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ECO221A Assignment

A Study on 1973 – 75 Recession

Introduction

A recession is a significant, widespread, and prolonged downturn in economic activity. Recessions may last as little as a few months, but the economy may not recover to its former peak for years.

THE RECESSION of 1973-75 was the most severe economic contraction in the post-war era. This is also called the **Oil Embargo Recession**. The main reason for that economic downfall could be considered the **Nixon shock**. Nixon Shock has been widely considered a political success but an economic failure for bringing on the 1973-75 recession, the stagflation of the 1970s and the instability of floating currencies. The dollar plunged by a third during the 1970s.

WHAT ACTUALLY IS NIXON SHOCK?

Nixon Shock is a phrase used to describe the aftereffect of a set of economic policies touted by former US President Richard Nixon in 1971. Nixon introduced a new economic policy which aimed at turning its attention to domestic issues in the post-Vietnam war era. It outlined three main goals :

1. *Creating better jobs*
2. *Stemming the rise in the cost of living*
3. *Protecting the U.S. dollar from international money speculators*

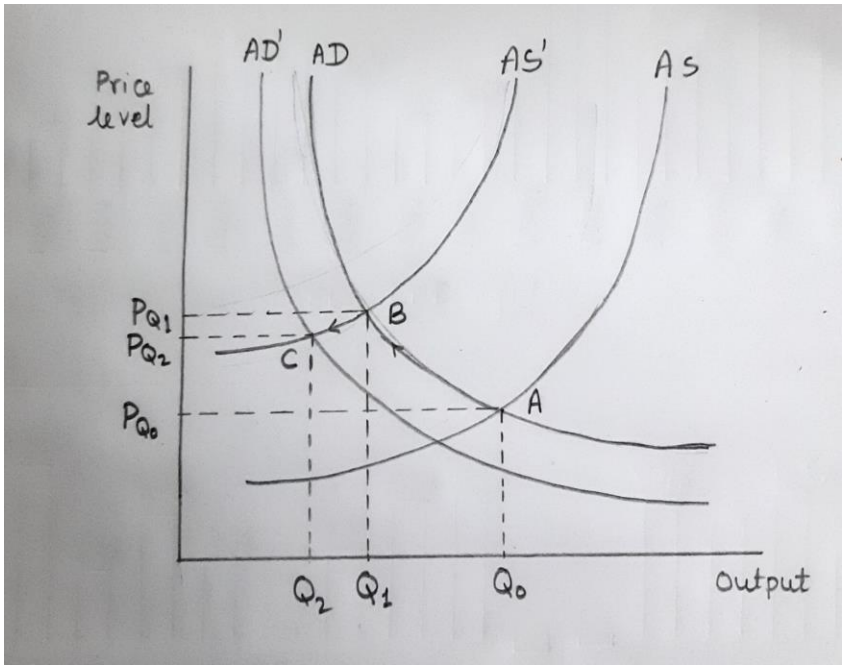
Nixon cited tax cuts and a 90-day hold on prices and wages as the best options for boosting the job market and tamping down the cost of living. As for speculative behaviour toward the U.S. dollar (USD), Nixon supported suspending the dollar's convertibility into gold. In addition, Nixon proposed an additional 10% tax on all imports that were subject to duties. Similar to the strategy of suspending dollar convertibility, the levy intended to encourage the United States' main trading partners to raise the value of their currencies.

Anxiety eventually crept into the foreign exchange market, with traders abroad fearful of an eventual dollar devaluation. As a result, they began selling USD in greater amounts and more frequently.

Nixon imposed a price ceiling on oil in 1971 as demand for oil was increasing and production was declining, which increased dependence on foreign oil imports as consumption was bolstered by low prices. Arab members of OPEC (Organization of the Petroleum Exporting Countries) decided to quadruple the

price of oil to almost $12 a barrel. OPEC's decision was made in retaliation for Western support of Israel against Egypt and Syria during the Yom Kippur War (1973) and in response to a persistent decline in the value of the U.S. dollar (the denominated currency for oil sales), which had eroded the export earnings of OPEC states. With the global capitalist economy already experiencing difficulties, these actions precipitated a steep recession accompanied by rising inflation.
Federal Reserve also had a role to play in the Stagflation of the 1970s. The easy money policies of the American Central Bank were meant to generate full employment by the early 1970s. Unfortunately, they also resulted in high inflation.

a) Depth of Recession –
The Recession of the 1970s is a **U-shaped Recession**. A U-shaped recovery describes a type of economic recession and recovery that charts a U-shape, established when certain metrics such as employment, GDP, and industrial output sharply decline and then remain depressed typically over a period of 12 to 24 months before they bounce back again.
Real GDP declined 3.2% peak-to-trough, but nonfarm employment fell just 1.6%. The unemployment rate sky-rocketed, however, peaking at 9% right at the end of the recession in March 1975. This period was termed the period of 'Great Inflation' which lasted till the 1980s. It grew from $228 billion to $249 billion between December 1971 and December 1972, according to Federal Reserve Board numbers. In 1973, inflation more than doubled to 8.8%. Later in the decade, it would go to 12%. By 1980, inflation was at 14%. This period of high unemployment and high inflation is termed **Stagflation**. The steady and lasting rise in prices seen during the Great Inflation created a time of tremendous and disturbing instability for Americans. With the accompanying loss of purchasing power, the risk that the savings of many would be depleted was real.
Impact of Higher Oil Prices on the Supply and Demand Side of the Economy
The overall result of the high oil prices was high inflation.

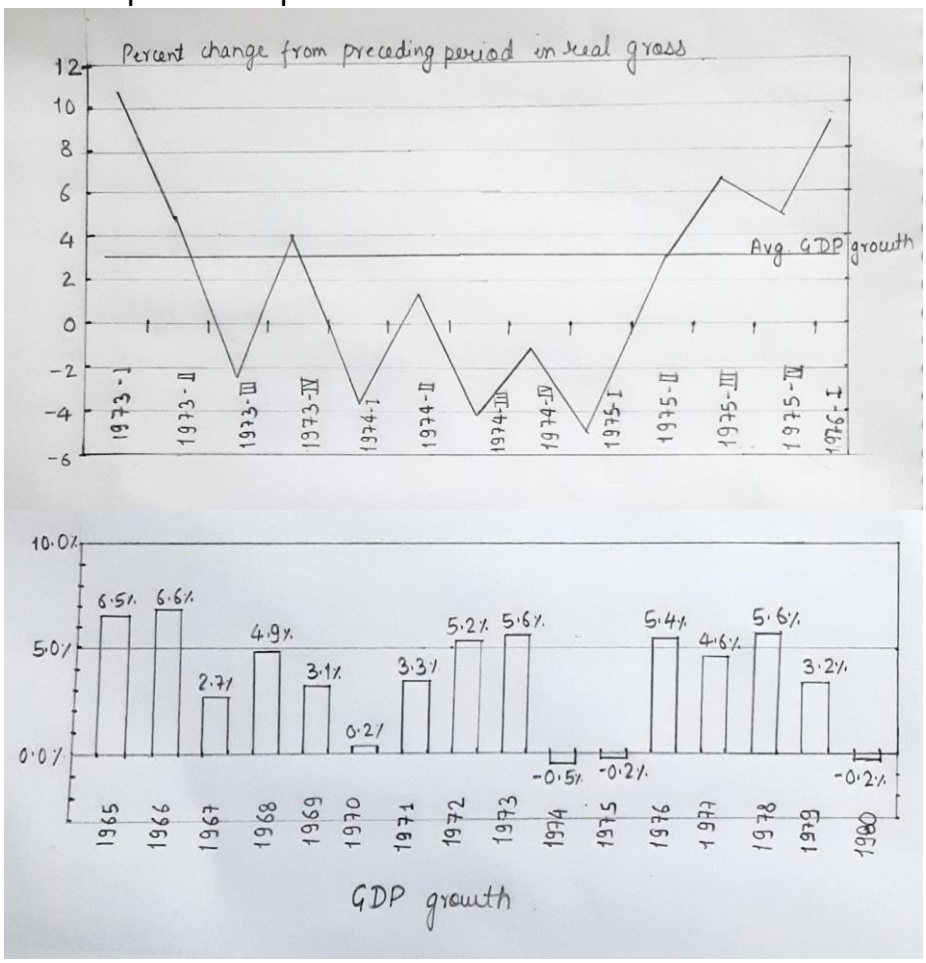


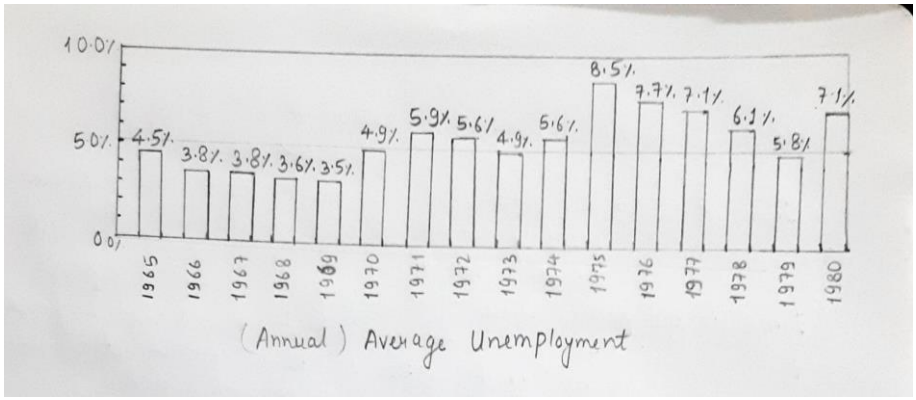
The economy is initially in equilibrium at point A with price level $P_{Q0.}$ and real output level Q_0. AD is the aggregate demand curve and AS stands for the aggregate supply curve. The aggregate supply curve has an upward-sloping curve, which shows that at some real output levels, it becomes difficult to increase real output despite increases in the general level of prices. At this output level, the economy achieves full employment.

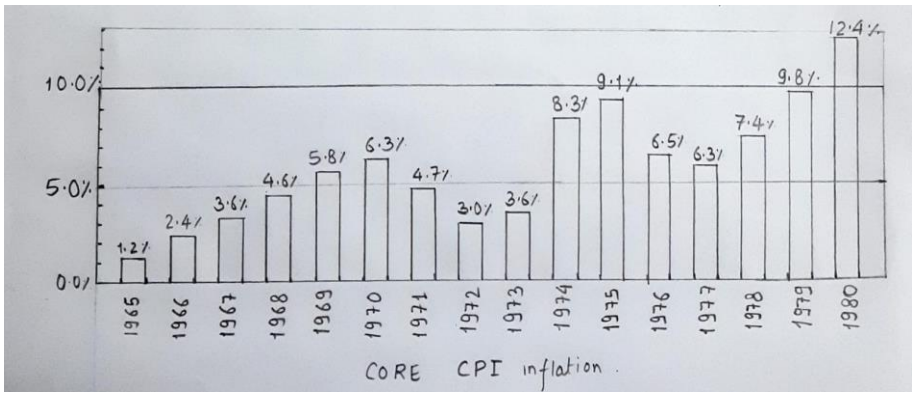
Suppose that the initial equilibrium, point A is below the full employment level. When the relative price of energy resources (crude oil, natural gas, coal, etc.) increases, the aggregate supply curve shifts to AS'. The employment of existing labour and capital with a given nominal wage rate requires a higher general price for output if sufficient amounts of the higher-cost energy resources are to be used. The productivity of existing capital and labour resources is reduced so that potential real output declines to Q_1. In addition, the same rate of labour employment occurs only if real wages decline sufficiently to match the decline in productivity. This, in turn, happens only if the general level of prices, P_{Q1}, rises sufficiently given the nominal wage rate. This moves the economy to the level of output Q_1 and price level P_{Q1}. This point is indicated in Figure at point B, which is a disequilibrium point. Given the same supply of labour services and existing plants and equipment, the output associated with full employment declines as producers reduce their use of relatively more expensive energy resources and as plants and equipment become economically obsolete. On the other hand, on the demand side of the economy, when the prices of energy resources rise, their consumption declines. Because of this drop in consumption, the aggregate demand curve shifts to AD', which in turn decreases prices from their previous disequilibrium level at P_{Q1} and sets them at P_{Q2} as the final equilibrium price. This lowers the

output levels due to reduced consumption in the economy, from the previous point of Q_1 to Q_2. This point is indicated in Figure at point C, which is the final equilibrium point. The economy may not adjust instantaneously to point C, even if point C is the new equilibrium. For example, price rigidities due to slow-moving information or other transaction costs can keep nominal prices from adjusting quickly. Consequently, output and prices move along an adjustment path

A->B->C. In this case, aggregate supply is the main chain of transmission of energy price shocks compared to aggregate demand. This means that the supply side of the economy is more affected by oil price shocks than the demand side of the economy, resulting in higher prices and lower output levels at the final equilibrium point, C, when compared to the initial equilibrium point A. If the demand side of the economy were the main transmission channel, the result would be a decrease in output and lower price levels compared to the initial equilibrium point.







b) Causes of the Recession –

Supply Side Shock is an event that suddenly increases or decreases the supply of a commodity or service, or of commodities and services in general. This sudden change affects the equilibrium price of the good or service or the economy's general price level.

The most famous supply shock in modern American history occurred in the oil markets during the 1970s when the country experienced a period of strong stagflation. The Organisation of Arab Petroleum Exporting Countries (OAPEC) placed an oil embargo on several Western nations, including the United States. The nominal supply of oil did not actually change; production processes were unaffected, but the effective supply of oil in the U.S. dropped significantly and prices rose. The federal government placed price controls on oil and gas products in response to the price increase. This effort backfired, making it unprofitable for the remaining suppliers to produce oil. The Federal Reserve attempted to stimulate the economy through monetary easing, but real production could not increase while government constraints remained in place. Here, several negative supply shocks occurred in a short period of time: reduced supply from an embargo reduced the incentive to produce from price controls and reduced demand for goods resulting from a positive shock in the supply of money.

The Impulse and the Propagation Mechanism of the Shocks (theoretical and empirical)

An economic shock is any unanticipated event that creates a sudden and significant impact on the economy. The impact can be positive or negative. When it affects the economy negatively, the country confronts serious financial damage. Shocks induce an abrupt rightward or leftward shift in the aggregate supply or demand curve. Such occurrences have an impact on economic growth in addition to total output. It can affect the economy by causing inflation and spurring unemployment rates.

TYPES OF SHOCKS –

1. **Supply Shocks -** A supply shock generates an abrupt and unexpected change in aggregate output. These economic shocks arise when producing goods and services in one or more economic sectors suddenly becomes much more expensive or challenging. Events like natural disasters, input shortages, and price hikes can result in supply shocks. Based on the outcomes, supply shocks are split into two categories: **positive supply shock** and **negative supply shock**. Negative supply shocks portray scenarios including rising wages and more expensive raw materials that drive manufacturing costs, altogether pushing enterprises to reduce output and increase the selling price. In contrast, positive supply shock features an increase in output and a subsequent decrease in price.

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The **Phillips curve** states that inflation and unemployment have an inverse relationship. Higher inflation is associated with lower unemployment and vice versa. Between 1973 and 1975, the U.S. economy posted six consecutive quarters of **declining GDP** and at the same time tripled its inflation. The US economy faced a worse trade-off, there was higher inflation and higher unemployment. The Phillips Curve was shifting to the right. There were two reasons for this shift. The first was the supply shock. The second was the change in people's expectations about inflation. In other words, there may be a trade-off between **inflation** and **unemployment** when people expect no inflation, but when they realize inflation is occurring, the trade-off disappears. Both factors (supply shocks and changes in inflationary expectations) cause the aggregate supply curve, and thus the Phillips curve, to shift.

Governments and economies favour stable inflation—or price increases. A wage-price spiral often makes inflation higher than is ideal. Governments have the option of stopping this inflationary environment through the actions of the Federal Reserve or a central bank. A country's central bank can use monetary policy, the interest rate, reserve requirements, or open-market operations to curb the wage-price spiral.

Chart 5: **The Phillips Curve Shifts, 1970-79**

Source: U.S. Bureau of Labor Statistics

The Federal Reserve tightened the monetary policy. As a result of which, the federal reserve obtained control of short-term interest rates. The Federal Reserve raised the Federal funds rate to 12.9% in July 1974, almost 3 percentage higher than its 10% level at the beginning of the recession, in November 1973.

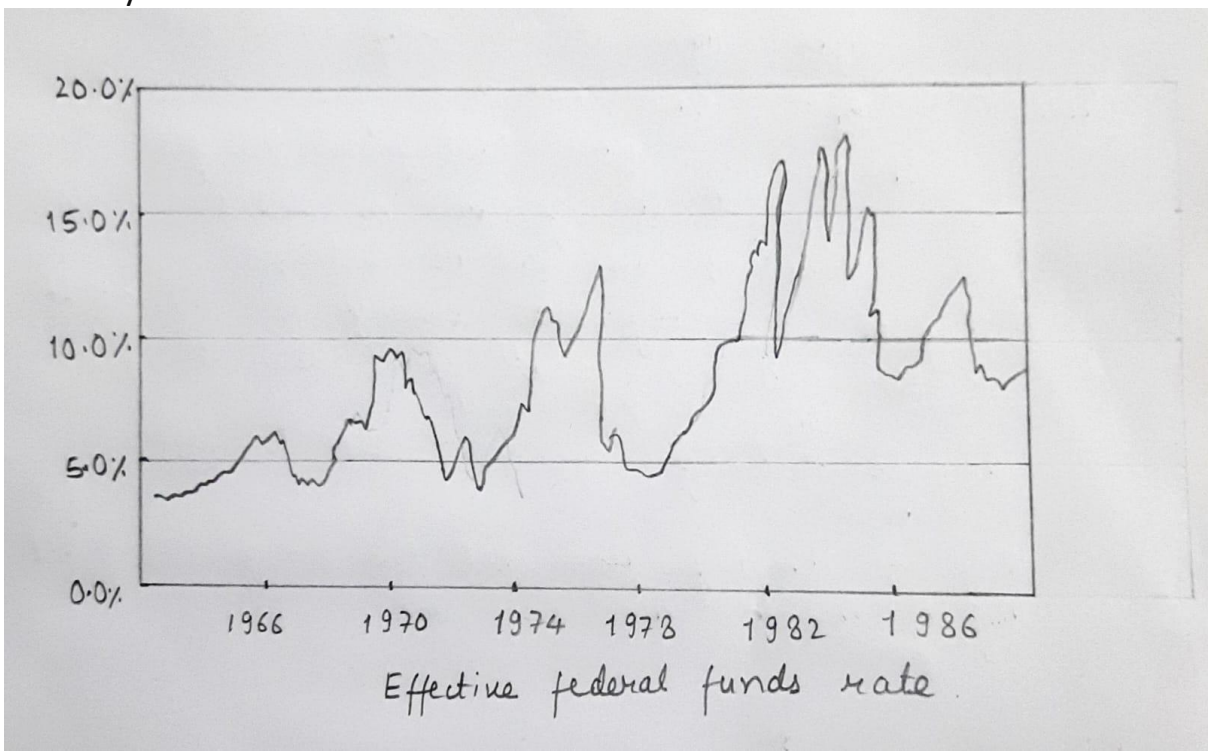
Table 1
The Federal Reserve's Control Variable
During The Last Eight Recessions
(percent per annum)

	(1) Recession	(2) Level at the Cyclical Peak	(3) Highest Level During the Recession	(4) Months from (2) to (3)	(5) Months to a Level Below (2)
1)	July 53/May 54	2.1	2.1	0	1
2)	Aug. 57/Apr. 58	3.4	3.6	1	3
3)	Apr. 60/Feb. 61	3.2	3.4	1	2
4)	Dec. 69/Nov. 70	9.0	9.0	0	3
5)	**Nov. 73/Mar. 75**	**10.0**	**12.9**	**8**	**12**
6)	Jan. 80/July 80	13.8	17.6	3	4
7)	July 81/Nov. 82	19.0	19.0	0	1
8)	June 90/Mar. 91	8.3	8.3	0	1

Note: The Treasury bill rate was the Federal Reserve's control variable in the 1950s and the early 1960s. Since the late 1960s, the Federal Reserve's control variable has been the Federal funds rate.

Sources: CITIBASE and National Bureau of Economic Research.

The Federal Reserve's response by raising interest rates to control inflation stopped the spiral in the short term but acted as the catalyst for a recession in the early 1980s.



2. **Demand Shocks -** A demand shock is a sudden unexpected event that dramatically increases or decreases demand for a product or service, usually temporarily. A positive demand shock is a sudden increase in

demand, while a negative demand shock is a decrease in demand. Either shock will have an effect on the prices of the product or service. The demand side was impacted by what is called the 'oil tax'. If imported energy — which mainly means imported oil—becomes more expensive, the real incomes of Americans decline, just as if they were being taxed by a foreign entity. The "tax" hits harder the less elastic is the demand for energy, and we know that the short-run price elasticity is low.

The nominal import bill for petroleum rose by $21.4 billion through the end of 1974, which represented about 1.5 per cent of 1973's GDP. If the marginal propensity to consume (MPC) was 0.9, this "tax" would have reduced non-oil consumption by almost 1.4 per cent of GDP. If standard multiplier-accelerator effects created a peak multiplier of 1.5, the maximal hit to GDP would have been about 2 per cent, or almost twice as large as the neoclassical supply-side effect. Adding the two together would bring the total reduction in GDP to a touch above 3 per cent, which is still far less than actually occurred.

These calculations encompass only imported oil. But there was also an internal redistribution within the United States, as purchasing power was transferred from energy users to energy producers. To the extent that the latter group—*e.g.*, oil companies and their shareholders—had lower MPCs than the average consumer, aggregate demand would be reduced further.

Propagation Mechanisms – The propagation mechanism for stagflation involved several channels. Those included:

1. changes in consumer and business confidence
2. changes in credit availability
3. changes in the exchange rate
4. changes in input costs

The consumers lost confidence due to recessionary shocks. This led to a decline in consumer spending which in turn led to low levels of investment and hence, production. The firms hired less number of people, leading to an increase in unemployment. This further reduced consumer confidence, hence an inward spiral in economic activity was observed.

The supply shocks led to a decline in business investment. The increase in oil prices and inflationary pressures led to higher production costs, reducing the profitability of firms. As a result, firms cut back on investment, further reducing output and employment.

A **credit crunch** (also known as a **credit squeeze**, **credit tightening** or **credit crisis**) is a sudden reduction in the general availability of loans (or credit) or a sudden tightening of the conditions required to obtain a loan from banks. A credit crunch generally involves a reduction in the availability of credit independent of a rise in official interest rates. The banks began to lend loans cautiously due to the economic slowdown, during the 1970s. This further led to the contraction of production and investment.

The oil price increase will depress purchases of energy-using goods such as automobiles. The dollar value of such purchases may be large relative to the cost of gasoline. The shift in demand causes the reallocation of labour across sectors. Changes in input costs were also very evident due to the oil supply shocks. The cost of production increased and hence the prices of the products increased.

The propagation mechanism of the recession is crucial to understand the broader economic impacts of these events and developing effective policy responses to mitigate their negative impacts.

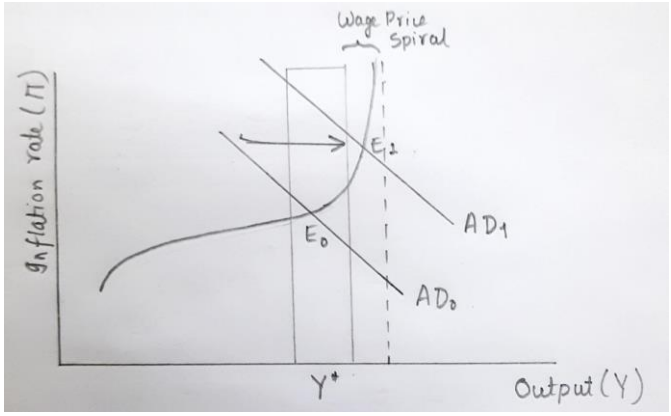
The effectiveness of the policy interventions (theoretical and empirical)

In the 1970s, central banks often faced competing objectives—aiming for both high output and employment, as well as for price stability. President Richard Nixon resorted to **wage and price controls.** The wage and price controls were effective initially but were made less restrictive in January 1973, and later removed when they seemed to be having no effect on curbing inflation.

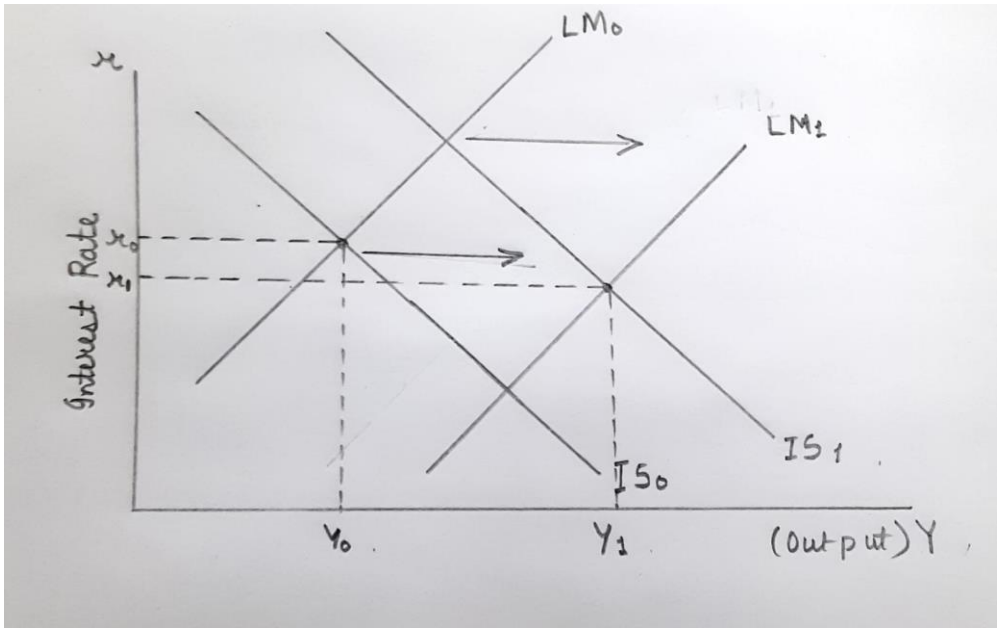
In order to tackle the problem of high inflation, the Nixon government in 1971 announced a wage-and-price freeze, tax cuts, and a temporary closure of the gold window, preventing other nations from demanding American gold in exchange for American dollars. To improve the nation's balance of trade, Nixon called for a 10 per cent import tax.

The downturn resumed, however, in 1973. **Expansive fiscal and monetary policies** combined with a shortage of food (aggravated by massive Soviet purchases of American wheat) fuelled inflation.

The AD curve moves further to the right due to the increases in government spending. It shifts from AD_0, which at E_0 corresponds to a full-employment equilibrium, to AD_1, which crosses the AS curve in the wage-price spiral range. The economy became overheated, moving beyond full employment to E_1.



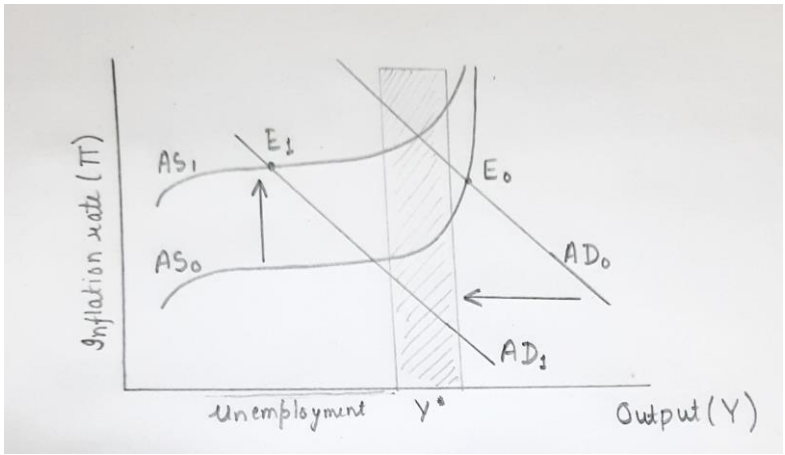
The expansionary monetary policy was characterized by a decrease in interest rates, which shifted the LM curve to the right. The expansionary fiscal policy was characterized by an increase in government spending and a decrease in taxes, which shifted the IS curve to the right. The combined effect of these policies was an increase in output and a decrease in interest rates.



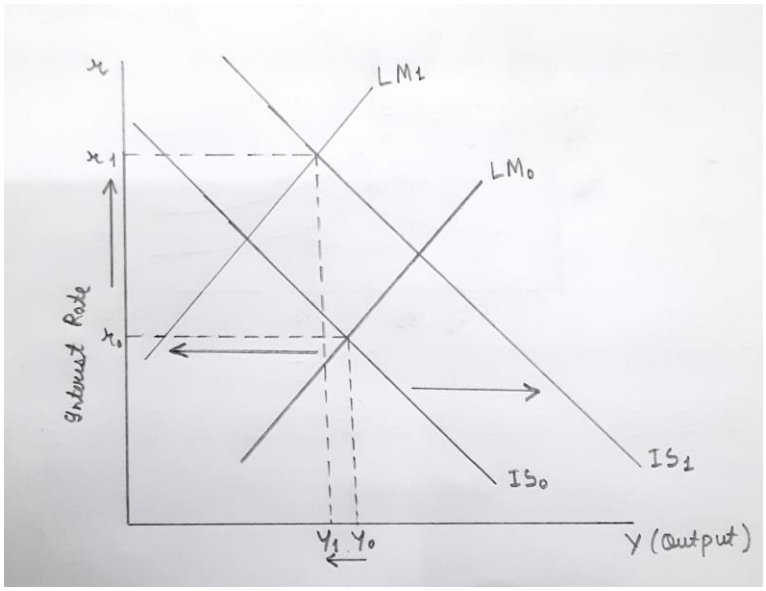
And then came the **oil shock**. Oil prices were rising even before the onset of the Arab oil boycott in October of 1973. Ultimately, inflation would climb to 12.1 per cent in 1974 and help push the economy into recession. When Nixon left office, the economy was in the tank, with rising unemployment and inflation, lengthening gas lines, and a crashing stock market.

The economic problems associated with stagflation forced cutbacks in consumption, investment, and government spending, lowering aggregate demand.

During the 1980s, the contractionary monetary policy led to the shift of the AD curve to the left.



The situation at equilibrium E_1 shows stagflation—a combination of unemployment and high inflation. Even though the economy is no longer in the wage-price spiral range, inflation persists because inflation expectations have risen.



The contractionary monetary policy was characterized by an increase in interest rates, which shifted the LM curve to the left. The expansionary fiscal policy was characterized by an increase in government spending and a decrease in taxes, which shifted the IS curve to the right. The combined effect of these policies was a decrease in output and an increase in interest rates. The effectiveness of these policies was limited in the long run. As output increased, unemployment decreased and inflation decreased. AD curve shifts towards the left, to reduce output and reduce unemployment. AS curve shifted towards the right as a consequence of rising prices. This led to a decrease in output and higher inflation.

Conclusion – Most economists no longer use the Phillips curve in its original form because it was shown to be too simplistic. But still today, modified forms of the Phillips curve that take inflationary expectations into account remain influential. The theory goes under several names, with some variation in its details, but all modern versions distinguish between short-run and long-run effects on unemployment. Modern Phillips curve models include both a short-run Phillips Curve and a long-run Phillips Curve. This is because in the short run, there is generally an inverse relationship between inflation and the unemployment rate; as illustrated in the downward-sloping short-run Phillips curve. In the long run, that relationship breaks down and the economy eventually returns to the natural rate of unemployment regardless of the inflation rate.

Explaining the Long-run Philips Curve

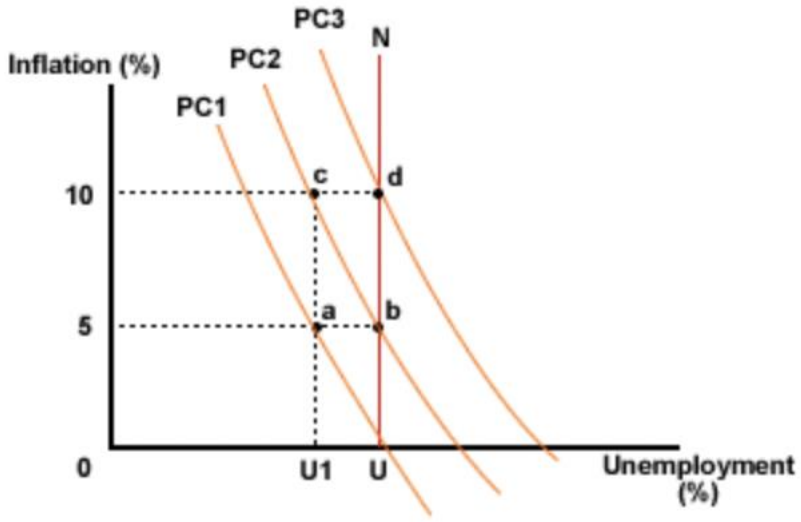


Figure 1 Expectations-augmented Phillips curve

In the figure, assume that the actual and expected rate of inflation is zero, that unemployment is initially at the natural rate U, that there is no change in productivity and that the three curves indicated represent different expected inflation rates. Also assume that the government believes the rate of unemployment of U to be too high, and attempts to reduce it to U1 by expansionary monetary and fiscal policies. The following steps will occur:

- The economy now moves to point a, with 5% inflation.
- The increase in the price level reduces real wages, making labour more attractive so firms expand output and employ additional labour and then pass on the wage increase in the form of higher prices.
- As workers experience inflation of 5%, they begin to anticipate inflation of 5% and the Phillips curve shifts to the right to PC2, which is consistent with 5% inflation.
- As workers are assumed to be interested only in the real wage, and this has now fallen to what it originally was due to inflation, unemployment returns to the natural rate at point b. Workers leave those jobs where the real wage has not risen and search for jobs with a higher real wage.
- At point b, inflation is 5% and unemployment has returned to OU. If the government wishes to reduce unemployment again to U1 by increasing government spending, it will result in a 10% inflation rate at point C and the Phillips curve shifts to PC3 as workers learn to anticipate the inflation rate.

- Again the same process is followed with a return to the natural rate at point d, the same level of unemployment but with an inflation rate of 10%.

So, according to Friedman, the long-run Phillips curve is vertical (i.e. UN) at the natural rate of unemployment. There is no long-run trade-off between inflation and unemployment, the implication being that governments cannot permanently reduce unemployment below the natural rate by reflationary monetary and fiscal policies.

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