Catholic Junior College

THEME 3: THE NATIONAL AND INTERNATIONAL ECONOMY

INTERCONNECTEDNESS AND CONFLICT OF ECONOMIC OBJECTIVES

CONTENT

1. INTERCONNECTEDNESS OF MACROECONOMIC ISSUES

2. POSSIBLE CONFLICTS OF ECONOMIC AIMS

3. POLICY IMPLICATIONS

KEY LEARNING OUTCOMES

Students should be able to:

- explain how some macroeconomic issues are inter-connected;
- explain the possible trade-offs that may occur between key economic aims;
- assess if the conflicts in macroeconomic objectives necessarily occurs in all cases;
- discuss the challenges governments face to achieve all its macroeconomic objectives simultaneously.

Based on the Learning Outcomes, the skills that need to be mastered for this topic are:

- Discuss the possible conflicts in macroeconomic objectives and how some macroeconomic problems are inter-connected with others.
- Evaluate the effectiveness of government's macroeconomic policies using the AD/AS approach, especially with reference to the Singapore economy.

Suggested Readings

a) Economics Review, Nov 08, "Short run and long run".
b) Economics Today, Sept 07, "As an economy nears full employment will inflation have to increase?"
c) Economics Today, March 2006, 'To what extent might the pursuit of full employment conflict with other policy objectives?'
d) Economic Review: March 1990 – 'A pursuit of different macro-economic objectives illustrates the concept of opportunity cost,' Discuss.
e) Economic Review, Sept 2006, "Economic development & the environment"
f) http://www.amosweb.com/cgi-bin/awb_nav.pl?s=wpd&c=dsp&k=macroeconomic+goals

INTRODUCTION

Earlier this year, we understood the various macroeconomic issues and aims a government has.

Recall that the macroeconomic objectives of any government are:

i) Sustainable and Inclusive Economic Growth
ii) Full Employment
iii) Price Stability – Stable (internal) prices or low inflation rate,
iv) Favourable Balance of Payments in the long run and stable exchange rate.

We then studied the various policy options of the government and recognized that each policy has some limitations. Furthermore, there are limitations arising due to each economy's context.

Government policies are not without trade-offs. Very often, it is a challenge for any government to meet all its objectives at the same time, given the complexity of the economy coupled with the limitations of policy tools. Sometimes, the pursuit of one objective may be at the expense of others.

This topic seeks to look at

1. Inter-connectedness of macroeconomic problems – how some macro issues are related to other macro issues
2. Possible conflict of economic objectives – achieving one macro objective at the cost of forgoing another objective
3. Problems and dilemmas faced by governments when managing the economy – challenges in choosing the best policy to address a situation

As there are so many ways macroeconomic problems can be intertwined, you will need to read up (newspapers, articles etc) and discuss with your friends and tutors to get a better understanding of the issue. This topic serves only as an introduction to the interconnected nature of macroeconomic issues.

1. INTERCONNECTEDNESS OF MACROECONOMIC ISSUES

Macroeconomic problems are often interrelated. One problem can have repercussions on other economic goals as well. The existence of such interconnectedness means that governments must carefully discern the root causes of the problems they face, so as to avoid addressing only the symptoms of the problem.

(a) Interconnectedness between Price Stability and Economic Growth & Employment

In general, price stability facilitates economic growth as it reduces the risk of uncertainty to investors and consumers. Stable prices make it easier for investors and consumers to make long term production and consumption plans.

High inflation results in poor confidence and high uncertainty. Consumption may fall and capital flight occurs. The resultant fall in C and I could reduce AD, ceteris paribus, and cause a multiplied fall in real national income and negative economic growth, assuming there is spare capacity.

However, there is also a need to look at the type and severity of inflation.

- A **mild demand-pull inflation** is indicative of an economy that is enjoying economic growth and progressing towards full employment. This might increase consumer and investor confidence, further promoting investments and consumption. Therefore, AD increases, ceteris paribus, and brings about actual economic growth.
- However, when there is **cost-push inflation** due to a fall in SRAS, the real output will fall and unemployment will rise in a country. The extent of cost push inflation will therefore determine the how much real output will fall and unemployment will rise.

    - E.g. in late 1973, OPEC exerted its market power to raise oil prices. The cost-push inflationary effects generated rapid price level increases in the 1973-1975 period. Higher oil prices resulted in higher cost of production in firms. Therefore, SRAS falls and production activities declined, resulting in fall in real national income and increase in unemployment. Cost-push inflation and unemployment became problems of many oil-importing countries.

The above highlights the importance of price stability and its relation to employment and economic growth.

(b) Interconnectedness between Inflation and Balance of Payments (Current Account)

Inflation may adversely impact a country's Current Account of its Balance of Payments

- If a country experiences inflation, export competitiveness will fall because prices of exports are now relatively more expensive. Assuming demand for exports is price elastic, quantity demanded for exports fall more than proportionately. The country will also be more inclined to import from abroad because imports are relatively cheaper (assuming that the rate of exchange between the currencies is unchanged). Demand for imports increase, hence

leading to a rise in import expenditure. These result in a worsening of the trade balance for the country, which may result in the worsening of the balance of payments, ceteris paribus.

Inflation may also adversely affect the Capital and Financial Account of the Balance of Payments

- When there is high inflation and prices are unstable in a country, foreign investors might be discouraged from investing in that country. This is because high and unstable prices will lead to uncertainty with regard to the expected returns on investment. FDI flows out of the country worsening the capital and financial account of the country, leading to a worsening of the balance of payment accounts.

(c) Interconnectedness between Inflation and Exchange Rate

Recap: The ***foreign exchange rate*** is commonly known as the **external** value of money, or the amount of other currency the domestic currency can buy.

This is not to be confused with the **internal** value of money, which is the purchasing power of a given sum of money within the country, or how much goods and services a unit of money can buy. In previous notes, we learnt that inflation reduces the internal value of money. It can also affect the external value.

The country with a higher rate of inflation relative to other countries would experience a depreciation of its currency against other currencies, ceteris paribus. This is because as higher inflation results in a lowered internal value of the currency, i.e. fall in purchasing power of domestic consumers. As such, domestic consumers may seek to switch from domestic consumption to imports. Imports expenditure will rise. The rise in import expenditure leads to a rise in supply of domestic currency as consumers sell domestic currency to buy foreign currency to purchase imports.

On the other hand, price competitiveness of exports would worsen and export revenue falls if PEDx>1. The fall in export revenue leads to a fall in demand for domestic currency as foreign consumers buy less domestic currency to purchase the exports. Taken together, the rise in supply of and fall in demand for the domestic currency would lead to a depreciation, ceteris paribus.

Summary Table for Interconnectedness in Macroeconomic Objectives	
Interconnectedness between Price Stability and Economic Growth & Employment	**Low inflation** Price stability→ Consumer and Investor Confidence rises→ C and I increases→ AD rises, ceteris paribus,→ multiplied increase in Real GDP → Actual Economic Growth occurs if there is spare capacity Actual Economic Growth comes leads to a fall in cyclical unemployment, since labour is derived demand. The fact that production has risen means more labour has been employed, resulting in the economy being closer to full employment. *Long run effect* I increases→ Quantity and Quality of Resources increases→ Productive Capacity increases→ LRAS shifts right→ Potential Economic Growth Occurs Therefore, low inflation→ **Sustained Economic Growth** **High Inflation (Attempt it yourself)**
Interconnectedness between Inflation and Balance of Payments	High Inflation→ Price of exports become higher→ Fall in export competitiveness→ Qd of Exports fall (assuming |PEDx|>1)→ Export Revenue falls. As imports become relatively cheaper, import expenditure rises→ X falls and M rises→ BOT deficit At the same time, inflation→ uncertainty and poor investor confidence→ FDI outflow from capital and financial account→ worsening of BOP balance
Interconnectedness between Inflation and Exchange Rate	High inflation→ Prices of locally produced goods becomes relatively more expensive→ Export competitiveness fall→ Quantity demanded for exports falls→ Fall in Demand for Local Currency→ Fall in Exchange Rate High inflation→ Prices of locally produced goods becomes relatively more expensive→ Imports relatively cheaper to locally produced goods→ Quantity demanded for imports increases→ Increase in Supply of Local Currency→ Fall in Exchange Rate

2. POSSIBLE CONFLICTS OF ECONOMIC OBJECTIVES

Definition of trade-off

- An advantage or improvement that results in the corresponding loss or degradation of something else.
- Involves sacrificing some of X to get more of Y

Ideally a country would like to achieve all its macroeconomic objectives. However, in reality, policies employed to achieve one objective often compromises others. There are **trade-offs involved in these objectives**, A government therefore has to anticipate and manage these trade-offs to achieve a balance that is economically and politically acceptable.

(a) Conflict 1: Full Employment vs Inflation

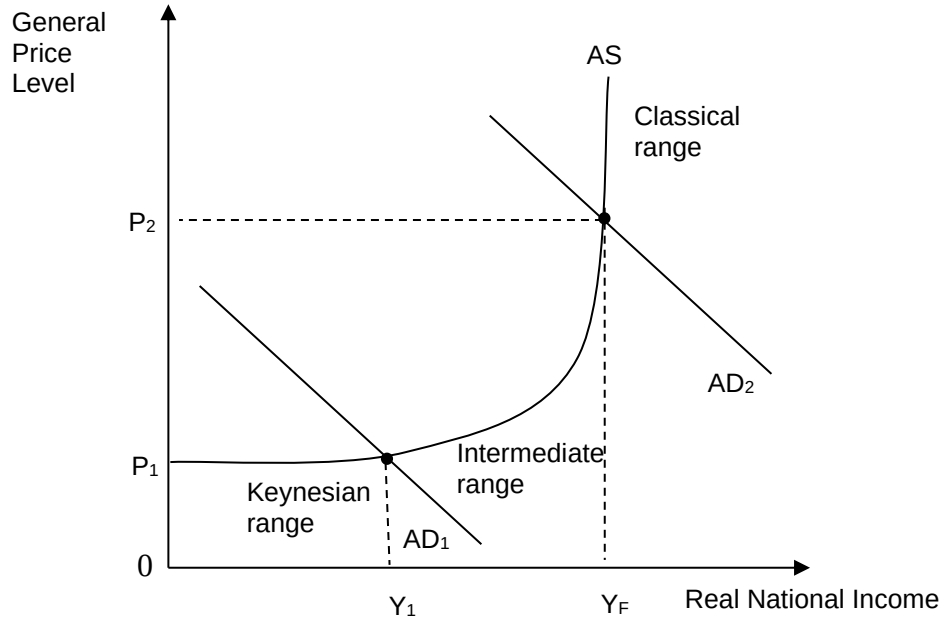

Figure 1: Effects on Output of a Rise in Aggregate Demand

Achieving full employment can result in demand pull inflation. Suppose the economy is initially producing at an output level Y_1 which is below the full employment level, as seen in Figure 1 above. A persistent rise in AD from AD_1 to AD_2 will result in Y_1 moving towards Y_F. Notice that the closer the new output level is to the full employment level, the greater the rise in the General Price Level (i.e. Demand Pull Inflation). Hence, to achieve a lower unemployment rate, a higher inflation rate is often the result.

Conversely, a decrease in Aggregate Demand would reduce the demand-pull inflation, however, this comes at the expense of a higher unemployment rate, resulting in the country producing an output below full employment level.

There is thus an inverse relationship between inflation and unemployment, which is illustrated by the Phillips Curve. (See **Appendix 4** on the theory behind the Phillips curve)

The reasoning is as follows: As Aggregate Demand increases, resources such as labour become increasingly scarce and firms would have to offer increasingly higher wages to obtain the labour they require. This results in higher prices.

↑ AD ⇒ Employment ↑ ⇒ DD-pull Inflation

EVALUATION- [SITUATION] of STRAWS: However, if governments could use policies that encourage supply side growth as well as increasing aggregate demand to promote actual economic growth. This could promote economic growth without worsening inflation.
goals of full employment need not always conflict with stable prices.

When the ***increase in Aggregate Demand is accompanied by an increase in Aggregate Supply***, helping to keep prices stable, even when the economy is operating near or at full employment, there is no inflationary pressure. From the government perspective, the use of demand management policies along with supply-side policies would help promote sustained non-inflationary economic growth, ensuring both aims are achieved.

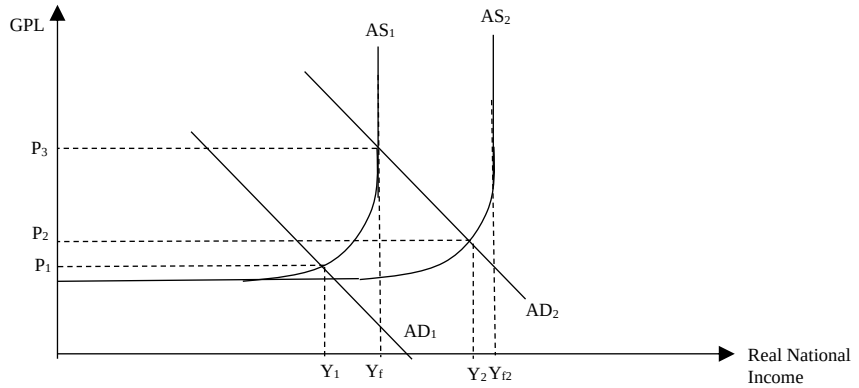

Figure 3: Sustained Non-Inflationary Economic Growth

According to Figure 3, the original equilibrium position is where AD_1 intersects AS_1; where the general price level is P_1 and real national income is Y_1. If AD_1 rises to AD_2, real national income increases from Y_1 to Y_f via the multiplier effect, and the economy would experience demand-pull inflationary pressures as the general price level rises from P_1 to P_3.

However, if AS increases (from AS_1 to AS_2) along with the increase in AD (from AD_1 to AD_2), a higher output can be attained at Y_2 and inflationary pressures would be eased since the general price level increases by a smaller extent from P_1 to P_2 instead of P_3, and the economy is operating near to full employment level, Y_{f2}.

(b) Conflict 2: Economic Growth vs. Favourable Balance of Payments

This conflict can be experienced by a country enjoying high economic growth rates. High economic growth rates can lead to conflict with BOP aims. When a country becomes richer, consumers might import more normal goods, especially if the marginal propensity to import is high. The rising demand for imported goods as well as imported inputs necessary for increased production will worsen the balance of trade of the current account and lead to a worsening balance of payments, ceteris paribus.

This conflict could also be experienced by developing countries. These countries may have to import more capital goods, e.g. machines, to increase their productive capacity. However, this would increase import expenditure and may lead to a trade deficit. Hence, the aim for economic growth may conflict with the aim for having a favourable balance of payments.

EVALUATION - [TIME PERIOD] of STRAWS: However, this may be a conflict faced only in the short run but not in the long run. Hence, there may not be a conflict in the long run, for the following reasons:

First, if the country is importing capital goods, this will increase her productive capacity. In the long run, she can become more productive, which reduces unit cost of production, and can increase exports that are priced more competitively. This can help to reduce a trade deficit and improve balance of trade.

Second, these developing countries may be able to produce their own capital goods in the longer run (possibly due to technological transfer or learning-by-doing). Therefore, in the longer term, they can reduce their reliance on imports, increasing the country's self-reliance and perhaps even become competitive in such exports. E.g. Economies, like Japan and South Korea and Taiwan, used to be reliant on imported capital goods but have since become competitive in these industries to be able to export them competitively.

Third, growth with increased confidence in the economy can lead to more foreign direct investment. The outflow of currency registered in the current account (because of importing more) may be offset by an inflow of currency registered in the financial account (because of foreign direct investment). This will ensure a healthy balance of payment and strong currency.

(c) Conflict 3: Economic Growth vs. Low Unemployment

As a country upgrades/restructures to remain competitive and to sustain economic growth, there may be a conflict with low unemployment. Inevitably, there will be people who will lose their jobs as they lack the necessary skills or training needed to remain employed. The skills mismatch will prevent them from transiting into new jobs even through there may be many job opportunities available. This is due to occupational immobility of labour. Thus, economic growth with a change in structure of the economy conflicts with low unemployment as it may result in increasing **structural unemployment**.

However economic growth need not always conflict with low unemployment. With supply side policies that aim at retraining labour, structural unemployment may be mitigated.

This conflict may also arise if there is 'jobless recovery' or 'jobless growth'. "Jobless growth" is a situation where the economy is growing in specific sectors where labour growth is not large or significant, or the growth was caused by improvements in productivity due to greater adoption of technology and mechanization. As a result, although GDP rose, employment did not. Unemployment may also rise if growth is caused by the adoption of labour-substituting technologies. **USA*** and **Philippines*** both faced some degree of this issue (for more information, see Appendix 1 and 2).

EVALUATION – [SITUATION] of STRAWS: However, economic growth may not always conflict with low unemployment. In a situation where the government uses Supply-side policies to promote export competitiveness and actual economic growth, structural unemployment may not increase.

With greater application of technology, the country's productivity will rise. To ensure that workers will benefit, training needs to be given to the workers to ensure they stay relevant. For example, in Singapore, efforts were made to help workers upgrade their skills to ensure that even in a high-tech world, workers can still get jobs. See **Appendix 3** on **How Covid-19 spurred Singapore's digital transformation**

(d) Conflict 4: External Stability vs. Internal Stability

External stability is achieved when the country achieves a favourable BOP position (for our purposes, we focus on Balance of Trade (BOT)).

Internal stability is achieved when the country achieves her internal aims, e.g. sustained and inclusive economic growth, price stability and low unemployment.

Achieving external stability could lead to internal instability. To achieve external stability, such as a favourable BOT, countries often adjust their macroeconomic policies. The attempts to achieve a favourable BOT (achieve external stability) could potentially bring about demand pull inflation (internal instability) or cost push inflation.

Sometimes, large, and less open economies may attempt to reduce of interest rate, to allow for a short-term currency depreciation through hot money outflow. The hot money outflow may temporarily result in an improvement to the BOP (external stability). However, this does not only lead to a growth in exports, it also stimulates investments and consumption since lending cost is now lower, which are components of AD, causing demand-pull inflation. Achieving external stability leads to internal stability.

A small and open economy may resort to adjusting the exchange rates and use depreciation as a tool to reduce BOT deficits. This may result in BOT improving, but the weakening of the domestic currency relative to foreign currencies would mean that imports will be more expensive in domestic currency, resulting in higher costs of importing. In small and open economies that are heavily reliant on imported FOP, like Singapore, the increased costs of importing factor inputs would lead to a rise in cost of production, causing a fall in SRAS, and imported cost-push inflation.

Achieving internal stability could also result in external instability. To achieve internal stability, such as price stability, countries may adjust their macroeconomic policies. The attempts to reduce inflation (achieve internal stability) could potentially bring about deterioration of BOT (external instability)

Small and open economies, like Singapore, may use appreciation to reduce imported cost-push inflation and promote internal stability. However, this would raise the external price of exports and adversely affect export competitiveness and possibly lead to a trade deficit (i.e. external instability).

Large and less open economies, e.g. USA, may fight inflation and achieve internal stability by raising interest rates, increasing the lending and borrowing costs, thereby slowing down or even reducing levels of consumption and investment, which are components of AD. However, the increased interest rates lead to hot money inflows, causing an appreciation of the exchange rate. The subsequent effect would eroding export competitiveness, worsening the BOT (external stability).

EVALUATION – [SITUATION] of STRAWS: Singapore tries to balance competing goals of internal and external stability by pursuing an exchange rate policy of modest and gradual appreciation (except during recession). Appreciation helps to reduce imported inflation and maintain price (and internal) stability. Ensuring that appreciation is 'modest and gradual' helps to prevent excessive worsening of export competitiveness that could threaten external stability.

When a government cannot achieve both internal and external stability, it may choose to prioritise one over the other. Often, this is based on the nature of the economy. Small and open economies, e.g. Singapore, may prioritise external stability and export competitiveness since these have greater impact on the economy. On the other hand, large and less open economies like USA and Japan, may prioritise internal stability as external stability has less significant impact on the economy.

(e) Conflict 5: Economic Growth vs Equitable Income Distribution

Achieving economic growth by promoting greater technological advances, e.g., greater automation and digitalisation, may also worsen structural unemployment and worsen income inequality (between high- and low-skilled labour). The rise of the digital economy, automation and use of self-service technology reduces the need for low-skilled labour.

Although the fall in cost of production and rise in productive capacity can result in Actual and Potential Economic Growth (which would lead to sustained economic growth), the resultant rise in demand for high-skilled labour that can support new production methods causes wages for high-skilled labour to increases. On the other hand, falling demand for low-skilled labour leads to greater structural unemployment and incomes for these workers. Hence, economic growth in a knowledge-based economy tend to benefit the rich, who are likely to be asset owners, and workers with higher education & skills causing inequitable income distribution, than the poor and less skilled, resulting in a widening income gap.

In some cases, government policies sometimes might be the cause of non-inclusive economic growth, economic growth achieved with less equitable income distribution. Government policies to achieve economic growth through attracting the wealthy and high-skilled foreign talent may lead to increasing income inequality. Singapore is known for its low corporate tax rates and wide range of tax incentives, which the wealthy could benefit from by setting up businesses and investing into the country. In addition, Singapore is known for its tax regime that is substantially lower as compared to the rest of the world. The economic growth is achieved with greater income inequality.

EVALUATION – [STAKEHOLDERS] of STRAWS: However, economic growth may not need to conflict with equitable income distribution. Economic growth provides jobs, resulting in fewer people having difficulty in satisfying basic needs and wants. Economic growth also increases tax revenue to the government to help the lower income group through transfer payments and increasing social mobility. More funds can be spent on merit goods like education & health for the lower income.

(f) Conflict 6: Other Conflicts

There are also other conflicts between growth and other issues, such as environmental sustainability. E.g. rapid economic growth in India and China have led to over-consumption of fossil fuels and over-production in pollutive industries. These severely affect environmental sustainability and worsens non-material SOL – though incomes and material SOL are rising. Hence, economic growth may not always be sustainable as it depends on how growth is being achieved in an economy.

Achieving growth using environmentally unsustainable practices will mean that the rise in the real output produced may come with increased pollution and increased risk of unsustainable depletion of natural resources. There will be negative externalities generated, affecting third parties who may include current and future generations.

Hence, a good solution is to use green GDP as an economic indicator instead of conventional GDP figures. The **green gross domestic product** (**green GDP** or GGDP) is an index of economic growth with the environmental consequences of that growth factored into a country's conventional **GDP**. This can be done by monetizing the loss of biodiversity, and accounts for costs caused by climate change.

Video 1: The Environmental Cost of China's Growth (Aug 26, 2007, 6 minutes)

Weblink: http://www.youtube.com/watch?v=t77bLtIck2g
Synopsis:

- What are the issues at conflict here?
- What are the possible costs of China's economic growth?
- What are some suggestions to resolve these problems?

Summary Table for Conflicts of Macroeconomic Objectives			
Inflation and Full Employment	▪ A fall in unemployment may lead to demand-pull inflation ▪ Reducing demand-pull inflation via contractionary DD-side policies may result in rising unemployment.	**Economic Growth and BOP**	▪ Economic Growth may lead to higher propensities to import, this worsens balance of trade which thereby worsens BOP, ceteris paribus.
Economic Growth and Full Employment	▪ The pursuit of economic growth may require restructuring of the economy, which results in structural unemployment due to occupational immobility. ▪ In the face of labour substituting tech., growth may also worsen UnN.	**Internal and External Stability**	▪ Achieving internal stability can be at the expense of external stability, vice versa. o E.g. Fighting inflation via contractionary monetary policy (raising I/R)→ hot money inflow→ Exchange rate rises→ Export competitiveness falls→ Negatively affects BOT and BOP, ceteris paribus.
Economic Growth and Income inequality	▪ Growth may be experienced by some industries and not others, worsening income distribution.	**Other Conflicts**	▪ Growth & env. sustainability → threatens future gen.'s SoL → requires sustainable growth.

3. POLICY IMPLICATIONS

As seen in Section 2, there are situations where achieving some aims may simultaneously fulfil other aims, while in other situations it may result in a conflict. Based on these benefits and costs of achieving an aim, the governments need to decide which macroeconomic aim it wishes to focus on during a period of time.

The prioritization of the aims will therefore drive the direction of the policies, along with the consideration of the chosen policy limitations within their specific contexts, such as uncertainty, small multiplier and the lack of information.

In light of the interconnected nature of macroeconomic aims, this section explores some concerns that a government may face when deciding on which macroeconomic aim it wishes to focus on.

(a) Conflict of Objectives and Policies

- There may be considerable disagreement over which objective to prioritize. It is good to note that these priorities may change over time.

- Macroeconomic problems are often interrelated (Section 1***). Policy makers need to recognize these relationships and identify the key problem to solve.*** Otherwise the government might end up only addressing the symptoms and not the cause, thus resulting in their policies being only effective in the short term but not in the long term.

- Policy choices may have repercussions on other macroeconomic objectives. (Section 2). Hence, policy makers need to understand and anticipate how one policy affects another so that when they are solving one problem, they would not inadvertently create more problems.

(b) Policy Recommendations Differ Between Economists

- Even when the government can decide on which is the aim to achieve, not everyone agrees with HOW to solve the problem.

- Advocates of the Keynesian theory would stress active government involvement in managing the level of economic activity to achieve full employment and stable prices. They believe in government intervention to stabilise the economy in the short run.

- Advocates of Classical theory would place more reliance on market forces and a reduced role for direct government intervention. They think that stabilisation policies do not work in the long run.

- **Video 2:** Econs 102 – Keynes vs Friedman (for & against government intervention, 8 minutes)

Weblink:
http://www.youtube.com/watch?v=q8Hq4RS9EE0&feature=related
Synopsis:
- What are the differences between Keynesian and Friedman's schools of thought?
- What are the arguments for and against govt intervention?

(c) Rules vs Discretion

- Besides deciding on the type of policy (e.g. monetary or fiscal) to use to influence aggregate demand, there is also much debate on the degree of intervention. Central to this debate is the issue of rules vs discretion.

- An example of a rule is inflation targeting, where Central Bank declares an inflation target and automatically adjust interest rates at periodic intervals until this target is achieved. If inflation is above target, then interest rates are raised, and vice versa. Such a rule conveys the message that the central bank will ensure that inflation is kept in check and promotes confidence

- Rules can also apply to fiscal policy. Common rules include limits on the size of a budget deficit. This prevents a government from running excessive budget deficits to fund populist policies, and incur massive public debts. Singapore requires that the government must have a balanced budget over its 5-year term. This helps to ensure that the current government spends within its means, thus avoiding the accumulation of public debt over the longer term.

- Some economists disagree; they argue that an economy is inherently unstable as it is subjected to shocks such as a financial crisis. Government should restore confidence as quickly as possible by demonstrating a strong will to act under such circumstances. Sticking to rules would only hamper such actions, which then causes economic fluctuations to be more prolonged than necessary.

(d) Tinbergen Principle

- Due to the various possible conflicts between objectives, it may not be possible to achieve multiple objectives with just one policy instrument.

- According to the **Tinbergen's principle,** for the different targets to be achieved simultaneously there must be at least the same number of instruments as there are objectives.

- For example, to achieve both full employment and stable prices, the government may have to adopt expansionary fiscal policy to reduce unemployment, while concurrently using supply side policy to grow the AS and help prevent demand pull inflation.

(e) Other Issues:

- Policy makers and societies sometimes have certain ideologies which they might adhere strongly to. Some might believe fully in the efficiency of free markets, while others may place their trust more in a government for fair and efficient outcomes. Such strong biases can seriously affect the ability of a country in choosing the best policy option for a given situation. Hence a country may sometimes end up adopting a policy that is based on social and political acceptability rather than on economic merit.

Conclusion

This set of notes looks at the macroeconomic problems from the perspective of a government, recognizing that both problems and intended policies have ripple effects and should not be seen in isolation. The interconnected nature of the macroeconomy means that any good government has to consider issues in a holistic measure.

Conflicts in objectives and problems are generally difficult, if not impossible, to resolve quickly. Ultimately, governments will need to weigh and assess which is the most pressing and urgent problem to solve or objective to achieve. This can be done though the gathering a broad range of data regarding the current state of the economy.

Even after deciding which objective or problem to tackle, the government will then have to select the policy that best solves the issue. However, the policy might create new, unintended consequences which the government must anticipate and manage. Thus often times, it requires a mix of policies to ensure that the government can achieve its aims simultaneously.

The Singapore experience has been helped by good policy choices. Singapore has generally achieved economic growth & high employment with low inflation rate.

Emphasis on capital formation by Singapore, results in both aggregate demand and aggregate supply shifting outwards. Therefore, income and employment have increased with low rates of inflation (i.e. sustainable economic growth).

Foreign workers and reduced power of labour unions help to moderate wage rises, helping to fight cost push inflation due to rising labour costs. Central Provident Fund (CPF) policy (high savings) and strong Singapore dollar (price of imports into Singapore kept relatively low) also keep inflation rates low. Globalisation leads to increase in employment and sometimes makes Singapore vulnerable to imported inflation and demand-pull inflation. But the trades-off may be manageable trade-offs with effective policies put in place. The government is increasingly looking at policies that would help make growth more inclusive, to redistribute the gains from growth more equitably.

Selected Past Year A-Level Essay Questions Related to This Topic:

Note:
Appended here are questions from past A-Level examinations where the interconnected nature of the economy is explicit in the question. The lower section deals with question where interconnectedness can be seen as a bigger issue and students need to be aware of the implicit assumptions.

Essay Question Types: Conflict of Objectives

(2020,H2)

In Singapore in 2018, the resident population below the age of 20 fell by 1.5% while the resident population over 65 grew by 6.0%. If these population changes continue into the future, there are likely to be significant consequences for Singapore's economy.

(a) Explain the likely economic consequences for these population changes for Singapore's economy in the future. [10]

(b) Discuss the policy measures that Singapore's government should take to address the economic consequences of these population changes on its economy. [15]

(2018,H2)

It was suggested by economist early in 2017 that world interest rates were likely to rise in the future.

(a) Explain why Singapore chooses exchange rates rather than interest rates as its main tool of monetary policy. [10]

(b) Discuss whether a rise in world interest rates would be of overall benefit to Singapore's economy. [15]

(2017,H2)

The Singapore economy grew by 1.8% on a year-on-year basis in the second quarter of 2015, sharply lower than the 2.8% growth in the preceding quarter, the Ministry of Trade and Industry (MTI) announced on Tuesday 11 August 2015.

(a) Explain the internal and external factors that are likely to have contributed to this slowdown in the economic growth rate. [10]

(b) Discuss whether the policies aimed to increase the economic growth rate might cause difficulties for Singapore's economy. [15]

(2016, H2)

(a) Explain why macroeconomic policy decision making is made more difficult by possible conflicts between government objectives. [10]

(b) Assess the relative effectiveness of the alternative macroeconomic policies that the Singapore government could adopt a low rate of unemployment. [15]

(2015, H2)

During the recent world-wide recession many European countries chose low interest rates as a monetary policy approach rather than adopting demand-led fiscal policy stimulation. At the same time, with most of these countries' governments introducing large cuts in government expenditure in order to reduce their budget deficits, a fiscal contraction actually resulted.

Discuss which policy approach is appropriate for a country during a world-wide recession. [25]

(2014, H1)

All governments have a range of different macroeconomic objectives. However, given that there are conflicts between the objectives, they need to establish priorities in order to decide with policies to pursue.

(a) Describe the major macroeconomic objectives and explain the conflicts that exist between them. [10]

(b) With reference to Singapore, discuss the extent to which monetary policy alone can be effective in achieving macroeconomic objectives. [15]

(2013 H2)

Governments have aims in relation to unemployment, economic growth and the balance of payments.

(a) Explain the consequences of failing to achieve these aims. [10]

(b) Discuss whether failure to achieve these macroeconomic aims is more likely to be caused by domestic or international factors. [15]

(2012, H2)

Governments generally face trade-offs between different macroeconomic policy objectives. Discuss how far a government's macroeconomic policy decisions when faced with these trade-offs are affected by the extent to which the economy is open. [25]

(2011, H2)

(a) Explain the process whereby an increase in government expenditure can lead to a bigger change in national income. [10]

(b) Discuss the extent to which conflicts in government macroeconomic objectives limit the scope for the use of fiscal policy in any economy. [15]

(2010 H2)

When there are large increases in the prices of oil and other primary products, they are usually expected to lead to rising inflation throughout the world's economies.
Discuss the extent to which these factors are likely to affect the rate of inflation in Singapore. [25]

Appendix 1

Philippines' puzzle: Growing economy fails to create jobs

By Saira Syed Business reporter, BBC News, Manila, Philippines

7 August 2013

Image caption: Household spending is partly driving the Philippines' booming economy

As the Anareta family sits down to dinner at their gated community home, in a suburb of Metro Manila, even the rain outside cannot dampen their spirits.

The construction business that 47-year-old Alejandro Anareta Jr runs has seen brisk business in recent years, going from eight to 12 people when he first started to about 80 workers now.

"Seeing the country grow right before my very eyes, I know that the past two years have really been tremendous in terms of economic growth," he says. "I can safely say it is the Philippines' time, everybody is making plans for growth."

The family has been riding that wave of prosperity seen in the wider economy and that means they are part of the consumer class, spending their money in newly-erected glitzy shopping malls.

"Almost all the brands are here, you don't have to leave the country any more to go shopping," says his wife Shaila, adding that she is most excited about her favourite brand H&M arriving in Manila next year.

Household spending has contributed to a boom in the Philippines. In the first three months of the year the country grew at a pace of 7.8%, beating even China.

Image caption: At the centre of Metro Manila new malls are attracting shoppers

But not everyone is feeling the benefits of that prosperity.

The next day in the blistering midday heat 56-year-old seafarer Ruben Barriantos is lining up for a third day at a seafarer centre on a busy road in the city.

The place is like an open-air, all-day jobs fair with representatives from international cargo and leisure vessels holding up signs for the vacancies they have.

Ruben, who is a second officer with 20 years' experience, has been out of a job for seven months.

"I've never been out of work for this long before," he says. "The government doesn't care about the seafarers."

Ruben is not alone in looking for work. Unemployment in the Philippines hit a three-year high of 7.5% in the first three months of the year, the highest in the region.

So how is the economy growing so fast, when unemployment is so high?

'Inclusive growth'

Rajat Nag, managing director general of the Asian Development Bank, says the Philippines is experiencing "jobless growth".

Image caption: Ruben Barriantos is considering leaving Manila if he cannot find work

"The growth in the Philippines has not created the kind of jobs you need - growth has to be inclusive, that means you have to create jobs," he says.

He explains that most of the expansion has been in the services sector, mainly the outsourcing industry, but that accounts for just 1% of employment - that too in highly skilled positions.

"So it doesn't really trickle down. It doesn't permeate the large labour force that remains untapped."

What would provide more people the opportunity to better their own situation is a thriving manufacturing industry, according to Mr Nag.

He says the Philippines must attract foreign companies to manufacture goods in the country, putting it in direct competition with many of its neighbours.

"First the country has to invest much more in infrastructure. One of the reasons that manufacturing hasn't taken place is because investors want assured power supply, good access to ports, good transportation networks.

"Once those are in place, investment will follow."

Investment grade

Image caption: This seafarer centre is packed with job hunters every day

In the past the Philippines has lagged behind the rest of the fast-growing region mainly because of corrupt practices by politicians and a brain drain which means that much of the country's middle-class is outside the Philippines.

But in the last few years there has been improvement as President Benigno Aquino's government has tried to implement good governance.

They have also increased infrastructure spending in partnership with private companies, although Mr Nag says it is still lower than the rest of the region.

In an acknowledgement of the progress made, ratings agency Fitch Ratings upgraded the Philippines to investment grade in March, followed by Standard & Poor's.

But that provides no reassurance to Ruben Barriantos who says he will go back to his family outside Manila in a few days if nothing works out for him.

Even though his country is finally being heralded as a rising star, his prospects seem anything but bright.

Appendix 2

Jobless Recovery Leaves Middle Class Behind

By CHRYSTIA FREELAND | REUTERS APRIL 12, 2012

NEW YORK — More bad news for the middle class: When the economy recovers, jobs in the middle won't. That is the conclusion of an important new study that connects a long-term trend in the labor market with the business cycle of recession and rebound.

Nir Jaimovich, an economist at Duke University in North Carolina, and Henry E. Siu, an economist at the University of British Columbia, take as their starting point one of the most important continuing changes in Western developed societies. That shift is what economists, most notably David Autor of the Massachusetts Institute of Technology, have called the "polarization" of the job market. Maarten Goos and Alan Manning, extending the research to Britain, have more colorfully dubbed it the dual rise of "lousy and lovely" jobs.

Their point is that, thanks to technology, more and more "routine" tasks can be done by machines. The most familiar example is the increasing automation of manufacturing. But machines can now do "routine" white-collar jobs, too — things like the work that used to be performed by travel agents and much of the legal "discovery" that was done by relatively well-paid associates with expensive law degrees.

The jobs that are left are the "lovely" ones, at the top of the income distribution — white-collar jobs that cannot be done by machines, like designing computer software or structuring complex financial transactions. A lot of "lousy" jobs are not affected by the technology revolution, either — nonroutine, manual tasks like collecting the garbage or peeling and chopping onions in a restaurant kitchen.

An extensive body of economic research has shown that job polarization is happening throughout the Western developed world. It accounts for many of the social and political strains we have experienced over the past three decades, particularly the increasing divide between the people at the top and at the bottom of the economic heap, and the disappearance of those in the middle who were once both the compass and the backbone of our societies.

What's new about Dr. Jaimovich and Dr. Siu's work is that they have found that job polarization isn't a slow, evolutionary process. Instead, it happens in short, sharp bursts. The middle-class frog isn't being gradually boiled; it is being periodically grilled at a very high heat. Those spurts of change are economic downturns: Dr. Jaimovich and Dr. Siu have found that in the United States since the mid-1980s, 92 percent of job loss in routine, middle-skill occupations has happened within 12 months of a recession.

"We think of recessions as temporary, but they lead to these permanent changes," Dr. Siu told me. "The big puzzle about business cycles is, Why have we had these jobless recoveries over the past three recessions? These jobless recoveries are because you have these middle-skilled jobs that are being wiped off the table."

Economists are often in the business of collecting empirical evidence of the trends many of us civilians have long experienced in our daily lives. That turned out to be the case when Dr. Siu shared his research findings with his family.

"I told my father-in-law, who used to be an executive in the oil industry," Dr. Siu said. "He said: 'That is exactly what happened. Every vice president had a secretary, then they fired them during the recession. But after the recession we had to pair up, and two vice presidents had to share one secretary."'

Another example may have been hinted at in the March U.S. jobs report. Those figures showed a decline of 34,000 jobs in the retail sector despite recent improvements in store sales. Some economists attributed that apparent mismatch to the power of technology, in this case e-commerce.

"That is certainly in line with our findings," Dr. Siu said. "Salespeople are one of the prime examples of routine jobs."

The Jaimovich-Siu paperconcludes that "jobless recoveries are evident in only the three most recent recessions, and they are due entirely to jobless recoveries in routine occupations. In this group, employment never recovers beyond its trough level, nor does it come anywhere close to its pre-recession peak."

This is, Dr. Siu told me, "a stark finding." David E. Altig, the research director at the Federal Reserve Bank of Atlanta, who has written a blog postabout the paper, echoed that view. "One of the things you certainly note is that this is the mother of all jobless recoveries," he told me.

Dr. Siu urged me not to be too gloomy. "In the broad sweep of history, technology is good," he reminded me. "We've been wrestling with this for 200 years. Remember the Luddites."

That is an important point. All of us, even the hollowed-out middle class, would be much worse off if the Luddites had won the day and the Industrial Revolution, whose latest wave is the past three and a half decades of technological change, had never taken hold.

But it is also true that every seismic shift, including the current one, has winners and losers. And for the losers, adapting to today's world of lousy and lovely jobs may be even harder than it was for the artisans of the Luddite era to thrive in the Machine Age.

"What might be different today is two factors," Dr. Siu told me. "The pace of technological change is so much faster, and we live in such a complex society, that it is harder than ever to switch to a new occupation."

All of us are awaiting an economic recovery. We should be braced for one that offers scant comfort to the middle class.

Chrystia Freeland is global editor at large at Reuters.

Appendix 3

How Covid-19 spurred Singapore's digital transformation

businesstimes.com.sg, JUL 13, 2020

During the circuit breaker, you may have come across this meme: “Who led the digital transformation of your company? A chief executive officer, a chief technology officer or Covid-19?”

It may have been a light-hearted take on what is the biggest crisis we have faced in recent history, but there is some amount of truth in it.

The importance of digital transformation has been talked about for many years. It is also one of the key priorities of the Singapore government; many businesses across the country have been adopting technology and harnessing its power to overcome key challenges and unlock new growth opportunities.

The scale of the impact of technology adoption on businesses has never been more apparent than now. The circuit breaker measures to contain the spread of Covid-19 were heavily reliant on digital technology – right from collaboration platforms to cloud-based services and cybersecurity solutions. It became the lifeline of all businesses irrespective of their size or industry sector.

Even as the government starts to ease some restrictions in Phase Two of Singapore’s re-opening, the pace of technology adoption is unlikely to slow. This trend will be driven by three elements: cloud, caution, and collaboration.

The rise of cloud computing

Touted as one of the biggest technology trends of recent times, the pandemic has underlined cloud computing’s importance further. Business leaders are looking to build an agile and resilient infrastructure that can enable them to provide better experiences for their customers and employees even during extreme events and unforeseen conditions like we have seen of late.

Cloud ranks among the top solutions on this front. At Cisco, we have seen the benefits firsthand. As companies saw their entire workforces move into a remote working arrangement, the demand for our Webex platform rose at an unprecedented rate. Being a cloud-based platform, our Webex platform was able to add millions of new users across the region, enabling thousands of businesses to continue their operations seamlessly.

Given the success companies have seen with cloud-based collaboration platforms and their agility, leaders will surely explore moving other aspects of their technology infrastructure to the cloud.

However, there is unlikely to be a widespread shift due to two main reasons: compliance and cost. From a compliance perspective, companies need to ensure they protect consumer data and adhere to specific regulations, especially in critical sectors such as banking and healthcare. For these businesses, on-premise solutions offer a relatively higher degree of security and governance as well as workload stability. At the same time, depending on the size of the organisation, on-premise solutions can also be more cost effective.

What this means is that companies will increasingly move towards a hybrid cloud setup, with some of their applications and infrastructure being cloud-based, while others being on-premise. To make this work efficiently, companies will need to ensure they have full visibility of their entire network, have a certain degree of automation, and can capture and analyse data across the entire IT infrastructure and turn that into actionable insights.

Caution against security risks

A move to hybrid cloud solutions will bring new challenges as well, not least on the cybersecurity front. As company data and applications sit on multiple platforms across a range of cloud networks, and employees and customers access resources and services from multiple devices and networks, the IT teams will need to keep all this secure. They need to be able to verify users and devices in real time even as they jump from one WiFi connection to another to ensure access is being granted to the right set of users.

At the same time, as we get used to the "new normal" of flexible working and learning, the use of collaboration platforms will continue to grow. It will be important to ensure that these platforms have adequate levels of security, especially for users who are at a greater risk due to their lack of knowledge about security settings configuration.

The growing use of digital services also means an increasing amount of data. This ranges from personal information, financial and health records, to details on services consumed. Hackers across the world will continue to try and steal this data and their attacks will continue to become more and more sophisticated.

Businesses have been adopting cybersecurity solutions to protect themselves. However, in many cases, the approach has been reactive. Every time a business uncovers a problem, they seek a specific solution to patch it. While some point solutions may be best suited for specific problems, they often tend to work in silos. Instead of simplifying things, they add complexity as each new solution adds another layer to the company's infrastructure.

Business executives across the world are admitting that this is a challenge for them. Globally, 1,300 chief information officers (CIO) were polled in Cisco's CIO Perspectives 2020 survey, and the top two challenges facing CIOs are security and complexity.

What companies need is a simplified approach to security, something of a platform approach which transforms their security infrastructure from a series of disjointed solutions into a fully integrated environment. We have recently made Cisco SecureX, the broadest and most integrated cloud-native security platform aimed at simplifying and enhancing the way businesses manage security. The platform is available globally.

Collaboration to develop talent pool

With every business going digital in some form, the demand for skilled professionals in the sector will grow at a rapid pace. One of the areas where this is already being felt is cybersecurity. Depending on which data you look at, there is a shortage of between two and three million cybersecurity professionals across the globe.

The situation is no different in Singapore. There is an urgent need to develop local talent capabilities to meet the current and future needs. There are shortages in both capacity and capabilities. Certain specific skill sets such as systems architecture design, behavioural analytics, and digital forensics are acutely in short supply.

There is also inadequate expertise in cybersecurity support sectors, such as cyber insurance, where both effective frameworks and sufficient knowledge are needed to accurately assess the value at risk. Unaddressed, this could hinder the implementation of any cybersecurity agenda, and by extension, the overall digital transformation of the nation.

To address this, collaboration is needed between all stakeholders — educational institutions, corporations and government. The educational institutions need to work with the industry to design and develop courses and curriculums that enable students to learn critical skills needed to forge a career in this space.

Companies also need to start looking at re-skilling some of their staff, empowering them to take on a new career path. At Cisco, we are proud to be playing our part with the Cisco Networking Academy. It has supported the training of nearly 70,000 students in Singapore over the past two decades. Over 1,474 students have undertaken cybersecurity courses to date, and the academy has trained more than 10 million students globally since its inception.

Policymakers need to facilitate all of this by creating a regulatory environment which not only demands a high level of accountability, but also empowers the stakeholders to collaborate more. This is especially critical for threat intelligence to ensure they stay a step ahead of the cyber-attackers.

In the times we are living today, companies need the tools, talent and a secure landscape to successfully ride the wave of digital transformation.

Appendix 4

The simple Phillips curve shows the trade-off between the inflation rate and unemployment rate in the short run.

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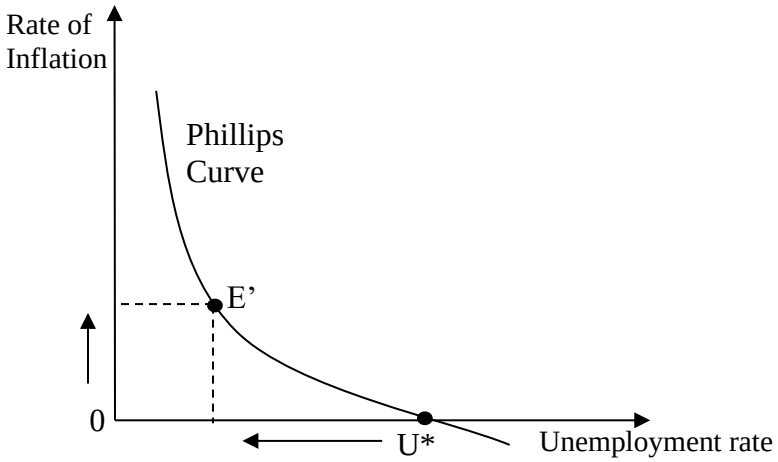


Figure 2: The Phillips Curve

On the diagram's horizontal axis is the unemployment rate. On the vertical scale is the annual rate of inflation. Point U* gives the point of unemployment when inflation rate is zero. Holding aggregate supply constant, an increase in aggregate demand to reduce unemployment would cause the general price level to rise and unemployment rate to fall. Thus, the economy moves up to the left from U* to E'.

The Expectations-Augmented Phillips Curve

The original Phillips Curve idea was subjected to fierce criticism from the Monetarist school among them the American economist Milton Friedman. Friedman accepted that the short run Phillips Curve existed – but that in the long run, the **Phillips Curve was vertical** and that there was **no trade-off between unemployment and inflation**.

He argued that each short run Phillips Curve was drawn on the assumption of a **given expected rate of inflation.** So if there were an increase in inflation caused by a large monetary expansion and this had the effect of driving **inflationary expectations** higher, then this would cause an upward shift in the short run Phillips Curve.

The monetarist view is that attempts to boost AD to achieve faster growth and lower unemployment have only a **temporary effect on jobs.** Friedman argued that a government could not permanently drive unemployment down below the **NAIRU** (natural rate of unemployment) – the result would be higher inflation which in turn would eventually bring about a return to higher unemployment but with inflation expectations increased along the way.

Friedman introduced the idea of **adaptive expectations** – if people see and experience higher inflation in their everyday lives, they come to expect a higher average rate of inflation in future time periods. And they (or the trades unions who represent them) may then incorporate these changing expectations into their pay bargaining. **Wages often follow prices**. A burst of price inflation can trigger higher pay claims, rising labour costs and ultimately higher prices for the goods and services we need and want to buy.

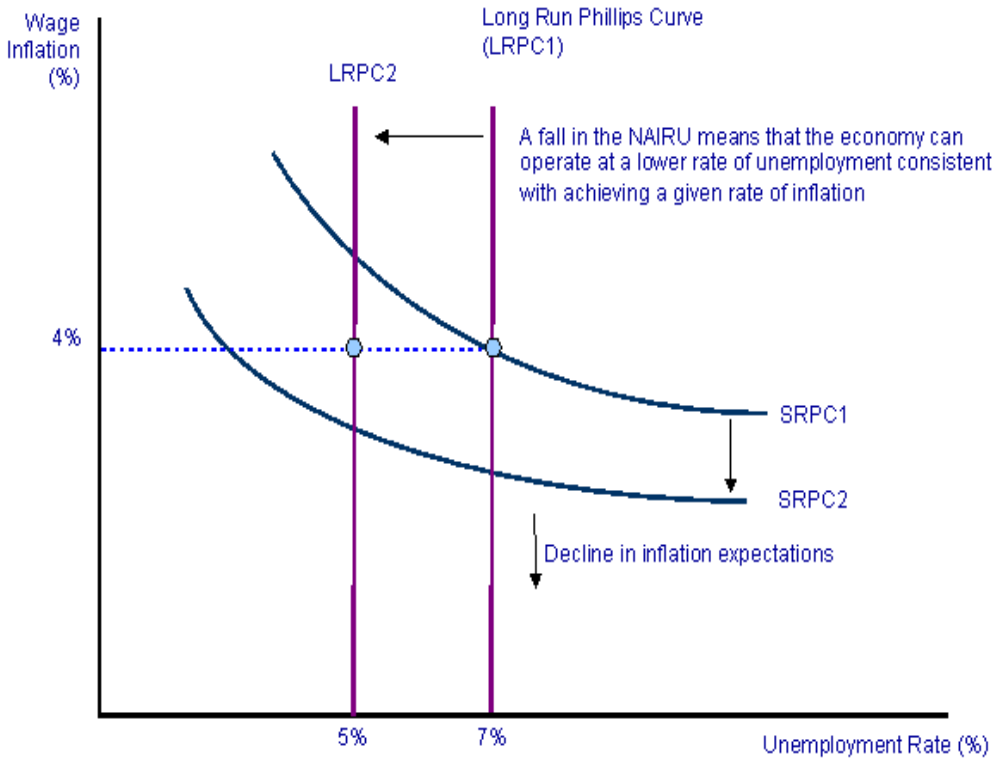
This is illustrated in the next diagram – inflation expectations are higher for SPRC2. The result may be that higher unemployment is required to keep inflation at a certain target level.

The expectations-augmented Phillips Curve argues that attempts by the government to reduce unemployment below the natural rate of unemployment by boosting aggregate demand will have little success in the long run. The effect is merely to create higher inflation and with it an increase in inflation

expectations. The Monetarist school believes that inflation is best controlled through tight control of money and credit. Credible policies to keep on top of inflation can also have the beneficial effect of reducing inflation expectations – causing a downward shift in the Phillips Curve.

The Long Run Phillips Curve

The long run Phillips Curve is normally drawn as vertical – but the long run curve can shift inwards over time



An inward shift in the long run Phillips Curve might be brought about by supply-side improvements to the economy – and in particular a reduction in the natural rate of unemployment. For example labour market reforms might be successful in reducing frictional and structural unemployment – perhaps because of improved incentives to find work or gains in the human capital of the workforce that improves the occupational mobility of labour.

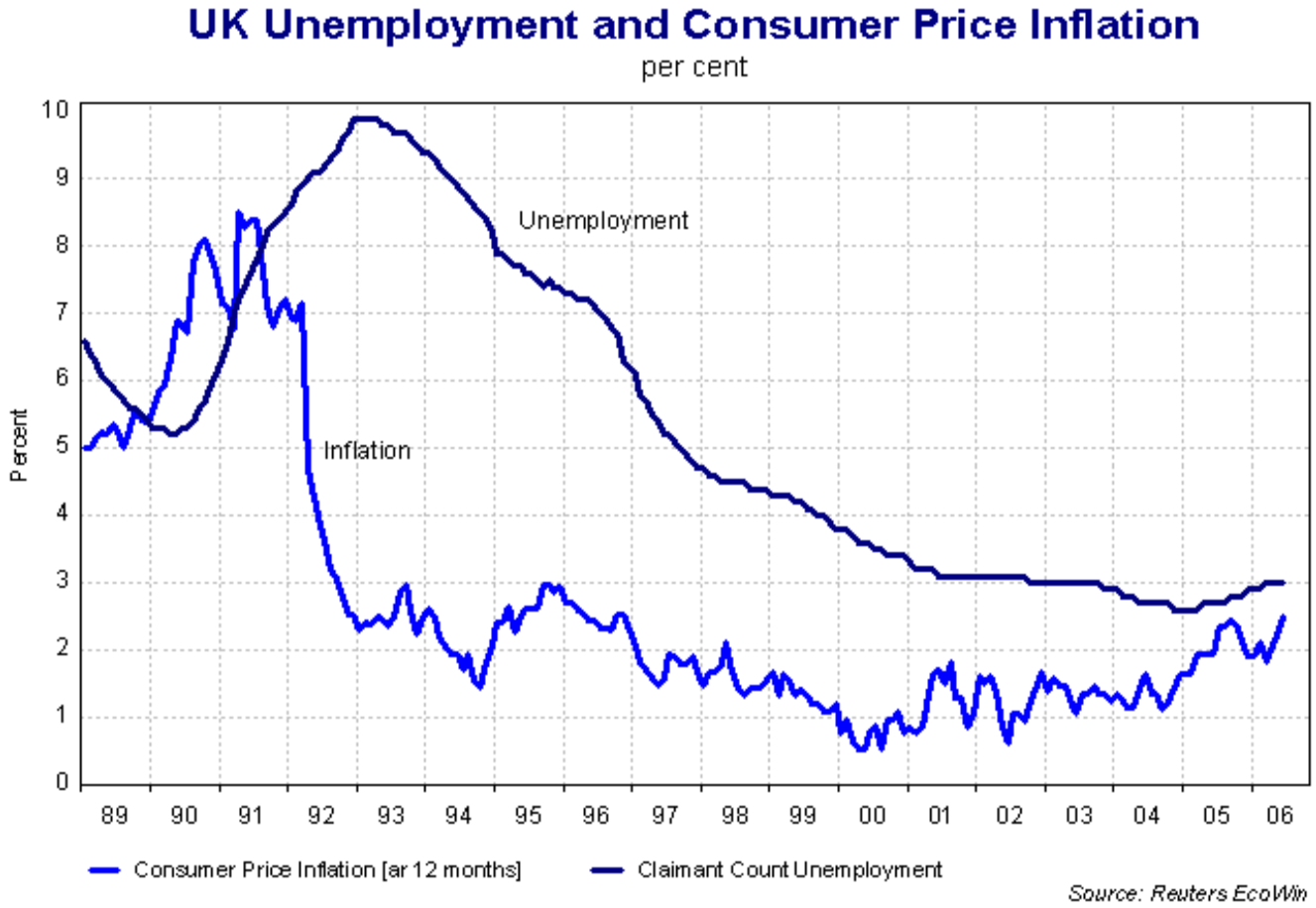
What has happened to the inflation-unemployment tradeoff for the UK?

The Disappearing Phillips Curve

Conventional economic wisdom suggests that rising real GDP growth and falling unemployment will lead to higher inflation and, furthermore, that any attempt to hold activity above its sustainable long-run level indefinitely is likely to result in inflation accelerating. But, over the last decade, inflation has been both subdued and stable, while the unemployment rate has fallen. Any positive relationship between economic activity and inflation has all but disappeared.

Charles Bean, Chief Economist of the Bank of England, speech given in November 2004

The evidence is that the supposed trade-off for the UK has improved over the last ten to fifteen years. Indeed since the early 1990s, Britain has enjoyed a long period of falling unemployment and stable, low inflation. The next table provides some supporting data for this view.



Factors that might explain the improved trade-off

No single factor on its own is sufficient to explain the changing (or improving) trade-off. Some of the key ones are highlighted and explained below:

1) **The flexibility of the UK labour market** - A more flexible labour market has increased the size of the **labour supply** and a reduction in trade union power has reduced the **collective bargaining power** of many workers. Falling long-term unemployment is a sign of a reduction in structural unemployment rates. We can be pretty certain that the **NAIRU** (the non-accelerating inflation rate of unemployment) has come down. Although the NAIRU is not something we can observe and measure directly, it is estimated that the NAIRU has fallen from nearly 10% of the labour force in 1992 to around 5% in the last few years.

2) **Benefits of immigration** – although the precise effects of the economic effects of labour migration are very hard to quantify with any accuracy, a rise in the size of inward migration, from the ten EU accession countries and elsewhere, may have helped to relieve labour shortages in some sectors of the economy and therefore help to control upward pressures on wage inflation.

3) **The effect of credible inflation targets**: The use of inflation targets which were introduced in1992 has helped to **reduce inflation expectations.** For Britain, the adoption of inflation targets has been an important step in establishing a credible monetary policy framework as a way of **"embedding"** low-inflation in the British economy.

4) **Low inflation in the global economy**: External economic factors are important too! For a decade or more, cost and price inflation in many parts of the global economy has been on a downward path. Indeed the buzz word has been the threat of deflation in many developed countries. The rapid advance of **globalisation** has increased the intensity of competition between nations and reduced the prices of many imported products. The pricing power of manufacturing businesses in a huge number of international markets has been greatly diminished by the pressures of globalisation. It has become much harder to make price increases "stick" when there so many competing suppliers in different countries.

5) **Technological change and innovation** has raised labour productivity and cut production costs across many different industries. This fundamental change in the supply-side of the British and international economy has been a key factor keeping inflation low even though unemployment has been falling.

6) **Increased competition in domestic and international markets** – the British economy has been affected greatly by the process of **deregulation** in many domestic markets and by the increased competitive pressures that come from the **globalisation** of the world economy. There is strong evidence that shifts in comparative advantage may have worked in our favour in recent years. According to research from the Bank of England, the **international terms of trade** – that is the price of the goods and services we export relative to the price of those we import – has moved in Britain's favour. That means that if the earnings of people in work were merely to rise in line with the price of UK output, the purchasing power of UK workers – who buy imported goods as well as goods produced here – would nevertheless be rising. That in turn has reduced the pressure for higher wages. This is known as the **real-product wage effect**. Cheaper imports increase the real purchasing power of the wages earned by people living and working in the UK.

Why does a change in the Phillips Curve / NAIRU matter?

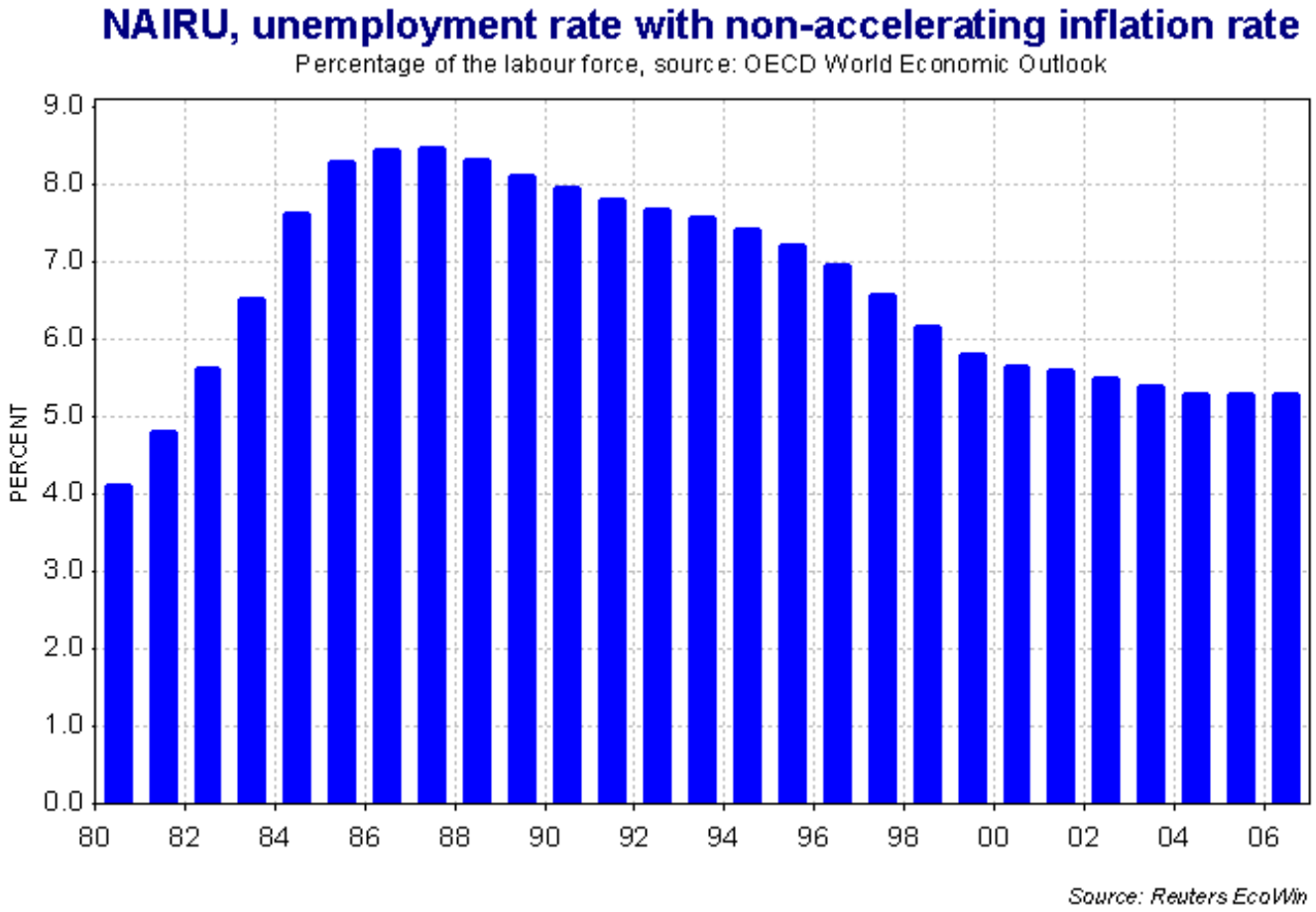
Our focus here is the possible consequences for the operation of government macroeconomic policy.

Setting Interest Rates:

Firstly a reduction in the NAIRU will have implications for the setting of short term interest rates by the Monetary Policy Committee. If they believe that the labour market can operate with a lower rate of unemployment without the economy risking a big rise in inflation, then the Bank of England may be prepared to run their monetary policy with a lower rate of interest for longer. This has knock-on effects for the growth of aggregate demand as lower interest rates work their way through the transmission mechanism.

Forecasts for Economic Growth:

Secondly the trade-off between unemployment and inflation affects forecasts for how fast the economy can comfortably grow over the medium term. This information is a vital for the government when it is deciding on its key fiscal policy decisions. For example how much they can afford to spend on the major public services education, health, transport and defence. Forecast growth affects their expected tax revenues which together with government spending plans then determine how much the government may have to borrow (the budget deficit).



Key Points

- The potential for a short run tradeoff between unemployment and inflation continues to exist! If aggregate demand is allowed to grow well above an economy's potential output, then unemployment will fall but there is a risk of rising inflation
- Changes in inflation expectations alter the position of the short run Phillips Curve in the x-y axis space – a fall in expectations of inflation causes a downward shift of the SRPC
- Monetary policy is probably most influential in affecting expectations of inflation – the success of the BoE since 1997 has influenced the unemployment-inflation tradeoff for the UK. Low global inflation rates have also had the effect of reducing inflation expectations.
- Supply side policies that raise productivity and increase potential output can help to cause an inward shift in the long run Phillips Curve
- There has been a fall in the NAIRU in the UK over the last fifteen years because of a decline in the equilibrium rate of unemployment
- By most estimates, the UK has a lower NAIRU than most of the twelve countries inside the single currency (Euro Zone). The NAIRU is probably around 5% of the labour force
- Although unemployment has remained low, some external factors have kept inflationary pressures in check (including the strong exchange rate and falling commodity prices)

Author: Geoff Riley, Eton College, September 2006