



ST ANDREW'S JUNIOR COLLEGE

PRELIMINARY EXAMINATIONS 2022 (JC2)

General Certificate of Education Advanced Level

Higher 1

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**ECONOMICS**

**8823/01**

**29 August 2022**

**3 hours**

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**READ THESE INSTRUCTIONS FIRST**

An answer booklet will be provided with the question paper. You should follow the instructions on the front cover of the answer booklet. If you need additional paper ask the invigilator for a continuation booklet.

Answer **all** questions.

The number of marks is given in brackets [ ] at the end of each part question.

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**This document consists of 9 printed pages.**

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**[Turn Over]**

## Answer all questions

### Question 1: The Markets for Masks and Vaccines

#### Extract 1: Global Mask and Vaccine Shortage

##### The Global Mask Shortage

The World Health Organization has warned that severe and mounting disruption to the global supply of masks— caused by panic buying, hoarding and misuse — is putting lives at risk from the new coronavirus and other infectious diseases. Healthcare workers rely on surgical masks and other personal protective equipment to protect themselves and their patients from being infected and infecting others.

Polypropylene non-woven fabric, a key component used to make masks is limited in supply as the small number of producers world-wide find it difficult to expand production during the crisis. The US, Germany and other countries have also restricted exports of some mask-making materials, drawing intense criticism, from developing countries such as African nations where COVID ravages on.

##### The Global Vaccine Shortage

More than 600 million people worldwide, primarily the United States and European nations, have been at least partially vaccinated against COVID-19 — meaning that more than seven billion still have not. As wealthy countries envision the pandemic retreating within months — while poorer ones face the prospect of years of suffering — frustration has people around the world asking why more vaccine isn't available.

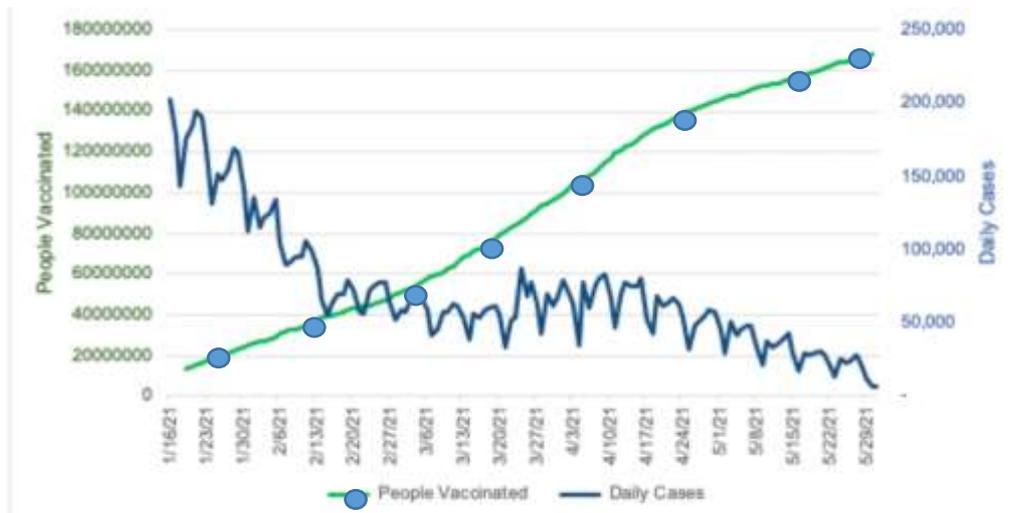
Vaccine making is an exacting process. With a new shot, new production lines and mounting global expectations, it gets harder. Both AstraZeneca and Johnson & Johnson, two of the world's largest pharmaceutical companies, have run into serious production problems with their COVID-19 vaccines — object lessons in the challenges of scaling up in a hurry from nothing to hundreds of millions of doses.

There are only so many factories around the world that make vaccines and only so many people trained in making them — and they were busy before the pandemic. Likewise, production capacity for biological raw materials, cell culture media, specialized filters, pumps, tubing, preservatives, glass vials and rubber stoppers is also limited.

A spike in COVID cases and deaths has led to many countries especially the developed countries intensifying vaccination programmes with massive bulk purchases of vaccines which contributed to the global shortage of vaccines, leaving the poorer nations vulnerable to the pandemic. Experts believe that this global vaccine shortage is likely to persist and have cautioned that the impact of the shortage on global equity is a cause for concern.

Source: Adapted from *World Health Organisation* March 3 2020, *OECD* May 4 2020,  
*The New York Times* May 3 2021

**Figure 1: COVID-19 Daily Cases Hospitalised vs People Vaccinated in the United States**



Source: [www.latentview.com](http://www.latentview.com)

### Extract 2: Vaccination Hesitancy

Prime Minister Lee Hsien Loong announced in a national broadcast on December 14 2020 that Singapore would be receiving the vaccine developed by pharmaceutical company Pfizer and German firm BioNTech. With an eye on more batches of COVID-19 vaccines arriving in the coming months, the Government has taken pains to lower barriers to getting vaccinated and soften the ground. It has made the COVID-19 vaccine free and voluntary. It also targets to bring in enough to cover all Singaporeans and long-term residents deemed to be medically eligible for vaccination by the end of the year. It hopes that given the huge social benefits of vaccinations, safety management measures ranging from mandatory mask wearing, restrictions on social gatherings and quarantine or isolation order can be gradually eased.

However, vaccines achieve larger public policy goals in curbing disease progression and transmission only when a substantial proportion of the population has been vaccinated. Aside from logistics, public attitudes toward the vaccine may present a host of challenges.

Experts have long studied factors leading to vaccine hesitancy, when an individual decides to delay or reject vaccination despite availability. In 2019, the World Health Organization identified vaccine hesitancy as one of the top 10 global health threats. This threat has been given fresh urgency as anti-vaxxers around the world scuttled national healthcare efforts to keep their populations healthy. A wave of anti-vaccination sentiment swept across many countries including Singapore due to a rise in online misinformation about the COVID-19 vaccines. Some claimed that the COVID-19 vaccine causes infertility or alters a person's DNA. The adverse effects of vaccine misinformation are far-reaching in sowing distrust in science and public institutions. Battling the constant onslaught of COVID-19 vaccine misinformation also has the unintended consequence of diverting governments and public health agencies' attention and resources in coordinating nationwide vaccination programs effectively. To be certain, getting vaccinated is an outcome of a complex individual decision-making process. Those reluctant often lack confidence in the effectiveness and safety of the vaccine and do not see a need for or value of getting the vaccine. They are even more reluctant when the vaccination centres are too far away or when they have to wait in the long queues.

This reluctance towards vaccination might stem from both not having enough information about the vaccine and from being exposed to wrong information.

Source: Adapted from *Channel News Asia* 12 Jan 2021

### **Extract 3: Measures to cope with single-use mask shortage and its effects due to demand surge**

Hoarding and panic buying of masks by mainly richer countries have led to unnecessary use of disposable masks where more and more single-use masks are worn and discarded, thus further ramping up demand for masks.

Successful awareness campaigns to manage COVID-19 have also caused a dramatic surge in those now willing to don single-use masks in developing countries. These developments would further worsen global shortage of single-use masks and its effects unless urgent measures are implemented.

#### Price control

Some countries such as South Korea and Taiwan have decided on imposing a price control on private sales of masks to ensure affordability of single-use masks.

#### Subsidy & grants

Countries such as the US considered the use of subsidy and grants to encourage single-use mask manufacturers to expand production.

While urgent action by governments is required to achieve sufficient masks for the world population at affordable prices, there is also a worry that some of these actions may not necessarily lead to a better outcome than market forces.

Source: Adapted from *Channel News Asia* 13 Nov 2021, *Harvard Business Review* 6 May 2021, *The Conversation* 24 April 2020

## Questions

- (a) With reference to Extract 1, explain either one demand factor or one supply factor that has contributed to the global mask shortage. [2]
- (b) With reference to Extract 1:
- (i) Using the concept of price elasticity of supply, explain why the global vaccine shortage is likely to persist. [3]
  - (ii) Explain the possible impact of the global vaccine shortage on the global price of vaccines. [2]
  - (iii) Explain how this change in global vaccine price identified in (ii) could affect the expenditure on vaccines by developed and developing countries differently and comment on the impact of this difference on global equity. [6]
- (c) With reference to Figure 1 and with the use of a production possibility curve, explain how the increase in the number of people vaccinated can impact potential economic growth in a country. [4]
- (d) With reference to Extract 2:
- (i) Explain the possible factors an individual considers when making a rational decision about consuming vaccination and comment on whether an individual can make a rational decision regarding his or her consumption of vaccination. [6]
  - (ii) “This reluctance towards vaccination might stem from both not having enough information about the vaccine and from being exposed to wrong information.” [10]  
  
Discuss whether free and voluntary vaccination is the best way to improve society’s welfare in a country where vaccination hesitancy is present.
- (e) In light of a possible trade-off between efficiency and equity, discuss whether imposing a price control or allowing market forces to respond to a surge in demand would result in a more desirable allocation of single-use masks in a country. [12]

**[Total: 45 marks]**

## Question 2: Putting Migration into Perspective

### Extract 4: International Pursuit of Happiness

Migration is the movement of people, especially workers, between countries. In 2019, 270 million people in the world were migrants—defined as people not living in their country of birth. The migrant population has increased by 120 million since 1990. However, the share of migrants in the world's population has hovered around 3 percent over the past 60 years. A significant part of international migration takes place over long distances and, in particular, from emerging markets and developing economies toward advanced economies.

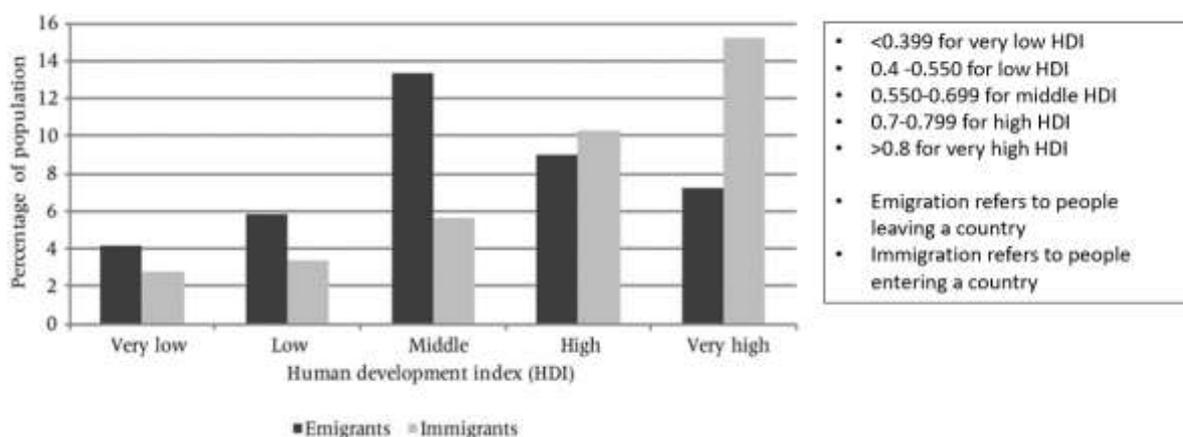
Migration has enormous potential to improve the lives of migrants themselves, natives in receiving countries, and those whom migrants leave behind. However, theories of migration rely to a significant extent on assumptions about the relationship between standard of living and material wellbeing.

For example, the Push-pull models of migration describe both those factors which would tend to increase the magnitude of welfare gains from migrating and factors constraining the ability of people to access those gains. Richer countries attract more immigrants. However, migrating to another country is very costly. Countries with much lower incomes have lower emigration toward advanced economies. This suggests that people get trapped in poverty since they are deprived of the resources needed to overcome migration costs. The costs of migration also include geographical and linguistic barriers which together explain a large share of the migration trend.

Measures of income like real GDP per capita are imperfect indicators of welfare. Over the past few decades, economists have offered alternative ways to investigate human welfare. One approach has been to devise and use more inclusive and less materialistic indices to supplement the old standard of real GDP per capita like the Human Development Index (HDI). However, the correlation between HDI and real GDP per capita is 0.95, indicating a strong relationship. With HDI and real GDP per capita so similar, switching to HDI would not seem to change any conclusions.

Source: *IMFBlog*, 19 June 2020

**Figure 2: Association between HDI and migration patterns of countries**



Source: *Population & Development Rev*, Volume: 45, Issue: 4, 08 October 2019

### **Extract 5: Migration to Advanced Economies can Raise Growth**

Productivity is the most important determinant of economic growth, and in turn, of living standards more generally. As Paul Krugman—Nobel Laureate in economics—once put it, “Productivity isn’t everything, but, in the long run, it is almost everything.”

A new study published in the April 2020 World Economic Outlook looks at the effect of overall immigration (which is mostly driven by economic reasons) into advanced economies. The study finds that immigrants in advanced economies increase both the level of production and the level of productivity of the country. Specifically, it shows that a 1 percentage point increase in the inflow of immigrants relative to total employment, increases a country’s level of production by almost 1 percent by the fifth year.

That’s because native and immigrant workers bring to the labour market a diverse set of skills, which complement each other and increase productivity as well as innovation. OECD simulations additionally indicate that even modest productivity increases from immigration benefits the average income of natives. While we often think of international migrants as primarily a source of labour, they are more than just workers. They also play diverse roles such as investors and consumers and tax-payers.

While migration brings big gains to recipient countries and provides an opportunity for a better life to migrants, it may also create distributional challenges in local labour markets. Migration can potentially depress wages in the short run and displace some native workers who compete with them. They can also impose short-term fiscal costs and, in some cases, increase the crime rate.

Nonetheless, active labour market and immigration policies geared toward integrating immigrants, such as language training and easier validation of professional titles, can help build even better outcomes from immigration in recipient countries. Integrating migrants into the labour market is key to achieving their full productive contribution, limiting their potential burden on public finances, and reducing their potential impact on crime rates.

Source: *World Economic Outlook*, April 2020

### **Extract 6: Singapore Budget 2020: boost jobs, reduce reliance on foreign workers**

The foreign worker quota for S Pass workers in the construction, marine shipyard and process sectors will be cut. S Pass workers, which are a subset of the foreign workforce, refer to mid-skilled foreigners earning at least \$2,400 a month.

Finance Minister Heng Swee Keat said: "These are skilled jobs, many of which can be done by locals, such as polytechnic diploma holders.

"We created the S Pass category because despite our best efforts, we are not producing enough of such skilled locals. S Passes enable enterprises to top up their workforce with more skilled workers, and to recruit workers with particular skills that locals may lack. "But S Passes should not be a means by which enterprises hire low-cost foreign workers when qualified locals are available."

Mr Heng noted that the number of S Pass holders in the construction, manufacturing, marine shipyard, and process sectors has been growing by 3.8 per cent a year over the past two years. This number could also increase significantly over the next few years as the construction and marine shipyard industries recover and the process sector begins work on projects in the pipeline.

"The growth in S Pass holders must be sustainable. The Government has been working closely with industry and educational institutions to build up a pipeline of local manpower, including mid-career workers. We want them to have fair opportunities to grow, while supporting the manpower needs of enterprises," Mr Heng said.

The announcement of the cuts is made a year in advance to give the sectors time to adjust. The manufacturing sector will not face these cuts now due to economic uncertainties. "But we do want manufacturing companies to make the effort to recruit local skilled workers and technicians too."

Companies that need help finding local graduates or even older workers finding new careers can work with SkillsFuture Singapore and Workforce Singapore. Enterprises with specific needs can also continue to apply for additional manpower flexibilities through initiatives such as the Lean Enterprise Development Scheme. Last year, the foreign worker quota was cut for the services sector.

Source: *The Straits Times*, 18 February 2020

### **Extract 7: Singapore residents' views on environment, work and migration**

A majority of Singapore residents feel that protecting the environment and ensuring that no one is left behind should be prioritised, even if this results in slower economic growth, a study by the Institute of Policy Studies (IPS) showed.

Those in Singapore who were younger, more educated and earned higher incomes were more likely to agree that protecting the environment should be given priority. "It is likely that (the lower-income) were more concerned about their own livelihoods and therefore, chose to protect jobs and the economy," said the research team.

In addition, more Singapore residents - compared with 2002 and 2012 - say that the Government should ensure that all are provided for, instead of taking the view that the onus should be on people to provide for themselves.

"Singaporeans want competition and meritocracy, but at the same time, they are also expecting a more compassionate way to address our socio-economic needs," IPS research associate Melvin Tay said at a media briefing on Wednesday. This shift could likely be due to greater awareness, especially in the last two to three years, of groups in the bottom 20 per cent of the income spectrum who are struggling financially, added Dr Mathews, head of the IPS Social Lab.

On immigration, about 82.3 per cent of Singapore-born respondents said the government should give priority to citizens over immigrants when jobs are scarce. In comparison, 69.5 per cent agreed with the statement in 2012. A majority of naturalised citizens and permanent residents in Singapore - 66.2 per cent - also agreed with this view.

Groups that were most likely to strongly agree with the statement were the unemployed, followed by the self-employed. "One possible reason for this trend could be these 'sandwiched' groups are among the most likely to face competition for jobs from foreigners or immigrants in Singapore's labour context," said the researchers. These groups usually compete for jobs that are also sought by immigrants with S Passes, which allow mid-level skilled staff to work in the Republic.

Source: *The Straits Times*, 4 February 2021

## Questions

- (a) (i) State the factors that are included in the Human Development Index (HDI) measure. [3]
- (ii) With reference to Extract 4, explain how the HDI is a better measure of standard of living than the use of real GDP per capita and comment on whether this is always the case. [6]
- (iii) With reference to Figure 2 and Extract 4, explain the relationship between HDI and emigration level. [4]
- (b) With reference to Extract 5:
- (i) Distinguish between the level of productivity and the level of production of a country. [2]
- (ii) Explain why productivity might be higher in an advanced economy than in a developing economy and comment on whether this trend may change over time. [6]
- (iii) Explain how migration can impose fiscal costs. [2]
- (c) The main policy instruments available for any government to meet its macroeconomic objectives are fiscal policy, monetary policy and supply-side policy. [10]
- Discuss whether the cut in foreign manpower growth is the best policy to improve the employment opportunities for Singaporeans.
- (d) "A majority of Singapore residents feel that protecting the environment and ensuring that no one is left behind should be prioritised, even if this results in slower economic growth." (Extract 7) [12]
- Discuss the extent to which you agree with this view.

[Total: 45 marks]

~End of Paper~