

Policy Brief – Competition and Productivity Growth in South Africa

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Note: This is a non-technical policy brief based on "Competition and Productivity Growth in South Africa" by Philippe Aghion, Matias Braun, and Johannes Fedderke, available at <http://www.cid.harvard.edu/cidwp/132.htm>.

This paper is part of the CID South Africa Growth Initiative. This project is an initiative of the National Treasury of the Republic of South Africa within the government's Accelerated and Shared Growth Initiative (ASGI-SA), which seeks to consolidate the gains of post-transition economic stability and accelerate growth in order to create employment and improve the livelihoods of all South Africans. For more information and the entire series of papers, visit the project's web site at <http://www.cid.harvard.edu/southafrica>.



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Competition and Productivity Growth in South Africa

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Summary and policy brief

Recent empirical studies (e.g Nickell (1996), Blundell et al (1999), Aghion et al (2005)), have pointed to a positive effect of product market competition on productivity growth, particularly at low levels of competition. In this paper we explore three different data sets to: (i) first, compare product market competition in South African manufacturing firms and sectors to that in the corresponding sectors worldwide; (ii) second, assess the effect on productivity growth in South Africa of increasing product market competition.

The three data sets are respectively: (i) industry-level panel data for SA and more than 100 countries and 27 manufacturing industries since the mid-1960s, from UNIDO; (ii) industry-level panel data for South Africa, covering all three-digit industries, over the period 1970-2004, from the TIPS database; (iii) firm-level panel data since the early 1980's from publicly listed companies over 56 countries. Product market competition is measured by two alternative formulations of the mark-up of price over the marginal cost of production. Productivity growth is computed either as the growth rate of real local currency value added per worker, or as TFP growth.

Our first finding is that, consistently over the three data sets, mark-ups are significantly higher in South African industries than they are in corresponding industries worldwide. For instance, profitability margins as computed from the listed firm sample, are 50% higher in South Africa than in other countries on average, and the ratio between margins for listed and non-listed firms is twice as large in South Africa than in the world as a whole. These differences are observed consistently over all sectors, and moreover, there is no declining trend in the mark-up differential between SA and other countries over the most recent period. The aggregate mark up for manufacturing, computed from the TIPS data set, amounts to 54% and shows no declining trend.

Our second finding is that higher past mark ups are associated with lower current productivity growth rates. In particular, regressions using the UNIDO and Worldscope data samples indicate that a ten percent reduction in South African mark-ups (or price-cost margins) would increase productivity growth in South Africa by 2 to 2.5% per year, depending on whether one controls for firm and industry fixed effects. Regressions using the TIPS data base predict that a 0.1 unit increase in the Lerner index (defined as net value added over sales) should reduce productivity growth by 1%. an effect of increased competition on productivity growth of the same magnitude.

To make sure that our correlations reflect a causality from competition measures to productivity growth and not the reverse causality, we use the trade related measures of Edwards (2005) to instrument for competition. These measures are: the effective rates of protection, the scheduled tariff rates, the export taxes, and a measure of the anti-export bias of trade protection. When controlling for industry heterogeneity, the instrumentation strengthens our regression results, which in turn reinforces the evidence of a substantial impact of competition enhancing policies on the growth potential of South African

industries. This instrumentation exercise is interesting in itself, as it suggests a significant effect on growth of tariff reductions.

When introducing a quadratic term on the RHS of our growth regression, we find the same kind of inverted-U relationship between competition and growth as for the UK and other countries.

Altogether, these findings strongly suggest that South African industries are insufficiently competitive, and that enhancing competition is an important source of increased productivity growth. Now, what should be done to increase competition? Our instrumentation exercise in this paper, already points at a first set of measures, namely tariff reduction and the streamlining of current protection policies. Lawrence (2007)'s paper describes the current state of tariff policies and suggests interesting avenues for tariff reform. Our analysis in this paper indicates a potentially strong impact of such reforms on growth.

A second direction where to direct competition policy, is the conduct of anti-trust actions. In South Africa, unlike in other countries worldwide, the Competition Commission used to intervene only upon request by private parties, but never on the government's sole initiative. Thus, if private firms decide to collude on maintaining high mark ups and preventing entry, and then collude on not denouncing such practices, nothing happens to prevent such collusions. We propose instead that competition authorities in South Africa adopt a pro-active rather than a complaints-driven approach, with the SA equivalent of the US Department of Justice playing an active role in enforcing higher competition.

A third direction is to reduce barriers to entry. Such barriers are typically due, partly to entry-deterrence behavior by incumbent firms (for example, vertically integrated firms which enjoy monopoly power over some input may restrict entry simply by limiting access to the input), and partly to the lack of access to credit for new potential entrants. We believe that an important channel whereby to increase black empowerment, is to remove these entry barriers. One danger of current BEE policy is precisely that it allows incumbent firms to reinforce their market power by buying out political support through strategic cooptation decisions.