Business cycle

The **business cycle** or **economic cycle** refers to the fluctuations of economic activity about its long term growth trend. The <u>cycle</u> involves shifts over time between periods of relatively rapid growth of output (recovery and prosperity), and periods of relative stagnation or decline (contraction or <u>recession</u>). These fluctuations are often measured using the <u>real gross domestic product</u>. Despite being named cycles, these fluctuations in economic growth and decline do not follow a purely mechanical or predictable periodic pattern.





Types of business cycle

Traditional business cycle models

The main types of business cycles enumerated by <u>Joseph Schumpeter</u> and others in this field have been named after their discoverers or proposers:

- 1. the Kitchin inventory cycle (3-5 years) after Joseph Kitchin.
- 2. the Juglar fixed investment cycle (7-11 years) -- after Clement Juglar.
- the Kuznets infrastructural investment cycle (15-25 years) -- after <u>Simon Kuznets</u>, Nobel Laureate.
- 4. the Kondratieff wave or cycle (45-60 years) -- after Nikolai Kondratieff.

Even longer cycles are occasionally proposed, often as multiples of the Kondratiev cycle.

Juglar cycle

In the Juglar cycle, which is sometimes called "the" business cycle, recovery and prosperity are associated with increases in productivity, consumer confidence, <u>aggregate demand</u>, and prices. In the cycles before <u>World War II</u> or that of the late <u>1990s</u> in the United States, the growth periods usually ended with the failure of speculative investments built on a bubble of confidence that bursts or deflates. In these cycles, the periods of contraction and stagnation reflect a purging of unsuccessful enterprises as resources are transferred by market forces from less productive uses to more productive uses. Cycles between 1945 and the 1990s in the United States were generally more restrained and followed political factors, such as <u>fiscal policy</u> and <u>monetary policy</u>. <u>Automatic</u> <u>stabilisation</u> due to the <u>government</u>'s <u>budget</u> helped defeat the cycle even without conscious action done by policy-makers.

Politically based business cycle models

Another set of models tries to derive the business cycle from political decisions.

The <u>partisan business cycle</u> suggests that cycles result from the successive elections of administrations with different policy regimes. Regime A adopts expansionary policies, resulting in growth and inflation, but is voted out of office when inflation becomes unacceptably high. The replacement, Regime B, adopts contractionary policies reducing inflation and growth, and the downwards swing of the cycle. It is voted out of office when unemployment is too high, being replaced by Party A.

The <u>political business cycle</u> is an alternative theory stating that when an administration of any hue is elected, it initially adopts a contractionary policy to reduce inflation and gain a reputation for economic competence. It then adopts an expansionary policy in the lead up to the next election, hoping to achieve simultaneously low inflation and unemployment on Polling Day. The business cycle is the rises and falls of the economy. This maintains neutrality between supply and demand.

Preventing business cycles

Because the periods of stagnation are painful for many who lose their jobs, pressure arises for politicians to try to smooth out the oscillations. An important goal of all Western nations since the <u>Great Depression</u> has been to limit the dips. Government intervention in the economy can be risky, however. For instance, some of <u>Herbert Hoover</u>'s efforts (including tax increases) are widely, though not universally, believed to have deepened the depression.

No one argues that managing <u>economic policy</u> to even out the cycle is an easy job in a society with a complex economy, even when <u>Keynesian theory</u> is applied. According to some theorists, notably nineteenth-century advocates of <u>communism</u>, this difficulty is insurmountable. <u>Karl Marx</u> in particular claimed that the recurrent business cycle <u>crises</u> of <u>capitalism</u> were inevitable results of the system's operations. In this view, all that the government can do is to change the *timing* of economic crises. The crisis could also show up in a different *form*, for example as severe <u>inflation</u> or a steadily increasing <u>government deficit</u>. Worse, by delaying a crisis, government policy is seen as making it *more dramatic* and thus more painful.

Additionally, <u>Neoclassical economics</u> plays down the ability of Keynesian policies to manage an economy. Challenging the <u>Phillips Curve</u> since the 1960's, men like Nobel Laureate <u>Milton Friedman</u> or 2006 Nobel Laureate <u>Edmund Phelps</u> have made ground in their arguments that inflationary expectations negate the Phillips Curve in the long run. The <u>stagflation</u> of the 70's supported their theory by flying in the face of Keynesian predictions. Friedman has gone so far as to argue all the Fed can do is to avoid making large mistakes, as he believes they did by contracting the money supply very rapidly in the face of the <u>Stock Market Crash of 1929</u>, in which they made what would have been a recession a great depression. (Friedman calls the <u>Great Depression The Great Contraction</u> because of this).

Alternative interpretations of business cycles

Austrian School

The <u>Austrian School</u> of economics rejects the suggestion that the business cycle is an inherent feature of an unregulated economy and argues that it is caused by intervention in the money supply. Austrian School economists, following <u>Ludwig von Mises</u>, point to the role of the interest rate as the

price of investment capital, guiding investment decisions. In an unregulated (free-market) economy, it is posited that the interest rate reflects the actual <u>time preference</u> of lenders and borrowers. Some follow <u>Knut Wicksell</u> to call this the "natural" interest rate.[1] Government control of the <u>money supply</u> through central banks and regulations allowing <u>Fractional-reserve banking</u> disturbs this equilibrium such that the interest rate no longer reflects the real supply of and demand for investment capital. Austrian School economists conclude that, if the interest rate is artificially low, then the demand for loans will be higher than the actual supply of willing lenders, and if the interest rate is artificially high, the opposite situation will occur. This misinformation leads investors to misallocate capital, borrowing and investing either too much or too little in long-term projects. Periodic recessions, then, are seen as necessary "corrections" following periods of <u>fiat credit</u> expansion, when unprofitable investments are liquidated, freeing capital for new investment.

The Austrian theory also predicts that the imposition of artificially low interest rates, and the resulting increase in the supply of fiat credit, generates (is) <u>inflation</u>, which obliges the central bank to increase the supply of credit yet further to maintain the artificially low interest rate, thus prolonging the "boom" and worsening the inevitable "correction." In Austrian theory, depressions and recessions are positive forces in-so-much that they are the market's natural mechanism of undoing the misallocation of resources present during the "boom" or inflationary phase. Austrian School economists point to the <u>dot-com</u> investment frenzy as a modern example of artificially abundant credit subsidizing unsustainable overinvestment.

In the <u>Keynesian</u> view, this Austrian theory assumes that the "natural" rate of interest is unique at any given time and cannot be affected by policy. To Keynesian economists, this rate is only unique if the economy is assumed to always be at <u>full employment</u>. If the economy is operating with less than full employment, i.e., with high <u>unemployment</u> above the <u>NAIRU</u>, then in theory monetary policy and fiscal policy can have a positive role to play rather than simply creating booms that necessarily collapse on themselves. It should be noted that, in the <u>Austrian School</u>, the natural interest rate is not affected by the employment rate and the absence of full employment is typically attributed to government interference in the labour markets, such as <u>minimum wage</u> laws, employment regulations, and taxes levied against employers, which prevent the employment market from fully clearing.

Marxist views

<u>Michal Kalecki</u>'s [2] <u>Marxian</u>-influenced "political business cycle" theory blames the government: he argued that no democratic government under capitalism would allow the persistence of <u>full</u> <u>employment</u>, so that recessions would be caused by *political* decisions: persistent full employment would mean increasing workers' bargaining power to raise wages and to avoid doing unpaid labor, potentially hurting profitability. (He did not see this theory as applying under <u>fascism</u>, which would use direct force to destroy labor's power.) In recent years, proponents of the "electoral business cycle" theory have argued that incumbent politicians encourage prosperity before elections in order to ensure re-election -- and make the citizens pay for it with recessions afterwards.

Ravi Batra's interpretation

In his 1984 book *Regular Cycles of Money, Inflation, Regulation and Depressions* <u>Ravi Batra</u> presented a calculation of decennial averages for *i*) money growth, *ii*) number of new regulatory laws or institutions and *iii*) inflation in the USA for a period exceeding two hundred years. The cycles were of a regular rise and then decline in the above mentioned variables. While an unrelated prediction for a depression to unfold in the 1990s failed to materialise, the evolution of these variables in the 1990s and 2000s has broadly conformed to the regular decennial pattern.

Milton Friedman's interpretation

Milton Friedman has stated on a number of occasions that calling the business cycle a "cycle" is a misnomer, because of its non-cyclical nature. He thinks that for the most part and excluding very large supply shocks, business declines are more of a monetary phenomenon.

Cycles or fluctuations?

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.

<u>Rational expectations</u> theory states that no deterministic cycle can persist because it would consistently create <u>arbitrage</u> opportunities. Much economic theory also holds that the economy is usually at or close to <u>equilibrium</u>.

These views led to the formulation of the idea that observed economic fluctuations can be modelled as shocks to a system.

A <u>moving average</u> of a <u>stochastic stationary variable</u> also bears resemblance to a graph of an economic time-series, such as inflation, unemployment, or investment. Such graphs arguably resemble actual events more closely than deteministic cycle formulae.

These fluctuations can be modelled in terms of fluctuations of <u>aggregate demand</u>. However, the main influence in this direction has been <u>real business cycle</u> models which consider fluctuations in supply (technology shocks). This theory is most associated with <u>Finn E. Kydland</u> and <u>Edward C. Prescott</u>, winners of the 2004 <u>Bank of Sweden Prize in Economic Sciences in Memory of Alfred Nobel</u>.

Why will there not be a prolonged recession?

Firstly, productive capital used by firms will be worn out over time and require replacements. Spending on capital equipment such as machinery is necessary, which increases aggregate expenditure (AE) and causes the economy to slowly climb. Secondly, the low prices characteristic of a trough phase will cause increased demand for them, resulting in inflation which is characteristic of the boom phase. The low interest rates will stimulate increased borrowing. The repayments and interest which need to be paid back will contribute to the rise in AE. Governments also aim to improve the business cycle so as to provide stability, get re-elected and to ease worries about the state of the economy. They also do this to attract foreign investors and improve their international reputation.

Random Walks and chaotic patterns

In 1900 Louis Bachelier proposed that the fluctuations in share prices follow <u>random walks</u>, being complete random with no cyclic properties. While this was a ground breaking work, Bachelier's model failed to account for big fluctuations such as the <u>Great Depression</u>. In the 1960s, <u>Benoît Mandelbrot</u> proposed that fluctuation in cotton prices follow a <u>Lévy flight</u> distribution, which have a <u>fat tail</u> allowing greater probability for large fluctuations.^[1] In 1995, physicists R. Mantegna and G. Stanley analyzed over a million records of stock market indices from the previous five years, and they found that the actual distribution lay between the <u>Gaussian</u> random walks and Lévy flights. They also found that similar distributions were found regardless of the time scale exhibiting <u>self-similarity^[2]</u>. An accurate model is yet to be found.

Problems of measurement

Some argue that modern business cycle theory often measures growth by using the flawed measure of the economy's aggregate production, i.e., <u>real gross domestic product</u>, which is not useful for <u>measuring well-being</u> and also generates distortions in the perception of economic growth because the price changes of the various products are disproportional. Accordingly, there is a mismatch between the state of economic health as perceived by many individuals and that perceived by the bankers and economists, which most likely drives them further apart politically. However, unlike with issues of long-term <u>economic growth</u>, the economists and bankers may be right to use real GDP when studying business cycles. After all, it is fluctuations in real GDP, not those of measures of wellbeing, that cause changes in employment, unemployment, interest rates, and inflation, i.e. economic issues which are their main concern of business cycle experts.

Business cycle theory has been most effective in <u>microeconomics</u> where it aids in the preparation of <u>risk</u> management scenarios and timing <u>investment</u>, especially in <u>infrastructural capital</u> that must pay for itself over a long period, and which must fund itself by cashflow in late years. When planning such large investments, it is often useful to use the anticipated business cycle as a baseline, so that unreasonable assumptions, e.g. constant <u>exponential growth</u>, are more easily eliminated.

See also

- <u>Real business cycles</u>
- Elliott wave theory
- Economic policy
- Grand supercycle
- Market trends
- <u>Ravi Batra</u>
- Joseph Schumpeter
- <u>Carlota Perez</u>
- Austrian School

References

- 1. <u>A Philip Ball</u>, Critical mass Random House, 2004. ISBN 0-09-945786-5
- 2. <u>A Rosario N. Mantegna</u>, <u>H. Eugene Stanley</u>, An Introduction to Econophysics: Correlations and Complexity in Finance, Cambridge University Press (Cambridge, 1999)

External links

- <u>An Austrian Theory of Business Cycles</u>
- What is the Business Cycle?
- List of U.S. recessions in terms of peak and trough of business cycle
- From the <u>New School for Social Research</u>, by Gonçalo L. Fonseca and Leanne J. Ussher:
- 1. Do business cycles really exist?
- 2. Climate-driven cycles
- 3. Over-investment cycles
- 4. Psychological & lead/lag cycles
- 5. Monetary cycles
- 6. Underconsumption theories
- 7. Exogenous shock-based cycles

- 8. Keynesian theories of the cycle:
 - 1. Oxford/Cambridge theories
 - 2. Accelerator/multiplier theories
 - 3. Endogenous theories of the cycle
- on whether planned economies also have business cycles
- Current Business-Cycle Conditions from American Institute for Economic Research (AIER)

Retrieved from "http://en.wikipedia.org/wiki/Business_cycle"