

PROVISION OF PUBLIC UTILITIES: THE KENYAN EXPERIENCE

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ABSTRACT

The provision of public utilities in developing countries is both essential and controversial. The responsibility of providing these utilities generally lies at the door of the government, although different options of provision are possible. The state, private sector or a combination of the two could provide it. The literature behind these different options will briefly be reviewed. From the literature it is evident that the choice of who should provide these utilities are not clear-cut. A case study of Kenya will also show the difficulties experienced by developing countries in choosing the most efficient option. Efficient provision is generally a concern based on the financial constraints in most developing countries. The aim of the article is to apply different ways of financing public utilities (provision of road construction and maintenance) and measure the effects thereof on the economy of Kenya.

INTRODUCTION

The literature explains various ways in which public utilities could be provided. In developing countries, state owned enterprises are generally considered as a viable option in the provision of public utilities. Although private sector participation is arguably seen as superior to state owned enterprises, it is also discussed as another option. A combination of the two in the form of public private partnerships has recently been seen as a balance between government and private sector and is probably more efficient.

The remaining section of the paper will be devoted to a case study of road construction in Kenya. Not only will this analysis seek to evaluate the economic consequences of such a major investment undertaking, but it will also attempt to research the “best” way of financing such an investment. The analysis is based on a study done by the authors for

Burnette, Kruger and Stoffberg (BKS), PTY (2002) on the economic impact of a proposed road concession of the northern corridor in Kenya. The different options would economically be weighed against one another to determine the most efficient solution.

STATE-OWNED ENTERPRISES

Independent developing countries and many Western countries facing reconstruction after World War II saw a major role for the state in the production process (Meier, 1995: 548). There was a general pessimism about the market's ability to deliver economic change. During the 1960s and 1970s, growth in state-owned enterprises (SOEs) was rapidly increasing in number and size in various developing countries. By the end of the 1970s, in countries like Senegal, Tanzania, Bangladesh, Syria, Tunisia, Egypt, and Ethiopia, the total output of SOEs had contributed more than 60 per cent of the total production of these countries' natural resources (Todaro, 1997: 567). However, currently the case for direct state activity in the production of ordinary producer and consumer goods does not appear to be very strong. Recent literature argues that state intervention in the economy could rather be justified in the case of market failures, which may arise from many possible sources, including public goods.

A state-owned enterprise is a government entity that supplies public goods and services. The dominance of the SOEs is normally in utilities (gas, water, and electricity), transportation (railroads, airlines, and buses), and communications (telephone, telegraph, and postal services). Contributions also are noticeable in sectors like agriculture, construction, finance and even large-scale manufacturing (Nafziger, 1997: 576). In this article an SOE is assumed to be an enterprise where government is the principal owner or where the state can appoint or remove the chief executive officer. Furthermore an SOE produces or sells goods or services to the public or other enterprises, where revenues are to bear some relationship to cost. SOEs that do not maximise profitability may still qualify if it pursues profit, subject to some limitation assigned by the state.

Arguments such as social profitability, in excess of financial profitability, provide important reasons for the establishment of SOEs. According to this notion, public investment can create external economies, improve integration among sectors, produce social goods and create new jobs. Moreover, SOEs can rescue bankrupt private firms in key sectors, or state initiative can substitute private entrepreneurship when risk is high, capital markets are poor or information is scarce. Finally, government have non-economic reasons for creating SOEs, including control of key sectors, wresting control from foreign owners, responding to foreign donor pressure or to serve other social and political goals, such as avoiding concentration of economic power among private oligopolies (Nafziger, 1997: 577).

In general, SOEs are more likely than private enterprises to choose an excessive scale of operations. State-owned enterprises have easier access to state financing to mute bankruptcy and are able to apply more pressure to provide jobs and contracts to clients than private enterprises. Inefficiency has flourished in many state enterprises masked by the availability of budgetary support. State owned enterprises often experience a lack of cost-

consciousness and efficient management. A firm's cost depends not only on its technology, but also on the vigour with which it pursues efficiency. Liebenstein (1966) argues that if any organisation does not act promptly and energetically to curb costs it exhibits X-efficiency. (X-efficiency is when a firm fails to obtain maximum output from a given combination of inputs).

Some governments realised that the state on their own, will not necessarily have sufficient resources for all their country's investment needs. Increasingly governments are forecasting their investment requirements and comparing it with the level of resources they are likely to obtain or generate in future. They often find that the need for investment greatly exceeds the level of traditional resources likely to be available. A government's financial constraints, therefore, recognises that no government in isolation will be able to finance and provide all the public utilities needed.

The poor performance of SOEs such as the lack of efficiency and profitability, amongst many other reasons seem to be the most important and are well documented (Pongsiri, 2002; Rosenau, 1999; Todaro, 1997). The fact that they mostly pursue both commercial and social goals normally increases the levels of inefficiency. Providing goods and services below average costs in an effort to subsidise the public, or to meet up with national employment objectives mostly contribute to the lack of profitability. Todaro (1997: 569) argues that in many cases evidence exists that SOE's decision-making are centralised. This allows little or almost no flexibility for managers in the everyday operation of a firm. The decision makers in such a bureaucracy are not accountable for their decisions and little or no incentives exist for improvement in efficiency.

Although popular in developing countries, the number of SOEs decreased during the 1980s and 1990s as development financing by the International Monetary Fund (IMF) and World Bank was usually linked to programmes including privatisation and reform of SOEs (Hess & Ross, 1997: 168). Studies on the effectiveness of public utilities, the performance risks, the role of the regulator and the private sector became more profound during the last 20 years. (Aharoni, 1986, Parker, 2003). The notion today that public utilities are the best delivered by state ownership has changed. The traditional doctrinal approaches of the past that saw successive governments believing that either the public or the private sector was automatically best to provide public utilities has also become less evident.

According to the World Bank (1983: 50) the key factor in determining the efficiency of an enterprise is not whether it is publicly or privately owned, but how it is managed. If entry barriers are removed there is no presumption that the private sector has better management. However, it seems as if the variation in technical efficiency from best- to worst-practice firms is greater among government firms than private firms.

State-owned enterprises generally perform better with competition, no investment licensing, no price, entry, or exit controls and liberal trade policies (Nafziger, 1997: 580). The success of SOEs relies on the implicit assumption that government is well intentioned, well informed and competent. Successful state owned enterprises have greater managerial autonomy and accountability than others do. Excessive interference in investment, product mix, pricing, hiring and firing workers, setting wages and procurement by

government suffocates managerial initiative and contributes to operational inefficiencies (Nafziger, 1997: 581). The relevant question today is no longer whether state-owned monopolies is efficient in comparison with some unattainable theoretical ideal, but how it compares with the various alternatives available (Frank, 2000: 425). In future, entities will be judged solely on how services are delivered and whether it is of a high quality and good value for money.

It became clear that although in some cases state owned enterprises might be considered as an option, the x-inefficiency problem asks for other alternatives that offer many of the same benefits without the x-inefficiency factor. Competition rather than ownership is seen as the sharper tool of efficiency and this opens the door for pure private enterprises to provide public utilities (Pongsiri, 2002). The rest of the paper considers the other side of the coin, namely the role of foreign direct investment via private concessionaires to provide public utilities.

FOREIGN DIRECT INVESTMENT VIA PRIVATE CONCESSIONAIRES

A rush in international trade and capital flows since World War II has integrated and facilitated the flow of ideas through which technology, funds and commodities can be transferred. The significant enormous improvement in communication technology in the last two decades and the corresponding innovations in the financial markets have increased the channels through which investors can take positions on expected asset price movements in emerging markets.

Foreign direct investment (FDI) is a key ingredient in economic growth. It can impact on the host economy through a variety of channels such as adding to investable resources and capital formation; by transferring technology, skills, innovative capacity, and organizational and managerial practices between countries; and by accessing international marketing networks. Still, these positive effects may vary in their magnitude depending on the quality of the business environment in the host economy and the characteristics of the multinational company.

Impressions of the superior performance of private enterprises often originate in anecdotes and informal case studies of Western business people and aid officials. Studies comparing US and British electricity and transport enterprises in private and public sectors indicate that productivity or cost effectiveness was as high in the public sector as in the private sector. Yet public firms, which charge lower prices, have lower financial profitability than private enterprises (Nafziger, 1997: 577). Three less developed country (LDC) studies compared public and private firms, while statistically holding all variables equal. The Brazilian steel industry indicates that with control for size, whether a firm was privately or publicly owned, had no significant impact on technical efficiency. Government ownership had no significant effect on efficiency in Tanzania's food and machinery industries. Furthermore, a study of automated weaving in Indonesia indicates that the higher productivity of private firms relative to state firms was explained by diseconomies of scale of the larger state firms (Nafziger, 1997: 577).

A number of researchers have measured the effects of FDI and looked at ways to maximise these benefits. Sadik and Bolbol (2001) examined capital flows, FDI, and technology spillovers in Arab countries. Their paper examines whether technology spillovers from FDI flows in Arab countries impact on productivity and economic growth. They conclude that, albeit small, FDI flows contribute to capital accumulation and growth, it does not improve investment efficiency due to distorted investment incentives (including the exchange rate, trade protection) and low-levels of technological innovation. Using data from five South Asian countries (India, Pakistan, Bangladesh, Sri Lanka and Nepal), Agrawal (2000) finds that increases in FDI inflows could be associated with a significant increase in domestic investment and gross domestic product (GDP) growth. A study done by Batra and Tan (2001) found that foreign firms in Malaysia are more likely than local large firms to subcontract to foreign and local suppliers, and rely more heavily on the latter. Rodriguez-Clare (1996) investigated the impact of multinational corporations (MNCs) on developing countries through the generation of backward and forward linkages. He found that the effect on the host country is likely to be positive when intermediate goods are used intensively, communication costs are high, and home and host countries have a similar variety of intermediate goods.

Although both theory and empirical evidence suggest that FDI has a beneficial impact on developing host countries, some potential risks was pointed out by Loungani and Razin (2001). FDI can be reversed through financial transactions; it can be excessive owing to adverse selection and fire sales; its benefits can be limited by leverage; and a high share of FDI in a country's total capital inflows may reflect its institutions' weakness rather than their strength.

Other problems experienced by private enterprises in delivering public utilities are that they sometimes shy away from infrastructure investments for a variety of reasons (Gallagher & Bryce, 2000). First, for any company the investments required for public utility projects will be significant and may be very large relative to the size of the company's balance sheet. The long-term nature of the investment such as construction, often taking three to five years, means that capital may be committed for prolonged periods. Thus by investing in one project a company might effectively be precluding itself from bidding for a number of other projects as it would have a relatively large element of capital tied up for a long period. Private enterprises also sometimes avoid entering capital-intensive sectors because they are characterised by high risk and substantial economies of scale (Nafziger, 1997: 578).

A combination of the government and a private enterprise is seen as a final option and is known as a public private partnership (PPP). This option is based on the principle of private ownership, while providing guidelines or regulations that limit price discretion (Frank, 2000: 428). In an age of tight public spending, public-private partnerships will be at the heart of a much-needed provision and renewal of public utilities (Robinson, 1997).

PUBLIC PRIVATE PARTNERSHIPS

Public private partnerships (PPP's) are a generic term for the relationships formed between the private sector and public bodies, often with the aim of introducing private sector resources and/or expertise in order to help produce and deliver public sector assets and services. Public private partnerships are used to describe a wide variety of working arrangements from loose, informal and strategic partnerships to design, build, finance and operate service contracts and formal joint venture companies. Public private partnerships are essentially partnerships between public sector organisations and private sector investors for the purpose of designing, planning, financing, constructing and/or operating infrastructure projects. Theoretically, a PPP is not only about the private sector financing capital projects in return for an income stream, but also makes use of private sector skills and management expertise to deliver and operate public projects more efficiently over their respective lifetimes. The definition of PPPs, provided by the Treasury Regulations of South Africa involves three elements (Russell & Bvuma, 2001: 248):

- a contractual element whereby a private party performs a departmental function on behalf of a national or provincial department for a specified time
- substantial risk transfer to the private party
- a schedule of outcome-based financial rewards derived either from service tariffs or user charges, from a departmental budget or from a combination of these sources.

The Guidelines for PPP's (Department of Finance, 2000) provide more detail, distinguishing five types of PPP contracts:

- service contracts (1-3 years, e.g. facility repairs and maintenance)
- management contracts (3-8 years, e.g. regional water supply management)
- leases (8-15 years, airport or port facilities)
- build operate transfer (15-25 years, e.g. schools, prisons, hospitals)
- concessions (15-30 years, e.g. new airport or seaport, toll road or bridge).

Successful PPPs require new attitudes and skills in order to identify when a partnership route might be in the best interest of the public. It should not be pursued where it is clearly inappropriate. Farrell *et al.* (1997) indicate that apart from the fact that a PPP project should have a high priority at national level, PPPs should also provide good economic value which is not necessarily the same as least cost, affordable and acceptable to financiers and should provide for optimal risk allocation between the public and private sectors. Moreover, Farrell, *et al.* (1997) emphasize that one of the main objectives of PPPs is to capture the innovation, technological, commercial and management expertise and capabilities of the private sector in order to transfer relevant risk away from public sector to the party that can manage it best at the lowest possible cost. According to the Department of Finance (2000), the advantages of PPPs will include efficiency gains, output focus, economies of scale from integrating the design, building, financing and operation of assets, innovative use of assets, innovative financial structuring, managerial expertise and better project identification.

However, PPPs cannot only be justified by crude claims that the private sector is better at managing and providing assets and services than the public sector. For the private sector contractors, financiers and operators, the PPP system is not without flaws. A PPP must be tested in practice through a realistic project appraisal and the preparation of a robust business case. There are circumstances though, where value is more likely to be added through a partnership scheme. Experience has shown that significant economies of scale can arise by taking an integrated approach to the procurement of services by bringing the design, build, operation and maintenance of an asset, together in one organization. This could avoid costly disputes among contractors over *who* is responsible for *what* particular aspect of the transaction.

The underlying principle behind PPPs is that, although the public sector may need to be responsible for the delivery of a particular service, it does not, *a priori*, have to be responsible for actually providing the service or for undertaking the investment themselves. The focus switches to service activities, or outputs, rather than asset based projects. Secondly, the services provided can vary widely depending on the nature of the project. In the case of road maintenance, the contract would most likely necessitate the provision of all services, whereas in the case of, for example, a third level college, the contract would be limited to the supply of ancillary services such as catering and utilities management, leaving the core activities of teaching under the responsibility of the state (Farrell, *et al.* 1997).

In essence, the focus of PPPs must demonstrate value for money, be affordable, be procured, using transparent and competitive processes, show substantial risk transfer to the private party and be implemented within a sound project management framework (Russell & Bvuma, 2001: 248). Although it is not universally accepted that a PPP is necessarily the best option in providing public utilities, it seems as if a combination allows for greater efficiency based on the use of their comparative advantage. However, it would still be imperative to create a working relationship between the two entities in such a manner as to optimise the levels of efficiency. A regulating environment with the necessary legislation and control measures should thus be established.

REGULATION AND PUBLIC PRIVATE PARTNERSHIPS

The traditional concept of an autonomous private sector acting in pursuit of its own immediate goals of profit maximisation, and a public sector with discretionary powers and multiple objectives in the public interest, are challenged. A changing situation seems to evolve towards a mixture of public-private and government-market decision-making. Currently an inter-organisational partnership has widely been accepted (Pongsiri, 2002: 487). This partnership can provide shelter and protect the public interest while bringing investment potential and adding value from the private sector. To build a sustainable partnership, a clear legislative framework specifying the roles of each, their relationships and areas of co-operation is essential. This is important because public and private sectors have common goals and can thus take advantage of the separate strengths of each to achieve mutual objectives.

In partnerships, the private sector needs to consider its social responsibility, while the public sector needs to create the appropriate legal and regulatory structures, as well as a democratic and participatory process in decision-making. The main benefits to the public agency are improvements in programme performance, cost-efficiencies, better service provisions and appropriate allocation of risks and responsibilities. The private sector expects to have a better investment potential to make a reasonable profit and to have more opportunities to expand its business interest. However, some negative outcomes such as increasing complexity, loss of decision-making autonomy and information asymmetry may also be evident (Rosenau, 1999: 27). Further problems may include equity, access, participation and democracy.

Successful implementation of public private partnerships depends to a large extent on the development of sound legal procedures, agreements and contracts that clearly define the relationship between government agencies and private firms. Without these requirements, disputes are likely and projects may be delayed or even terminated. The legal framework further reduces opportunistic tendencies and serves to align the interest of the partners. Regulatory systems are key elements to maintain competitive market discipline on public provisions in developing countries (Pongsiri, 2002: 489). It should be established as soon as possible to define clear rules for financial performance, provide practical experience to staff responsible for implementation; and provide assurance to the private sector in case of expropriation; arbitration of disputes and respect for contract agreements. Furthermore, it will increase benefits to the government by achieving better and more informed decision-making, improved performance, and raising efficiency and accountability. In developing countries with limited histories of private participation, investors with doubts about safety of investments will either require high returns or not invest at all. The only way to successfully attract private capital is to establish a regulatory regime that reduces this risk (Pongsiri, 2002: 489).

Over-regulation and contractual safeguards can restrain economic growth and hinder the private sector's ability to remain competitive in the market. The greatest deterrent in such a partnership is the regulatory environment and attitude. Private investors will stay away and will seek more hospitable places to invest if regulation is unlimited in scope, unclear in operation and inclined towards micro-management. The regulatory regime must be limited, transparent, fair and consistent. Government should always keep its promises (Pongsiri, 2002: 491). Regulation ought to satisfy the demand of both public and private sectors, which at times may be conflicting. It is imperative that the regulatory environment should contribute towards creating an efficient environment in the process of providing public utilities.

From the above arguments, it is evident that economic theory has contributed substantially to the identification of those critical variables that constitute the backbone of the process of economic development. In the next section, based on this theory, the experience of road construction in Kenya is discussed. Faced with problems of who should provide the public utility as well as the economic outcome, different possible scenarios are discussed.

KENYAN EXPERIENCE

The decline in the economic activity of Kenya is well documented. This decay has been summarised in the recently published Economic Survey of the Central Bank of Kenya (Central Bank of Kenya, *Economic Survey*, 2001). The general decline in economic activity is attributed to the inadequate and inefficient use of investment capital in domestic production as a result of the following factors:

- prolonged adverse weather conditions particularly affecting agriculture and power supply
- crumbled infrastructure, particular roads, inefficient telecommunication services, port and railways operations and inadequate water and power supplies, that increase the cost of domestic production and marketing of goods and services and
- uncertainty and loss of investor confidence caused by insecurity and inefficient delivery of public services.

Building and construction, which now contributes less than 2,4 per cent of GDP, also experienced poor growth rates of less than 1.0 per cent annually. This weak performance is mostly attributed to the depressed public and private sector investment in building and construction activities due to the financial austerity measures and suspension of donor funds. As a result, cement production decreased by 5,4 per cent and building plans approved by various urban centres decreased more than 10 per cent per year since 1999. (Central Bank of Kenya, *Economic Survey*, 2002).

The continued contraction in economic activity over the last three years is underlined by the continued decline in both the shares of gross and nominal investment. Whereas gross domestic investment had been 24,5 per cent of GDP in 1980, it had decreased substantially to 14,0 per cent in 1999 and 13,3 per cent during 2000. In the same manner did nominal investment, as share of GDP, also declined from 21,8 per cent in 1995 to 16,1 per cent in 1999 and 14,8 per cent in 2000. The source of this dismal investment remains due to the lack of domestic savings. The ratio of domestic savings to GDP fell from 15,4 per cent in 1996 to 11,8 per cent by 1999. (Kenya Central Bank, *Annual Report*, 2002). The Survey by the Central Bank of Kenya (2001) summarises the growth dilemma in Kenya in this regard as follows:

To revitalise growth to about 5-6 per cent, an investment GDP ratio of about 25 per cent is required. However, with improved efficiency it is possible to attain higher growth rates with the existing level of investment

Currently however, the gap between the lack of savings and funds used in the economy is filled with an increase in debt. The total debt to GDP ratio had increased from 46,6 per cent in 1980 to 61,3 per cent by 2000. (Kenya Central Bank, *Annual report*, 2002).

To revive the Kenyan economy President Kibaki, whose National Rainbow Coalition won last year's national election, appointed Andrew Mullei as the new governor of the Kenyan Central Bank. He has unveiled plans to boost the country's sluggish economy:

Our main focus now is to do everything that would kick-start, then steer Kenya's under-performing economy to achieve 7% growth. Bad governance and its results-

corruption and mismanagement of resources- is responsible for our stagnant economy, hovering at less than 1% growth (Kenya targets corrupt officials, www.news.bbc.co.uk/2hi/business/2956733.stm).

The provision of roads in Kenya: different scenarios

It becomes quite clear that the attempt by the Kenyan authorities to improve the road infrastructure is important to restore confidence not only from a domestic viewpoint but also from foreign investors and trade. Currently, the Kenyan government levies a road tax for the maintenance of roads. However, the earmark of these funds for maintenance has not materialised. Due to this incapability, Kenya's main road between Mombassa and Nairobi is in such dire straits that a complete reconstruction is necessary. The methodology of the Kenyan approach towards reconstruction and maintenance of the Northern Corridor is based on the analysis of three different scenarios, namely:

- The Government of Kenya constructs the concession road and finances the road through the national budget and does not charge toll fees.
- A private concessionaire constructs the concession road and finances the toll road using primarily overseas funding (foreign direct investment) and charge toll fees.
- A private concessionaire constructs the concession road and finances the toll road using primarily Kenyan domestic funding and charges toll fees.

The overall macroeconomic impact, as well as the impact of each scenario of the investment in the road construction on the Kenyan macro economy, is measured. The effects on economic growth, price stability, employment, the balance of payments, and taxes for each of the scenarios is determined and quantified where possible.

To evaluate the effects of each of the above scenarios on the economy of Kenya, particular assumptions had to be made which will be applicable for each scenario, irrespective of the way in which the Northern Corridor will be financed.

- Cost of road construction

It is assumed that the initial investment amount to finance the backlog for the reconstruction of the Northern Corridor is US\$335.7 million for all three scenarios. The annual maintenance of the road remains at US\$6.7 million.

Advantage/Spill over stemming from the road is the same in each scenario.

- Due to the recent experience, it cannot be assumed that the Kenyan government will be able to finance the investment through a tax levy, nor to maintain the road in the future.
- The Government can finance the investment through the issuing of bonds in either the domestic or the foreign markets (assuming either in the US or in Europe).

Financing options

Given the different scenarios and the way that the road is financed, the total annual required gross income (economic cost) after the completion of the road is calculated in

Table 1. This is the minimum annual required gross income to assure long-term sustainability.

Column 1 shows the interest rate burden of financing. In scenario 1 (given the government issue bonds) financing can be obtained at an interest rate of 10 per cent. If the government obtains a foreign loan to finance the road project the interest rate burden will be five per cent (foreign rate) plus 15 per cent annual depreciation of the domestic currency. In scenario 2 it is assumed that the foreign concession holder finance the construction of the road at the foreign interest rate of five per cent. In scenario 3 the concession holder is forced to borrow the funds domestically at a current average rate of 18 per cent.

Table 1 : Annual gross income required after completion of road (investment \$335 mil)

	Interest rate (%)	Capital and interest rate payment (annually)	Yield (25% on total investment)	Company tax (33.5% effect tax rate)	Maintenance annually	Cost estimates/ Required gross income
Millions US\$						
Scenario 1(a)	10	35.2	n/a*	n/a*	6.75	41.95
Scenario 1(b)	20	76.1	n/a*	n/a*	6.75	73.85
Scenario 2	5	21.5	83.75	41.8	6.75	153.8
Scenario 3	18	60.5	83.75	41.8	6.75	192.8

* n/a = Not applicable

Scenario 1(a): Government loan financing in the domestic bond market

Scenario 1(b): Government loan financing on international bond markets plus 15% currency depreciation

Scenario 2: Private concessionaire using FDI for funding of the road construction and maintenance

Scenario 3: Private concessionaire using domestic finance for funding of the road construction and maintenance

In column 2 the annual capital and interest rate repayment are calculated based on the interest rate in column 1 and the investment of US\$335 million. In column 3 the income is determined that would be necessary to sustain the investment given minimum yields estimated at 25 per cent if private concession holders are used. For scenario's 1(a) and (b) no yield have to be earned.

In column 4 the annual effective company tax rate is calculated based on the yield required in column 3. Company tax is only applicable to scenario 2 and 3. Column 5 shows the annual maintenance cost of all the scenarios once the road is completed.

Column 6 shows the annual required costs in scenario 1 to the government to assure long-term sustainability of the project. In case of scenario 2 and 3, column 6 shows the required gross income (toll fees revenue) that private concession holders need to assure sustainability. (This indicates normal profit levels where total income equals total cost and the 25 per cent yield on the investment is included).

Macroeconomic impact on the Kenyan economy

There might be an improvement in the trade possibilities due to the expected new road from Mombassa to the inland. This perceived improved effectiveness of freight transport could stimulate economic growth and development. The upgrading of the road will also increase regional economic growth and development. The road will serve as a catalyst for rural development and cluster development alongside the road will enhance income creation from trade and tourism activities. Any growth in the numbers of vehicles using the new road could influence the future costs of maintenance. The implementation of a toll fee will increase the burden of the road users who are currently also paying a fuel levy, implying a double taxation. If a private company takes concession of the toll road the estimate of toll fees range between US\$153 million and US\$192 million per annum (see Table 1). This amounts to nearly one per cent of Kenya's GDP annually. The extra burden of the toll fee can initiate a decrease in consumption expenditure of consumers on other goods and services in the region of the proposed road development. However, if the government takes ownership of the proposed road development the additional burden on government's expenditure could be close to between 0,4 and 0,7 per cent of GDP annually, given that government finances the toll road through the issuing of government bonds .

Given the different scenarios, the overall macroeconomic impact is analysed in Table 2. The following conclusions are derived:

- All three scenarios will have a sustainable impact of between five and seven per cent on the economic growth after the completion of the road. If one assumes that the private sector finances and maintains the road (scenarios 2 and 3) the effect will be quicker.
- All three scenarios will have the same impact on the investment/GDP ratio by increasing it from 13,3 per cent to 13,6 per cent. Scenarios 2 and 3 as well as the second alternative from scenario 1, where government financing is from abroad, have a major effect on the level of savings in the economy. Under these scenarios the level of savings will increase by 50 per cent during the first year, minus debt service costs (scenario 1b) and minus profits and dividends (scenario's 2 and 3).
- The tax burden is substantially higher in scenarios 2 and 3 due to double taxation.

Table 2: Overall macroeconomic impact

Scenario	1(a)	1(b)	2	3
Economic growth (once-off in first year)	5%-7%	5%-7%	5%-7%	5%-7%
Investment (Gross domestic I/GDP)	+3%	+3%	+3%	+3%
Investment (Gross domestic Investment)	+25%	+25%	+25%	+25%
Savings (total domestic savings)	0	+50% minus debt service	+50% minus profit& dividends	+50% minus profit& dividends
Net tax burden on consumers	+US\$42mil	+US\$73.8mil	+US\$113mil	+US\$150mil
Price stability				
Inflation	Min.increase	Min. increase	Min. increase	Min. increase
Interest rate	Increase	Decrease	Decrease	Decrease
Exchange rate	N/a	Appreciate	Appreciate	N/a
Balance of payments	Small surplus	Surplus	Surplus	Small surplus
Trade	Increase	Increase	Increase	Increase
Capital account/ Reserves	N/a	+40%	+40%	N/a
Employment	Increase	Increase	Increase	Increase
Foreign skills	Small increase	Small Increase	Increase	Small increase

N/a = Not applicable

Scenario 1(a) Government loan financing in the domestic bond market

Scenario 1(b): Government loan financing on international bond markets plus 15% currency depreciation

Scenario 2: Private concessionaire using FDI for funding of the road construction and maintenance

Scenario 3: Private concessionaire using domestic finance for funding of the road construction and maintenance

- The effect on price stability, due to the road investment is not measurable and only an indication of the direction of movement can be determined. In all three scenarios a minimum increase in the inflation rate is expected as the total demand in the economy increases. The off-shore financing, either by the government or a private operator, will lead to a decrease in interest rates due to the inflow of foreign savings. If the government finances the project from the issuing of domestic bonds, interest rates should increase.
- The exchange rate will appreciate if the financing is offshore, even when dividends and profits flow out again.
- The balance of payments will improve under each scenario as it is expected that international trade (exports) will be higher. Given that the investment financing will be offshore, financed either by government selling bonds or FDI, the financial account will improve significantly. (The expected foreign capital inflow will be 40% of current gross reserves).
- The employment effect for all three scenarios will be substantial, although it is not possible to measure the exact effect at this stage.

Recommendations

- The financing of the Northern corridor will be least expensive if the government finances it.
- The impact on the economy is however the most positive if the financing is undertaken by FDI, although it seems that it will not cancel out the cheaper financing by the government. This is only the case if the foreign firm repatriates the total US\$335 in dividends and profits over the next thirty years. If not, this scenario is recommended.
- The investment in the road by the government, nevertheless will only be the best choice if:
 - the road is in fact been built as soon as possible and maintained sufficiently, although current experience in Kenya, suggest the opposite due to the level of corruption
 - a tax levy is indeed used to repay the government debt incurred in financing the backlog as well as the maintenance. Implying that a re-prioritising of government expenditure would have to take place.

CONCLUSION

Various ways exist in which public utilities can be provided. State controlled enterprises were seen for many years as the most efficient way to engage in this collective provision. State owned enterprises (SOEs) were introduced more and more in various developing countries during the 1960s and 1970s. Recent literature and empirical evidence, however, argue that state intervention must rather be justified in the case of market failures, and not only in providing public goods. The poor performance of SOEs due to a lack of efficiency, profitability and flexibility of managers has led to the establishment of public private partnerships (PPPs). The essence of PPPs lies in substantial risk transfer to the private party that is implemented within a sound management framework.

Although it is not universally accepted that a PPP is necessarily the best option in providing public utilities, it seems as if a combination allows for greater efficiency based on the use of both their comparative advantages. However, it would still be imperative to create a working relationship between the two entities in such a manner as to optimise the levels of efficiency. A regulating environment with the necessary legislation and control measures should thus be established.

The empirical evidence of three different scenarios for road construction in Kenya provides an analytical framework for testing the best option in providing public utilities. Although the financing of the proposed Northern corridor in Kenya by the government will be the least expensive, experience of the current road financing and maintenance by the Kenyan government reflect high levels of inefficiency and corruption. The role of a PPP, especially if financed via private concessionaires through FDI seems to be the most efficient option, if the foreign private partner indeed reinvest profits back into community development projects.

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