**Question 2 – Marking Guide**

**Question Answer Marks**

2(a) **With reference to Table 1,**

2(a)(i) **Identify the measures that make up the Human Development Index (HDI).**

*The Human Development Index (HDI) is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and have a decent standard of living*.

The health dimension is assessed by life expectancy at birth (1), the education dimension is measured by means of years of schooling (for adults aged 25 years and more) or expected years of schooling for children of school entering age (1), the standard of living dimension is measured by gross national income per capita (1).

**3**

2(a)(ii) **Compare the Philippines and Indonesia in terms of living standards, and comment briefly on your findings.**

|  |  |  |
| --- | --- | --- |
|  | HDIGNI per capita (2011 PPP $) | Gini coefficient |
| Philippines | 0.7129,540 | 0.479 |
| Indonesia | 0.70711,256 | 0.457 |

Definition of living standards in terms of the level of economic welfare and social well-being of an individual or household, comprising the quantitative (material) and qualitative (non-material) aspects:

Areas of comparison may include:

* **[Explain the relevance of *GNI per capita (PPP$)* for international comparisons of SOL]**

Higher GNI per capita expressed in PPP dollars for Indonesia. GNI (or GNP) is the total income received by the residents of a country, equal to the value of all final goods and services produced by the factors of production supplied by the country’s residents regardless where the factors are located. A higher value suggests that, for the average Indonesian, more goods and services are produced per head, allowing more needs and wants to be satisfied and from which a higher level of utility can be derived per member of the population, contributing to a higher material standard of living, ceteris paribus. The conversion of GNI values into a single common currency by use of PPP exchange rates removes the problem that differing price levels across countries may result in misleading SOL comparisons. It is defined as the amount of a country’s currency that is needed to buy the same quantity of local goods and services that can be bought with US$1 in the United States (the use of US$ as a basis for the conversions is a matter of convention). A PPP exchange rate is an exchange rate between the Philippine peso and Indonesian rupiah that makes their purchasing power equal to the purchasing power of US$1, and therefore equal to each other. That the composition of local goods and services is largely similar in the two countries adds to the relevance and usefulness of the indicator.

* **[Explain the relevance of HDI for international comparisons of SOL]**

Given that the use of GNI per capita alone may be a poor measure of the non-material or qualitative dimensions of living standards, a composite indicator such as the HDI can provide a broader measure of SOL, which allows for more accurate international comparisons of living standards. Both countries achieved a HDI score in the ‘very high’ category, just shy of the world average of 0.718, indicating that, apart from a decent material standard of living, the residents in both countries enjoy quality of life in the health and knowledge dimensions. The HDI is calculated by taking the average over the three dimensions of GNI per capita, health and education. While the residents in the Philippines enjoy a lower level of GNI per capita, the higher HDI score points to a better quality of life in relation to education and health outcomes.

* **[Explain the relevance of Gini coefficient for international comparisons of SOL]**

The Gini coefficient provides an indication of how equally or unequally income and output in a country are distributed, and when used together with GNI per capita, is a key factor underlying the well-being of society. If the wealth and income of a nation are largely concentrated among a small percentage of the population, then large segments of the population will be less able to satisfy their basic needs. A lower Gini coefficient for Indonesia, with a higher GNI per capita, suggests that a more equal distribution of income makes it possible for broader segments of the Indonesian population to enjoy a decent level of income that provides access to essential goods and services, thereby contributing to higher living standards, in comparison with the Philippines.

* The use of HDI and Gini coefficient provides a broad and summary measure of both the material and non-materials aspects of SOL. Apart from the limitations of HDI being made up of ‘statistical averages’, the data does not adequately account for key aspects of living standards to do with poverty, human security, gender disparity or empowerment. Given the socio-economic conditions (e.g. prevalence of rural poverty, economic deprivation or gender inequality) in both countries, the lack of information on these issues may result in misleading conclusions about SOL being made on the basis of findings determined from the data.
* A society’s levels of health and education contribute significantly to standards of living. The level of GNI per capita however does not account for such achievements. One would expect that higher levels of GNI per capita tend to be correlated with higher life expectancies or education attainments, since higher income countries have more resources to provide the necessary health or education for their populations. That the Philippines were able to achieve a higher level of human development (better health and education outcomes) with a lower GNI per capita (albeit higher Gini coefficient) is a departure from such a pattern of relationship. A possible reason is that government policies in the Philippines place a higher priority on public health and education, and the provision of healthcare and education services for the lower income groups.
* One might expect a higher score of HDI to be associated with a lower Gini coefficient value (inverse relationship), since greater equality in the distribution of income and output will improve the access of broad segments of the population to healthcare and education services. Similarly, higher levels of human development in terms of “enlarging people’s choices and enhancing their capabilities” will allow for a larger percentage of the population to partake in the benefits of growth and reduce the amount of inequality explained by the accident of birth. This however is not the case as observed in the data for the Philippines and Indonesia, although statistics of other ASEAN countries (with Vietnam being a notable exception) are supportive of the negative relationship. It is also possible that a country may achieve more equitable outcomes in education and healthcare and far less so in areas of fair wage distribution and social protection, which may account for the relatively higher Gini coefficient.

(b) **Figure 2 provides data on the budget balance among ASEAN countries over the period 2015-2019. Summarise the trends.**

* All the countries recorded annual fiscal deficits throughout the period.
* Apart from the year 2017, Indonesia turned in the worst performance in its budget balance expressed as a share of GDP throughout the period.
* The Philippines saw a deterioration of its budget balance expressed as a share of GDP while Vietnam observed an improvement (or relatively stagnant in the case of Indonesia).

(c) **What is the main characteristic of a positive economic statement? Identify a specific phrase that illustrates such a statement from Extract 8.1.**

**I**dentifying the objective or factual explanation and testing that can be verified or rejected with reference to available evidence as the main characteristics of positive economic statements.

Identifying a valid example from Extract 8.1 – e.g. projected a smaller fiscal deficit of ‘1.76% of GDP’.

(d) **Extracts 7 and 8 describe the expansionary fiscal plans of selected ASEAN countries.**

(d)(i) **With reference to Extract 8.1 and using AD/AS analysis, explain how ‘record government spending’ may be able to ‘overcome risks from a global slowdown and escalating trade war’.**

**[Explain the risks associated with a global slowdown and escalating trade war]**

A global slowdown brought about by a deteriorating economic outlook across major export markets and broader risks of recession abroad will dampen the growth of external demand for Indonesia, which is largely driven by commodity exports. A prolonged and escalating trade war between the US and China created uncertainties and disruptions to supply chains. Even if Indonesia is not integrated in the global value chains, any decline in US or China’s growth due to rising trade tensions will likely hit Indonesia hard given the position of the two countries as major trading partners. The multiplied effects of the trade war and global slowdown will potentially dampen external demand and put tremendous pressure on the Indonesian government’s ability to achieve the desired growth target.

**[Explain what expansionary fiscal plans involve and how they may be able to help the government overcome the risks]**

Expansionary fiscal policy involves the government increasing its spending and/or decreasing taxes to pump-prime the economy.

* ***increase in*** ***government spending on final goods and services*** (Gd) which raises AD directly
* ***increase in*** ***government transfer payments*** (e.g. unemployment benefits) and giving out ***personal income tax rebates*** add to households’ disposable incomes, stimulating income-induced consumption (Cd)
* ***extension of credit guarantees*** to households and firms to boost spending
* ***cut in*** ***corporate tax rate*** increases the expected net returns on investment and leaves firms with more profits, increasing both their willingness and ability to invest (Id).

The introduction of fiscal plans projected at record levels will have the effect of reversing the potential fall in external demand (or counterbalancing the slowdown in external demand) and bolster the rise in aggregate demand in order to ensure that growth targets can be achieved.

* AD/AS diagrams to illustrate.

(d)(ii) Explain how ‘heavier spending and falling government revenues’ (Extract 7) may pose an economic risk to a country both in the short run and in the long run.

**[Explain the impact of ‘heavier spending and falling government revenues’ on the government’s budget position and indebtedness]**

Heavier spending and falling government revenues heighten concerns of fiscal sustainability (fiscal deficit or negative budget balance) and higher levels of government indebtedness from accumulating deficits (a trend observed among ASEAN countries) will bring about adverse impacts on the economy.

**[Explain the short-run risks the economy may be subject to]**

Risks in the short run include:

* Higher debt servicing costs as lenders demand a higher premium (cost of borrowing) would mean that increasingly larger portions of tax revenues need to be used to pay off the debts. Downside risks brought about by supply-side (e.g. plunge in commodity prices) or demand-side shocks (e.g. global slowdown) will increase the risks of default and make the economy more vulnerable during periods of economic downturn.
* Mounting indebtedness may lead to a downgrade of sovereign credit ratings that could severely dampen business and investor confidence. This will not only reduce foreign investments but also trigger an outflow of existing investors as confidence in the government’s ability to pay dips. The economy will be subject to greater risks of job losses and falling incomes.

**[Explain the long-run risks the economy may be subject to]**

High levels of indebtedness not only crowds out private sector spending but restricts the government’s ability to spend on areas (e.g. healthcare, education or productivity) that determine a country’s ability to sustain economic growth and improvements in living standards in the long run.

* The fall in investment growth will constrain the additions to the capital stock of an economy and limit its ability to achieve productivity improvements, the main determinant of long-term potential growth and an essential factor in economic prosperity. The outcome may be a lower rate of potential growth, represented by a smaller outward expansion of the AS curve or PPC.
* The inability of the government to spend on green technologies or sustainable solutions will subject the economy to greater long-term risk in terms of the adverse effects growth may have on resource sustainability, that will constrain the ability of future generations to meet their needs.
* The inability of the government to meet its budget goals will make it more challenging to achieve human-centric economic progress to do with an increase in sustainable and equitable welfare for a country’s population.
  + In emerging economies, record decreases in poverty and a growing middle class have fueled higher aspirations and demands for better public goods; these demands are now clashing with tightening government budget or increased indebtedness.
  + The challenges of of technological change, demographic changes (ageing population) and the complex impacts of globalisation may exacerbate income inequalities.
* Appropriate AD/AS or PPC diagrams to illustrate.

(e) **Discuss the likely impact of technology adoption on the macro-economies of Southeast Asian countries.**

*Question Analysis:*

*New technology is a major driving force of economic growth, with vast potentials for economic and human development. New technology contributes to improving the quality of physical capital among other benefits. While new technology in general contributes to economic growth, in developing countries it is especially important to consider the appropriateness of new technologies to domestic conditions and the possible disruptions and upheavals, at least in the short term, it may bring to labour markets. Capital-using (capital-intensive) technologies use more capital in relation to labour. In developing countries with large supplies of labour they displace workers and increase unemployment, reduce incomes and throw people into poverty, and require skill levels that may be costly and difficult to acquire, as well as incur high import expenditures.*

**[Explain what technology adoption constitutes and the broad characteristics of Southeast Asian countries]**

The adoption of new and emerging technology consists broadly of automation, cloud services, robotics and artificial intelligence (AI) that can dramatically improve productivity and yield better business insights. In AI, which is the ability of machines to exhibit humanlike intelligence, is more likely to change the nature of jobs than to eliminate them outright (Extract 9: AI will make many skillsets and job profiles redundant.)

SMEs contribute to more than 50% of ASEAN’s GDP, employ more than 80% of the workforce and represent 99% of enterprises in key sectors, but on average, SMEs only contribute to 20% of their country’s export value. Largely labour intensive, relatively low labour costs with gaps in workforce digital skills. Increasingly, ASEAN countries have moved in the efficiency-driven stage of economic growth and development, where there is greater emphasis on developing more-efficient production processes and enhancing product quality.

**[Explain the potential benefits of technology adoption for Southeast Asian countries in terms of productivity improvements and long-term economic growth]**

Wider adoption of technology makes it possible for an economy to enhance the readiness and agility with which it adopts existing technologies to enhance the productivity of its industries, with specific emphasis on its capacity to fully leverage information and communication technologies (ICTs) in daily activities and production processes for increased efficiency and enabling innovation for long-term competitiveness.

* Technology adoption provides a major boost to productivity as labour intensive tasks are replaced by technologies made possible through “Industry 4.0”, a digital transformation of manufacturing through next-generation technologies. The internet of things (IoT), artificial intelligence, robotics, and 3D printing can turn factory floors into flexible, self-maintaining operations. The increased efficiency of technology contributes to higher productivity of labour and capital employed in production and has the effect of increasing aggregate supply.
* Technology adoption, such as e-commerce platforms, and the use of AI to project outcomes, such as consumer demand, public health or transportation needs or provide personalised retail services will allow firms to gain access to existing markets as well as to create entirely new industries with new products and services, effectively removing the constraints posed by geographical boundaries (e.g. export markets). This has the effect of boosting aggregate spending and creating employment opportunities.
* AD/AS analysis to explain the impact on real national income – both actual and potential – and employment.

**[Explain the potential costs of technology adoption for Southeast Asian countries in terms of structural unemployment and income inequalities across households and firms]**

* Possibility of increased structural unemployment and wage inequality
  + Technology adoption increases labour redundancy, and in the case of AI, widens skill gaps as the use of augmenting technology changes job profiles and restructures skill requirements. While changing skills requirements may bring about productivity gains, they also exacerbate mismatches between workers and their current jobs, with wide implications across entire labour markets.
  + Workers who are displaced by technology adoption may be faced with the prospects of structural unemployment.
  + Workers with relevant skillsets or access to education and skills upgrading may be able to exploit employment opportunities afforded by technology adoption at the expense of those who possess relatively lower skills. As the demand for workers in technology-enabled sectors increases, the wage gap between high- and low-skilled workers will widen. Workers with the most sophisticated digital skills may be in such high demand that they command wages far above the national average.
* Possibility of increased inequality across firms
  + As earlier waves of digital technology have shown, early adopters of AI can realise major competitive advantages and maintain them over time— particularly if these firms view this new technology as a key business capability and a future source of revenue growth rather than just a means to cut costs. Larger firms are better positioned to do this, given their ability to make upfront investments in experimentation, and realise higher returns on that investment by scaling across the business. This will put smaller firms at a huge disadvantage and create a situation in which the scenario of ‘winner takes all’ becomes more real and ominous. Consequently, there is a growing opportunity cost for organisations and individuals that fall behind in the digital race.
* Appropriate diagrams to illustrate.

The extent of the impact of technology adoption depends on

* how far domestic conditions are able to support the wider adoption of technology
* the ability of the government to implement measures to mitigate the adverse impact of unintended consequences on different economic agents

Despite the huge potential advantages, technology adoption is not always a simple proposition and the eventual impact on employment remains to be seen, apart from legal, ethical or security issues. To fully exploit the advantages, the entire ASEAN region will need to strengthen its digital infrastructure, develop a bigger talent pool with advanced digital skills, and ensure that a thoughtful regulatory framework is put into place. At the same time the government has to be able to address the negative externalities of technological disruption, in particular, mitigate widening inequalities caused by digital disruption. Beyond providing a safety net, governments have to consider other ways to distribute the gains from technology that can limit unemployment. Finally, there is some risk of monopolistic market structures emerging as early adopters lock in talent, acquire smaller innovators, and capture a disproportionate share of the economic surplus.

(f) **Extract 10 outlines the challenges that Southeast Asian countries face in pursuing a knowledge, technology and data-driven growth model. Discuss the extent to which Southeast Asian governments may be able to overcome these challenges through supply-side policies in ensuring that growth is more inclusive.**