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South Africa's Current Account Deficit:

Are Proposed Cures Worse than the Disease?

Peter Draper and Andreas Freytag

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Jan Smuts House, East Campus
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P O Box 31596, Braamfontein 2017

www.saiia.org.za
info@saiia.org.za

Tel +27 11 339-2021
Fax +27 11 339-2154

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ABOUT THE AUTHORS

Draper is Project Head: Development through Trade at SAIIA.

Freytag was SAIIA's Bradlow Fellow for 2008. Correspondence should be addressed to Andreas Freytag: Friedrich-Schiller-University, Jena, and ECIPE, Brussels, a.freytag@wiwi.uni-jena.de, +49 (0)3641 943 250.

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I. INTRODUCTION

Each time the domestic trade balance shows a deficit, the policy discussion becomes very emotional. Normally discussions are driven by a strong mercantilist bias: trade surpluses are seen as a benefit to the country and they are claimed to be caused by own competitiveness. Trade deficits are seen as bad and they are therefore viewed as being determined by foreign countries' unfair practices. In this case, a standard pattern of the policy discussion is to demand trade policy actions and direct sectoral responses. The theoretical background of this claim is the so-called competitiveness approach, assigning the exchange rate an important role as policy tool in achieving a desired trade balance. The latest example of its application is the reaction of the European Commissioner Peter Mandelson to the EU's bilateral trade deficit with China, calling China a juggernaut and discussing policy measures. Many EU politicians joined him in his complaints (Freytag 2008a).

However, the trade balance is only one side of the coin – the other side is the capital account. One has to analyse both accounts simultaneously to get a full picture. Higher investment in general – be it foreign direct investment (FDI) or portfolio investment – is inevitably positively correlated with increasing international capital flows. The latter, in turn, may cause an increase in the net balances. If – due to intertemporal decisionmaking – capital account imbalances occur, the whole balance of payments (BoP) will be subject to change, leading to higher imbalances of the current account and/or a change in international reserves. The main adjustment parameter is seen as the exchange rate, which brings about the transfer. Seen from this perspective, it is unclear whether a trade deficit is indeed a problem and an alarming sign for the future or whether it is ". . . a symbol of (its) strength" (Griswold 2001)?

This question certainly is relevant for South Africa, which has been increasingly in the focus of global investors from different countries. Consequently, a similar discussion of South Africa's current account is in full swing. Many contributions (e.g. Smit 2007, IMF 2007, Frankel, Smit and Sturzenegger 2006)[1] have been made in particular to the macroeconomic aspects. Yet there is less discussion about the microeconomic side despite the importance of trade pol-

[1] For general contributions to sustainability see e.g. Mann (1999) and Bernanke (2005).

icy as well as of industrial policy. The South African government plans a 400 bn Rand program for infrastructure within the Asgi-SA framework, which was announced in 2005 and aims at reducing logistics costs. The DTI later specified its industrial policy objectives under its National Industrial Policy Framework (NIPF) (Draper and Alves 2007, DTI 2007). If these funds are used to bridge bottlenecks (education, infrastructure) as suggested by the OECD (2008) and others such as the Harvard Group[2], this program may well improve the competitiveness of South African firms in the long run, reducing the current account imbalances. In the short run, it may encourage further capital inflows, leading to an increase in the current account deficit. However, if it is mainly used as traditional industrial policy instrument (e.g. consisting of subsidies to established firms), it may – e.g. via rent-seeking – work in the opposite direction, namely reducing the current account deficit in the short run, but causing lower international competitiveness of South African firms in the long run.

The paper discusses the background of the South African current account deficit and adequate policy measures. In particular, the demands for industrial and trade policy responses are scrutinised,We start, in section II, with a brief analysis of the main issues pertaining to the current account deficit. In the centre of this section, we add an institutional and microeconomic flavour to the discussion of sustainability and "sudden stop". Section III is dedicated to an assessment of policy responses. Conclusions round off the paper.

II. ISSUES PERTAINING TO SOUTH AFRICA'S CURRENT ACCOUNT DEFICIT

1. Theoretical approaches to assess the BoP

There are a number of theoretical strands to analyse the current account. In the current public discussion one can distinguish two – more or less opposing – views. The first to mention is the competitiveness approach, based on the elasticities approach: this view has an explicit view of equilibrium; in equilibrium, exports equal imports. Exports depend negatively on the exchange rate

[2] The Harvard Group is a team of economists from Harvard University engaged by the South African government to assess macroeconomic and structural issues of the South African economy. See ://www.cid.harvard.edu/southafrica/index.html for the results.

(defined as number of units of domestic currency to a unit of forex), whereas imports depend positively on it. A trade surplus or trade deficit marks a disequilibrium. This can be solved by an exchange rate change. The size of the swing in the trade balance depends on the export and import elasticities (Iley and Lewis 2007).

The competitiveness approach was developed within a framework of fixed exchange rates, such as the Bretton-Woods system. In this regime, Germany was able to generate export-led growth by undervaluing its currency, the D-Mark. Dooley et al. (2003) argue that today some Asian countries - among them most prominently China - are following a similar strategy by undervaluing their currencies[3]. This strategy may also be applied in a system of managed floating. Of course in a free floating regime, it could not work, as the exchange rate change is completely endogenous. The South African Reserve Bank in principle has the political means to influence the exchange rate.

This approach has an important intellectual problem, as it treats countries like firms. These compete with each other and in an effort not to go bankrupt should sell more than they buy. In this view a positive trade balance is worth striving for, as trade is treated as a zero sum game (Krugman 1994). According to this view, what is sold by China, cannot be sold by South Africa any more. This view may hold for competing firms on a shrinking market, but it is completely misplaced for the analysis of international trade in a growing global economy where the potential for division of labour is not yet fully explored.

In particular, the development of capital account, current account and the change in the country's foreign reserves is a problem as they can only be analysed commonly. Regardless of the theoretical model one has in mind, the macroeconomic identity "savings minus investment equals exports minus imports" always holds. Clausen and Kandil (2004) disentangle the current account and financial account to show how complex the causal relations in the balance of payments are. They also show that both balances react differently to cyclical fluctuations and are correlated negatively to each other. The (real) exchange rate functions as an adjustment parameter (Meyer 1938) as trade flows have to adjust accordingly to changes in capital flows. This mechanism holds regard-

[3] For a recent discussion see Freytag (2008a).

less of the exchange rate regime chosen as the real exchange rate always adjusts (Dluhosch, Freytag and Krüger 1996).

Based upon older strands of the intertemporal approach such as Böhm-Bawerk (1914), Obstfeld and Rogoff (1994) develop a microeconomic, utility maximising framework to analyse the determinants of a current account imbalance.[4] The main result is that individual utility considerations are driving saving and investment decisions. These lead to a capital account imbalance and thereby also to a current account imbalance. The decisions to save and to invest are determined by macroeconomic stability as well as by institutional features such as governance structures, the validity of the rule of law, capital market developments and the like. Microeconomic factors, such as labour market regulation add to the determinants.

This joint pattern of both macroeconomic and institutional drivers of the balance of payments is regularly overlooked in the policy discussion. Thus, we focus on the intertemporal approach when analysing the dynamics and policy conclusions of the South African current account deficit since 2002. The institutional and microeconomic drivers of structural change and its policy challenges are in the centre of the analysis. The exchange rate also plays a major role in this dynamic process. It is seen as an adjustment parameter to manage the transfer from a change in the capital account to the corresponding change in the current account in South Africa. In a flexible exchange rate regime, huge capital inflows can cause a nominal appreciation of the currency, as the demand for domestic currency increases, everything else held constant. The nominal appreciation is accompanied by a real appreciation. The real exchange rate in this context is defined as the domestic relative price of tradables (PT) and non-tradables (PN).[5]

The net capital inflows imply an increase in purchasing power in the capital importing country. The additional purchasing power can be spent on tradables and non-tradables. If it is exclusively spent on tradables, a real appreciation is avoided, as demand for non-tradables does not change and as the prices for trad-

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4 See also Corden (2007).

5 This provides the advantage of easily calculating the development of the real exchange rate by calculating domestic price indices $e_{real} = P_T/P_N$.

ables remain more or less constant because the international law of one price[6] holds by and large. If however also the demand for non-tradables increases due to the inflow of purchasing power, the prices for non-tradables increase. As a consequence, ereal is diminishing and a real appreciation happens.

This real appreciation is reducing the international price competitiveness of the producers of tradable goods, i.e. the export and import competing industries. Assuming normal price elasticities, exports as well as sales at home are reduced and imports increase (Meyer 1938). If the capital inflows hold for a longer time, the domestic economy adjusts in such a way that the tradable sector declines relatively and the non-tradable sector increases relatively. Due to the increase of the prices for non-tradables, it becomes more attractive to invest into this sector and less attractive to invest into tradables. In the medium run, the net capital inflows will foster structural change. The appreciation stops when the economy has adjusted to the capital inflows and can even be reverted (Ragnitz 1989).[7]

2. The South African current account in the last fifty years

Figure 1 shows the long term development of the South African current account in US-Dollars. During the Bretton Woods era, imbalances in the current account were only rarely observed, as capital flows were strictly limited throughout this period. If there were imbalances, South Africa experienced capital inflows and deficits in the current account. In the 1980s, the current account turned into a surplus, accompanied by huge capital outflows (see figure 1) and economic problems. The country was perceived as an unattractive investment target and suffered from its Apartheid regime and subsequent political and financial sanctions. It seems fair to assume that the current account development was politically distorted; a utility maximising process was difficult to discover.

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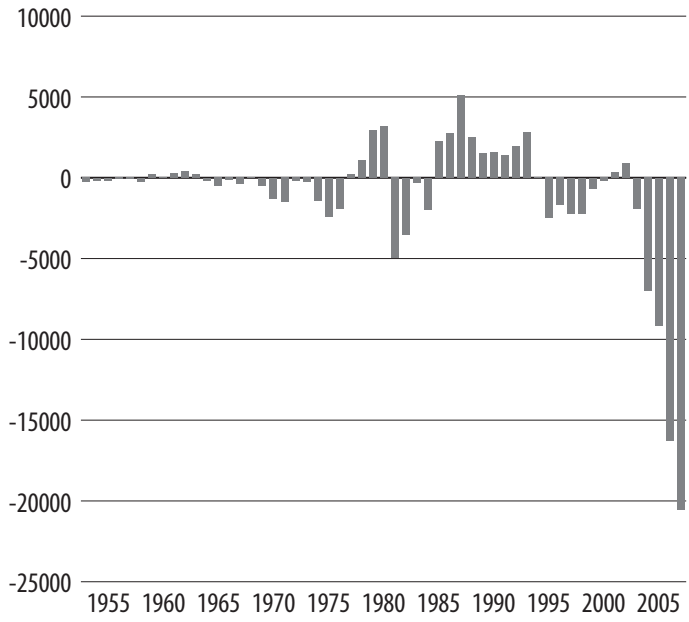
[6] The international law of one price claims that the prices for internationally traded goods are the same all over the world because of arbitrage. Transaction costs may cause small international differences. This has the consequence that a shift of purchasing power from one country into another does not change the prices for tradables significantly.

[7] This can be explained as follows: as in the overshooting model developed by Dornbusch (1976), the money market responds faster to new signals than the goods and service markets (Knight and Scacciavillani 1998, pp. 20-22). The capital inflow is increasing demand and therefore prices (both for non-tradables), as long as the production does not increase, which takes longer. Once it has increased, prices fall again.

Figure 1: South African current account 1953-2007 (Mill. US-$)



Source: IMFa, International Financial Statistics, current issue.

Since the turn towards democracy in 1994, South Africa has improved its reputation as the leading economic power in Africa. Consequently, foreign capital was increasingly invested in South Africa. The current account turned into a moderate deficit, this period was only briefly interrupted in the years 2001 and 2002 owing to the financial contraction induced by the events of September 11th, 2001. Since then the deficit has reached unprecedented levels and is forecast to even increase in the future (IMF 2007). This development took place in a stable macroeconomic environment, but still has raised concerns, as some observers are sceptical with respect to the sustainability of the deficit.

3. The relative prices between tradables and non-tradables

After 2002 the Rand appreciated nominally and in real terms. It was only in mid-2006 that the effective exchange rate depreciated. Following the intertemporal reasoning, the (real and nominal) appreciation from 2003 to 2006 was eco-

nomically necessary in order to allow the transfer from the capital account to the current account, thereby contributing to the structural change of the South African economy. In this view, the exchange rate is the adjustment parameter for the transfer.[8] This can be documented when looking at the development of the relative prices between tradables and non-tradables.

For a small open economy such as South Africa, PT is more or less fixed internationally. One has to bear in mind that South Africa is geographically far from relevant world markets, so that prices may differ because of transport costs; however, this difference will not change over time because of the law of one price. By contrast, PN is not fixed, but changes with a change in purchasing power. Therefore, it is reasonable to assess the relative prices between the two types of goods, which is difficult. We draw on the distinction made by Blignaut, Farrell and Rangasamy (2008) and use this to categorise goods and services into tradables and non-tradables.[9]

The development of both prices for tradables and non-tradables between 2000 and June 2007 (shortly before the appreciation stopped and inflation took off) indeed show that there is a difference: PT as price index for the weighed basket of tradables in historic metropolitan areas (series P0141, Statistics South Africa 2008) increased by 40.75 per cent, whereas PN as the respective index for non-tradables increased by 49.75 per cent. From July 2007 to July 2008, the prices for tradables (+12.2 per cent) and non-tradables (+12.5 per cent) developed similarly.

Although the results of this exercise do not formally prove that the exchange rate is an adjustment parameter to foster structural change, we see that the prices for tradables grew more slowly than the prices for non-tradables between 2000 and 2007. Thus, the pattern of the exchange rate development is in line with the change of relative prices. We now proceed by taking a look at structural change in the South African economy, to analyse the role of the real exchange rate changes.

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8 Chinn and Wei (2008) show that the current account adjusts to real exchange rate changes rather than to nominal exchange rate changes. In the South African case, we observed both quite strongly.

9 See Annex, table A1 and Freytag (2008b) for a more detailed analysis.

4. Structural change

Because of the real appreciation, in theory the tradable sector typically faces higher input prices accompanied by constant output prices and, thus, relatively shrinks as exports and import competing domestic sales decline (or grow slower), whereas imports increase. In this situation the real appreciation is costly but somewhat necessary to allow for the structural change to occur. In the South African case, non-tradables indeed grow faster than tradables during the period of appreciation. We compare the sectoral development of value-added and exports/imports respectively for the periods 1994-2002, i.e. before the current account swung into deficit, and 2002-2007.

Let us first take a look at the sectoral value-added. We have to change the categorizing of the industries due to different data as compared to the price development.[10] How did the value-added of the sectors (Statistics South Africa (2008), P0441, 2000 prices) change (increase in per cent)?

Table 1: Structural change in South Africa (change in value-added)

	1994–2002	2002–2007
Agriculture	7	-3
Mining	(4	) 7
Tradables	29	21
Non-tradables (excl. government)	38	37

Source: Statistics South Africa (2008, Series P0441), own calculations.

The result of this exercise is striking. Whereas the production of agricultural products increased in the first period after democratization, it shrinks thereafter. Mining obviously was dependent on the world market prices. The declining performance of agriculture and mining is in line with development theory. The interesting part of table 1 is at the bottom. Non-tradables output grew faster than tradables output throughout the whole period, but significantly more so in the second sub-period, when net capital inflows increased and the current account swung into deficit. On an annual basis, the growth rate of value added of non-tradables increased from 4.1 to 6.5 per cent, whereas the growth rate of

[10] For an overview see table A2 in Annex 1.

tradables value added only slightly increased from 3.2 to 3.9 per cent. In other words, the increase in the relative prices of non-tradables has encouraged investors in this sector. It grew faster than the tradables sector. Structural change was mastered by the South African economy, at least to a certain extent.

An alternative way to look at structural change is by analyzing trade flows. How did the export and import value (SARB, current prices) of different industry groups change (increase in per cent) during the same periods? Of course, we cannot distinguish between tradable and non-tradable goods, as both exports and imports are by nature tradable goods. Nevertheless, we treat merchandise trade as proxy for tradables and services trade as proxy for non-tradables.[11] This is justified as in the process of globalization former non-tradables, mainly services, become tradables due to reduced transaction costs.

Table 2: South African export and import increase (in per cent between 1994 and 2007)

	X: 1994–2002	2002–2007	M: 1994–2002	2002–2007
Merchandise	314	83	262	104
Net gold	83	(9)	—	—
Services	206	83	333	123

Source: South African Reserve Bank (2001 and 2008), own calculations.

Indeed, exports in services were no longer increasing more slowly than exports in goods during the period of the trade deficit (table 2). Between 1994 and 2002 merchandise exports grew faster than service exports, whereas exports in both sectors increased equally in the period after 2002. This change is even more pronounced when looking at net exports or gross imports respectively. The increase of service imports declined faster than the increase in merchandise imports. It seems as if the competitive position of the service industry has improved relative to the merchandise sector.

A careful and moderate conclusion is that structural change in South Africa works. The real exchange rate obviously functions as an adjustment mechanism. Obviously structural change was fostered by the real appreciation, which

[11] We add the figures net gold exports, which declined (table 2). This again is plausible.

was partly caused by net capital inflows.[12] After an adjustment of the supply side, the net capital inflow has been accompanied by a simultaneous current account deficit – it does not need an appreciation any longer. The Rand depreciates in real terms. It is too early to draw final conclusions at this stage and it remains to be seen how the real exchange rate will develop in the future. From an economic policy perspective however, there is no need to be concerned and to intervene in the foreign exchange market because of the current account in general.

In addition, it has to be acknowledged that structural change is a permanent companion of economic development in South Africa, as elsewhere. Structural change is costly, as jobs are at stake, while new jobs are created. It is very difficult to forecast the new opportunities, while it is easy to identify the losers. Temptations are high to protect certain industries from structural change. The government should refrain from it; rather the government should be interested in removing existing obstacles to structural change (OECD 2008). The fewer barriers that exist, the easier structural change can be mastered. Part of the barriers to structural change can be seen in institutional and microeconomic factors, which will be discussed next.

5. Institutions and political economy

Latest research in institutional and development economics has come to the conclusion that institutions play a major role in explaining a country's economic performance. They matter indeed! It has been shown that governance structures are relevant for economic growth and development as well as for the capability of countries to utilise foreign aid. The international development community including the World Bank has started to take governance structures into consideration when assisting governments in developing countries. By the same token, the ability of countries to attract foreign capital very much depends on institutional quality (e.g. Dluhosch, Freytag and Krüger 1996).

By institutions, we understand the set of formal and informal norms and rules valid in a society. These emerge spontaneously or are created in a political decision. Institutions can be interpreted as constraints and incentives for indi-

[12] This analysis does not allow for an assessment of the welfare, in particular labour market effects of structural change.

Table 3: Governance indicators in South Africa since 1990

	African average 2007	South Africa						
		1990	1999	2000	2002	2003	2005	2007
HDI	0.511 (2005)	0.735	0.742	0.696	0.666	0.658	0.674	n.a.
CPI	2.9	n.a.	5.0	5.0	4.8	4.4	4.5	5.1
PR	4.3	5	1	1	1	1	1	2
CL	4.0	4	2	2	2	2	2	2
EF	5.7 (2005)	5.3	6.3	6.8	6.8	6.9	6.8	n.a.

Source: UNDP (2008), Transparency International (2008), Freedom House (2008), Gwartney, Lawson et al. (2008).

viduals in both politics and the economy.[13] Institutions are difficult to identify and measure. In particular it is hard to distinguish institutions from economic policy. For instance, is a labour market regulation an institution or a policy measure, which can be easily changed?

Despite these difficulties, there are a number of measures for institutions. Needless to say these measures suffer from a number of shortcomings, the most important of which is their arbitrariness, as both the choice of criteria and the outcome depend on the very persons measuring an institution. Nevertheless, it helps to compare different indicators over time to assess the development of the institutional and governance quality of a country. If these indicators follow a similar path, they can be regarded as being consistent. For the pur pose of this study, we have chosen five indicators, the Human Development Index (HDI), the corruption Perception Index (CPI), Freedom House's Political Rights (PR) and Civil Liberties (CL) score and finally, the Index of Economic Freedom (EF) of the Fraser Institute.[14]

The governance indicators show that that there was no significant change after 2002, but earlier, after 1990, as a comparison of the shaded figures for 1990 with all subsequent scores shows. These indicators also show that the governance quality in South Africa is moderate. The country is somewhere below the

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[13] There is an ongoing discussion of what institutions and institutional economics are. It would be counter-productive for the purpose of our study to enter into this discussion. The interested reader may refer to the collection of basic articles in Hodgson (1993).

[14] For a description of the indicators see Annex 2.

world-wide average with respect to human development, economic freedom and corruption, whereas the degree of political rights and civil liberties is rather high. What strikes one, however, is that Political Rights have been reduced in 2007 in comparison to the years after 1994. This is due to a reduction of the score in the sub-categories "Functioning of government" and "Rule of law" (Freedom House 2008), two aspects, which is in line with the rather low sub-score (5.5) for group 1 of the index of Economic Freedom (Gwartney, Lawson et al. 2008) and indeed has attracted increased international attention (e.g. OECD 2008, The Economist 2008).

Another aspect which is not covered by the indicators used here is rent-seeking. According to Coates, Heckelman and Wilson (2007), the degree of lobbying in South Africa seems high, as the number of lobby groups indicates. It is stable and above the simple world average. In 2002, 249 lobby groups were registered, the simple world average was 159, with a minimum of 1 (several countries) and a maximum of 10,526 (USA).[15] Africa had an unweighted average of 20 lobby groups. Although interest groups may perform important functions in society, in particular providing information and other knowledge, intense rent-seeking activities may hamper economic policy and repress structural change.

The role of these aspects in international capital movements cannot be sorted out easily, but must not be underestimated. Although institutional factors do not seem to be of utmost importance for the emergence of the net capital inflows in South Africa (Freytag 2008b), their deterioration may add to the danger of a sudden stop. If the country witnesses a decline in governance quality, as has been discussed during the Summer of 2008 in the context of legal proceedings against leading politicians (The Economist 2008), foreign investors may be discouraged and search for other investment opportunities. There may be differences in the relevance of institutional factors between South Africa and big countries such as China and Russia. There cannot be any doubt that these countries perform worse with respect to institutions than South Africa. Nevertheless they have been able to attract foreign capital (gross flows) to a great deal. In other words, to compete with these giants, South Africa needs good governance. This holds all the more, as South Africa is a relatively small country in a regional neighbourhood of states with dubious reputations and

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[15] One of the authors wishes to thank Jac Heckelman for sharing this information .

consequently may be grouped together with these countries. In particular, the degree of corruption is much higher in the rest of Africa (with the exception of Botswana) than in South Africa (table 3). Despite the difference in both economic performance and governance quality, this scenario is not pure fantasy. The latest developments in Zimbabwe may well encourage the perception that South Africa suffers from similar institutional shortcomings as other African countries.

A decision to withdraw capital may be of long-term consequence, as it normally takes time to regain the reputation lost in the process of declining governance quality. Despite this warning, it is unjustified to draw a gloomy picture. The 'institutional quality' of South Africa is moderate in an international context, but still exceptional in Africa. The country has managed the transition period after the end of Apartheid rather well and has all chances to further improve the governance structure. Such a development is the easier, the better the economy performs. Beside macroeconomic policy and institutions, microeconomic policies such as competition policy, labour market regulation, regulation in general and trade policy all play a role in this process.

6. Microeconomics

Recent research has identified a number of – mainly microeconomic – economic policy problems, which are obstacles to structural change. The most urgent problem is unemployment (Rodrik 2006, pp. 2f), which is coupled with weaknesses in the educational system and rather low productivity of the South African economy. The structural change in the country from manufacture to services has not been accompanied by new jobs for the unskilled labour force (Rodrik 2006). Unemployment is as high as 25 per cent. The immediate cause of this problem seems to lie in a surge in the supply of unskilled labour, which has not been absorbed by the labour market. The reasons for this inability are discussed extensively by the OECD (2008, pp. 110-120). According to this report, the main reasons are a lack of entrepreneurship, poor infrastructure (which does not allow commuting between the townships and the potential working places), wrong incentive to migrate internally and the poor education system despite high financial efforts. However, with respect to employment protection legislation (EPL), South Africa does perform better than the OECD average,

indicating that hiring and firing is easier than in the OECD. All EPL-indicators used by the OECD show this (2008, pp. 120-126). This is what one would expect for an emerging country with very high levels of unemployment. It suggest the undoubted labour market problems do not have their roots in regulation, although it is not clear that comparing South Africa to OECD countries in this respect is appropriate..

Apart from the labour market problems, the OECD points to a very important impediment for further development, namely politically created barriers to market entry. Concentration on markets for goods and services is high, but declining since 1996. According to indicators of product market regulation used by the OECD (2008, pp. 64 and 89-97), the regulatory barriers to run a business are considerable and much higher than the OECD average. These barriers deter foreign investors and domestic entrepreneurs. In combination with the already mentioned weaknesses of public administration or the functioning of government, they form a sort of growth ceiling (Gouws 2008).

This growth ceiling is even reduced by a third major problem, namely monopolistic or oligopolistic structures in network sectors, which form bottlenecks for the further development of the South African economy. These sectors are electricity, transport and telecommunication. As they produce important inputs for the tradable sector in South Africa (both goods and services), low quality and high prices keep productivity in South Africa low. As a matter of fact, productivity growth between 2000 and 2005 in South Africa has been rather mediocre and slower than in some other emerging markets such as China and India (OECD 2008, p. 57). A neglect of these bottlenecks will probably further reduce productivity growth. Low productivity growth is not adding to the high-tech potential of the country, which already has a low share in high-tech exports.

Although the net effect of low productivity and high input prices on the current account cannot be forecast in advance, it seems that the problems in the network industries[16] diminish gross flows and reduce the welfare enhancing international division of labour. The net effect on the trade balance depends on the reaction of international investors. If they maintain their net portfolio investment in the country, the current account does not change. Nevertheless,

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[16] Network industries are industries characterized by a network (e.g. pipelines, cables, tracks). Economically, they are of interest because of economies of scale and their economy-wide usage.

the poor performance of the network industry certainly hampers both the price competitiveness of downstream industries, not least those targeted by the NIPF, as well as the ability of South Africa to attract foreign capital. It also reduces international trade to the disadvantage of the South African economy.

7. Trade flows and sustainability

The discussion of productivity leads us to the question of whether the increase in the trade deficit has coincided with a change of the trade structure. The argument goes as follows. If the trade structure changes towards more consumption goods on the export front, the comparative advantage may have changed away from high-tech exports (as long as one assumes that consumption goods are mainly low- or medium-tech). A similar argument holds for the import structure. If the increasing imports are mainly related to final consumption rather than consisting of intermediate or capital goods, this would indicate that the net capital inflows are used for the purpose of consumption rather than investment. Sustainability of the current account deficit would be low accordingly.

Table 4[17] shows that the export structure has changed more significantly. The share of capital goods in exports has been constant, but the share of consumption goods has increased. This development is compatible with the observation (OECD 2008, Harvard Group) that productivity growth has been slower than in other emerging markets such as China; South African firms increasingly fail to compete internationally in high productivity sectors. Consequently, Chinese firms have replaced South African – but also other countries' – competitors in international trade, e.g. with the European Union (Freytag 2008a, pp. 4f).

How did the import structure change after 2002? It would be disadvantageous for the South African economy, if the increase in gross imports mainly or even exclusively consisted of consumption goods, because then the additional capital inflows would have been used for consumption purposes, unless the domestic purchases change from consumption to capital or intermediate

[17] We use data provided by the WTO (2008), see Annex 1, table A3, for an overview about the industries. Table 4 is not very precise as the sectors addressed can produce all sorts of goods. Therefore, the figures must not be taken as a proof.,The categories Manufactures and Automotive products have not been included in Table 4, which explains that the sum of the shares is not 1.

Table 4: Capital and consumption goods as share of exports and imports in per cent

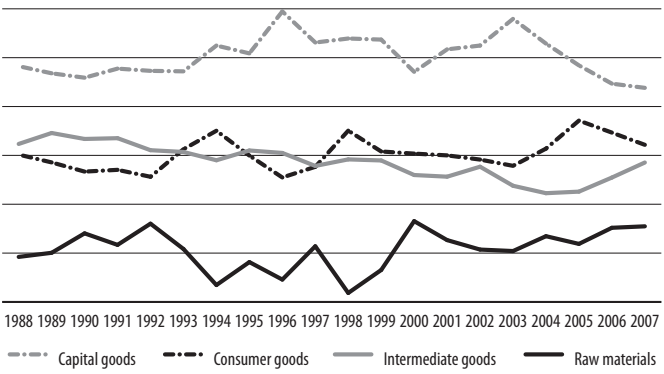
Exports	Capital/ Intermediate goods	Consumption goods	Imports	Capital/ intermediate goods	Consumption goods
1994	26	25	1994	42	10
1995	26	26	1995	38	18
1996	26	27	1996	38	19
1997	22	26	1997	38	22
1998	23	25	1998	42	17
1999	23	25	1999	40	18
2000	22	30	2000	39	22
2001	22	31	2001	39	22
2002	22	30	2002	39	20
2003	23	34	2003	38	19
2004	24	34	2004	38	21
2005	24	35	2005	38	20
2006	24	37	2006	36	24

Source: WTO (2008), own calculations.

goods. As figure 7 with data from the South African Reserve Bank and IDC[18] and table 4 make clear, this was not the case. There was no significant change in the composition of South African imports. The shares of capital goods and consumer goods remained more or less constant. After 2003, a small decrease in the share of capital goods imports can be observed, which was partly compensated by an increase in intermediate goods. Lately, the share of raw materials increased, which can be used as consumption as well as intermediate goods. In general, the structure of imports does not allow the conclusion that the trade deficit is adverse to increased investment and a beneficial debt cycle.

[18] The author wishes to thank Gerhard Kuhn of IDC for sharing this figure with me.

Figure 2: The composition of South African imports 1988-2007



Source: South African Reserve Bank (2001 and 2008), IDC

8. The South African debt cycle, sustainability and the danger of a sudden stop

Looking at the balance of payments from the intertemporal perspective, there is no normative implication of a certain current account balance. It cannot be said in advance if a current account deficit is undesirable or if a current account surplus should be achieved. Depending on age structure of the population, state of development, maturity of capital markets, countries may prefer to run capital inflows or outflows respectively. It may on the one hand be sensible for developing or emerging countries or a country with a relatively young population to run a current account deficit as response to net capital inflows if these are invested. Ageing economies such as Germany or Japan may be better off with a current account surplus, investing their savings abroad. On the other hand, developing or emerging countries may run a current account surplus to invest into credibility for future net capital inflows or to import know-how for long-run growth.[19]

In any case, an imbalance in the current account is not necessarily a disequilibrium. To the contrary, the current account deficit may signal a country's economic strength. It is able to attract capital, which can be used to employ

[19] See Freytag (2008a).

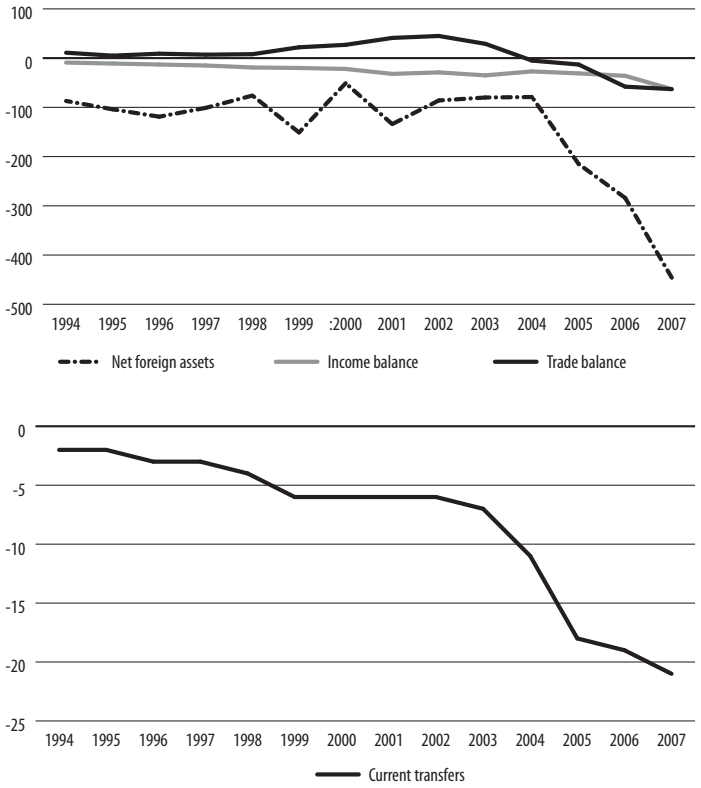
complementary factors of production. In the longer run, countries may undergo a debt cycle (Kindleberger 1963, pp. 458-461, Siebert 1987 and 1989, Freytag 2008b). First, the country builds up a negative foreign wealth position (phase I and II). As a young debtor country (phase I), the country runs a net capital inflow, a trade deficit and a deficit in the balance of capital yields because foreigners demand a return on their net assets. The capital inflows are invested, so that the country is able to increase sales abroad and to finance further investment from own savings. The capacity built up with this investment is used to produce internationally competitive goods and services. Then the country becomes a matured debtor country, running a trade surplus and diminishing its liabilities. During this phase (II), the country already exports capital. Once, the net wealth position is positive, the country becomes a young (III) and later a matured creditor (IV) country. In the last phase, the country no longer exports or imports capital, but runs a trade deficit, financed by capital income inflows.

Is South Africa going through a debt cycle? According to Cline (2005, p. 17), between 1970 and 2003 South Africa has been a debtor country, most of the time a matured debtor country, running current account deficits. Despite these, the country had permanently net foreign liabilities in the books. As figure 3 shows, between 1994 and 2003, a cyclical pattern cannot be identified for South Africa.

The development after 2003, however, indicates a pattern, which can be interpreted as a start of the debt cycle. Net foreign liabilities have increased, the trade balance has turned into deficit, and the income balance has shown an increasing deficit. In the bottom part of figure 6, the current transfers are added, as they have increased since 2003 (due to a special revenue-sharing agreement within the Southern African Customs Union, SACU). Together, net trade, net capital yields and current transfers almost match the increase in the negative net foreign position, which is financed by net capital inflows.

The theory of the debt cycle is closely related to the issue of sustainability. Two aspects are relevant: use of the capital inflows and the danger of a sudden stop. Only if the capital inflows are invested rather than consumed, can the future payments be made and can the country become a creditor country. However, in order to benefit the country, the debt burden has to be moderate, in particular for low income countries (Loko et al. 2003). In addition to this condition, the investment has also to be successful implying production and sales of

Figure 3: The South African debt cycle?



Source: South African Reserve Bank (2001 and 2008), own calculations for 2007.

goods and services in the future. This requirement hints at the microeconomic problems of a current account deficit. The decision about what is a successful investment and what is not, is made on the international markets. However, the government as well as private agents have much influence on this future decision by selecting appropriate strategies to invest. A closer look at South African net investments reveals first, that portfolio investment is taking the lead over FDI and second, that private investment is outpacing public investment or consumption. Given the maturity of the South African capital markets, this is neither surprising nor worrying. It rather supports the thesis that the current

account deficit is sustainable. The same holds for the institutional factors (see sub-section II.5 above).

With respect to the issue of sudden stop, the government is relevant, as it sets incentives to invest into economic activities and, therefore, to be either successful on the markets or not. Institutions come into play again. If policies are volatile, then capital flows may also become volatile. The volatility is also dependent on the macroeconomic stability in the country. In general, the overall macroeconomic picture is favourable (Smit 2007):

- foreign debt is relatively low;
- the share of foreign currency denominated debt is rather low;
- the share of short-term debt is also rather low;
- fiscal policy is sound;
- the economy is rather open;
- the exchange rate is flexible;
- monetary policy is stability oriented and builds up foreign reserves.

These factors in sum also lead us to a positive judgment with respect to sustainability. Institutions and governance function reasonably well. Capital inflows are mainly used to finance investments. The problem of a sudden stop seems to be small and manageable. Nevertheless, it is by all means too early to make an assessment of whether South Africa can start a debt cycle, enabling the country to increase employment and growth. The pattern of a debt cycle is only valid, if capital inflows are maintained for some time. In other words, the capital flow should not be volatile. As argued before, this is dependent on economic policy, which will be discussed in the third section.

III. ASSESSING POLICY RESPONSES

Our analysis as well as much of the macroeconomic work so far has shown that the sustainability of the South African current account deficit is not endangered immediately. However, it also reveals that a business-as-usual strategy is not justified. Both the Harvard Group and the OECD have made clear the structural problems of the South African economy. In addition, the parallel existence of high unemployment, increasing inflation and increasing current account deficit is encouraging an intensive policy debate. In what follows, we criti-

cally discuss several policy options for the South African government as well as some already taken actions. First, we briefly show that there is no need for currency manipulation, as this is risky and extremely expensive. Second and third, industrial and trade policy respectively are critically discussed. Fourth, the inherent risks of the Black Empowerment Program are discussed, before in the final sub-section strategies to foster competition and make structural change faster and less expensive are analysed.

1. Currency depreciation and its problems

The competitiveness approach suggests a depreciation of the Rand in order to stop the trade deficit. So the first question to be answered is whether or not South Africa should devalue its currency? To approach an answer to this question, consider the case for an undervalued currency. Several problems occur simultaneously.

The depreciation can only be accompanied by an increase in money supply in South Africa. This would imply that inflation spurs even further[20] and causes a real appreciation of the Rand via a faster price increase of non-tradables in comparison to tradables. This can drive capital out of the country because real interest rates diminish. Thus, the gap between saving and investment is reduced. Indeed, a trade surplus is the result, however at the expense of welfare losses due to inflation.

The artificial undervaluation would make exports relatively cheap (in terms of Euro or US-dollar) leading to an increase in exports and in foreign exchange. As a consequence, South Africa experiences a rise in international reserves, which causes money growth to be even faster than today. Domestic inflation would get faster again. However, the South African government could try to sterilise the increase in reserves to stop money growth. The sterilisation then would lead to an increase in the interest rate followed by an inflow of capital, which either causes even higher inflation or has to be sterilised again. The new capital inflow would counter the efforts to drive down the trade deficit.

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[20] This statement has its roots in the empirical fact that inflation is a monetary phenomenon.

Higher inflation is impeding price competitiveness in the export industry. Exports are reduced and imports are stimulated, other things equal. The trade deficit would even be increased.

Thus, the effect of the undervaluation remains unclear. Notwithstanding, it cannot be in South African interest to increase inflation even further. So long as the saving investment ratio and reserves do not change, there would be no change in the trade balance.[21] Thus, the expectations to use monetary policy with respect to the trade balance should be moderate.

2. National Industrial Policy Framework (NIPF)

Since 1994, South Africa has introduced four policy programs to increase employment, foster structural change and growth. After 1994, the Reconstruction and Development Programme (RDP) was introduced and from 1996 on replaced by the Growth, Employment and Redistribution strategy (GEAR), which was successful in increasing macroeconomic stabilisation. In 2006, the Accelerated and Shared Growth Initiative for South Africa (AsgiSA) was introduced to tackle the constraints as discussed above. Whereas the diagnosis that South Africa needs to speed up structural change and strengthen the economy's capacity to master it is widely shared, there are doubts about the strategies (OECD 2008).[22] Flowing from AsgiSA, there is a recent program, called the National Industrial Policy Framework (NIPF). Its core stated objective are to promote diversification of the South African economy, particularly through building manufacturing industry and growing associated exports. This fits with one of the core findings of the Harvard group (Hausmann, 2008) to the effect that South Africa needs to both grow and diversify its export basket in order to sustain the current account deficit and address its unemployment crisis.

It is not intended to enter deeply into the discussion about the virtues and risks of traditional industrial policy. Nevertheless, it is justified to discuss the approach with respect to its effects on the sustainability of the South African current account deficit. How will the NIPF contribute to future bop develop-

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[21] The reader is reminded that the identity (S-I = X-M) holds.

[22] See also Rodrik (2006) as well as Frankel, Smit and Sturzenegger (2006) for extensive analyses.

ments? This question – of course – can only be answered in a speculative but informed manner.

The NIPF is directed at supporting certain, clearly identified industries – it thereby takes it for granted that the government has the knowledge to identify these key industries. These are the usual suspects: the car industry, metal processing, tourism, textile and clothing, agriculture, mining, and business process outsourcing. Direct measures are suggested (albeit on a high degree of abstracting and without details). Beside direct measures to support single industries, cross-cutting priorities are identified. It remains unclear what exactly the DTI is planning, as details are lacking (Draper and Alves 2007). The Harvard Group suggested picking industries or activities that promise ". . . new products, new processes, new geographical zones or new forms of organisation . . ." Hausmann 2008, recommendation 12).

Such a policy framework is politically tempting but economically risky. First, the main difficulty for the government or its agencies is to identify those industries that create jobs and growth in the future. Much information is needed. The problem is that this information is generated during the process itself and best so on markets. Admittedly, private agents face the same lack of knowledge, but markets normally generate and process information and knowledge faster than governments. The general phrase for any governmental effort to mimic the market as information generating instrument is governmental "pretence of knowledge" (v. Hayek 1975). This holds in particular, as governments and their agencies respectively spend other people's money, whereas private agents are disciplined by markets. In addition, given the special weaknesses of the South African government to make the administration work properly (OECD 2008), it seems an unrealistic approach to pick certain industries. Given that under the conditions of globalisation, especially value-chain splicing and complex specialization as well as the high sped at which knowledge is ageing, it is even more difficult to forecast future economic structures. In other words the world has changed very much since the 1950s/60s; hence the traditional "picking winners" approach as practiced in East Asia is much more complex now (assuming it worked in the first place).

Second, industrial policy programs are prone to rent-seeking activities and corruption. The decision about who to support cannot be made without uncertainties, arbitrariness and personal contacts. This opens discretionary leeway

for politicians and rent seeking scope for lobbies. Thus, the decision can be biased either because of political consideration, e.g. directed at the next general election, or at personal benefits for the members of the agencies (corruption). Political considerations directed at elections may be less relevant in a country where the incumbent party can rely on an overwhelming majority. Nevertheless, lobbying efforts may create a bias even under these circumstances. Thus, it must not be ruled out that an industrial policy program leads to biased outcomes, and this may discourage investment.

Third, the supported industries may become used to the support and diminish their efforts to catch up with world market leaders, to innovate and to improve their performance. Subsidised industries e.g. in Germany provide lots of evidence for this argument. The government should be aware of this and take remedial measures make payments contingent on co-funding by the industry etc. Otherwise, the increase in productivity remains wishful thinking.

Because of these general shortcomings and with respect to the South African current account position, it has to be acknowledged that the NIPF contains a distinct risk, which has two facets. First, experience in Asia in the second half of the 1990s suggests that one cause of the Asian crisis was the governments' interventions in the credit markets channelling funds into "strategic industries", thereby forcing banks to take high risks. Some of the targeted industries did not succeed on world markets. The subsequent crisis cascaded and ended in a macroeconomic disaster in several countries (Corsetti, Pesenti and Roubini 1999)). This, however, does not discourage observers to suggest the very same policy for South Africa (e.g. Rodrik 2006). We would be more hesitant. Second and related, the Chinese position today bears that sort of risk. The Chinese government is also channelling money into certain industries it regards as highly important for employment and growth. The risk is considerable that parts of these activities fail. However, in contrast to South Africa, the Chinese government and central bank have built up enormous foreign reserves in the last years. This has been interpreted as an insurance against risks associated with industrial policy.

The South African situation is of course different. It is first unclear how funds are channelled into the targeted sectors; it seems highly unlikely that pri-

vate banks can be forced to take considerable risks. However, the government can give credit guarantees to back up banks' engagement.[23] Second, the South African reserve position is also slightly growing, but to a far lesser (relative) extent than the Chinese. The risk insurance is much lower.

Therefore, it can be questioned whether an industrial policy program directed at identifying future winners on world markets and hence subject to a substantial risk of failure is likely to increase the sustainability of a current account deficit of 6 or more per cent of GDP. Bad performance or crises of the supported industries may conceivably lead to an overall economic crisis in the country, during which international investors may be tempted to withdraw their capital. In addition, policies directed to support certain industries and firms do not increase competition, but rather the barriers to entry and thereby discourage foreign and domestic investment.

The scenario is completely different, if the NIPF is more concentrated on the cross-cutting priorities: if bottlenecks in general are tackled with the means of industrial policy, but also by a more adequate competition policy, the investment target South Africa can become even more attractive for investors.

3. Is there any role for trade policy?

Trade policy is a sibling of industrial policy. Both are directed at improving the competitiveness of domestic enterprises on the world market. Theoretical reasoning and overwhelming empirical evidence shows that in the medium and even more so in the long run, free trade and open markets for goods and services serve this purpose best.[24] It is clear that the road to free trade is bumpy, as structural change will destroy jobs more rapidly than create new ones. It is the task of the government to acknowledge this fact and to mitigate the unavoidable short-term negative effects of structural change, mainly via social and education policy. Trade restrictions do not help, as they slow down the process of structural change and therefore, diminish the speed at which new jobs can emerge.

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[23] So far, figures about the funding of the NIPF have not been published.

[24] For a very good theoretical account see the textbook by Feenstra and Taylor (2008). A recent empirical analysis is provided by Sally (2008). For South Africa see Hausmann and Klinger (2006), Edwards and Lawrence (2006) as well as Sandrey et al. (2007).

In addition, trade policy cannot "improve"[25] the current account. Assume that South Africa increases trade barriers in certain industries to restrict trade and grants subsidies to other sectors to increase exports. Assume further that savings and investment decisions are not changed by this policy package. The increase of trade barriers means two things: first, demand for foreign currency is decreasing, implying an appreciation of the Rand. Second, prices for imported goods increase (due to tariffs). Imports are indeed reduced. This hurts the consumers (mostly the poorest) and – more important with respect to BoP issues – increases the input prices for the tradables sector. Thus, exports are hurt; as a standard phrase has it: import protection is export taxation!

The subsidies for selected export industries add to the picture, as the subsidies reduce the costs for the enterprises and allow them to reduce the prices for these export goods. Consequently demand for them increases, which causes the currency to appreciate further. Other – not subsidised industries – suffer export losses. Moreover, the subsidies have to be financed with taxpayers' money. Hitherto successful exporters earn good profits and pay high taxes. If their taxes are used to promote exports of other firms, which leads to the exports of the former shrinking, the tax base is shrinking also. Taxes have to be increased, a vicious cycle may be the consequence. Thus, it is the rent-seeking activities that partly decide about success and failure on export markets. Again, there is wide empirical evidence that protection to support certain industries represses structural change, for instance in OECD countries such as France, Germany or Italy. Those emerging countries that reformed their trade policy have been successful in creating new jobs (Sally 2008). Indeed, as SAIIA's research project on the political economy of trade reform shows, failure to consistently reform in this direction means that during macroeconomic crises reform becomes more painful.[26]

With respect to the trade balance, the protection does not change the deficit. The only consequence is that gross flows, both imports and export diminish. The reduced division of labour costs employment and growth world-wide, but particularly so in South Africa. The trade deficit remains high, as it is not a matter of trade policy, but of saving and investment decisions.

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[25] The phrase "improve" is misleading, as a proper positive BoP theory does not have normative implications.

[26] Details are available at http://www.saiia.org.za/index.php?option=com_content&view=article&id=103&Itemid=202.

4. Black empowerment

Directly after the end of Apartheid, South Africa has begun to enhance the chances of hitherto disadvantaged groups through the Black Economic Empowerment program (BEE). With this program, firms as well as the public sector are encouraged (with a system of strong economic incentives and punishments) to promote black individuals. While it is widely acknowledged that black economic empowerment is key to a peaceful development, there are flaws in the practical application. According to Andrews (2008), the program does not encourage firms to aim at the low-skilled section of the labour market. To the extent that this is true, then BEE is not addressing the most urgent education and training problems. Rather by focusing at the top level of firms, it may drive well-educated white individuals out of the country, which is counterproductive in the context of a structural skills shortage, and growth-reducing. A better way to improve chances for the hitherto disadvantaged part of the population would certainly be with addressing urgent education and training problems. Of course such policies are in place, albeit their efficacy is questionable.

5. Policies to foster competition

Our main thesis is that South Africa indeed can benefit very much from the net capital inflows. If they are maintained, they can be used to invest further, creating new jobs, thereby lifting the living standard of the poorest and increasing savings in the country. Higher savings would automatically reduce the net capital inflows in the future. Therefore, the country should not attempt to artificially reduce net capital inflows via policy means.

This implies not to target certain industries with the means of traditional industrial policy. Picking the winners may not be an appropriate strategy as the risk of failure is high. This risk is neither due to moral failure nor to a lack of effort. Uncertainty about future conditions in the world economy is simply too large to make good predictions of the world economy and in particular its structure. A second related question deals with trade barriers on imports. It has been shown theoretically as well as empirically as an inappropriate response to a deficit in the current account.

Thus, a sector oriented strategy is not adequate. Having said this, the government should not be inactive. Rather, there is plenty of room to manoeuvre. In the NIPF, this has been addressed as cross-cutting policy measures. We strongly support the view that the government should address the problem of low productivity by fostering technological change and basic technologies, and by enhancing education policy at all levels of education.

Next, the government should tackle the bottlenecks in infrastructure, i.e. electricity, transport and communication. The lack of networks' productivity and the high costs of using the network infrastructure are not mainly a problem of capacity, but rather of organisation and competition. The government should take efforts to liberalise, de-monopolise and finally regulate these – and other – sectors (OECD 2008) according to experiences in other countries. To give an example, efforts to enhance the quality and reduce the prices of telecommunications will be very beneficial for other sectors, e.g. the financial industry. Here a shift towards opening up the service sector to foreign competition, e.g. by signing the Fourth Protocol of the WTO, would be of essential importance. If it is possible to attract foreign investors in the telecommunication industries, a boost in productivity through out the economy could be the consequence. It would be a contribution to a beneficial debt cycle.

IV. CONCLUSIONS

The political reactions to the current account deficit in South Africa have been moderate so far. The discussion of the institutional and microeconomic foundations and consequences of the South African current account deficit since 2003 has taken up many reasonable arguments and the government has avoided responding in a premature and inadequate way.

This paper is an attempt to add a few more arguments – institutional and microeconomic – to the discussion and to show that there is scope for political action. However, this action should not be directed at supporting certain industries by means of currency manipulation or selective trade and industrial policies. Rather, the government should make use of instruments which it has already generated to increase domestic competition and thereby productivity, improve education and further open markets, in particular for services such as telecommunication, transportation and energy.

REFERENCES

Andrews, Matthew (2008), Is Black Economic Empowerment a South African Growth Catalyst? (*Or* Could it Be. . .), CID Working Paper No. 170, Harvard University.

Bernanke, Ben (2005): The Global Saving Glut and the U.S. Current Account Deficit. Sandridge Lecture, Virginia Association of Economics, Richmond Virginia.

Blignaut, Z., Greg Farrell and Logan Rangasamy (2008) Distinguishing between tradables and non-tradables, Studies in Economics and Econometrics, Vol 32(3), forthcoming November 2008.

Böhm-Bawerk, E. von (1914), 'Unsere passive Handelsbilanz', *Neue Freie Presse of 6/8 and 9 January 1914*, Böhm-Bawerk, E. von, *Gesammelte Schriften von Eugen von Böhm-Bawerk*, edited by Franz X. Weiss, Wien 1924, Reprint Frankfurt a.M. 1968, Vol. 1, pp. 499-515.

Chinn, Menzie and Shang-Jin Wei (2008), 'A faith-based Initiative: Do we really know that a flexible Exchange Rate Regime facilitates current account Adjustment' Journal of Economic Literature 2008

Clausen, Jens R. and Magda Kandil (2004), 'On the relation between the current and financial accounts: evidence from nine industrial countries', IMF Working Paper.

Cline, William R. (2005), The United States as a Debtor Nation, Peterson Institute for International Economics, Washington D.C.

Coates, Dennis, Jac C. Heckelman and Bonnie Wilson (2007), Special-Interest Groups and Growth, mimeo, Saint Louis University.

Corden, W. Max (2007), Those Current Account Imbalances: A Skeptical View, *The World Economy*, Vol. 30, pp. 363-382.

Corsetti, Giancarlo, Paolo Pesenti and Nouriel Roubini (1999), What caused the Asian Currency and Financial Crisis?, Japan and the World Economy, Vol. 11, pp. 305-373.

Dluhosch, Barbara, Andreas Freytag and Malte Krüger (1996), International Competitiveness and the Balance of Payments: Do Current Account Deficits and Surpluses Matter?, Edward Elgar, Cheltenham and Brookfield.

Dooley, Michael, David Folkerts-Landau and Garber, Peter (2003), 'An Essay on the Revived Bretton Woods System'. *NBER Working Paper 9971*.

Dornbusch, Rudiger, 1976. Expectations and Exchange Rate Dynamics, Journal of Political Economy, Vol. 84(6), pp. 1161 - 1176,

Draper, Peter and Phil Alves (2007), Déja Vu? The Department of Trade and Industry's National Industrial Policy Framework, Business Leadership Occasional Paper no 2, October 2007.

DTI (2007), Implementation of Government's National Industrial Policy Framework: Industrial Policy Action Plan, Pretoria.

Edwards, Lawrence and Robert Lawrence (2006), South African Trade Policy Matters: Trade Performance & Trade Policy, *CID Working Paper* No.135, October 2006.

Feenstra, Robert C. and Alan M. Taylor (2008), International Economics, Worth Publishers, New York.

Frankel, Jeffrey, Ben Smit, and Federico Sturzenegger (2006), South Africa: Macroeconomic Challenges after a Decade of Success, *CID Working Paper* No. 133, September 2006.

Freedom House (2008), Freedom in the World, http://www.freedomhouse.org/template.cfm?page=15, visit August 2008

Freytag, Andreas (2008a), That Chinese Juggernaut: Should Europe Really Worry about Its Trade Deficit with China?, ECIPE Policy Briefs 2/2008, Brussels.

Freytag, Andreas (2008b), Balance of Payments Dynamics, Institutions and Economic Performance in South Africa: A Policy Oriented Study, TIPS Working Paper, forthcoming.

Gouws, Rudolf (2008), South Africa's current account deficit and exchange rate dynamics: the empirics, paper presented on a SAIIA/TIPS/FES-workshop Balance of Payments Dynamics, Institutions and Economic Performance in South Africa, Pretoria, August 13, 3008.

Griswold, Daniel T. (2001), 'America's Record Trade Deficit. A Symbol of Economic Strength', Trade Policy Analysis No.12, Cato Institute.

Gwartney J, Lawson R, et al. (2007) Economic Freedom in the World – 2007 Annual Report. Fraser Institute, Vancouver, http://www.freetheworld.com/release.html, visit August 2008.

Hausmann, Ricardo (2008), Final Recommendations of the International Panel on ASGISA, CID Working Paper No. 161, Harvard University.

Hausmann, Ricardo and Bailey Klinger (2006), 'South Africa's Export Predicament', *CID Working Paper* No.129, August 2006.

Hodgson, Geoffrey M. (ed.) (1993), The Economics of Institutions, Edward Elgar: Aldershot and Brookfield.

Iley, Richard A. and Mervyn K. Lewis (2007), Untangling the US Deficit – Evaluating Causes, Cures and Global Imbalances, Edward Elgar, Cheltenham and Northampton, MA.

IMF (a), International Financial Statistics, current issue, Washington D.C.

IMF (2007), South Africa. Country Report 07/274. Washington D.C.

Kindleberger, Charles P. (1963), International Economics, 3rd edition, Richard D. Irwin Inc., Homewood, Illinois.

Knight, Malcolm and Fabio Sacciavillani (1998), *Current Accounts: What Is Their Relevance for Economic Policymaking?*, IMF Working Paper No. 98/71, International Monetary Fund, Washington D.C.

Krugman, Paul R. (1994), Competitiveness: A Dangerous Obsession, Foreign Affairs, Vol. 73, pp. 28-44.

Loko, Boileau et al. (2003), *The Impact of External Debt on Poverty in Low-Income Countries*, IMF Working Papers 03/61, Washington D.C.

Mann, Catherine (1999), *Is the U.S. Trade Deficit Sustainable?,* Institute for International Economics, Washington D.C.

Meyer, Fritz W. (1938), Der Ausgleich der Zahlungsbilanz, Jena.

Obstfeld, Maurice and Kenneth Rogoff (1994), *The Intertemporal Approach to the Balance of Payments*, NBER Working Paper No. 4893.

OECD (2008), South Africa – Economic Assessment, OECD Economic Surveys Volume 2008/15, Paris.

Ragnitz, Joachim (1989), Der internationale Zinszusammenhang, Institut für Wirtschaftspolitik, Cologne.

Rodrik, Dani (2006), Understanding South Africa's Economic Puzzles, *CID Working Paper* No. 130, August 2006.

Sally, Razeen (2008), Trade Policy, New Century, IEA Hobart Paper 163.

Sandrey, Ron et al. (2007), South Africa's Way Ahead: Trade Policy Options, Tralac, AusAID, Stellenbosch.

Siebert, Horst (1987), Foreign Debt and Capital Accumulation, *Weltwirtschaftliches Archiv,* Vol. 123, pp.618-30.

Siebert, Horst (1989), The Half and the Full Debt Cycle, *Weltwirtschaftliches Archiv,* Vol. 125, pp. 217-229.

Smit, Ben (2007), The Sustainability of South Africa's Current Account Deficit, Paper presented at the Biennial Conference of the Economic Society of South Africa, September 10-12, 2007, Johannesburg.

South African Institute for Economic Affaira (2008), Development through Trade Program, www.saiia.org, visit in August 2008.

South African Reserve Bank (2001), Quarterly Bulletin, December 2001, Pretoria.

South African Reserve Bank (2008), Quarterly Bulletin, June 2008, Pretoria.

Statistics South Africa (2008), www.statssa.gov.za, several series, visit August 2008.

The Economist (2008), A future of division, factionalism, stagnation and patronage, The Economist of August 8th 2008.

Transparency International (2008), Corruption perception Index, http://www.transparency.org/, visit in August 2008.

UNDP (2008), Human Development Report, http://hdr.undp.org/en/statistics/, visit August 2008.

v. Hayek. Friedrich A. (1975) Die Anmaßung von Wissen, Reprint of the Nobel Lecture, *ORDO, Vol*. 26, pp.12-21.

WTO (2008), Trade Statistics, www.wto.org, visit August 2008.

ANNEX 1: DATA

Table A1: Tradables vs. non-tradables (historical metropolitan areas), for the calculation of relative prices

Products	of which	weight (per cent)	T or NT
Food		20.99	T
Non-alcoholic beverages		1.10	T
Alcoholic beverages		1.40	T
Cigarettes, cigars, tobacco		1.14	T
Clothing and footwear		3.25	T
Housing		22.14	NT
Fuel and Power		3.49	T
Furniture and equipment		2.53	T
Household operation			
	household consumables	1.25	T
	domestic workers	3.48	NT
	other household services	0.09	NT
Medical care and health exp.		7.15	NT
Transport			
	vehicles	5.95	T
	running cost	7.05	NT
	public and hired transport	1.84	NT
Communication		2.98	T
Recreation and entertainment		3.31	NT
Reading matter		0.39	NT
Education		3.48	NT
Personal care		3.67	NT
Other		3.32	T

Structure after weights: 47.4 per cent tradables and 52.6. non-tradables
Source: Statistics South Africa, Series P0141, own assessment, based on Blignaut, Farrell and Rangasamy (2008).

Table A2: Tradables vs. non-tradables, for the calculation of value-added

Sector	T or NT
Agriculture, forestry and fishing	T
Mining and Quarrying	T
Manufacturing	T
Electricity, gas and water	NT
Construction	NT
Wholesale and retail trade, hotels and restaurants	T
Transport, storage and communication	T
Finance, real estate and communication	NT
General government	not included
Personal services	NT

Table A3: Capital and consumption goods according to WTO statistics

Agricultural products	consumption goods
Food	consumption goods
Fuels and mining products	consumption goods
Fuels	consumption goods
Manufactures	Undecided
Iron and steel	capital goods
Chemicals	capital goods
Pharmaceuticals	capital goods
Machinery and transport equipment	capital goods
Office and telecom equipment	capital goods
Electronic data processing and office equipment	capital goods
Telecommunications equipment	capital goods
Integrated circuits and electronic components	capital goods
Automotive products	Undecided
Clothing	Consumption goods
Textiles	Consumption goods

Source WTO (2008), own assessment.

ANNEX 2: INSTITUTIONAL INDICATORS

1. Human Development Index (HDI), published by the UNDP (2008). It is normed between zero and one, with one being the highest possible score, and combines four categories: life expectancy at birth, adult literacy rate, combined gross school enrolment rate and GDP per capita. The South Africa rank and score have decreased, in particular due to a reduction of life expectancy at birth. The HDI is not quite an indicator of an institution, rather a de facto result of governance quality.

2. Corruption Perception Index (CPI) as published by Transparency International (2008). It is based on questionnaires; if a country is assessed in a minimum number of these, it will get a score. This procedure makes both an international and an intertemporal comparison difficult, as not each questionnaire is conducted every year and not all countries are covered by all questionnaires. In addition, it is based on personal experiences of foreigners with a country and, therefore, may be biased, but probably less than a questionnaire answered by the citizens of the same country. The CPI ranges from 1 to 10, the latter indicating less corruption.

3. and 4. Freedom House (2008) publishes two indicators biannually, the indicators of Civil Liberties and Political Rights, respectively. Both are ranging from one to seven. The higher the score the less freedom the citizens of a country have. The indicators are based on a checklist, which can be downloaded on the website of Freedom House (2008). A score of 2 indicates that the country is almost free.

5. The Fraser Institute (Gwartney, Lawson et al. 2008) publish an index of Economic Freedom, which is based on 21 criteria within five groups:

1. Size of government, including information about government consumption, subsidies and taxes (South African score 2005: 5.5).
2. Legal system, consisting of information about property rights, judiciary independence, impartial courts, intellectual property rights, the role of military in politics and general acceptance of the law (score 2005: 7.0).

3. Monetary soundness (score 2005: 8.0).
4. Freedom to trade with foreigners, including information about barriers to trade and capital restrictions (score 2005: 6.6).
5. Regulation, including banking regulation, labour market regulation, business regulation and corruption (score 2005: 6.8).

This indicator is ranging between zero and ten, a higher score indicating higher economic freedom. A country is interpreted as free if the score is 7.5 or higher. As data for all sub-indicators are available (see the scores above in brackets), the index of Economic Freedom is either comprehensively or only in parts frequently in use for institutional analysis and has proven rather robust in its relationship with economic performance.