SOME ECONOMIC OBSERVATIONS ON EXPORT DUTIES FOR UNPROCESSED PIGEON PEAS

Note[1]

1. THE POLICY ISSUE

The Government of Mozambique has proposed to levy a 20 percent tax on the exports of pigeon peas. Mozambique's production and exports of pigeon peas has grown rapidly in recent years; in 2014, the country ranked as the fifth-largest producer and third leading exporters of pigeon peas in the world. Much of the expansion is due to more small farms adopting the crop. Pigeon peas can be exported raw or partly processed (split). There is one major processor.

There are a number of ways of looking at the issue of export taxation analytically. One aspect is the domestic effect of introducing or changing export duties. That aspect took center stage in the debate regarding cashews in Mozambique in the 1990s. Another aspect relates to the imposition of export duties in relationship to market power. This brief note lays out some economic considerations regarding the imposition of a 20-percent tax on the exports of unprocessed pigeon peas. More detailed empirical analysis is required to arrive at specific policy recommendations.

2. THE ECONOMICS TEXTBOOK CASE REGARDING EXPORT DUTIES

Applying textbook economics to the imposition of export duties leads to some certain conclusions[2]. An export tax on a commodity lowers its domestic price, which reduces the income to growers (and traders). At the same time, it offers access to the raw commodity for processors below world market prices. The tax distorts market signals, leading to an inefficient allocation of resources. The production of the commodity is discouraged, and productive resources (labor and capital) are drawn into processing. In effect, the export duty taxes growers (and traders) in order to subsidize processors. That aspect can be of concern in international trade relations. As discussed below, the WTO frowns on that practice, although enforcement has been flexible. Finally, processors can be inefficient, since they are paying below world market prices for their primary input.

Imposing an export duty has therefore two effects:

(i) It lowers overall efficiency in the economy by subsidizing inefficient processing operations.

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[2] This summary draws on the exposition in: Market McMillan, Dani Rodrik and Karen Horn Welch, "When economic reform goes wrong: Cashews in Mozambique." July 2002,RWP02-028; John F. Kennedy School of Government, Harvard University.

(ii) It is likely to result in an undesirable distributional impact by shifting resources from poor small farmers to processors; smallholders experience a decline in farm gate prices, and the least efficient among them are forced to switch to second-best crops.

3. THE CASE OF THE CASHEW SECTOR

Debates regarding export taxes have a history in Mozambique. In fact, the reforms involving export taxes in the 1990s have become a cause célèbre among opponents of World Bank policy prescription. In the early 1990s, the government, under pressure from the World Bank, liberalized the cashew sector. A major target of these reforms was the removal of restrictions on the exports of raw cashew nuts. Following independence in 1975, the government had banned the export of raw cashew nuts to stimulate domestic processing. By 1980, the country had 14 processing factories. In 1991/92, the outright ban on exporting raw cashews was replaced by an export quota and an export tax. The government later lifted the quota, and the export tax fell from 60 percent in 1991/92 to 14 percent by 1998/99. According to other reports (1997), Mozambique imposed a 20-percent export tax on raw cashew nuts to "compensate for Indian subsidies"[3]. The World Bank requested that the tax be removed over three years, while the government and industry argued for a reduction to 10 percent over five years to give the newly privatized processing sector time to modernize factories.

An assessment of the impact of the reforms advocated by the World Bank concluded that efficiency gains amounted to no more than USD 6.6 million. Farm gate prices for cashew nuts rose, but they were widely spread. The gain for the average cashew-growing farmer was probably no more than USD 5.30 per year. These gains were just about offset by the loss in real income of (urban) workers as processing factories lay idle or closed[4]. Overall, the reforms led to relatively few net gains, although the distributional aspects were important[5].

4. Export taxation

Export taxes raise revenue and affect price structures in a way that discourages exports. They have a long history – for example in 1660, England imposed export duties on more than 200 articles. Nowadays export taxes are applied in a targeted manner, in particular being applied to the export of raw materials to encourage domestic processing. However the revenue element remains important. In the late 1980s, Guinea's export taxes accounted for 44 percent of total revenues[6].

Export taxes are also a concern in the context of the World Trade Organization (WTO). From a trade point of view, imposing export duties is considered a form of protection. The domestic prices of the commodities in question remain distorted. GATT provisions considered export taxes as a means for member states to prohibit or restrict imports and exports. The provisions of the WTO however, are less clear. A 2004 WTO Discussion Paper on the Role of Export Taxes in the Field of Primary commodities argued that "[e]xport taxes on primary commodities (especially unprocessed) work as an indirect subsidy to higher value-added manufacturing or processing industries. Export

[3] Joseph Hanlon, "Can Mozambique Make the World Bank Pay for Its Mistakes?" October 1997 (http://www.africa.upenn.edu/Urgent_Action/apic_111997.html
[4] McMillan et al., 2002.
[5] The main market for raw cashews at the time was India. India is also the main market for the exports of pigeon peas.
[6] Shantayanan Devarajan, Delfin Go, Maurice Schiff, Sethaput Suthiwart-Narueput, "The whys and why nots of export taxation," World Bank, Policy Research Working Paper, No. 1684, December 1996.

taxes on primary commodities can be used to reduce the domestic price of primary products in order to guarantee supply of intermediate inputs at below world market prices for domestic processing industries. … export taxes are not prohibited by the WTO. About one-third of WTO Members impose export duties"[7].

5. Export duties to combat under-invoicing of pigeon pea exports

It appears that one of the justifications for the introduction of export duties for pigeon peas is the suspicion that exporters are deliberately under-invoicing their exports as a means to facilitate capital flight. Reportedly, the data suggest that the prices of exported unprocessed pigeon peas are lower than the domestic prices for this commodity.

If that really is one of the rationales for imposing the export duty, its value is not immediately clear. The literature offers little guidance, except for the opposite argument—that export duties provide an incentive for exporters to under-invoice.

To explore this issue and the potential rationale for imposing export duties to combat capital flight, more rigorous empirical analysis is required. First, further evidence on the existence of systematic under-invoicing by pigeon pea exporters is needed. That will require the analysis of trade flows involving this commodity and Mozambican exporters. Secondly, the notion of export taxes needs to be compared to other tools for fighting systematic under-invoicing. Third, of course, the likely impact of the imposition of export taxes needs to be further explored (see below for some suggestions along these lines).

6. Export taxes and market power

The World Bank paper on "The whys and why nots of export taxation"[8] focuses on the relationships between market power and the imposition of export duties: "… two different cases: (1) when the country has market power in the export commodity; and (2) when it does not." The authors reach the following conclusions:

"… the most critical question is:
Does the country have market power in the export commodity?

If not, then there is unlikely to be compelling analytical or practical case for an export tax. From an efficiency standpoint, export taxes are a poor instrument for encouraging higher value-added activities. From the standpoint of revenue generation, they are likely to be dominated by other tax instruments and should at best be viewed as a transitional measure,

If so, there is likely to be a strong analytical and practical case for an export tax. Both strategic (i.e., the likely response of fellow exporters and importers) and practical (e.g., long-run elasticities,

[7] Cited from: Daniel Crosby, "WTO Legal Status and Evolving Practice of Export Taxes, in: Bridges, Vol. 12, No. 5, November 2008; http://www.ictsd.org/bridges-news/bridges/news/wto-legal-status-and-evolving-practice-of-export-taxes.

[8] Devaran et al., 1996

smuggling and general equilibrium) considerations affect the level of the optimal export tax, but are unlikely to reverse the case for their desirability. Similarly, the possibility that alternative forms of intervention (e.g., export quotas or cartels) might yield a superior outcome under certain circumstances does not negate the finding that national welfare would be improve by the imposition of some export tax at the margin …" (Devaran et al., 1996, p. 23).

Again, applying these arguments to the case of Mozambique would require further analysis on the degree of market power the country's pigeon pea exporters could command. That determination needs to be combined with the detailed analysis of the domestic impacts, static, dynamic and distributional, sketched in the following section.

7. Analyzing the domestic impacts of export taxation

McMillan et al. (2002) present a "simple analytical framework" for evaluating the case for or against the imposition of export duties. Rather than relying on the comparative statics analysis of textbook economics, this framework focuses on the standard question of "who gets what?" In the case of pigeon peas, it distinguishes five groups: (1) pigeon pea producers (smallholders); (2) Traders and other intermediaries; (3) owners of pigeon pea processing plant(s); (4) workers at the processing plant(s); and (5) the government.

McMillan et al. (2002) show that the welfare change associated with the imposition of a duty on pigeon pea exports can be decomposed into the following four components:

- Export-quantity effect: export duties depress the export of unprocessed pigeon peas, their imposition decreases total welfare;
- Terms-of-trade effect: lower exports of unprocessed pigeon peas may raise the FOB price received by exporters; since Mozambique ranks third among pigeon pea exporters worldwide, the effect may be significant, but the concentration on the Indian market may create a monopsony situation;
- Employment effect: the possible employment effects of the new export duty are related to an expansion of activity in the processing plant(s); and
- Traders' margin effect: the extent of these effects depends on the role of traders and other intermediaries in the pigeon pea value chain and their leverage they may have on the pigeon pea producers; this leverage may result in a gap between the (after-tax) FOB price of unprocessed pigeon peas and the farm gate price.

Without further empirical investigation into the various quantity and price relationships, it is difficult to arrive at reliable policy guidance. In the absence of such an analysis, the recommendations revert to the economics textbook case regarding export duties: Is the government in fact willing to tax smallholder pigeon pea growers to subsidize pigeon pea processors?