


Evidence-based Employment Scenarios

Exchange Rate and Employment Project: Overview

S. Ngandu

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Stewart NGANDU

Researcher
Employment Growth & Development Initiative
Human Sciences Research Council (HSRC)

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Contact: Dr Miriam ALTMAN

Executive Director: Employment Growth & Development Initiative, HSRC

E-mail: maltman@hsrc.ac.za

Tel: +27 12 302 2402

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Background

This paper briefly summarises the HSRC's project to investigate the relationship between the exchange rate and employment outcomes, and possible policy implications. On the one hand there seems to be consensus that the currency is too volatile and that something should be done to address this volatility. On the other hand, the debate on what an employment-inducing exchange rate should be is somewhat missing from the policy debate around monetary policy. The suite of papers in the exchange rate project tries to fill these gaps.

The exchange rate affects employment through many channels. For the macroeconomic channel, the traditional view argues that an exchange rate depreciation, ceteris paribus, improves the competitiveness of a firm's exports, which in turn leads to an increase in the firm's demand for labour and other inputs that go into the production process. This view hinges on a number of assumptions such as the existence of idle capacity and unemployment. From a development perspective, a given exchange rate policy together with a commensurate industrial policy can be growth-inducing, for example, a competitive exchange rate aligned with an appropriately specified outward-oriented industrial strategy can induce a labour-absorbing growth process. However, it should be noted that there are difficulties in implementing a competitive real exchange rate policy in the present global financial context. Finally, there is the labour intensity channel where the exchange rate affects the labour intensity of output in the tradable sector. This occurs through the real exchange rate's impact on relative prices. For example, in the case of an overvalued exchange rate, by making the price of capital relatively cheaper it can lead to the substitution of labour for capital. It is important to understand that these channels are broad generalisations whose attainment in reality depends on many other assumptions being satisfied.

This overview gives a general summary of the papers in the broad exchange rate and employment project. There are nine papers, some of which are complete, while others are still to come. They include:

1. Volatility of the real exchange rate of the rand: 1990 – 2004.
2. The effect of exchange rate volatility on trade and employment: a brief review of the literature.
3. Resource-based exports and the rand.
4. International findings on the relationship between the exchange rate and employment.
5. The impact of exchange rate movements on employment: the economy-wide effect of a rand appreciation.
6. Company strategies.
7. Estimation of the equilibrium real exchange rate.
8. Policy options.
9. Synthesis.

1 Volatility of the real exchange rate of the rand: 1990 – 2004

The first two background papers address issues of volatility, with the findings from these papers confirming 'perceived wisdom' that the rand is a relatively volatile currency. Using non-econometric methods, the working paper studies four main related aspects of the rand exchange rate: the level of the real effective exchange rate of the rand, the volatility of the exchange rate, reasons for the observed volatility, and protection against such volatility. The paper also gives a brief explanation of the foreign exchange market and how speculation can occur in the South African market even though it is prohibited. It is argued that local transactions with a speculative motive need not contravene exchange control regulations. For example, the passive decision by importers and exporters not to take forward cover may imply the expectation that the rand will change in their favour within the relevant time horizon. In trying to understand how firms respond to exchange rate movements, the paper distinguishes between the existing level of the exchange rate, the volatility of the trend in the exchange rate and the volatility of the exchange rate around its trend. This is an important distinction, as it will be seen in the Company Strategies paper. The level of the exchange rate at the end of 2004 suggests that the competitiveness of South African manufactures is around its longer-term historical average. However, the more recent volatility in the trend of the rand may have led to a negative hysteresis effect on manufacturing in the export and import-substitution industries.

The 1990 – 2004 period is divided into three main episodes of rand depreciation and two main episodes of appreciation, each of which are examined with regard to balance of payments pressures on the foreign exchange market. The paper then looks at measures of volatility of the rand around its trend. Both the annual mean absolute value and standard deviation of the monthly percentage changes in the real effective exchange rate have increased significantly since the early 1990s. These short-term measures of exchange rate volatility peaked in 1998, 2001 and 2004 but were more subdued between 1990 – 1995 and 1999 – 2000. The paper ends by describing the various types of risk companies are exposed to through changes in the exchange rate and how they might protect themselves against such risks. The transactions and translation risks from short-run volatility of the exchange rate can be covered using forward exchange contracts or more sophisticated hedging facilities using foreign currency options, futures and swaps. The survey, however, shows that in reality it is not as easy as suggested by theory, as there seems to be some factors that prevent firms from always taking cover.

Overall, the main concern is with persistent changes in the real level of the rand, which may imply a macroeconomic misalignment of the exchange rate, and with longer-term volatility or swings in the real exchange rate. This paper suggests that the real appreciation of the rand from its low point in December 2001 to its level at the end of 2004 is essentially a recovery from earlier episodes of depreciation. More plausible than the argument that the level of the rand is 'uncompetitive' is the possibility of a significant hysteresis effect resulting from sustained swings in the trend of the real exchange rate.

2 The effect of exchange rate volatility on trade and employment: a brief review of the literature

This paper looks at the relationship between exchange rate volatility on international trade and on employment or unemployment in the countries concerned.

2.1 The effect of exchange rate volatility on international trade

The evidence from both the theoretical models and empirical research is inconclusive as to the impact of volatility on trade. The ambiguity from the empirical literature is in some cases caused by difficulties in modelling the relationship and other technical issues such as how to measure risk.

2.2 The effect of changes in exchange rates on employment

The literature on the impact of the exchange rate on employment is limited, with a significant number of these studies focusing on developed countries. Here the results tend to be country-specific, with most studies on the US, for example, showing that there is a negative impact on employment. On the other hand there are studies that show that the exchange rate does not influence employment in the expected way.

It will be interesting to see from the results of the survey how South African firms respond to both the volatility of the exchange rate and the volatility of the trend of the rand.

3 Resource-based exports and the rand

The resource paper identifies potential links between commodity prices, the exchange rate and employment outcomes. There is sufficient evidence to show that the movement of the exchange rate is strongly influenced by the commodity price cycle, as confirmed by a number of academics and lead bank economists. The main concern is to understand how Dutch disease effects may negatively impact on labour-intensive export manufacturing. In other words, can commodity prices (or financial flows arising out of a commodity boom) drive the exchange rate to levels that reduce the competitiveness of labour-intensive exports, leading to adverse consequences on employment in this sector? Conversely, can they be displacing of production aimed at the domestic economy? Both the preliminary findings from the sector paper and the survey seem to suggest that the exchange rate can have an adverse impact on export manufacturing. The subsequent volatility in the exchange rate from fluctuating mineral prices has a direct impact on the level of competitiveness and hence the potential de-industrialisation of the manufacturing sector. The review finds evidence in the literature that mineral prices are a significant determinant of the real exchange rate in South Africa. It also finds evidence that alludes to the existence of co-movements between the exchange rate and mineral prices. Furthermore, there is evidence that points to the conclusion that the exchange rate has an impact on manufacturing output and employment, as suggested by the Dutch disease literature.

What is interesting to note is that the questions raised in this paper about the impact of commodity price-induced changes in the exchange rate on the traded sector are answered in the paper on the economy-wide effect of a rand appreciation.

4 International findings on the relationship between the exchange rate and employment

This paper looks at the exchange rate policies of countries that achieved high labour-absorbing growth paths. While exchange rates are only one policy instrument in an employment and growth policy, commonality in policy approach amongst fast-growing economies might give some pointers to South African thinking on these matters.

The paper finds that the most common approach to stabilising the exchange rates of these high-growth countries was through the accumulation of reserves. According to the World Bank (1993), many of the policies that fostered macroeconomic stability also contributed to rapid export growth. Fiscal discipline and high public savings allowed Japan and Taiwan and China to undertake extended periods of exchange rate protection. Adjustments to exchange rates in other high-performing Asian economies were validated by policies that reduced expenditures and kept them competitive, despite differential inflation with trading partners. The rapid accumulation of reserves is also seen as a sign of the under-valuation of a country's currency.

The paper on the international findings of the relationship between the exchange rate and employment highlights the importance of the role exchange rates played in fast-growing economies – almost all the countries that experienced significant growth in the recent past have had undervalued exchange rates.

5 The impact of exchange rate movements on employment: the economy-wide effect of a rand appreciation

One of the empirical findings from the literature on the impact of an exchange rate appreciation on employment is that the effect is sector-specific, with the net effect depending strongly on the balance between winners and losers. The fifth paper in this series, on the economy-wide effect of a rand appreciation on the South African economy, has also found that the impact of a rand appreciation (in this case induced by an increase in commodity prices) is sector-specific, with the relatively traded sectors facing the full impact of the appreciation whilst non-traded sectors seem to experience a small growth spurt. This growth can cause a feeling of exuberance as it can contribute to short-run growth and net employment growth.

However, this exuberance can mask Dutch disease causes. In the medium and long run, it can explain slow growth or stagnation in labour-absorbing tradables sectors. During the growth spurt, profits fall in manufacturing, raising questions about what the position of the economy will be when the commodity price boom is over. Will manufacturing sectors that have shrunk or remained stagnant during the boom be able to recover sufficiently to replace the earnings lost when commodity prices fall?

6 Company strategies

This paper will review 'real-world' exchange rate impacts on a sample of small and large firms, across manufacturing and services industries. It will consider the impact on both importers and exporters. Comparisons between sectors are needed because they are affected by institutional settings, management practices and technological and competitive shocks in different ways, which will ultimately determine their response to the level of the rand and its volatility.

Company survey

The survey will comprise of company interviews. The objective of the survey will be to assess:

- Whether companies find it easy to access forward contracts to hedge against exchange rate risk.
- The current impact of the strong rand from the firm's perspective.
- Company and institutional views as to what can be done to address the issue of the strong rand and its volatility.
- The extent to which their employment and investment decisions have been affected by the exchange rate situation
- The kinds of strategies companies use in the face of volatility.
- Which financial products to manage exchange rate risk are available for South African companies locally and internationally?
- Which financial products are used internationally to assess the 'global frontier' of capability in this regard?

The following survey methodology will be used.

- High-level, semi-structured interviews will be conducted amongst a cross-section of 40 businesses, experts and financial institutions. We will attempt to make use of export council databases.

Although the paper on company strategies is still in progress, there are some preliminary results from part of the sample that has been interviewed to date. At this point it is difficult to say where the gaps are in the analysis of the survey.

However, the researchers have found that "it is quickly apparent that the reactions of firms to both the level and volatility of the exchange rate occurs within their particular industry dynamics, and the final report will attempt to map out these specifics in each case by describing the market structure in each cluster, concentration, key resources, openness to trade and so on.

"However, themes from the interviews – which cut across the sectors – have emerged. It appears that a firm's management of the exchange rate relates to its ability to pass on exchange rate risks to buyers, to source inputs from different suppliers, to locate different markets and, ultimately, to make operational changes which aid its survival."

This paper will help to answer some of the questions raised in the background papers on volatility. The responses of the interviewees about investment are interesting and will feed into the Sector paper as well.

7 Estimation of the equilibrium real exchange rate

This part of the exchange rate and employment project recognises the importance of the real exchange rate to the South African economy. As in any open economy, misalignments from its long-run equilibrium level have significant effects on economic growth, income distribution and poverty. The Accelerated and Shared Growth Initiative of the South African government recognises and reflects this. Research for this working paper is designed to produce robust estimates of South Africa's long-run equilibrium real exchange rate and measures of misalignment, with a particular emphasis on unemployment.

The proposed research, using published data, is to apply time-series models to estimate:

- Long-run equilibrium real exchange rates.
- Deviations from long-run equilibrium rates.
- Speeds of adjustment.

8 Policy options

The policy paper will explore the following policy questions:

- What are the options available to the South African government and the Reserve Bank to reduce exchange rate volatility?
- What are the options available to the South African government and the Reserve Bank should there be a desire to intervene to influence the exchange rate?
- What is the international experience in applying the range of instruments and how are these relevant to South Africa?