

Government Investment, Growth and Employment in South Africa

NOAH KARLEY*

ABSTRACT

This paper focuses on the impact of government investment on growth and employment in South Africa. As a prelude to the analysis, the paper refers to theory and practical evidence which indicates the way investment can influence growth and employment. Also, a review of investment patterns in South Africa in the past two decades is followed by a discussion of the impact of government investment. In the conclusion, suggestions are made, based on the content of the paper for improving government investment strategy, in order to bring about growth and employment.

Introduction

South Africa is rich in variety of natural resources (minerals), a feature of the country's economic experience envied by many other countries. In terms of monetary and exchange rate policies, it is well managed and income per capita of about US\$3052 a year, puts the economy in the upper middle income bracket for developing countries. Yet South Africa's economic problems run much deeper. One central problem is not just low output but low factor productivity (i.e., investing a big slice of national income and receiving very little in economic returns). Another is high unemployment.

The two most important influences on Gross Domestic Product (GDP) growth have been lower investment and declining productivity. These have been compounded by sectoral inefficiencies and a culture of non-payment and evasion of tax, that affect government functions. On top of this, negative political sentiments and crime have pushed the economy below its productive capacity.

For higher and sustained growth in the future, as set out in the government's growth, employment and redistribution (GEAR) strategy, South Africa needs to revive the private sector and generate more jobs. This can be achieved by restructuring government spending and revenue collection, and increasing invest-

*Lecturer, University of Zululand, Economics Department, Private Bag X1001, Kwalandzwa 3886, South Africa.

ment in infrastructure, that would appear more attractive to private investors. At the same time, growth of total spending must be restricted to meet budget targets. Rapid growth in skilled labour, especially by upgrading the semi-skilled and unskilled, needs to be encouraged. It is also important to establish a credible incentive environment to support the orientation of manufacturing towards export.

The focus of this paper is a discussion of the impact government investment has on growth and employment and how institutional reforms can expedite this.

Definition

Economic growth refers to the process, whereby the productive capacity increase of a country is such that national income increases over time. Growth may be attained by means of models designed by experts. It can be facilitated and its pace quickened if there is appropriate development of the economic as well as the financial system of a country. A well developed system may lead to efficient utilisation of resources, the benefits of which will be growth in welfare.

In order for an economy to grow, resources are needed for production. Naturally, these resources are limited in supply, relative to the demand for them. It is therefore imperative that for South Africa's economy (as is of any economy) to grow, a part of the present resources should be sacrificed in the form of savings, which will then generate investment, leading to higher employment, output, and living standards in the country over time. If the economic system is unable to make such sacrifices, the result would be low investment, low output and income, unemployment and poverty among the majority of the population.

Effect of Investment on Growth: Some Evidence

Investment involves the sacrifice of current consumption and the production of investment goods which are used to generate commodities (Bannock *et. al* 1992: 230). The critical role of investment in creating growth and jobs has been well established in industrial societies. Many studies point to the very low investment rate in the United States in the 1970s and early 1980s as a major reason, along with lagging productivity growth, for its low rates of per capita income growth since 1970, relative to Japan and Western Europe. Indeed, by 1983, gross domestic investment was only 17% of the Gross Domestic Product (GDP) in the United States, a ratio well below the 20% figure for 1965, and one of the lowest of all industrial countries (figures derived from country tables of the *International Finance Statistical Yearbook* 1985).

Analysis of the relative contribution of investment to growth in developing countries are neither as numerous nor, owing to data limitations, as conclusive as those of the United States. However, the available sources of growth calculations (World Bank 1984: 226-227; 1985: 182-183), suggest that the impact of capital formation on growth is considered in those countries as well, particularly for the early stages of development. Securing investment ratios of even 15% has proven a difficult task for many developing countries and in particular some of the 33 nations (other than India and China), falling into the World Bank category of low income countries (see Table 1, first two columns). Nevertheless, all but four of the countries in this group, did manage to increase the share of gross domestic investment to GDP over the period between 1960 and 1983. For this set of countries as a whole, investment shares rose from 19% in 1960 to almost 26% in 1980 (but from 13% to 18% with China and India excluded).

Table 1: Gross Domestic Investment & Gross Domestic Savings Rates, 1960-1983

Category	Gross domestic investment* (as % of GDP)		Gross domestic savings* (as % of GDP)		Resource gap*	
	1960	1983	1960	1983	1960	1983
Low-income countries ^a	19(13)	26 (18)	18 (10)	24 (7)	-1 (-3)	-2 (-11)
Middle-income countries	20	22	19	21	-1	-1
Lower-middle-income	15	22	14	17	-1	-5
Upper-middle-income	22	22	21	23	-1	+1
High-income oil exporters	na	29	na	39	-	+10
Industrial market economies	21	20	22	20	+1	0
East European non-market economies	na	na	na	na	na	na

Source: World Bank, *World Development Report, 1985* (New York: Oxford University Press, 1985), p. 182-83. World Bank, *World Development Report, 1984* (New York: Oxford University Press, 1984), pp. 226-7.

*Gross domestic investment is defined as all public and private sector expenditure for additions to the stock of fixed assets, plus the net value of inventory changes.

*Gross domestic savings includes both public sector and private sector savings. It indicates the volume of gross domestic investment financed by domestic sources. As given in this table, gross domestic savings is calculated as the residual after subtracting from gross domestic investment the deficit on current international accounts from gross domestic investment.

*Gross domestic investment minus gross domestic savings.

*Figures in parenthesis exclude China and India.

The 59 countries classed as middle income by the World Bank were, on the whole, able to increase investment shares only slightly from 1960 to 1983. Among industrial market economies, however, gross domestic investment (as percentages of GDP) declined from 21% in 1960 to 20% in 1983. Table 1 shows that both low and middle income countries had achieved, on average, higher investment ratios in 1983 than even the advanced industrialised countries. It is not surprising,

then, that rates of growth in real GDP, at 5% for low income nations and 4.7% for middle income countries, were about twice as high as the average for the rich industrial countries from 1973 to 1983, which was 2.4%.

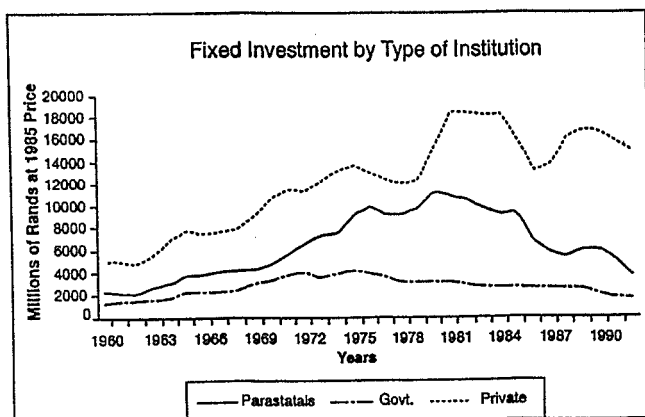
Also, using the Harrod-Domar model (Harrod 1939, pp.14-33; Domar 1947, pp.34-55), it has been established extensively in many countries as a simple way of looking at the relationship between growth and capital requirements (investments). According to this model, in order to grow, economies must save and invest a certain proportion of their Gross National Products (GNP). The more they can save and invest, the faster they can grow. Though with shortcomings, the Harrod-Domar model also supports the notion that economic growth can be achieved by increasing investment.

Human resources are part of a country's wealth, and it is people, not machines or money, that make economies grow. Turning to job creation, it can be asserted that investment in human capital can boost economic growth, provided that this investment is efficiently utilised. In any case, while capital accumulation is not viewed as the only solution for growth and employment problems; it is clear, nevertheless, that even mildly robust growth rates in incomes can be sustained over longer periods, only when economies are able to maintain investment at a sizable proportion of GDP.

Investment Patterns in South Africa

The way in which total investment behaves, obscures a range of diverse behaviour patterns of different sectors in the economy. Here, it is particularly important to distinguish between private investment and public/government investment. Private sector investment refers to that part of total capital formation of a country made by individuals and corporate bodies. Distinct from private investment, public sector investment comprises central government and local authorities, together with the nationalised industries and parastatal capital formation.

Looking at investment history in South Africa before 1990, it is observed that public investment grew rapidly from 1946 until 1979-1980. Growth was especially high from 1961 to 1965, and from 1971 to 1975 when the annual average real growth rate exceeded 10%. After 1980, the trend in public sector investment growth was dramatically reversed with annual growth rates averaging -3.3% and -6.5 % over the periods of 1981 to 1985 and 1986 to 1991 respectively (Fallon & Pereira de Silva 1994: 54). Notwithstanding, the economy achieved a 10.5% growth in real gross fixed investment in 1995 and 7% in 1996.

Figure 1: Fixed Investment by Type of Institution in RSA (1960-1980)

Source: Khan, Senhadji and Watton (1992)

A closer inspection of the sub-components of public investment as in Figure 1, shows that investment by government was the first indicator to start falling during the 1976-1980 period, followed by a decline in parastatal investment only after 1979. This fall in parastatal investment became more accentuated after 1985. This is in part due to the privatisation of much of Sasol in 1987 and of Iscor in 1989. Movements in private investment closely parallel those of the parastatals, but show a more clear-cut response to the recessions and temporary recovery in the economy experienced since 1985. Public investment changed over time in response to policy decisions and economic stimuli that affected risk and expected profitability. The public investment programme aimed to extend and develop infrastructure mainly in areas reserved for whites, and to promote self-sufficiency in areas likely to be affected by sanctions.

A study conducted by the World Bank on parastatal investment in South Africa (Khan *et al* 1992), suggests that parastatals also respond to changes in economically relevant variables. Though heavy parastatal investments were guided by optimistic growth projections and led to saturation in white infrastructure, movements in the real interest rate had some effect. The financial sanctions imposed in 1985, forced parastatals into the domestic financial market at a much higher interest rate than they had been paying, leading to a further drop in parastatal investment. Although the expansion of public investment in the past stimulated the economy by supporting aggregate demand, it also increased the

share of the capital stock in sectors with much lower than average output capital ratios and higher than average capital labour ratios, thus resulting in slower growth in output and employment. Over-investment in the parastatal sector before 1985, led to substantially under-used capacity. In this new dispensation, the distributional effect of public investment should be very different and more equitable.

Economic Impact of Increased Government Investment

The South African economy is complex. A major change in the level of an important variable such as government investment, will inevitably create wide repercussions that will affect virtually every relevant economic variable in the system. Much higher levels of government investment will initially boost the growth of the economy, also creating many jobs; but if this does not lead to corresponding increase in private investments, the short-run benefits cannot lead to sustained growth. This is because the economic impact of any additional government investment is likely to depend strongly upon other prevailing conditions. In particular, any given level of public investment is clearly more affordable the healthier the state of the private sector, as the tax base and private savings are larger. The effect of any given public investment programme will tend to be more sustainable if productivity growth in the private sector is faster.

Positive Impact

Increased government investment would directly serve the redistributive objective and contribute to improved social stability. The immediate needs of the disadvantaged majority (the poor) in South Africa are best served by an increase in government investment in urban infrastructure, such as water supply, sanitation and housing in deprived areas, and in further provision of schools and facilities for primary health care. These expenditures would be very different in their distributional effect from much previous public investment, as the latter was largely aimed at providing infrastructure and services that benefitted the white community. Such investments should, in the presence of greater private investment confidence, generate sufficient upward multiplier effects (1) to drive the economy back

(1) *Multiplier*: the factor by which a change in a component of aggregate demand, like investment or government spending is multiplied to lead to a larger change in equilibrium national output.

towards full capacity.

An expansion in public investment will immediately affect a recession-stricken economy in different ways. Additional government investment will directly add to domestic demand and reduce the gap, with potential supply, GDP will rise. There are secondary effects both on the demand and the supply side of the economy. On the demand side, increased incomes will stimulate private consumption, the multiplier effect, and higher growth in the economy will encourage private investment, the accelerator effect (2). Potential supply, the maximum amount that the economy is capable of producing on a sustained basis is affected through a number of mechanisms. Insofar as additional government investment is in the production of goods and marketable services, this will add to potential supply in the economy.

Also, such expenditures, in the form of building new roads and schools, or in irrigating land, will directly create new jobs during implementation and increase output. For example, new irrigation will lead to higher crop yields. Provision of education and training in South Africa is inadequate, both in distributional terms and in terms of future growth needs. Greater emphasis placed in government budgets on reallocating expenditure towards basic education, will be particularly important to ensure that the quality of basic education received by the children of the poor improves. A sufficient rapid expansion in skilled labour, an important prerequisite for growth, would stimulate much higher employment growth among the unskilled (mostly the poor in society). Any negative effects on unskilled employment arising from the substitution of skilled for unskilled labour, would be heavily offset by the beneficial effects of higher growth in the economy.

Again, to the extent that social and equity objectives have to be met in the context of present conditions, public investment may still generate employment in the interim, and such an investment may even be desirable. But care should be taken that it does not come into conflict with or negate private investment. Since government is only one of the sectors in the economy, it is virtually impossible to expect government to create employment opportunities for the whole economy. Moreover, since the government is not generally guided by profit and efficiency principles, an over-emphasis on employment generation may well result in a greedy civil service, constituting a vested interest group in its own right and thus acting as an obstacle to growth in the future.

(2) *Accelerator effect*: the effect on GDP of the increase in investment that results from an increase in output. For instance, the greater output leads a firm to believe the demand for its products will rise in the future; the resulting increase in investment leads to growth in output and still further increases in investment, accelerating the expansion of the economy.

Given these implications of public investment, the objective of government should be to create the necessary environment and smooth the way for private investment, as can be done, for instance, by providing the necessary skills base, which will not be undertaken by the private sector.

In the past, a scarcity of skilled labour has acted as a brake on economic growth and this is once again likely to re-emerge as an important constraint, as the economy comes out of the present recession. The inadequacy of South Africa's skills base is hardly surprising, as past policies ensured that high quality education and training were only for the white population (National Manpower Commission 1990).

Faster economic growth will clearly require a more rapid expansion of the skills base to encompass all racial groups. The importance of basic education is supported by evidence from South East Asia, where investment in basic education is pivotal to spurring economic growth and reducing poverty. International experience shows that much of the responsibility for addressing issues such as technical and vocational training, adult education, and numeracy/basic skills acquisition, should rest outside the public sector. By concentrating government efforts on basic education, the strategy is to lay a solid foundation upon which the rest of the system can be built.

Furthermore, the expansion of government investment towards job creation through rural restructuring and encouragement for small businesses, would serve primarily to provide more jobs, and would certainly be consistent with greater social stability. These measures will directly improve the welfare of the poor population. In an economy in which 25% (Fallon & Pereira de Silva 1994: 93) or so of the labour force is unemployed and in which nearly one half do not have wage employment, the social cost of employing labour lies well below going wage rates. In such circumstances, employment growth could be even higher if the structure of production shifted to a more labour-intensive mode.

Finally, the growth rate in South Africa would accelerate with increased government investments towards boosting exports. Exports can influence and contribute to higher growth, job creation and development through a variety of channels. The relative importance of these different channels seems to vary from country to country. Numerous empirical studies have shown the link between exports and growth (see for example, Michael 1977: 49-53; Balassa 1978: 181-189; Feder 1983: 59-73). Higher export growth rates are associated with higher overall growth. While the actual mechanisms differ within these studies (increased capacity utilisation, scale economies, productivity and technological improvements and so on), there is widespread evidence supporting the phenomenon. Of the Newly Industrialised Countries (NICs) (Chow 1990: 91-98), Korea, Taiwan, Singapore, and Hong Kong are the most visible examples of countries

that experienced export-led growth.

Since over 20% of the 1997 budget has been earmarked for debt servicing alone, promoting exports would help to reduce burden on the economy. This is due to the fact that to service debt and reduce external indebtedness, a country needs to rely on production of traded goods as a source of foreign exchange. Countries with a large export sector can service external debt more easily because debt service will absorb a lower fraction of total export proceeds.

According to a study undertaken by the South African Chamber of Business (SACOB 1991), South African manufacturing costs are 15% higher than the Organisation for Economic Cooperation and Development (OECD) average, mainly because South African manufacturing firms pay 24% more than OECD counterparts for their inputs, but also because their capital and productivity adjusted labour costs are higher. In view of this, if government budget allocation is scheduled to provide subsidy as incentive to help firms offset the price disadvantage South African exporters face in international markets, it would help boost exports and increase growth and employment.

Negative Impact

This is not to say that government investments will have no negative effects at all. Negative effects of increased government investments in the economy may occur. First, fiscal deficit will immediately rise, unless offset by rising taxation. Second, higher domestic expenditure will induce increased imports, and possibly reduce exports, if producers direct production towards home markets, and cause a deterioration in the current external account balance. Third, increases in unit labour costs and the reduction in the spare capacity of the economy may stimulate additional inflation. Fourth, rising demand in the economy will put pressure on financial markets, and tend to push up real interest rates which may dampen private investment. Real wage rates will tend to increase if unemployment falls; this will slow employment growth. All these effects will be present as long as there is continual growth in public investment.

The Way Forward

For an expanded government investment programme to force the economy onto a sustainable path, sufficient growth must be generated to offset the otherwise negative fiscal balance of payments effects. In other words, the economy must "grow its way out of trouble". The expected sequence runs as follows: increased government investment raises aggregate demand through both its direct impact on domestic absorption (3) and through associated multiplier and accelerator effects.

If demand rises quickly enough, it will eventually catch up with potential supply, and the economy will be at full capacity. Subsequent growth in GDP can only come through increased inputs and improved productivity. Provided that these conditions are met, and that supply grows fast enough, the fiscal deficit will eventually fall, as a percentage of GDP and the current external account will move into a surplus. In practice of course, the movement along an expanding supply frontier is unlikely to be smooth, as the economy will inevitably receive a number of shocks, but these blips can be counteracted through short-term fiscal and monetary policies.

This rosy description of the growth process will not apply to South Africa, unless private investment responds more positively to renewed growth. The crux of the problem is that the overall impact of increased public expenditure or demand alone is likely to be insufficient, as the multiplier effect is too small, owing to a high marginal propensity to tax out of income in the country.

South Africa's savings rate of 17% is at a record low, but the macro-economic strategy aims to cut government losses and boost the level of private savings to push the overall savings rate closer to 22%. Even with a savings rate of 22%, the country will require capital inflows, equivalent to about 2-3% of GDP, to finance the shortfall in its projected investment requirements. This has been the country's Achilles heel for much of the last decade. For the economy to grow its way out of trouble, and to address growth, investment and employment problems; it would be worthwhile to undertake institutional reforms.

Privatisation

The impetus for a policy shift is suggested in response to the several adverse developments in the public sector. The policy shift should focus mainly on stimulating private sector activity, through introducing institutional reforms, removing market impediments, and strengthening financial policies.

High investment levels imply higher future growth through the build-up of a higher productive capacity. High savings and investment ratios can also be a sign to international investors of credit worthiness, implying a country's commitment to higher future output, and raising its perceived ability to service and reduce external debts. In South Africa, rates of savings as compared to other middle income developing countries such as Malaysia, Korea and Thailand, are lower. The low rates are attributable to low private savings, and public sector inefficien-

(3) *Absorption*: Total expenditure on final goods and services. Domestic absorption in an economy is equal to consumption plus investment plus government expenditure (or $C + I + G$), and is equivalent to national income minus net exports.

cies to some extent.

The weakening of South Africa's savings rate and public finances should prompt the authorities to re-orientate revenue and expenditure policies. Such orientation should be seen as essential to move towards a more efficient but diminishing role for the public sector. The long-term viability of the prevailing economic development strategy should therefore emphasise diversification and private sector activity.

The restructuring of a significant portion of the activity of the economy would undoubtedly lead to important improvements in the financial performance of the public enterprise sector, and government would be able to concentrate on doing what it can do better, rather than be a 'jack of all trades and master of none'. Since the source of investment is inadequate, direct foreign investment (DFI) is inevitably needed in the South African economy.

Institutional reforms and privatisation would serve as bait to attract DFI. With an injection of capital in the form of DFI, productivity would rise and the resulting higher incomes would eventually generate higher savings, sufficient to carry on the momentum of capital from abroad. Higher incomes would increase aggregate demand and so give further impetus to capital formation by creating profitable investment opportunities, thereby creating more jobs and economic growth.

In an emerging economy such as South Africa, we should see increasing and not decreasing employment opportunities. This is because each opportunity created is capable of creating other opportunities. The rate of growth would, however, depend on the multiplier and accelerator effects of the capital injected, and the soundness of policy framework for all stakeholders. For this reason, a high degree of openness and transparency during transformation is necessary.

To strengthen the financial position of government, departments should be identified and listed as candidates for privatisation and efforts must be made to contract out some government services, and public sector wage increase should be limited. To enhance productivity, more formal and on-the-job training would be a preferred incentive to increasing wages, as the latter is inflationary in effect and can also discourage potential investors, who may consider it as additional cost likely to reduce their profit margins. On the revenue side, tax administration can be improved with new hiring, expanded training, and computerisation.

In a country such as South Africa with a relatively large unskilled labour force, it will be difficult to implement such policy reforms. This is because in the initial process of eliminating inefficiencies, many, especially the unskilled, would lose their jobs and this could cause social unrest. These short-term blips should be counteracted with an interim programme of action to mitigate the social cost of adjustment.

It all takes time and effort. Privatisation programmes not only change policies,

they constrain policymaking discretion. Efforts to curb discretionary authority, for example, establishing transparent fiscal accounting or implementing effective budget control will be resented and resisted. The difficulties inherent to establishing a truly high-quality civil service or an independent and effective judiciary, make sweeping reforms a slow process.

Taxation

To ensure that privatisation is successful, it is also necessary for the tax system to be streamlined to conform with internationally accepted principles and to be competitive. If South Africa is compared to developed countries, one may observe that taxes are not so high. When compared, however, to developing countries at a similar level of income, such as Malaysia and Korea, it becomes immediately apparent that taxes are too high and uncompetitive. Potential investors whose aim is to maximise profits, would undoubtedly direct their capital to these countries and certainly not to South Africa.

Finally, it must be mentioned that the behaviour of a person is a product of the social environment, thus the culture of non-payment and tax evasion in South Africa is an indication of an unacceptable and unfriendly environment, created by the tax system. If taxes are restructured to meet the pockets of payers, this would encourage many to honour their tax obligations. Non-payment and default rates would reduce and this would lead to increases in tax revenue.

Besides this, lowering tax across the board would have a positive effect on marginal propensity to consume, as disposable income would increase and more money would be released to drive the necessary development programmes and create more job opportunities.

The task ahead is enormous and the road is rough. Successful reforms require not only sound economic policy formulation, which has to be coordinated, monitored and justified; but also the whole-hearted support of the widest spectrum of the populace. It is hoped that this contribution will go a long way in suggesting ways to minimise growth and employment problems. One should, however, keep in mind that the obvious can sometimes be wrong, and in economics it often is.

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