JPJC 2023 J2 H2 P1 Prelim
Question 1: A Balancing Act in the Container Shipping Industries

(a) With reference to Figure 1, compare the trend in global shipping freight rates before September 2021 and after September 2021. [2]

Suggested Answer:
1st difference: Global shipping freight rates increased before September 2021 whereas there is a drop in global shipping freight rates after September 2021.

2nd difference: There is a larger extent of change in global shipping freight rates after September 2021.

(b) (i) Using evidence from Extract 1, justify the likely value of price elasticity supply of container shipping services. [2]

Suggested Answer:
Price elasticity of supply (PES) measures the responsiveness of the quantity supplied of a good or service to changes in the price of the good itself. The PES for container shipping services is expected to be less than 1, indicating that the supply for container shipping services is likely to be price inelastic.

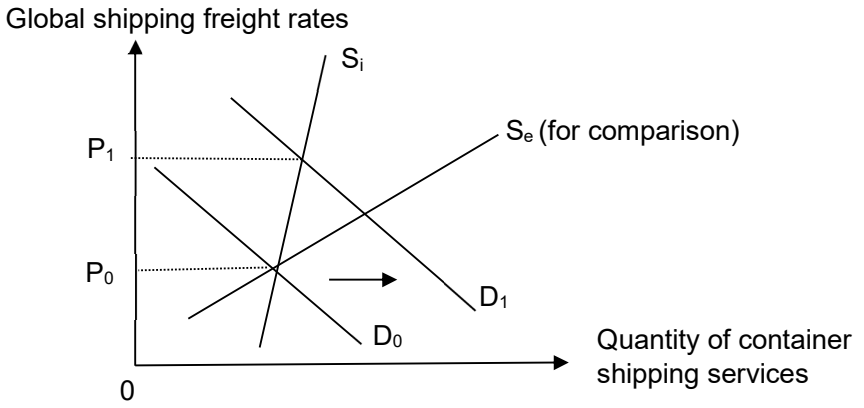
The container shipping industry faces significant geographical factor immobility, as evidenced in Extract 1. The disruption in the maritime supply chain leads to a situation where containers cannot be easily moved to the ports that urgently require them. As a result, the quantity supplied of container shipping services increases at a rate that is less than proportionate to the rise in global shipping freight rates caused by increased demand.

(b) (ii) Using a demand and supply diagram, explain the causes of the change in global shipping freight rates during Covid-19 pandemic March 2020 to September 2021. [4]

Suggested Answer:
Global shipping freight rates increased sharply during the Covid-19 pandemic March 2020 to September 2021.

The onset of the Covid-19 pandemic prompted a notable shift in consumer behaviour, with consumers increasingly opting for electronic commerce platforms to acquire imported manufactured consumer goods. This change in consumer's tastes and preferences has manifested as a notable shift in consumption patterns towards imports. Consequently, as the demand for imported products surged, the necessity for container shipping services to facilitate the transportation of goods via sea routes experienced a significant upswing. This, in turn, resulted in an increase in derived demand for container shipping services which is illustrated by the shift from the initial demand curve (D_0) to the new demand curve (D_1).

However, the supply of container shipping services (S_i) remained relatively inelastic, unable to quickly adapt to the sudden surge in demand as explained in part (bi). The combination of an inelastic supply and a substantial increase in demand resulted in a sharp increase in global shipping freight rates, represented by the rise from the initial price level (P_0) to the new higher price level (P_1).



(c) Explain which market structure best describes the characteristics of the container shipping industry. [4]

Suggested Answer:
The container shipping industry is characterised as an oligopolistic market, where a small number of major container shipping companies hold significant control over the market share. This is evident from Table 2, where the top five container shipping companies collectively command around 63.9% of the market share, highlighting a high concentration ratio.

The presence of high natural barriers to entry further reinforces the dominance of these established players. Operating container carriers within these large shipping companies requires substantial capital investment and specialised expertise. Additionally, the container shipping industry faces the challenge of complying with stringent environmental regulations due to increased scrutiny of its significant negative impact on the environment. The considerable costs associated with acquiring and maintaining the carriers, and complying with these regulations act as deterrents for potential new entrants.

(d) Considering the possible advantages and disadvantages of the formation of alliances in the container shipping industry, assess whether it is likely to be of overall benefits to container shipping companies and shippers. [8]

Suggested Answer:
Introduction
The formation of alliances within the container shipping industry entails the collaborative efforts of container shipping companies to forge strategic partnerships. These alliances aim to elevate operational effectiveness, streamline resource allocation, and enhance overall efficiency in the realm of container shipping services. The outcomes of these alliances can yield various advantages and disadvantages for both container shipping companies and shippers. The net overall benefits arising from such alliances in the container shipping industry hinge upon the regulatory and competitive oversight exercised by relevant authorities.

Requirement 1: Claim & Support
Point: The formation of alliances benefits both container shipping companies and shippers.

Explain with Economic Analysis and Elaborate with Application
Advantages to container shipping companies **Advantages to shippers**

1. Through alliances, container shipping companies can pool their resources and capacities, leading to enhanced service offerings and expanded coverage in various trade routes. This increased market presence allows them to attract more customers and secure a larger market share. With a broader customer base, these companies can experience higher revenue due to increased demand for their container shipping services.

2. Alliances enable container shipping companies to combine their financial strength, allowing them to invest in technological upgrades and innovations such as upgrading their fleet to implement digital solutions and adopting advanced logistics technologies. These can further enhance their non-price competitiveness, resulting in higher demand and revenue.

3. With the establishment of alliances, container shipping companies can reap internal economies of scale, leading to a reduction in their average costs as a result of an increase in size, which facilitates more efficient fleet utilisation. Additionally, companies can benefit from external economies of scale by sharing resources and networks.

1. As alliances in the container shipping industry experienced lower cost of production, they may pass on these cost savings to shippers in the form of lower shipping freight rates. As such, there may be a reduction in the fluctuation of shipping freight rates, providing shippers with more stability and predictability in their transportation costs. This stability allows shippers to make forward-looking business plans with greater confidence, as they can anticipate and budget for shipping expenses more effectively.

2 Alliances allow container shipping companies to offer more efficient and extensive services to shippers. By pooling their resources and capacities, they can provide better coverage of various trade routes and more frequent sailings. This improved service network translates to faster transit times and better connectivity, enabling shippers to transport their goods more quickly and reliably. Moreover, the coordination of operations within alliances enhances overall service quality, such as better handling of cargo and improved customer support, resulting in a positive impact on the overall shipping experience for shippers.

Link to Answering the Question

Thus, the formation of alliances can lead to increased profitability for container shipping companies due to the advantages gained in terms of both revenue and cost benefits.

Hence, the formation of alliances contributes to the achievement of more consistent and reduced shipping freight rates, as well as elevated service standards, which ultimately prove advantageous to shippers.

Requirement 2: Question

Point: However, the formation of alliances may bring about costs to both container shipping companies and shippers too.

Explain with Economic Analysis and Elaborate with Application

Disadvantages to container shipping companies

1. By forming alliances, container shipping companies can consolidate their market share and achieve higher dominance in the industry. However, this increased market power may reduce competitive pressures, potentially leading to complacency and

Disadvantages to shippers

1. Alliances in the container shipping industry can lead to a concentration of market power, limit competition and enabling the alliances to control a significant portion of the shipping capacity in certain trade routes. As a result, shippers may face constrained supply options and reduced

reduced incentives for innovation and efficiency improvements.

2. Further, managing large-scale alliances and coordinating complex operations among multiple companies can introduce coordination challenges, bureaucratic inefficiencies, and communication issues. Hence, there is a possibility that container shipping companies may encounter diseconomies of scale instead which could result in increased costs.

alternatives for transporting their goods. With fewer options available, the alliances may have the ability to manipulate shipping freight rates and abuse their market power, resulting in higher shipping costs for shippers. This can adversely affect shippers' overall logistics expenses and may impact their competitiveness in the market.

2. The coordination and standardisation required in alliances can restrict container shipping companies' ability to provide customised services tailored to the specific needs of individual shippers. As the alliances aim for operational effectiveness and uniformity, there may be less room for flexibility in accommodating unique shipping requirements or specialised cargo handling.

Link to Answering the Question

In the long term, if the operational challenges and diseconomies of scale lead to cost inefficiencies, this could erode profit margins for container shipping companies within the alliance.

Overall, these constraints can prove to be a disadvantage for shippers, as they experience elevated shipping freight rates, limited options, and a lack in the personalised service they require.

Evaluative Conclusion

Considering the evidence presented, it becomes clear that the net benefits to container shipping companies and shippers will only materialise if relevant authorities intervene effectively.

The formation of alliances and the increasing concentration of market power among container shipping companies can potentially benefit these companies, provided they do not become complacent and continue to seek improvement. However, the involvement of regulatory authorities is crucial to maintaining high standards in fostering a thriving container shipping industry for the broader trade community or supporting the economy in achieving its macroeconomic goals.

Conversely, these developments are likely to have adverse effects on shippers. Therefore, it is imperative for competition authorities to intervene appropriately, monitoring market concentration levels, and preventing potential abuses of market power. By enforcing competition laws, promoting transparency, and ensuring a level playing field, authorities can cultivate a more competitive environment in the container shipping industry. This, in turn, will encourage alliances to focus on efficiency gains and service improvements to gain higher profits rather than exploiting their market power.

Through proactive intervention, regulatory and competition authorities can play a pivotal role in nurturing a thriving and equitable container shipping industry that benefits all stakeholders, including shippers and the broader trade community.

(e) Though Consortia Block Exemption Regulation (CBER) allows container shipping companies to cooperate through alliance formation, regulators will face a balancing act, weighing the benefits of tackling greenhouse gas reductions with the need to protect shippers from market collusion. [10]

Discuss the case for the renewal of the CBER in improving economic efficiency in the container shipping industry.

Suggested Answer:

Introduction

Renewing the CBER enables container shipping companies to engage in collaborative efforts through the formation of alliances. These alliances possess the capability to either improve or worsen economic efficiency, which is defined as the degree to which resources are allocated and utilised in a way that maximises overall welfare and productivity within the container shipping industry. The overarching influence of the CBER's extension on economic efficiency pivots on the government's economic priority, the constraints it faces and its capacity to preclude potential exploitation of market dominance.

Requirement 1: Claim & Support

Point: Renewing the CBER may improve economic efficiency.

Explain with Economic Analysis and Elaborate with Application
Link to Answering the Question

The renewal of CBER would allow container shipping companies to form alliances, promoting economies of scale and the potential for supernormal profits (as seen below in Figure 1 shaded pink). These additional profits can be reinvested in research, development, and technology adoption, fostering dynamic efficiency. By investing in innovative solutions and sustainable technologies, companies can continuously improve their operational processes, reduce costs, and minimise their environmental impact.

The ability to collaborate within alliances facilitated by the CBER renewal would enable container shipping companies to pool resources for the acquisition of larger and more fuel-efficient vessels. This aligns with the evidence from Extract 4 paragraph 3 indicating that larger container carriers emit significantly less CO_2 than smaller carriers. By operating such vessels, the industry can reduce its carbon footprint and negative externalities associated with emissions, achieving a more efficient allocation of resources and societal welfare.

Requirement 2: Question

Point: However, renewing the CBER may worsen economic efficiency instead.

Explain with Economic Analysis and Elaborate with Application/Diagram
Link to Answering the Question

Renewing the CBER to allow alliance formations could potentially lead to increased market concentration and reduced competition. As seen in Figure 1 below, this may result in higher market power for these alliances, leading to a situation where container shipping companies produce at a profit-maximising output level Qm where MC=MR. At Qm, price (Pm) exceeds marginal cost (MC). Such allocative inefficiency could lead to higher prices for consumers (Pm instead of Pc) and at suboptimal resource allocation resulting deadweight loss (shaded blue).

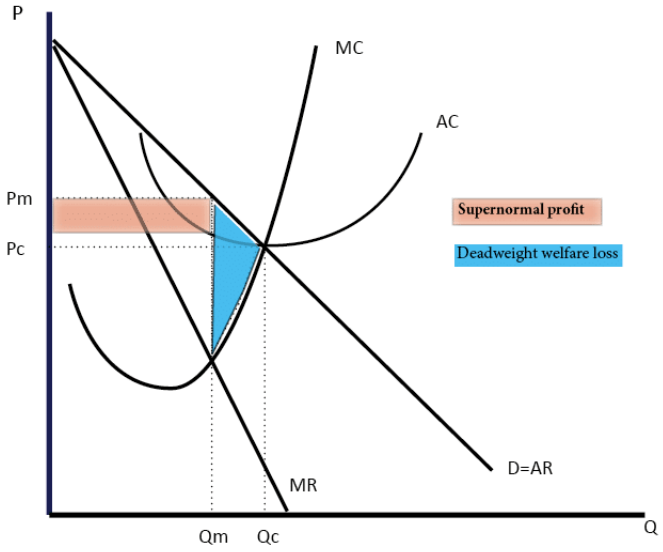


Figure 1

Evidence from Extract 4 paragraph 5 suggests that intensified cooperation and market concentration among container shipping companies might stifle innovation and reinvestment of profits into sustainability efforts. If alliances lead to complacency and reduced competitive pressures, companies may become less inclined to invest in technology or operational improvements, resulting in X-inefficiency. This inefficiency arises from the lack of incentives to minimise costs when competition is weak, leading to suboptimal resource allocation and reduced economic efficiency.

Evaluative Conclusion

The decision to renew the CBER carries substantial implications for economic efficiency in the container shipping industry. Striking a balance between encouraging collaborative efforts and preventing market dominance exploitation is paramount. The government's economic priority is central to this equation. Considering the urgent need to address climate change, as emphasised by the latest United Nations Intergovernmental Panel on Climate Change (IPCC) report, facilitating the renewal of CBER to enable alliances while implementing stringent competition policies becomes critical.

Moreover, in cases where a government faces fiscal constraints in directly driving sustainable practices across various industries, an effective approach could be to empower container shipping companies to take a leading role in this endeavour. By renewing the CBER and fostering alliances, the government leverages the industry's collective resources and capabilities to pursue greener alternatives. This approach not only taps into the private sector's innovation and investment potential but also distributes the responsibility for driving change. By doing so, the industry plays a proactive role in addressing climate change while simultaneously driving economic efficiency.

Hence, to maximise economic efficiency, the government should carefully monitor the alliances' progress in investing in sustainable technologies and practices. This would ensure that potential market power does not result in inefficiencies that harm shippers. By emphasising both environmental responsibility and healthy competition, the government can steer the industry towards a path of reduced carbon emissions, improved resource allocation, and heightened economic welfare.

[Total: 30]

JPJC 2023 Prelim H2 Q2
Suggested answers for H2 Question 2: Vietnam – A special place in Asia

(a) With reference to Table 2:

(i) State what happened to the exchange rate of the Vietnam's currency against the U.S. dollar between 2017 to 2021. [1]

Suggested Answer:
The value of Vietnam's currency depreciated against the US dollar between 2017 to 2021.

(ii) Explain how the change in the value of Vietnam's currency affects Vietnam's trade balance as shown in Table 2. [3]

Suggested Answer:
A depreciation of Vietnam's currency will cause the price of export in foreign currency to fall and price of imports in domestic currency to rise.

Assuming Marshall Lerner condition is satisfied whereby PEDx+PEDm>1, net exports rises.

As a result, Vietnam's trade balance is having an increasing surplus as evident in Table 2.

(b) Explain how the current account balance of Vietnam is likely to be affected by an increase in Foreign Direct Investment inflow in the long run. [4]

Suggested Answer:
An **increase in FDI is likely to increase export earnings in the long run for Vietnam.** This is evident in Extract 6 whereby exports by foreign-owned companies increased by 422% and that Vietnam is reliant on exports by foreign firms to sustain its growth. These are indicative that Vietnam relies on export earnings from FDI, and an increase in FDI inflow will lead to rise in export earnings. / In addition, FDI will improve Vietnam's export competitiveness as there will be transfer of skills / tech / knowledge. This leads to an increase in export demand for Vietnam and hence increases export earnings. Assuming ceteris paribus, this improves current account balance.

An increase in FDI would also likely bring about a **fall in import expenditure** on imports which Vietnam previously imports but are now produced by foreign firms due to FDI. This will cause the current account to improve, ceteris paribus.
OR
An increase in FDI would also likely bring about a **rise in import expenditure**, which is evident in Table 2. This could be the case because these foreign firms import factors of production for its production purposes, causing current account to worsen, ceteris paribus.
OR
However, if the foreign firms send profits back to their home countries, this will cause an outflow in the income flow of the current account which will cause the current account to worsen, ceteris paribus.

Hence, the impact on current account balance of Vietnam will improve/ is uncertain in the long run.

(c) (i) With reference to Extract 6 and 8, explain **two** reasons why global manufacturing firms are moving their production to Vietnam. [4]

Suggested Answer:
Firms aim to maximise profit and Profit = Total Revenue – Total Cost.

Cost factor
This is due to Vietnam's relatively lower labour cost as compared to East Asia, allowing the firms to enjoy lower unit cost of production. Vietnam's stable exchange rate also allows firms to have price stability in terms of their imported raw materials. This enables the firms to have certainty and the ability to predict their profits more accurately.

Revenue factor
Vietnam openness to trade and investments through many Free Trade Agreements (FTAs) allows firms to invest easily in the country and the ability to gain access to more international markets. This allows firms to sell their products in other large countries aside from Vietnam, hence the ability to gain more market share and hence revenue, increasing profit, ceteris paribus.

(ii) Discuss whether inflow of Foreign Direct Investment (FDI) improves living standards in Vietnam. [8]

Suggested Answer:
Introduction

Foreign Direct Investment (FDI) is an important component for Vietnam. It can create jobs and transfer technological knowledge and hence likely to improve the living standards of the citizens in terms of material and non-material well-being in the long term. Whether the country can exploit the full benefits of FDI will depend on how the government is able to deal with or mitigate the negative impact that FDI brings about to the country.

Foreign Direct Investment **can improve** Vietnam's living standards

Increase in FDI increases investment (I), which in turn increases the aggregate demand (AD) as I is a component of AD. Through the multiplier effect, it will bring about increase in real GDP due to the subsequent rounds of income-induced expenditure. If real GDP growth exceeds population growth, real GDP per capita increases. This means real income per person increases which increases the purchasing power per person and hence raising ability to consume, increasing material SOL.

In the long run, increase in FDI increases productivity due to the transfer of knowledge and expertise. Foreign firms could be bringing with them their technological know-how. This increases Vietnam's productive capacity. With both an

increase in AD and LRAS, the country can achieve sustained growth, further increases SOL in the long run as the value of final output produce and are available for consumption increases. In addition, with growth in NY and firms' profits, government can collect more tax revenues. If the government uses tax revenues in the areas of education and infrastructure development, together, these will increase SOL further.

In addition, foreign direct investment may create better-paid jobs that require higher skills. That could elevate the skills level of the labour force in Vietnam. As domestic workers gain more skills, their wages improves which increases their ability to purchase goods & services, improves material SOL

Foreign Direct investment **may not** improve Vietnam's standard of living.

However, foreign firms are more likely to relocate and exit the country if the investment climate of Vietnam deteriorates as evident in Extract 8 Paragraph 4. As a result, Vietnam will risk having massive layoffs, resulting in high unemployment if FDI that came in were to leave the country easily. High unemployment means unemployed workers will have no income and this will affect their purchasing power. At the same time, high unemployment can also result in higher crime rate. All these will have a negative impact on both material and non-material SOL.

With higher FDI in Vietnam, there will be more goods and services produced in the country for the domestic economy as well as to exports markets. Hence, Vietnam may also experience a rise in the air, water and noise pollution. Air and water pollution may incur higher negative externalities to the country. This will in turn affect the health of the citizens and incur higher medical cost. As a result, affecting the non-material well-being of the citizens. (Extract 8)

If FDI comes in at a time when the economy is operating near or at full employment output, the rise in AD will cause firms to bid higher prices for the factors of production, they will pass on the higher unit cost of production to the consumers as higher prices leading to demand pull inflation. Inflation has undesirable consequences on the material SOL if the wages remain the same.

FDI may also crowd out domestic investments if the foreign firms are of similar industries as the domestic firms (Extract 7). This is because the local firms may not be as competitive as the foreign firms since foreign firms tend to have the technological know-how advantages. As the result, it may cause the local firms to close down and result in massive unemployment. This is evident in Extract 6 paragraph 3 as the country has become overwhelmingly dependent on investment and exports by foreign companies, domestic firms have underperformed.

Evaluation

Ultimately, whether FDI improves SOL depends on the type of FDI. If the FDI is complementary to domestic investment, and if it is possible for FDI and domestic investment to work together, then it will generate the maximum benefit for Vietnam in terms of SOL.

It is important for Vietnam to create an environment that fosters the transfer of FDI benefits into the domestic economy. Appropriate policies like policies to deal with

pollution, policies to de-conflict domestic interest, must be implemented to regulate and attract the right type of investment that can create jobs for the domestic workers and help to generate sustained economic growth. More importantly, to embrace the full benefits of FDI and mitigate the negative impacts of FDI as much as possible.

(d) The lack of national champions and skilled labour are deterring Vietnam from achieving greater economic strength. In view of these challenges, discuss the policies that the Vietnamese government could implement to achieve sustained economic growth in the long term. [10]

Suggested Answer:

Introduction

To achieve sustained economic growth in the long term, Vietnam needs to achieve both actual and potential growth over the long run. **Encouraging high value domestic investment (national champions)** and **upskilling the workforce** are keys to Vietnam achieving sustained economic growth in the long term.

Requirement 1 – Policy on encouraging high value domestic investment, in turn moving up the global value chains (GVCs).

The Vietnamese government could **provide subsidies to domestic firms to do Research and Development (R&D).** This encourages domestic firms to do investment, leading to rise in I, increases AD, via multiplier effect, allowing Vietnam to have higher real GDP and in turn achieving actual growth. This subsidy on R&D will also allow domestic firms to innovate and produce better quality/ higher-value products, increasing domestic firms' export competitiveness in the international market. If these domestic industries become Vietnam's key exports to global markets, selling their high value-added products globally, this will in the long-term **boost Vietnam's export earnings (X),** further increases AD and actual growth, which is important due to Vietnam's high trade dependency (Extract 6). This policy will be advantageous to the Vietnamese economy as it deepens the links of the domestic economy with the GVCs. In addition, **R&D improves productivity**, which increases productive capacity and lowering the unit cost of production leading to a rise in AS and AS shifts downwards and rightwards, allowing Vietnam to achieve **potential growth**.

The Vietnamese government could also encourage domestic investment by **giving domestic firms tax incentives.** This can be done via lowering of corporate tax rates for domestic firms. This will increase the after-tax profits of domestic investment, leading to **rise in I**, rise in AD, via multiplier effect, rise in real GDP and in turn achieving actual growth. The rise in I in the long term will also lead to rise in quantity and quality of capital goods, leading to rise productive capacity and lowering the unit cost of production leading to a rise in AS and AS shifts downwards and rightwards, allowing Vietnam to achieve **potential growth.**

With the attainment of actual and potential growth in the long run, Vietnam achieves sustained economic growth in the long run.

Limitations

Policy of subsidy and giving tax incentives are very **costly**. This will mean that government's budget will worsen, and opportunity cost will be incurred as spending could

have been used in areas like education and healthcare which will compromise the current standard of living of the citizens.

Moreover, there is a limit to how much domestic investment will rise as there is the **constraint** on the **lack of skilled labour to power such corporations (Extract 8).** Lack of skilled labour hinders Vietnam's effort to produce high value-added goods and services. Vietnam will have difficulty in following Asia's tiger's footsteps moving from low-tech manufacturing to high technology and innovation. This is evident in Extract 8 where it mentioned that Vietnam lacks skills, as well as good infrastructure.

Requirement 2 – Policy on retraining and skills upgrading of workers
Supply-side policies aimed at skills upgrading of workers in the labour market should be implemented in Vietnam. This can include re-training workers for entry into newer high technology industries. This will make the economy more resilient as it also helps to reduce structural unemployment that may arise. With the threat of foreign firms moving to low cost countries in time to come, there is an urgent need for Vietnam to upgrade the skills of the workers.

Government may also need to put in more resources in providing basic and higher education for the younger generations to ensure Vietnam can continuously provide an educated workforce. An educated workforce would allow these workers to increase their labour mobility.

Such supply side policies will **raise the quality of labour**, raising full employment output level, in turn increasing LRAS, allowing Vietnam to achieve **potential growth**.

<u>Limitations</u>
According to Extract 8, having a labour force that is more skilled means wage increase and if productivity growth is slower than wage growth, per unit cost of production increases and this can lead to the unintended consequence on FDI leaving Vietnam to neighbouring lower cost countries like Cambodia. This will have negative impact on Vietnam's growth.

Moreover, the success of re-training and upgrading of workers policy depends on the receptiveness of the workers towards the training and adopting new technology. Many of the older workers or even the younger workers may be less educated and adaptable to new technology, making the policy of re-training and skills upgrading less effective for them to enter the high technology industries.

<u>Evaluation:</u>
Vietnam's current growth model is depending on exports from FDI and this model will not be able to sustain Vietnam's growth in the long term. This is so as FDI can move out easily and if Vietnam does not upgrade to producing more complex/value-added products, growth will stagnant or even decline (Extract 8). Hence time is running out for Vietnam and Vietnam government needs to implement policies quickly to support high value domestic investment and build up their own national champions so that the economy will not rely too much on FDI. This root problem is solved by encouraging domestic firms via R&D subsidy.

Another root cause is the lack of skilled labour – and this is solved by supply-side policies on retraining. Hence, these two policies must be used together, **not only to tackle the**

two root causes, but also to attain actual and potential growth, such that sustained economic growth can be achieved.

In fact, **another root cause** that Vietnam is facing is the **lack of good infrastructure** (Extract 8). Hence the government could also improve infrastructure to improve connectedness between the location of the firms to the seaport. This will increase efficiency and productivity, making transport of goods faster and more efficient for exports. Such a policy will also be complementary and allow Vietnam to achieve sustained economic growth in the long term.

[Total: 30]