DYNAMIC GAINS FROM TRADE: EVIDENCE FROM SOUTH AFRICA

BY

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- A REVIEW BY E. U. UKEJE*

1. SUMMARY OF THE PAPER

The specific objective of the paper was to examine the empirical relationship between trade and total factor productivity (TFP) in South Africa, with the hypothesis that enhanced trade in recent years had improved efficiency in the South African economy. The authors believed that the study would be important from a policy perspective, as trade liberalization constituted an important element in the government's effort to boost the underlying supply capacity of the economy. The outcome was also expected to reveal if the South African experience differed from that of other countries.

The paper was divided into five sections. Section I was the review of previous research while Section II focused on trade policy and trade development in South Africa. Section III and IV outlined the methodology and result respectively.

The review of previous works by the authors showed that in theoretical models, the impact of trade liberalization on economic growth was either absent or ambiguous. For instance, in a conventional neo-classical growth model, trade did not affect the equilibrium or steady state rate of output growth because; by assumption growth is determined by an

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exogenously given technological progress. Nevertheless, trade policy can have transitional growth effect as the economy converges towards the steady state. In an endogenous growth model, could be positive or negative, depending on model-specific assumption. It was believed that increased trade could have a number of generalized positive impacts. For example, trade enabled a country:

(i) to employ a larger variety of intermediate goods and capital equipment which could enhance the productivity of it's other resources

(ii) acquire technology developed worldwide, especially in the form of embodied capital goods;

(iii) to increase the variety of products produced and consumed; and

(iv) to improve the efficiency with which resources are used, which can help to change market structures.

The authors opined that while all the studies reached the broad conclusion that increased trade had a positive impact on growth, they have now been critically reviewed and the major issues were that: the real meaningful question was not whether openness defined in terms of outcomes, helps growth but whether more liberal trade policy helped growth. The trade outcome approach was believed to suffer from conceptual and empirical shortcomings, including the endogeneity of outcomes, the failure to specify the mechanism through which exports and imports affect growth, and measurement problems.

The authors reviewed trade policies prior to the 1990s, and multilateral trade liberalization between 1995 and 2002. Trade in South African between the 1960s and 1970s was characterized by high tariffs and extensive import controls. From early 1980, systematic attempt was made to eliminate import licensing but the imposition of financial sanctions and the debt standstill in 1985, halted the balance of payments and reversed progress on trade liberalization. During the 1980s, a number of export schemes were introduced to alleviate the burden on exporters. By the end of the 1980s, South Africa had the most tariff lines, most tariff rates, the widest range of tariffs, and the second highest level of dispersion among developing countries. In sum, South Africa had a highly distorted system of protection. However, the liberablised trade policy stance started gaining momentum in the early 1990s. Virtually all quantitative restrictions have been eliminated including those operating through the agricultural marketing boards and the tariff regime had been rationalized.

2. RESULT OF THE STUDY

The results from the regressions of Total Factor Productivity (TFP) growth on changes in tariffs showed that there was a significant negative relationship between changes in tariffs and TFP growth across the manufacturing sectors. Only the Capital Labour Ratio (CLR) was highly significant, indicating that more capital-intensive sections tend to exhibit higher TFP growth rates. The result also showed that tariff changes seemed to have a non-linear effect on TFP growth, the marginal effect on TFP growth, tended to decline as the tariff reductions become larger. The regression results also illustrated that the quantitative effect of trade liberalisation is sizeable, for example the annual growth rate in TFP was nearly 3 percentage points higher in sectors where tariffs were reduced by 10.0 per cent compared with sectors where tariffs were unchanged. The inclusion of average capacity utilization of individual sectors did not affect the importance of the tariff change variable, the hypothesis that, TFP growth may have increased because firms have laid off less productive workers as tariffs were reduced in order to stay competitive was investigated. There was no evidence to support the hypothesis that the tariff reductions are positively related to the employment decline across the manufacturing sectors. In fact, the coefficient is negatively signed, indicating that, if anything, employment has fallen less in the sectors where tariffs have been reduced more aggressively. It was noticed that capital growth was positively related to changes in tariffs. Thus, suggesting that in sectors that experienced large tariff reductions firms have tended to use the existing capital stock more efficiently. Overall, it was observed that capital intensity increased more in the sectors that remained relatively highly protected during the 1990s, rather than the opposite. Using time series data, the estimated coefficients indicated that a 10.0 percentage point increase in openness is associated with an increase in TFP of about 5.0 per cent in the long run. Similarly, an increase in the share of machinery and equipment investment of 10 percentage points is associated with an increase in TFP of about 3.0 percentage points in the 10

The results obtained indicated that trade liberalization has contributed significantly to augmenting South Africa's long run growth potential through its impact on TFP growth. It also suggested that an open economy need to be complemented by appropriate avenues for the creation and absorption of technology.

3. COMMENTS AND CONCLUSION

The strength of the paper lies in the simplicity of the analysis using cross sectional and time series data. The detailed analysis of various trade policy regimes and their implications for growth were vividly demonstrated. However, the impact of technology was not clearly identified as the author advocated for environment that should be complemented by appropriate avenues for the creation and absorption of technology.

The findings of the paper provide very useful lessons for Nigeria as they address very important issue of trade liberalization. The fact that the sectors that were protected with high tariffs suffered high job losses and lower TFP is an indication that trade liberalization does not lead to job losses as often alluded to by some policy makers. There is however, the need to note that, since South Africa like Nigeria does not undertake significant amounts of Research and Development activity, the author assumed that the bulk of the R & D would be embodied in capital equipment, especially that imported from abroad. The same thing cannot be said for Nigeria where the bulk of imports are consumer goods. This could be attributed to structural rigidities in the economy and the poor state of infrastructural facilities. The finding that in sectors that experienced larger tariff reductions, firms have tended to use the existing capital stock more efficiently is instructive on the need for another look at the tariff in the country, which is currently considered too high. The need for more capital injection into the manufacturing sector is further buttressed by the finding that more capital intensive sub sectors exhibit higher TFP growth rates.

Finally, the paper recognized the need to explore the impact of trade liberation at plant level. The outcome of this provides useful information that would guide government industrial policy.

***Published in IMF Staff Papers Volume 48 Number 1, 2001