The South African current account in the context of SA macroeconomic policy challenges[1]

B Smit

Introduction

The deficit on the current account of South Africa's balance of payments increased to 6,4 per cent in the first quarter of 2006, the highest level in 24 years. Does this represent a problem that deserves the attention of macroeconomic policy-makers in South Africa? Furthermore, where does it fit into the historical experience of macroeconomic policy challenges in South Africa?

This paper considers the recent behaviour of South Africa's current-account balance against the background of the country's macroeconomic performance and macroeconomic policy challenges. The paper is structured as follows: In the following section, South Africa's macroeconomic performance and the related policy challenges as they developed over the past two decades are reviewed briefly. In the section thereafter, South Africa's recent experience regarding the deficit on the current account of the balance of payments is considered. The following section considers the significance of the current account as a macroeconomic problem is considered with reference to the theoretical and empirical literature on this topic. The final section concludes.

South Africa's macroeconomic performance and policy challenges in recent decades

South Africa's macroeconomic performance and, consequently, macroeconomic policy challenges, have changed considerably over the past two decades. In the decade before the political transition in 1994 the macro economy was characterised by very poor economic growth, high (but eventually declining) inflation rates, sustained surpluses on the current account of the balance of payments (associated with continued outflows on the capital account) and very low levels of foreign-exchange reserves (see Table 1 for the relevant statistics)[2]. In addition, the government budget deficit deteriorated considerably towards the second half of the decade and South Africa experienced the longest recession since the Second World War (March 1989 to May 1993).

Compared to other emerging-market economies, South Africa's macroeconomic performance during this period represented a mixture of very poor and fairly good. In terms of economic growth, South Africa's performance was less than a quarter of the average of the 25 emerging-market countries considered here and the foreign-exchange reserves about one third of the average of the emerging-market countries[3]. Conversely, South Africa's inflation rate was about half that of the average of the emerging-market group.

During this period the major macroeconomic policy challenge was undoubtedly the balance of payments. The foreign debt crisis in August 1985 resulted in sustained foreign capital outflows for the following eight years and consequently required sustained surpluses on the current account of the balance of payments. Inflation, at double-digit levels until 1992, also influenced macroeconomic policy formulation. The government's deficit before borrowing, which deteriorated to a level of 7,2 per cent of GDP in 1992/3, also focused macro policy attention at the end of the period, but was mostly addressed during the following period.

[1] Research assistance by Hugo Pienaar, Christelle Swanepoel and Ester Manefeldt of the Bureau for Economic Research at the University of Stellenbosch is gratefully acknowledged.
[2] In Table 1 South Africa's macroeconomic performance is compared to that of 25 emerging-market countries. Except where otherwise indicated, the basic source of the statistics quoted in this paper is the SA Reserve Bank *Quarterly Bulletin,* September 2006.
[3] See Table 1 for details. The names of emerging-market countries considered here are listed under Table 1 and correspond to those used in a recent IMF report on South Africa (IMF, 2006).

In the decade following the political transition (i.e. 1995 – 2004) South Africa's macroeconomic performance improved considerably. The real GDP growth rate increased to 3,1 per cent (compared to 0,8 per cent in 1985 – 1994), the inflation rate declined to 6,4 per cent (from 14,1 per cent in 1985 – 1994), the current account of the balance of payments reflected small deficits and the level of foreign-exchange reserves improved marginally. In addition, the government's deficit before borrowing improved to the point where concerns over fiscal discipline had all but disappeared and South Africa experienced its longest (by far) upswing in the business cycle (currently 85 months since September 1999). This period was also characterised by a remarkable improvement in macroeconomic stability in South Africa. This is evidenced by South Africa's very low relative volatility with respect to economic growth, inflation and the balance of payments as indicated by the respective standard deviations presented in Table 1.

Table 1: South Africa's macroeconomic performance in comparison with other emerging-market countries: 1985 – 2005

	Mean*		Standard deviation*	
	SA	EMC**	SA	EMC**
GDP growth				
1985 – 1994	0,85	4,06	2,09	3,89
1995 – 2004	3,10	3,63	1,19	3,56
2005	4,90	5,48	-	-
Inflation				
1985 – 1994	14,09	22,57	2,99	10,45
1995 – 2004	6,42	11,86	2,29	9,11
2005	3,40	5,85	-	-
BoP current account/GDP				
1985 – 1994	2,49	-1,74	1,79	3,15
1995 – 2004	-1,08	-0,38	1,16	3,53
2005	-4.20	-0.02	-	-
Reserves/GDP				
1985 – 1994	0,03	0,09	0,006	0,03
1995 – 2004	0,05	0,14	0,018	0,04
2005	-	-	-	-

* Outliers removed, for details consult the description of the data sources in Appendix A.
** Emerging-market countries: Argentina, Brazil, Chile, China, Colombia, Dominican Republic, Ecuador, Egypt, El Salvador, Indonesia, Lebanon, Malaysia, Mexico, Morocco, Nigeria, Pakistan, Panama, Peru, Philippines, South Africa, Thailand, Tunisia, Turkey, Uruguay and Venezuela.

Sources: IMF *World Economic Outlook*, IMF *International Financial Statistics*, World Bank *Global Development Indicators*

Compared to the group of emerging-market countries considered above, South Africa's relative performance also improved during this period in that the real growth rate was about 85 per cent of the emerging-market country average. However, although South Africa's inflation rate and foreign reserves position had improved considerably, in both cases the relative position in the emerging-market group remained largely unchanged.

During this period the major macroeconomic policy challenges were: (i) (initially) the improvement in South Africa's fiscal balances; (ii) a further improvement in inflation and the implementation of inflation targeting; and (iii) employment.

The improvement in South Africa's macroeconomic performance since the mid-1990s appears to have reached a new level during the past two years. The real GDP growth rate increased to 4,5 per cent in 2004 and to 4,9 per cent in 2005, the (CPIX) inflation rate, although rising in 2006, is still within the 3 – 6 per cent target range and the official foreign-exchange reserves

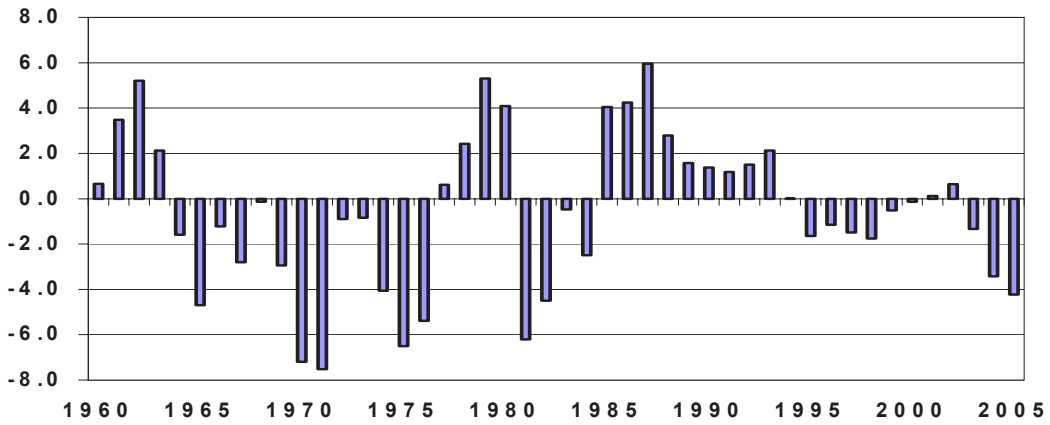
have increased from $8 billion in January 2004 to $24 billion in August 2006. The buoyant domestic demand conditions (growth rates of 7,5 per cent and 5,9 per cent in real gross domestic expenditure in 2004 and 2005, respectively), in conjunction with a poor export performance, however, resulted in a very sharp increase in the current account of the balance of payments. The current-account deficit as a percentage of GDP, which averaged only 1 per cent during 1995 – 2004, increased to 4,2 per cent in 2005 and 6,4 per cent in the first quarter of 2006. This is the highest current-account deficit South Africa has experienced in 24 years and potentially represents a significant macroeconomic policy challenge.

The current account of the balance of payments: Recent developments

Historically the current account of the balance of payments played an important role in the South African business cycle and consequently in macroeconomic policy. Over the past decade, however, the current account raised little interest among macroeconomic policy-makers since the balances (mostly deficits) were generally quite small and fairly easily financed with private capital flows. This situation now appears to have changed with the deficit having increased sharply from 1,5 per cent in 2003 to 6,4 per cent in the first quarter of 2006. In this section the details of the recent increase in the current-account deficit is discussed against the background of its longer-term historical behaviour.

The historical behaviour of the current-account balance (expressed as a percentage of GDP) is presented in Graphs 1 and 2 below. These clearly reveal the volatility of the current account, particularly in the years before the mid-1980s. This volatility may be ascribed to (*inter alia*) South Africa's position as a major commodity producer (and exporter) and the impact of domestic political developments on capital outflows at times in the early 1960s, the second half of the 1970s and the mid-1980s[4].

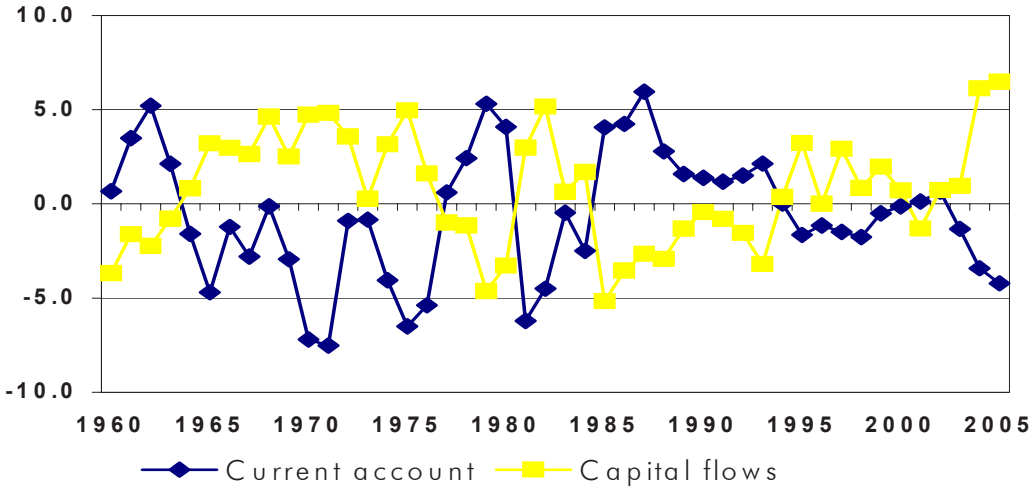
Graph 1: Current account as a percentage of GDP



Source: SA Reserve Bank *Quarterly Bulletin*, September 2006

[4] See Mohr et al. (1989) and Mohr (2003) for detailed analyses of South Africa's balance of payments history.

Graph 2: Current account and capital flows as a percentage of GDP



Source: SA Reserve Bank *Quarterly Bulletin*, September 2006

In explaining the recent behaviour of the current account in terms of its proximate causes, the current account can be viewed either as the difference between imports and exports of goods and services (i.e. the balance of payments definition) or as the difference between gross domestic saving and gross capital formation (investment). The relevant statistics are presented in Table 2 below.

Table 2: South African balance of payments variables: 2000 – 2006Q2
(All variables – except indices – expressed as a percentage of GDP)

	Current-account balance	Trade balance	Services and income balance	Exports: Goods and non-factor services	Imports: Goods and non-factor services	Exports: Volume index	Imports: Volume index	Terms of trade	Net gold exports	Gross domestic savings	Gross capital formation
2000	-0.13	3.54	-2.98	27.87	24.92	100.0	100.0	1.00	3.02	15.78	15.91
2001	0.12	4.37	-3.64	29.96	26.07	101.8	100.2	1.01	2.87	15.41	15.29
2002	0.64	4.30	-3.16	32.71	29.05	102.3	105.3	1.04	3.73	16.70	16.05
2003	-1.33	2.12	-2.95	27.91	25.96	102.6	114.6	1.07	2.55	15.61	16.94
2004	-3.42	-0.09	-2.65	26.57	27.28	105.1	130.7	1.08	2.07	14.08	17.51
2005	-4.23	-0.79	-2.71	27.10	28.56	112.1	143.9	1.09	1.77	13.70	17.93
2006 Q1	-6.37	-2.25	-3.37	25.91	29.13	108.2	155.1	1.14	1.81	13.00	19.37
2006 Q2	-6.11	-2.67	-2.38	28.19	31.66	113.9	165.1	1.15	2.03	13.70	19.84

Source of data: SA Reserve Bank *Quarterly Bulletin*, September 2006

From the trade perspective, the statistics in Table 2 suggest that the increase in the current-account deficit is primarily the result of a decline in the trade balance since the deficit on the services and income balance remained quite stable at approximately 2 – 3 per cent of GDP. The decline in the trade surplus, in turn, primarily resulted from a decline in nominal exports (as a percentage of GDP). If export and import volumes are considered, it is clear that South Africa's export performance (an increase of only 13 per cent in 5½ years, see Table 2) given the continued strong performance of the world economy and the recent commodities boom, has

really been quite poor. Import volumes have also responded strongly to the growth in domestic demand[5].

The role of exports and imports of goods in the increasing current-account deficit may also be considered with reference to individual product categories as reported in the customs and excise statistics. The most important contributors to the recent changes in imports and exports of goods are presented in Table 3.

Table 3: Imports and exports of goods: Recent major changes

	Percentage contribution to total changes		
	2000 – 2005	2003 – 2005	Jan-Jul 2005 – Jan-Jul 2006
Imports			
Mineral products	**15,5**	**21,8**	**37,9**
Petroleum oils, oils from bituminous minerals, crude	10,3	15,5	30,3
Oils petroleum, bituminous, distillates, except crude	3,2	5,2	6,3
Machinery	**23,7**	**22,5**	**25,4**
Automatic data processing machines (computers)	2,6	2,7	2,8
Radio and TV transmitters, television cameras	3,2	4,3	2,2
Vehicles, aircraft, vessels and associated transport equipment	**18,9**	**17,5**	**4,5**
Motor vehicles for transport of persons (except buses)	10,6	13,1	6,7
Motor vehicles for the transport of goods	1,7	2,0	2,8
Parts and accessories for motor vehicles	1,8	1,6	1,3
Exports			
Mineral products	**17,1**	**25,0**	**20,5**
Iron ores and concentrates, roasted iron pyrites	3,2	4,5	4,0
Coal, briquettes, ovoids, etc, made from coal	9,9	13,4	-1,2
Natural or cultured pearls, precious or semi-precious stones	**13,9**	**14,3**	**61,5**
Gold, unwrought, semi-manufactured, powder form	1,8	9,9	10,8
Platinum, unwrought, semi-manufactured or powder forms	8,4	18,2	55,0
Base metals	**22,6**	**26,6**	**-7,0**
Iron and steel	15,4	14,9	-24,1
Aluminium and articles thereof	4,0	6,1	5,2
Machinery	**10,9**	**9,1**	**17,8**
Nuclear reactors, boilers, machinery, etc.	9,5	8,2	14,5
Electrical, electronic equipment	1,5	0,9	3,2
Vehicles, aircraft, vessels and associated transport equipment	**13,9**	**12,2**	**18,8**
Motor vehicles for transport of persons (except buses)	9,4	4,5	2,2
Motor vehicles for the transport of goods	1,6	2,0	13,0

Source: South African Revenue Service Customs Trade Data

The statistics in Table 3 indicate that oil, machinery and transport equipment have dominated increases in imports since 2000. In the case of exports it was primarily mining-related with some support from machinery and transport equipment.

As noted above, the increase in the deficit on the current account may also be explained by changes in savings and investment[6]. The relevant numbers are presented in Table 2. These suggest that, over the period 2000 to 2006 (second quarter), increased investment (gross

[5] The real gross domestic expenditure increased by 38 per cent from 2000 to 2006Q2 whereas import volumes increased by 65 per cent. Calculations are based on data published in the SARB *Quarterly Bulletin*, September 2006.
[6] In national accounts terms, the difference between gross domestic savings and gross capital formation (investment) is equal to the current-account balance. See the SARB *Quarterly Bulletin*, September 2006, p S–124.

capital formation) contributed 4 percentage points and decreased savings 2 percentage points to the 6 per cent of GDP current deficit.

Finally, the increase in the current-account deficit may also be related to the sharp increase in foreign capital flows to South Africa over the past 2½ years. These capital flows were large enough to both finance the increased current-account deficits and to allow for a substantial increase in the official foreign-exchange reserves (as noted above).

In summary, the discussion on the recent developments regarding South Africa's current-account position suggests that the current level of the deficit is exceptional, at least by comparison to the South African experience over the past two and a half decades, but also by comparison to most emerging-market economies[7]. The obvious next question is whether the deficit requires a policy response, i.e. whether the deficit matters enough to require potentially costly (in terms of output and employment) macroeconomic policy measures to bring it down. This is considered in the next section.

Does the current account matter?

The heading of this section has been used as the title of a number of papers on the current account of the balance of payments[8]. The reason for the interest in this question is that economists' (and policy-makers') views on the importance of the current account as a focus of economic policy have changed substantially over time. This followed from developments, over time, in the theory of current-account determination, the experiences of countries with balance of payments and exchange rate crises, changes in the international monetary system from relatively fixed to floating exchange rates, and the mobility and availability of capital in the international financial markets.

The traditional theories of the current account focused on the definition of the current account as the difference between trade flows (imports and exports). Consequently the emphasis was on exchange rates (and price elasticities) and income changes as the primary determinants of the current account[9]. The current account also played an important role in the Mundel-Fleming model. These theories, however, were essentially static, short-term analyses of open-economy macro events which ignored the impact of current-account imbalances on the stock of foreign liabilities (Knight and Scacciavillani, 1998:7).

In the 1970s the attention shifted from the trade view of the current account to the savings-investment definition and this resulted in the so-called intertemporal approach (Edwards, 2001:4). In this view the current account is defined as the difference between domestic savings and investment and since both of these are based on intertemporal decisions, the current account can be regarded as an intertemporal phenomenon. This change in focus of the theory of current account behaviour resulted in factors such as fiscal deficits, consumption smoothing and investment becoming important determinants of current-account behaviour (see Edwards, 2001:4-20). The views associated with the intertemporal approach questioned the importance policy-makers used to attach to current-account imbalances. These views (see for example Sachs, 1981 and Corden, 1994) held that as long as current-account deficits reflected increases in (private) investment (and not declines in savings), policy-makers had little to worry about. A related view was that a bigger current-account deficit was not a cause of concern as long as the fiscal accounts were in balance (the so-called Lawson's Doctrine, see Edwards, 2001:9).

These changes in the theoretical analysis of current accounts interacted with experiences of international financial crises (such as the Debt Crisis in the early 1980s and the Mexican crisis of 1994) to change economists' (and policy-makers') views on the relative importance of

[7] In 2005 South Africa's deficit of 4,2 per cent of GDP compared to that of (an average of) 0,02 per cent for the emerging-market country group (see Table 1 above).
[8] See, for example, Edwards (2001), Oesterreichische National Bank (1998) and Corden (1994).
[9] See Edwards (2001), Knight and Scacciavillani (1998) and Obstfeld and Rogoff (1996) for useful overviews of the theory of current-account determination.

current-account imbalances. These changes were summarised as follows by Edwards (2001:2): "… there have been important changes in economists' views on the subject: from 'deficits matter,' to 'deficits are irrelevant if the public sector is in equilibrium,' back to 'deficits matter,' to the current dominant view 'current deficits may matter'".

An important issue regarding current-account imbalances that flowed from the debate about the empirical relevance of the views associated with the intertemporal approach is that of the "sustainability" of current-account deficits, i.e. whether foreign investors would be prepared to continue to provide financing to the country in question. Milesi-Ferretti and Razin (1996, 1998) provide a framework for analysing current-account sustainability based on the concept of country solvency. Here solvency is defined as the stabilisation of the ratio of external liabilities to GDP. Models have been developed (see Edwards, 2001) that relate current-account sustainability to the long run (steady state) ratio of a country's net international liabilities of GDP. However, in the final analysis the decisions about whether to continue with providing financing of a magnitude sufficient to cover a particular current-account deficit rests with the foreign investors and their (market) views may change in an unpredictable manner. This implies that "sustainable" current-account deficit numbers derived from such models cannot be "guaranteed" as being sustainable.

Thus it appears that economic theory cannot unequivocally answer the question of whether current-account imbalances matter and at what level. An alternative strategy is to consider the actual experiences of countries with larger-scale current-account imbalances. What are the magnitudes of actual current-account imbalances? How long do they last? Do they result in sharp reversals and how costly (in terms of economic growth) are such reversals? Empirical research on these questions has been conducted by, amongst others, Edwards, and Milesi-Ferretti and Razin.

What is the international experience regarding the magnitude and duration of current-account deficits? Edwards (2004) provides a detailed analysis of the experience of 157 countries over the period 1970 – 2001. His findings (2004:6-15) are as follows:

– More than 50 per cent of the countries had deficits in excess of 3,1 per cent of GDP over the full period.
– 75 per cent of the deficits (i.e. the third quartile) were smaller or equal to 7,2 per cent of GDP.
– 26 of the 157 countries experienced high deficits (i.e. > third quartile of each region) for 5 consecutive years or longer once in the 32 years[10].

The question about the frequency of current-account reversals has also been considered by Edwards. He has analysed the international experience of current-account imbalances and reversals over the past three decades (Edwards, 2004 and 2005). He uses two definitions of reversals: Reversal I is defined as a reduction of the current-account deficit of at least 6 per cent of GDP in a 3-year period and Reversal II is defined as a reduction in the current-account deficit of at least 4 per cent of GDP in one year. His findings (Edwards, 2005: 8 and 58) are that the incidence (for the overall sample) is 9,2 per cent and 11,8 per cent for Reversal I and II, respectively[11]. For the African region these numbers are 11,7 per cent and 16,6 per cent, respectively.

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 current-account 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

[10] New Zealand was the only country that had more than one such experience; in 1982 – 88 and 1994 – 2002 (Edwards, 2004:14).
[11] Edwards (2005:58) also finds a strong relationship between sudden stops (of capital inflows) and current-account reversals: A sudden stop is associated with a probability of 21,1 per cent of a Reversal I and a probability of 51 per cent of a Reversal II for the full sample.

reversal. They considered the period 1974 - 1990 and found 116 reversals in 60 countries (72 reversals in 40 countries) for the 3 percentage point (5 percentage point) criterion.

The issue of the costs of current account-reversals in terms of output (economic growth) is obviously an important one – the higher the cost the more imbalances matter. Edwards (2005:37,63) has also considered this matter in his analysis of current-account reversals over the period 1970 – 2001. He found that a Reversal I (as defined above) results in a 3,2 per cent reduction in real GDP growth and a Reversal II in a 4,6 per cent growth reduction in the case of large countries. Milesi-Ferretti and Razin (1998:20) also investigated the impact of current-account reversals on output growth. They investigated 100 individual reversals and found that "the median change in output growth between the period after and before the event is around zero", but also that the output performance "is very heterogenous".

An important issue with respect to current-account reversals is the extent to which a particular country's characteristics could affect the cost of a reversal. Edwards (2004) identifies three factors that may affect the extent to which current-account reversals affect real economic activities. The factors are the following[12]:

– The degree of openness of the economy (more open economies requiring less effort (in terms of reducing demand and/or currency depreciation) to generate the required reversal).
– The extent of dollarisation of foreign liabilities (the effect of a likely depreciation of the currency on corporate and government debt if denominated in foreign currencies).
– The exchange rate regime (more flexible regimes being better suited to handle external shocks).

In summary, the experience of countries with current-account imbalances does not provide clear and unambiguous guidelines on whether a deficit of a particular magnitude should be an important macroeconomic policy concern.

Conclusion

South Africa's macroeconomic performance over the past two decades improved considerably from the decade before the political transition in 1994 to the decade following the transition. This resulted in shifts in the government's macroeconomic policy priorities over time. Over the past two years the macroeconomic performance improved even further: A real GDP growth rate of 4,9 per cent in 2005, inflation remaining within the 3 – 6 per cent target range, employment increasing and the fiscal situation characterised by very low deficits despite strong expenditure increases. A major potential concern is, however, the recent developments regarding the current account of the balance of payments. Here the deficit increased to a level of 4,2 per cent of GDP in 2005 and further still to 6,4 per cent (6,1 per cent) in the first (second) quarter of 2006.

An analysis of the proximate causes of the increase in the deficit from a trade perspective identifies South Africa's poor export performance (amidst a strongly growing world economy and a commodities boom) and strong import demand following the increases in domestic demand, over the past two years in particular. From a savings-investment perspective the deficit resulted from a combination of strong investment increases and savings (as a percentage of GDP) declines. The increased deficit is also associated with the (historically very large) foreign capital inflows over the past 2½ years.

[12] How does South Africa square up with respect to these factors? Apparently relatively well. In a recent CID working paper on South Africa's macroeconomic challenges, Frankel, Smit and Sturzenegger (2006:6) find that "South Africa is well-positioned to weather it (an international currency crisis) for a number of reasons: borrowing has been a relatively small fraction of the inflow, the rand floats (although not without substantial intervention), and much of the debt is rand-denominated".

What can we learn from the literature about the importance of large current-account deficits? It appears that developments in the theory of current-account determination have allowed for views (amongst some economists) that current-account deficits should not be a policy concern as long as the country's fiscal balances are in good shape and the deficit is primarily the result of increases in private investment. However, these views have been tempered, at times, with the experiences such as the world debt crisis in the 1980s and the Mexican crisis in 1994. The empirical literature on country experiences with current-account imbalances reveals that large deficits are not uncommon and that they can be sustained for five years or longer. However, the literature also provides evidence of larger-scale reversals of deficits as a common experience.

What can be concluded about South Africa's current-account deficit as a potential macroeconomic policy challenge? The statistics on South Africa's macroeconomic performance, the comparison with other emerging-market economies and the details of the proximate causes of the recent behaviour of the current-account deficit suggest that the current level of the deficit is very high by South African and current emerging-market standards but not exceptional by world standards over the past three and a half decades. It also appears that the deficit may be linked (amongst other factors) to a poor export performance, strong investment growth, a weakening domestic savings drive and very strong foreign capital inflows. It is also important to note that the government's latest growth strategy (Asgisa) calls for a very strong infrastructure investment drive and an overall increase in the investment to GDP ratio of more than 6 percentage points. The latter probably implies continued high current-account deficits, which is probably not sustainable and thus worthy of macroeconomic policy attention. However, it should be realised that relatively high current-account deficits are likely to be a feature of any scenario that generates a real growth rate in excess of 4 per cent per annum on a sustained basis. This implies that a foreign capital inflow of a similar magnitude on a sustained basis is probably a prerequisite to such a growth scenario. Furthermore, a sustained substantial improvement in South Africa's export performance is probably also a prerequisite to such a growth scenario.

References

Corden, W M. 1994. *Economic policy, exchange rates, and the international system.* Oxford University Press: Oxford.

Edwards, S. 2001. Does the current account matter? NBER *Working Paper* No. 8275.

Edwards, S. 2004. Thirty years of current account imbalances, current account reversals, and sudden stops, IMF *Staff Papers,* Vol. 15, Special Issue, pp 1 – 59.

Edwards, S. 2005. Is the US current account deficit sustainable? And if not, how costly is the adjustment likely to be? *NBER Working Paper* No. 11541.

Frankel, J, Smit, B and Sturzenegger, F. 2006. South Africa: Macroeconomic challenges after a decade of success, *CID Working Paper* No. 133, Harvard University.

Knight, M and Scacciavillani, F. 1998. Current accounts: What is their relevance for policymaking, *IMF Working Paper* No. WP/98/71.

Milesi-Ferretti, G A and Razin, A. 1996. Sustainability of Persistent Current Account Deficits, *NBER Working Paper* No. 5467.

Milesi-Ferretti, G A and Razin, A. 1998. Sharp reductions in current account deficits: an empirical analysis", *European Economic Review,* Vol. 42, pp 897 – 908.

Mohr, P. 2003. The South African balance of payments in the 1990s, *The South African Journal of Economic History*, Vol. 18, pp 366 – 395.

Mohr P, Botha, M and Inggs, J. 1989. South Africa's balance of payments 1946 – 1985, *The South African Journal of Economic History,* Vol. 4, pp 37 – 54.

Obstfeld, M and Rogoff, K. 1996. *Foundations of International Economics.* The MIT Press: London.

Oesterreichische National Bank. 1998. *Current Account Imbalances and East and West: Do They Matter?* Vienna.

Sachs, J. 1981. The current account and macroeconomic adjustment in the 1970s. *Brookings Papers on Economic Activity*; Vol. 1, pp 1 – 118.

Appendix A

Data sources:

1. SA Reserve Bank *Quarterly Bulletin*, September 2006
2. IMF *World Economic Outlook*
3. IMF *International Financial Statistics*
4. World Bank *Global Development Indicators*

Countries excluded in the calculation of averages for Table 1 in the text due to outliers:

1. Current account as a percentage of GDP (mean, standard deviation: 1985 – 1994)
* Lebanon
2. GDP growth (standard deviation: 1985 – 1994)
* Lebanon
3. Inflation (mean, standard deviation: 1985 – 1994)
* Argentina, Brazil, Lebanon, Peru
4. Total reserves as a percentage of GDP (mean, standard deviation: 1985 – 1994)
* Lebanon
5. Current account as a percentage of GDP (mean: 1995 – 2004)
* Lebanon
6. Total reserves as a percentage of GDP (mean: 1995 – 2004)
* Lebanon
7. Current account as a percentage of GDP (2005)
* Lebanon, Malaysia, Venezuela