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**Does South Africa Have the Potential and Capacity to Grow at 7
Per Cent?: A Labour Market Perspective**

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DOES SOUTH AFRICA HAVE THE POTENTIAL AND CAPACITY TO GROW AT 7 PER CENT?:

A LABOUR MARKET PERSPECTIVE

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Abstract

Facing the challenge to adjust, the question is to what extent South African markets, specifically labour and investment markets, are flexible enough to enhance its global competitiveness, without having to revert to inward domestic protectionism. In investigating the level of flexibility in this regard, we need to determine the adjustment potential or capacity of the South African economy. However, modelling potential output and/or capacity is problematic.

Building on previous research, this paper's estimation of potential output for South Africa is based on a structural production function relationship with the maximum level of output consistent with stable inflation, supported by a full-scale macro-econometric model which is primarily supply-side driven, with capacity utilisation (or the output gap) as one of the key drivers of economic activity. The extent to which capacity is utilised in the economy is determined (defined) by the actual output (gross domestic product) relative to the potential of the economy to generate gross domestic product.

Following this approach, South Africa's potential employment needs to be determined. Does the entire labour force of working age have the potential and necessary skills to fill the available vacancies in the job market? On the contrary, our belief is that there exist certain constraints/rigidities in the labour market, which reduce the ranks of the potentially employable. In order to capture this effect, we assume that some "equilibrium or natural rate of unemployment" exists. Therefore, we presuppose a NAWRU – a natural rate of unemployment consistent with stable wage inflation.

Ideally speaking, the NAWRU of an economy should be stable and not trending. However, the estimate we obtain for the NAWRU of the South African economy is increasing at a steady rate, suggesting severe structural problems in the economy, in particular, the labour market. Using this calculated NAWRU, we obtain estimates for potential output based on the structural production function approach. Our results indicate that the capacity of the South African economy is lower than conventionally expected. This reveals the essence of the impediments on the South African economy, primarily due to the sizeable constraint posed by rising labour market disequilibrium.

JEL Classification: E23, E24, C32

Keywords: capacity utilisation, potential output, NAWRU, macro-econometric model

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1. INTRODUCTION

A growth rate of 7 per cent! The Commission for Africa, established under the auspices of the British Prime Minister, envisages this target to be achieved in the African continent by the year 2010. Echoing these sentiments, our Finance Minister, Trevor Manuel agreed that such a target was not only realisable for Africa, but also expressed his desire that South Africa would also achieve such unprecedented economic growth.

Whilst business leaders and trade unionists alike seemed optimistic about South Africa's potential to obtain such a rate of growth, economists (as they are probably prone) were much less positive. Reasons cited for this pessimism were the ever-widening skills gap in the labour market, the backlog of socio-economic infrastructure needs, the country's cumbersome regulatory environment and consistently poor household savings levels. All these arguments are of course self-evident, based on sound economic reasoning, and the constraints they place on the South African economy are unfortunately, very real. What this paper attempts, is to bring some empirical rigour to this debate based on the previous research of one of its authors (Du Toit and Moolman, 2003). Does South Africa have the potential and the capacity to grow at 7 per cent?

By growth, we of course, mean growth in economic output. Generally speaking, output is determined by the quantity and quality of the various factors and their productivity employed in its production. Potential output, is then an indication of the aggregate supply capabilities of the economy and embodies information about developments in the stock of capital, the labour force and technical change. The actual level of output on the other hand, is also influenced by the demand for goods and services. Deviations between the potential and actual levels of output, designated as the output gap, thus provide a measure of the capacity utilisation of the economy, and to the extent that demand factors are incorporated, a measure of relative supply and demand in the economy at a particular time. As such, it contains useful short-term information for the formulation of economic policy, particularly policies aimed at controlling inflation. Over the

medium term, the growth rate of potential output provides a useful guide for the assessment of sustainable non-inflationary growth in output and employment. Therefore, in a macroeconomic context, capacity utilisation (or the output gap) serves as a determinant of the behaviour of prices and wages and influences all key macroeconomic variables through a well-developed supply system.

If the economy is producing at levels exceeding full capacity, that is, if actual output exceeds the potential of the economy, the economy is “overheated” and production prices and wages start to rise. Given this subsequent impact on consumer prices, monetary policy will ultimately have to intervene to deflate the economy by increasing interest rates.

Therefore, the challenges for policy makers are twofold: (1) to know what the excess or available production capacity of the economy is and to direct economic policy accordingly; and (2) to design policy to increase the productive potential of the economy towards sustainable, non-inflationary growth in output and employment.

However, modelling the output gap or capacity utilisation is a complicated matter for a number of reasons. First, different concepts of potential output have been proposed in the literature and are used in different models. Second, a wide variety of empirical methods are used to measure potential output, ranging from time-series and trend-type analyses to production function-based methodologies, with the precise results sensitive to the method chosen. Finally, actual output could be determined directly from Keynesian demand or by using a production function (supply) approach.

This paper is outlined as follows: in the next section, the theoretical methodologies and concepts are presented. The different methods of estimating potential output and capacity utilisation are explained in section three. In section four the empirical results are presented. Lastly, section five

highlights some of the policy measures that can be used in addressing the problems revealed in section four.

2. MEASURING POTENTIAL OUTPUT AND CAPACITY

The concept of “potential output” is not well defined in the literature and different applications exist in production analyses. Does “potential” refer to the maximum attainable level of production such as has been demonstrated at peak periods in the past, or does it refer to a sustainable level of production in the sense that production can continue at this level without major constraints emerging?

Furthermore, the methodologies employed in measuring potential output and its deviation from actual output (i.e. the output gap) also differ.

Two important and commonly used measures can be identified. First, structural production function techniques, where measures of potential output that are structural and depend on a production function framework, incorporating information concerning the capital stock, working population, trend participation rates, structural unemployment and factor productivity developments. Specific attention may also be given to the sustainability of non-inflationary growth associated with the labour market, in which case information about both actual rates and underlying natural rates of unemployment is utilised (i.e. the non-accelerating wage rate of unemployment, or NAWRU).

A second set of measures is derived by applying time-series (mostly smoothing) techniques to actual developments in real GDP. The most commonly used time-series technique is the Hodrick-Prescott (1997) filter. Though parsimonious in their use of information, these methods are mechanical and have difficulty in dealing with frequent structural changes. They therefore

require *ad hoc* judgements about the current cycle in order to keep the results within reasonable bounds.

When applying the first method, incorporating a stochastic production function-framework, a distinction needs to be made between “potential” and “normal” output. Modelling potential output as opposed to normal output requires the estimation of potential levels of factor inputs. “Normal” output, defined as the production level with the current quantities of factor inputs and operating at a “normal” or trend rate of utilisation, is usually obtained by smoothing the various components of the production function (Turner *et al.* 1996).

It should be noted that from the point of view of macroeconomic analysis, the structural production-function approach is preferred. The most important limitation of any smoothing method is that it is largely mechanistic and ignores all structural properties associated with production. Aspects such as the availability and quality of factors of production, their productivity, the production technology and technical progress, and all other exogenous influences are not taken into account. The trend output growth projected by time-series methods may be inconsistent (too high or too low) with what is known or being assumed about the growth in capital, labour supply or factor productivity. The trend growth may also be unsustainable because of the ignored inflationary pressures.

A structural production function approach therefore has the advantages of overcoming the above-mentioned shortcomings, incorporating the role of demand pressure on employment and inflation and allowing for consistent judgement on some of the key elements. The production function approach explicitly models a production technology in terms of factor inputs, factor technology and to some extent the role of technical progress. Potential output is then determined as the level of output that results when the factors of production and total factor

productivity are at their “potential” levels. The output gap (capacity utilisation) is calculated as the ratio¹ between the potential and actual levels of output.

Finally, a clear distinction should be made between capacity utilisation, measuring the actual relative to potential output (gross domestic product) and excess demand, measuring gross domestic expenditure relative to actual gross domestic product. The latter influences consumer prices and is related to the business cycle, which captures movements in aggregate demand in relation to a slowly adjusting level of aggregate supply.

3. ESTIMATING POTENTIAL OUTPUT AND CAPACITY UTILISATION

The methodology

The particular concept of potential output selected for the purpose of modelling the supply-side of the South African economy, refers to the maximum level of output that is consistent with stable inflation. Capacity utilisation is therefore defined as the ratio between actual production (production function-based) and potential, not normal output, incorporating the role of the non-accelerating wage rate of unemployment (NAWRU). This particular concept was chosen in line with the emphasis on the labour market and the control of inflation as a key medium-term priority. In addition, its use ensures consistency between labour market equilibrium and product market equilibrium in the supply-side model.

The analytical framework

The estimation of potential output for South Africa is based on a structural production-function relationship, with the maximum level of output consistent with stable inflation. The level of unemployment and its associated non-accelerating wage rate are incorporated in the estimation of potential employment. This approach was adopted from the OECD (Torres, *et al.* 1989 and Giorno, *et al.* 1995).

¹ Capacity utilisation or output gap is determined as the difference between potential and actual output if the logarithmic forms of the variables are used.

The estimated production function for South Africa has proven to be of Cobb-Douglas technology (Du Toit, 1999) and is represented by the following expression:

$$Y = A_t K_t^\alpha N_t^\beta \quad (1)$$

with

$Y_t =$ *actual gross domestic product at factor cost*

$A_t =$ *unobservable technical progress or technology (including factor productivity)*

$N_t =$ *actual employment*

$K_t =$ *actual capital stock*

$\alpha =$ *capital share parameter*

$\beta =$ *labour share parameter*

($\alpha + \beta$) is restricted to 1; assuming constant returns to scale technology

Potential output is determined by substituting trend total factor productivity (A^*), actual capital stock² (K) and potential employment (N^*) back into the estimated production function.

In this analysis the measure of potential employment is defined as the level of labour resources that might be employed without resulting in additional inflation. This amounts to adjusting the actual labour input used in the estimated production function for the gap between actual unemployment and the estimated non-accelerating wage rate of unemployment (NAWRU). However, should “potential” be defined as the maximum output level, then potential employment would be represented by the entire labour force of working age (economically active population), thereby assuming that everyone of working age (excluding those voluntarily unemployed) has the potential and necessary skills to fill the available job openings. Should

² Since our focus is the labour market, and not the capital market.

“potential” be defined as the “trend” or “normal” levels of factor utilisation, a time-series measure such as the Hodrick-Prescott filter may be used (Turner *et al.* 1996).

However, in this case the level of potential employment (N^*) is calculated as:

$$N^* = LFS (1 - NAWRU) \quad (2)$$

where: LFS = *the smoothed labour force (the product of the economically active population and the trend participation rate);*

$NAWRU$ = *the estimated non-accelerating wage rate of unemployment.*

The method adopted to measure the NAWRU (Pichelmann and Schuh, 1997) essentially assumes that the change in wage inflation is proportional to the gap between actual unemployment and the NAWRU (Elmeskov and MacFarlan, 1993). Assuming also that the NAWRU changes only gradually over time,³ successive observations of the changes in inflation and actual unemployment rates can then be used to calculate a time series corresponding to the implicit value of the NAWRU. More specifically, it is assumed that the rate of change of wage inflation is proportional to the gap between actual unemployment and the NAWRU, thus:

$$D^2 \log W = -a(U - NAWRU), \quad a > 0 \quad (3)$$

where D is the first-difference operator and W and U are the real wage and unemployment rates, respectively. Assuming the NAWRU to be constant between any two consecutive time periods, an estimate of a can be calculated as:

³ This is based on the assumption of partial hysteresis: actual unemployment feeds only partly into future equilibrium unemployment. In this case unemployment evolves only slowly towards its steady-state level. In such a situation, the short-run NAWRU – meaning the level of unemployment at which there is no current upwards or downwards pressure on inflation – always lies between steady-state equilibrium unemployment and last period’s actual unemployment. This carries the implication that high unemployment can only be slowly reduced to its long-run equilibrium level if temporary increases in inflationary pressures are to be avoided (Pichelmann and Schuh, 1997).

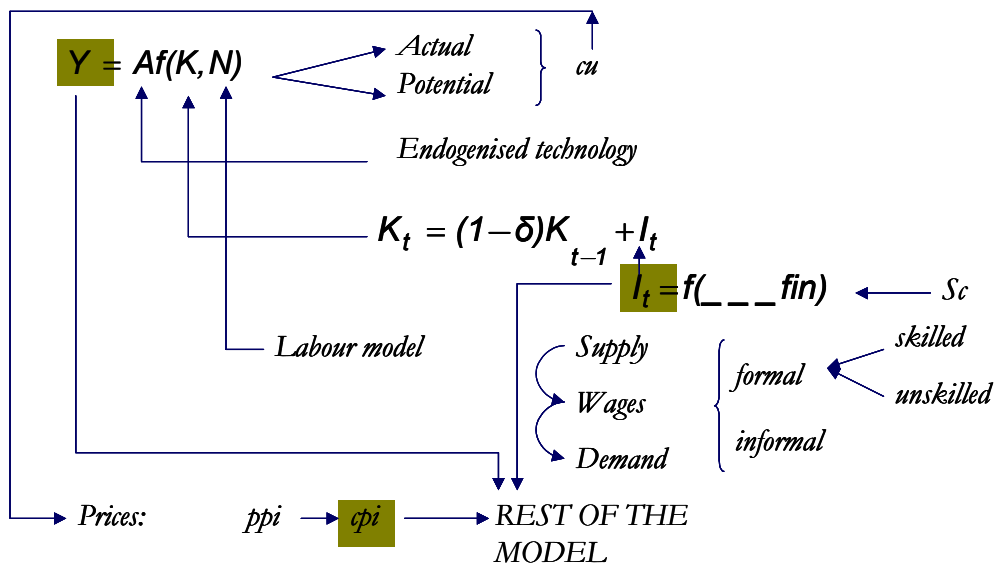
$$a = -(D^3 \log W) / DU \quad (4)$$

which, in turn, is used to give the estimated NAWRU as:

$$NAWRU = U - (DU / D^3 \log W) D^2 \log W . \quad (5)$$

The resulting NAWRU series is then smoothed, again using a Hodrick-Prescott filter to eliminate erratic movements. The information utilised in the above expression for the NAWRU is endogenised. Both the unemployment and the real wage rates result from a consistent neoclassical labour model (distinguishing between the skilled and unskilled markets), which in turn forms part of a supply-side model (see figure1) for South Africa where prices are also endogenously determined by the system as a whole. This measure for the NAWRU can therefore be classified as a wage-price model approach.

Figure 1: Supply-side structure of the macro-econometric model



The NAWRU can be interpreted as the rate of unemployment at which the wage inflation will be constant, and therefore, theoretically it can be referred to as the “equilibrium or natural rate of unemployment”.

Endogenising technological progress

Endogenising technological progress has been approached as follows (Du Toit, *et al.* 2004). The Cobb-Douglas production function (equation 1) has, in place of A_t , a time-varying coefficient (ξ_t). The model essentially contains three equations, namely, the two equations set out below to obtain a measure for total factor productivity or technological progress, and then the explanation thereof.

$$Y_t = \xi_t K_t^\alpha N_t^\beta e^w \tag{6}$$

$$\xi_t = \xi_{t-1} + v_t \quad v_t \sim N(0, Q). \tag{7}$$

with

w, v_t = Stochastic disturbance terms

ξ_t = The time varying constant, representing technological progress

Equation (6) represents the measurement (or observation) equation of the state-space model in Kalman filter terms, while equation (7) represents the state (or transition) equation.

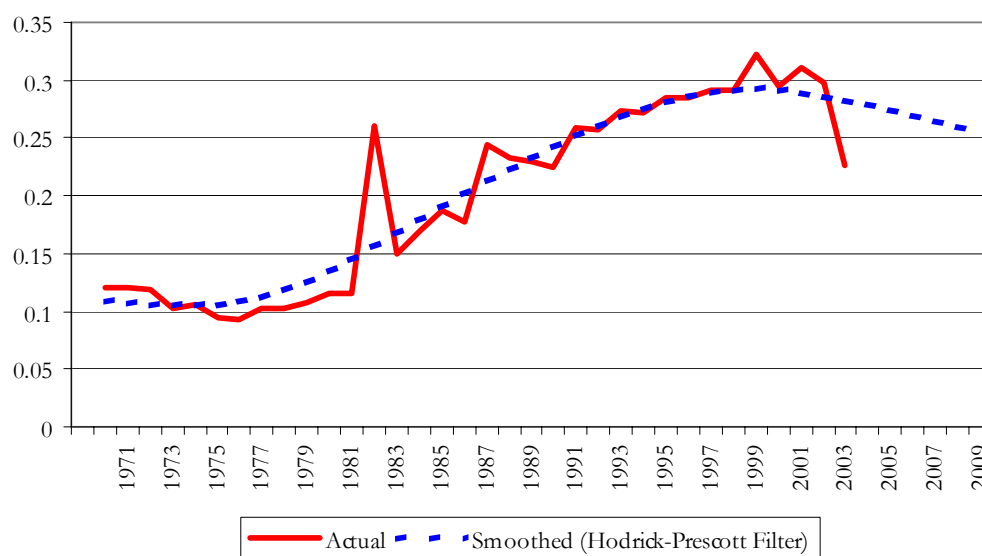
In a subsequent step, the variable representing technological progress is then explained using variables such as expenditure on R&D, patents registered and the number of scientists and engineers. Technology transfer is allowed for by two variables, namely a measure of the openness of the economy to international trade and other international factors (represented by a weighted-average index) such as exchange rate, foreign investment, level of domestic and international competitiveness, share in world trade, etc. The latter also captures the underlying institutional factors in the economy.

4. ESTIMATION RESULTS

The South African NAWRU

The estimate for the NAWRU of the South African economy is given in figure 2. It is increasing at a steady rate, suggesting severe structural problems in the economy as a whole, and the labour market in particular.

Figure 2: South African NAWRU



The results imply that an “equilibrium” rate of unemployment, and therefore a unique long-run NAWRU to which the unemployment reverts in the long run, does not exist. This is in line with a growing number of empirical studies (Pichelmann and Schuh, 1997) that suggests that the equilibrium unemployment rate may be described by a non-stationary time-series, incorporating both a deterministic and stochastic trend component.

This increasing rate is attributed to the hysteresis (Pichelmann and Schuh, 1997) nature of unemployment in South Africa, which in turn is based on the behaviour of labour market

participants, changes in their productive capacity caused by unemployment and the resulting consequences for wage bargaining and the matching process between workers and jobs. The general idea is that a distinction be drawn between insiders and outsiders in the labour market, i.e. a dual labour market exists. Each of these groups carry different weights in the wage bargaining process. When unemployment by itself tends to reinforce the outsider status of those affected, then the moderating impact of higher unemployment on wages will vanish over time. The same result will emerge when the (employed) insiders have sufficient market power, probably fostered by employment protection regulations, to safeguard their income claims and employment status against outside labour market conditions. Finally, a growing number of unemployed outsiders may create information distortions in the labour market, thereby making it more difficult to form suitable matches between workers' characteristics and the skill requirements of potentially available jobs.

A number of hysteresis-mechanisms,⁴ which could lead to permanent shifts of equilibrium unemployment over time, have been identified. The most suitable mechanism to explain the South African situation operates through changes in human capital. According to this view, prolonged periods of unemployment may lead to a deterioration of skills and important attitudinal aspects of the work ethics and motivation of individual job seekers. In addition, when out of work, there are no opportunities for learning-by doing and on-the-job training. The loss of skills during unemployment may also lead to duration dependence in the probability of leaving unemployment, i.e. the likelihood that unemployed workers move to employment is likely to fall as the duration of unemployment increases. Furthermore, discouragement effects may over time loosen the attachment to the work force resulting in reduced job search intensities.

Even when the quantitative importance of human capital depreciation is considered to be fairly small, the mere fact of being out of work for a long time may convey a negative signal about workers' productivity to potential employers. Consequently, the long-term unemployed may

⁴ Pichelmann and Schuh (1997) present a theoretical model in explaining the occurrence and effects (supply- and demand-side effects) of hysteresis on the equilibrium level of unemployment.

over time receive fewer and fewer job offers and may, finally, even be regarded as “unemployable”. The resulting detachment from the labour market implies that the long-term unemployed may exert little or no downward pressure on wage increases. Moreover, a growing number of unsuccessful job seekers in the pool of the unemployed may reduce the speed by which vacant jobs can be filled by suitable candidates.

When specific skills are an important aspect of the employment relation, involuntary separation from a job may imply long waiting periods for re-employment; and when the loss of specific skills and the associated wage premium eventually has to be accepted, specific capital no longer provides a buffer between productivity and the value of employment elsewhere or non-employment, so turnover from new jobs, probably associated with recurrent unemployment, may be rapid.

Another strand of reasoning emphasises the wage-bargaining behaviour of the employed insiders and the role of adjustment costs. For example, when unions bargain mainly on behalf of the incumbent workforce, a temporary adverse shock to employment will tend to perpetuate itself, because real wage demand is adapted to the now smaller number of employed insiders. Generally speaking, shifts in the employment composition in favour of groups facing little risk of unemployment may affect the overall bargaining stance of unions and thus reduce the wage-moderating impact of a given rate of unemployment.

For insider effects to persist, the employed insiders must command some degree of market power. This could stem from several sources such as training costs or statutory seniority systems, but also from various forms of job security legislation. While the resulting reduction in turnover may well be in the interest of both the firm and the workers, the crucial point with regard to the persistence issue is that turnover costs render it difficult for outsiders to effectively compete for jobs.

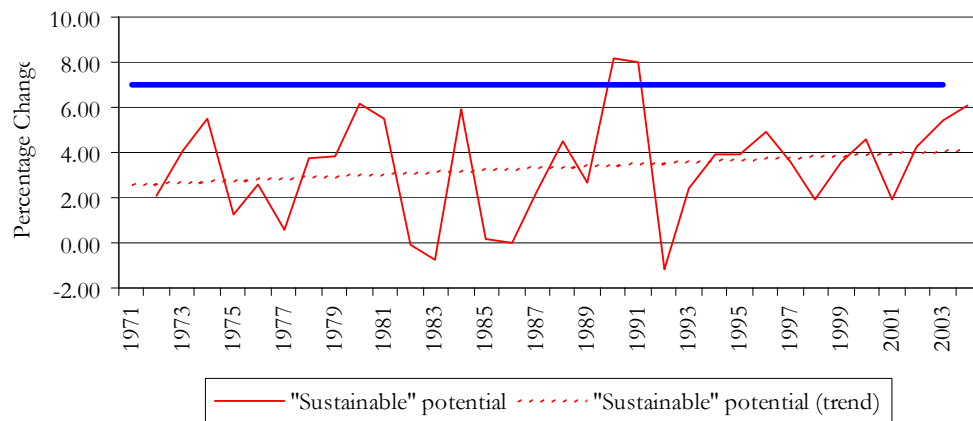
In addition to the supply-side mechanisms described above, there may also be a number of important demand-side effects, which could lead to an adjustment in equilibrium unemployment. In addition, a number of possible “price push” factors may cause product demand changes to impact on equilibrium unemployment. Some of these are wage-price stickiness (the traditional Keynesian argument), changes in the marginal product of inputs, competitive interaction between firms, changes in the real user-cost-of-capital and changes in the composition of demand (Pichelmann and Schuh, 1997).

Fortunately the increasing trend in the NAWRU is gradually easing with a distinct turnaround of late, which could in future result in a reversal in the rate of unemployment in the South African economy. However, such a reversal will be short-lived if not supported by adequate labour market reform, as will be momentarily outlined.

Potential output and capacity of South Africa

The empirical results of the structural analysis for potential output and capacity utilisation for South Africa are provided in figures 3 and 4.

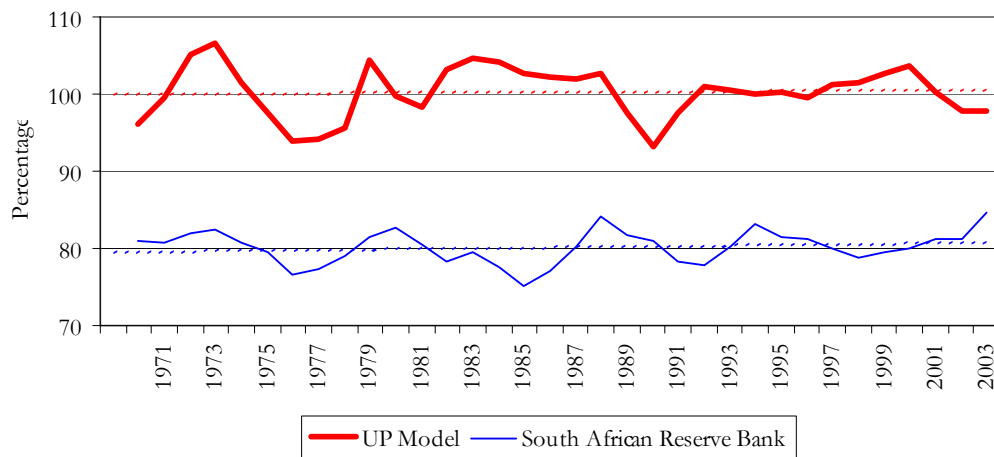
Figure 3: Output growth



The results obtained for potential output based on the structural production function approach indicate that the potential, “sustainable” growth rate (maximum level of output consistent with stable wage inflation) for South Africa, is about 3 per cent. Without a doubt this is significantly, even substantially, lower than the 7 per cent dreams of Mr Manuel.

Given the fact that the potential growth rate is less than expected, the capacity of the South African economy is lower than anticipated, resulting in output gaps fluctuating around 100 per cent and not between levels of 80 and 90 per cent as revealed by the surveys of the South African Reserve Bank (see figure 4). The structural problems, evident from the upward trending NAWRU, contribute to the fact that South Africa’s potential to grow has been diminishing over time and that increases in output put pressure on wages and prices much faster than popular opinion would hold.

Figure 4: Capacity utilisation



Furthermore, the market surveys according to the South African Reserve Bank show a decrease in the average utilization of capacity, which can not completely be explained in terms of business cycle movements, that is upswings and downswings on the back of demand fluctuations. Given our analysis, it is plausible to contribute this phenomenon to the upward-trending NAWRU – less capacity is utilised because less capacity can be utilised.

The results seem justifiable due to the constraint posed by rising labour costs and the resulting continuous increase in unemployment, albeit that the trends are starting to subside. This declining rate of employment is of both a structural and cyclical nature. A significant part (the major portion) of the South African labour force is unskilled and unskilled labour is increasingly expensive relative to skilled labour. Apart from the fact that a significant component of unemployment in South Africa is structural in nature, the growth in GDP has been, and will continue to be, inadequate to create sufficient job opportunities to alleviate the unemployment problem. The period of economic sanctions and disinvestment, resulting in the outflow of skilled labour (referred to as the “brain-drain”) and other consequences, has only intensified the problem.

Of course, having used the actual capital stock, rather than potential capital, we have further limited the ability of the economy to expand beyond the constraints of the labour market. Our feeling is that the South African capital market, characterised by an inability to attract foreign direct investment, low household savings and the impending further restrictions consequent of a burgeoning trade deficit, is too severely hampered and in its present state operates at or near full-capacity. However, such a discussion is beyond what this paper intends to achieve and we will leave the empirical proof of these assertions to further research. Suffice it to say, the restrictions imposed by the labour market are more than adequate so prevent South Africa from reaching a sustainable growth of 7 per cent per annum.

5. POLICY INTERVENTION

In light of these labour market constraints, what can be done so as to alleviate them and as such raise the potential of the South African economy towards the goal of 7 percent growth. The aforementioned characteristics of the South African labour situation suggest a labour market that has effectively lost its capacity to perform its allocative, informational and distributional functions

and has consequently become relatively inflexible in adjusting to internal and external shocks to the economy. South Africa is not alone in this situation, many nations have and still do experience the same problems. Learning from this assortment of international experience, the main factors influencing the capacity of an economy to adjust to the dynamic global environment are interventionist actions by governments, aggressive trade union behaviour, minimum wage arrangements, excessive social security provision, inefficient production and poor management practices, inadequate labour skills and training of workers, inappropriate production technologies, as well as poor productivity growth. In what follows, we propose a three-pronged, labour-focussed approach to addressing each of these factors within the context of achieving growth, employment and poverty reduction in South Africa.

Policies focusing on labour supply

The following areas need to become, or if already, should remain the focus of action for all policy-makers:

- 1) Market-based land reform and rural development (including agriculture), given that a large portion of the total population still lives in the rural areas and are largely dependent on agriculture for survival.
- 2) A revision of immigration policy, addressing both the influx of illegal immigrants across South Africa's borders and the loss of high-level manpower due to the political and economic instability. In addition, measures should be sought to encourage domestic employment of overseas skilled labour.
- 3) Most importantly, the promotion and activation of investment in human capital to develop skills and upgrade the quality of the labour force.

Policies focusing on labour demand

Due to well known limitations of domestic demand-driven growth in a small open economy such as ours, the obvious alternative is a higher economic growth level spurred on by domestic exports.

The demand for labour and subsequent rate of employment is directly related to the rate of economic growth due to the profit-maximising behaviour of firms. Policy measures to raise the economic growth rate to substantially higher levels are, therefore, of prime importance over the longer term, if job creation objectives are to be met. A more rapid rate of job-creation will simultaneously alleviate poverty and reduce differences in income distribution and thus materially assist in socio-economic reform. Export-led production will imply the following labour market adjustments:

- 1) An increasing demand for skilled labour relative to unskilled labour.
- 2) Cost-effectiveness of production in an internationally competitive environment.
- 3) The employment of technically advanced methods of production.
- 4) Improved management techniques.
- 5) An efficient and cost-effective firm-union negotiation framework.
- 6) Flexibility and stability in the labour market.
- 7) Widespread involvement of small and medium-sized business firms.

The aforementioned necessitate the training and retraining of workers and management, the co-ordination of technology requirements, higher productivity, improved efficiency in wage-setting and bargaining.

Policy approaches to improve the efficiency of the labour market

The labour market, like all other markets in the economy, should have the capacity to adjust to any external (and internal) demand and/or supply shock. In other words, to fully exploit the opportunities of world markets, the domestic labour market should be able to rapidly discount conditions. The economy, workers and employers will all benefit from efficient labour markets.

The efficiency and flexibility of labour markets can be improved if attention is given to:

- 1) The avoidance of excessive wage demands (wage demands in excess of productivity performance).
- 2) The establishment of long-term wage and salary discipline to contain inflationary pressure.
- 3) The promotion of competition in all markets and the improvement of labour mobility, (both geographically and in terms of skills), continuous upgrading of skills through training and retraining (of both employers and workers) and the further liberalisation of foreign trade policies.
- 4) The expansion of investment in human capital in terms of educational, as well as health considerations.
- 5) Establishment of voluntary participatory principles in the collective bargaining process.
- 6) The limiting of the demonstration effect of excessive public service remuneration packages on the general economy.
- 7) Encouragement the establishment and functioning of workplace forums.
- 8) The provision of more and timeous labour market information.
- 9) To reach an equitable balance between worker and employer rights and responsibilities.
- 10) Re-appraisal of the right to industrial action and minimising intimidation and victimisation.
- 11) Provision of certain minimum standards in the workplace that must be weighed against the needs of employers and the economy.
- 12) A re-examination of the effects of centralised minimum wage determination in relation to cyclical and structural economic development

6. CONCLUSION

In this study the measure for potential output and its associated capacity utilisation were presented for the South African economy. Even though different concepts and methodologies exist, the estimation of potential output for South Africa is based on a structural production-

function relationship, with the maximum level of output consistent with stable inflation. Potential employment is defined as the level of labour resources that might be employed without resulting in additional inflation and is determined by adjusting the actual labour input used in the estimated production function for the gap between actual unemployment and the estimated non-accelerating wage rate of unemployment (NAWRU).

The estimation results for the NAWRU indicate an upward trend, implying that an “equilibrium or natural” rate of unemployment exists. These results can be attributed to the hysteresis nature of unemployment in South Africa.

The results obtained for potential output based on the structural production function approach indicate that the potential, “sustainable” growth rate (maximum level of output consistent with stable wage inflation) for South Africa, is about 3 per cent, which is quite a margin lower than the 7 per cent growth rate, that we all would like to see.

Given the fact that the potential growth rate is less than expected, the capacity of the South African economy is lower than anticipated, resulting in output gaps fluctuating around 100 per cent and not between levels of 80 and 90 per cent as revealed by the surveys of the South African Reserve Bank. The structural problems, evident from the upward trending NAWRU, contribute to the fact that South Africa’s potential to grow has been diminishing over time and that increases in output put pressure on wages and prices much faster than popular opinion would hold.

South Africa’s rate of unemployment is of both a structural and a cyclical nature. A significant part of the South African labour force is unskilled which is becoming increasingly expensive relative to skilled labour, and the international tendency towards capital-intensive production acquiring more capital, more skilled labour and less unskilled workers, has aggravated the unemployment problem. Apart from the structural component of unemployment, the growth in

output has been inadequate to create sufficient job opportunities to cure the unemployment problem. The period of economic sanctions and disinvestment, resulting in the outflow of skilled labour and other consequences, has further worsened the situation.

The obtained results for potential output revealed the essence of the impediments on the South African economy - the South African potential to grow has been hampered quite severely. This is due to the sizeable constraint posed by labour market disequilibrium.

It follows that there are many facets related to the functioning of the labour market that need the attention of policy-makers. Macro-economic stability, i.e. a situation where all the real and financial markets in the economy are simultaneously moving towards equilibrium, will create a climate conducive to high and sustainable economic growth (of say, 7 per cent). Presently, the major problem in South Africa is that the labour market is in disequilibrium. This situation calls for an appropriate combination and co-ordination of economic policy.

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