

EDUCATION IN ECONOMICS SERIES

NO. 8

BUSINESS CYCLES



CENTRAL BANK OF NIGERIA

RESEARCH DEPARTMENT

2016

Table of Contents

1.0 Introduction.....	1
2.0. Definition and Concepts of Business Cycle.....	3
2.1. Definition of Business Cycle	3
2.2 Phases of Business Cycle	4
2.2.1. Expansion	5
2.2.2 Peak	5
2.2.3 Contraction	5
2.2.4 Trough	6
3.0 Business Cycle Indicators	7
3.1 Leading Economic Indicators	7
3.2 Coincident Economic Indicators	7
3.3 Lagging Economic Indicators	8
4.0 Theories of Business Cycles.....	9
4.1 Classical Evolution:	9
4.2 Keynesian Evolution:	9
4.3 New-Classical Theory	10
4.4 New-Keynesian Theory	10
4.5 Other theories	10
5.0 Causes of Business Cycles.....	12
5.1 Natural Factors	12

5.2 Wars.....	12
5.3 Political Stability and Economic Policy.....	13
5.4 Monetary Conditions.....	13
5.5 Expectations.....	14
5.6 Population Explosion.....	14
5.7 Globalisation.....	14
6.0 Trends in Business Cycles.....	15
6.1 Global.....	15
6.2 Domestic.....	18

BUSINESS CYCLES¹

1.0 Introduction

A business cycle is a short-term variation in the tempo of economic activities that could affect global and national economies. It reflects the upward and downward movements in output, inflation, interest rate and employment, resulting to expansion or contraction in the economy.

Economists have long identified the causes of fluctuations in economic activities. These are grouped into external and internal factors. External factors include wars, revolutions, elections, commodity price changes, new discoveries, and scientific and technological innovations. Internal factors consist of policy inconsistency, elections, out-break of diseases, internal conflict, and changing demographics. Business cycles are monitored and predicted through the use of composite indicators, such as the gross domestic product, inflation rates, and all share price index.

Knowledge of a business cycle is important to economic agents for decision making and planning purposes. For instance, during periods of economic growth and prosperity, employment tends to be high therefore employees have options and can negotiate better. Firms can expand and go into new markets. However,

The contribution to the series are Gaiya B.A; Sani Z; Abeng M.O; Okafor H.O; and Adamu Y.

during contraction, economic agents would typically cut costs and draw on resources saved during boom.

This Education in Economics Series on Business Cycles is intended to provide researchers, students, and the general public with a simple and easy to use resource. The Series is, divided into six sections. Following this introduction, section two discusses definitions, concepts and phases of business cycle. Section three identifies the leading indicators of business cycle. In section four, the theories of business cycle are discussed, while section five x-rays the causes of business cycles. Section six examines the global and domestic trends in business cycles.

2.0. Definition and Concepts of Business Cycles

2.1. Definition of Business Cycles

Business cycle is defined as the swing in economic activities. It is the pattern of expansion, contraction, and recovery of an economy. A business cycle is identified by changes in GDP (value of goods and services produced in a country over a period of time) and unemployment (the number of people who are qualified and willing to work but could not get jobs).

It is usually expressed as boom and bust. A boom cycle is characterised by high positive growth, measured by indicators such as rising employment, high GDP growth, and high consumption spending, all in real terms. The boom cycle is also characterised by an efficient market, rising housing prices and increasing wages. On the other hand, negative GDP growth, high unemployment rate, and low savings and investments are features of a bust cycle.

Business cycles may exhibit peculiar features depending on the fundamentals of the economy. Nevertheless, they possess some basic common features such as:

- Fluctuations in aggregate economic activities that affect all economic indicators such as GDP, interest rate, and unemployment rate concurrently;
- Changes in economic activities in all sectors of the economy

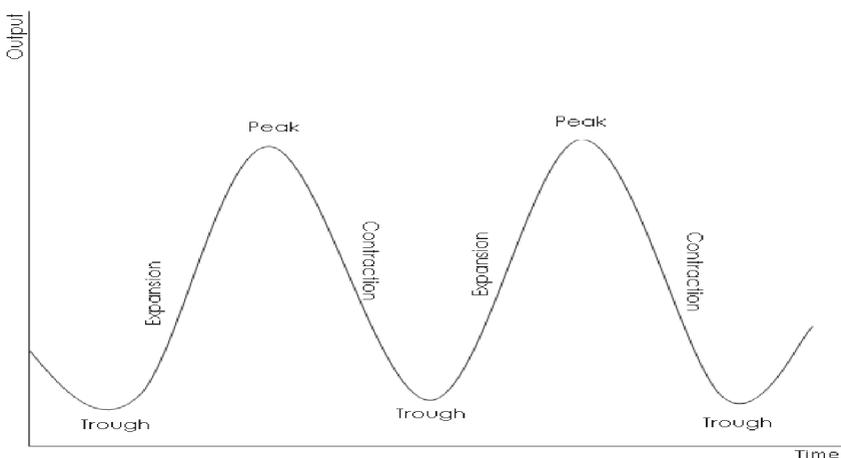
including the real, government, financial and external sector simultaneously;

- └ Distinct phases that differ in length and severity;
- └ Persistent nature given that they tend to last for long periods of time; and
- Contagion effect due to globalisation. Once it starts in one country it easily spreads to other countries.

2.2 Phases of Business Cycle

Business cycle has many distinct phases. The most widely classified phases are the expansion (boom, upswing, prosperity, periods of ups), peak (turning point, upper turning point), contraction (bust, downswing, recession, depression, periods of downs), and trough (lower turning point, recovery).

Figure 1: Phases of a business cycle



■ 2.2.1. Expansion

The expansion phase of the business cycle is associated with rising economic activities in which the economy tends to operate at near or full employment. This phase could result in high growth rate, low unemployment, and high savings and investment. However, economic expansion also leads to inflationary pressures. An expansion is the period between a trough and a peak as shown in figure 1.

■ 2.2.2 Peak

A peak is the point at which the economy is producing at its maximum or optimal output. Employment during peak period is at or above full employment, and inflationary pressures on prices are evident. This phase sets in when the growth in the expansion phase eventually reaches its maximum. It is the point between the end of an expansion in an economy and the commencement of an economic contraction in the business cycle.

■ 2.2.3 Contraction

Contraction or downturn phase of the business cycle is associated with lower economic growth. An economy is said to be contracting when an economy records a decline in real output. This phase is characterised by decreased levels of consumer purchases, rising unemployment, downward trend in inflation and subsequently,

reduced production by businesses. This phase could lead to a recession where the growth rate becomes negative for two consecutive quarters, arising from rapid decline in income and expenditure, as well as the difficulty in paying off debts by debtors. It is the period after the peak but before a trough.

2.2.4 Trough

A trough is associated with minimum level of economic activities in which consumption, production, investment, and employment are at their lowest level. At this point, the economy has hit a bottom from which the next phase of the business cycle will emerge.

3.0 Business Cycle Indicators

Business cycle indicators are economic figures that provide valuable information about the cycle. These indicators help economic agents to track business cycle activities and make realistic forecasts for business decisions and policies. The indicators could be classified into three groups; leading, coincident and lagging.

3.1 Leading Economic Indicators

Leading indicators predict business cycle peaks and troughs three to twelve months before they actually occur. These indicators are: manufacturers' new orders for consumer goods and materials and non-defence capital goods; index of vendor performance; index of stock prices; and new building permits for private housing. Others include interest rate spread; money supply; average work-week in manufacturing; index of consumer expectations; and average weekly initial claims for unemployment insurance.

3.2 Coincident Economic Indicators

The coincident indicators measure current economic conditions to determine the actual phase of a business cycle in an economy. They are a primary source of information for documenting the official business cycle turning points. These include: the number of employees on non-agricultural payrolls; industrial production; real personal income (after subtracting transfer payments); and real manufacturing and trade sales.

■ 3.3 Lagging Economic Indicators

This category indicates business cycle peaks and troughs three to twelve months after they actually occur. The lagging indicators include: labor cost per unit of output in manufacturing; average prime interest rate; amount of outstanding commercial and industrial debt; consumer price index for services; consumer's credit as a fraction of personal income; average duration of unemployment; and the ratio of unsold goods to sales for manufacturing and trade.

4.0 Theories of Business Cycles

Several theories have been identified in the literature to explain the evolution of business cycles. These are generally grouped into the classical, the Keynesian, the new-classical and the new-Keynesian schools of economic thoughts. Below are the theoretical perceptions of these schools of thought.

4.1 Classical Evolution: Generally, the classical theory of business cycles comes from the assumption that every economy is self-correcting. It sees business cycles to originate from the imbalance between demand and supply. Nonetheless, classicals believe that such imbalances are self-correcting through the workings of the invisible hand. The inability of the invisible hand to restore the economy to balance is the major flaw with the classical theory.

4.2 Keynesian Evolution: Keynes argued that the inefficiency and ineffectiveness of the invisible hand to correct imbalances in the system is the major source of business cycles. Thus, deliberate fiscal and monetary policy actions are required to correct such conditions. During recession, Keynes opined that deliberate economic expansion through increased government expenditure or tax cut could be used to stimulate aggregate demand. On the monetary side, lowering interest rate can also help to reflate the economy from recession. Nevertheless, nominal rigidities

associated with wage policy or liquidity trap make the Keynes hypothesis defective.

4.3 New-Classical Theory: This school of economic thought argues that business cycle comes from real economic shocks. Fluctuations in the economy are caused by shifts in productivity levels. These shocks can be caused by factors such as technological innovations, unusual weather conditions, changes in raw material prices, new policies and regulatory measures. The theory therefore, highlights the need to rely on past experiences to predict future occurrences.

4.4 New-Keynesian Theory: This theory of business cycles arises from the ineffectiveness of deliberate policy to address structural rigidities in the system. It assumes that deliberate policy of government is based on accurate forecast.

4.5 Other Theories: Along these major schools of thought, there are variants of business cycle theories that attempt to focus on specific issues. These include **Pure Monetary theory** which advocates that business cycles are a monetary phenomenon and reflect largely the phases of inflation and deflation;

Monetary Over-Investment theory focuses mainly on the imbalance between actual and desired investments;

Schumpeter's theory of Innovation advocates that business cycles are almost exclusively the result of innovations in industrial and

commercial organisations; **Samuelson's Model of Multiplier Accelerator Interaction** extended the work of Keynes by showing that it is the interaction between the multiplier and accelerator that gives rise to cyclical fluctuations in economic activity; and

The Hicks's theory which is based on the IS-LM (investment-savings/liquidity preference-money supply) model and represents a general equilibrium framework where the goods market and the money market are in equilibrium.

5.0 Causes of Business Cycle

There are several factors that affect business cycles in any country. These include: natural factors, wars, political instability, supply of money, future expectation, population explosion, and globalisation.

5.1 Natural Factors

The change in the pattern of economic activities may occur due to natural factors such as weather, flood, and earthquake. For instance, unfavorable rainfall can result in low or poor agricultural yield. Consequently, this would imply shortage of primary agricultural raw material for industrial production. If this persists, economic activity reduces, thereby pushing the economy towards a bust. A boom, however, is likely to occur when there is favourable weather condition. For example, when there is sufficient rainfall across the country, agricultural activities could receive major boost in terms of yields. This could promote growth in the entire economy.

5.2 Wars

War situations affect economic activities in two ways: misallocation of resources and inability to harness human and material capital. In the former, government embarks on unproductive spending that may not enhance growth, while the latter comes from displacement of labour, leading to

unemployment and loss of output. During peace time, it is expected that economic activity would blossom which helps to expand economic activities and a period of recovery sets in.

5.3 Political Stability and Economic Policy

Change of government and inconsistent government policies could influence the business cycle. Political stability and consistent government policy helps to build confidence and encourage investment in the economy. On the other hand, instability and inconsistent policies create uncertainty in the economy and cause business activities to slow down. In taking economic decisions, economic agents consider the effect of government's economic policies on their business interests and may decide to divert their capital to other countries or make investment in non-productive businesses.

5.4 Monetary Conditions

The monetary policy of the government influences the business cycle. For instance, an expansionary monetary policy increases the supply of money which results in higher credit at lower interest rate, leading to a boost in the aggregate demand. However, excessive expansion has the potential of raising inflation rate in the economy. On the other hand, a contractionary monetary policy would slow down economic activities.

5.5 Expectations

Expectations play a major role in business activities thereby affecting business cycles. When economic agents (Individuals, households, firms and government) are confident about the future, they tend to spend more and this leads to expansion in economic activities. Uncertainty about the future tends to reduce or postpone spending which consequently results in the contraction of business activities and may lead to recession in the economy.

5.6 Population Explosion

Population explosion (excessive increase in population) without a commensurate increase in output could pose serious economic challenges including high unemployment, poverty, and widening inequality thereby leading to low aggregate demand and economic slowdown. However, the reverse is the case when population explosion is matched with increased output.

5.7 Globalisation

Global interaction and integration makes it possible for shocks arising from any country to spread to other countries. A shock in stronger economies like USA and UK could severely affect economies of the rest of the world. A recession in USA or China, for instance, could reduce demand for Nigeria's crude oil. On the other hand, a boom in US could increase demand for Nigeria's crude oil.

6.0 Trends in Business Cycle

6.1 Global

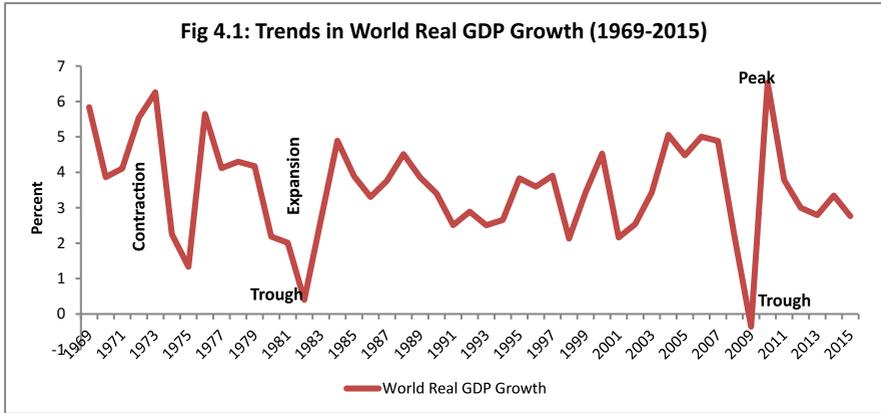
The global economy had in the last century experienced different phases of business cycles, ranging from expansions to depressions. During the late 1920s through 1930s the world experienced the deepest and longest economic downturn lasting for almost a decade. The depression emanated from the United States of America (USA) as a result of the stock market crash in October, 1929. It gradually spread to Europe and other industrialized countries of the world. The sharp decline in consumption and investment spending during the period affected global output and employment. Unemployment rates became very high in most industrialized countries. For instance, in the US, unemployment rate rose from 3.2 per cent in 1929 to 25.0 per cent by 1933. Similar patterns were experienced in most European countries particularly Germany and Great Britain. The adverse effects of the depression especially the collapse of global trade, lasted until the commencement of the Second World War in 1933, when the major industrialized economies like the USA began their journey to recovery. However, unemployment rate remained high in most countries up to the end of the decade.

The Second World War was seen as the accelerator of economic recovery in most of the industrialized countries. Government's financing of the war boosted public spending and stimulated

economic activities as well as reduced the rate of unemployment in the USA and most European countries. In addition, the great depression forced most industrialized countries to abandon the gold standard and devalue their currencies, which helped in the expansion of their output. From 1945, the global economic cycle stabilised with effective macroeconomic policies (monetary and fiscal) and the establishment of the Bretton Woods Institutions.

The post-war economic boom was characterised by expansion as a result of high output growth, technological advancement, strong institutions, low unemployment rate and financial stability, among other factors. This lasted up to the early 1970s when the collapse of the Bretton Woods monetary system, the oil price shock of 1973 and slowdown in productivity led to economic recession that lasted till 1975. With the improvement in the global oil market, the world economy recovered and did not experience any major economic downturn until the late 2000s. The mid-1980s to mid-2000s was referred to as the “Great Moderation” period. However, during the 1990s, the East Asian financial crisis, which started from Thailand in 1997, spread to other countries in the region. Though the contagion effect was expected to have triggered global economic meltdown, the crisis was successfully contained within that region.

In the 2000s, the world economy enjoyed strong economic growth due to improved macroeconomic policies, strong institutions and structural changes particularly in the emerging market economies like China and India. According to the IMF, the world real output growth averaged 4.2 per cent between 2000 and 2006, while inflation and unemployment rates remained relatively low during the same period. In late 2007, the sub-prime mortgage crisis in USA led to the collapse of the housing market, which later spread across the financial centres in Europe and emerging economies like China. The effect of the crisis on developing economies was mainly through trade. The crisis accelerated rapidly, leading to a slump in global production thereby plunging most developed economies into recession. Most economists refer to the global financial crisis (GFC) as a “great depression”, considered to be the worst economic and financial crises after the Great Depression of the 1930s. During the period of the GFC, the world economy witnessed sharp contraction in global output, rise in unemployment, and collapse of major international stock markets. Even though the recession ended in 2009, the effect of the GFC still lingers in the advanced and emerging market economies, particularly the euro area and Japan. The world economy is yet to recover from the shock as global output remains low with deflationary pressures in most advanced economies.



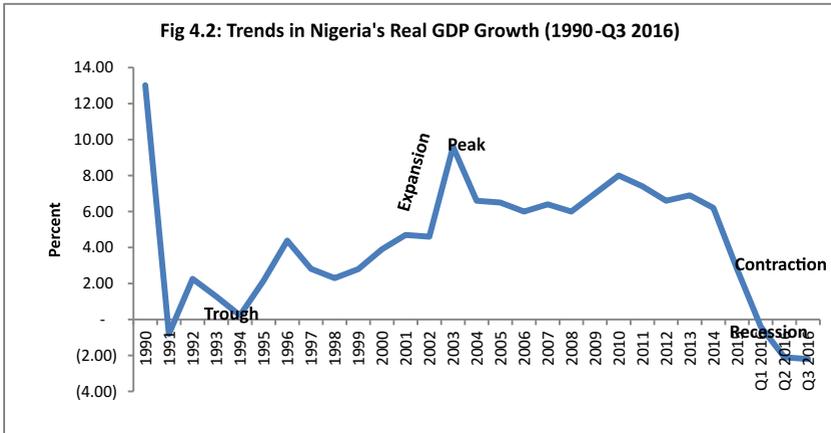
Source: International Financial Statistics, IMF

6.2 Domestic

The Nigerian business cycle follows developments in the international crude oil market. Therefore, during positive oil price shocks, the economy expands, while in periods of negative oil price shocks, it contracts. The Nigerian economy expanded rapidly during the 1970s due to positive oil price shocks. During this period, high growth rate was recorded with moderate inflation and unemployment rates. However, due to weak macroeconomic policies and institutional framework, the non-oil sector did not contribute significantly to the high growth. Consequently, during the negative oil price shock in 1979, the economy experienced low output, high inflation and unemployment. The economy slid into economic recession, recording negative growth for most part

of the 1980s. For instance, between 1980 and 1986, real output growth was negative 1.7 per cent. Stabilization policies aimed at improving economic performance failed to resuscitate the economy and stagflation persisted. In 1986, the Structural Adjustment Programme (SAP) was introduced to boost economic activities but ended up worsening the economic crisis in the early years of the programme. SAP was accompanied by high unemployment rate, falling real wages, high external debt burden, high inflation and depressed output growth. However, slight improvement was recorded in the early 1990s as a result of positive oil price shock during the gulf war with the economy expanding to 4.7 per cent between 1987 and 1992.

The economy expanded further during the 2000s following sound macroeconomic policies, favourable crude oil prices, stronger institutions, stable inflation and growing external reserves. The decade witnessed significant economic expansion with real GDP growth rate averaging 6.0, 6.7, and 6.8 per cent for 2000 - 2005, 2006 - 2010 and 2011- 2014, respectively. However, there was negative oil price shock from mid-2014 when crude oil prices sharply declined at the international market. In addition, exchange rate volatility, tight financial conditions in the advanced economies coupled with slow global economic recovery resulted in a negative real growth of 0.4 per cent in the first quarter of 2016.



Source: Central Bank of Nigeria

As indicated in fig 4.2, Nigeria experienced a contraction in economic activities in 1990 and reached the trough in 1991. The economy rebounded in 1992 and continued to expand reaching its peak in 2003. Economic activities slowed from 2004 to 2009 but rebounded in 2010. It expanded further between 2011 and 2014 due to sound macroeconomic policies coupled with increased inflow from crude oil sales. Due to slump in crude oil prices at the international market, the economy contracted in 2015 and slid into recession in the first quarter of 2016.

Further Reading

Alege, P. O. (2009), A Business Cycle Model for Nigeria
Department of Economics and Development Studies,
<http://www.africametrics.org/documents/conference09/papers/Alege.pdf>.

Business Cycle Indicators, AmosWEB Encyclonomic WEB*pedia,
<http://www.AmosWEB.com>, AmosWEB LLC, 2000-2016.
[Accessed: July 12, 2016].

Business Cycle: Meaning, Phases, Features and Theories of
Business Cycle by Supriya Guru
Copyright@2015YourArticleLibrary.com

Business Cycle From Wikipedia, the free encyclopedia

Romer, D. (2003), Advanced Macroeconomics. Fourth edition,
McGraw Hill Irwin.