removal of restrictions and tariffs, FTAs can expand firms' export markets, which increases the net exports component of AD. This can help to stimulate growth in the economy. In addition, as output increases for these firms, jobs are created, which can lead to lower rates of unemployment.

Think: Will FTA always lead to a more efficient outcome? Refer to Appendix 8 for trade creation vs trade diversion.

However, the liberalisation of trade may increase structural unemployment and income equality. As mentioned above, the entry of imports may lead to structural unemployment. In addition, the demand for workers in industries that the country has a comparative advantage in will increase. This will lead to an increase in wages for workers in some industries but not in others. Income inequality may worsen as a result. Also, the removal of tariffs may encourage significant levels of imports. This would create current account deficits especially if domestic firms struggle to export to foreign markets.

7 GLOBALISATION - THE SINGAPORE CONTEXT

Globalisation in Singapore has gathered speed in the past 20 years with the signing of many FTAs. Singapore had signed bilateral FTAs with Australia, Japan, New Zealand, the US and the European Free Trade Area (EFTA) group, amongst many other countries. The total number of regional and bilateral FTAs Singapore has with the rest of the world as of 2022 is as many as 27.

Refer to Appendix 9 on FTAs in Singapore.

Singapore is a very small (and hence open) economy - with its limited population size, it has a very small domestic market to sell its goods and services. It also lacks resources like raw materials, land, labour, hence globalisation has benefitted Singapore to a large extent by allowing it to sell its goods and services to a huge global market and to have access to imported raw materials and labour. Furthermore, foreign direct investment from MNCs have provided employment opportunities for Singaporeans and allowed the transfer of technology and management expertise to firms, as well as added to the fixed capital formation in Singapore. In a nutshell, Singapore has benefitted both at the microeconomic as well as at the macroeconomic level. However, Singapore has also suffered the many negative effects of globalisation too, most notably the widening income gap and the increased vulnerability to external shocks. In Singapore, the key challenge is to create a more inclusive growth and to allow greater wealth creation for the most vulnerable group among its people.

Commentary: COVID-19 emphasizes the importance of Singapore's free trade agreements

Future Challenges for Singapore

Advances in the information systems, communications and related technologies have significantly shrunk economic distances between nations and markets and is possibly reducing the demand for some conventional roles. This is especially so as the competition for investments, export markets and skilled labour intensifies as more economies embrace open door trade and investment policies and some of Singapore's hub roles are duplicated by lower-cost regional rivals. For example, although Singapore is currently considered the service hub in the South-east Asian region, Malaysia is becoming more competitive with the same geographical advantage, with a larger pool of labour as it has begun to harness greater use of information and communication technology.

The inward-looking attitude of the major trading partners of Singapore is also a challenge to Singapore, especially that of USA in the past few years. The direction of America's foreign and trade policies towards greater protectionism will be problematic for Singapore, given that our economy relies heavily on global trade. Singapore may have to look towards tapping the immense market potential of her trading partners in the region such as India and China instead, while managing the negative aspects of faltering trade from her more traditional partners.

Think!
What can Singapore do in the face of fragmentation in the global economy?
Read Budget Speech 2023

In the 2023 budget speech, Singapore's finance minister, Mr Lawrence Wong, defined the challenge for Singapore in this new era. "Businesses are reorganising themselves to account for risks, such as geopolitical risks. More and more multinational enterprises are looking to re-shore, on-shore or near-shore, i.e. to relocate their businesses to locations where they are less likely to be caught up in geo-strategic crossfires. With the growth of many advanced economies being sluggish, and unemployment rates high, they are looking for ways to rebuild manufacturing capabilities and create jobs for their people. We are seeing a huge contest for leadership in key technologies." What can Singapore do, to adapt to changes in the world?

Internally, it is unclear how Singapore's ageing population can adapt to the new wave of industrialisation. Novel digital technologies tend to employ less labour, thus eliminating middle-class manufacturing jobs which may result in greater inequality. Significant adjustment costs may be incurred in the process of adapting to such new technologies. Indeed, wages need to be uplifted, the displaced supported by reskilling and upskilling.

The strength of local enterprises and are likely to become increasingly important in the globalised world – their ability to shift to higher value-add activities and improve their productivity will also be key in keeping Singapore competitive. Promising local enterprises require resources for their growth plans to be executed successfully.

Conclusion

Globalisation is deeply controversial. International economist and free-trade proponent, Dambisa Moyo, acknowledged at the 2017 World Economic Forum that "there have been significant losses from globalisation".

Proponents of globalisation argue that it allows poor countries and their citizens to develop economically and raise their standards of living, while opponents of globalisation claim that the creation of an unfettered international free market has benefited multinational corporations in the Western world at the expense of local enterprises, local cultures, and common people. Globalisation has been blamed for a wide range of ills, from unemployment in developed countries to exploitation of workers in poor countries and environmental destruction.

Resistance to globalisation has therefore taken shape both at a social level and at a governmental level as people and governments try to manage the flow of capital, labour, goods, and ideas that constitute the current wave of globalisation. Due to such anti-globalisation sentiment, many believe that the age of "hyperglobalisation" is over and is facing diminishing returns.

The main challenge is now for countries to effectively maximize the potential benefits and minimize the inevitable unintended adverse consequences through government policies.

Section Summary

- Globalisation is the growing economic interdependence of countries through cross-border transactions, in goods and services, in flows of capital, in spread of technology as well as in labour migration.
- Economies across the world are becoming more integrated through preferential trading arrangements made between countries to reduce or eliminate trade barriers between them.
- Globalisation brings both benefits and costs to economies. The main challenge for governments is to effectively maximize the potential benefits and minimize the inevitable unintended adverse consequences.

******END******

APPENDIX 1: TERMS OF TRADE

Definition and Measurement of Terms of Trade

International trade will result in greater consumption of goods and services for trading countries only if the terms of trade negotiated are acceptable. **Terms of trade determine the distribution of gains from trade between countries and will affect a country's balance of trade and standard of living.**

In international trade, the **exchange ratio** refers to the amount of exports that a country has to give up to obtain a given amount of imports.

The **terms of trade (TOT)** refer to the relative price of the exportable good expressed in units of the importable good. It is measured by the ratio of the price index of exports over the price of index of imports:

$$\text{Terms of Trade} = \frac{\text{Price Index of Exports}}{\text{Price Index of Imports}}$$

The **TOT is the reciprocal of the exchange ratio.** For simplicity, assume only 1 exported good and 1 imported good. If the country's terms of trade are 2, what is the exchange ratio? If the TOT is 2, that means the relative price of exports to imports is 2 (Px/Pm = 2/1). The country is able to exchange 1 unit of the exported good for 2 units of the imported good, thus the exchange ratio is 1/2. (Note that both Px and Pm must be denominated in the same currency.)

Illustration: Measurement of TOT index:

	Base year (1990)	*Current year (2014)*
Export Price Index	100	115
Import Price Index	100	110
TOT Index	100	104.5

- In the base year, the TOT index is 100.
- TOT Index for the current year = 115/110 x 100 = 104.5
- 1 unit of exports can now be exchanged for 1.045 times as much imports in 2014 as in 1990. The TOT has improved by 4.5% compared to 1990.

Factors Affecting Terms of Trade

i) Changes in global demand/or and global supply

Changes in terms of trade are affected by changes in the world demand and world supply of exports and imports. For instance, an increase in global demand for wheat will increase the world price of wheat, which will in turn improve the terms of trade for wheat exporting countries like the US.

Technology improvement in wheat production will decrease the cost of producing wheat and in turn increase the world supply of wheat. If there is no increase in world demand for wheat, world price of wheat will fall, leading to a less favourable TOT for wheat exporting countries. Diminishing supplies of non-renewable resources such as coal, tin, or oil, on the other hand will increase world prices of such resources and move the TOT in favour of countries that export these resources.

Note that changes in the supply and demand by large countries have an impact on their terms of trade but changes in the demand and supply by small countries may not have an impact on their terms of trade. This is because a large country is one with a large share in the world market for an import or export good, hence it is able to affect the level of world price for the good. For example, a fall in demand for cloth by the US (importer of cloth) could reduce world demand for cloth, and therefore reduce the world price of cloth, resulting in an improvement in TOT for the US. A small country, on the other hand, is one in which its imports and exports form a very small share of the world market. Hence its imports and exports have little effect on world prices. In the extreme case, the small country may face prices totally dictated by the external world demand and supply. Such a country is known as a price taker. When the country is too small to influence world prices, the terms of trade are outside its control.

ii) Changes in exchange rates

The impact of devaluation of a currency on terms of trade has been much debated among economists. One view that is commonly proposed is that devaluing the domestic currency will worsen the TOT for the domestic country. This view holds that in calculating terms of trade, both Px and Pm must be denominated in the same currency. Hence, a devaluation of the domestic currency will cause the price of imports to become more expensive in the domestic currency. Assuming the price of exports in domestic currency does not change, the domestic country's TOT will worsen.

Consequences of Changes in Terms of Trade

(a) Impact of a change in TOT on Balance of Trade

Balance of Trade (BOT)
= Export revenue ($P_x \times Q_x$) – Import Expenditure ($P_m \times Q_m$)

Will an improvement in the terms of trade always lead to an improvement in the balance of trade? The answer is no, not necessarily. This is because the effects of terms of trade changes on balance of trade depend not only on changes in the prices of exports and imports, but also on quantity changes as the balance of trade depends on the values of exports and imports (price times quantity). What happens to the values of exports and imports in turn depends on the cause of the change in the terms of trade. If the cause lies in changes in demand, then the terms of trade and balance of trade change in the same direction. However, if the cause lies in changes in supply, then the terms of trade and balance of trade change in the same direction only under certain conditions.

(b) Impact of a change in TOT on Standard of Living

Improvements in the terms of trade is said to redistribute global output and income towards the country experiencing the improvement. This follows from the principle that a country can purchase a larger quantity of imports with the same quantity of exports. It means that by giving up the same amount of output to other countries in the form of exports, the country acquires more and more output produced elsewhere in the form of imports. The gain of extra output produced elsewhere corresponds to lost output for countries experiencing long-term deteriorating terms of trade. These countries suffer a transfer of output and income away from the domestic economy because they are forced to export increasing quantities of exports in order to maintain a particular quantity of imports. Therefore, the result is a global redistribution of output and income.

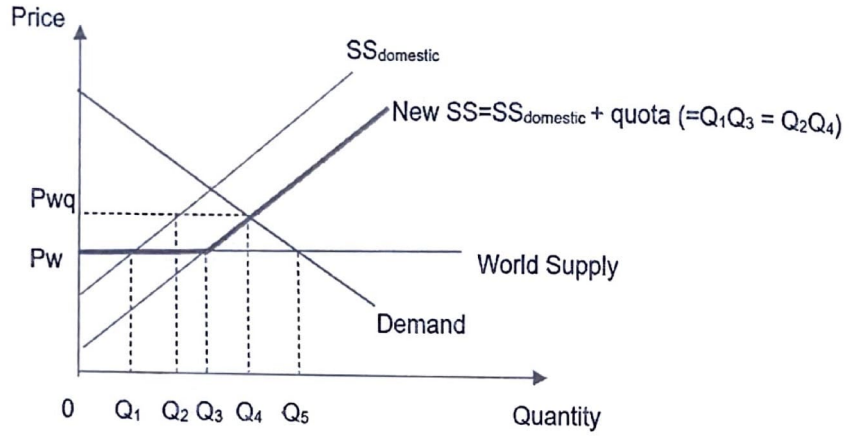
The country with improving terms of trade has greater opportunities for growth, because it can increase its imports of capital goods or other important inputs for production, and it can also enjoy improved standards of living because of the possibility of importing more consumer goods. The country with deteriorating terms of trade has fewer possibilities to acquire needed imports for production and faces prospects for lower growth as well as smaller lower standard of living improvements. Many developing countries find themselves in this situation.

Will an improvement in the domestic country's terms of trade always lead to an improvement in its standard of living? The answer is no, not always. The TOT is not synonymous with a country's SOL because the relationship between TOT and SOL can only be ascertained after determining the causes for the change in TOT.

APPENDIX 2: QUOTAS

Define import quota:

- Quantitative (volume) limits on the level of imports allowed or a limit to the value of imports permitted into a country in a given time period.



Graphical analysis: explain how an import quota impacts trade of the country

Without quota

- The market price is Pw
- Initial quantity of imports is $Q_5 - Q_1$
- World exporters make a revenue of area $0Pw \times [Q_1Q_5]$

Imposing quota of ($Q_3 - Q_1$) on imports

- This leads to a fall in imports to just $Q_3 - Q_1$
- Quota creates a *relative shortage* of $Q_3 - Q_5$ at 0Pw. This drives the domestic price up **to 0**Pwq, where the new SS intersects demand. Total output falls to **Q_4**
- Rise in price encourages domestic producers to increase quantity supplied from $0Q_1$ to $0Q_1+Q_3Q_4$.
- Unless demand for imports is very price inelastic, the country experiences a fall in import expenditure. Holding export revenue unchanged, this improves its trade balance.

APPENDIX 3: EXPORT SUBSIDIES

Export subsidies is a form of support from the government for products that are exported, as a means of assisting the country's balance of payments.

Case study: India's export subsidies for the production and export of sugar and sugarcane

India Loses WTO Dispute Over Sugar-Export Subsidies
A World Trade Organization panel ruled that India violated international trade rules when it offered excessive subsidies for the production and export of sugar and sugarcane.

India -- the world's largest sugar producer after Brazil -- has already pledged to refrain from subsidizing sugar exports this year due to high global prices. The government previously approved a subsidy of $475 million for the 2020-2021 growing season.

India's policies were inconsistent with WTO rules that govern the levels at which nations can subsidize domestic agricultural production, according to a decision posted Tuesday on the WTO's website. Under WTO rules, India's sugar subsidies are capped at a de minimis limit of 10% of the value of production.

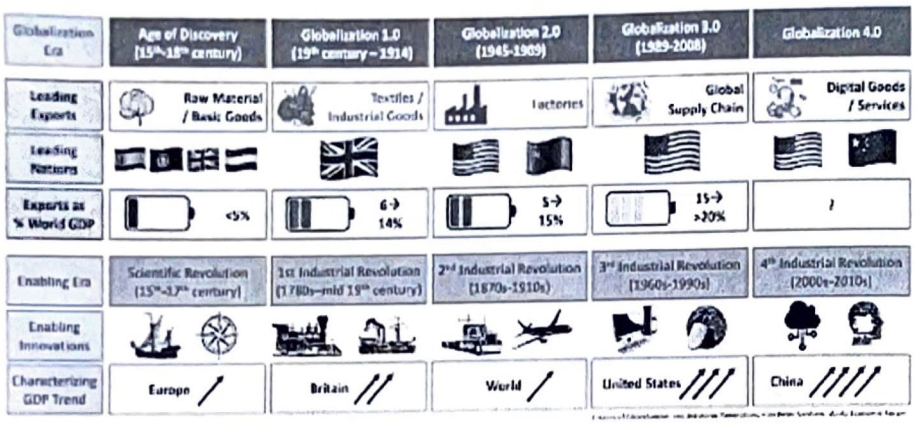
During the 2018-2019 growing season, India approved dozens of federal and state-level assistance programs for the sugar industry that collectively exceeded 55 billion rupees ($730 million), Brazil said in its complaint.

Source from: Bloomberg, Dec 2021

APPENDIX 4: A BRIEF HISTORY OF GLOBALISATION

(Adapted from World Economic Forum, 2019)

Globalisation is not new. In fact, the globalization that we know of today is called "Globalisation 4.0". People have been trading goods for almost as long as they've been around. But as of the 1st century BC, trade started to become a regional affair, rather than a local one.



The Silk Road & Spice Routes

Global trade links were established with the Silk Road, and then in beginning in the 7th Century, Muslim traders dominated Mediterranean and Indian Ocean trade with their Spice Routes, growing cloves, nutmeg and mace in the "Spice Islands" of Indonesia and selling them in Europe where they were a luxury product.

Truly global trade kicked off in the Age of Discovery. It was in this era, from the end of the 15th century onwards, that European explorers connected East and West – and accidentally discovered the Americas. Aided by the discoveries of the so-called "Scientific Revolution" in the fields of astronomy, mechanics, physics and shipping, the Portuguese, Spanish and later the Dutch and the English first "discovered", then subjugated, and finally integrated new lands in their economies.

Yet economists today still don't truly regard this era as one of true globalization. Trade certainly started to become global, but the resulting global economy was still very much siloed and lopsided. The European empires set up global supply chains, but mostly with those colonies they owned. Moreover, their colonial model was chiefly one of exploitation, including the shameful legacy of the slave trade. The empires thus created both a mercantilist and a colonial economy, but not a truly globalized one.

First wave of globalization (19th century-1914)

This started to change with the first wave of globalization, which roughly occurred over the century ending in 1914. By the end of the 18th century, Great Britain had started to dominate the world both geographically, through the establishment of the British Empire, and technologically, with innovations like the steam engine, the industrial weaving machine and more. It was the era of the First Industrial Revolution.

The "British" Industrial Revolution made for a fantastic twin engine of global trade. On the one hand, steamships and trains could transport goods over thousands of miles, both within countries and across countries. On the other hand, its industrialization allowed Britain to make products that were in demand all over the world, like iron, textiles, and manufactured goods.

The resulting globalization was obvious in the numbers. For about a century, trade grew on average 3% per year. That growth rate propelled exports from a share of 6% of global GDP in the early 19th century, to 14% on the eve of World War I. As John Maynard Keynes, the economist, observed: "The inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole Earth, in such quantity as he might see fit, and reasonably expect their early delivery upon his doorstep."

And, Keynes also noted, a similar situation was also true in the world of investing. Those with the means in New York, Paris, London, or Berlin could also invest in internationally active joint stock companies. One of those, the French Compagnie de Suez, constructed the Suez Canal, connecting the Mediterranean with the Indian Ocean and opened yet another artery of world trade. Others built railways in India, or managed mines in African colonies. Foreign direct investment, too, was globalizing.

While Britain was the country that benefited most from this globalization, as it had the most capital and technology, others did too, by exporting other goods. The invention of the refrigerated cargo ship or "reefer ship" in the 1870s, for example, allowed for countries like Argentina and Uruguay, to enter their golden age. They started to mass export meat, from cattle grown on their vast lands. Other countries, too, started to specialize their production in those fields in which they were most competitive.

But the first wave of globalization and industrialization also coincided with darker events, too. By the end of the 19th century, "most [globalizing and industrialized] European nations grabbed for a piece of Africa, and by 1900 the only independent country left on the continent was Ethiopia". In a similarly negative vein, large countries like India, China, Mexico, or Japan, which were previously powers to reckon with, were not either not able or not allowed to adapt to the industrial and global trends. Either the Western powers put restraints on their independent development, or they were otherwise outcompeted because of their lack of access to capital or technology.

The world wars

In 1914, the outbreak of World War I brought an end globalization. In the years between the world wars, the financial markets, which were still connected in a global web, caused a further breakdown of the global economy and its links. The Great Depression in the US led to the end of the boom in South America, and a run on the banks in many other parts of the world. Another world war followed in 1939-1945. By the end of World War II, trade as a percentage of world GDP had fallen to 5% – a level not seen in more than a hundred years.

Second and third wave of globalization

The end of the World War II marked a new beginning for the global economy. Under the leadership of a new hegemon, the United States of America, and aided by the technologies of the Second Industrial Revolution, like the car and the plane, global trade started to rise once again. At first, this happened in two separate tracks, as the Iron Curtain divided the world into two spheres of influence. But as of 1989, when the Iron Curtain fell, globalization became a truly global phenomenon.

In the early decades after World War II, institutions like the European Union, and other free trade vehicles championed by the US were responsible for much of the increase in international trade. In the Soviet Union, there was a similar increase in trade, albeit through centralized planning rather than the free market. The effect was profound. Worldwide, trade once again rose to 1914 levels: in 1989, export once again counted for 14% of global GDP. It was paired with a steep rise in middle-class incomes in the West.

Then, when the wall dividing East and West fell in Germany, and the Soviet Union collapsed, globalization became an all-conquering force. The newly created World Trade

Organization (WTO) encouraged nations all over the world to enter into free-trade agreements, and most of them did, including many newly independent ones. In 2001, even China, which for the better part of the 20th century had been a secluded, agrarian economy, became a member of the WTO, and started to manufacture for the world. In this "new" world, the US set the tone and led the way, but many others benefited in their slipstream.

At the same time, a new technology from the Third Industrial Revolution, the internet, connected people all over the world in an even more direct way. The orders Keynes could place by phone in 1914 could now be placed over the internet. Instead of having them delivered in a few weeks, they would arrive at one's doorstep in a few days. What was more, the internet also allowed for a further global integration of value chains. You could do R&D in one country, sourcing in others, production in yet another, and distribution all over the world.

The result has been a globalization on steroids. In the 2000s, global exports reached a milestone, as they rose to about a quarter of global GDP. Trade grew to about half of world GDP. In some countries, like Singapore, Belgium, or others, trade is worth much more than 100% of GDP. Most of the global population has benefited from this: more people than ever before belong to the global middle class, and hundreds of millions achieved that status by participating in the global economy.

Globalisation 4.0

That brings us to today when a new wave of globalization is once again upon us. In a world increasingly dominated by two global powers, the US and China, the new frontier of globalization is the cyber world. The digital economy, in its infancy during the third wave of globalization, is now becoming a force to reckon with through e-commerce, digital services, 3D printing. It is further enabled by artificial intelligence but threatened by cross-border hacking and cyberattacks.

At the same time, a negative globalization is expanding too, through the global effect of climate change. Pollution in one part of the world leads to extreme weather events in another. And the cutting of forests in the few "green lungs" the world has left, like the Amazon rainforest, has a further devastating effect on not just the world's biodiversity, but its capacity to cope with hazardous greenhouse gas emissions.

But as this new wave of globalization is reaching our shores, many of the world's people are turning their backs on it. In the West particularly, many middle-class workers are fed up with a political and economic system that resulted in economic inequality, social instability, and – in some countries – mass immigration, even if it also led to economic growth and cheaper products. Protectionism, trade wars and immigration stops are once again the order of the day in many countries.

As a percentage of GDP, global exports have stalled and even started to go in reverse slightly. As a political ideology, "globalism", or the idea that one should take a global perspective, is on the wane. And internationally, the power that propelled the world to its highest level of globalization ever, the United States, is backing away from its role as policeman and trade champion of the world.

It was in this world that Chinese president Xi Jinping addressed the topic globalization in a speech in Davos in January 2017. "Some blame globalization for the chaos in the world," he said. "It has now become the Pandora's box in the eyes of many." But, he continued, "we concluded that integration into the global economy is a historical trend. [It] is the big ocean that you cannot escape from."

APPENDIX 5: OUTSOURCING AND OFFSHORING

Outsourcing is a central element of economic globalisation, representing a new form of competition. Global outsourcing is enormously facilitated by technological innovations associated with computing, electronic communication, and the Internet.

Outsourcing refers to the transfer of the performance of some part of an organisation's operations to be performed by another external organisation, which can perform them more cost-effectively. E.g., low value-added assembly portion of the firm's manufacturing activities can be outsourced and performed by another external organization. A bank may also outsource the customer service aspect of its operations like call-center services to be handled by external organizations while choosing to focus on its core banking business.

Outsourcing allows firms to improve their efficiency by focusing on activities that create the most value. In Singapore's case, outsourcing will allow her companies to reduce cost while improving quality, thereby enhancing their international competitiveness and profitability. This will have positive effects on the economy and help Singapore shift to more productive and higher value-added activities, which will generate higher-paying jobs even as it makes other types of jobs redundant.

Offshoring, occurs when, for example, a firm in the United States tries to reduce costs by relocating its production facilities to other countries and hiring cheaper foreign workers. For example, Apple's manufacturing and assembly of its popular products like iPhones and iPads is done in Shenzhen, China, where the labour costs are relatively lower.

While there are several obvious advantages to outsourcing and offshoring, some workers will be hurt because they lose their jobs to foreign workers who are willing to work for less money. There also tends to be transfer of wealth from labour to capital owners.

APPENDIX 6: GLOBAL VALUE CHAINS

International production, trade and investments are increasingly organised within so-called global value chains (GVCs) where the different stages of the production process are located across different countries. Globalisation motivates companies to restructure their operations internationally through outsourcing and offshoring of activities.

Video Clip: 21st Century Production Revolution: Global Value Chains

Firms try to optimise their production processes by locating the various stages across different sites. The past decades have witnessed a strong trend towards the international dispersion of value chain activities such as design, production, marketing, distribution, etc.

Find out more about Global Value Chains from The World Bank article below:

Global Value Chains
Source: The World Bank

APPENDIX 7: WTO AND OTHER INTERNATIONAL INSTITUTIONS

Institutions	
World Trade Organisation (WTO)	The World Trade Organization (WTO) is an international institution which aims at promoting free trade by persuading countries to abolish import tariffs and other trade barriers. The WTO provides the stable framework for developing sound multilateral rules that ensure that goods and services can flow freely with minimum impediments. It ensures that rules of trade between nations are adhered to, settles trade disputes between countries as well as organise trade negotiations. Its task is to govern international trade relations and its main aim is trade liberialisation. This created a forum within which international trade agreements were negotiated. It is also an institution that arbitrates trade disputes. Beggar-thy neighbour trade policies, in which countries raised tariffs to maintain their own economies but at the expense of their neighbours, were largely blamed for the spread of the depression and its depth. An international organization was required not just to prevent a recurrence but to encourage the free flow of goods and services. As of 26 June 2016, the WTO has 164 member countries.
International Monetary Fund (IMF)	The IMF originated during the WWII as a result of the UN Monetary and Financial Conference at Bretton Woods in US in July 1944. Given the task of ensuring global economic stability, the IMF governs international financial relations and was charged with preventing another global depression similar to that of the 1930's. IMF's job was to put international pressure on countries that were not contributing to the maintenance of global aggregate demand. When necessary, it would provide liquidity in the form of loans to those countries facing an economic downturn and unable to stimulate aggregate demand with their own resources. The IMF was founded on the belief that there was a need for *collective action at the global level* for economic stability, just as the UN had been founded on the belief that there was a need for collective action at the global level for political stability. The IMF is a *public* institution, established with money provided by taxpayers around the world. However, over the years since its inception, the IMF has changed markedly. Founded on the belief that markets often worked badly (JM Keynes' school of thought), it later championed market supremacy (Milton Friedman's). So instead of encouraging expansionary economic policies, the IMF typically provides funds only if countries engage in policies like cutting deficits, raising taxes, or raising interest rates that lead to a contraction of the economy.
The World Bank	The World Bank is also known as the International Bank for Reconstruction and Development (IBRD). The original mission was to finance the rebuilding of Europe after the devastation of World War II. This role was later expanded to include the financing of the development of countries in the developing world.

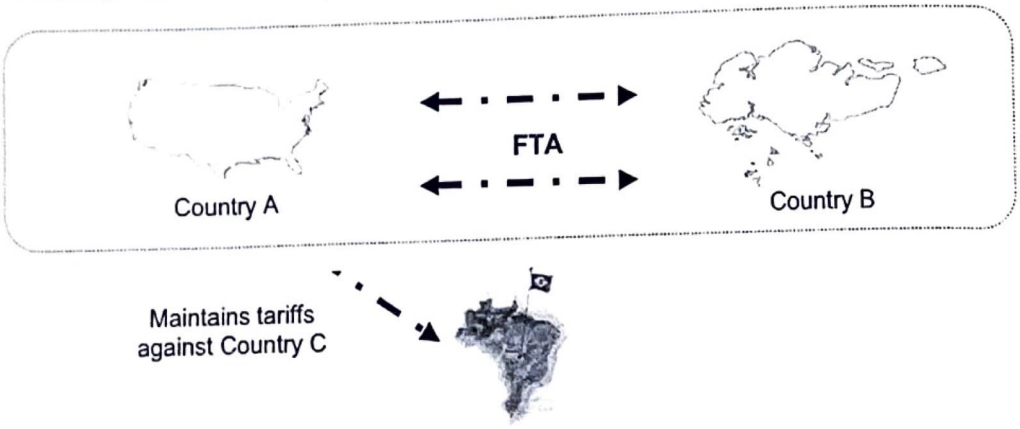
Initiatives	
Asia-Pacific Economic Cooperation (APEC)	APEC was initiated by then Australian Prime Minister Bob Hawke in 1989 in response to the growing interdependence among Asia-Pacific economies. The primary objective was to promote balanced, inclusive, sustainable economic growth and prosperity in the Asia-Pacific region by accelerating regional economic integration. The first APEC Ministerial-level Meeting was held in Canberra, Australia on 6-7 Nov 89. Since then, APEC has progressed from being a loose, informal group to become a dynamic establishment which promotes trade and investment liberalisation and facilitation (TILF) and economic and technical co-operation (Ecotech) in the region. The Chairmanship is rotated among the 21 members. Singapore views APEC as a regional organisation of premier importance for both strategic and economic reasons. APEC plays a major role in promoting international exchanges and provides a framework for its members to seek co-operation while moderating differences.
Association of Southeast Asian Nations (ASEAN)	Singapore was one of the founding members of ASEAN when it was established in 1967. ASEAN was established to promote peace and understanding in the Southeast Asian region, as well as to foster economic collaboration, social progress and cultural understanding. To this day, Singapore remains very committed to these causes and continues to foster close ties with its ASEAN counterparts. An important thrust for forging economic co-operation between ASEAN countries is the establishment of the ASEAN Free Trade Area (AFTA) and the ASEAN Investment Area (AIA). The primary objective of AFTA was to enhance ASEAN's position as a competitive production base geared towards servicing the global market. This was to be achieved through the expansion of intra-ASEAN trade, making possible both greater specialisation and economies of scale. It was also to be achieved through the inflow of more foreign direct investment, attracted by the emergence of a single ASEAN market. Singapore participates actively in the ASEAN Economic Ministers (AEM) Meeting and its related meetings to direct ASEAN economic co-operation.

APPENDIX 8: TRADE CREATION VS TRADE DIVERSION

By joining a FTA or CU, a country will find its trade pattern change, since trade between members is encouraged through lowering of trade barriers, while trade with non-members is discouraged through the maintenance of trade barriers. There are thus possible benefits as well as costs of such a change in trade pattern, which can be analysed in terms of trade creation and trade diversion respectively.

Trade creation arises when economic integration leads to a shift in trade from a higher-cost producer to a lower-cost member country. This shift represents a movement in the direction of the principle of comparative advantage, bringing about welfare gains due to more efficient resource allocation.
Trade diversion takes place whenever there is a shift in trade from a lower-cost non-member country to a higher-cost member country. This is a shift away from a more efficient producer and is thus a move away from the principle of comparative advantage.

Suppose that there exist three countries in the world: A, B, and C. We first assume that A is the world high-cost producer of a product and C is the lowest-cost world producer. Country A initially protects its domestic producers with an ad valorem tariff of 10% against all foreign producers. Suppose that A were to negotiate an FTA with country B. Under such an arrangement, goods coming to A from country B would not be charged a tariff. The tariff would remain on any goods coming from country C.



The formation of the FTA means that now country A will shift trade away from country C, the lowest-cost world producer, in favour of country B, the lowest-cost FTA member country. This shift in the pattern of trade from low-cost world producers to higher-cost FTA (or CU) members is known as **trade diversion**. In general, trade diversion is viewed as welfare reducing for the world as it represents a movement away from the pattern of comparative advantage. The intuition for thinking this is that country A no longer imports from the country that has a natural comparative advantage (i.e., country C). Instead, it has agreed to discriminate in favour of its fellow FTA partner, country B. In the process, resources are directed away from production in the low-cost world producer, country C, and directed towards production in the higher-cost partner, country B.

The second effect of the formation of the FTA is that trade expands for country A. Imports rise because consumers are able to pay a lower price for imports. The expansion of trade that results from FTA (or CU) formation is known as **trade creation**. From a world welfare point of view, trade creation is good as it represents a movement in the direction of the principle of comparative advantage, thus bringing about welfare gains arising from more efficient resource allocation. This is true because the highest-cost producer (country A, in this example) is availing itself to a greater extent of the benefits available from international trade.
Note however that in both cases, consumers from country A will gain since they are paying a lower price than before. However, it has also resulted in both trade creation

which represents a welfare gain and trade diversion which comes with some welfare costs. Hence, whether the creation of an FTA is beneficial to the member countries depends (in the static sense) on the relative strengths of the forces of trade creation and trade diversion. Overall, country A is better off if the benefits of trade creation exceed the costs of trade diversion, but there is nothing to guarantee that this will occur.

APPENDIX 9: BENEFITS OF FTAS IN SINGAPORE

(This section is adapted from Enterprise.sg and MTI)

Article:
Assessing ASEAN's economic performance

Singapore's development of regional integration and globalisation initiatives is due to its high dependence on two-way flows of trade and investment. As a small and open economy highly dependent on trade, Singapore has a strong interest in ensuring that global trade is based on a strong rule-based multilateral trading system where goods and services can flow freely with minimum impediment. Singapore thus actively supports the various international institutions as well as regional initiatives that are complementary to the World Trade Organization (WTO) process. Singapore helped create the Association of Southeast Asian Nations (ASEAN) and is a member of the Asia-Pacific Economic Cooperation (APEC).

A Free Trade Agreement (FTA) is a legally binding agreement between two or more countries to reduce or eliminate barriers to trade (such as tariffs, custom procedures, rules and restrictions), and facilitate the cross-border movement of goods and services between the territories of the Parties.

In Singapore, FTAs are negotiated with the chief aim of enhancing the competitiveness of exports in the face of global competition. Singapore's FTAs have been instrumental in helping Singapore-based businesses strengthen cross-border trade by eliminating or reducing import tariff rates, providing preferential access to services sectors, faster entry into markets, easing investment rules, improving intellectual property regulations, and opening government procurement opportunities. The resultant removal of trade barriers would reduce the price of our exports to achieve competitive edge in foreign markets. This would then allow for greater export revenue. FTAs are also needed to grant local companies greater access to cheaper inputs from overseas markets so as to allow them to retain their competitiveness without relocating their production elsewhere.

Singapore helped create the Association of Southeast Asian Nations (ASEAN) and is a member of the Asia-Pacific Economic Cooperation (APEC). Over the years, Singapore has forged an extensive network of over 23 implemented agreements which includes countries such as with Australia, Japan, New Zealand, the US and the European Free Trade Area (EFTA) group.

Evaluating the effectiveness of ASEAN

Assessments of ASEAN as a regional integration endeavour often fail to separate the organization's underlying objectives from those that appear on the surface. Analysis assume that the primary purpose of regional cooperation agreements is to increase regional integration. In the case of assessing performance against these metrics of measures of integration, ASEAN would be judged a failure.
However, if regionalism is only a means toward greater ends, and is used as a stepping-stone to broader liberalization, and in turn, promote globalization, then in all of ASEAN's original design, it has reaffirmed commitment to a non-discriminatory and open foreign investment climate, mirroring the regimes in individual member countries. Even if intra-ASEAN flows remain little changed, FDI inflows have flourished, and ASEAN continues to observe in newer members. This would not have been possible if ASEAN had chosen only preferential treatment between its members. This is its defining achievement, and this is how it should be judged.

Adapted from The Asian Development Bank
Assessing ASEAN's Economic Performance
Jayant Menon
Lead Economist
17th April 2018

APPENDIX 10: SUPPLEMENTARY READING MATERIAL

Rising protectionism, uncertainty threatens global growth http://www.jamaicaobserver.com/news/Rising-protectionism--uncertainty-threatens-global-growth---Lagarde	
What's the problem with protectionism https://www.theguardian.com/business/2016/jul/15/whats-the-problem-with-protectionism	
Protectionism can take many forms, not all of them obvious https://www.economist.com/news/special-report/21587381-protectionism-can-take-many-forms-not-all-them-obvious-hidden-persuaders	
To save globalisation, its benefits need to be more broadly shared https://www.weforum.org/agenda/2017/01/to-save-globalisation-its-benefits-need-to-be-more-broadly-shared/	
Trade wars, trump tariffs, protectionism explained https://www.bbc.com/news/world-43512098	
G7: Fact checking Trump's tweets about trade https://www.bbc.com/news/world-44438908	
The Regional Comprehensive Economic Partnership ("RCEP") Agreement https://www.mti.gov.sg/Improving-Trade/Free-Trade-Agreements/RCEP	
Making the most out of globalisation https://www.fas.nus.edu.sg/ecs/scape/doc/GLOBALISATION-st-23sep-pA26.pdf	
Collateral Damage of Australia Trade War with China https://www.abc.net.au/news/2021-04-26/the-collateral-damage-of-australia-trade-war-with-china-/100071952	

******END******

NOTES

RAFFLES INSTITUTION
YEAR 6 H2 ECONOMICS 2023

TUTORIAL PACKAGE

Section A: Structured Questions

Test your understanding (Answers can be found in your lecture notes)

1. Explain 3 factors that have contributed to the trend towards globalisation.
2. Explain the theory of comparative advantage.
3. Explain the possible effects of international trade on countries.
4. Explain how benefits to the economy can arise from specialisation and exchange.
5. Identify and explain the determinants of patterns of trade between countries.
6. Explain how countries engage in protectionism.
7. Explain why countries engage in protectionism
8. Explain impact of freer flow of capital and labour between countries:
   (a) the benefits of these flows.
   (b) the costs of these flows.
9. Explain possible government measures to mitigate the costs of globalisation.

Section B: Case Study Questions

Question 1: India's Agricultural Policy

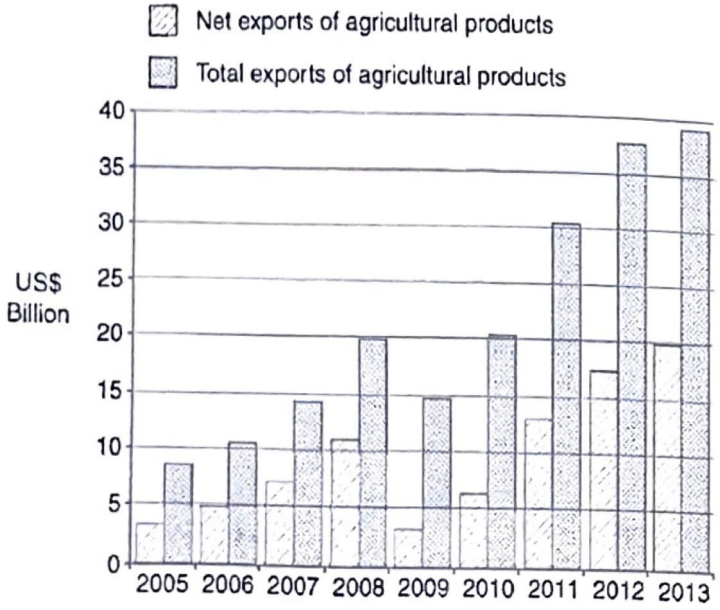
Extract 1: India's agricultural exports climb to record high

In the past decade, India has emerged as a major agricultural exporter, with exports climbing from just over US$5 billion in 2003 to a record of more than US$39 billion in 2013. In terms of agricultural products, in 2013 India was the world's sixth-largest net exporter. India has become a very important player in the global market, especially for rice, cotton, sugar, and bovine meat (buffalo). In addition to these products, India has also become a sizeable exporter of guar, corn and wheat, as well as a diverse range of other products. India's export growth of agricultural products over the past decade has been the highest of any country, with an annual rate of growth of more than 21%.

Source: US Department of Agriculture, accessed 3 September 2014

Figure 1

India emerges as a large net exporter of agricultural products



Source: US Department of Agriculture, accessed 3 September 2014

Extract 2: India's exports benefit from government policies and subsidies

One of the drivers behind India's export growth in agricultural products has been the dramatic increase in government support provided to agriculture, in particular for wheat and rice. It is estimated that the Indian government's total support for agriculture has grown to US$85 billion in 2013/14. Furthermore, the government's latest budget indicates that support is likely to reach a record high in 2014/15. In addition to providing subsidies to irrigation schemes, power and fertiliser, which boosts production for many exported crops such as cotton and sugar, the Indian government provides direct price support for wheat and rice, among other commodities.

The Indian government purchases rice and wheat directly from farmers at minimum support prices (MSPs). These prices are set artificially high. The MSPs for wheat and rice have increased significantly over the past six years, with that of rice up 75% and that of wheat up 40%. The increasing MSPs have contributed to expanding production and rapidly rising government stocks. The Indian government purchases these basic crops from farmers. Of these purchased crops:

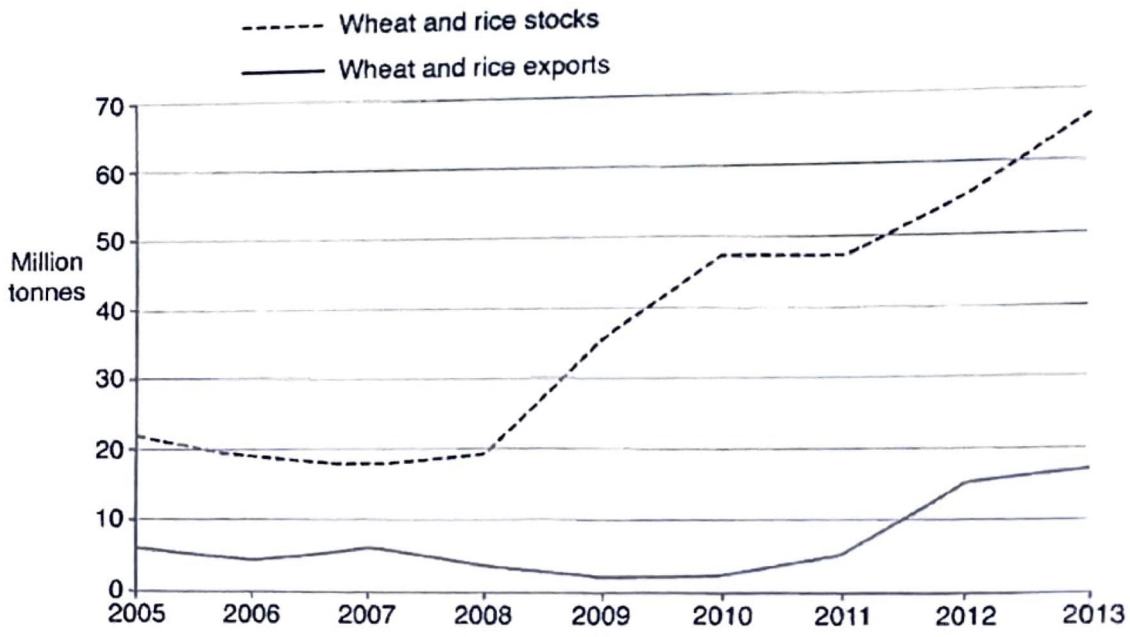
1. The government sells a portion in 500,000 'fair price' stores to some 800 million poor people at low prices.
2. An estimated 40% never reaches its intended consumers because of corruption.
3. Some is wasted owing to inadequate storage and transport.
4. Some is exported. This is particularly true for wheat, which the government sells from its stocks at prices below acquisition and transport costs.

The loss of crops seems particularly cruel in a country where many people remain hungry.

Although the United States has been the largest market for India's agricultural exports in the past two years, nearly all other large markets for India are developing countries. In total, 79% of India's exports went to developing markets. Exports have been particularly strong to least developed countries (LDCs), with India becoming the top supplier in 2013 with a rapidly growing agricultural trade surplus with these nations.

Figure 2

Stocks and exports of wheat and rice



Source: US Department of Agriculture, accessed 3 September 2014

Table 1: India: terms of trade indices (2005–2013), year 2000 (base year) = 100

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013
Indices	105.2	110.8	114.2	117.2	131.7	132.5	127.6	127.7	131.1

Source: UNCTAD Statistics

The index of the terms of trade is defined as:

$$\frac{\text{the index of export prices}}{\text{the index of import prices}} \times 100$$

Extract 3: India's dangerous food subsidies

India's farm subsidies and MSPs are already far in excess of the limits agreed to in their World Trade Organisation (WTO) commitments. Now India wants to increase subsidies further. With global commodity prices weakening, the increased subsidies are likely to further damage farmers in other countries, prompting retaliation from their governments.

India's farm subsidies harm its own economy. Farmers are incentivised to devote more land and water to subsidised crops, such as wheat, rice and sugar. This leads to less production and higher prices for other items, such as fruits and vegetables that consumers also want to buy. India's government justifies these policies under the guise of achieving 'food security' (where everyone has access to sufficient healthy food) by encouraging domestic production of basic crops.

WTO rules on agricultural subsidies came into effect in 1995 because the global marketplace had been affected by their use among wealthy nations, most prominently the European Union and the United States. Farmers in non-subsidising countries suffered with low prices, as the subsidised food from wealthy nations pushed down the market price. The WTO 1995 Agreement on Agriculture addressed this problem by placing limits on these trade-distorting subsidies, while allowing a wide range of non-distorting government services and payments to be provided to farmers. It also permitted governments to spend as much as they wish to provide food to low-income people.

Recently India ignored the WTO's prohibition on new export subsidies and began to use them on sugar, thus undercutting sugar exporters such as Thailand and Brazil. If India won't follow the rules to which it has agreed, other countries are likely to follow suit soon.

Source: Dan Pearson in *The Diplomat*, 27 August 2014

Questions

(a) Estimate and compare the value of India's total imports of agricultural products in 2013 and 2005. [2]

(b) Using a supply and demand diagram, explain how the Indian government's purchase of grains at artificially high minimum support prices has contributed to the changes shown in Figure 2. [4]

(c) i) Suggest **two** ways in which changes in the prices of exports and imports might lead to the change in India's terms of trade in 2013 compared to 2005. [2]

ii) Explain how a rise in the terms of trade can be consistent with a strong rise in the value of India's net exports of agricultural products. [4]

(d) Discuss how far the concept of comparative advantage explains whether India should specialize in agricultural products or other goods. [8]

(e) Discuss whether the Indian government's policy towards agriculture can be justified. [10]

[30 marks]

Question 2: The changing landscape of international trade

Extract 4: The end of globalisation?

Until recently, the advance of globalisation with greater economic ties between countries was seen as inevitable, whether it was wanted or not. As the United Nations' Secretary-General said in 1999, 'Globalisation is an irreversible process, not an option.' Then, against expectations, the script changed. In January 2017, Donald Trump became President of the US. His perspective was expressed as follows: 'We must protect our borders from the ravages of other countries making our products, stealing our companies and destroying our jobs.'

For some time, however, the pace of globalisation has been slowing. Between 1970 and the global financial crisis of 2008, the ratio of global trade in goods to global GDP rose from around 20% to just under 52%. Since the crisis, however, trade has not been as dynamic and the ratio has fallen to 45%. This is a key indicator of the reversal of globalisation. In addition, international financial flows have suggested a slowing down of globalisation. Multinational companies cross border investments fell by around 15% in 2016. Foreign direct investment is well below its pre-crisis peak and projected to decline further.

Manufacturing is becoming more local. A component supplier to a world-leading US manufacturer of smartphones and tablets is reported to be considering investing in manufacturing in the US rather than China. As automation reduces the labour needed for production and new technologies allowe for smaller factories, localized production is more possible – a benefit for customers demanding personalization and near-immediate delivery. Similarly, a major German manufacturer of sportswear has a factory in Germany that takes advantage of automation and 3D printing to make customized trainers (sneakers) on demand in an expensive location, rather than setting up the factory abroad.

The period of globalisation that began in the early 1990s may be drawing to a close. Should globalisation start to reverse, it could have far-reaching consequences for countries, corporations and investors.

Source: From Global to Local: The Making of Things and the End of Globalisation, Finbarr Livesay, 2017

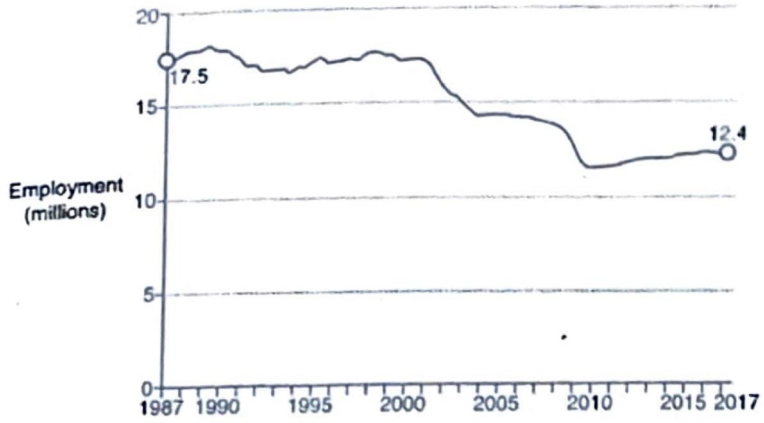
Table 1: Employment in the US by major industrial sector, 2000 – 2020

Industrial sector	Number of workers employed (millions)			% of total employment		
	2000	2010	2020*	2000	2010	2020*
Mining	0.5	0.7	0.7	0.4	0.5	0.4
Agriculture	2.4	2.1	2.0	1.6	1.5	1.2
Construction	6.8	5.5	7.6	4.6	3.9	4.5
Manufacturing	17.3	11.5	11.4	11.8	8.1	7.0
Services	107.9	112.7	130.7	73.8	78.8	79.9

* Projected

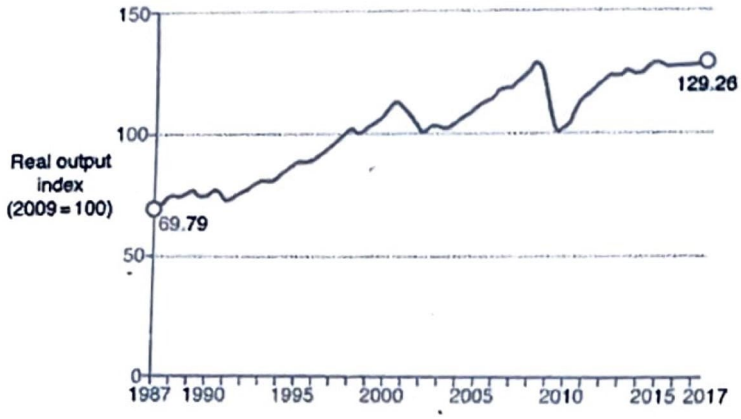
Source: Bureau of Labor Statistics, 2017

Figure1: US manufacturing employment, 1987 – 2017



Source: Bureau of Labor Statistics, 2017

Figure 2: US real manufacturing output, 1987 – 2017



Source: Bureau of Labor Statistics, 2017

Extract 5: The rise of the global value chains

Over the past 30 years, the growing technological complexity of products, trade liberalization, and lower transportation and communications costs have re-shaped the landscape of global trade. International production, trade and investments are increasingly organised within so-called global value chains (GVCs) where the different stages of the production process are located across different countries.

Firms try to optimize their production processes by locating the various stages across different sites in different countries. Asia has especially exemplified this new pattern of production.

Integration into GVCs bring benefits beyond those traditionally associated with international trade in final goods, reflecting the division of production and task specialization, which enables each participating country to exploit comparative advantage and raised the benefits of producing on a larger scale. Among the clear beneficiaries of globalisation are the emerging economies, which have ecome increasingly integrated into more and more complex global value chains. Their role in processing raw materials, and in manufacturing and services, has grown rapidly. The value chain describes the full range of activities that firms and workers do to bring a product from its conception to its end use. This includes, for example, design, production, marketing, distribution and after-sales support to consumers.

Source: UNCTAD, 2017

Table 2: Participation in global value chains in selected economies (%)

	% of foreign inputs in an economy's exports
Singapore	81
Malaysia	68
China	61
Japan	49
United States	42
Pakistan	40

Source: UNCTAD, 2017

Extract 6: China's 'Belt and Road Initiative'

The 'Belt and Road Initiative' is an immensely ambitious development campaign through which China wants to boost trade and stimulate economic growth across Asia and beyond. It hopes to do so by building massive amounts of infrastructure connecting it to countries around the globe. By some estimates, China plans to spend US$150 billion each year on such projects. An extraordinary US$900 billion worth of projecs are planned or underway.

There are plans for pipelines and a port in Pakistan, bridges in Bangladesh and railways to Russia – all with the aim of creating what China calls a 'modern Silk Road' trading route that Beijing believes will launch a new era of globalisation. Beijing has championed a number of projects, foremost among them the US$62 billion China-Pakistan economic corridor, a network of motorways, power plants, factories and railways that supporters say will spark an 'economic revolution' and create up to one million jobs in Pakistan. Other high-profile schemes include a US$1.1 billion port project in Sri Lanka, a high-speed rail link in Indonesia and an industrial park in Cambodia.

Observers say a number of overlapping goals lie behind China's 'Belt and Road Initiative'. In many ways it is an economic plan designed to open up and create new markets for Chinese goods at a time when China's economy is slowing. It also intends to export excess cement and steel capacity by shifting factories overseas to less developed countries.

Source: Tom Phillips, *The Guardian*, 12 May 2017

Extract 7: Globalisation thrives in Asia as export revival boosts growth

For all the talk of globalisation's retreat it is proving to be a very different story in Asia. Exports are rising again, governments are pursuing free-trade deals, and rather than bringing jobs back home, US car producers are planning new facilities in China. That early-2017 worry over the potential for a trade war is now turning into recognition that there has been something of a trade boom as the global economy's strongest growth in seven years drives demand for Asian-made goods. The leading indicators of trade-manufacturing export orders and shipping rates – remain high, and global growth in the next few years is forecast to remain robust. And while the threat of a trade war remains, so far, the US government has proven far more reluctant to challenge China than expected.

Source: Enda Curran and Michael Heath, Bloomberg.com, accessed 11 January 2018

Questions

(a) With reference to Figures 1 and 2, what evidence is there to suggest an increase in productivity of workers in US manufacturing over the period 2987 – 2017? [2]

(b) Using an example, explain a benefit to a firm of producing on a larger scale through participation in the global value chain. [2]

(c) Explain, **one** possible reason why Singapore has such a high participation rate in the global values chain. [2]

(d) Explain **two** possible reasons for the US government's call for tariff for protection of the US manufacturing industry. [6]

(e) Considering possible advantages and disadvantages to Pakistan's economy of China's 'Belt and Road Initiative', assess whether it is likely to be of overall benefit to Pakistan. [8]

(f) Using economic analysis and based on the evidence provided, discuss whether you agree with the view that globalisation is irreversible. [10]

[30 marks]

Optional Question

The Growing Threat of Protectionism

Table 1: European Union (EU) trade balance with China

Year	EU imports from China (€ billions)	EU exports to China (€ billions)
2008	248	78
2009	214	82
2010	283	113
2011	294	136
2012	290	144
Average annual growth 2008–2012	4%	17%

Source: Eurostat

Extract 5: Escalating trade war between EU and China

After the European Union levied heavy tariffs of 48% on subsidised Chinese-made solar panels China announced it was considering retaliation by levying a similar 'anti-dumping' duty on wines made in the EU. The French President has expressed alarm at a development that threatens exports worth €546 million for France and called for a special EU meeting to discuss the escalating trade war between the EU and China.

Echoing the language used by the EU before it imposed import tariffs on Chinese solar panels, the Chinese trade ministry announced it had begun an anti-dumping investigation into EU wines at the request of Chinese wine producers.

The Chinese action targets France and other wine producers, which all happen to be countries that supported the European Union's tariffs on Chinese solar panels despite opposition from Germany, Britain and sixteen other countries within the EU. The EU imposed a tariff on Chinese solar panels because it believes that Chinese producers benefit from unfair subsidies.

French wine exports account for 71% of the European wines imported by the Chinese, a fast-growing market among China's growing middle classes. Italy and Spain will have exports worth respectively €77 million and €89 million affected by any Chinese retaliatory measures against European wines.

The French trade ministry condemned the Chinese threat and warned of an escalating trade war if Beijing did not follow World Trade Organisation (WTO) rules.

Source: *Daily Telegraph*, Bruno Waterfield, 5 June 2013

Extract 6: EU and China reach deal in solar panel dispute

The European Union says it has reached "an amicable solution" with Beijing in a row over imports of Chinese solar panels.

"Both sides have agreed on a minimum price for the panels", said an EU Trade Commissioner. The dispute erupted after the EU imposed temporary anti-dumping tariffs on the imports. China is the world's largest producer of solar panels. Its exports of solar panels to Europe totalled €21 billion in 2011.

"After weeks of intensive talks, I can announce that I am satisfied with the offer of a price undertaking submitted by China's solar panel exporters," said an EU spokesman on Saturday. "This is the amicable solution that both the EU and China were looking for." He added that the agreement would "lead to a new market equilibrium at a sustainable price".

Source: BBC News, 27 July 2013

Extract 7: Europe fears 'uncontrolled protectionism' as emerging markets turn against free trade

The European Union has warned of a slide towards "blatant and uncontrolled protectionism" across the world as emerging markets defend themselves, warning that abuses by Russia, Argentina, India, Brazil, Indonesia, China and other key states pose a growing threat to global recovery. The EU's trade body said 154 new tariffs and restrictive measures have been pushed through over the past year while "virtually none" has been abolished. "It is a striking phenomenon. Looming protectionism is now more than ever a significant threat to global growth and prosperity," said an EU trade commissioner.

Trade restrictions have been building up since the economic crisis of 2008–2009. They have spread rapidly over the past year as once-booming economies start to show slower rates of economic growth. The worry is that emerging markets – now responsible for half of global output – are turning their backs on free trade as political pressure mounts.

Brazil raised tariffs on 100 sectors last October to defend its declining industrial base, with tariffs of up to 25% on machinery, iron and steel, plastics, chemicals, paper and wood products. It is now pursuing a full-blown "industrial policy" with tax concessions for those who build plants locally. It has targeted its car industry for protection, and this will soon be broadened to 19 strategic sectors. Argentina imposed tariffs of up to 35% in January to stem a balance of payments crisis, while Ukraine imposed duties on 131 products. Indonesia's food law prohibits food imports unless deemed necessary, and it too has a draft industry law for complete takeover of strategic sectors by the state.

The EU said the move by several states to unravel the WTO structure is alarming. "Such practices should be strongly condemned, as their potential proliferation can put at risk and even nullify the whole global set-up of rules governing trade, opening the way to blatant and uncontrolled protectionism." Countries are using various methods to keep goods and services out, going far beyond tariffs. These include licensing barriers, technical regulations, procurement rules and internal stimulus measures that distort competition. Many forms of "behind-the-border" protectionism are hard to police. "These measures are often applied without pre-warning for businesses. Whole consignments of goods end up blocked in customs entry points and warehouses. Perishable products can often totally lose their market value in the process," said the report.

"We think it is too crude to say that all emerging markets are going protectionist," said a spokesman from an economic research company, Capital Economics. "For every case like Brazil, there are those like Colombia, Chile, Peru and Mexico that have just signed a free trade deal."

He said that this year's exchange rate depreciations in emerging markets might help restore lost competitiveness for those with big current account deficits, notably Brazil, India, Turkey and South Africa. "A weaker exchange rate is what they need and will be more useful in the end than any industrial policy," he said.

Source: *Daily Telegraph*, Ambrose Evans-Pritchard, 2 September 2013

Questions

(a) With reference to Table 1, compare the EU's trade balance with China in 2008 and 2012. [2]

(b) Explain what is meant by the term 'protectionism'. [2]

(c) With the help of a diagram, explain how it could be climaed that subsidies allow the Chinese to dump solar panels in the EU. [4]

(d) With the help of a diagram, explain whether an agreed minimum price for solar panels will always results in 'a new market equilibrium at a sustainable price'. [4]

(e) Assess whether a tariff or weaker exchange rate is the better method for a country to deal with a loss in competitiveness. [8]

(f) In view of the possible impact of escalating trade wars upon consumers, employees and producers, assess whether, on balance, protectionism can ever be justified. [10]

[Total: 30]

Section C: Essay Questions

1. "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 measures and explain how each type would affect trade. [10]

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

2. "We are restructuring to become more competitive, not less." - Mr Lim Hng Kiang, Minister of Trade.

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

   (b) Assess the measures adopted by the Singapore government to improve its global competitiveness. [15]

3. Globalisation has been a major influence on Singapore's economic performance. The uncertainty and instability happening around the world in recent years could threaten the economic benefits that globalisation brings.

   (a) Explain two different factors that have enabled globalisation to occur. [10]

   (b) Assess whether current global economic developments will have a positive or negative effect on Singapore's future economic performance. [15]

4. Discuss whether Singapore is among the economies that have the most to gain from globalisation. [15]

Optional Questions:

1. Discuss whether a government should encourage domestic investment rather than investment from external sources to improve the standard of living in Singapore. [15]

2. (a) "Both trade barriers and barriers to entry into an industry result in inefficiency."

   Explain this statement. [10]

   (b) Does free trade necessarily lead to an increase in the standard of living in a country? [15]