**Question 2: Economic growth and digital transformation**

**Table 2: Selected economic indicators for China and Singapore (2015-2017)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **2015** | **2016** | **2017** |
| **China** |  |  |  |
| Real GDP annual growth rate (%) | 6.9 | 6.7 | 6.7 |
| Rate of unemployment (%) | 4.1 | 4.0 | 3.9 |
| Annual rate of inflation (%) | 1.4 | 2.0 | 1.6 |
| Consumption (% of GDP) | 52.8 | 54.0 | 53.2 |
| X+M (% of GDP) | 36 | 37 | 38.1 |
| Gini Coefficient | 0.462 | 0.465 | 0.467 |
| Human Development Index (Ranking) | - | 86 | 86 |
|  | | | |
| **Singapore** |  |  |  |
| Real GDP annual growth rate (%) | 2.9 | 3.0 | 3.7 |
| Rate of unemployment (%) | 1.8 | 1.9 | 2.2 |
| Annual rate of inflation (%) | -0.5 | -0.5 | 0.6 |
| Consumption (% of GDP) | 47.3 | 46.8 | 46.0 |
| X+M (% of GDP) | 329.4 | 304.5 | 318.8 |
| Gini Coefficient | 0.463 | 0.458 | 0.459 |
| Human Development Index (Ranking) | - | 8 | 9 |

Source: *Various*

**Extract 6: China’s economic slowdown and rebalancing**

China has so far managed a gradual economic slowdown. Looking at the demand-side of growth, investment has long been a major driver in China. A gradual rebalancing from investment-driven to consumption-driven growth is needed to avoid any further over-allocation of capital and its negative consequences, such as excess capacity in the economy.

While this rebalancing started a couple of years ago, the most recent Government Work Report reiterate the importance of boosting consumption. Consumption tends to be a more stable driver of growth than investment, being less prone to boom-and-bust of business cycles. In recent years, consumption has become the major driver of growth in China, overtaking investment. Nevertheless, the overall contribution of consumption to growth has been relatively stable in the past few decades. Thus, although rebalancing is under way, its pace is relatively slow. This may relate to still very strong motives to save money related to social security coverage that is only partial and the varying quality of public healthcare and education services provided across China. These factors force people to save for their old age, in case of illness or for their children’s education, and so there is lower consumption.

The key question therefore is how to realise the consumption potential in China. Important prerequisites are high employment rates and rapidly growing incomes. While the unemployment rate has long been low in China, there is less information about underemployment, particularly in rural areas, where, by definition, all people are employed. Income growth has been strong in past years, though in 2016 it was relatively weaker, especially in urban areas. The good news, however, is that rural incomes have been continuously growing faster than urban ones, thereby reducing the urban-rural income divide.

Source: *The Telegraph,* 15 March 2017

**Extract 7: Digital China**

China has around 700 million internet users and 282 million digital natives (internet users less than 25 years old) eager to adopt new technology. The massive scale of the Chinese market and a supportive regulatory and supervisory environment in the early years of digitalization made China a global leader in frontier industries such as e-commerce and financial technology.

Digitalisation will continue to transform the Chinese economy by improving efficiency and softening the slowing growth as the economy matures. Over the past decade, China has become a leading global force in several areas of the digital economy. For instance, in e-commerce, only about a decade ago China accounted for less than 1 percent of the value of worldwide transactions; that share is now more than 40 percent. Some early investors in leading Chinese e-commerce players are estimated to have earned returns of thousands of times their initial investment. In mobile payments, penetration among China’s internet users has grown rapidly, from just 25 percent in 2013 to 68 percent in 2016. In 2016, the value of China’s mobile payments related to consumption by individuals was $790 billion, 11 times that of the United States.

The Chinese government spent 430 billion yuan in 2015 to beef up the nationwide internet infrastructure. Another 700 billion yuan will be spent on this effort in 2016 and 2017, and an additional 140 billion yuan will be invested in improving rural internet connectivity until 2020. Putting all these internet-related policies in place could help provide economic growth momentum for China in the years ahead. The internet and its related technologies will change the nature of economic growth, especially as labour costs increase and the country’s population ages. They will create new markets for innovative products and services.

Just a decade ago, there were fewer than 100 million internet users in mainland China, and the penetration rate was just 7 percent. Now, the penetration rate has reached nearly 50 percent.

Sources: *McKinsey Report 2017* and *South China Morning Post,* 3 February 2018

**Extract 8: Singapore - Slower growth expected in 2018**

Growth this year is expected to be slower, The Ministry of Trade and Industry's (MTI) said. The Singapore economy, which grew 2.4 percent in 2016, picked up pace in 2017 on the back of surging global demand for electronic gadgets.

Government forecasters are estimating growth of 1.5 to 3.5 percent in 2018. Externally-oriented services sectors such as finance and insurance, transportation & storage and wholesale trade are expected to benefit from firm external demand, although their pace of growth is also likely to ease in 2018. The MTI said Singapore's external demand outlook is likely to be weaker this year compared with last year. Some risks remain - including concerns over protectionist sentiment and trade policies especially in the United States.

Source: *The Business Times,* 14 February 2018

**Extract 9: Digital transformation in Singapore**

Given the possible external challenges, the Singapore economy may have to turn towards domestic drivers for growth. This will be led by the ongoing expansion in services arising from the digital transformation of the economy. Digital transformation in the economy will add an estimated US$10 billion to Singapore's GDP and increase GDP growth at an annual rate of 0.6 percent by 2021. These findings come from a study by tech giant Microsoft and market researcher International Data Corporation Asia.

As digital technologies continue to play a bigger role in the economy, digital products and services created directly through the use of digital technologies - such as cloud-related products and artificial intelligence (AI) - are poised to make up 60 percent of the country's GDP by 2021, up from 10 percent in 2017. Digital transformation holds additional economic benefits such as increased educational and training opportunities, the creation of higher-value jobs, and opportunities to take up digital-related freelance work.

Microsoft Singapore's managing director said: "Singapore is clearly on the digital transformation fast track. At the same time, businesses in Asia-Pacific are increasingly deploying emerging technologies such as AI as part of their digital transformation initiatives, and that will accelerate growth even further.”

To date, Singapore’s internet penetration rate has reached 82 percent, which is much higher than the global average rate of 50 percent.

Source: *The Business Times,* 21 February 2018

**Extract 10: Digital transformation challenges Asia's inclusive growth**

Inclusive growth entails maintaining growth that creates employment opportunities and helps in reducing poverty. It means the poor can have access to essential services in health and education. It includes providing equal opportunity, empowering people through education and skill development. Some say that digital transformation can play a powerful role in fostering inclusive growth.

However, in the course of digital transformation, income disparity could grow, especially in developing Asian countries where the income gap and inequality in opportunities to access education have been persistent. Digital transformation, characterised by developments of a range of new technologies, is likely to result in job displacement in the labour-intensive industries. Consequently, white-collar workers with sought-after intellectual qualities would be offered higher salaries and benefits, compared to less educated and low-skilled labourers, intensifying the income gap. And, income disparity occurs not only between countries but also within countries because of the unequal provision of education services, especially between rural and urban regions.

Therefore, as long as changes in education do not catch up with technological advancements, the skill-biased technological transformation would affect people with insufficient or unsuitable education, perpetuating the vicious cycle of poverty and inequality. Thus, in order for the workforce to be fully and equally prepared for the technological revolution, increased education spending is an essential condition.

In Singapore, one key area of focus for policymakers will be how to make sure no one is left behind. Several key measures have been put in place in recent years, chief among them being SkillsFuture. Its initiatives, aim to provide a range of opportunities for workers to continue their education and training so that they can improve their skills and incomes throughout their careers. Other measures target improving the position of lower-paid workers and those who have retired from the workforce.

Sources: *The Straits Times*, 27 Sep 2015 and 13 May 2017

**Questions**

|  |  |  |
| --- | --- | --- |
| **(a)** | With reference to Table 2: | |
|  | **(i)** | Compare the changes in Real GDP for China and Singapore over the period indicated. [3] |
|  | **(ii)** | State and comment on the likely relationship between Singapore’s Real GDP growth rate and inflation rate between 2016 and 2017. [3] |
| **(b)** | Using AD/AS analysis, explain **two** intended consequences of rebalancing in the Chinese economy and use an AD/AS diagram to explain why rebalancing might not remove the ‘excess capacity’ in the Chinese economy. (Extract 6) [7] | |
| **(c)** | Using Extracts 9 and 10, explain and comment on the impact of digital transformation on the various types of unemployment. [8] | |
| **(d)** | Discuss whether Asian economies can achieve inclusive growth through digital transformation. ……………………………………………………………………………………………………………[10] | |
| **(e)** | **(i)** | From Table 2, identify and explain **one** indicator that is most useful in assessing standard of living. [2] |
|  | **(ii)** | Discuss the view that governmental efforts to promote digital transformation is the best approach to achieve faster growth in standard of living for a country. [12] |

[Total: 45]

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