

# The Sustainability of South Africa's Current Account Deficit<sup>1</sup>

[Paper to be presented at the biennial conference of the Economic Society of South Africa, 10-12 September 2007, Johannesburg]

## I. INTRODUCTION

South Africa's deficit on the current account of the balance of payments has increased to a level of 6,5% of GDP in 2006, which is the highest since 1975 and is also relatively large by emerging market standards. The increase in the deficit was associated with continued strong growth in domestic demand from 2004, a poor export performance and low savings, a protracted appreciation of the currency from 2003 and record-level foreign capital inflows over the past 3 years. Should the economy continue to grow at the current 5% level and the government follows through with its large-scale infrastructure investment programme, the current account deficit is unlikely to decline materially over the next few years. These developments have raised questions about the sustainability of South Africa's current account deficit in the years ahead (see, for example, Frankel, Smit and Sturzenegger (2007) and IMF (2007b)).

In the literature, the issue of the sustainability of current account imbalances and the associated problems of sudden stops of foreign capital inflows and current account reversals have received considerable attention in recent years, not least because of the large US deficit (see, for example, Edwards (2005) and IMF (2007a)). This interest is motivated by the potential negative impact of sharp declines in foreign capital inflows and a current account reversal on macroeconomic conditions in deficit countries.

In this paper the sustainability of South Africa's current account deficit is analyzed with reference to the international experience in this regard. The paper is structured as follows: firstly, a brief description of the recent behaviour of South Africa's current account deficit and its proximate causes; secondly, a brief summary of the international experience regarding current account deficits, deficit reversals and their macroeconomic impacts and the factors that determine the probability of such reversals and the severity of their impact and; thirdly, an analysis of the sustainability of the South African current account deficit with reference to the international experience.

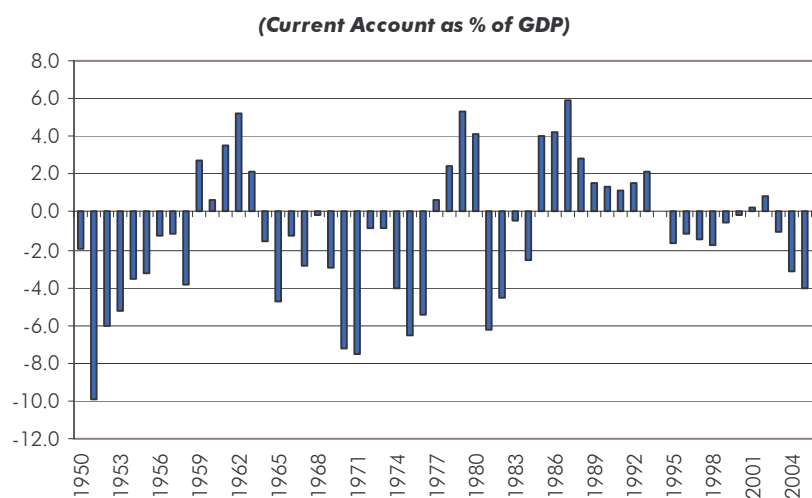
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## II. SOUTH AFRICA'S CURRENT ACCOUNT DEFICIT: RECENT BEHAVIOUR

South Africa has a small open economy and as such balance of payments and exchange rate considerations have always played an important role in its macroeconomic performance and policies<sup>2</sup>. Prior to the political transition in 1994, developments on the current or capital accounts of the balance of payments at times required priority status in the government's macroeconomic policies. This happened, for example, in the early 1960s and late 1970s following domestic political upheavals. In the eight years following the debt standstill in 1985, the balance of payments became an absolute constraint, requiring restrictive macroeconomic policies to ensure a surplus on the current account in order to finance the repayment of foreign debt. Since 1994 however, after South Africa regained access to the international capital markets, the balance of payments ceased to be a focus of macroeconomic policy concern: current account imbalances were generally quite small and easily financed with foreign capital inflows (see figure 1 below).

Figure 1: Balance of Payments



Source: SARB Quarterly Bulletin

This situation has now changed significantly – from small surpluses in 2001 and 2002, the current account has switched into deficit and this deficit has increased sharply over the past 3 years, reaching a level of 6,5% of GDP in 2006 and 7,0% in the first quarter of 2007. The increase in the deficit appears to be clearly associated with the sharp improvement in South Africa's (domestic demand driven) economic growth performance (an average real GDP growth rate of 5,0% over the past 3 years compared to 3,1% in the first ten years after

<sup>2</sup> See Mohr et al (1989) and Mohr (2003) for detailed analyses of South Africa's balance of payments history.

the political transition in 1994). Furthermore, it is generally expected that South Africa's improved growth performance will continue over the next few years and the government has embarked on an ambitious infrastructure investment programme of more than R400 bn over the next 3 years, indicating that the deficit on the current account is likely to remain at elevated levels over the next few years.<sup>3</sup> It also appears that South Africa's current account deficit is relatively large by recent emerging market standards, particularly in Asia and Latin America (Smit (2006), Frankel, Smit and Sturzenegger (2007) and IMF (2007b)).

These developments have raised the question of whether South Africa's current account deficit is sustainable i.e. will South Africa continue to receive sufficient foreign capital to finance a sizable current deficit without running into a significant external crises and/or domestic macroeconomic disruption. Before considering this question from the perspective of international experience in this regard, the proximate causes of the South African current account deficit are considered briefly.

The proximate causes of the recent sharp increase in the current account deficit can be viewed from (at least) three different perspectives: (i) imports and exports, (ii) savings and investment and (iii) the magnitude and composition of foreign capital inflows. The relevant statistics are presented in Table 1 below.

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<sup>3</sup> The Bureau for Economic Research, for example, currently forecasts real GDP growth rates of 5,0 and 4,8% for 2007 and 2008, respectively (BER (2007)), while the IMF forecasts an average real growth rate of 4,8% for the next six years and an average current account deficit of 5,5% of GDP over the same period (IMF (2007b)).

**Table 1: South African balance of payments and national account variables: 2000 – 2007Q1**

*(All variables – except indices – are expressed as a percentage of GDP)*

|        | Current acc balance | Trade balance | Serv and inc balance | Exports: Vol index | Imports: Vol index | Terms of Trade | Gross dom savings | Gross capital formation | Total capital inflows | Direct investment | Portfolio investment | Gross reserves |
|--------|---------------------|---------------|----------------------|--------------------|--------------------|----------------|-------------------|-------------------------|-----------------------|-------------------|----------------------|----------------|
| 2000   | -0.1                | 3.5           | -3.0                 | 100                | 100                | 100            | 15.8              | 15.9                    | 0.7                   | 0.5               | -1.5                 | -              |
| 2001   | 0.3                 | 4.4           | -3.5                 | 102.4              | 100.2              | 101.2          | 15.6              | 15.3                    | -1.4                  | 8.4               | -6.6                 | 8.9            |
| 2002   | 0.8                 | 4.3           | -3.0                 | 103.4              | 105.6              | 103.4          | 16.9              | 16.1                    | 0.5                   | 1.0               | -0.4                 | 5.6            |
| 2003   | -1.1                | 2.1           | -2.6                 | 103.5              | 114.1              | 107.2          | 15.8              | 16.9                    | 0.7                   | 0.1               | 0.5                  | 4.2            |
| 2004   | -3.2                | -0.1          | -2.3                 | 106.7              | 130.7              | 108.3          | 14.4              | 17.6                    | 5.9                   | -0.3              | 2.9                  | 5.9            |
| 2005   | -4.0                | -0.5          | -2.5                 | 115.0              | 144.7              | 108.8          | 14.1              | 18.2                    | 6.2                   | 2.2               | 2.0                  | 8.5            |
| 2006   | -6.5                | -2.5          | -3.0                 | 121.4              | 171.3              | 113.6          | 13.9              | 20.5                    | 8.2                   | -2.7              | 7.6                  | 10.3           |
| 2007Q1 | -7.0                | -2.1          | -2.7                 | 129.5              | 188.3              | 116.4          | 14.8              | 21.8                    | 7.1                   | 0.5               | 4.5                  | 10.2           |

Source of data: SA Reserve Bank *Quarterly Bulletin*, June 2007.

From the trade (import/export) perspective, the statistics in Table 1 suggest that the increase in the current account deficit is primarily a result of the deterioration in the trade balance since the deficit on the services and income balance remained quite stable at approximately 2½ - 3½ per cent of GDP. The increase in the trade deficit, in turn, primarily resulted from a strong and sustained increase in imports on the back of the domestic demand led boom,<sup>4</sup> and a relatively poor export performance (bearing in mind the continued strong performance of the world economy and the commodities boom). The terms of trade have also improved (by about 16 per cent since 2000), thus softening the impact of the changes in the import and export volumes on the deficit, but transfer payments, increasing from R6,4 bn in 2000 to R18,5 bn in 2006, added to the deficit.

The current account balance may also be explained by savings and investment since, by national accounting conventions, the current account is equal to the difference between gross domestic saving and gross capital formation (investment). The statistics in Table 1 suggest that (increased) investment provided 5,9 percentage points and (decreased) savings 1 percentage point of the 6,9 per cent (of GDP) increase in the current account deficit from 2000 to 2007Q1.

Finally, the increase in the current account deficit may also be related to the sharp increase in foreign capital inflows to South Africa over the past 3½ years (6,9% of GDP on average). These capital inflows were large enough to both finance the increased current

<sup>4</sup> Real gross domestic expenditure increased by 41,8% from 2000 to 2007Q1 whereas import volumes increased by 88,3%. Calculations based on data published in the SARB *Quarterly Bulletin*, June 2007.

account deficit and allow for a substantial increase in the country's official foreign exchange reserves (from \$8 bn in December 2003 to \$27 bn in March 2007). The composition of the capital inflows is, however, somewhat of a concern from the point of view of current account sustainability since the greater majority of the inflows (62,7% over the past 3 years) were portfolio flows and Errors and Omissions also constituted a considerable portion of the inflows. FDI flows, which are generally regarded as less volatile, registered a small outflow (equal to 5,3% of the total inflows over the same period).

The proximate causes of the increase in South Africa's current account deficit suggest that the deficit is unlikely to decline materially over the next few years – at least as long as the buoyant domestic demand conditions (including the strong investment drive) and the country's relatively poor savings propensity and export performance continues – indeed, the deficit could also increase further. Does this present a problem that the macroeconomic policy authorities should respond to? Economists are divided on the answer to this question. Some (e.g. Fischer (1988)) would regard continued current account deficits in excess of (say) 5 per cent of GDP enough of a risk to continued macroeconomic stability to warrant corrective policy intervention. Others (e.g. Sachs (1981)) are less concerned, particularly if the deficit is primarily the result of an increase in (private) investment.

### **III. THE INTERNATIONAL EXPERIENCE WITH CURRENT ACCOUNT DEFICITS**

Balance of payments behaviour, and in particular that of current account deficits, have received considerable attention in the literature over time. In recent years much of this interest emanated from concerns about the US current account deficit and the potential costs its correction may have for the world economy.<sup>5</sup> This literature has focussed on various aspects of the international experience with current account deficits: their magnitudes and persistence over time; the incidence of large-scale reversals/corrections and the factors that can explain these reversals and the macroeconomic impact of such reversals and the factors that can explain the widely different experiences of individual countries in this regard. In this section, a brief summary of the relevant details that resulted from this literature is presented. The purpose is to provide a comparative basis for the consideration of the sustainability of South Africa's current account deficit.

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<sup>5</sup> See, for example, Edwards (2005) and Croke, Kamin and Leduc (2005).

*(i) The magnitude and persistence of current account and the incidence of reversals*

The characteristics of current account deficits relevant to an analysis of current account sustainability have been documented in a number of studies.<sup>6</sup> Edwards (2006:43) in a summary of the international experience with current account deficits over the period 1971-2004 found that:

- The median (mean) deficit was 3,1 (4,0) per cent of GDP
- The third quartile is 7,2% (i.e. 75% of the deficits were smaller or equal to 7,2% of GDP)
- 9 (out of 157) countries experienced persistent (i.e. five consecutive years or longer) high deficits.<sup>7</sup>

Another characteristic of the international experience with current account deficits is that of the frequency (incidence) of current account reversals, i.e. sharp reductions in current account deficits. Edwards also analyzed this feature of the international experience during the period 1970 – 2004 and found the incidence of current account deficit reversals for the overall sample of countries be considered to be 17,2% (2006:21). The definition of a reversal he used was that of a reduction in the current account deficit of at least 3% of GDP in a one year period. The incidence of reversals varied considerably between regions, from 5,3% for the industrial countries to 22,8% for the African regions.

Milesi-Ferretti and Razin (1997) also researched the incidence of current account reversals. Their definition of a reversal is that of an average reduction in the deficit of at least 3 (5) percentage points of GDP over a period of three years and one where the maximum deficit after the reversal must be no larger than the minimum in the three years preceding the reversal. Their investigation covered the period 1974 – 1990 and they found 116 reversals in 60 countries (72 reversals in 40 countries) for the 3 percentage point (5 percentage point) criterion.

The IMF has also recently considered the incidence of current account reversals. Defining large and sustained reversals as swings in the current account of at least 2,5% of

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<sup>6</sup> See Edwards (2004) for a comprehensive documentation of current account imbalances over the period 1970 – 2001.

<sup>7</sup> Edwards (2006:44) defined a persistent high deficit as one that exceeded the ninth decile for the country's region for at least five consecutive years. In an earlier study (Edwards (2004)) found that 26 out of 157 countries over the period 1970 to 2001 experienced persistent high deficits (defined here as exceeding the 3<sup>rd</sup> quartile of each region).

GDP and at least 50 percent of the initial current account balance that are sustained for at least five years (IMF (2007:83)), the IMF identified 16 deficit reversals in emerging market countries and 13 deficit reversals in advanced economies (2006:111) over the period 1960 – 2006.

It is clear that large current account deficits and large-scale reversals (and thus the non-sustainability) of current account deficits is internationally a common occurrence.

### ***(ii) The Macroeconomic impact of current account reversals***

The concerns about current account sustainability arise because of the potential negative impact of a reversal of a large current account deficit (i.e. a change in the deficit to a surplus or a much smaller deficit) on economic growth and other macroeconomic variables. This issue has been considered in a number of recent studies on current account deficits. The studies reveal that the macroeconomic impact of current account reversals are not uniform across countries. This has led to considerations of the factors that may influence the nature and severity of these macroeconomic impacts.

The literature on the impact of current account reversals on economic growth and other macroeconomic variables are by no means unanimous in their findings. Some studies find significant adverse effects while others find no systematic impact. Edwards has considered the possible negative impact of current account reversals in a number of studies. In a NBER paper (2001:37) on whether the current account matters, he finds that “reversals have a negative impact on economic performance. They affect negatively aggregate investment; moreover, even when I control for investment, the regression analysis suggests that reversals have a negative impact on GDP growth per capita.” In another NBER paper (2005) on the sustainability of the US current account deficit Edwards finds (for large countries) the reduction in GDP growth of a Type 1 reversal (i.e. a reduction of the current account deficit of at least 6% of GDP in a three-year period) of 3,2%.

Debelle and Galati (2005) considered the macroeconomic impact of current account reversals (28 reversals in industrialized countries during the period 1974 to 2003). They found that, on average, a decline in economic growth of 2 percentage points and a real exchange rate depreciation of 4 percent, but questioned whether the direction of causality runs from the current account imbalance.

Milesi-Ferretti and Razin (1998:20) found, in an analysis of 100 reversal episodes in low- and middle-income countries that “...the median change in output growth between the

period after and before the event is around zero, suggesting that reversals in current account deficits are not necessarily associated with domestic output compression.”

The IMF, in its most recent World Economic Outlook (2007) also considered the impact of current account reversals in advanced economies. They found (2007:87) (for current account reversals of 6% of GDP on average and lasting for 4 to 5 years) an average slowdown in growth of 1½ percentage points and an average real depreciation of the domestic currency of 12 per cent. They also distinguished between a group of “contractionary” deficit reversals (with a median 3½ percentage point growth slowdown and a median 8 per cent real exchange rate depreciation) and a group of “expansionary” reversals (a median increase in GDP growth of about ¾ percentage point and a median real depreciation of about 18 percent). They concluded (p89) that “...over the past 40 years, there has been a clear trade-off between the growth slowdown after the reversal and total real effective exchange rate depreciation”.

In a recent review of the costs of reversals in current account deficits (71 episodes since the mid-1970’s, Algieri and Bracke (2007) found that, on average, the adjustments was accompanied by “...some slowdown in real GDP growth and some real effective depreciation in the deficit country.” However, they also found an unusually large degree of heterogeneity, with the real GDP increasing in one third of the cases and the real exchange rate appreciating in one-third of the cases.

The wide diversity of country experiences regarding the macroeconomic impact of current account deficit reversals has resulted in research on the identification of factors that can explain these diverse experiences. Studies that have focussed on this issue include Edwards (2004), Guidotti, Sturzenegger and Vilar (2004), Milesi-Ferretti and Razin (1998) and Algieré and Bracke (2007). Edwards identified three such factors, viz: openness of the economy (the more open the smaller the cost of a reversal), the extent of dollarization (foreign currency denomination) of a country’s foreign debt (the more dollarized the bigger the negative impact of a large exchange rate depreciation) and the exchange rate regime (the more flexible the exchange rate the smaller the impact of a deficit reversal). Only the openness and exchange rate regime factors proved statistically significant in Edwards’ empirical analysis (2004:35-38). Guidotti, Sturzenegger and Vilar (2004) considered the same three factors plus the terms of trade and found all four statistically significant. Milesi-Ferretti and Razin (1998), in a study of low- and middle-income countries identified openness,

the level of appreciation of the exchange rate and the level of external debt as factors that could influence the macroeconomic impact of a current account deficit reversal.

Algieri and Bracke (2007) found that the type of reversal/adjustment experienced is not a function of characteristics such as the openness of the economy or its degree of industrialization, but rather of the underlying problems in the deficit country. E.g. countries in an advanced stage of the business cycle experienced internal adjustment whereas external adjustment experienced by countries with overvalued ER.

### **(iii) Factors indicating current account reversals**

The potential costs of large-scale current account reversals have resulted in inquiries into the identification of factors that are systematically linked to such reversals. A number of studies have focussed on this question, including Edwards (2006), Milesi-Ferretti and Razin (1998) and McGettigan (2000).

Edwards (2006:25-26) in a study of the sustainability of the New Zealand current account deficit, identified a number of factors that affect the probability of a current account reversal via regression analysis of the international experience. He found the following factors to be positively related to a reversal: the (lagged) current account deficit as a ratio of GDP, a deterioration in the terms of trade, a lower GDP per capita and less flexible exchange rate regimes.

Milesi-Ferretti and Razin (1998) in a study of low- and middle-income countries over the period 1970 – 96, used multivariate probit analysis to identify variables that could predict a reversal in current account imbalances. They found (1998:18) the following factors to be robust predictors of reversals: current account deficits, low foreign exchange reserves, higher GDP per capita, deteriorated terms of trade. Other studies (see Adedeji (2001) for a brief summary) also found the following variables to be indicators of current account sustainability: capital flight, the size of external debt, changes in the real exchange rate, openness and trade composition, political instability and policy uncertainty.

### **(iv) Formal sustainability analysis**

The analysis of the international experience with current account deficits presented above provides a benchmark against which the sustainability of the South African deficit can be evaluated. An alternative approach is to make use of a more formal sustainability analysis. Such an analysis has been developed by Milesi-Ferretti and Razin (1996, 1998) and consists of a framework for analyzing current account sustainability based on the concept of country

solvency, with solvency defined as the stabilization of the ratio of external liabilities to GDP.<sup>8</sup> An application of this approach to the South African situation is presented in the next section.

#### IV. THE SUSTAINABILITY OF THE SOUTH AFRICAN CURRENT ACCOUNT DEFICIT

The sustainability of the South African current account deficit may now be considered with reference to the international literature and experience as discussed in the various sections. More particularly, the South African current account deficit is considered from the following points of view: (i) the formal analysis of sustainability in terms of solvability; (ii) the factors that govern the probability of a current account reversal and (iii) the factors that influence the extent of the macroeconomic impact of a reversal and a model simulation of the impact of a sudden stop of foreign capital inflows and the consequent reversal of the current account.

##### (i) Sustainability in terms of solvability

In order to determine the level of the current account balance that would stabilize the level of a country's net foreign assets, the following relationship may be used<sup>9</sup> (see IMF (2006:19) for its derivation):

$$ca^s = \frac{g + \pi}{(1 + g)(1 + \pi)} b^s \dots\dots\dots 1$$

where

$ca^s$  = net foreign asset stabilizing level of the current account, expressed as a percentage of GDP

$b^s$  = the benchmark level of net foreign assets, expressed as a percentage of GDP

$g$  = real growth rate

$\pi$  = inflation rate

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<sup>8</sup> An alternative attempt to formalize the assessment of current account sustainability involved the modelling of the determinants of current account imbalances across countries and then calculating current account "norms" for a particular country. A current account imbalance that differs significantly from these norms would then be regarded as unsustainable. See Debelle and Galati (2005) for a brief survey of this approach.

<sup>9</sup> This simplified version of the relationship assumes that capital gains are zero and that capital gains and errors and omissions are ignored (see IMF (2006:19)).

Applying equation 1 to the South African situation and assuming an inflation rate of 4,5 percent (the midpoint of the target range) or 6,0 percent (the upper range of the target range) and different levels of South Africa's net foreign liabilities, the following (stabilizing) current deficit levels are derived.

**Table 2: Current account levels required to stabilize South Africa's net foreign assets at specified levels (in percent of GDP)**

|                                | Net foreign assets | Inflation rate = 4,5% GDP growth rate |      |      | Inflation rate = 6% GDP growth rate |      |      |
|--------------------------------|--------------------|---------------------------------------|------|------|-------------------------------------|------|------|
|                                |                    | 4                                     | 5    | 6    | 4                                   | 5    | 6    |
| SA end 2006 level              | -13.3%             | -0.9                                  | -1.0 | -1.1 | -1.1                                | -1.2 | -1.3 |
| Average emerging market level* | -33.5%             | -2.6                                  | -2.9 | -3.2 | -3.0                                | -3.3 | -3.6 |

\*IMF

**(ii) Factors that determine the probability of a reversal**

An alternative approach to a consideration of the sustainability of a particular country's current account sustainability is to evaluate that country's position with respect to the factors that have been identified in the literature as being important in explaining the likelihood of a current account reversal. Such an analysis has been conducted in a paper by Frankel, Smit and Sturzenegger (2007). They considered the following factors:

- i. Southern Africa's current deficit is relatively large (especially relative to recent emerging market standards)<sup>10</sup>
- ii. South Africa's foreign debt levels are relatively quite low (23 per cent of GDP in 2006)
- iii. A substantial portion of the debt is Rand-denominated (37,3 per cent in 2006)
- iv. The South African economy is moderately open
- v. As far as the composition of South Africa's foreign liabilities is concerned, the short-term component is quite small but the share of equity plus FDI in total capital inflows is average relative to comparable countries.

In addition to the factors considered by Frankel, Smit and Sturzenegger (2007), it may be noted that South Africa's fiscal deficit is sound (a surplus of 0,6 percent of GDP in fiscal year 2006/7, the deficit reflects a substantial increase in fixed capital formation

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<sup>10</sup> Smit (2006)

(although savings have also declined somewhat), the country's foreign exchange reserves have increased substantially over the past 3 years and the exchange rate is quite flexible.

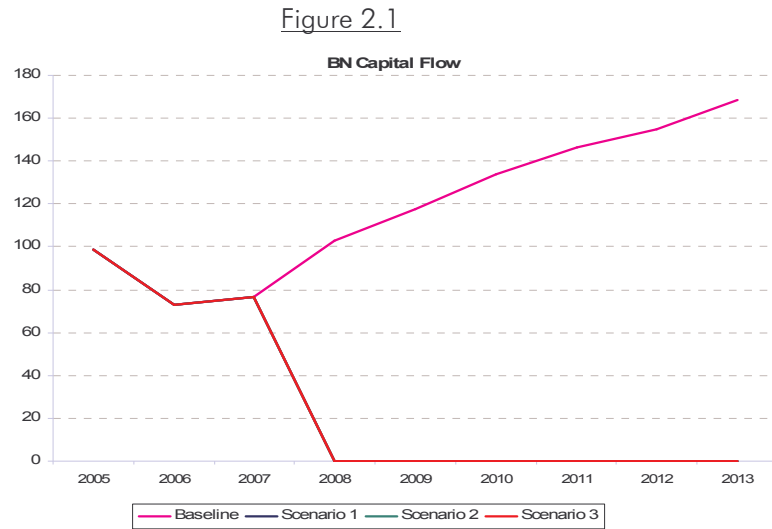
**(iii ) Simulating the impact of a reversal**

In order to analyze the impact of a large-scale reversal of South Africa's current account deficit Frankel, Smit and Sturzenegger (2006) simulated the impact of a sudden stop of capital inflows to South Africa. The model used for the analyses was that of the Bureau for Economic Research and the following alternative scenarios were simulated<sup>11</sup>, assuming zero net capital inflows on the balance of payments from 2008, against a baseline scenario of capital inflows equal to 5 percent of GDP per annum:

- i. Scenario 1: an increase of 10 percentage points in the Repo rate in 2008 and 2009 (with the exchange rate model-determined)
- ii. Scenario 2: an increase of 5 percentage points in the Repo rate in 2008 to 2010 (with the exchange rate model-determined)
- iii. Scenario 3: a 35% depreciation of the exchange rate in 2008 (with both the Repo rate and the exchange rate otherwise model-determined)

The results are shown in figures 2.1 to 2.10 below.<sup>12</sup>

**Figure 2: Simulating a sudden stop**



<sup>11</sup> See Frankel, Smit and Sturzenegger (2007) pp 49-53

Figure 2.2

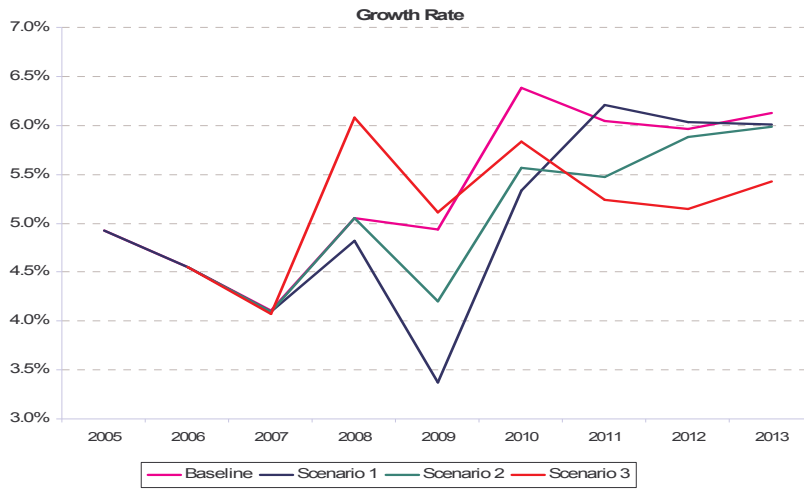


Figure 2.3

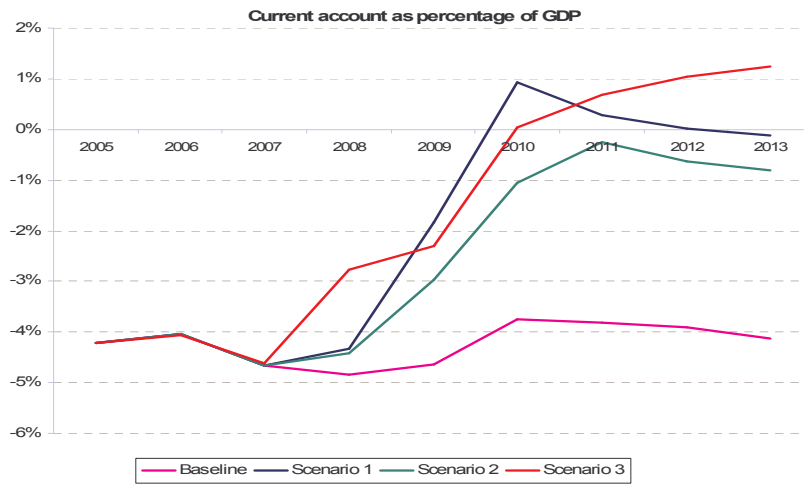


Figure 2.4

<sup>12</sup> These figures are sourced directly from Frenkel, Smit and Struzenegger (2006).

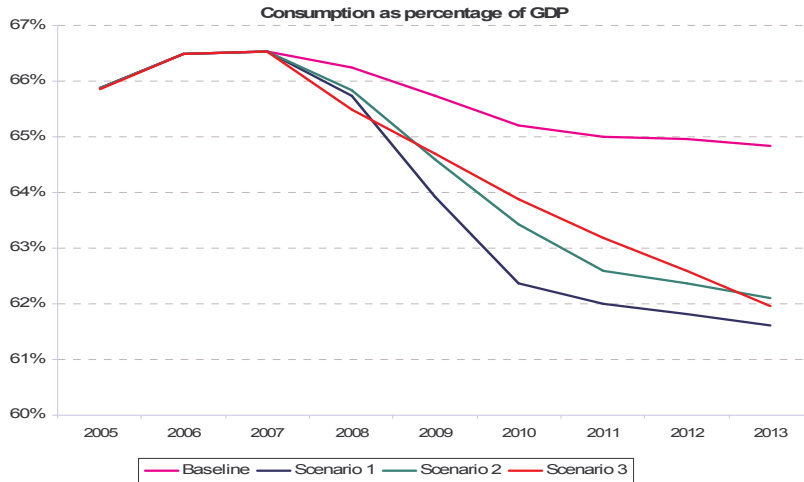


Figure 2.5

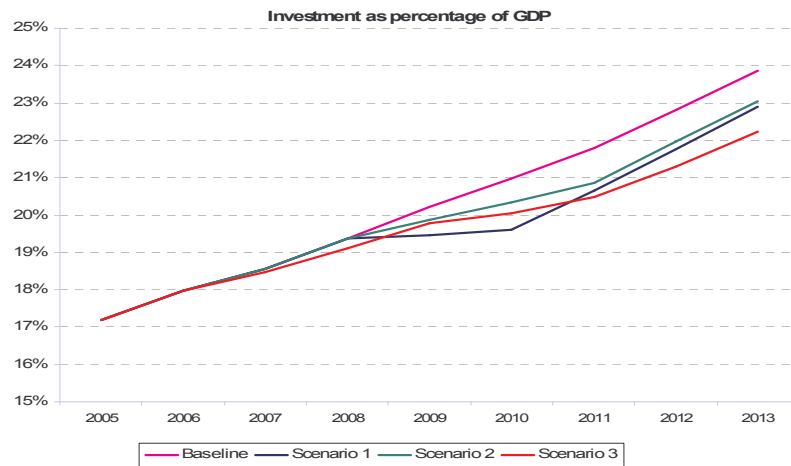


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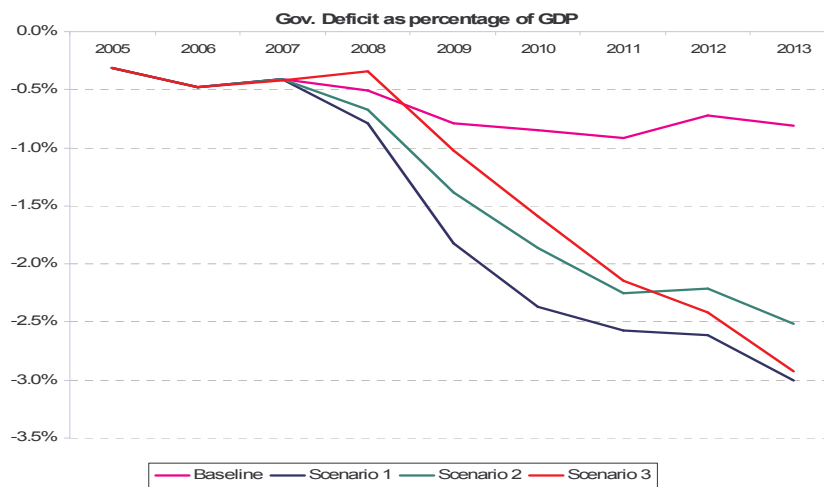


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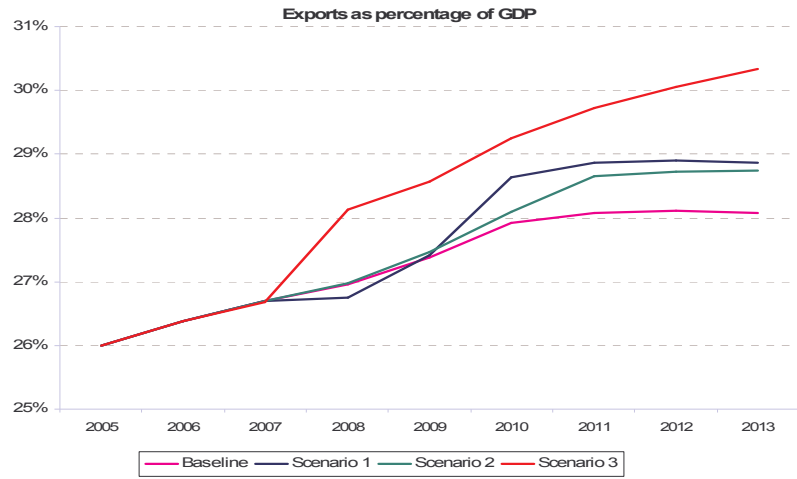


Figure 2.8

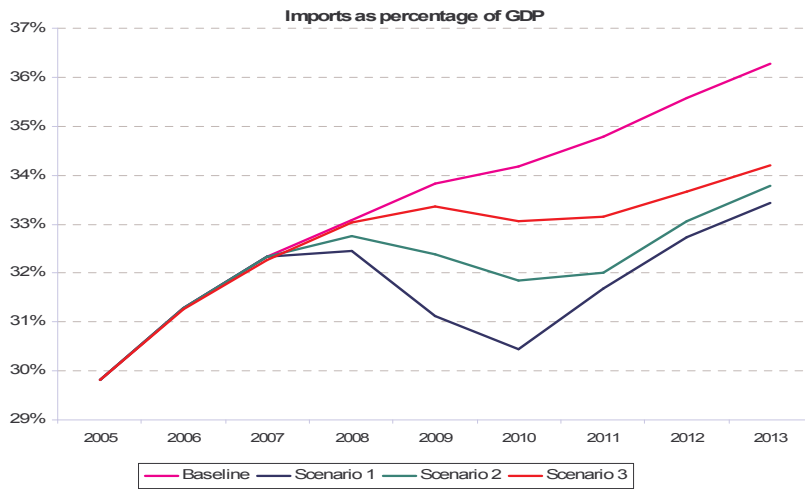


Figure 2.9

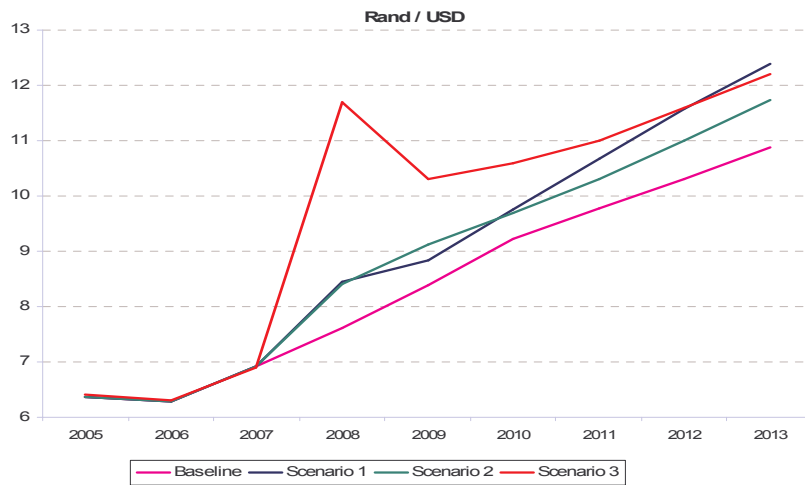
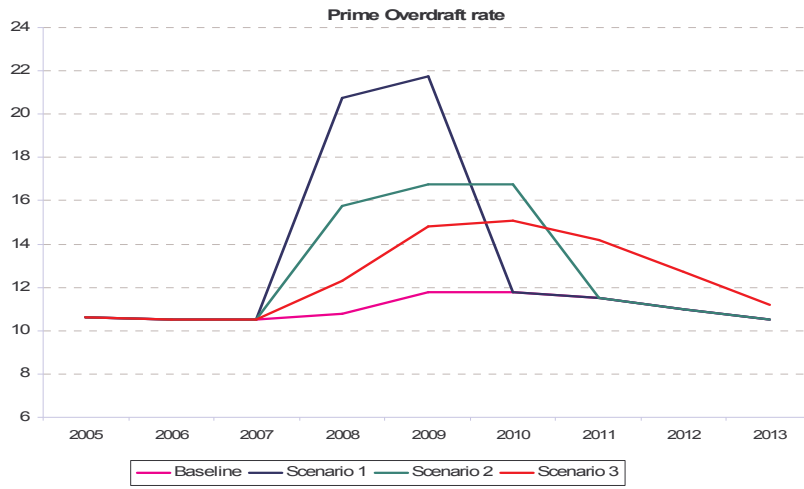


Figure 2.10



(iv) **Summary**

The analysis of the sustainability of South Africa's current account deficit presented above suggests the following:

- i. The sustainable current account levels indicated by the solvability analysis are substantially lower than the actual and expected medium term deficits. However, South Africa's net foreign liabilities are at a relative low level, suggesting considerable scope for continued large-scale capital inflows.
- ii. The fact that South Africa's deficit is large by emerging market standards imply that a major sell-off of emerging market assets by foreign investors could reflect particularly badly on South Africa.
- iii. South Africa's low foreign debt levels, substantially Rand-denominated foreign debt, flexible exchange rate regime, sound fiscal position and increased levels of foreign reserves should both limit the likelihood of a large-scale reversal enforced by capital outflows and render the economy more resilient to the impact of a current account reversal.

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