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The Political Economy of Trade Liberalization: The Case of Vanilla in Madagascar

I. STATEMENT OF THE POLICY ISSUE

The purpose of this study is to understand how the process of trade liberalization affects performance of traded commodities in agriculture, and to identify constraints in this type of reform process that have impeded anticipated supply response to these reforms. This issue is important for Africa because after more than a decade of efforts to reform macroeconomic, sectoral and trade policy, export trade from sub-Saharan Africa has continued to fall as a share of world trade.

II. WHAT DID THE RESEARCH SEEK TO ACCOMPLISH?

This paper examines the experience of reform of the vanilla sector in Madagascar in the 1990s as a case study of the trade liberalization process. Vanilla was the last agricultural commodity to face liberalization in Madagascar. Because of its natural advantages and large share in world production, until 1993, Madagascar pursued a restrictive export policy that sought to raise the world market price for vanilla. Moreover, export restrictions were complemented by internal market regulations that served to hold producer prices down to discourage over-production. Madagascar's restrictive export marketing policies eventually eroded Madagascar's share in the world vanilla market by creating an attractive opportunity for higher cost competitors to enter the market. High prices also served to stifle world demand. Together these policies caused exports to stagnate since the late eighties. However, production continued to grow during most of this period, in large part because the capital and operating costs of these stocks were subsidized by public financing. As a result, massive accumulation of domestic vanilla stocks occurred at great expense.

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By 1993 the loss of export markets and the high cost of supporting domestic stocks forced the government to reform the sector. In that year it ceased the stock subsidy program and destroyed most excess stocks. In 1994, the government also ceased efforts to prop up world market prices and adopted a schedule to reduce export taxes. It also abolished its domestic marketing board, the *Caisse de Stabilisation,* and ended efforts to set producer prices. Since then, the government has carried out most of the objectives of the reform program, although not always according to the script of the structural adjustment program. Concerning this reform process, four specific research issues are investigated in this study:

- *To what extent have vanilla market reforms taken effect in reality?*
- *What has been the performance of the vanilla sector since liberalization?*
- *How have costs and financial incentives changed for each set of actors in the export chain and how has this altered the political economy of the sector?*
- *How has the structure of the international market affected the impact of reforms?*

III. WHAT WAS THE APPROACH USED?

Several approaches were applied to answer these research questions.

- The analysis of the extent of market reform relied on a comparison at three levels of 1) technical analyses of proposed reforms prepared by the World Bank and other analysts, 2) official documents of the Malagasy government which enacted the reforms, and 3) observations of the actual application of each adopted reform based upon interviews with public and private actors in the vanilla market.
- The assessment of performance was based on evaluation of time series data on changes in production, stocks, trade, and prices for vanilla at various stages in the market. These data came from national statistics, international trade data, and surveys in the primary vanilla producing region.
- The assessment of costs and financial incentives relied on three single interview surveys of samples of producers, intermediaries and exporters of vanilla, conducted in 1997. These were used to develop prototype production and marketing budgets for the vanilla market chain. Scenarios of changes in profitability at each level of the market were then created based on documented changes in prices of inputs and products over the period of reform.
- Lastly, the impact of the world market on the reform process was simulated using a model of the international market for vanilla, whose parameters were econometrically measured from time series since 1963.

IV. PRINCIPAL CONCLUSIONS

The principal findings with respect to each issue and broader conclusions and recommendations for policy are enumerated below.

To what extent have vanilla market reforms taken effect in reality?

The literature on trade and market liberalization stresses the importance of differences between official adoption of reforms and their effective implementation on the ground. To evaluate the record of implementation, the analysis revisited each proposed reform and the current status of its implementation. Overall, the officially adopted measures for reforming the vanilla sector appear to have followed the initial reform plans. Moreover, for most of these adopted measures, a good faith effort at implementation was undertaken. In the case of export tax reduction, implementation actually went further than initially envisioned, with the total elimination of export taxes. On the other hand, proposals to abolish local taxation of vanilla marketing were initially reversed with an increase in these taxes, although more recent efforts may have accomplished this task.

Perhaps the most important type of failure, however, has been in the difficulty of establishing new institutions for governing the vanilla market. While the proposed process predicted the need for a gradual transition, the pace of transition and the facility of restructuring the sector based on private initiative was overestimated at all but the export levels. Many other unintended problems occurred in the process of reform. These were in part due to exogenous events such as changes in the larger political environment, which increased economic uncertainty during the period of reform. One problem was a reduction in vanilla quality and therefore its price due to increased insecurity in the market.

What has been the performance of the vanilla sector since liberalization?

Reforms to Madagascar's vanilla market have been unquestionably successful in increasing Madagascar's share of world trade. This resurgence has occurred, however, only after Madagascar took steps to dramatically lower its export price by reducing and eventually eliminating the export tax wedge that had kept prices high. Production has also increased since reforms, but not at the same pace as exports, in large part because prior to reform, production already exceeded demand.

The costly stocking program that allowed surplus production has been disbanded. This has meant that stock levels have fallen and market prices have sought a new equilibrium in which production levels have balanced with exports. Unfortunately for producers, this new equilibrium appears to lie close to low producer price levels that existed before reform.

Reforms clearly changed the way vanilla marketing is conducted in Madagascar. The number of actors has increased, particularly at the processor and export levels, while the stocking profession has virtually disappeared. The permanence of these changes is less clear, however. Already, the surge in the number of processors has reversed, as these actors have had to face increasingly competitive markets and have received less public support in their activities.

Similarly, although exporter numbers grew, traditional exporters continue to hold their dominant position in the market, suggesting that a similar retrenchment in numbers may still occur.

How have costs and financial incentives changed for each set of actors in the export chain and how has this altered the political economy of the sector?

Distributional effects of reform were surprising, both with respect to who gained and lost, and with respect to the changes in these impacts as the reform process proceeded. The immediate effects of the initial reforms generally conformed to expectations that net income would rise and that there would be a net transfer to producers. However, in the most recent period of reform, all segments of the economy have lost ground, contrary to expectations. In particular the losses to producers, processors and the public sector due to the continued erosion of prices were unexpected.

Most of this loss has been felt by the public sector which has lost nearly all the economic rent it had collected from the sector prior to the reform in the form of taxes. Also, with the elimination of both the export tax and the stock indemnity program, the reform process was successful in eliminating the biggest opportunities for rent seeking.

The value of producer surplus accumulated by the private sector has also lost ground but not nearly as dramatically as the public sector. In general, actors in domestic vanilla markets that were competitive prior to reform may have gained from growth in volume of the sector, but they did not increase their relative claim on rents generated by the sector. In particular, producers gained volume, but saw virtually no change in real price in an already competitive market environment. Processors also gained volume , but lost some of their rents due to increased competition and declining world prices. Exporters, however, were able to protect their rents through greater volumes and a reduction in taxes to offset export price reductions.

Ironically, despite reform, traditional exporters also have strengthened their position in the export market. At least three important factors appear to have contributed to this effect. First, these firms had the most resources to rely on in the absence of public support and so were best able to finance their own buying campaigns. Second, they were already the most diversified firms and therefore were more resilient to adverse market shocks. Finally, they had the best contacts with foreign buyers, so that the retreat of government from the role of exporter only reinforced their advantage in the market.

How has the structure of the international market affected the impact of reforms?

As the largest exporter of vanilla, Madagascar may be in a position to influence world market prices of vanilla to its advantage. Important questions examined by the study concern the extent to which this is true, whether it should use this power and, if so, how. These issues are examined using an econometric model of the international market for vanilla based on time series data. Testing the model's accuracy based on recent trends illustrates deficiencies of the model in capturing various short run effects. On the other hand, the model does accurately illustrate the impact of various policy strategies on internal and international markets.

Results of the model suggest that reforms of the vanilla sector have ended Madagascar's exercise of monopoly power in world markets, but they have not ended monopsonistic behavior in the domestic market. This finding suggests that while reform may have reduced government's role in setting internal prices, this role has been taken over by private operators in the sector. Most plausibly, exporters continue to exert influence to hold prices down to producers.

To examine how to use Madagascar's position in the world market, comparisons of the current world vanilla market are made to equilibrium solutions for three alternative policy objectives – competitive trade, tax maximization, or economic benefit maximization. The comparisons suggest that Madagascar's vanilla production levels and world and domestic prices for all three policy alternatives should equilibrate above current levels. Thus, net economic benefits to Madagascar should improve from the current situation in each case. However, the large discrepancies that still exist between the current situation and any of the three modeled equilibrium solutions suggest that the effects of the reforms are not complete and the impacts are still working through the market.

The model's results also indicate that differences in overall economic welfare are not great between the three alternative policy scenarios. Therefore, the choice of policy solution should probably depend less on concern with economic efficiency and more with the distributional objectives of the policy maker since these differ dramatically between the three scenarios. In essence, the competitive market solution gives all rents to the vanilla sector, while the government revenue maximization scheme allocates nearly all to the state and the economic maximization scheme falls between the two.

V. IMPLICATIONS AND RECOMMENDATIONS FOR POLICY

Given issues identified above, a number of recommendations may be identified to further the reform effort for Madagascar's domestic and external vanilla market:

Increase competition among green vanilla buyers to improve returns to producers. Prices to vanilla producers could improve if the internal market can be made more transparent and competitive. The analysis suggests, first, that these prices are likely to improve over time simply by maintaining the liberal marketing policies that reform has initiated. However, the study also provides evidence that free internal markets could already be under threat from interests in the sector who are seeking to strengthen their power in the market. In particular, the process of association building among downstream actors in the vanilla market could reduce the bargaining position of producers if they are unable to keep pace with their counterparts in this process. (See next recommendation). In this context, a fundamental recommendation is that the government avoid policy decisions that would reinstate restrictions in domestic markets that could impede competitive buying of vanilla.

Increase the independence of producers by diversifying their incomes. The share of benefits can also be increased for vanilla producers by improving their productive alternatives. This implies raising the opportunity cost of using producer resources for vanilla production and thereby forcing vanilla buyers to raise the price paid to producers for vanilla. Greater income diversity will also provide greater freedom to producers to ride out crises in the vanilla sector, while also dampening any tendency to over-invest in vanilla in good years. Ways of diversifying producer incomes include programs to promote other crops or to introduce new value adding industry activities into vanilla producing regions. Investments in the basic infrastructure needed in the vanilla producing region to expand the economic base may be the most effective means for the public sector to promote this process.

Support development of producer and processor associations and the Interprofession. Efforts to organize actors in the vanilla sector have been stymied by the inability of producers and processors to organize their own associations to represent their interests. This inertia is in large part due to characteristics of these groups that impede organization – their large numbers, the dispersion of actors in space, and their lack of resources to devote to organizing. Recognizing these constraints, support to producer and processor associations needs to be internalized by the associations themselves. Public subsidy should be targeted to support association formation and for maintenance of an interprofessional group to allow the various association groups to work together to address constraints to efficient marketing in the sector.

Raise vanilla quality by reintroducing market coordination procedures. Product quality has been shown to have been an important casualty of the reform process due to the abandonment of procedures to assure the security of production and marketing. One result is that farmers harvest too early thereby reducing vanilla quality. The establishment of an effective interprofessional organization could provide an institutional framework for reinstating these procedures (see previous point). At the same time, however, the government must continue to play an important role in monitoring the conduct of the system that is put in place. In addition, the state must provide a credible and effective legal framework and judicial process that will allow individual actors and associations to regulate their sector and address problems as they arise.

Examine the advantages and disadvantages of reinstating a modest export tax. Madagascar should carefully weigh the relative merits and costs of reinstating a modest export tax on vanilla. Such a tax may be justifiable for the vanilla sector because of Madagascar's relative power in the world market for vanilla. If undertaken prudently, this tax could raise much needed public revenues for the country, increase economic surplus of the sector, and provide resources to improve the distribution of rents from the sector. However, the disadvantages of such a tax are well known in light of Madagascar's past experience. First, the tax would penalize the sector relative to other export sectors which are not taxed. Secondly, there is no guarantee that the revenues generated would be used for economically productive purposes, much less to support the vanilla sector in particular. Finally, the reintroduction of a direct taxation mechanism risks repeating the mistakes of past excessive taxation. The net benefits of such a tax are highly sensitive to the level of taxation. If the tax level is allowed to become too great, the sector's competitiveness could be strangled just as happened to vanilla in the 1980's in Madagascar.

Avoid reestablishing producer cartels which distort domestic markets. The analysis argues that despite the possibility of strengthening world prices through cartel behavior, past experience in Madagascar's vanilla market illustrates that this behavior has highly distortionary effects on the internal market which ultimately undermine the sector. Any future policies to restrict supply on world markets should rely on market based policy instruments to avoid a reemergence of distortions and rent seeking behavior in Madagascar's domestic market.

Support new entrants into the export market through provision of timely and accurate information on world markets. The analysis has suggested that in the wake of the withdrawal of the public sector from marketing exports, world market contacts and timely information have become increasingly important elements of the success of private exporters. However, these same factors put new entrants in the market at a disadvantage with respect to long established exporters. To increase dynamism and competition at this level, the government of Madagascar should consider measures to make the world market more accessible and transparent to small and new actors. A modest proposal would be for the government to establish a public internet site giving current vanilla market information.

Establish the conditions for a commodity exchange for vanilla in Madagascar. A commodity exchange for vanilla based in Madagascar would make the export market much more transparent and accessible to smaller exporters and Madagascar is the obvious place for establishing a spot market for vanilla given its reemerging dominance in the world market. However, to be effective, a number of preconditions needs to be established, including well-functioning product grading, clearly established product quality standards, transportation and storage infrastructure, a strong legal system for enforcement of contracts and property rights, a stable and credible currency, reliable credit, efficient and responsive banking and insurance sectors, and clearly established rules for payment, for liquidation in cases of bankruptcy and for controls against monopoly power in the market. Many of these preconditions are not yet present in Madagascar, suggesting that the pursuit of these specific objectives should be addressed before seeking to establish a vanilla commodity market.

Develop trade finance mechanisms for exporters. The reform process has exacerbated exporters' need to raise credit to finance their annual buying campaigns since *Caisse* guaranteed credits from banks no longer exist. To reduce this constraint, the government of Madagascar should seek to promote trade financing arrangements that could give local traders access to off-shore financing. One mechanism to do this is export pre-financing. Further investigation is needed to establish the most feasible mechanisms to improve trade finance and to identify steps to promote them.

This policy brief is based on EAGER research, *The Political Economy of Trade Liberalization: The Case of Vanilla in Madagascar,* 2000, by the late Jeffrey Metzel, AIRD, Cambridge, Massachusetts, Emilienne Raparson, Centre de Recherche de Developpement and Eric Thosun Mandrara, Centre de Recherche de Developpement.

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