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Some encouraging macroeconomic trends

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This briefing paper examines changes in inflation, interest rates and the exchange rate in Namibia since 1990. It finds that inflation has come down steadily over the decade. Bank lending and deposit rates have fluctuated within defined bands but the difference between lending and deposit rates has not changed significantly. Real interest rates appear to have become generally more positive over the period as inflation has declined. The Rand/US dollar exchange rate has depreciated significantly to a stage where the Rand looks severely undervalued. These trends are encouraging since internationally they are associated with improved growth performance.

Macroeconomics refers to the study of how whole economies behave rather than particular industries or markets. In a market economy where economic decisions are taken on the basis of prices, three variables play a critical role in influencing macroeconomic performance: inflation, interest rates, and exchange rates.

Interest rates are important because they represent the price of borrowing money and the return to saving money. Interest rates therefore affect the amount governments, businesses and individuals borrow for investment and consumption as well as the amount they decide to save. Other things being equal, a higher rate of interest reduces the incentive to borrow and increases the incentive to save.

Inflation is important because it measures the rate at which the price of goods and services in the economy increases. Because governments, businesses and individuals make decisions on the basis of prices, changes in prices will lead to changes in economic decisions and outcomes. Furthermore, many useful measures of economic well-being, such as income, are measured in money terms. It is important, therefore, to also measure the rate of inflation to determine whether value is changing simply in money or *nominal* terms or whether it is changing in terms of the goods and services which can be bought, that is to say, in *real* terms.

An exchange rate measures the price of one country's currency against another. For any economy which conducts economic transactions with another, the exchange rate is important because it determines the price that will have to be paid by one country for goods, services, and investments in another. In a small economy which trades a lot with the rest of the world such as Namibia's, the exchange rate takes on added importance.

Governments cannot simply choose the level of interest rates, inflation and exchange rates in an economy because these variables are determined jointly as an outcome of the decisions and interactions of millions of individuals and businesses as well as other economies over which they have little direct control. Governments can, however, influence these variables through economic policy. This is what is called *monetary policy*. Monetary policy is based on the fact that economies

are complex systems. It is not generally possible to determine economical variables in one part of the economy without bringing about changes in other parts of the economy.

In Namibia's case, monetary policy is effectively in the hands of the South African monetary authorities, the South African Reserve Bank (SARB). Namibia belongs to the Common Monetary Area (CMA) along with South Africa, Swaziland and Lesotho. Under the terms of the CMA, each member country's currency can be exchanged one-for-one with the South African Rand which can also be used as legal tender. Money can generally flow unhindered from one country to the other. At the same time, the controls regulating the flow of money into and out of the CMA region are more or less the same. The implication of this arrangement is that, because South Africa's economy dominates the CMA – it is about forty times larger than Namibia' economy – interest rates and exchange rates are determined by the policies of the SARB. In practice this means that when interest rates in South Africa change, interest rates in Namibia follow suit.

This briefing paper examines how inflation, interest rates, and the exchange rate in Namibia have changed since 1990. The simple analysis presented allows certain conclusions to be reached about Namibia's macroeconomic environment and also highlights a number of important issues which require further research.

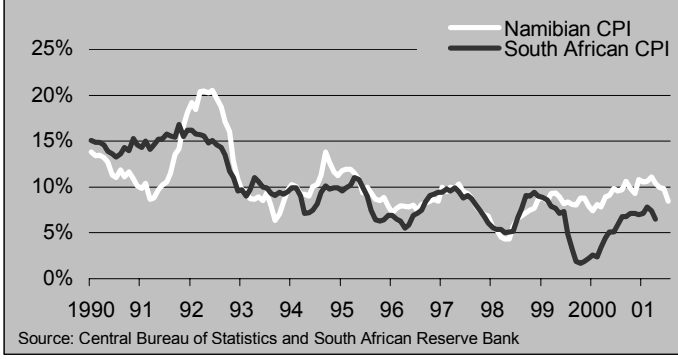
Inflation seems to have declined since 1990.

Inflation in Namibia is measured by the interim consumer price index (CPI) for Windhoek. This is a number composed out of the prices of goods and services bought by the typical Windhoek consumer weighted according to the importance of the item in the consumer's overall basket of purchases. Each month the Central Bureau of Statistics (CBS) collects information on the prices of the items in the basket and then uses these prices to recalculate the index. The percentage change in the index over the same month in the previous year yields the annual rate of inflation.

Chart 1 shows how inflation in Namibia has changed since 1990. It suggests that inflation has experienced an underlying decline in the course of the decade. During the first half of the 1990s it rose sharply before falling and rising again to a peak in 1994. Since then it has fallen to below 5% and risen to above 10%. Since the middle of 1995, it has generally fluctuated in a band between 5% and 10%.

Chart 1: Inflation

Annual % change in Interim CPI Windhoek and South African CPI



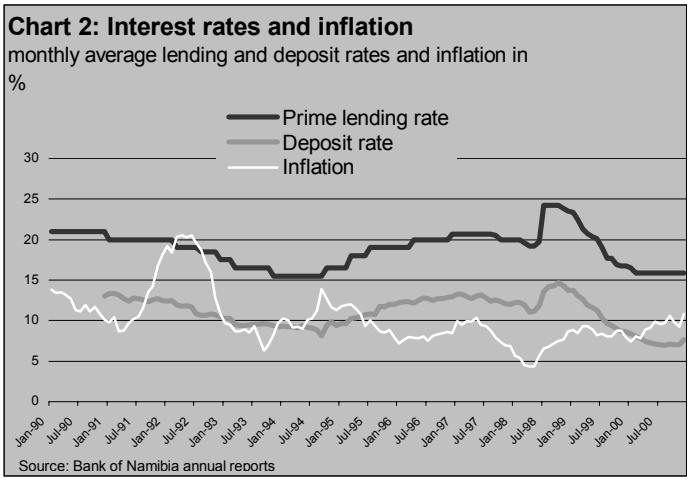
Source: Central Bureau of Statistics and South African Reserve Bank

The chart also compares inflation in Namibia to inflation in South Africa as measured by the South African CPI for metropolitan areas. It shows that, while Namibian inflation has broadly followed South African inflation, as one would expect, some divergence took place at the beginning and at the end of the decade. Since the beginning of 1999, inflation in South Africa has been consistently lower than inflation in Namibia. South African inflation appears to have been on a steeper downward trend than Namibian inflation. These differences require further investigation.

Most economists believe inflation to be harmful to economic growth although the extent of this harm is hotly debated, especially at rates below 10% a year. Certainly there is ample empirical evidence which shows that inflation is negatively associated with inflation (see, for example, Fischer 1993). There are also grounds for believing that the poor suffer more from inflation than do the rich. The poor consume a larger proportion of their income, have fewer options to save, have poorer access to information, are less mobile and depend more on administered sources of income from government. One recent study (Easterly and Fischer 2000), for example, shows that the poor are more likely than the rich to mention inflation as a top national concern. They show further that high inflation tends to lower the share of national income received by the poorest fifth of the population and to lower the real minimum wage.

In common with other central banks, the South African Reserve Bank (SARB) has long pursued a policy of reducing inflation. Since early 2000 this objective has become even more clearly defined through the SARB's adoption of an explicit *inflation target*. It is now the stated intention of the SARB to reduce inflation to between 3% and 6% a year by 2002. The SARB has used the interest rate at which it lends to commercial banks – the repo rate – as the main policy instrument to influence interest rates and thereby economic activity such that inflation will meet this target. The chart above suggests that the policy of reducing inflation has met with some success.

Chart 2: Interest rates and inflation
monthly average lending and deposit rates and inflation in %



Source: Bank of Namibia annual reports

Interest rate spreads do not appear to have fundamentally changed over the decade…

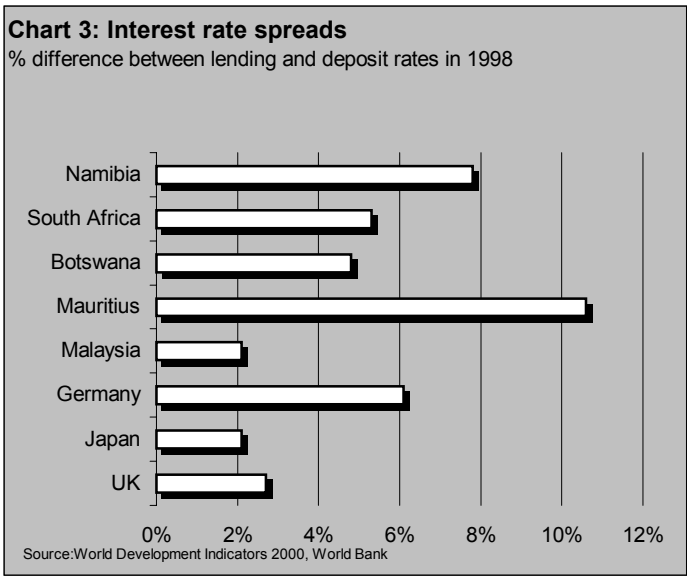
A great variety of different interest rates exist in the economy but, like other markets, almost all are based in some way on the fundamental equilibrium that exists in the market for money between the supply of saving and the demand for borrowing. Chart 2 shows how two different interest rates have changed since Independence: the prime lending rate and the deposit rate of Namibia's commercial banks.

The prime lending rate is the rate of interest charged by commercial banks to their least risky borrowers. The prime rate shown in the chart is actually the average of the prime rates charged by Namibia's five commercial banks as calculated by the Bank of Namibia and published in its quarterly bulletins and annual reports. The chart shows that prime rates dropped steadily from just above 20% in 1990 to just above 15% in the mid-1990s before climbing again and rising sharply in 1998 only to fall back again to around 15% by the end of the decade. During the period, the average prime rate remained in a band of 10% never falling below 15% nor rising above 25%.

The deposit rate is the rate of interest paid by commercial banks on deposits. The deposit rate shown in the chart is a weighted average of a number of deposit rates paid by Namibia's five commercial banks as calculated by the Bank of Namibia. The chart shows that prime lending and deposit rates move in parallel with each other. This is to be expected. Commercial banks take in money from savers and lend it out to borrowers. They generate revenue by charging borrowers a higher rate of interest than they pay to savers. Provided the revenues generated from the interest charged to borrowers are greater than what they pay to savers plus the cost of operating the bank, they will make profits. The size of these profits will be determined by the degree of competition in

the banking sector which limits the interest rate individual banks can charge borrowers and pay savers before customers move to another bank. The chart shows that the difference between prime lending and deposit rates – the interest rate spread - averaged just under 8.5% over the period never exceeding 10.62% nor going below 6.11%. No long-term trends in this spread are apparent. This lack of change requires further investigation since it suggests that consumers of banking services in Namibia have not benefited from more competition, changes in banking technology, or bank restructuring over the decade.

… and remain high by international standards…

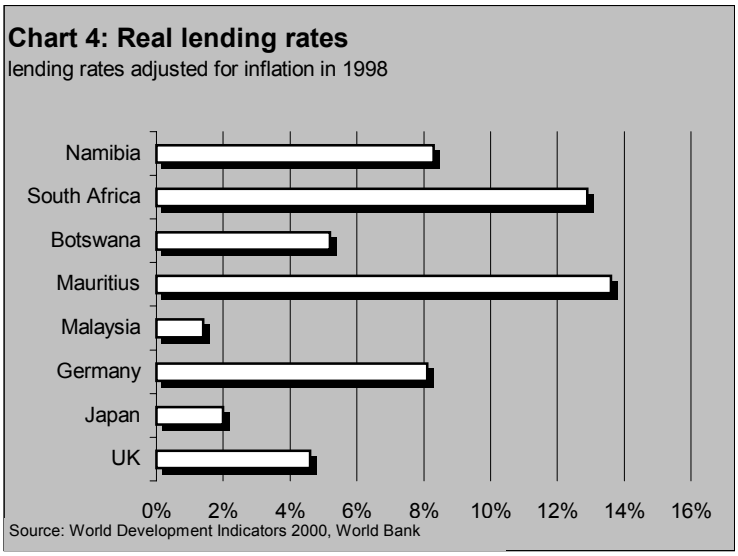


It is interesting to compare the difference in interest rates with those of other countries. Chart 3 shows these spreads for a selection of rich and developing countries for 1998 using data taken from the World Bank (World Bank 2000). The selection includes countries which rank more highly than Namibia in the last Africa Competitive Report (World Economic Forum 2000). It suggests Namibia's interest rate spread exceeds rich country spreads as well as those of many developing countries, including South Africa and Botswana. This is surprising since Namibia belongs to the CMA of which South Africa is the dominant member. The difference requires further research but may be a reflection of differences in liquidity requirements and the regulatory environment. It may also be a reflection of a lack of competition in the Namibian banking sector. South Africa has 20 registered banks compared to Namibia's five. Several of Namibia's banks are highly profitable and have low cost-to-income ratios by international standards.

…while real interest rates appear now to be generally positive.

It is worth examining interest rates and inflation together because it is partly through their combined effect that they influence economic behaviour. Borrowers will be more interested in the real rather than the nominal interest rates they pay. Borrowers will be inclined to borrow more if what they have to pay back is worth less in real terms than what they borrowed. If borrowers are investors, they will also be less inclined to examine the efficiency of their investment if the real rate of interest is low.

Likewise, savers will be more interested in the real return to their savings rather than the nominal return. If savers deposit money at a rate of interest that is lower than the rate of inflation, what they can buy with their savings after any period of time will be less than what they could have bought when they started saving. The value of their saving will have declined in real terms and the incentive to save will be much reduced.



The real prime rate - as measured by the vertical distance between the lines showing inflation and the average prime interest rate on Chart 2 - declined sharply during the period until early 1992 when it became negative for a short time. After becoming increasingly positive again, the real prime rate was reduced almost to zero before it widened during the second half of the decade. Chart 4 shows how Namibia's lending rate compares internationally using the same selection of countries as in Chart 3. Namibia is at the higher end of the range but is surprisingly lower than South Africa.

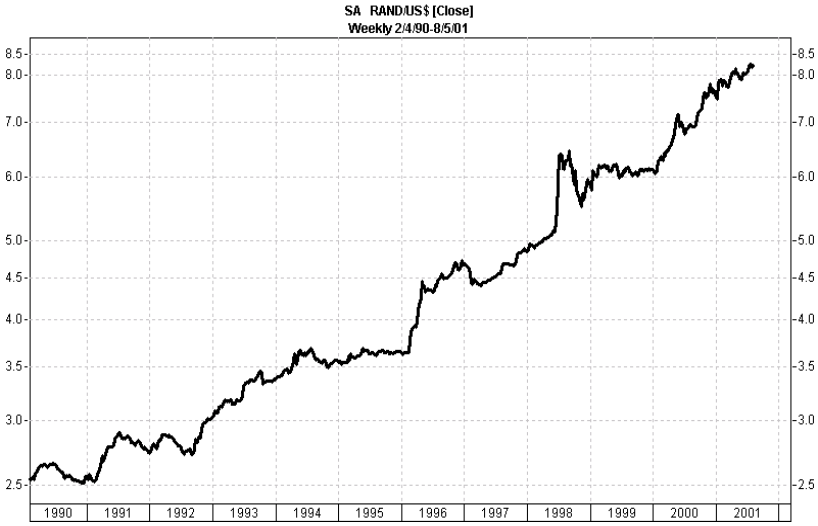
The real average deposit rate - as measured by the vertical distance between the lines showing inflation and the average deposit rate on the chart - started out positive in early 1991 but quickly turned negative for almost all of the period until mid-1995. A relatively long period then followed during which deposit rates exceeded inflation and this lasted until the end of the decade when real deposit rates again turned negative. Although it looks as though savers enjoyed better returns in the second half of the 1990s, this does not yet appear to be a firm characteristic of the economy. The degree to which this discourages saving in Namibia is an important issue that requires further research.

In short, it looks as if interest rates – both lending and deposit rates - have become more firmly positive in real terms. This is encouraging since many international studies have suggested that positive real interest rates are associated with improved economic performance and higher sustained growth. The World Bank publication *The East Asian Miracle* (World Bank 1993) contains a useful discussion of the link between inflation, real interest rates and economic growth which concludes that inflation rates are far more important in explaining growth than real interest rates although positive real deposit rates do indeed seem to be associated with higher rates of savings. More positive lending rates will discourage borrowing but are likely to give a greater incentive to improve the efficiency of investment.

The Rand has depreciated massively since 1990…

The third part of this briefing paper looks at changes in the exchange rate which have taken place since 1990. The focus will be on the exchange rate with the US dollar. Chart 5 shows that the exchange rate between the South African Rand (which for the purposes of this paper is taken to be the same as the Namibia dollar) and the US dollar has depreciated significantly since 1990. Whereas in 1990 just over R2.5 were needed to purchase a single US$, by 2001 this had increased to over R8.0.

Chart 5: Rand – US dollar exchange rate



Source: I-Net Bridge

…and now appears significantly undervalued.

One common theory economists use to explain changes in exchange rates is based on the theory of purchasing power parity (PPP). This argues that, provided trade is allowed and exchange rates are free to move, the exchange rate between two currencies should in the long run move towards the rate that equalises the prices of identical bundles of traded goods and services in each country. In other words, a dollar should buy the same amount everywhere. The basic logic is that, if this were not the case, traders could make profits by buying goods in countries where they were cheaper and selling them in countries where they were more expensive. This trade, or *arbitrage*, would continue until prices changed and profits were eliminated. The implication of this theory is that exchange rates should change according to differences in rates of inflation. Thus, if this theory is correct, the Rand-US dollar exchange rate should vary according to differences in South African and US inflation rates.

Inflation in the US has indeed been lower than inflation in South Africa during the last decade. This would lead one to expect a depreciation of the South African Rand against the US dollar. However, applying historical rates of inflation between 1990 and 2000 from the SARB and the US Department of Labor to the exchange rate in 1990 yields an expected exchange rate of R4.8 to the US dollar (R2.588*244.54/131.80) rather than the observed rate of R6.8 in 2000. If the same calculation is performed using the interim Windhoek CPI, the resulting PPP adjusted exchange rate should be N$5.1 to the US dollar in 2000 (N$2.588*258.04/131.80).

If the theory of PPP holds, either the Rand was overvalued in 1990 and has therefore depreciated by more than the differential rates of inflation since, or the Rand is now undervalued. The World Bank's World Development Indicators 2000 (World Bank 2000) provide estimates of over or undervaluation by currency. Table 5.6 of the same publication provides estimates of purchasing power conversion factors. This is simply the number of units of a country's currency required to buy the same amount of goods and services in the domestic market as a US dollar would buy in the US. According to these estimates, in 1998 R2.1 were required to buy the same amount of goods and services in South Africa as a US dollar would buy in the US. If PPP holds, then the

exchange rate should have been R2.1 to the US dollar in 1998. In fact the year average was nearer R5.5 according to the SARB.

The Economist magazine of the United Kingdom (Economist 2001) has been calculating a measure of under- or overvaluation on an annual basis for the past 15 years using what it calls the Big Mac index. *The Economist* takes the local price of the equivalent of a Big Mac hamburger in a range of countries and converts this price into US dollars using the prevailing exchange rate. It then calculates the difference between this US dollar price and the US dollar price of a Big Mac in the US as a percentage of the US dollar price in the US. In the edition of April 21st - 27th 2001 the Big Mac index suggests that all developing country currencies measured were undervalued. However, the Rand was 53% undervalued according to PPP, the most undervalued of the currencies selected with the single exception of the Philippine Peso.

These conclusions stand in contrast to conclusions reached by other researchers in Namibia earlier in the last decade who argued that the Namibia dollar was overvalued (Orford and Sherbourne 1995). The degree and causes of over or undervaluation require further investigation.

These trends may be encouraging for longer-term growth in Namibia.

This briefing paper has described how inflation in Namibia and South Africa has declined since 1990. This is likely to be good for economic growth and poverty reduction since the international evidence strongly suggests that high inflation is associated with lower growth and also tends to increase poverty. As inflation has declined, real interest rates appear to have become steadily more positive. Given the trade-off that exists between providing incentives to savers and to borrowers, the optimal balance appears to be one of positive but low real interest rates. Real lending rates in Namibia are high by international standards. The evidence does not allow a judgement to be formed as to whether they are so high as to impede growth.

There is evidence that the Rand, and by implication Namibia's currency the Namibia dollar, is now substantially undervalued. There is now an almost overwhelming consensus in the economics profession that openness to trade and export performance are important ingredients in accelerating a country's rate of economic growth. International evidence over many decades suggests overvaluation damages developing country export performance and therefore long-term growth (see, for example, Dollar 1992). Indeed, many successful exporters have deliberately sought to undervalue their currencies as part of their export drive programmes (see, for example, World Bank 1993 Chapter 3 pp.125-127). The present situation in which the Rand now appears to be significantly undervalued favours exports over imports and may therefore promote growth.

Clearly there is more to fostering growth and reducing poverty than creating a favourable macroeconomic climate. However, if one believes that low inflation, positive real interest rates, and an undervalued exchange rate are good for growth (and there is a considerable amount of research which suggests that this is the case) then the trends described in this paper suggest the macroeconomic environment in Namibia is more conducive to growth now than it was at the beginning of the 1990s.

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