
Executive summary

The Economy-Wide Effects of Price-Reducing Reforms in Infrastructure Services in South Africa

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1 Key words

Economy; Infrastructure; Pricing; Communications; Transport; Macro-economics; Micro-economics; Imperfect Competition; CGE Models; Non-Tariff Barriers; Services; Productivity.

2 Commissioned and supported by

The study was commissioned by the Department of Trade and Industry (DTI) – Trade and Industrial Policy Strategies (TIPS).

3 Conducted by

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4 Background to the study

It is widely believed that many services in South Africa are over-priced. There are frequent complaints in the media by business and consumers about the high cost of telephone calls, the poor quality of rail or port services.

Although there is disagreement over the magnitude of such over-pricing, its existence has been borne out in a number of research and consultancy reports. Infrastructural services such as transport and communications provide significant inputs into the production of other goods and services in addition to any direct contribution they make to the economy. Reforms that reduce their prices might thus be expected to have knock-on effects on the rest of the economy.

There are, broadly speaking, three channels through which reducing over-pricing will have economy-wide impacts:

- First, there will be supply side effects. Reducing prices will reduce costs to users. Where these are producers, there will be further knock-on effects. It is likely that this will have a positive effect on GDP and employment.

- Secondly, there will be demand effects. Reducing costs to consumers raises their real incomes, increasing demand not only for the services directly but also for other goods. Expanding employment will also have a demand promoting effect.
- The third channel is less obvious. Over-pricing creates an income for some agents in the economy. Removing it can therefore affect the distribution of income. The precise manner in which it does so will depend on the nature of the over-pricing. For example, reducing a monopoly price can reduce the income of agents that benefit from the monopoly. This can have compositional effects on demand. Demand will fall for those goods that are high in the monopolist's consumption bundle and rise for those high in the consumption of groups that benefit from removing monopoly.

5 Overall purpose of the study

This work explores the consequences of price reductions of infrastructural services and the knock-on effects that these reductions may have on various sectors and on the economy generally.

6 Scope of the study

While the study refers to price reductions in infrastructural services, it is in fact limited to an analysis of communications and transport – these being two areas which impact most on the economy. It is also important to note that the study focuses on the consequences of price reductions, and not on the practical measures that may bring about such reductions.

7 Research questions

The key research question underpinning this study is; to what extent will price-reductions in infrastructural services impact on the economy, and in what form.

8 Evaluation methodology

8.1 Type of evaluation

This is an implementation evaluation – in this case looking at the implications of implementing price reforms in Infrastructural services.

8.2 Methodology

The primary methodological tool used in this study is a static CGE model. Computable general equilibrium (CGE) models are a class of economic models that use actual economic data to estimate how an economy might react to changes in policy, technology or other external factors. This model was used to analyse the economy-wide effects of reducing plausible estimates of high prices (caused by non-tariff barriers to trade or inefficiencies in production) in telecommunication and transport.

8.3 Data collection

The data used in this analysis was sourced from SAM data. SAM refers to a Social Accounting Matrix. The SAM is one of the products which are compiled and published by national accounts. A SAM integrates supply and use tables and institutional sector accounts into a single matrix format.

9 Findings

The study found the following:

- Reforming communications and transport simultaneously raised real GDP by 3.9%,
- Removing the mark-ups in both sectors raises it by 2.3%,
- Generally reforms to the transport sector have a bigger impact than those to the communications sector,
- Skills shortages are a major concern in South Africa and shortages of a particular skill will restrict the extent to which demand for other types of labour will rise.
- The report outlines many variations and permutations which may arise out of changing certain variables.

10 Conclusions and recommendations

The study draws five main conclusions:

- The economy-wide effects of the reforms are significant,
- It may be better to undertake the reforms as a package, rather than individually,
- The initial impact of the reform is felt in the reforming sector,
- Skill constraints can affect not only the size of the impact of the reforms, but also their distribution and composition.
- More empirical research is required to deepen our understanding of these effects.

11 Evidence of use

There is some limited evidence of use. This paper was presented to the TIPS Forum for debate and discussion. It clearly adds to the body of research and knowledge related to infrastructure pricing and the impacts on the economy.

12 Note on quality of report

The Report scores a overall 3.73 out of 5 using the Evaluation Quality Assessment Tool [EQAT].

This assessment has found 'The Economy-Wide Effects of Price-Reducing Reforms in Infrastructure Services in South Africa' to be a good quality assessment of these effects. The Report is somewhat technical in nature, but would be accessible to a significant number of readers.

The findings and conclusions are clear and well articulated and follow the overall structure and arguments in the paper. There is some evidence of use, and the paper undoubtedly contributes to the body of knowledge in this specialist area.

This report is suitable for public dissemination.