Business Cycles and Their Impact on the South African Economy

Quarterly Bulletin – October to December 2012
Executive Summary

Business cycles are a part of the global and national economies. They are the pattern of expansion and contraction which occurs around the overall trend of aggregate economic activity. They occur because of, usually unexpected, positive or negative events in an economy, which may cause unemployment rates to rise or fall as a result of increased or reduced economic activity. In recent years, the business cycle of the world suffered the largest downturn since the Great Depression. This downturn resulted from the global financial crisis during 2008 which was followed by the Euro-debt crises. Business cycles affect every country and are thus important for all to understand. Gross Domestic Product is used as a business cycle indicator because the cycle is related to aggregate economic activities. Business cycles are monitored and predicted with the use of composite indicators, such as those by the South African Reserve Bank. The components of the composite leading indicator include the average number of hours worked per factory worker in the manufacturing sub-sector and the index of the prices of all classes of shares traded on the JSE. The electricity capacity and the skills shortage are a few of the domestic factors which have the capability to cause business cycles.

Governments have an important role to play in business cycles as seen in the example of poor management by the previous Greek government contributing to that country’s economic downturn and the prudent management of the South African government reducing the domestic impact of the global recession. The role of government can include counter-cyclical policies to offset the impact of business cycles. The South African government had a budget surplus of 0.7 percent of GDP in 2007, due to its saving which was intended as a counter-cyclical policy. This enabled it to increase spending to offset the global recession of 2008 without incurring a crippling budget deficit. Projections of the South African business cycle in the near-future are provided for.
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<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>BER</td>
<td>Bureau for Economic Research</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GWH</td>
<td>Giga-watt Hours</td>
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<td>HSRC</td>
<td>Human Sciences Research Council</td>
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<td>ILO</td>
<td>International Labour Organisation</td>
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<td>IMF</td>
<td>International Monetary Fund</td>
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<td>JSE</td>
<td>Johannesburg Stock Exchange</td>
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<td>QE</td>
<td>Quantitative Easing</td>
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<td>R</td>
<td>South African Rands</td>
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<tr>
<td>Repo rate</td>
<td>Repurchase rate</td>
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<td>S&amp;P</td>
<td>Standard &amp; Poor’s</td>
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<td>SARB</td>
<td>South African Reserve Bank</td>
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<tr>
<td>Stats SA</td>
<td>Statistics South Africa</td>
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<tr>
<td>UIF</td>
<td>Unemployment Insurance Fund</td>
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<tr>
<td>US$</td>
<td>United States Dollar</td>
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<tr>
<td>USA</td>
<td>United States of America</td>
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<td>WEO</td>
<td>World Economic Outlook</td>
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1. Introduction

Within the generally upward trend of economic growth, are the semi-regular upward and downward business cycle movements that can define anywhere from two years to a decade as being prosperous or poverty-stricken. These cycles are amongst the most distinctive elements of the national and the global economy. A business cycle contraction or expansion is by definition wide-spread across the economy and it thus impacts every economic agent within its area of effect. In particular, the increasingly globalised world economy of modern times often results in national business cycles of major economies spreading beyond their borders. Therefore, individuals, firms and governments should also pay particular attention to not only their own business cycles but also to those of other countries.

This document broadly considers business cycles to analyse their nature. It begins with the general economic theory around business cycles to provide grounding in the basics and provide context for the rest of the document. Several well-known examples of global business cycles and those in major economies are then evaluated before a more detailed examination of business cycles in South Africa. This document also reviews the role of government during business cycles and then considers several projections of the future movements of the South African business cycle.

2. General Theory

In order to properly discuss business cycles, it is necessary to define them and provide a brief grounding on the existing economic theory which surrounds them. This section provides more information on what a business cycle is and gives a brief history of business cycle theory.

2.1. What is a Business Cycle?

Mohr (2005) defines a business cycle as the pattern of expansion and contraction which aggregate economic activity, measured as real Gross Domestic Product (GDP), displays around its overall trend.
Figure 1 shows a typical business cycle. A single, complete business cycle consists of four elements, a trough, an expansion, a peak and a contraction. The starting point of a business cycle is a trough. This means that when an economy reaches its lowest level of GDP before beginning an expansion, it has started a new business cycle. An expansion is the second element and is a general, sustained increase in overall real economic activity. When the expansion reaches its highest level of GDP, this point is known as a peak, the third element of a business cycle. After the peak, the economy is by definition experiencing a falling level of GDP. This decline in economic activity is known as a contraction and is the fourth and final element of a business cycle. The contraction continues until a new low point is reached. This point is a new trough and, therefore, the start of a new business cycle. Table 1 gives a summary of the events that take place during the different stages of the business cycle.

<table>
<thead>
<tr>
<th>Expansion period</th>
<th>Peak</th>
<th>Contraction Period</th>
<th>Trough</th>
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<tbody>
<tr>
<td>Level of economic activity increases</td>
<td>The economy is using most of its resources, such as skilled labour and capital</td>
<td>Level of economic activity decreases</td>
<td>Turning point at the end of the contraction period</td>
</tr>
<tr>
<td>More goods and services are being produced</td>
<td>There is an upward pressure on prices and the balance on the current account worsens as a result of higher imports</td>
<td>Less goods and services are being produced</td>
<td>Lower inflation allows central bank to begin to lower interest rates</td>
</tr>
<tr>
<td>Household expenditure increases</td>
<td>Spending declines</td>
<td>Interest rates increase</td>
<td>Current account begins to improve due to low prices of exports and lack of domestic demand for imports</td>
</tr>
<tr>
<td>Interest rates decrease</td>
<td>Inflation decreases</td>
<td>Unemployment increases</td>
<td></td>
</tr>
<tr>
<td>Inflation increases</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Source: Heinemann Educational Books, 2013
It is necessary to remove seasonality from the data when examining any business cycle. The upswing experienced in most economies over the festive season could, for example, otherwise be potentially misinterpreted as unusually short and regular business cycles. Genuine business cycles almost always occur over the course of more than a single year.

Figure 2: GDP Seasonally Adjusted and Unadjusted, SA, 2003Q1-2012Q4

Figure 2 shows the GDP of South Africa, both adjusted and unadjusted, from the first quarter of 2003 to the fourth quarter of 2012. Visible in the unadjusted data are small cycles which repeat themselves every year, peaking in the final quarter of a year and falling again at the start of the following year. These little cycles have been removed from the seasonally adjusted data, making it easier to see any larger, multi-year, business cycles which may be present.

2.2. A Brief Review of Business Cycle Literature

Economists of the classical school asserted that economies were naturally stable and that any major fluctuations were caused by inept government intervention. This theory does not, however, account satisfactorily for the regularity of business cycles, particularly since significant government interventions in an economy often lag the business cycle rather than leading it. Classical economists respond to this criticism by claiming that, due to the lag between the implementation of government policy and its full impact on the economy, the response to the previous cycle is the cause of the following one.
The first person to theorise about the existence of business cycles was Karl Marx. He did not, however, use the term himself. Business cycles were not a recognised phenomenon during Marx’s life. He theorised, however, that the accumulation of labour-replacing capital would cause fluctuations in the levels of demand and output in a capitalist economy. As profits fall due to competition, capitalists buy machines and dismiss workers to try and reduce costs, but a belief in the labour-theory of value would suggest that this is counter-productive because labour is the only source of profit. This self-causing loss of profits and employment was the downswing of Marx’s proto-business cycle. The cycle would then begin another expansion because unemployment reduced the cost of labour and bankruptcy allowed machines to be bought for less than their labour-equivalent-value. These two factors would allow profits to be made by firms once more and this in turn would cause labour to be rehired. At least until the next inevitable crisis. These recurrent crises would later be known as the contraction phases of business cycles.

John Maynard Keynes was an economist who is best remembered for the prominence his work gained during the Great Depression. According to Grant and Brue (2007), Keynes attributed fluctuations in the economy to fluctuations in investment spending because he believed that the impacts on overall economic activity of changes in investment were larger than the initial changes. In contrast to the classical school, Keynesian economists recommend that governments institute counter-cyclical policies to moderate the business cycle. Keynesians advocate that governments take expansionary action during recessions, such as raising their spending or increasing the money supply, in an attempt to begin a positive multiplier effect in their economy. Contractionary action during excessively inflationary upswings is also recommended, such as raising taxes or reducing the money supply, to counteract overspending.

Modern economists still hold to several of Keynes’ assertions, though by no means all. They generally do not, for example, share his belief that even the most wasteful spending builds the economy. Also, economists now attempt to predict and chart business cycles through the use of leading, coincident and lagging indicators.

<table>
<thead>
<tr>
<th>Leading</th>
<th>Coincident</th>
<th>Lagging</th>
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<tbody>
<tr>
<td>1. M1 money supply(^1)</td>
<td>1. Total wholesale, retail &amp; new vehicle sales</td>
<td>1. Ratio of inventories to sales in the manufacturing &amp; trade sectors</td>
</tr>
<tr>
<td>2. Number of building plans approved</td>
<td>2. Utilisation of production capacity in manufacturing</td>
<td>2. Predominant prime overdraft rate of banks</td>
</tr>
<tr>
<td>3. Number of job advertisements</td>
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</table>

\(^1\) According to Chetty, Greyling, Schoeman, Van Zyl and Wentzel (2005), the M1 money supply consists of the coins and banknotes in circulation added to all deposits in on-demand bank accounts held by the private sector.
Table 2 shows several examples of leading, coincident and lagging indicators. According to Zarnowitz (1992), leading indicators are time-series which tend to reach turning points in their own cycles, before the rest of the economy does so. Leading indicators are used in attempts to predict business cycles. Coincident indicators tend to reach their turning points at approximately the same time as the overall economy. Significant movements in the coincident indicators can confirm that the next stage of a business cycle has been reached. Lagging indicators are those which tend to have turning points later than the rest of the economy.

**Figure 3: Theoretical Relationship between GDP and a Leading Indicator**

![Theoretical Relationship between GDP and a Leading Indicator](image)


Figure 3 shows an example of the ideal relationship between GDP and a leading indicator. The turning points, both peaks and troughs, of a leading indicator preferably occur noticeably prior to those of the GDP series. Figure 3 illustrates a theoretical example of a leading indicator which always turns before GDP. The reality is almost always less clear, with false indications and late turns reducing reliability to a greater or lesser degree. Furthermore, even an indicator as reliable as the one modelled above would still have its usefulness determined by how far in advance of GDP its turning points are recorded.
Figure 4: Theoretical Relationships between GDP, a Coincident Indicator and a Lagging Indicator.

Figure 4 shows an example of the ideal relationship between GDP, a coincident indicator and a lagging indicator. The turning points of a coincident indicator should occur at the same time as those of the GDP series, while those of a lagging indicator occur some time later. The figure illustrates a theoretical example of a coincident and a lagging indicator which always turn at the correct times. As with leading indicators, the reality is rarely as neat.

3. Global Business Cycles

This section lists several well-known examples of business cycles of the great depression, the financial crisis and the Euro-are debt crises.

3.1. The Great Depression

According to Heilbroner (2000), in the late 1920s, income levels in the United States of America (USA) had risen to levels unseen in prior recorded history. Government, business people and ordinary persons all alike believed that this prosperity would never end. This was not to be, however, as this expansion of the USA business cycle had been founded on and prolonged by a bloated stock market funded by an extremely large debt bubble. The inevitable collapse occurred in October 1929, as the stock market crashed. Fortunes built up over two years practically disappeared in two months. The national
income of the USA fell by US$12 billion to US$75 billion between 1929 and 1930. It continued to decline, reaching US$39 billion by 1933. Unemployment rose from approximately 2 million persons in 1929 to a high of 14 million during this Great Depression. As a rate, unemployment peaked at 24.9 percent in 1933, over 20 percentage points higher than the 4.4 percent recorded in 1928.

3.1.1. Response by the USA Government

In 1934, policy such as President Theodore Roosevelt’s New Deal was implemented by the government of the USA as part of a plan to increase its spending and offer relief to those harmed most by the Great Depression. John Keynes published The General Theory of Employment, Interest and Money in 1935, recommending government spending as a cure for a contracting economy. Public spending programmes still did not rise to a point that would spark full employment, however, because there were still many persons in business and several in government itself who were uncomfortable with the idea of government taking too large a role in the economy (Heilbroner, 2000). Even so, roads, dams, housing and other infrastructure began to be built all around the USA, backed by government expenditure. This stimulus amounted to a yearly increase in government expenditure from approximately US$10 billion in 1933 to reach the US$15 billion spent in 1936. The increase proved less than sufficient because private investment recovered to only two-thirds of its pre-Depression level and, while unemployment did fall, 9 million persons remained out of work. Full employment in the USA was only attained in 1942, during World War II, when government expenditure rose to US$103 billion.

3.2. The Financial Crisis

A report published by KPMG in 2009 states that the first event in the series that led to the financial crisis was the alteration of USA lending policies to allow even Americans with no income and no collateral to be granted mortgage loans. The interest rates charged on these loans were below the prime rate and they were thus known as sub-prime. It was a popular practice at the time to group risky assets together into packages because it was believed that the risk of the entire package failing was lower than that of any individual part. This practice is still popular today, because the essential theory is sound. Packaging sub-prime loans into these groups was an error, however, as the individual loans proved to be more similar to one another than anticipated and risk was thus not diversified in these groups. This error was compounded by selling on these grouped sub-prime loans to financial institutions from around the globe. Banks in South Africa were not able to purchase these grouped loans due to tight banking regulations
and the implementation of the National Credit Act No. 34 of 2005 (NCA). The NCA was prudent financial legislation put in place by government shortly before the crisis, though for different reasons.

After the sub-prime loans had been traded across most of the world, global demand entered a growth phase and prices therefore began to increase. Throughout the world, inflation started to rise, reducing the disposable income of households. This naturally included those USA households which had been granted sub-prime loans. Central banks around the world reacted to this inflation by raising interest rates. This further eroded disposable incomes and made loans, including sub-prime loans, more difficult to repay than they had been originally. These factors led to many of the sub-prime borrowers, most of whom were not the best of credit risks to begin with, to default on their loans.

The sub-prime borrowers had similar financial situations, thus if one borrower in a package defaulted, it was likely that many other borrowers in the group would default as well, because the same factors which led to that default would apply to most of the other borrowers in that package. The overall loan-package would then collapse. As investors saw the damage being done to financial markets by the loan defaults, they began to disinvest and several bank runs occurred, worsening the problem and creating a full-blown global financial crisis. This financial crisis then translated into the real economy and started a global recession.

According to the IMF (2013), global output growth fell from 2.8 percent in 2008 to negative 0.6 percent in 2009. The average growth of the advanced economies fell from 0.1 percent to negative 3.5 percent over same period. The growth of the emerging & developing economies group slowed, 6.1 to 2.7 percent, but did not turn negative.

3.2.1 Response by Governments

Countries, particularly the largest developed economies, responded to the recession by implementing large stimulus packages and expanding their money supplies through an unorthodox measure known as quantitative easing. Economic growth in the USA, for example, had already fallen to negative 0.3 percent in 2008, from 1.9 percent in 2007. The country responded with the US$787 billion American Recovery and Reinvestment

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2 According to www.investopedia.com, a run is, “[a] situation in which numerous bank customers try to withdraw their bank deposits simultaneously and the bank’s reserves are not sufficient to cover the withdrawals”.

3 Quantitative easing is policy whereby a central bank expands the money supply by buying financial assets with new money. In modern times, this money is typically generated electronically rather than going to the expense of printing it.
Act, which was signed into law in February 2009 and increased to US$840 billion in 2012 funding tax reliefs and investment in infrastructure. The Federal Reserve Bank also bought over US$1.7 trillion in financial assets from the private sector with newly-created electronic money. The recession in the USA still deepened in 2009, with negative 3.1 percent GDP growth for the year. By the end of 2010, however, growth had recovered to 2.4 percent.

In South Africa, GDP growth in 2009 contracted by 1.5 percent, after growing by positive 3.5 percent in 2008. In his presentation of the 2009 Medium-Term Budget Policy Statement, Finance Minister, Honourable Pravin Gordhan stated that government expenditure would increase by R127 billion despite an estimated R34 billion decrease in tax revenue. Combined with the financing requirements of state-owned enterprises such as Eskom, the government borrowing requirement increased to R285 billion in 2009, from R89 billion in 2008. The response to the recession required that the government budget balance fall from a 0.7 percent surplus in 2007 to a 5 percent deficit by 2009. Growth recovered to 3.1 percent in 2010 and prudent fiscal management reduced the government deficit to 4.8 percent.

3.3. The Euro-Area Debt Crises

The world has been recovering from the 2008 global recession for some time, but more instabilities have been exposed by the pressure put on countries’ finances. Some of these instabilities threaten to pull the global economy back down into recession once more, one such threat being the sovereign debt crises suffered by the Euro-area.

European countries with weaker economies, such as Italy and Greece, took on a great deal of debt while raising their citizens’ standard of living to match those of more prosperous Euro-area countries. This debt reduced their ability to respond when they were struck by the global recession mentioned in section 3.2. The governments of many other countries were to some extent able to at least offset recessionary pressures. They did this by increasing government spending in spite of the recession. Governments, such as several Euro-area members, which had incurred unsustainable levels of debt lacked the fiscal flexibility to respond effectively. Financial market confidence in the Euro-area was negatively affected, because investors were concerned that these countries would default on their debts. Since the banks in the Euro-area held much of the debt of their governments, they were distrusted as well. As a result, runs began on banks in exposed countries such as Greece and Portugal. As trust in the region declined, sources of foreign credit began to dry up.
3.3.1. Response by Governments

Measures began to be put in place to move the region toward recovery, but the austerity required by these measures sparked protest action. Austerity measures include cutting public sector salaries and pensions, reducing employment in the public sector and raising the ratio of taxation to expenditure. The austerity programmes have since been accompanied by financial relief for Euro-area countries from the European Central Bank, itself primarily funded by the rich Euro-area countries, such as Germany, which have largely weathered the storm so far. The linkages between Europe and countries on many other continents mean that this economic adversity in Europe has influenced the rest of the world and will continue to do so for some time to come.

4. Business Cycles in South Africa

This section describes the manner in which business cycles are monitored in the country and then discusses several foreign (external) and domestic (internal) factors which affect the business cycle.

4.1. Critical Analysis

Amongst its other functions, the mandate of the South African Reserve Bank (SARB) is its focus on keeping inflation between the target band of 3 to 6 percent. The SARB is, however, a flexible inflation-targeter\(^4\) and thus, when considering its policies, also considers the deviation of actual output from its potential. As such, the SARB has kept the repurchase (repo) rate low despite indications that inflation may temporarily rise above 6 percent in 2013. The Bank also monitors a number of economic indicators, many of which are relevant to business cycles, and produces publications about South African business cycles.

\(^4\) This information was sourced from Governor Gill Marcus’s speech to the Gordon Institute of Business Science on the 30th of May, 2012.
Figure 5: Inflation, 2003-2013*

Figure 5 shows the inflation rate of South Africa from 2003 to 2012, with a forecast for 2013. In 2004, South African inflation fell to 1.4 percent, from 5.8 percent in 2003. A stronger Rand and lower import prices from trading partner countries combined to greatly reduce the cost of imports into South Africa. Since South African producers use many imported products, such as machinery and oil, in their production processes, the impact of lower import prices on domestic consumer inflation was multiplied. With international prices normalising in 2005, South African inflation returned to the SARB target band, at 3.4 percent. South Africa was in an economic expansion during this period and rising spending, fuelled to a large extent by increasing debt-levels, was placing upward pressure on prices. Inflation reached a peak of 11.5 percent in 2008. In 2009, a combination of higher interest rates, new government credit regulations and South Africa joining the international recession, restrained inflation to 7.1 percent. Despite the recovery beginning in 2010, inflation continued to fall. It reached 4.3 percent, once more within the target band. As the recovery continues, inflation has risen again, increasing to 5.6 percent in 2012. It is expected to fall slightly, to 5.5 percent, in 2013.

The SARB compiles several leading, coincident and lagging indicators into one composite indicator for each category of indicator. No single indicator behaves in exactly the same manner from one business cycle to another. Grouping indicators into composites reduces this unreliability by offsetting the variations in multiple series against one another. Table
3 presents the components of the South African Composite Leading Indicator, as an example.

**Table 3: Components of the Composite Leading Indicator, SA**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
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<tbody>
<tr>
<td>BER</td>
<td>Average hours worked per factory worker in manufacturing (half weight)</td>
</tr>
<tr>
<td></td>
<td>Business Confidence Index</td>
</tr>
<tr>
<td>Commodity price index</td>
<td>Volume of orders in manufacturing (half weight)</td>
</tr>
<tr>
<td>Commodity price index</td>
<td>Of South Africa’s main export commodities (US dollar based)</td>
</tr>
<tr>
<td>Composite leading business cycle indicator</td>
<td>South Africa’s major trading-partner countries (percentage change over 12 months)</td>
</tr>
<tr>
<td>Gross operating surplus</td>
<td>As a percentage of gross domestic product</td>
</tr>
<tr>
<td>Index of prices</td>
<td>Prices of all classes of shares traded on the JSE</td>
</tr>
<tr>
<td>Interest rate spread</td>
<td>10-year government bonds minus 91-day Treasury bills</td>
</tr>
<tr>
<td>Job advertisements</td>
<td>The Sunday Times (percentage change over 12 months)</td>
</tr>
<tr>
<td>Number of building plans approved</td>
<td>Flats, townhouses &amp; houses larger than 80m²</td>
</tr>
<tr>
<td>Number of new passenger vehicles sold</td>
<td>Percentage change over 12 months</td>
</tr>
<tr>
<td>Real M1</td>
<td>Six-month smoothed growth rate</td>
</tr>
</tbody>
</table>

Source: SARB, 2013  
Note: BER stands for Bureau for Economic Research and produces the first three listed indicators

Table 3 lists the component indicators of the Composite Leading Indicator for the South African economy, as selected by SARB. Many of these indicators represent confidence in the economy. Average hours per factory worker, the Business Confidence Index and the number of job advertisements indicate the level of confidence held by business. Volume of orders, residential building plans approved and vehicle sales indicate consumer confidence for the most part. Share prices and the interest rate spread indicate investor confidence. Actual changes in the real economy are shown by a smaller number of indicators, such as commodity prices and gross operating surplus. This abundance of confidence indicators may illustrate the importance of confidence to a modern economy. Spending and investment patterns are highly dependent on confidence and many prices, such as those of shares, are also influenced by it. It may instead illustrate a quintessentially capitalist belief, that markets are better able to predict changes in the economy than any individual analyst.
Figure 6: GDP & Business Cycle Durations, 1988-2009

Source: SARB, 2013

Note: indicates economic downturns.

Figure 6 shows the business cycles of South Africa, and the number of months of expansion and contraction, from 1988 to 2009. The average lengths of business cycles have been lengthening. In particular, the expansion phases have demonstrated this trend to a greater extent than the contraction phases. The most noticeable example of this is the 99-month expansion from September 1999 to November 2007. This shows an economy which is becoming more stable, on average, over time.

According to Venter (1999), the factors which prompted the upturn from June 1993 to November 1996 included slowing inflation and the lifting of sanctions against South Africa. Rising spending and investment supported increasing production levels, particularly in the secondary and tertiary sectors. The increased investment was primarily focused on a small number of very large projects. Early in the recovery, this investment was mainly driven by the public sector. In this first stage of the recovery, South Africa had a trade surplus. By the second half of 1994, the increased spending which accompanied the recovery had translated into higher import levels. This combined with a decline in mining exports to result in a trade deficit. This deficit was not, however, challenging to finance, as the removal of financial sanctions was followed by high net inflows of foreign capital. According to the IMF (2013), unemployment fell from 22.2 percent in 1993 to 19.3 percent in 1996.

According to South African National Treasury (1998), in 1997, a financial crisis began in several Asian economies which had previously been growing very rapidly, such as
Thailand. The growth in these economies had encouraged increases in debt-levels and asset prices. Much of this debt was in foreign currencies, partly due to confidence prompted when those governments instituted fixed exchange rate policies. Many of the investments fuelled by this debt did not perform as well as expected and when asset prices declined significantly in Thailand it began a chain of asset devaluations, stock market crashes and currency speculation throughout the previously fast-growing Asian countries. This pressure was too great for the various governments to maintain their currency pegs and the resultant currency depreciations amplified the impact on their economies. South Africa, and many other non-Asian emerging & developing economies, was also affected by this crisis. The slowdown in the Asian economies was translated through trade channels to their trading partners, many of which were trading partners of South Africa as well. Also, market sentiment turned against emerging & developing economies in general, even those with little or no financial exposure to Asian markets. Foreign investment was thus withdrawn from South Africa. These pressures caused the South African economy to grow more slowly until mid-1999.

According to Venter (2009), at 99 consecutive months, the economic expansion from September 1999 to November 2007 was the longest ever recorded for South Africa. The economic growth recorded during the first half of this recovery was only moderate and interspersed with short periods of very low growth. The average growth rate from 1999 to 2003 was 2.7 percent. After an initial decrease from 25.2 percent in 1998 to 23.3 percent in 1999, unemployment returned to an upward trend during the early recovery and reached a peak of 30.4 percent in 2002. Manufacturing was one of the better performing sub-sectors during this time, supported by increased demand for South African exports by the country’s rapidly growing major trading partners. Rising government and household expenditure also supported the early expansion. During the second half of this expansion, economic growth was much more rapid, with an average growth rate of 5.3 percent from 2004 to 2007. The prices of assets and commodities increased very quickly over this period. Services industries performed very well over this period, supported by sustained strong growth in expenditure. Domestic expenditure and continued international demand maintained further manufacturing growth. The construction sector also benefitted from increased demand for projects of every type. Unemployment fell from 28 percent in 2003 to 22.2 percent in 2007. However, domestic demand was becoming increasingly fuelled by debt and household debt levels were reaching record highs.

When interest rates were raised in response to rising price levels, beginning in mid-2006, this put the already heavily-indebted South African household under significant
pressure. Not long after this, the first effects of the global financial crisis began to be felt, as detailed in Section 3.2, and electricity constraints then began to have their impact in 2008. These factors all contributed to South Africa entering recession in 2009. Unemployment rose to 24 percent in 2009. The mining and manufacturing sub-sectors were amongst the hardest hit, due to falling demand for exports by the country’s major trading partners. Household expenditure fell as well, though government spending rose, due to government measures to combat the recession.

4.2. External Factors

South Africa has a largely open economy and it is thus closely integrated with that of the rest of the world. As such, the health of its economy now relies to a significant extent on the health of its trading partners and on inflows of foreign capital.

4.2.1. International Trade

Figure 7: GDP and Exports, 2004-2011

![Figure 7: GDP and Exports, 2004-2011](image)

Source: IHS Global Insight, 2013

Figure 7 shows the GDP of South Africa and the aggregate value of the exports, for the period from 2004 to 2011. From 2004 to 2008, both GDP and exports were increasing. In 2008, GDP reached R1,814.5 billion and exports reached R704.3 billion. In 2009, however, the global recession led to a fall in South Africa’s exports as the country’s trading partners were no longer able to maintain their previous expenditure levels. Exports thus fell to R556.4 billion. GDP also fell in 2009, to R1,786.6. The fact that GDP
fell at the same time as exports illustrates the link between South Africa’s economy and that of the rest of the world. The SARB appears to acknowledge this link because the leading indicators of the major trading partners of South Africa have been included in the South African Composite Leading Indicator, as shown in Table 3. This inference is reinforced by the rise of both GDP and exports in 2010, to R1,838.3 billion and R626.3 billion, respectively.

**Figure 8: Exports, Percentage of GDP, 2004-2011**

![Graph showing exports as a percentage of GDP from 2004 to 2011.](source: IHS Global Insight, 2013)

Figure 8 shows the total export value of South Africa as a percentage of GDP, for the years 2004 to 2011. Exports accounted for an increasingly large share of the South African GDP from 2004 to 2008, reaching 31.1 percent in 2008. This amplified the impact on the economy of the decrease in exports suffered in 2009; they accounted for only 23.2 percent of GDP. By 2011, this had recovered to 25.2 percent and this resurgence was accompanied by the economy beginning to expand once more.

### 4.2.2. Investor Confidence

Investment is important for the growth of an economy. Funds for investment in the real economy are, for the most part, accessed through credit. A country’s ability to attract investment is impacted by an assessment known as a credit rating. Countries and other legal entities are assigned these ratings according to both their past behaviour as recipients of credit and their current capacity to repay credit. In essence, it is an opinion on the likelihood that the entity will default on one or more payments towards the debt that it has incurred. Credit ratings are internationally recognised when they are the
formalised opinions of organisations specialising in these assessments of credit worthiness. Agencies such as Moody’s, Standard & Poor’s (S&P), Morgan Stanley and Fitch are well-known for credit rating assessments. They are thus trusted to provide guidance on investment, debt and or debt issuance considerations. Questions can be raised as to their true trustworthiness, however, as these organisations gave high ratings to sub-prime loan packages and they are not held directly accountable for any errors in their ratings. Table 4 presents several of S&P’s brief summary descriptions of their credit rating symbols.

### Table 4: Selected Credit Rating Definitions

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>Extremely strong capacity to meet financial commitments. Highest Rating.</td>
</tr>
<tr>
<td>A</td>
<td>Strong capacity to meet financial commitments, but somewhat susceptible to adverse economic conditions and changes in circumstances.</td>
</tr>
<tr>
<td>BBB</td>
<td>Adequate capacity to meet financial commitments, but more subject to adverse economic conditions.</td>
</tr>
<tr>
<td>B</td>
<td>More vulnerable to adverse business, financial and economic conditions but currently has the capacity to meet financial commitments.</td>
</tr>
<tr>
<td>CCC</td>
<td>Currently vulnerable and dependent on favourable business, financial and economic conditions to meet financial commitments.</td>
</tr>
<tr>
<td>C</td>
<td>Currently highly vulnerable obligations and other defined circumstances.</td>
</tr>
<tr>
<td>D</td>
<td>Payment default on financial commitments.</td>
</tr>
</tbody>
</table>

Source: S&P, 2013  
Note: An entity’s credit rating is often further qualified with a '+' or '-' . This denotes its relative level of risk compared to other entities with the same letter rating.

S&P has assigned South Africa a foreign long-term credit rating of BBB and a local short-term rating of A-2. According to S&P, a rating of A-2 means that South Africa, “…has satisfactory capacity to meet its financial commitments. However, it is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligors in the highest rating category.” A lower rating for the country in foreign-currency obligations may reflect that South Africa has smaller foreign currency reserves than others such as China.

On the 27th of September 2012, Moody’s Investor Services downgraded its South African government bond credit rating to Baa1. This means that Moody’s has rated these bonds to be medium-grade and subject to moderate credit risk. Lower credit ratings mean that it will be more difficult for government to respond to slow growth with an infrastructure drive, as it intended. It will have to pay more for the credit to fund the drive, scale back to offset the higher interest costs or raise taxes.

### 4.3 Domestic Factors

South Africa has recorded few truly self-inflicted recessions. For the most part, when the country has entered recession, it has been due to external factors. Domestic factors, however, can restrict the ability of the country to react to the changing economic
landscape, thus limiting options to reduce or even reverse recessionary pressures. Some of the domestic factors which contribute to this challenge are the electricity capacity, skills shortage and labour unrest, as discussed below.

### 4.3.1. Electricity Capacity

**Figure 9: Electricity Generated and Available for Distribution, January 2004 – November 2012**

![Electricity Generation Chart]

Figure 9 shows the Giga-watt hours (GWH) of electricity available for distribution in South Africa each month from January 2004 to November 2012. Electricity displayed an upward trend at first, beginning the period under review at 15,856GWH and rising until it peaked at 20,471 in August 2007. From then on, the trend has been largely negative, particularly in November and December 2008. Statistics South Africa (Stats SA) attributed the decreases in those two months to factors such as load shedding and a continuous drive from Eskom to encourage users to reduce their electricity consumption. Another factor which reduced supply was the fact that, in November, electricity imports into South Africa were significantly lowered by difficulties with the Apollo converter station in Mozambique. The latest data at time of writing placed electricity available for distribution in November 2012 at 19,671GWH or 800GWH below the August 2007 peak.

A lack of electricity capacity constrains growth in many areas of the economy. AngloGold Ashanti (2008) refers to the electricity shortage of January 2008 as, “one of the most critical moments that... the mining industry [has] faced in South Africa”. While the country did benefit from the increased prices of many of its exports, other countries such
as Australia were able to compound their benefits by also increasing production. South African mines were unable to do so due to lack of additional electricity. Mining is not the only heavy industry which cannot expand without additional electricity. Smelting operations in the country have been constrained as well, for example.

### 4.3.2. The Skills Shortage

“High quality education and appropriate competences and capabilities held by both individuals and firms are a prerequisite for growth, development and citizenship. Skills development, therefore, continues to remain top of the national development agenda and will remain so for the foreseeable future. It is important for the greater economic development of our country, but also to foster greater inclusion and restore dignity among our citizenry.”

Human Sciences Research Council (HSRC), 2012.

Beyond the general benefits of improved skills, higher skill levels can also aid an economy in recession by easing the movement of resources from newly unprofitable economic sub-sectors to ones with more potential in the current landscape. South Africa, however, has a limited capacity to engage in this type of shift, as the country is challenged by a skills shortage.

According to HSRC (2009), the correct skills are required for workers to adapt to new realities. High unemployment rates correlate with unmet demands by employers for skilled labour. This suggests that many new labour market entrants lack the skills required for employment. New skills are particularly important for venturing into new industries. An example of this is the green economy, as discussed by the International Labour Organisation (ILO) in its Skills for Green Jobs in South Africa (2010) publication. According to the report, the realisation of the potential of the green economy, such as environmental benefits and increased employment, is being held back by a lack of skills. Shifting resources idled by the recession into green projects could have helped South Africa to recover from the recession more rapidly and currently could speed economic growth.

### 4.3.3. Labour Unrest

Late in 2012, unprotected strikes spread across the mining industry. Violence was often a part of these strikes, as epitomised by the tragic events at Marikana. According to the Congress of South African Trade Unions (COSATU), the triggering incident of this
increase in labour unrest appears to have been a wage-increase granted to certain types of mineworkers, but not others. This apparently brought to a head tensions created by high debt-levels suffered by mineworkers.

This unrest has contributed to other negative factors, such as the missed opportunity to expand mining production and reduced investor confidence, as often reflected in credit rating downgrades. The impact has spread to other sectors of the economy, though the exact degree to which it has done so currently remains uncertain. Reduced income in the mining sub-sector translates into less money spent in the rest of the economy and mining outputs are used as inputs by other industries. Also, mining output is one of South Africa’s primary exports. The decrease in mining thus contributed to the large trade deficit in January 2013. With its impact being multiplied in this manner, this labour unrest has the potential to be more serious than its direct effect alone. If further events of similar impact occur in the near future, this could potentially send the economy into another contraction phase.

5. The Role of Government

The financial crisis and accompanying global recession show the necessity that governments not assume that economic upswings will last indefinitely. When the economy is in an expansion, it is imperative that governments use the greater availability of funding and positive economic momentum to build up reserves which will act as buffers to protect the economy from negative shocks. Governments which are already labouring under large budget deficits have less ability to react to their country entering a prolonged economic contraction. According to Sutherland (2010), on average, governments which have larger deficits take smaller actions to offset negative shocks. Countries with budget surpluses before the crisis were able to implement large stimulus programmes, while others were in such poor fiscal shape that they were forced to implement austerity measures. Austerity during a recession is pro-cyclical and worsens the decrease in GDP, but it may still be needed to repair deeper faults in the economy. Greece is an example of a country which was forced by its economic circumstances to put austerity measures into place during recession, even though this will likely prolong and deepen that recession.
Figure 10 shows the current GDP of Greece and the real growth rate, for the years 2000 to 2011, with an estimate for 2012. The GDP of Greece was US$127.6 billion in 2000 and grew by an average of 3.7 percent per annum until it reached a peak of US$342.8 billion in 2008. In 2009, the Greek economy fell into recession and GDP decreased by 3.3 percent to US$322.6 billion. Austerity measures and a lack of trust in the finances of the country have left the GDP of Greece still falling by 5.5 percent per year, on average. The country’s GDP is estimated to have been US$255 billion in 2012. If the government of Greece had been in better fiscal condition when the crisis began, it may have been able to offset the resultant recessionary pressures rather than deepening the contraction with unfortunately necessary austerity measures. The economy of fellow Euro-area economy Germany lost 5.1 percent of its output in 2009 but had already recovered to positive 4 percent growth by the end of 2010.

High inflation can also make it more difficult for governments to respond to recessions by limiting the ability of central banks to reduce interest rates without creating the potential for inflation to run out of control in the future. Lowering interest rates is desirable during economic contraction because it can encourage spending and investment by making credit cheaper. Another constraint is that reducing interest rates has an increasingly small effect as the rate nears zero. Households retain more of their income to spend if they are making lower interest payments on already-incurred debt, while businesses are able to access loans for investment purposes at a lower price. This
should at least partially offset the increased wariness induced by the recession. A government also sets the capital requirements of the banks in its country. Banks with larger capital reserves were better able to absorb the losses caused by the financial crisis as these reserves acted as buffers.

In South Africa, inflation was above the SARB target band of 3 to 6 percent in 2007 and 2008, but it was not as high as in several other countries and SARB had already raised the repo rate to contain it. This combined with a government budget in surplus to allow government to take action to offset the recession without incurring a crippling level of debt or letting inflation run rampant.

**Figure 11: Government Budget Balance (% of GDP), Inflation & Repo Rate, 2002-2011**

![Graph showing government budget balance, inflation, and repo rate from 2002 to 2011.]


Figure 11 shows the Consumer Price Index (CPI) inflation rate, the repo rate and the government budget balance for South Africa for the years 2002 to 2011. The budget was in deficit from the beginning of the period until 2006, when government began saving due to the then-new counter-cyclical policy. The 2007 Medium-Term Budget Policy Statement (MTBPS) indicated the, "need to raise government savings in response to the cyclical element of revenue collection". The budget surplus peaked at 0.7 percent of GDP in 2007. When the world went in recession in 2008, government increased spending to offset the contractionary pressures. This resulted in a budget deficit of 0.4 percent, which rose to 4.9 percent in 2009. Since then, prudent fiscal management has reduced the deficit to 4.2 percent as of 2011. This is important for combating the recession, since Sutherland (2010) suggests that the benefits of increased government spending can be
offset to a lesser or greater extent depending on the accompanying level of government
debt. This is because increased government debt causes private persons to anticipate
higher taxation in future, leading them to reduce private spending in favour of increased
saving to prepare for the more austere times ahead. There is also the risk that credit
rating agencies would downgrade their ratings for South Africa in response to a
continually growing deficit. The combination of these factors result in the appearance
that it would be unfeasible for government to increase spending any further to counter-
act slow economic growth.

Inflation had been rising since reaching a trough of 1.4 percent in 2004, peaking at 11.5
percent in 2008. SARB had been raising the repo rate in response, with an average repo
rate of 11.6 percent in 2008. In 2009, recessionary pressures were beginning to affect
the South African economy and inflation fell to 7.1 percent. SARB also lowered interest
rates to support spending, with the repo averaging 8.3 percent. Both rates continued to
fall in 2010. In 2011, with the economic recovery well under way, inflation began to rise
once more but, since it remained within the target band, SARB was able to reduce the
repo further to maintain support for the recovery.

Social safety nets such as the Unemployment Insurance Fund (UIF) can also offset a
recession to some degree through their normal functioning. During a recession,
unemployment rises. This loss of income inhibits spending; it would do so to an even
greater degree if newly unemployed persons did not receive UIF payments.

6. Review and Outlook for the South African Economy

This section details two types of forecast of the future growth of the South African
economy; a composite leading indicator from the SARB and a GDP forecast from the
IMF. The composite leading indicator can be used to make projections for the direction of
movement in GDP in the next 6 to 12 months.

**Figure 12: Composite Leading and Coincident Indicators, January 2006 –
November 2012**
Figure 12 shows the monthly composite leading and coincident indicators for South Africa from January 2006 to November 2012. A composite indicator is an index constructed by taking the weighted averages of several individual indicators. Both the leading and coincident composite indicators were increasing from January 2006 until the leading indicator fell slightly in June. According to Venter (2011), demand was growing during this period, as well as prices. After this, the leading indicator remained largely flat while the coincident indicator continued rising, though at a decreasing rate. Since the coincident indicator moves at approximately the same time as GDP, as explained in Section 2.2, this suggests that economic growth was positive at this time, though it was beginning to slow. Furthermore, prices and interest rates had reached heights that obliged already heavily-indebted consumers to reduce their consumption levels. In March 2008, the leading indicator began a noticeable downswing and this was followed by the coincident indicator in August. During this period, interruptions in electricity supplies caused a reduction in national output growth; followed by the global recession, which reduced demand for South African exports to the point where the country entered recession. The leading indicator also successfully predicted the recovery by increasing in July 2009. The coincident indicator followed suit in December. In the real economy, recovery in India and China led to revitalised demand for South African mining and manufacturing exports and real wages increased due to monetary policy easing. These factors combined to begin the recovery of the South African economy. Presently, the leading indicator is largely flat once more. If the previous pattern holds, this would suggest that the growth of the South African economy will continue to be positive.
Figure 13 shows the GDP and attendant growth rate of South Africa for the years 2007 to 2010, with estimates for 2011 and 2012, and forecasts until 2017. These figures are from the October 2012 World Economic Outlook (WEO) database and its January update of the International Monetary Fund (IMF). The recession which South Africa endured in 2009 is clearly visible with GDP decreasing by 1.5 percent that year to R1,786.6 billion, from R1,814.5 billion in 2008. The recovery is also visible in the return to positive growth of 2.9 percent in 2010. The IMF predicts that growth will slow to 2.3 percent in 2012, reflecting negative factors such as the labour unrest towards the end of 2011 making their full impact felt in the subsequent year. Growth is forecast to rise after that, however, reaching a plateau of 4.2 percent from 2015 to 2017.

This shows confidence that the challenges currently facing South Africa will be resolved with minimal disruption to the economy. These growth predictions are not, however, the above-five-percent growth which has been said by government to be necessary to significantly reduce unemployment. Government is responding to continued expectations of slow growth by increasing its support for its infrastructure drive and the implementation of the National Development Plan (NDP). The NDP includes plans to eliminate challenges, such as poor-quality education and exclusionary spatial settlement patterns, in order to promote increased investment and production.

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5 According to Stats SA, the South African economy grew by 3.5 percent in 2011
7. Conclusion

This document has provided the definition of a business cycle as the pattern of expansion and contraction which aggregate economic activity exhibits around its overall trend. One complete business cycle is constituted of a trough, an expansion, a peak and a contraction. The Great Depression, financial crisis and Euro-area debt crises are examples of well-known business cycles.

The SARB monitors these cycles and attempts to predict them by compiling leading, coincident and lagging composite indicators. External factors are very significant for South African business cycles as the country has a relatively small, mostly open economy. Major output fluctuations in South Africa are most often the result of changes in international economic conditions. Foreign, external, economic events most often affect South Africa through trade channels and the confidence which foreign investors have in the South African economy can also be a factor.

While external factors have had the greatest influence so far, this is at least partly because of domestic factors which limit the ability of the country to respond to the changing economic landscape. These limitations include electricity capacity, labour unrest and a shortage of skills. Projections suggest that the economy of South Africa will continue to grow, though at an unspectacular pace. However, if the limiting domestic challenges could be resolved, the country would be better able to adapt and might be able to reach greater economic growth. South Africa would then be less at the mercy of external business cycles. The South African government’s response to the business cycles experienced by the country due to the global financial crisis successfully moderated the impact of the recession. The NCA reduced the impact of the global financial crisis and counter-cyclical management of the deficit offset the accompanying recession which was carried to South Africa through trade channels. However, a government budget deficit that remains above 4 percent suggests that, in the short-term, the fiscal flexibility to further increase spending, to invigorate a sluggish economy, may be limited.
8. References


