**Chapter 10 Inflation**

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**1. Inflation**

**1.1 Inflation**

- A sustained, inordinate and general increase in prices. When this occurs, it implies that the price level has increased over the previous year and this is measured by the consumer price index.

- 2% - over the previous yr, 102% - base year comparison (2009)

**1.2 Degree of Inflation**

- Mild: Single digit and non-distortionary to relative price. (below 2%)

- Galloping: Price increasing beyond 2 digit annually

- Hyperinflation: Extremely high (more than 100%) inflation.

**1.3 Deflation**

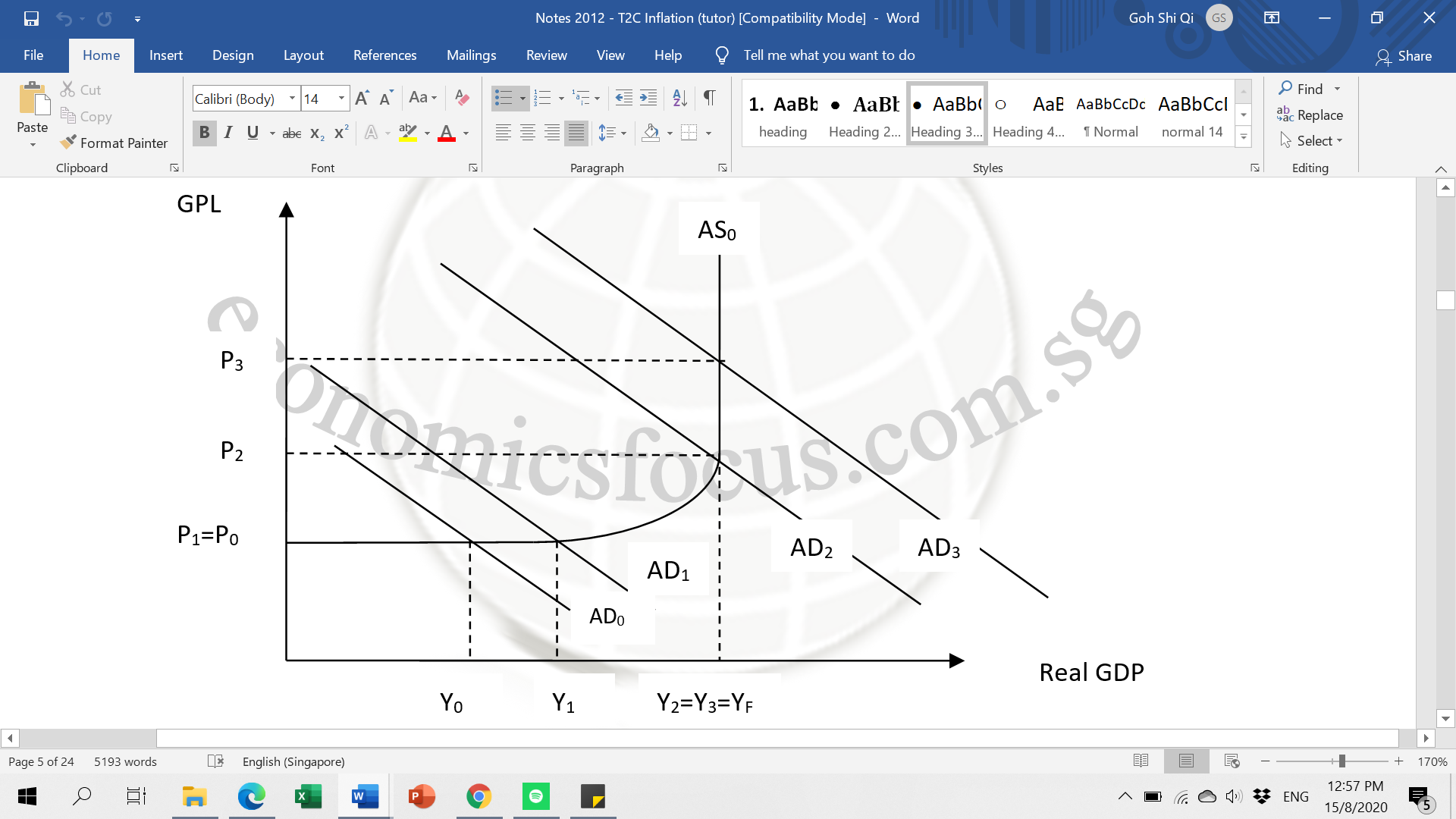
- This occurs when the real inflation rate is negative, a period of falling price.

- Inflate the economy – raise the GPL by raising AD as deflation means real GDP has decreased

**2. Causes of inflation**

**2.1 Demand-pull inflation**

- This occurred as a result of the rise in aggregate demand, leading to an excess demand condition and a rise in price level, only when the economy is experiencing rising cost condition or full employment condition.



- As seen from the diagram, the rise in AD from AD₀ to AD₃ will lead to inflation (rise in price level) as the GPL has risen from Po to P2 ot P3 when the economy is experiencing rising cost condition from Y₁ to Y₂ or it is at full employment at Y3=Yf

- Rise in AD is mainly contributed by excessive ­ in Xd/FDI or rise in local consumption and government expenditure

lower interest rate – lower cost of borrowing – induce consumption – increase in AD – excess demand condition – increase in price (GPL)

**2.2 Cost-push inflation**

- Caused by a rise in cost of production, which can be due to an increase in unit labour cost or an increase in cost of raw materials. The increase in cost of production will lead to a reduction in aggregate supply, contributing to a shortage or excess demand condition leading to increase in price level.

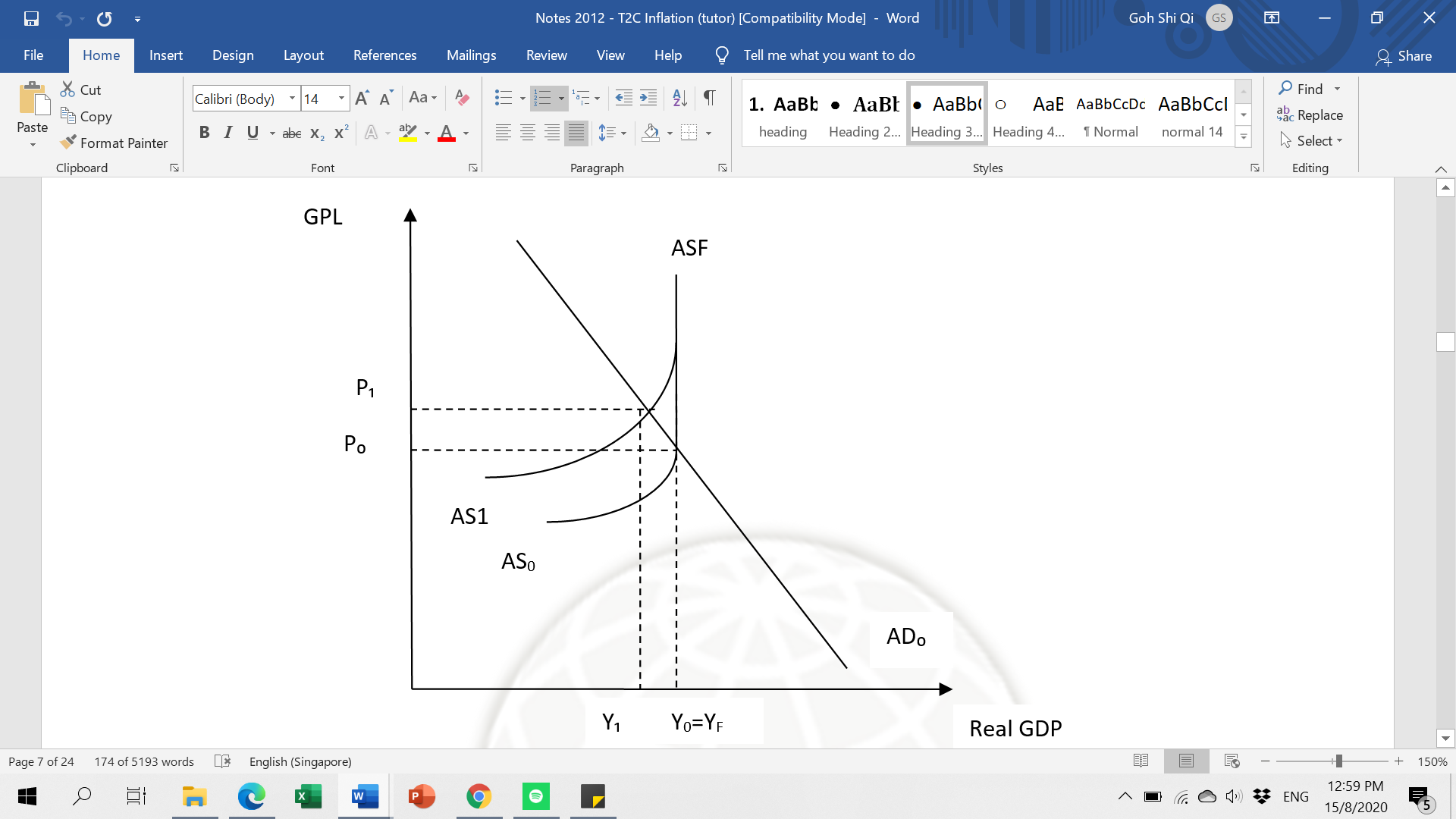
- There are two ways which cost-push inflation can develop, namely the wage-price spiral and price-wage spiral

- Wage-price spiral happens when powerful union demands for higher wages but is not matched by a corresponding higher increase in productivity. It leads to higher prices and inflationary pressures. Higher prices then lead the unions to again demand higher wages, and the spiral continues.

- Price-wage spiral happens when big business corporations increase price to increase their profit margin. Cost of living rises and unions may ask for higher wages to make up for loss of living standards. Cost of production and prices eventually will rise.

- solution – control wage increment through national wage council

- set price control – control the appreciation – to curb imported inflation



As seen from the diagram, the rise in cost of production will lead to a fall in aggregate supply from AS0 to AS1 which will create an excess demand condition at P0 which will prompt the rise in price from P0 to P1.

This diagram is used to explain how cost-push inflation can be affected by structural rigidities, asset-based inflation, imported inflation and tax-based inflation.

- The rise in cost of production due to rise in wages or cost of resources (all other reasons that affect COP will lead to rise in COP like imported inflation) will cause a leftward shift of the AS from AS₀ to AS₁, which means that there is an excess demand condition at P₀ and thus inducing rise in price level from P₀ to P₁. While the real GDP falls from Y₀ to Y₁ (no change in potential capacity – YF remains the same)

**2.3 Structural Rigidities**

- Rigid structures restrain the mobility of resources causing shortage and rising cost condition. (occupational and geographical immobility of resources)

- The increase in cost may be passed onto the consumers as increase in price level.

- Structural rigidities is the result of the change in the nature of the economy when its experiences a change in the production method or focus of the industries.

**2.4 Asset-based inflation**

- The rise in the price of assets and luxury goods will cause the individuals to raise the price of their factor services as they peg their factor cost to the price of the luxury goods. Therefore, the rise in the price of assets will raise the value of mortgage and cost of payment, inducing a rise in rental cost. Consequently, there will be a round of rise in prices.

- Why price of assets will rise?

→ inflow of hot money – increase the dd for local currency – save more in the bank and this will increase the money supply – lower the interest rate – lower cost of borrowing – increase in demand for loan – increase in demand for property – increase in the price of property

**2.5 Imported inflation**

- The rise in global price of foreign goods (Global market demand/supply – difficult to regulate as Singapore is a price-taker) and resources will raise the cost of imports and lead to a higher level of cost of production which will induce a cost-push inflationary condition. (how SG solve imported inflation – Appreciate SG $ - lower the price of imported gd in local dollar)

- (seek for alternative resources, stock-piling)

**2.6 Tax-based inflation**

- Increase in indirect tax like GST will encourage producers to raise their price of goods and services. This will trigger the cost of production at respective production and distribution especially in industries where value of tax is not separated from the price of goods (Listed price: $2.00, GST: $0.14)

2.7 Concept of Stagflation

**Explain how the stagflation occurs due to stagnation of the growth of the AD components and rise in cost of production. (12)**

In the late 1980’s, Japan experienced high wage rate increment and was able to generate sufficient growth in the early years to substantiate the wage increment till the burst of the asset bubble. The wage increment went on a wage price spiral that induces cost-push inflation while the economy’s consumer and investor confidence is tarnished, stagnated and lowered. Consequently, the economy experienced stagflation, a condition of cost push inflation and stagnated or reduction in aggregate demand.

Draw diagram

**3. Internal effects of inflation**

**3.1. Impact on Investment, Production and Employment (Beneficial effects of mild inflation)**

- Inflation stimulates investment, raising production and national income when inflation rate is low as it induces growth of profitability

- As production cost lags behind product prices, producers can pass on the rising cost condition to the consumers, enabling to gain greater revenue and profitability

- Higher price level will raise revenue if there is price-inelastic demand condition and when increase in total revenue is higher than the increase in cost of production, profitability will rise and entrepreneurs are more willing to invest because of their expectations of higher profit margins.

- However, uncertainty may lead to a fall in investment as hyperinflation will disrupt the derivation of cost of production, making it difficult to set price which discourage trading activities and determine cost of investment which undermines investment. (hyper-inflation sets in)

**3.2 Unequal Re-distribution of Income**

- With inflation, the real value of wealth and purchasing power will be distorted, creating unequal distribution of income and wealth

- When there is inflation, fixed income earners can only purchase fewer goods and services than before, real income falls.

- Businessmen or entrepreneurs stands to gain from inflation because production costs usually lag behind product prices; reason being that wage and raw materials are usually fixed by agreement which take time to revise.

- Debtors gain as inflation leads to a fall in the value of money, and therefore the real value of their debts fall. Creditors receive less in real terms of what they would otherwise receive the settlement of the debt if there is no inflation.

- Appreciation of assets will raise the wealth of higher Y group while the rise in price of resources will lower the real income of the poor

- Inflation will also discourage willingness to save as future value of money is lower and undermine the ability to save as purchasing power has decreased

**3.3 Reduction in Level of Saving (ability and willingness to save)**

- People will be discouraged from saving, as wealth in other less liquid forms (e.g. real asset, stocks) would be preferred.

- Individuals are unwilling to save as the future value of money is lower and therefore they rather increase the consumption now and save less. Their ability to save will be compromised too when inflation occurs since their purchasing power is lowered and to maintain the current level of standard of living, individuals will increase their expenditure on consumption and save less. The reduction in saving will lead to the reduction in the source of fund for investment.

**3.4 Increase Cost of Living and Lower Standard of Living**

- Persistent increase in prices will lead to an increase in the cost of living. If the income of a family is unchanged, then its living standard will be lowered. (real per capita income decreases)

**3.5 Undermine the Main Function of Money**

- Erode the main functions of money due to inflation as their confidence in the currency is eroded. Money cannot serve as a medium of exchange, an unit of account, standard of deferred payment as people feel the value of money cannot be sustained, undermining the purchasing of the consumer

**3.6 Misallocation of Resources**

- Inflation distort the production and corruption activities leading to inefficient allocation of resources due to speculative activities

- As the industries will plough in areas of production which experiences inflation, allowing the firms to reap higher revenue. Consequently, there will be excess increases in production in these industries.

- his will lead to excess supply production condition, the occurrence of misallocation of resources when the demand falls.

**3.7 Increase in Cost of Adjustment to Adapt to Inflation**

- Increase in the cost of resource allocation as cost of adjustment to inflation, as there is a need to adjust production and competitive activities. In a period of inflation where prices are continually rising, sellers of goods and services have to constantly review, change and update price catalogues.

- The opportunity cost of resources used to protect against inflation and the distortions will rise as firms attempt to plan for the long run. Misallocation of resources will occur as speculative activities discourage investors to plough investment in non-production based industries.

**4. External effects of inflation**

**4.1 Loss of International Competitiveness**

- Loss in the international competitive edge as inflation will raise the cost of production and an increase in the price of the goods. This will cause an increase in the price of exports and a relative fall in the price imports. The rising export price will decrease demand for exports, undermining the country’s competitive edge.

→ inflation → ↓Xd/ ↓FDI ( ↑Px and cost of FDI↑)

- This will affect Singapore extensively as Singapore relies extensively on external demand for growth of the economy

**4.2 Balance of Trade and Payment of Deficit**

- Exports demand decreases and import demand increases due to more expensive domestic substitutes, may lead to a BOT deficit, without government intervention, will lead to fall in foreign exchange rate, or the external value of money.

Px↑ ,Pm↓ relatively

→ ↓ Xd

→ ↓ BOT deficit (since inflow < outflow) → exchange rate depreciation - affects investors’ confidence in saving and investing in Singapore

**4.3 Depreciation of Exchange Rate**

- Decrease in demand for currency due to lower export demand and increase in supply of local currency due to greater import demand will contribute to a fall in the exchange rate. Falling exchange rate will cause capital outflow undermining the financial stability of the economy.

**5. Solutions to inflation**

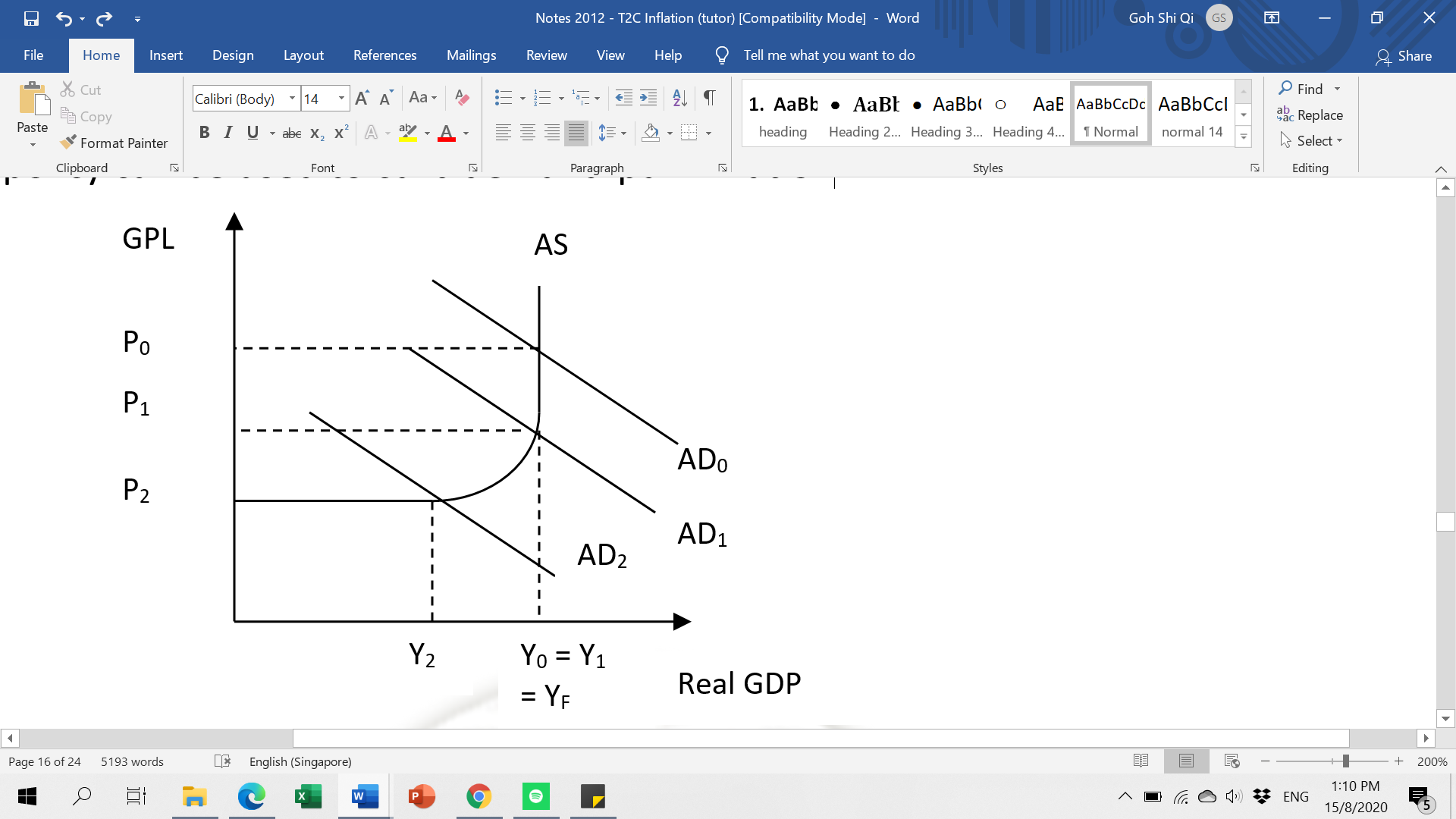
In the process to solve inflation, it is imperative for the government to understand the nature of economy and the causes of the inflation so as to curb inflationary condition effectively.

**5.1 Contractionary Monetary and Fiscal Policy**

With contractionary MP, central bank of the country will reduce money supply by selling treasury bonds and raising interest rates of borrowing. Higher interest rates will push consumers to save and consume less since the opportunity cost of consumption has increased and the cost of credit consumption is higher. As for investment, it will fall as there is increase in cost of borrowing, leading to reduction in profitability. Consequently, AD will decrease and through reverse multiplying process, price will decrease and inflation is curbed, since the excess demand condition is eradicated.

Fiscal policy in the contractionary mode decreases government expenditure (G) and raises tax to curb inflation. Reducing G would mean that the government stops spending on public facilities and welfare so that total money supply in the economy is reduced. Increase in taxes will lower the disposable income of the consumers, and reduce profitability after tax and thus decreases government expenditure, consumption and investment

Draw AS-AD diagram to show how contractionary demand management policy can be used to curb demand-pull inflation



As seen from the diagram, the contractionary demand management policy will reduce aggregate demand from AD0 to AD1 which will clear the excess demand condition and then, curb inflationary condition from P0 to P1. However, a further reduction in price level from P1 to P2 will be achieved at the trade-off of a lower level of real GDP from Y0 to Y2 when the aggregate demand falls from AD0 to AD2

Evaluation (MP)

- Central Bank cannot control the money supply due to the presence of foreign banks / liberalisation of the banking system

- MEI is interest inelastic – increase in cost of borrowing will decrease investment less than proportionally – interest rate is not reflected on Investment) – Singapore is FDI dominated / if the business confidence is high, the rise in interest rate will not decrease the level of profitability as the level of revenue is still high and thus, the interest is still profitable.

- Although price level stabilizes, there is no growth in the economy. In more extreme cases, the economy will shrink.

- Increases in interest rates will attract hot money inflow from other countries and this will raise the local money supply which will lower the interest rate, making it difficult for the government to conduct contractionary monetary policy.

Evaluation (FP)

- Raising tax is a bad political move. May cause social unrest.

- Time lag for policy implementation

- Reduction in essential infrastructure development for the public is not beneficial (↓SOL, lower productivity for the private and public sector)

Cannot control imported and cost-push inflation – curbing demand solution

**5.2 Direct Regulation**

- Price control – Price ceiling for certain goods below equilibrium

- Income Policy – capping wage at a certain level/Flexible wage structure→↓Variable wage during inflation → dampen cost-push inflation

- Wage and price control seeks to curb wage-price inflationary spiral

Evaluation

- Due to extensive government regulation in building facilities, the government is unable to control the cost of living to prevent the inflationary spiral

- Price policy is against the principle of market forces which wage controls depends on the corporation of the free trade union

**5.3 Supply-side policies**

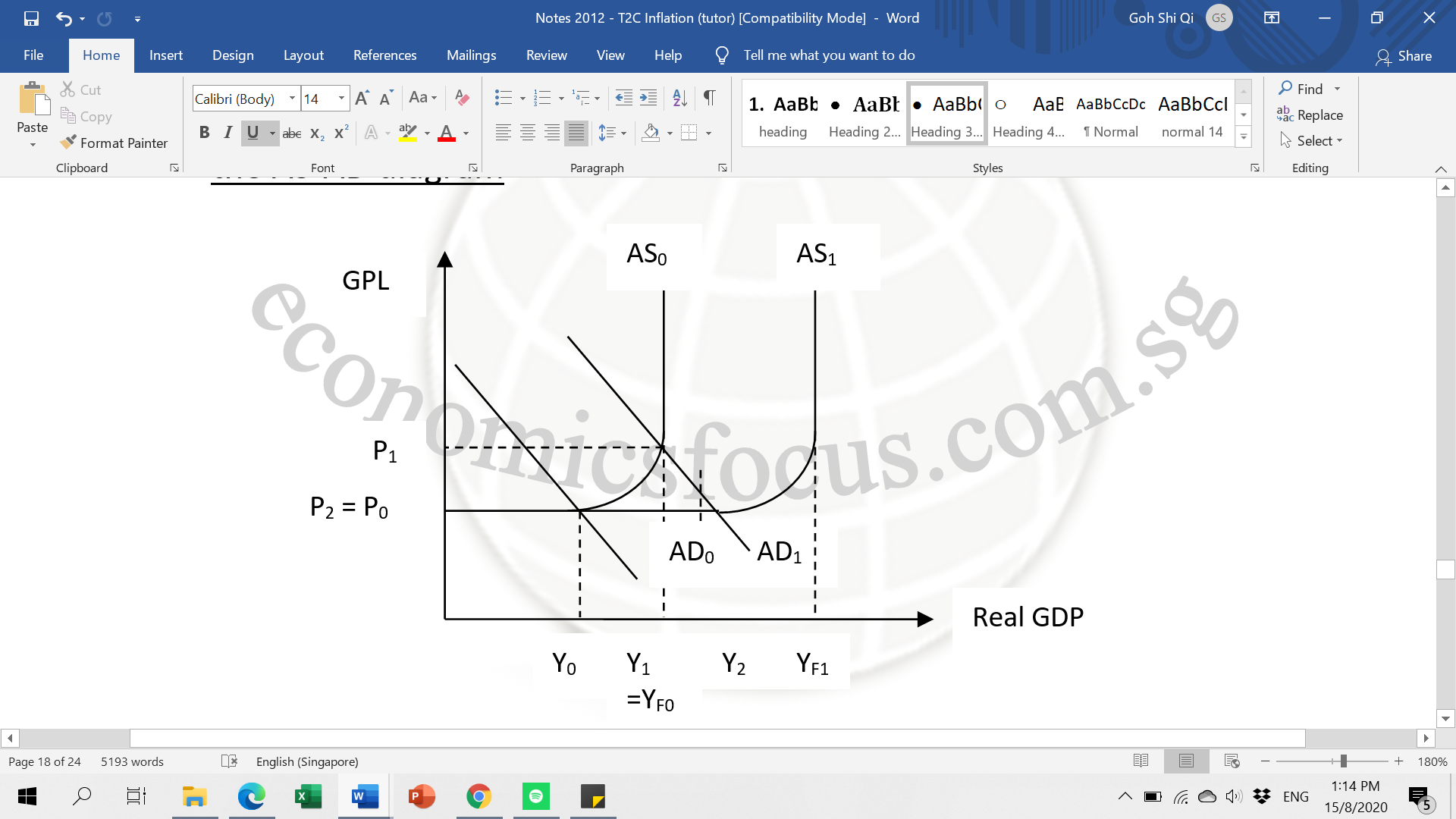
- The government can adopt supply-side policies to expand the resource and production capacity so as to dampen the cost condition. As a result, there will be an outward shift of the AS, raising the full employment capacity. This will enable the economy to attain a higher of production capacity without having to experience inflation. (attained sustain economic growth)

5.3.1 How supply-side policy expand resource capacity

- Supply-side policies can also focus on the efficiency of production which will enable the industries to lower the cost condition, so as to dampen cost-push inflation.

- Supply-side policies can also improve the mobility of resources so as to solve the structural rigidities which will lower cost of production.

Explain how the supply-side policies are used to curb inflation through the AS-AD diagram



Draw diagram to show how the economy can curb rising cost condition to attain sustained economic growth

- As seen from the diagram, the supply-side policies will expand the resource capacity and cause an outward shift of the AS from AS₀ to AS₁ which will enable a reduction in cost and thus, the price level will reduce from P₁ to P₂. It will lower cost condition which will induce increase in quantity of aggregate demand and thus, leads to rise in real GDP from Y₁ to Y₂, while price level remains at P2

**5.4 Exchange Rate Management Policy**

- The Central Bank will intervene into foreign exchange rate market to raise the exchange rate by direct intervention where the central bank increases the demand for local dollars through buying of local dollars and selling forex

- Alternatively, some economies may conduct exchange rate monetary policy by raising interest rate to attract more capital inflow to induce an increase in demand for local dollar which will also appreciate the exchange rate. This will help to curb imported inflation. (not done by SG MAS- raise interest rate)1

- ↓Price of resources in local $ →↓ cost of imports→↓ cost of production and cost of living

- COL – slow down wage increment sustain value of wage for foreign workers – prevent price-wage spiral

Evaluation

Advantages

- Strong ER – makes import cheaper and reduces the cost of raw material. –(1. Maintain external stability 2. Manage external instability)

- Focus of the policy – gradual and modest appreciation (slow rate of appreciation), zero appreciation (no further strengthening of exchange rate – try to prevent exchange rate from further raising the price of exports)

Limitations of the exchange rate management system

- Exports would be more expensive in terms of foreign currency → fall in X, assuming Marshall-Lerner condition → unemployment in export industries (↓production)

- Government needs to set aside funds for intervention in FOREX market – raise the opportunity cost of resource → less economic development

- Exchange rate management by raising interest rate is short-lived, since the speculator will sell local $ when it appreciates, therefore increasing the supply of local $ which will lower exchange rate

**5.5 International Trading Network**

FTA, trade network with facilities, supported by PSA, SIA, CAAS, NOL, maritime and aviation industries – manpower development

→ expand the source of supply of resources

- Trading network increases the source of supply from various countries, lowering the cost of inputs.

- FTA will facilitate trade and lower domestic price for goods and services.

Evaluation – Government have to weigh the cost of FTA to the benefit for the country

- Increased vulnerability to trade cycle, infant local industry will be compromise.

- FTA restricts trade to some countries which may be the cheapest source – trade creation may not occur

**6. Reasons for the government to keep the inflation rate low.**

Internal aspect

• Low inflation helps to prevent unequal distribution of income

(Price of goods for resources is lowered which will sustain the purchasing power of the lower income group while the price of assets will not rise excessively to raise the wealth of the rich – income and wealth disparity will not widen – social dissatisfaction will be minimised – social stability is promoted)

• It also prevents rise in cost of living and cost of production.

• It also maintains purchasing power and ability to save.

• It will induce investment, production and employment.

• prevent misallocation of resources

External aspect

• It helps to maintain international competitiveness due to cost competitiveness

• It helps to prevent the occurrence of balance of trade deficit.

• It helps to prevent fluctuation of exchange rate (depreciation).

7. ACJC 2019 H1 Econs Prelims Question 2

**Inflation and Labour Market Issues in the UK and Singapore**

**Table 2: Selected Indicators for the UK**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 |
| GDP annual growth rate (%) | 2.0 | 2.9 | 2.3 | 1.8 | 1.8 |
| Rate of unemployment (%) | 7.5 | 6.1 | 5.3 | 4.8 | 4.3 |
| Annual rate of inflation (%) | 2.3 | 1.5 | 0.4 | 1.0 | 2.6 |
| Nominal wage growth (%) | 4.1 | 3.3 | 3.6 | 3.3 | 3.9 |

Sources: World Bank, Office for National Statistics UK

**Extract 6: UK inflation rises to 1.8% spurred by weak pound and rising fuel costs**

The economy has grown over the last two years in response to a surge in consumer spending, fuelled largely by an increase in credit. However, a surge in fuel prices helped push inflation to its highest level for more than two years last month.

Economists said inflation would rise further this year. Fuelling the rise is the pound’s sharp fall since the Brexit vote, which makes imports to the UK more expensive, and also the rise in oil prices on the back of lower production. Data published alongside the inflation figures showed manufacturers’ fuel and material costs were rising at the fastest pace for more than eight years.

Economists have warned rising inflation this year risks squeezing household incomes if wages fail to keep pace. Figures due on Wednesday are forecast to show underlying earnings growth held at 2.7% in the three months to December. But firms may be unwilling to keep raising pay as they grapple with higher costs and uncertainty about the future as Brexit negotiations unfold.

Responding to news of another rise in inflation, a spokesman for the Treasury[1] noted that earnings were still rising faster than inflation and had done so for more than two years. The government is also planning to cut taxes for millions of working people and freeze fuel duty, saving an average driver £130 a year.

Source: *The Guardian*, 15 Feb 2017

**Extract 7: UK wage growth hit by higher inflation**

Official figures show that the amount of money workers are taking home continues to fall as inflation takes its toll. Average earnings fell in real terms by 0.6% in the three months to April, compared with the same period last year.

Unemployment fell by 50,000 to 1.53 million in the three months to April - the lowest since records began in 1975. The number of people in work hit a new high of 74.8% - the best since records began in 1971. But the biggest issue will be the falling wages, especially since inflation rose to 2.9% in May.

Following traditional economic modelling, high levels of economic growth should, in ordinary times, lead to higher wages. However, these are not ordinary times. The workplace has changed, and high levels of hyper-flexible working have tended to depress some wages.

Add to that the UK's chronic productivity problem - many firms are just not very good at investing in improvements that increase levels of wealth creation - and this soft wage growth trend is to be expected.

Britain’s productivity crisis risks getting worse because the population is ageing steadily, leaving relatively fewer younger, more dynamic workers who typically innovate more. Unless drastic action is taken to boost skills and creativity, or to increase the number of young workers, growth will struggle to pick up, according to new economic research published in the journal of the National Institute of Economic and Social Research.

Sources: *BBC*, June 2017, *and The Telegraph*, August 2017

(b) (i) Account for the change in UK’s inflation rate from 2015 to 2017. [4]

(ii) based on extract 6 and 7, explain how this impact of inflation will be more severe in UK. (4)

(ii) Comment on the impact that higher inflation rates may have on the standard of living of UK citizens. [6]

Answers

Inflation has increased from 2015 to 2017.

Possible reasons from Extract 6:

Surge in consumer spending fuelled by an increase in credit

- An increase in credit increases the ability of consumer to purchase big ticket items, resulting in an increase in Consumption Expenditure

- This increases AD, resulting in inflationary pressures if the economy is close to full employment and the economy is close to full capacity.

Increase in fuel/oil prices

- As fuel prices increase, this drives up the cost of production for firms. The extract states that cost of production is rising “at the fastest pace in more than eight years”

- This will decrease the SRAS. Firms pass on the rising costs to consumers, resulting in higher prices and greater inflationary pressure

Fall in the value of the pound

- A weaker pound results in an increase in cost of imports in terms of pounds. This increases the cost of importing raw materials, raising the cost of production for firms.

- This will decrease the SRAS. Firms pass on the rising costs to consumers, resulting in higher prices and greater inflationary pressure.

- Note: Students can also explain depreciation leading to increase in AD and demand pull inflation, however assumptions with regards to PED should be stated to get the full mark.

*Students should explain any 2 factors from the extract*

(ii) Comment on the impact that higher inflation rates may have on the standard of living of UK citizens. [6]

Higher inflation rates imply that the general price level and therefore cost of living in the UK is increasing at an increasing rate. This could have an impact on SOL in the UK, where SOL can be measured in both material and non-material terms.

Higher inflation rates may lower the standard of living for UK citizens:

- With higher inflation rates, cost of living increases and this reduces the purchasing power of UK citizens.

- With lower purchasing power, they are less able to buy and consume goods and services.

- With a lower level of consumption, material standard of living falls.

- Higher inflation may also cause growing inequity issues, as the increase in prices is more likely to affect low wage fixed income earners, who spend a larger proportion of their income on necessities.

Higher inflation rates may not lower the standard of living for UK citizens:

- However, purchasing power may not fall, as long as wage growth is able to keep up.

- Based on table 2, nominal wage growth has been exceeding the annual rate of inflation. This shows that wages are rising faster than prices, implying that UK citizens would be able to afford more goods and services rather than less.

- In addition, the government is also planning to cut taxes and freeze fuel duty (extract 6). If the government implements these measures, it would help to counter the effects of rising inflation rates on standard of living.

Overall comment:

- Without government intervention, standard of living may fall for low income households.

- However for the average household, the current level of wage growth is sufficient to exceed the increase in general price level.

8. GCE A Level H2 Economics 2017 Question 2 (Macro)

**China’s Economy Faces Problems**

**Table 4: Annual average inflation rate in China**

**as measured by the Consumer Price Index (CPI) (%)**

|  |  |
| --- | --- |
| **Average inflation by Year (CPI) (%)** | |
| 2011 | 5.53 |
| 2012 | 2.62 |
| 2013 | 2.57 |
| 2014 | 2.06 |
| 2015 | 1.40 |

Source: National Bureau of Statistics of China

(b) With reference to Table 4, describe what has happened to the rate of inflation and the price level in China between 2011 and 2015. [2]

9. GCE A Level H2 Economics 2016 Question 2 (Macro)

**Inflation policies in Brazil and Japan**

**Extract 4: Brazil inflation rate exceeds official target range in June**

Consumer prices provided further worrying economic news for Brazil, as the inflation rate exceeded the government’s official target range in June 2014. Brazil’s inflation target is 4.50%, with an allowed range of 2.50% - 6.50%. Brazil’s 12-month inflation index rose to 6.52% last month, up from 6.37% in May.

Inflation has been causing problems for Brazil for years as millions moved out of poverty to create a new consumer class. Brazilian’s new buying power was not matched by increased production of goods and services. With higher demand and stagnant supply, prices began to move up. The inflation index got into a steady upward trend by mid-2012 and broke the target ceiling in March 2013, prompting the central bank to raise the interest rate from 7.25% in April 2013 to 11% in April 2014 in an effort to curb inflation. But economists say those effort are not enough.

The problem for some is that Brazil’s government spends too much, and that cash welfare benefits are also contributing to inflation by increasing the purchasing power of millions of consumers. Measures to maintain high employment are also increasing labour costs, which is further fueling prices.

Price increases are just one piece of the bad news for the Brazilian economy. The nation’s manufacturing sector is in a slump and business confidence is down. Analysts project that Brazil’s economy will struggle to grow even 1% this year.

The combination of rising prices and weak production makes life difficult for policy makers. The usual policy against inflation is to raise the cost of borrowing. But if the central bank continues to raise interest rates the economy may grind to a halt, or even shrink. A recession this year is not out of the question. The government has tried to kick-start growth via tax cuts and other incentives, with mixed results. Critics fear these policies may make inflation even worse. Government officials, however, contend that a global economic recovery is in the making and Brazil stands to benefit as larger economies such as the US and the EU get stronger and import more.

‘Inflation is under control and will end 2014 within the limits of the range,’ the President of Brazil’s central bank said in an interview last week. He said the full impact of Brazil’s tight monetary policy is still to be felt, and the inflation rate will move ‘towards the target,’ in the next couple of years, although he acknowledges that, for now, ‘inflation will remain at high levels’.

Source: Paulo Trevisiani, *Wall Street Journal*, 8 July 2014

c)(i) Use aggregate demand and supply analysis to explain the causes of inflation in Brazil in 2014. [4]

10. GCE A Level H2 Economics 2015 Paper 2 Qsn 4 (inflation)

In its September 2013 Recent Economic Developments Statement, the Monetary Authority of Singapore noted that inflation was expected to rise moderately. Strong GDP growth in Q2 2013 was mainly due to increased output in the manufacturing and trade-related service sectors with a slowing growth in private consumption. There was expected to be continued strong wage pressure from persistent tightness in the labour market caused by shortages in labour supply accompanied by steady expansion in demand for goods and services from the US, Japan and the Eurozone. Source: Recent Economic Developments in Singapore, MAS, 5 Sep 2013

(a) Explain how the above-mentioned factors might have caused the rate of inflation to rise in Singapore. [10]

(b) Discuss whether exchange rate appreciation should remain the most important policy instrument in controlling the rate of inflation in the Singapore economy. [15]

11. ASRJC Prelim 2019 Qsn 4

April 2016 marked 18 consecutive months of negative inflation for Singapore arising from lower global crude oil prices and cheaper housing, utilities as well as transport costs. Faced with a challenging external environment, the Singapore economy will also see a slowdown of growth between 1% and 3% this year.

Source: Singapore Business Review 24 May 2016

(a)Explain the internal and external factors that are likely to have contributed to deflation in Singapore. [10]

(b) Discuss whether fiscal policy is the most effective way to manage the Singapore economy when faced with deflation and slow economic growth. [15]

**Essay Question 12**

**Singapore’s unemployment rates have been ranging from 3.4% to 2.1% while inflation rate was around 2.1% to 0.5% from 2004 to 2007. However, inflation rate shot up 7.5% while unemployment rate hovered at 2.3% for the first half of 2008.**

**Singapore Department of Statistics**

**Explain why low unemployment and inflation rates are aims of any government and discuss whether the Singapore government should be concerned over the above-mentioned scenarios. [25]**

1. **Benefits of low inflation rate and low unemployment rate**
2. **The government should be concerned of the adverse effects of inflation and unemployment – how it will undermine Singapore’s economy**

Introduction Inflation is defined as the inordinate and sustained rise in price level while unemployment refers to the extent of utilization of labour resources in an economy. Any government would seek to maintain low inflation and unemployment as these aims promotes price stability and efficient utilization of labour resources which will create extensive beneficial impact for the economy. Thus, it is a concern for Singapore with regards the above condition, when they expect inflation and unemployment to rise in the first half of 2008.

Main Body

Inflation reflects the extent of price stability in an economy which is measured by the consumer price index on a year-on-year basis or base year comparison approach. It is important for the government to set it as the main aim as it will affect the internal and external aspects of the economy if price stability is not achieved where there will be low inflation or deflation.

Low inflation will ensure that the cost of living and cost of production is kept low. Internally, low inflation ensures cost of living is low to prevent unequal distribution of income as price increases for basic necessities will undermine the purchasing power of the lower income group while it raises the wealth of the rich when the price of assets appreciates. Low inflation can also help to maintain level of savings which is a critical source of funding for investment when the purchasing power and future value of money is maintained and thus, encourages the ability and willingness to save. Most importantly, low inflation will ensure that there will be improvement in standard of living, given that any percentage in GDP will be greater than percentage increase in price level, holding population growth constant, to induce a rise in Real GDP per capita.

Externally, low inflation is an important aim of the government as it maintains cost of production to ensure the country is able to develop competitiveness in the export market and in attracting Foreign Direct Investment (FDI). By keeping the cost of production low, the price of export in foreign value and the cost of FDI will be low to induce rise in export demand and FDI, critical to any economy that is export dependent. If the export demand and FDI have not been reduced, there will be no depreciation of the local currency which will affect the flow of fund into an economy that will affect the economy which has a financial centre for economic development.

As for low unemployment, this is measured by the unemployment rate which is the ratio of the number of unemployed to the total labour force which will determine the rate of utilization of labour resources in an economy. It is rational for government to set low unemployment as the main aims of the government since employment determines actual production capacity and low unemployment rate will mean high rate of production capacity that will raise the level of real output or national income. This will provide more tax revenue for the government to expand its expenditure to enhance economic development and improvement in well-being of the population. Furthermore, it will reduce the need of more government spending since there will be lesser unemployment benefits to be allocated if unemployment rate is low and such saving will reduce the opportunity cost of resources used to solve the adverse effects of unemployment which can be used for other aspects of a country’s development.

More direct implication of the need to see low unemployment rate as the main aim of the government since it has strong impact on the extent of unequal distribution of income and standard of living as those who are unemployed will have no income and will be undermined by a low purchasing power which will indicate a lower standard of living.

Thus, it can be noted why low inflation and unemployment are aims of the government and it is natural for the government of Singapore to place great concern over the above inflationary and unemployment condition.

Mathematically, the slight rise in unemployment rate is still considered low as it is slightly above the natural rate of unemployment of 2% for a small economy like Singapore and therefore, this is not a panic condition to worry. But if we examine closer, it can be noted that the unemployment condition is mainly in the form of structural unemployment and this form of unemployment is detrimental for Singapore since its effect is entrenched and prolonged. Workers who are unemployed due to skills incompatibility and displacement of workers due to use of machinery will take a long time period to retrain and adapt to the new industries.

Very often, these workers may not be suitable for the new service-based industries if the workers have set skills for manufacturing-based type of industries. Thus, it may take a longer time and incur higher training cost for Singapore to eradicate the lack of skills for these workers to improve their employability.

In Singapore, the number of workers whose educational level is below ‘O’ level still occupies a high percentage of the working population and this may create a problem for the government in converting sufficient workers for high-valued industries and thus, the issue of structural unemployment is entrenched for some of the workers. In recent years, the government has seen a rise in the employment level of PMETs (Professionals, Managers, Engineers and Technicians) and the group of older PMETs is taking longer time period to find employment due to technological advancement that undermines the skill level of PMETs.

Furthermore, structural unemployment will aggravate the social life of the people, especially the lower income group. It will also mean that the government may need to spend more government subsidy in helping those who are unemployed and this may be difficult for the workers in Singapore as we do not have unemployment benefits for these unemployed workers. Consequently, the country will have a higher degree of unequal distribution of income and lower standard of living as a significant group of population is unemployed, thus, this will be a serious problem for Singapore, which has a high Gini-coefficient ratio. Also, the existing level of unequal distribution of income is quite high and may create social dissatisfaction, which explains why the government needs to ensure this form of structural unemployment will not prevail as it is a serious concern Singapore needs to pay attention to.

As for inflation, the sharp rise in inflation rate from a mild rate around 2% to 7.5% in the first half of 2008 is of great concern due to its magnitude of increase and the nature of inflation and its impact on Singapore’s economy. Inflation will be a serious concern as it affects the price and cost competitiveness in the export and our capacity to attract FDI. As our cost of production rises as the cost of import rises due to rise in global price of resources like oil and steel, we have to raise our price of export in foreign value which will lead to a fall in export demand. As export demand to GDP ratio is around 2.5 times of our GDP, Singapore’s reduction in export demand will contribute to a large fall in the GDP which subsequently leads to a reduction in production and employment.

As our economy is a price-taker in the global resource market, the rise in global prices of resource will definitely raise our cost of import, implying that such imported inflation is inevitable. Although some may argue that our exchange rate management policy is a gradual and modest appreciation strategy which can help to dampen the cost of imports, it is not a feasible measure in the long run when the owner of resources in the global market persists to raise price of their resources. Furthermore, the impact of rising inflation will affect the cost of living, making it difficult for industries to lessen excessive wage increment as real wage of local or foreign workers in Singapore will be lowered. This demand for wage increment will bring about a wage-price spiral which can be quite detrimental even for Singapore which is known for her capacity to control wage increment within the level of productivity.

Although the cost of managing inflationary impact is less than the cost of managing unemployment, the adverse impact it has on unequal distribution of income will still be a problem for Singapore as inflationary condition will seriously aggravate this problem since the price of assets will rise excessively to raise the wealth of the rich while the purchasing power of the low income group will be lowered. This high degree of income disparity will counter the aim of the government to set up an inclusive growth which will spread the benefit of economic growth to all spectrums of the people.

Conclusion

In view of all these developments of higher unemployment and inflation rate, it can be understood that it is understandable and rational for governments like Singapore to place concern on these aims to prevent the detrimental effects.