Anglo-Chinese Junior College

Department of Economics

H2	Domestic Macroeconomic Aims & Problems
TUTORIAL WORKSHEET 1	

Section A: Discussion Questions

- Question 1: Understanding economic growth
- Question 2: Understanding unemployment
- Question 3: Understanding inflation

Section B: Case Studies

- Case Study 1: The tale of BRICS (2019 ACJC Term Assessment)
- Case Study 2: A Tale of the Two World's Superpowers (2020 NYJC Prelims)

Section C: Essay Questions

- Essay Q1: Circular flow of income and impact of government spending on inclusive growth and unemployment
- Essay Q2:
- Essay Q3: Causes of negative inflation and importance of various macroeconomic aims

Note to students: It is very important for your learning that you thoroughly prepare your answers before tutorials.

Your tutors may separately assign you modules from the SLS to supplement your understanding of the topic.

Section A: Discussion Questions

Question 1: Understanding Economic Growth

Extract 1: IMF lowers forecast for Singapore economy to 3.7% growth this year

The Straits Times, July 22, 2022

SINGAPORE - The International Monetary Fund (IMF) has cut its economic growth forecast for Singapore, in line with its recent warning that it will downgrade its estimates for the global economy later this month.

The IMF said Singapore's economy will grow at 3.7 per cent this year (2022). The latest estimate is less than the forecast of 4 per cent growth the fund had made in May. The IMF said the pace of growth will be slower this year compared with the 7.6 per cent surge in 2021 as trade-related sectors may moderate amid supply constraints, while recovery in the hardest hit sectors - tourism and aviation-related, consumer-facing and construction - has only just begun.

The IMF said growth in Singapore is being driven by pent-up demand as the economy reopens, amid the relaxation of most Covid-19 curbs on mobility. Singapore's skilful containment measures, effective vaccination campaign and decisive policy support helped the economy to recover impressively." However, the fund warned: "The outlook is subject to significant uncertainty and risks are titled to the downside."

Inflation has been driven up by rising domestic cost pressures, as well as external factors such as the war in Ukraine, which has pushed up commodity prices and tightened supply conditions. The IMF said the risks stem mostly from the Ukraine conflict and the related sanctions imposed on Russia, China's growth slowdown, and interest rate hikes in advanced economies to tame inflation. It also said that the threat of vaccine-resistant new Covid-19 variants continues to linger.

With the recovery in domestic demand, the IMF said Singapore's current account surplus is expected to decline to 13.2 per cent of gross domestic product in 2022 from 18.1 per cent in 2021. Current account is the broadest measure of the health of a country's external sector and its ability to meet its foreign payment obligations.

Over the next three to five years, Singapore's GDP growth should converge to 2.5 per cent and inflation stabilise at 1.5 per cent. The fund's managing director, Ms Kristalina Georgieva, said in a blog post on July 13 that the IMF's World Economic Outlook update due on July 26 will cut the forecasts for global economic growth as fallout from Russia's invasion of Ukraine and pandemic-related shutdowns in China reverberate. "It is going to be a tough 2022, and possibly an even tougher 2023, with increased risk of recession," she wrote in the blog post.

MAS managing director Ravi Menon said on Tuesday that a good scenario for Singapore is a mild and short-lived global technical recession: Two consecutive quarters of negative growth that tame inflation.

Questions

(a) Explain the difference between slow and negative economic growth.

(b) With reference to the article above and the use of AD/AS framework, explain the possible reasons for the positive growth forecast for the year 2022.

(c) Explain how the ‘risks’ mentioned in the article (Paragraph 4) may reduce the economic growth forecast in Singapore.

Further Question

With reference to the article above, identify the type of inflation experienced by Singapore and one possible factor that led to this.

Question 2: Understanding Unemployment

Extract 2: Employment growth for Singapore residents slowed slightly in 2019, unemployment edged up: MOM

The annual average unemployment rate for Singaporeans rose to 3.3 per cent, up from 3 per cent in 2018, according to preliminary data released by the Ministry of Manpower (MOM) on Thursday (Jan 30). Manpower Minister Josephine Teo said at a media briefing on Thursday that last year's unemployment rates "are a concern but they are not alarming".

"We must remember the context of better-than-expected employment growth and the absence of a spike in retrenchments. When you put the three together, this suggests that the challenge is not primarily lack of job creation but possible job-skills mismatches," said Mrs Teo. Local employment growth was better than expected, given the economic headwinds and uncertainties, Mrs Teo noted.

Employment of residents grew strongly in services industries such as community, social and personal services, professional services and information and communications, but contracted in industries such as manufacturing and wholesale trade.

The rise in both employment and unemployment suggests that Singapore is operating in a "dual-speed employment market" where demand for workers in modern service sectors like infocomm technology and finance is stronger than in other sectors. "While jobs in these sectors are continually created and hiring patterns are not expected to deteriorate, there is a shortage of jobseekers that bring the technical skills necessary to help businesses achieve their digital transformation goals," he said.

On the outbreak of COVID-19, Mrs Teo said that given its inevitable impact on the Singapore economy, the priority on the manpower front is to mitigate the fallout and support affected workers to preserve their livelihoods. "The outlook has become more uncertain. The COVID-19 virus situation, however, will not last forever. We have to address immediate concerns but keep an eye on the future, so for the longer term, we will help businesses to transform and adapt," she said.

National Trades Union Congress assistant secretary-general Patrick Tay said in a Facebook post that layoffs last year were mainly due to re-organisation, restructuring, and transformation alongside global trade and geo-political uncertainties.

Source: The Straits Times, 31 Jan 2020

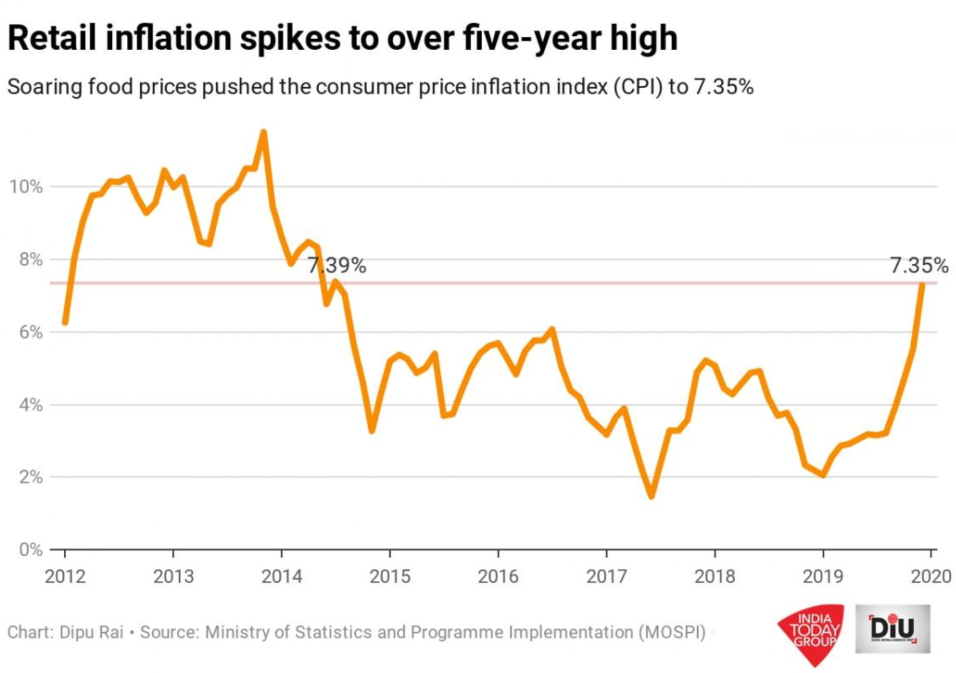
Questions

(a) Explain the possible causes of higher unemployment in Singapore in the next five years.

(b) Discuss the impact of higher unemployment on Singapore’s standard of living.

Question 3: Understanding Inflation

Extract 3: Soaring food, energy prices send India inflation to 5-year high



India's annual retail inflation has accelerated to its highest level in more than five years, boosted by surging food and oil prices, increasing the likelihood of an extended pause in the central bank's interest rate cuts.

The pick-up in inflation to 7.35 percent from 2019 to 2020 adds to the challenges faced by Prime Minister Narendra Modi, who is trying to revive slowing economic growth.

Retail food prices, which make up nearly half of the India's inflation basket, increased 14.12 percent in December from a year earlier. Some vegetable prices, including prices of onions that are a staple in Indian cooking, have increased more than four-fold since June.

Volatile crude oil prices amid tensions between the United States and Iran are likely to add to price pressures in India, the world's third-biggest oil importer, analysts say.

If oil and vegetable prices continue to remain high, then inflation will hover near 6 percent. Oil briefly rose above $70 a barrel this month for the first time since September, and while they have since eased, prices remain elevated compared with last year.

The Reserve Bank of India (RBI) kept its policy interest rate on hold last month, after cutting it by 135 basis points since February 2019, citing inflationary pressures.

Growth is forecast by the government to grow at an 11-year low of 5% in 2019/20 fiscal year ending in March.

Economists say that rising headline and food inflation would soon feed into core inflation – stripping out food and energy prices – which has remained much lower.

Finance Minister Nirmala Sitharaman will present the annual budget for 2020/21 on February 1, and is widely expected to increase spending on infrastructure and cut taxes, which some economists fear could further stoke inflation.

"Clearly the room for monetary easing in the first half of calendar 2020 remains minimal despite growth continuing to remain below potential," said Upasna Bhardwaj, senior economist, Kotak Mahindra Bank, Mumbai.

Source: Al Jazeera.com, 14 Jan 2020

Questions

(a) Describe the trend in consumer price level of India from 2014 to 2019.

(b) Using a diagram and AD-AS analysis, explain why India's inflation rate had risen to 7.35% from 2019 to 2020.

(c) The Reserve Bank of India (RBI) had decided to pause its policy of lowering the interest rate.

Explain how the consumer price level in India might change if the RBI were to continue lowering the interest rate instead.

Section B: Case Study Questions

Case Study 1: The tale of BRICS (2019 ACJC Term Assessment)

Table 1: Real GDP growth rates, annual percentages, year on year

Countries / Year	2012	2013	2014	2015	2016
Brazil	1.9	3.0	0.5	-3.5	-3.4
Russia	3.7	1.8	0.7	-2.8	-0.2
India	5.5	6.4	7.4	8.1	7.1
China	7.9	7.8	7.2	6.9	6.7
South Africa	2.2	2.5	1.8	1.2	0.5

Source: World Bank

Table 2: Human Development Index, by year

Countries / Year	2012	2013	2014	2015
Brazil	0.734	0.747	0.754	0.754
Russia	0.799	0.803	0.805	0.804
India	0.599	0.607	0.615	0.624
China	0.713	0.723	0.734	0.738
South Africa	0.652	0.660	0.665	0.666

Source: United Nations

Extract 1: The Mixed Fortunes of BRICS

BRICS (Brazil, Russia, India, China and South Africa) cover 40 percent of the world's population and more than 25 percent of the world's land. The group can be divided into two —those that took advantage of globalization's march to integrate themselves into global supply chains (primarily China and India) and those that took advantage of globalization to sell their abundant natural resources (primarily Brazil, Russia and South Africa).

For India, instead of focusing on manufacturing, it went the services route instead. Today, its services account for roughly 61 percent of its GDP, with a particular emphasis on IT— at US$108 billion, India is one of the world's leading IT services exporters. Also, the rise of India's middle class resembles that of China's; Indians went from 1 percent of the global middle class in 1990 to 8 percent in 2015, with another 380 million Indians expected to join by 2030.

Other BRICS countries rose mainly on the back of their vast natural wealth, with Brazil selling commodities like soybeans, iron ore, and crude oil on global markets, and South Africa who used its natural wealth — in this case rare gems and metals like gold, diamonds and platinum—to help get its economy on track. And then there's Russia. Thankfully, the country is blessed with abundant energy sources — crude oil, natural gas, metals and minerals—that helped it find its footing. But the fall in commodity prices in 2015 to 2016 has done significant damage in all three countries.

It would be easy to label India and China as the clear winners among the BRICS, but it's not that simple. Yes, India and China have the fastest growth rates of any major economies in the world, and citizens of these countries remain optimistic about the future. But nearly 50 percent of India remain vulnerable to a slide back into poverty, and China's economy has slowed as higher wages make manufacturing more expensive.

Source: Time, 1 Sept 2017

Extract 2: Impact of Industry 4.0 on BRICS

Industry 4.0, the fourth industrial revolution, encompasses a wide spectrum of technological advances across the value-chain. It is also considered as an information revolution, which is the superimposition of big data, connectivity and information on top of industrial automation.

Traditional manufacturing and production processes are undergoing digital transformation with widespread adoption of information and communication technology. This will result in many changes in the existing manufacturing models and will have major impact on the socio-economic factors in BRICS that would need to be proactively addressed.

An adoption of Industry 4.0 will result in elimination of lower skilled jobs through automation and the increase in productivity could result in an overall reduction in the number of jobs available. Research has predicted that the proportion of jobs threatened by automation in India is 69%, while it is 77% in China.

Two-thirds of all jobs are susceptible to automation in the developing world, but its effects are moderated by slower technology adoption. With the increased automation levels, Industry 4.0 will result in shifting of key value adding activities back to the developed economies which will result in further reduction of jobs in the low cost manufacturing countries.

Given that there is high dependence on lower skilled labour in the BRICS, (e.g only 2% of the labour in India is skilled), re-skilling or up-skilling will be required by all the developing countries to make them ready for the new requirements. For countries like South Africa where the unemployment rate is close to 25%, such reduction in the number of lower-skilled jobs would further fuel the challenge.

Although recent headlines regarding Industry 4.0 may have been negative, the major demand drivers remain quite strong in many emerging markets and are likely to stay that way for some time to come. For example, it has been forecasted that roughly two-thirds of future automotive industry growth until 2021, will come from the developing Asia-Pacific region, including 40 percent from China alone.

All the BRICS nations have realized the importance of skill development in achieving economic growth in the future and have taken various measures to bridge the skill gap. From increasing education expenditure to increasing network of vocational trainers by launching nation-wide programs, initiatives have been launched to make the labour force industry-ready.

Source: The Economic Times, Sep 22, 2016

Extract 3: Comparing living standards in BRICS

In terms of social development, BRICS economies have shown a mixed performance. In the Social Progress Index (SPI)[1] developed by the Social Progress Imperative, a non-profit organization based in Washington, Brazil (70.89) surpasses all the other member countries, followed by South Africa (65.64), Russia (63.64), China (59.07) and India (53.06).

India, which belongs to the group of low social progress countries, falls behind the other BRICS countries in both Basic Human Needs and Foundations of Wellbeing. Areas such as Water, Sanitation and Shelter have been challenging for India primarily due to lack of access to piped water, improved sanitation facilities, electricity and household air pollution. In addition to this, India has about 15% of its population which is undernourished, as compared to Brazil, Russia and South Africa which have only 5% undernourished people. Child mortality rates are also very high in India relative to the other BRICS countries.

Another major aspect of a nation’s wellbeing is its environmental sustainability, which could be measured by its amount of greenhouse gas emissions. A World Bank study in 2014 found that environmental degradation like air pollution, water pollution, deforestation and natural disasters cost India $80 billion per year, or nearly 6% of its economic activity. Of that total, 52% is attributable to air pollution. India’s air pollution is not only far worse than any of the other BRICs, it is so intense that it is reducing plants’ ability to photosynthesize sunlight, cutting crop yields in half.

On the dimension of Education, India sees the highest inequality in education among the other BRICS economies. Another major aspect which is crucial to a nation’s prosperity is Tolerance and Inclusion. While India shows a weak performance on this front compared to other countries, it stays far ahead of China and Russia on personal rights such as political rights, private property rights and the like.

A cross country comparison for the BRICS shows that economic progress may not translate into a higher quality of life for these economies.

Since social progress of a nation may also affect its economic progress, it is crucial for nations to undertake measures in the social spheres in which they are lagging behind. While India still

[1] Social Progress Index measures the extent to which countries provide for the social and environmental needs of their citizens by using 51 social and environmental indicators. The score is out of 100, the higher the value, the better the country fares in terms of social progress.

needs to invest its resources in meeting its basic human needs, countries such as China and Russia need to bring about institutional changes that could protect the rights and freedom of its people. The bloc needs to address environmental issues by building energy efficient technologies that could lead to the path of sustainable development.

Source: World Economic Forum, 19 April 2016

Questions

(a) **(i)** Compare the real GDP in China and India with that of Brazil and Russia from 2012 to 2016. **[2]**

(ii) Explain whether the data provided in Table 1 and 2 is sufficient to show that India has achieved sustained and inclusive economic growth. **[4]**

(b) Extract 1 states that "the fall in commodity prices in 2015 to 2016 has done significant damage in all three countries."

With the aid of a diagram, explain the above statement with respect to Brazil's real GDP. **[6]**

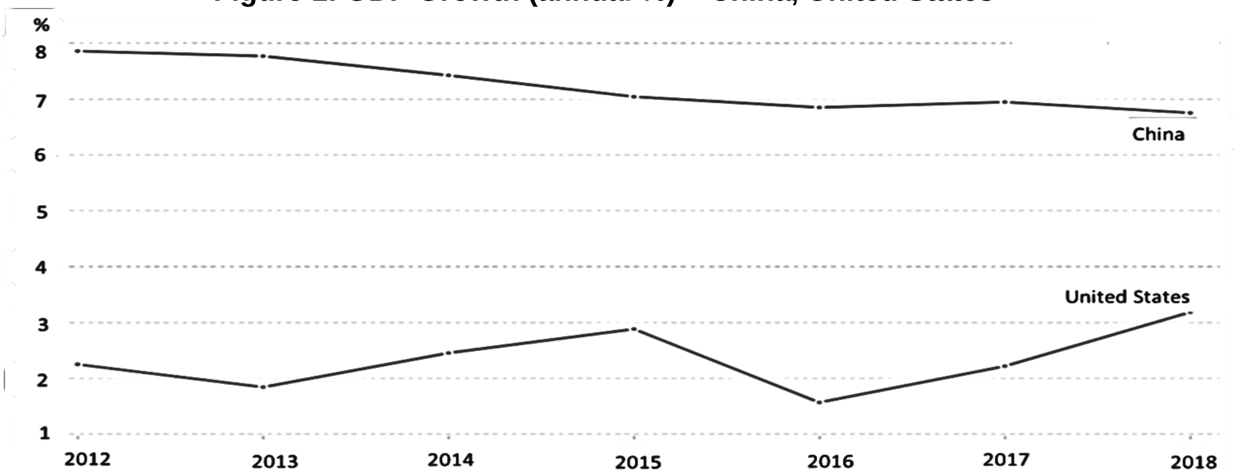
(c) With reference to the information where appropriate, discuss the impact of Industry 4.0 on unemployment in different countries. **[8]**

(d) Discuss the view that real GDP reflects the well-being of a country's citizens. **[10]**

[Total: 30 marks]

Case Study 2: A Tale of the Two World's Superpowers [2020 NYJC Prelims]

Figure 1: GDP Growth (annual %) – China, United States



Source: World Bank

Table 1: Selected 2018 Economic Indicators in China and US

	China	US
Unemployment rate (%)	4.3	3.9
Inflation rate (%)	2.1	1.9
Gini Coefficient	0.468	0.49
Life expectancy at birth, total (years)	76.7	78.5

Source: Various Sources

Table 2: Gross Savings (% of GDP)

	2015	2016	2017	2018
China	45.5	44.5	45.0	44.6
United States	20.3	18.7	18.7	18.6

Table 3: Import of Goods and Services (% of GDP)

	2015	2016	2017	2018
China	18.1	17.3	17.9	18.3
United States	15.3	14.6	15.0	15.3

Source of Tables 2 and 3: World Bank

Table 4: China's Gini coefficient

Year	2015	2016	2017
Gini Coefficient	0.462	0.465	0.467

Source: CEIC, 2018

Extract 1: US-China trade war starts to drag on Asian growth

For months, as the trade war between the US and China escalated, other export-reliant Asia-Pacific economies watched and worried about a knock-on effect on their sales. In recent days, that contagion has become real, as China's growth slowdown hit home around the region. Hyundai, the South Korean automaker, recently announced a plunge in third-quarter earnings that it blamed on weak sales in China and the US, its two biggest overseas markets. In Japan, Canon, the copier and camera company, has voiced worries about the ripple effect the US-China dispute might have on the global economy, if it were to drag on, slowing growth in the world's two biggest economies.

Source: Financial Times, November 2018

Extract 2: China's Artificial Intelligence push raises fears over widespread job cuts

Automation has replaced the jobs of up to 40 per cent of workers in some Chinese industrial companies over the past three years, highlighting the effects of Beijing's push to upgrade its technological base and become a world superpower in artificial intelligence. Several companies in China's export-manufacturing provinces of Zhejiang, Jiangsu and Guangdong have cut 30 to 40 per cent of their workforce as a result of automation.

However, authorities have quietly raised concerns about the lay-offs caused by such policies. Lu Mai, the Secretary General of China Development Research Foundation, said: "If workers' skills cannot be upgraded, we will not only not benefit from technological progress, but also suffer from inadequate employment and the deterioration of the distributional structure." Such lay-offs can also be seen in healthy manufacturing companies especially among the low-skilled elderly workers and under-educated young workers.

Source: Adapted from Financial Times, August 2018

Extract 3: US employment growth slows

A key part of President Trump's economic strategy during his first three years (2017–2019) was to boost economic growth via tax cuts and additional spending, both of which significantly increased federal budget deficits. The positive economic situation he inherited from President Obama continued, with a labour market approaching full employment and measures of household income and wealth continuing to improve further into record territory. President Trump also implemented trade protectionism via tariffs, primarily on imports from China, as part of his "America First" strategy.

However, US job growth slowed in December after surging in the prior month. Nonetheless, the pace of hiring is enough to keep the longest economic expansion in history on track despite a deepening downturn in a manufacturing sector stung by trade disputes.

The Labour Department's closely watched monthly employment report also showed the jobless rate holding near a 50-year low of 3.5%, but wage gains was subdued. The Federal Reserve (Fed) assessed that both the economy and monetary policy are in a "good place."

"The report suggests a moderate pace of economic growth," said Michael Feroli, an economist at JPMorgan in New York. "The Fed is comfortably on hold."

Reports on housing, trade and consumer spending have suggested that the economic expansion, now in its 11th year, is not in immediate danger of being derailed by a recession.

Worries that a downturn might be triggered by the Trump administration’s 18-month-long trade war with China spurred the Fed to cut interest rates three times in 2019.

Indeed economic growth did slow last year, throttling back to 2.1% in the third quarter from 2018’s brisk pace of nearly 3%. Now, though, with a Phase 1 deal with China set to be signed next week, policymakers are more confident in the outlook and last month signalled borrowing costs could remain unchanged at least through this year. Economists are pegging growth at the end of last year around a 2.3% rate.

Source: Adapted from Reuters, January 2020

Extract 4: African-American economic gap remains despite US expansion

The mass protests that have gripped America in the wake of George Floyd’s death in Minneapolis have been centred on outrage at police brutality and racial injustice targeting black communities.

But they have also been underpinned by frustration that African-Americans still suffer from a large economic gap compared with the rest of the country when it comes to wealth, income and wages, even after the longest US expansion on record.

“What we have experienced since the last recession is that those disparities were not minimised, we did not see systematic improvement in people’s economic wellbeing, and we are seeing some of the ramifications of this now,” said Amanda Cage, chief executive of the National Fund for Workforce Solutions, who has spent years working to help distressed neighbourhoods in Chicago’s South Side.

President Donald Trump touted his record on economic issues affecting black communities in a tweet, saying he had done “more” for them “than any president since Abraham Lincoln”, citing the “opportunity zones” program. These opportunity zones are designated areas in low-income neighbourhoods, which tend to be predominantly black and Latinx. The Trump tax bill offers tax breaks to developers who “invest” in those communities. The idea is that new investment will help create jobs in neighbourhoods that need economic growth. However, critics say investments in luxury apartment buildings aren’t exactly beneficial to the low-income residents.

Many economists still describe the past 10 years as the US recovered from the Great Recession as a missed opportunity. African-American households are still disproportionately reliant on low-wage labour, under-represented in business and equity ownership, and unable to share in many of the gains happening elsewhere. That is on top of endemic concerns about lack of access to quality healthcare, housing and education.

Source: Adapted from Financial Times, June 2020

Questions

(a) With reference to the data provided, explain how you would expect the size of the multiplier to differ between the US and China. **[3]**

(b) With reference to Extract 1 and the use of a diagram, explain the extent of the impact of the US-China dispute on the Asian economies. **[4]**

(c) (i) Explain what the values for the Gini coefficient mean. **[1]**

(ii) With reference to Extract 2 and Table 4, explain how automation can affect China's Gini coefficient from 2015 to 2017. **[4]**

(d) Using economic analysis and based on the evidence provided, assess whether citizens in China have a higher standard of living than those in the US. **[8]**

(e) *[To revisit after the next lecture topic on macroeconomic policies. For students who would like to try this question, think about the impact on AD/AS of the US economic policies and its final outcome on real national income.]*

The US has enjoyed the longest economic expansion in history since the Great Recession. However, persistent inequalities has led to economic instability and social unrest.

In view of the above, discuss whether there is a need for the US to change its economic policies in order to achieve inclusive growth. **[10]**

[Total: 30 marks]

Section C: Essays Questions

Question 1:

(a) Using circular flow of income, explain how COVID-19 impacted Singapore's economic growth and unemployment. **[10]**

(b) Discuss whether an increase in government spending during COVID-19 will have a significant impact on inclusive growth and unemployment in Singapore. **[15]**

(2020 CJC Prelims)

Question 2:

While Singapore's national income and labour productivity grew over the past decade, she confronts the challenges of a shrinking workforce and declining productivity growth.

(a) Explain how the challenges above will affect a country's economic growth. **[10]**

(b) Discuss the extent to which economic growth determines the standard of living in Singapore. **[15]**

(2021 RVHS Prelims)

Question 3:

Singapore's headline inflation turned negative with authorities expecting inflation to remain subdued on the back of lower oil prices and impact from the COVID-19 outbreak. Weak labour market conditions also dampened consumer demand, thus capping price increases for discretionary goods and services.

Source: *Channel News Asia*, 26 May 2020

(a) Explain **one** internal factor and **one** external factor that are likely to have contributed to negative inflation in Singapore. **[10]**

(b) Discuss the view that governments should only pursue price stability as the macroeconomic aim. **[15]**

(Adapted 2022 TJC Prelims)