

CHAPTER FIVE MACROECONOMIC PROBLEMS

5.1 Business cycles

In recent years economic theory has moved towards the study of **economic fluctuation** rather than a 'business cycle' - though some economists use the phrase 'business cycle' as a convenient shorthand.

The **business cycle** or **economic cycle** refers to the fluctuations of economic activity about its long term growth trend. *Inflation, growth, and unemployment are related through the business cycle.* These fluctuations are often measured using the real gross domestic product. Despite being named cycles, these fluctuations in economic growth and decline do not follow a purely mechanical or predictable periodic pattern. Shortly, the business cycle is the periodic but irregular up-and-down movement in the economy. That is, output is not always at its trend level, that is, the level corresponding to full employment of the factors of production. Rather output fluctuates around the trend level. During expansion (or recovery) the employment of factors of production increased, and that is a source of increased production. Conversely, during a recession unemployment increases and less output is produced than can in fact be produced with the existing resources and technology. Deviations of output from trend are referred to as the **output gap**.

*The output gap measures the gap between actual output and the output the economy could produce at full employment given the existing resources. Full employment output is also called **potential output**.*

$$\text{Output gap} \equiv \text{potential output} - \text{actual output}$$



Figure 5.1: Business Cycle

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The cycle involves shifts over time between periods of relatively rapid growth of output (recovery and prosperity), and periods of relative stagnation or decline (contraction or recession). These can be categorized as the trade cycle and may feature boom, contraction, recession and recovery.

A. BOOM: A period of fast economic growth. Output is high due to increased demand, unemployment is low. Business confidence may be high leading to increased investment. Consumer confidence may lead to extra spending. Shortly, during boom (peak) period:

- Businesses produce more goods
- Businesses invest in more machinery
- Consumers spend more money.
- Less money is spent by the Government on unemployment benefits
- More money is collected by the Government in income tax and VAT
- Prices tend to increase due to extra demand

B. Contraction: A period when output slows down due to a reduction in demand. Confidence may begin to suffer. A contraction begins just after the economy reaches a **peak** of activity and ends as the economy reaches its **trough**.

C. Trough: A period where economic growth slows down and the level of output may actually decrease. Unemployment is likely to increase. Firms may lose confidence and reduce investment. Individuals may save rather than spend. Shortly, during trough period:

- Businesses cut back on production
- Some businesses may go bankrupt
- Consumers spend less money.
- Individuals may lose their jobs
- More money is spent by the Government on unemployment benefits
- Less money is collected by the Government in income tax and VAT
- Prices start to fall

D. Recovery (expansion): A period when the economy moves between trough and a boom (peak).

5.2 Inflation and Price Indexes

Inflation refers to a general rise in prices measured against a standard level of purchasing power. Inflation is measured by comparing two sets of goods at two points in time, and computing the increase in cost not reflected by an increase in quality. There are, therefore, many measures of inflation depending on the specific circumstances. The most well-known are the [CPI](#) which measures consumer prices, and the [GDP deflator](#), which measures inflation in the whole of the domestic economy.

Related terms include: [deflation](#), a general falling level of prices; [disinflation](#), the reduction of the rate of inflation; [hyper-inflation](#), an out-of-control inflationary spiral; [stagflation](#), a combination of inflation and poor economic growth; and [reflation](#), which is an attempt to raise prices to counteract deflationary pressures.

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5.2.1 Causes of inflation and commonly used Measures of Inflation

Economist views of inflation can be broadly divided into two camps: the "[monetarists](#)" who believe that monetary effects dominate all others in setting the rate of inflation, and the "[Keynesians](#)" who believe that the interaction of money, interest and output dominate over other effects. Other theories, such as those of the [Austrian school of economics](#), believe that an inflation of overall prices is a result from an increase in the supply of money by central banking authorities.

Thus, there are different schools of thought as to what causes inflation. Most can be divided into two broad areas: quality theories of inflation, and quantity theories of inflation. Many theories of inflation combine the two. There are three major types of inflation:

- [Demands pull inflation](#): inflation from high demand for goods and low unemployment. A major demand-pull theory centers on the supply of money: inflation may be caused by an increase in the quantity of [money](#) in circulation relative to the ability of the economy to supply
- [Cost push inflation](#): presently termed "supply shock inflation," from an event such as a sudden decrease in the supply of oil, which would increase oil prices. Producers for whom oil is a part of their costs could then pass this on to consumers in the form of increased prices.
- [Built-in inflation](#): induced by [adaptive expectations](#), often linked to the "[price/wage spiral](#)" because it involves workers trying to keep their wages up with prices and then employers passing higher costs on to consumers as higher prices as part of a "vicious circle."

Examples of common measures of inflation include:

- [Consumer price indices](#) (CPIs) which measure the price of a selection of goods purchased by a "typical consumer".
- [Cost-of-living indices](#) (COLI) which often adjust fixed incomes and contractual incomes based on measures of goods and services price changes
- [Producer price indices](#) (PPIs) which measure the price received by a producer. This differs from the CPI in that price subsidization, profits, and taxes may cause the amount received by the producer to differ from what the consumer paid. There is also typically a delay between an increase in the PPI and any resulting increase in the CPI. Producer price inflation measures the pressure being put on producers by the costs of their raw materials. This could be "passed on" as consumer inflation, or it could be absorbed by profits, or offset by increasing productivity.
- [Commodity price indices](#), which measure the change in price of a selection of commodities. In the present commodity price indexes are weighted by the relative importance of the components to the "all in" cost of an employee.
- [GDP Deflator](#)s measures price increases in all assets rather than some particular subset. The term "deflator" in this case means the percentage to reduce current prices to get the equivalent price in a previous period.

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5.2.2 Problems of inflation and Remedial Measures

If inflation is high in an economy there are different problems it can cause:

1. People on a fixed income (e.g. pensioners, students) will be worse off in real terms due to higher prices and equal income as before; this will lead to a reduction in the purchasing power of their income.
2. Rising inflation can encourage trade unions to demand higher wages. This can cause a wage spiral. Also if strikes occur in an important industry which has a comparative advantage the nation may see a decrease in productivity and suffer.
3. If inflation is relatively higher in one country, exports will become more expensive for other countries to purchase; this will create a deficit on the current account.

How to reduce the level of inflation in an economy

1. REDUCE DEMAND PRESSURES

If inflation is caused by high demand then

- * Raise interest rates to reduce consumers' disposable incomes
- * Raise interest rates to discourage borrowing and demand
- * Raise taxes to reduce disposable income and spending
- * These policies should all reduce people's ability to spend too much money

2. REDUCE COST PUSH PRESSURES

If inflation is caused by high costs

- Limit wage increases if possible e.g. public sector workers
- Force electricity and gas companies to hold their prices
- Increase the value of currency in order to reduce the cost of importing

3. REDUCE MONEY SUPPLY PRESSURES

If inflation is caused by too much money in the economy

- Print less money
- Withdraw some money from circulation.

Each of the above approaches has its advantages and disadvantages.

5.3 Measuring Unemployment

Economists distinguish between five major **kinds of unemployment**, i.e., cyclical, frictional, structural, classical, and Marxian. (Another distinction, not discussed here, is between voluntary and involuntary unemployment.) Real-world unemployment may combine different types, while all five might exist at one time. The magnitude of each of these is difficult to measure, partly because they

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overlap and are thus hard to separate from each other. All but cyclical unemployment can be seen as existing at **full employment**, the level of employment and unemployment that represents the inflation barrier to demand-side growth.

1. Cyclical unemployment

This type of unemployment exists due to inadequate effective aggregate demand. It gets its name because it varies with the business cycle, though it can also be persistent, as during the Great Depression of the 1930s. GDP is not as high as potential output because of demand failure, due to (say) pessimistic business expectations which discourages private fixed investment spending. Low government spending or high taxes, under consumption, or low exports net of imports may also have this result.

In this case, the number of unemployed workers exceeds the number of job vacancies, so that if even all open jobs were filled, some workers would remain unemployed. This kind of unemployment coincides with unused industrial capacity. Keynesian economists see it as possibly being solved by government deficit spending or by expansionary monetary policy, which aims to increase non-governmental spending by lowering interest rates.

2. Frictional unemployment

This unemployment involves people being temporarily between jobs, searching for new ones; it is compatible with full employment. (It is sometimes called **search unemployment** and is seen as largely voluntary.) It arises because either employers' fire workers or workers quit, usually because the individual characteristics of the workers do not fit the individual characteristics of the job.

This type of unemployment coincides with an equal number of vacancies and cannot be solved using aggregate demand stimulation. The best way to lower this kind of unemployment is to provide more and better information to job-seekers and employers, perhaps through job-banks in centralized computers. In theory, an economy could also be shifted away from emphasizing jobs that have high turnover, perhaps by using tax incentives or worker-training programs.

But some frictional unemployment is beneficial, since it allows workers to get the jobs that fit their wants and skills best and the employers to find employees who promote profit goals the most. It is a small percentage of the unemployment; however, since workers can often search for new jobs while employed — and employers can seek new employees before firing current ones.

One kind of frictional unemployment is called **wait unemployment**: it refers to the effects of the existence of some sectors where employed workers are paid more than the market-clearing equilibrium wage. Not only does this restrict the amount of employment in the high-wage sector, but it attracts workers from other sectors who *wait* to try to get jobs there. The main problem with this theory is that such workers will likely "wait" while having jobs, so that they are not counted as unemployed.

Another type of frictional unemployment is **seasonal unemployment**, where specific industries or occupations are characterized by seasonal work which may lead to unemployment.

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3. *Structural unemployment*

This involves a **mismatch** between the workers looking for jobs and the vacancies available. Even though the number of vacancies may be equal to the number of the unemployed, the unemployed workers lack the skills needed for the jobs — or are in the wrong part of the country or world to take the jobs offered. That is, it is very expensive to unite the workers with jobs.

Structural unemployment is a result of the dynamic changes of a capitalist economy (such as technological change and capital flight) — and the fact that labor markets can never be as fluid as (say) financial markets. Workers are "left behind" due to costs of training and moving, plus inefficiencies in the labour markets, such as racial discrimination.

Structural unemployment is hard to separate empirically from frictional unemployment, except to say that it lasts longer. It is also more painful. As with frictional unemployment, simple demand-side stimulus will not work to easily abolish this type of unemployment. Some sort of direct attack on the problems of the labour market — such as training programs, mobility subsidies, or anti-discrimination policies — seems required. These policies may be reinforced by the maintenance of high aggregate demand, so that the two types of policy are complementary.

Much **technological unemployment** (e.g. due to the replacement of workers by robots) might be counted as structural unemployment. Alternatively, technological unemployment might refer to the way in which steady increases in labour productivity mean that fewer workers are needed to produce the same level of output every year. The fact that aggregate demand can be raised to deal with this problem suggests that this problem is one of cyclical unemployment. As indicated by Okun's Law, the demand side must grow sufficiently quickly to absorb not only the growing labour force but also the workers made redundant by increased labour productivity.

4. *Hidden unemployment*

Hidden, or covered, unemployment is the unemployment of potential workers that is not reflected in official unemployment statistics, due to the way the statistics are collected. In many countries only those who have no work but are actively looking for work are counted as unemployed. Those who have given up looking for work are not officially counted among the unemployed, even though they are not employed. The same applies to those who have taken early retirement to avoid being laid off, but would prefer to be working. Because of hidden unemployment, official statistics often underestimate unemployment rates. *For a different meaning of hidden unemployment see Underemployment.*

5. *Classical unemployment*

In this case, like that of cyclical unemployment, the number of job-seekers exceeds the number of vacancies. However, the problem here is not aggregate demand failure but instead the fact that real wages are too high relative to the market-equilibrium wage. In simple terms, institutions such as the minimum wage keep wages so high that employers do not want to hire all of the available workers because the cost would exceed the technologically-determined benefit of hiring them (the *marginal product of labour*). The cure for this type of unemployment involves increasing the flexibility of wages, for example by abolishing minimum wages, employee protection, and the like; trying to make the labour market more like a financial market.

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The extent to which minimum wages cause real wage unemployment is disputed. Some economists argue that minimum wages encourage low wage employers to invest in employee training, reducing staff turnover.

6. Marxian unemployment

As Karl Marx claimed and emphasized, some unemployment — the **reserve army of the unemployed** — is normally needed in order to maintain work discipline in jobs, keep wages down, and protect business profitability. If profitability suffers a sustained depression, capitalists can and will punish people by imposing a recession via their control over investment decisions. Incidentally, in this section the term "capitalism" is used to refer to a person who owns economic capital, whether or not s/he holds "capitalist" political views. To the Marxian school, these strikes are rare, since in normal times the government, responding to pressure from their most important constituencies, will encourage recessions before profits are hurt.

To Marxists, this kind of unemployment cannot be abolished without overthrowing capitalism as an economic system and replacing it with democratic socialism. As with cyclical and classical unemployment, with Marxian unemployment, the number of jobless exceeds the availability of vacancies. (It's the scarcity of jobs that gives unemployment such a motivational effect.) However, simple demand stimulus in the face of the capitalists' refusal to hire or invest simply encourages inflation: if profits are being squeezed, the only way to maintain high production is via rising prices.

5.4 Inflation –Unemployment Dynamics

The Phillips curve describes the empirical relationship between inflation and unemployment: the higher the rate of unemployment, the lower the rate of inflation. The curve suggests that less unemployment can always be attained by incurring more inflation and that the inflation rate can always be reduced by incurring the costs of more unemployment. In other words the curve suggests there is a trade-off between inflation and unemployment.

5.5 Concluding Remarks

The five types of unemployment are frictional, seasonal, structural, cyclical and induced.

- Frictional unemployment occurs when workers are searching for jobs and businesses are looking for employees.
- Cyclical unemployment is caused by the downturns in the business cycle.
- Seasonal unemployment occurs because of the different times of the year when more or less workers are required.
- Induced unemployment occurs when policies are created by the government.
- Structural unemployment occurs when worker skills fail to match the requirements of some job opening.

- Frictional unemployment is the most difficult to cure because it is the most common. Plus, frictional unemployment implies that full employment is not desirable because both businesses and workers would be stuck in the job they had which might not be the best fit

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for the company or the worker. It damages the economy because both firms and workers expend resources trying to match job applicants with job openings. Information about job openings and applicants is costly.

- **Labour Force (L):** The amount of labour available for producing goods and services; all employed (E) plus unemployed (U) persons.
➤ $L = E + U$
- **Unemployment rate (Ur):** The **unemployment rate** is the percentage of the Labour force that is unemployed. The unemployment rate is (Number of people unemployed/Labour force) $\times 100$. The unemployment rate reaches its peaks during recessions.

$$Ur = \frac{\text{Unemployed}}{\text{LaborForce}} \times 100$$

- **Labour Force Participation Rate:** The **labour force participation rate** is the percentage of the working-age population that is in the Labour force i.e. the fraction of the adult population that “participates” in the labour force. The labour force participation rate is (Labour force/Working-age population) $\times 100$.

$$LFPR = \frac{\text{LaborForce}}{\text{Population} \cdot \text{of} \cdot \text{workingAge}} \times 100$$

- **Full employment** occurs when there is no cyclical unemployment or, equivalently, when all unemployment is frictional or structural.
- The unemployment rate at full employment is called the **natural rate of unemployment**.