



ST ANDREW'S JUNIOR COLLEGE

JC2 H2 ECONOMICS 2024

FULL EMPLOYMENT

In this set of notes, we will examine the next macroeconomic goal – full employment.

We examine the different types of unemployment, their causes, and consequences to different economic agents. We look at how unemployment may affect standard of living and the macroeconomic policies to deal with unemployment to improve the standard of living of a country.



Important concepts and tools and analysis

- ♥ Full employment
- ♥ Unemployment
- ♥ Demand-deficient unemployment
- ♥ Structural unemployment
- ♥ Frictional unemployment



Key questions to consider

1. How does a country measure the level of unemployment in their economy?
2. Why does a government want to achieve full employment in a country?
3. What are the different types of unemployment? Are they all caused by the same thing?
4. How does unemployment affect the microeconomic goals of the government?
5. How does unemployment affect the macroeconomic goals of the government?
6. How does unemployment affect the standard of living?
7. Can all types of unemployment be solved with the same policy? Are there particular circumstances that will make certain policies more effective in reducing unemployment levels?

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How does a country measure the level of unemployment in their economy?

1. Unemployment Basics

Before we begin to try and measure unemployment, we need to know how economists define unemployment.

Unemployment refers to a situation where people who are actively looking for work (willing and able to work) are unable to find suitable jobs.

We will now look at how countries measure the extent of unemployment in an economy. Recall that you learnt the way we calculate the unemployment rate when we first looked at different macroeconomic indicators in your Standard of Living notes.

1.1. Unemployment rate

The unemployment rate is used as a measure of the extent of unemployment in an economy.

- ♣ The unemployment rate is calculated as the percentage of the labour force which is out of work.
- ♣ The labour force is the total number of workers, including both the employed and the unemployed (but are willing and able to work) in the reference period. It does not refer to the whole population.
- ♣ The common international definition used for unemployed persons is that they are 15 years old and older, not currently working but are actively looking for a job and are able to work if offered.

$$\text{Unemployment Rate} = \frac{\text{No. of unemployed in the labour force}}{\text{Labour force}} \times 100\%$$



Try to answer the following question:

What would the unemployment rate be like in the following scenario?

If 3.5 million people were employed and 0.2 million people were unemployed, what would the unemployment rate be?



1.2. Factors affecting the unemployment rate

The unemployment rate could be influenced by the following:

a) *The demand for labour*

Labour is a derived demand – it is not demanded for its own sake, but because of the output that it produces. If aggregate demand rises, firms will demand more labour to produce more output. This causes the unemployment rate to fall.

b) *Labour productivity*

A rise in labour productivity makes using labour more cost efficient than using capital equipment. This may increase the demand for labour and hence lead to fall in unemployment rate.

c) *The size of the labour force*

Factors affecting the size of the labour force include 1) working age, 2) population size, 3) female labour force participation rate and 4) level of educational attainment in the economy.

A rise in working age population (the common international standard for working age is 15 years), female labour force participation rate and level of educational attainment would result in an increase in size of labour force.

However, if the rise in size of labour force cannot be matched by a similar rise in jobs being created, then this may result in a rise in unemployment rate.

d) *The composition of the labour force*

Factors affecting the composition of labour force include labour force participation rate by age and gender.

There has been a shift in labour force composition in many countries in terms of concentration of older working age population due to ageing population. If the younger workers cannot substitute the older workers for reasons such as skills mismatch and employers' negative attitude towards younger workers, youth unemployment rate can remain high.

There is a rise in female labour force participation in many countries in recent years. However, if the rise in female labour participation cannot be matched by higher employment of female labour for reasons such as discrimination by employers, female unemployment rate will remain an issue. Traditionally, female unemployment rate is higher than male unemployment rate.

1.3. Natural Rate of Unemployment

- ♣ The natural rate of unemployment is the level of unemployment which exists when the economy is at full employment.
- ♣ Full employment refers to a situation indicated by a non-zero, low rate of unemployment that is compatible with price stability when all those who are willing and able to work have gained employment.



- ♣ The concept of the natural rate of unemployment reflects the fact that there will always be some frictional and structural unemployment in the economy.
- ♣ The significance of the concept of the natural rate of unemployment lies in its policy implication.
- ♣ Expansionary monetary and fiscal policy can only reduce unemployment up till the natural rate in the short run. In the long run, the effect of such demand management policies will be inflationary when the economy is already at full employment (i.e., at the natural rate of unemployment).
- ♣ That is why the natural rate of employment is also known as the non-accelerating inflation rate of unemployment (NAIRU).



Note: In addition to the unemployment rate, the following specific kinds of unemployment are also commonly monitored:

- ♣ **Long-term Unemployed:** These are workers who have been unemployed for 25 weeks or more. These workers are included in the overall unemployment rate.
- ♣ **Underemployed:** A worker who is working part-time but cannot find full-time work is not considered unemployed. These workers who are willing and available to work additional hours, but are not able to, are underemployed.
- ♣ **Discouraged Workers:** These individuals are not looking for a job because they believe their job search will not yield positive results. Thus, they are not categorised as unemployed.



How would an A-level question that requires you to make use of unemployment data look like? Look at the following question for a possible example.

*This corresponds to **CSQ 1** (Unemployment in Greece (Adapted from 2013 TPJC H1 Prelims)) of your Full Employment Tutorial package.*

(a) With reference to Table 1, compare youth and overall unemployment in the Euro Area with that in Greece. [2]

(b) Using Chart 1, identify the unemployment trend in Greece.



What are the different types of unemployment? Are they all caused by the same thing?

2. Types and Causes of Unemployment

2.1. Demand-Deficient Unemployment

Demand-deficient unemployment refers to unemployment that arises from insufficient aggregate demand, which may be caused by business cycles or economic shocks.

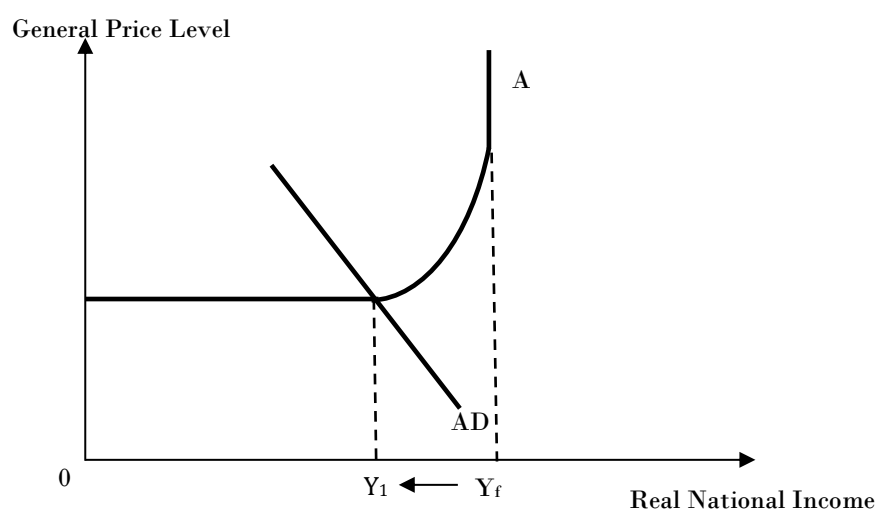


Figure 1: Demand-deficient Unemployment

2.1.1. Causes of Demand-Deficient Unemployment

- ♣ When the economy is in a recession, there is a lay-off of workers by firms and demand-deficient unemployment rises (above the natural rate of unemployment).
- ♣ Demand-deficient unemployment is a serious type of unemployment as it affects every sector in the economy simultaneously, albeit to varying degrees.

2.1.2. Explanation using the AD/AS framework:

- ♣ Referring to Figure 2 below, the economy is initially at equilibrium at real national income level $0Y_1$, where AD_1 intersects AS .
- ♣ In a recession, profit expectations are low and so firms cut down on investment, aggregate demand falls from AD_1 to AD_2 , ceteris paribus.
- ♣ As a result, real national income falls from $0Y_1$ to $0Y_2$ through the multiplier effect.
- ♣ As real national income falls, firms produce less and hire less factors of production, including labour. Derived demand for labour falls hence demand-deficient unemployment rises.

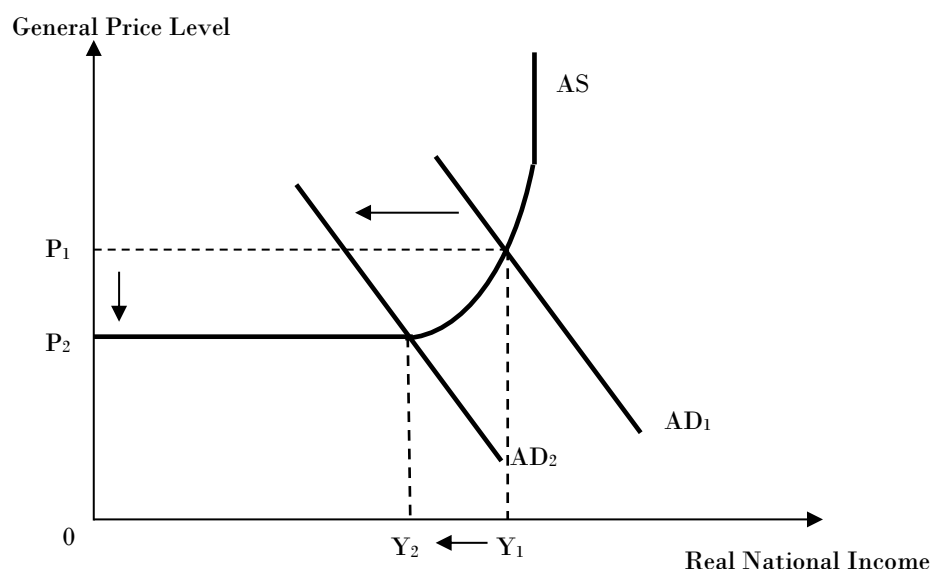


Figure 2: Demand-deficient unemployment

- ♣ Demand-deficient unemployment is only eliminated when the level of economic activity picks up leading to an increase in real national income as the aggregate demand rises and the level of employment increases.
- ♣ Policy-makers attempt to lessen this type of unemployment by stimulating economic activities (i.e. production and consumption of goods and services).

2.2. Structural Unemployment

Structural unemployment arises from a mismatch of skills between the unemployed and the skills required by employers, which may be caused by technological advancements, economic restructuring or lack of efforts to facilitate retraining.

- ♣ Changing demand for labour in different industries that is brought about by structural changes implies that workers made redundant in one industry cannot take up jobs in expanding industries due to the mismatch of skills between the unemployed and skills required by producers seeking factors of production.
- ♣ As such, employment in some industries may expand while it may contract in others.
- ♣ Structural unemployment is affected by occupational mobility which is the worker's ability to change job types.

2.2.1. Causes of Structural Unemployment

a) *Changes in the Methods of Production (Technological Unemployment)*

- ♣ Technological advancement often allow the same level of output to be produced with fewer workers. Unless output expands sufficiently to absorb the surplus labour, workers will be made redundant. This creates technological unemployment.



- An example is the loss of jobs in the banking industry caused by the increase in the number of automated teller machines and by the development of the telephone and Internet banking services.
- ♣ Should there be **skills mismatch** between these displaced workers and the skills required in the economy, this will result in structural unemployment.

b) Changes in Business Costs due to Globalisation

- ♣ With globalisation, firms are able to shift the location of the production of goods and services to places where costs are lower.
- ♣ As such, the **relative cost** of production in different countries would be one of the determinants of where production would take place.
- ♣ If there is an increase in the cost of production in one country relative to the other countries, firms may choose to relocate their production to the cheaper country. When they do so, workers who were previously employed by these firms would be unemployed. Should there be **skills mismatch** between these displaced workers and the skills required in expanding industries in the economy, this will result in structural unemployment.
 - For example, China with her large labour force has allowed her to enjoy comparatively lower wage costs in the past decade. This attracts foreign investors to relocate their labour-intensive manufacturing operations to China in order to capitalise on the relatively low wage costs. Hence, countries like Singapore suffered from an outflow of foreign direct investment (FDI) to China when China opened its doors to FDI. The workers in these labour-intensive industries in Singapore suffered from structural unemployment as they did not have the skills to find jobs in other industries (e.g. capital-intensive industries).

c) Permanent Changes in the Pattern of Demand for Goods and Services

- ♣ A change in the tastes and preferences of consumers will have implications upon the demand for the labour in an industry. The long-term demand for a country's goods and services may fall due to changes in tastes and preferences, invention of substitutes, cheaper imports and loss of markets to foreign competitors.
 - For example, the mechanisation of rubbish clearance in Singapore has reduced the demand for workers who cleared rubbish manually and caused them to become redundant.
 - Another example would be the shift in demand away from coal to other cleaner fuels due to environmental concerns. This will lead to structural unemployment in coal mining areas such as Eastern Kentucky in the U.S.
- ♣ From the above, it can be seen that when the demand for goods and services fall, production of these goods and services would fall as well. This leads to a decrease in the demand for labour which is a derived demand. The result of this is higher unemployment caused by structural changes. Should there be **skills mismatch** between these displaced workers and the skills required in expanding industries in the economy, this will result in structural unemployment.



2.3. Frictional Unemployment

Frictional unemployment arises as time is required for the unemployed to look for suitable jobs and employers to look for suitable workers because of information imperfections in the labour market.

2.3.1. Causes of Frictional Unemployment

a) *Imperfect Information*

- ♣ The time lag for individuals moving from job to job, in and out of employment determines the rate of frictional unemployment. There will always be frictional unemployment because it takes time for prospective workers to be matched with suitable jobs. The crux of the problem is the ignorance of available job opportunities among those unemployed.

b) *Personal Preferences*

- ♣ Most individuals tend to have certain expectations of their prospective job(s) and how much they are willing to compromise for employment. Thus, an unemployed person may not take on any job that is available in the market until a suitable offer comes along.



How would an A-level question that requires you to explain the various types of unemployment look like? Look at the following question for a possible example. This corresponds to EQ 1 (2015 PJC H2 Prelims)) of your Full Employment Tutorial package.

Unemployment rate hits record high in some countries due to internal and external problems.

- (a) Explain what causes the rate of unemployment to rise in an economy. [10]



How does unemployment affect the microeconomic goals of the government?

3. CONSEQUENCES OF UNEMPLOYMENT

In this section, we will examine the consequences of unemployment from the perspectives of the various economic agents (consumers, producers and governments). These consequences could be seen with respect to the microeconomic and macroeconomic aims of an economy.

3.1. Microeconomic Aims of the Government:

- a) *Efficiency*
- b) *Equity*

Unemployment has various microeconomic effects on the economy.

a) *Inefficiency*

Unemployment will cause **wastage of scarce resources** in the economy. An economy facing unemployment is producing within its **production possibility frontier**. This results in inefficient resource utilisation, resulting in **productive and allocative inefficiency**.

b) *Income Inequality*

- ♣ Rising unemployment can lead to widening of income gap between employed high-skilled and unemployed low-skilled workers.
- ♣ Low-skilled workers are at greater risk of structural unemployment, which is caused by a mismatch between workers' skills and the skills needed for available jobs. This is mainly due to occupational immobility or being displaced by cheaper foreign workers.
- ♣ Lower skilled workers find it difficult to take on new jobs therefore they remained unemployed.
- ♣ Therefore there is a widening of the income gap between high-skilled and low-skilled workers. This trend is observed in many countries including the United States and Singapore.



How does unemployment affect the macroeconomic goals of the government?

3.2. Macroeconomic Aims of the Government:

- a) *Sustainable and Inclusive Economic Growth*
- b) *Price Stability - Low and Stable Inflation Rate*
- c) *Full Employment*
- d) *Favourable Position of Balance of Trade*



Unemployment has effects on the following macroeconomic goals:

a) Economic Growth

- ♣ Unemployment represents a waste of human resources.
- ♣ The opportunity cost of unemployment for an economy is the output that is forgone.

The higher the level of unemployment, the greater is the loss in output. In other words, the **difference between actual output and potential output is greater.**

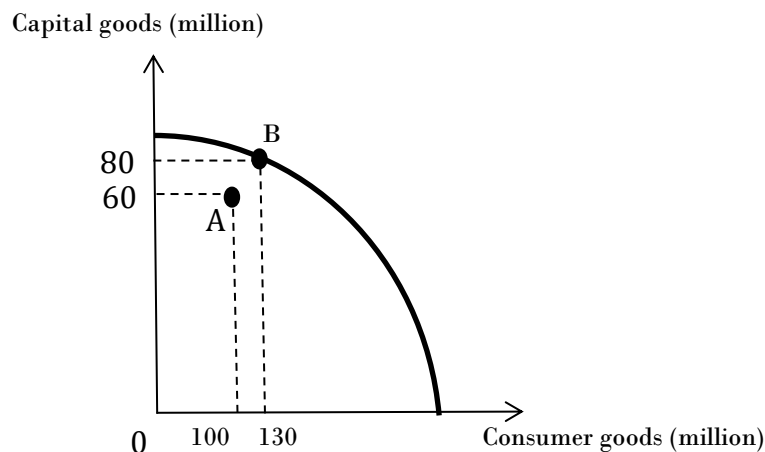


Figure 3: Unemployment and the Production Possibility Curve (PPC)

- ♣ Figure 3 shows the production possibility curve for an economy between capital and consumer goods. If the economy was producing at point A, it would be producing below full capacity i.e. not all resources are fully employed and utilised. At this point, output is 60m capital goods and 100m consumer goods.
- ♣ Whereas if the economy could produce at point B (which is on the PPC), output would be 80m capital goods and 130m consumer goods. This means more of both type of goods could be produced. The opportunity cost of unemployment in this case is 20m capital goods and 30m consumer goods. As such, actual output is below potential output.
- ♣ In addition, **prolonged unemployment is undesirable**. There is a danger that unemployment becomes self-perpetuating after a period of time.
 - Those who had been unemployed for a long period of time will have low self-esteem, low morale and diminished motivation to work.
 - Furthermore, the longer people remain unemployed, the more de-skilled they tend to become, thereby reducing potential as well as actual income. This may lead to discouraged workers leaving the labour force and hence a fall in LRAS.
 - High rates of unemployment might also **affect the economic outlook of households** and thus such **uncertainty would discourage consumption**. This could also lead to a further fall in AD, worsening unemployment.
 - At the same time, investor confidence might be affected due to negative consumer outlook. This would also contribute to further decreases in AD.



b) Price Stability

- ♣ During periods of high unemployment rate, there is little upward pressure on wage as workers will be less inclined to ask for wage increases. Hence, the economy is unlikely to experience wage-cost push inflation, *ceteris paribus*.
- ♣ Especially if the unemployment is cyclical in nature, there would have been a fall in general price level. More often than not, governments would be concerned with deflation¹ in the economy instead.

c) Balance of Trade

- ♣ The lack of income among the unemployed during high levels of unemployment discourages consumption including that on imported goods. As a result, import expenditures fall, thus improving the balance of trade, *ceteris paribus*.



Caution: *It would be absurd to propose that the government deliberately creates unemployment to improve the balance of trade!*

3.3. Impact on Government Budget

- ♣ Unemployment brings two costs to the government:
 - There is a **loss of potential tax revenue** if there is unemployment. With fewer people working, earnings and spending would also be lower and so income tax, corporate tax and sales tax revenue would be lesser.
 - Unemployment also leads to **increased government spending** on financial assistance and retraining of the unemployed workers. This adds greater strain on the fiscal budget². This sum of money could have been used instead to fund public projects such as building of infrastructure and public goods which can promote economic growth.
 - The rise in government spending, along with the fall in tax revenues, may result in a budget deficit.



How does unemployment affect the standard of living?

3.4. Impact on Standard of Living

As you might recall, standard of living involves quantitative (material) and qualitative (non-material) aspects, as measured by real GDP/GNI per capita, taking into account income distribution, leisure time, externalities, quality of life etc.

a) Costs to the Individual

¹ The situation of a persistent fall in general price level – it will be covered under the topic of Price Stability.

² Fiscal budget balance = government's tax revenue – government's total expenditure



- ♣ For workers who are unemployed and have no other sources of income, this will have a serious impact on their living standards and those of their family (especially if there is no other wage earner in the family). Unemployment and lack of income reduce individual's ability to purchase goods and services in order to maintain a given standard of living. Financial assistance from the government may just be enough for basic needs and stave off absolute poverty.
- ♣ For those who are lucky to remain employed, the high levels of unemployment and a lack of job security will limit any wage increase. This will dampen any improvement in the living standards of those working too.
- ♣ Both of which would thus reduce the abilities and willingness of the workers to consume goods and services, it might even deprive them from basic needs and care, thus leading to a fall in both material and non-material standard of living.
- ♣ At the same time, this would accompany by the stress of job insecurity, pessimism of the future which not only affect the individuals but their families' as well. This could also lead to other health issues, thus leading to a fall in non-material standard of living.



***Note:** Some may argue that those who were previously working long hours might see a temporary improvement in their non-material standard of living as with unemployment, they would be able to spend more time with their families and friends.*

b) Costs to the Society

- ♣ High rate of unemployment in a country would also lead to more crime rates and vandalism, thus affecting the stability of the economy, affecting the standard of living of the country.
- ♣ When unemployment becomes a pervasive problem, the country might resort to protectionism and/or a more stringent immigration law. This might lead to retaliation from other countries as well, leading to a reduction of trade among the trading partners. With less trade, there would also be less quantity and variety of goods and services in exchange, thus a fall in material standard of living.

c) Costs to the Economy

- ♣ Unemployment would lead to higher spending from the governments. This could be in term of unemployment benefits, transfer payments and other assistance for the unemployed, leading to an increase in government expenditure.
- ♣ With less income generated, less income tax would be collected by the government. At the same time, there will be less goods and services consume, resulting in a fall in indirect tax such as sales tax / GST. Both of which would lead to a fall in tax revenue for the government.
- ♣ With a rise in government expenditure and a fall in tax revenue, this would lead to a reduction in government budget. With less budget available for the government disposal, they would have to cut their spending. This would mean less fund available for other projects, such as public goods. This would further affect both material and non-material standard of living.



- ♣ In some cases, governments might have to resort to borrowing to fund the budget deficit. The accumulation of debts would affect the future generation as they would have to service the debts as well. This put strain on the economy and the individuals, affecting them negatively future material and non-material standard of living.

Overall

High rate of unemployment would thus be a serious issue. Not only would unemployment lead to social unrest, it would have a self-perpetuating negative impact on the overall economic health of a country. Further, it would be worsened if there is prolonged unemployment rate as it would have long and lasting negative impact on the economic outlook of the consumers and firms, deterring the economic agents to invest in developing their skills, increase in savings and investments. All of which would hinder economic growth.

3.5. Why do governments aim to achieve low unemployment rates?

A high level of unemployment incurs significant costs both for the economy as a whole and for those who are unemployed. Unemployment imposes costs on the government too.

The benefits of achieving full employment, or minimising unemployment, can be summarised as follows:

- ♣ Maximising the economy's capacity to produce, and therefore leading to higher living standards.
- ♣ Minimising the adverse economic and social problems associated with unemployment (e.g. loss of workforce skills, greater inequality, personal and family problems)



Note: Refer to Annex A to find out about another type of unemployment: Seasonal Unemployment



How would an A-level question that requires you to explain why governments seek to achieve full employment look like? Look at the following question for a possible example.

This corresponds to EQ 3 (2016 ACJC H2 Prelims)) of your Full Employment Tutorial package.

Explain why low unemployment is one of the macroeconomic objectives for Singapore.[10]



Can all types of unemployment be solved with the same policy?
Are there particular circumstances that will make certain policies more effective in reducing unemployment levels?

4. MACROECONOMIC POLICIES TO ACHIEVE FULL EMPLOYMENT

Having examined the causes and consequences of high unemployment, we will now look at the policy tools available to governments to achieve full employment.

4.1. Government Intervention to Achieve Full Employment

Governments may adopt many policies such as demand-management policies, namely fiscal, monetary and supply-side policies to tackle the unemployment problems in a country in order to achieve the macroeconomic goal of full employment.

In order to decide which policy is best to tackle the problem of unemployment, governments need to determine the root cause of unemployment or the type of unemployment in the economy.

4.1.1. Demand-Deficient Unemployment

As demand-deficient unemployment arises due to a fall in aggregate demand (AD), the government can adopt expansionary fiscal and / or monetary policies to increase AD, shifting AD to the right.

a) *Expansionary Fiscal Policy*

The government can increase government expenditure (G) and/or reduce direct taxes (T)

- ♣ Since G is a component of AD, an increase in G will lead to an increase in AD. With reference to Figure 5 below, as AD increases, from AD_1 to AD_2 , an economy would have to produce more output to cater to the increase in AD. As production increases from Y_1 to Y_2 , and since labour is a derived demand, firms would need to hire more labour. This will bring the economy closer to full employment (Y_f) from Y_1 to Y_2 , thus reducing demand-deficient unemployment.
- ♣ The government can also reduce personal and corporate taxes. With a reduction of personal income tax, disposable income will increase. This will encourage consumption, ceteris paribus.
- ♣ At the same time, with a reduction in corporate taxes, firms' after-tax profit will increase. This will encourage investment.
- ♣ When C and I increase, AD will increase, ceteris paribus.
- ♣ Government could increase government expenditure on projects to increase G and/or also provide the residents with more transfer payments which would increase C, resulting in an increase in AD, ceteris paribus.
- ♣ The increase in AD will result in an unplanned reduction in stocks in the current period. Firms will increase production in the next period to replenish their inventory stocks. To



increase production, firms would have to employ more factors of production including labour. Derived demand for labour increases, reducing demand-deficient unemployment in the economy.

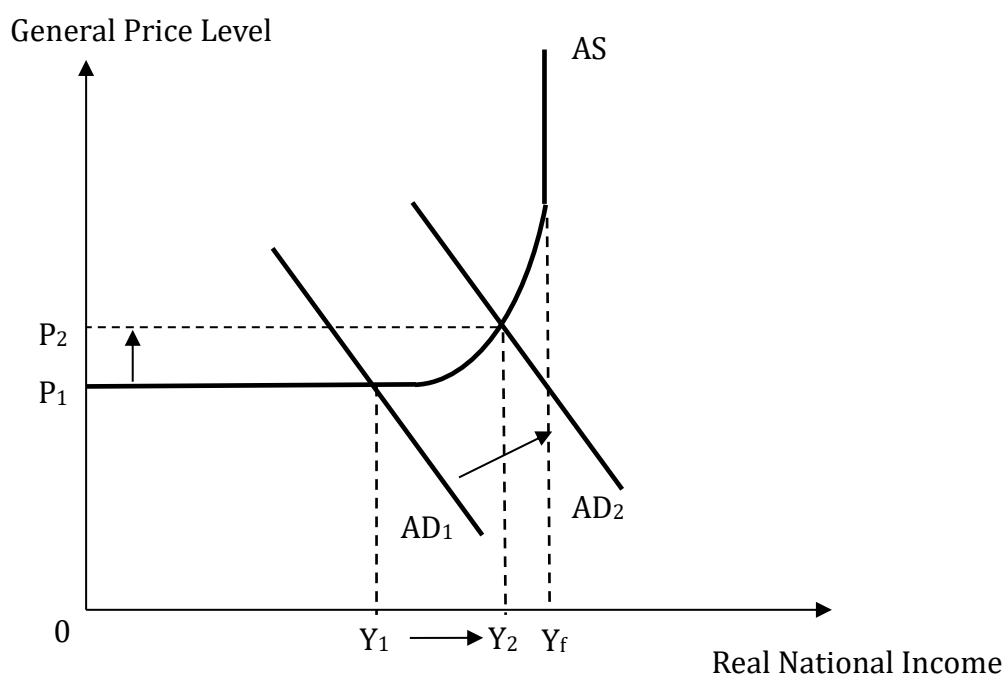


Figure 5: How Demand-Management Policies Lower Demand-Deficient Unemployment

Limitations of Fiscal Policy

The limitations below can reduce the effectiveness of the fiscal policy.

1. Crowding Out Effect

- ♣ As discussed in the previous lecture notes on economic growth, crowding out effect occurs when an increase in government expenditure crowd out or reduce the amount available for private consumption and investment.
- ♣ This could occur if the government needs to finance the increase in G by borrowing which would result in an increase in interest rate.
- ♣ At the same time, the government would also have to raise taxes to finance the increase in its expenditure.
- ♣ Together, these would lead to a reduction in consumption and investment.
- ♣ Thus, if an increase in G leads to a reduction in C and I , then the desired reduction of demand deficiency by increasing AD through increase in G would not be achieved.

2. Size of Multiplier

- ♣ How effective fiscal policy can achieve its desired effects depend largely on the size of the multiplier.



- A country like Singapore has a small multiplier effect due to our high marginal propensity to withdraw (mpw), $[k=1/mpw]$. It will be less effective in reducing unemployment if the size of the multiplier is small. Hence, in order to increase employment by the desired amount, a significant amount of G would be needed.

3. Economic Outlook of Consumers and Producers

- ♣ If consumers and producers have a pessimistic outlook of the economy, especially during a recession; a reduction in income tax rates might not induce consumers to spend on consumer durables goods due to uncertainty of employment. Instead they might choose to save their income rather than spend.
- ♣ Firms might also not be willing to invest due to lower expected rate of returns if the economic outlook is bleak.

The above limitations would lead to a difference between the intended and actual impact of fiscal policy on unemployment, thus limiting the effectiveness of the policy.



Note: Please also refer to limitations of fiscal policy in 'Economic Growth' notes.

b) Expansionary Monetary Policy Centred on Interest Rate

The Central Bank can **increase money supply** to **reduce interest rate** to increase AD in the economy.

- ♣ With an increase in money supply, interest rate would fall. Consumers would find it less attractive to save with a fall in interest rate. They might instead increase consumption especially on big ticket items as the cost of borrowing is now lower.
- ♣ Firms might be more incentivised to borrow to finance their existing businesses or embark on new investment as the cost of borrowing is now lower and thus the expected returns are higher, ceteris paribus.
- ♣ With an increase in C and I , AD will increase. More workers would also be needed to increase output, hence reducing demand-deficient unemployment.

Limitations of Monetary Policy Centred on Interest Rate

The limitations below can reduce the effectiveness of the monetary policy.

1. Interest Elasticity of Consumption and Investment

- ♣ Whether the increase in money supply would increase C or I depend on the interest elasticity of consumption or investment respectively.
 - For a given change in interest rate, the higher the interest elasticity, the greater will be the change in consumption and investment and hence AD, ceteris paribus.
- ♣ When the economic outlook is gloomy, consumers might not increase consumption even with a lower interest rate as they might fear retrenchment. Likewise, a firm's confidence



might be adversely affected and hence might not be willing to embark on new investment projects.

2. *Nature of Economy*

- ♣ The effectiveness of reducing interest rate to stimulate AD would also depend on the nature of the economy.
 - In a small and open economy such as Singapore that allows funds to flow in and out freely, any changes in interest rate would lead to short term funds flowing in and out of the country.
 - For example, with a reduction in interest rate, short term funds would leave the country to seek higher returns elsewhere. Money supply in the country will fall, causing interest rate to increase. This would thus limit the effect of the initial intention of reducing interest rate to increase AD and thus its effectiveness in reducing unemployment.

c) *Expansionary Monetary Policy Centred on Exchange Rate*

To increase employment, a country can choose to depreciate its currency to increase net exports (X-M).

- ♣ With depreciation, price of exports in terms of foreign currency falls. This causes the demand for exports to increase
- ♣ The price of imports in domestic currency increases. This causes the quantity demanded of imports to decrease.
- ♣ This results in an increase in net exports (X-M). Hence, AD will increase which will lead to an increase in real national income via the multiplier effect.
- ♣ The initial increase in AD (due to the increase in (X-M)) will lead to a rise in output and NY. The rise in output leads to a further rise in factor incomes as more factors of production are employed. This will cause households to increase their consumption. This subsequent rise in induced C will lead to a further rise in AD and hence NY, which leads to further rounds of increases in induced C. Therefore, there is a more than proportionate rise in NY via the multiplier effect. This process stops when the initial increase in AD (injections) equals the total increase in savings, taxes and spending on imports (withdrawals).
- ♣ This would lead to a decrease in demand-deficient unemployment as more workers are required to increase output, increasing the derived demand for labour.

Limitations of Monetary Policy Centred on Exchange Rate

The limitations below can reduce the effectiveness of the exchange rate policy.

- ♣ The effectiveness of depreciating its currency to increase AD would depend on the summation of the price elasticity of demand for exports and imports.
 - For example, if a country has a price inelastic demand for both imports and exports such that the sum of the PED values is smaller than 1, (X-M) may not improve. This could be so in the short run where, due to contractual obligations, quantity demanded and supplied are unable to respond much to changes in price.



- ♣ If the Monetary Authority of Singapore depreciates the Singapore Dollar,
 - it will increase the production cost through increase price of imported raw materials.
 - with an increase in cost of production, firms might need to increase the price of their finished goods. This might erode its export competitiveness, thereby mitigating the increase in export competitiveness brought about by the depreciation.

Other limitations would also include small multiplier and time lags.

4.1.2. Structural Unemployment

Government could implement **supply-side policies** to tackle structural unemployment which occurs as a result of changing patterns of demand that determine the growing and declining of industries, technological changes and geographical changes. These changes result in mismatch between skills of those unemployed and the skills required by producers seeking factors of production.

a) *Supply-Side Policies – Training / Retraining of Workers*

- ♣ The government can provide more training subsidies or grants to firms or workers.
- ♣ The government can also reduce taxes or give tax rebates to firms which provide training programmes for their workers. These would provide an incentive for firms to send their workers to acquire new skills or upgrade their existing skills; this would increase the workers' productivity and employability as there would be a reduction of mismatch between labour and skills. As a result, their capacity to produce would rise, increasing aggregate supply.
- ♣ The government can also gear up educational policies to develop skills that are relevant to the needs of the industries in the future or establish training facilities and institutions for workers who want to upgrade or acquire new skills.
- ♣ These policies would lead to a fall in structural unemployment.

Limitations of Supply-Side Policies

The limitations below can reduce the effectiveness of the supply-side policy.

1. Time Period

- ♣ Supply-side policies usually take a relatively longer period of time to yield results. For example, workers require time to acquire new skills. Moreover, less-educated or older workers may not be able or willing to learn new skills.

2. Government Funding

- ♣ To implement supply-side policies, huge government funding is required to establish institutions or provide subsidies and grants. This might take a toll on government budget resulting in a budget deficit when government spending is greater than tax revenue.



- ♣ Moreover, workers might still require government assistance during the period of training or unemployment, such as unemployment benefits in the United States. However, Singapore does not provide unemployment benefits. This is to reduce the reliance on the government and increase the incentive to work. Instead, the Singapore government introduces Workfare Benefits to encourage and reward the less-educated or less-skilled workers to seek training or provide some welfare pay-out to the poorest of the population.

4.1.3. Frictional Unemployment

The government can also adopt supply-side policy to assist those who are in the process of looking for jobs.

a) *Improving Information Flow*

- ♣ The government can organise career fairs or exhibitions or establish job portals to provide adequate information on job availability. The government can also provide subsidies for organisations to coordinate and disseminate information to job seekers and employers.

The policy above would lead to a fall in frictional unemployment.

Limitations of Improving Information Flow

- ♣ Even if the government provide more information to the job seekers, it still depends on the individuals' willingness to take the job available. As the job fairs or exhibitions might not yield any results, this will incur high opportunity cost of the government funding.

High unemployment rates have detrimental economic and social impacts on a country.

It is essential for the government to identify the root cause of unemployment so as to implement the appropriate policies to tackle the issue.



How would an A-level question that requires you to explain why governments seek to achieve full employment look like? Look at the following question for a possible example.

This corresponds to EQ 2 (2023 MI H2 Prelims) of your Full Employment Tutorial package.

Discuss the extent to which monetary policy alone will be effective in addressing unemployment caused by the COVID-19 pandemic in Singapore. [15]



Appendix A

SEASONAL UNEMPLOYMENT

Seasonal unemployment refers to periodic unemployment created by seasonal variations in some industries or at certain times of the year.

- ♣ Such a type of unemployment occurs when the demand for certain types of labour fluctuates with the seasons of the year. Governments usually do not actively seek to reduce seasonal unemployment.
- ♣ Examples include the tourism, fishing and agricultural sectors in which the seasons or the time of the year determine when production can take place. In farming, more labour is required during the harvest and planting seasons. Between the two seasons, most farm workers are unemployed. Such unemployment is prevalent in the developing countries which are predominantly agriculture-based.