

5. Market stabilisation policies

Interest in market stabilisation policies has revived following the 2007-08 food price spike. A large number of developing countries responded to the crisis by seeking to stabilise domestic markets and thereby isolate their consumers from events in world grain markets (Abbott, 2009; Demeke *et al.*, 2008; Jones and Kwiecinski, 2010). Trade policy actions included tariff reductions as well as restrictions on exports via taxes, quantitative restrictions or outright bans. Domestic measures – such as tax cuts on food, subsidies and releases of stocks – were also employed, in order to limit the transmission of world price shocks onto domestic markets.

Many of these actions ran counter to the basic principles that OECD has established for its member countries, which emphasise a dual strategy of (i) correcting market failures, so that private markets can provide risk management and, and (ii) providing effective social safety nets, so that there is no need for market intervention and associated trade protection (OECD, 2002). In most developing countries, the mechanisms were not in place for such an approach to provide a sufficient response to the price crisis, at least over the time frame in which policy makers needed to respond. However, the stabilisation of domestic markets further raised prices on international markets, exacerbating instability and creating difficulties for some countries dependent on imports. It also threatened to impede supply responses, and thereby exacerbate problems that governments had intended to solve.

Any consideration of the role for government policy in managing market risk needs to distinguish international (exogenous) risk from domestic risk, and take account of the extent to which the former is addressed at the international level.¹ Historically, domestic sources of instability (principally production variability) have tended to dominate international sources of instability (reflected in world price movements) (Hazell *et al.*, 2005). This being the case, trade openness, and efforts to improve internal price transmission, were recommended as ways of providing greater market stability. Some analysts, however, have suggested that the 2007-08 price crisis marks the beginning of a new period of greater world market instability (for example Galtier, 2009). Abbott (2010) suggests that it makes sense to prepare for periods of low and stable prices punctuated by episodes

of high and volatile prices, such as were experienced not just in 2007-08, but also in the 1970s and, to a lesser extent, the mid-1990s.

In considering the role for domestic policy, it is helpful to start with the basic objectives of policies to manage market risk. In the short-term, these include protecting the real incomes of consumers or producers, and containing the impacts of instability on poverty and hunger. In the longer term, greater market stability can provide a more stable environment for investment decisions and make a contribution to macroeconomic stability. In recognising these objectives, it becomes clear that the underlying rationale is not to manage markets or prices per se. More appropriate target variables are incomes or consumption (or other measures of welfare) over the short and long term.² With respect to this objective, there is a role for policy in correcting or offsetting market failures in private risk management, and (in the absence of alternative safety nets) redistributing income to the poor.

OECD's work on risk management has identified three layers of risk at the farm and national level (OECD, 2009). First is a "risk retention layer", corresponding to risk that can be effectively managed by farmers and households themselves. Second is an "insurance layer," which can be addressed by private markets instruments such as crop insurance or forward pricing. Third is a "market failure layer", where intervention may be required. In developing countries, weaker institutions are likely to mean that a wider range of risk falls within the market failure layer, implying a greater need for government action.

Market failures stem from missing or incomplete markets for storage, insurance, futures contracts or credit. These market failures may in turn derive from underdevelopment of infrastructure and institutions (including market information and a functioning legal framework). Ideal best practice is to address those market failures directly rather than offset their impacts by stabilising markets.

Domestic market risk arises principally from production variability. In a fully open market, with low transport and transaction costs, price variations due to domestic factors should be eliminated by international trade, implying no need for stocks or a stocks policy. But in poor countries, price transmission is imperfect, market information may be imperfect and imports may not arrive quickly enough to arbitrage between domestic and international prices. Instead, prices are typically lower after a harvest and rise until the next harvest, when they fall again. This movement of prices over time creates an incentive to store, which will reduce inter-seasonal price variability. Similarly, expectations of a poor harvest provide an incentive to carry stocks over from one season to the next, which will reduce inter-annual variability. Thus, there are two key roles for policy: (i) to lower

costs and improve the efficiency of the domestic storage systems, and thereby reduce both inter-annual and inter-seasonal price variability; and (ii) to undertake investments and reforms that improve market integration (i.e. price transmission across domestic and international markets).

In developing countries, efforts to address market failures are necessary but are unlikely to be sufficient or timely. Futures markets have seldom been used by farmers, being more appropriate for traders, while the adoption of private crop insurance has been limited by the standard problems of extending access to small farmers (moral hazard and adverse selection) as well as the particular difficulties of reaching poor farmers (including poor price information). In earlier decades, pan-seasonal and pan-territorial pricing, often implemented by marketing boards, were used to offset (as opposed to eliminate) these market failures. These involved intervention in the market failure and insurance layers of risk, and undermined incentives in the risk retention layer.

Most assessments have concluded that these arrangements performed poorly. First, they were ineffective at stabilising income, being focused on the wrong variable. Second, state-run markets proved to be inefficient and costly, particularly as they were often not just stabilising incomes, but subsidising specific interest groups. On the other hand, following privatisation, some of the functions that state traders undertook were not replaced or remained inefficient, including the provision of public goods in the areas of research and extension, disease protection and market information; and the creation of markets for credit and inputs. Timmer (2002) and Cummings and Gulati (2009) have argued that these arrangements were effective at stabilisation in Asia, albeit at a high cost. Timmer has also emphasised macroeconomic spill-overs from price stabilisation, citing Indonesia as an example of a country that gained a greater degree of macroeconomic stability.

The World Bank has provided a set of best practices for risk management and stabilisation policy, which stress the need to improve agricultural productivity, to promote diversification among crops and income sources, and to provide long run investments that allow the private sector to better cope with meeting food needs of the population (Byerlee, Jayne and Myers, 2005). Investments in irrigation, drought tolerant varieties and cropping mix strategies, are seen as ways of reducing output volatility while increasing production. Further recommendations are to develop institutions, infrastructure, market information, regulation and co-ordination, legal mechanisms (e.g. warehouse receipts), and specific private market based risk measures. The primary emphasis is on ensuring long run food availability, and reducing domestic risk, rather than coping with external shocks such as the 2007-08 price spikes. A liberal trade policy is foreseen,

with direct interventions in food markets to manage price risk a last resort, and cash transfers or food aid the preferred safety nets.

Improved private domestic risk management institutions will facilitate better stocks management and make it easier to rely on trade as a mechanism for smoothing domestic prices. Early warning of both domestic production shortfalls and world price trends is also needed if there is to be a greater reliance on trade. In less developed countries, imperfect legal frameworks, weak market information systems, and weak financial institutions impede the development of commercial stocks, as well as the ability of trade or stocks strategies to protect domestic consumers. Stocks need not be publicly held if consistent and transparent rules govern stocks management, although there may be a need for the state to hold emergency stocks. Better private institutions mean smaller stocks and more effective interventions.

More direct interventions have also been proposed, on the grounds that investments in best practice take time to pay off, may be difficult to foster in smaller economies (because of inherent economies of scale), and may not provide a credible response to events such as the 2007-08 price spike. These include rules-based intervention such as stock schemes, variable levies and price bands, as well as ad hoc or discretionary interventions of various kinds.

In general, one would expect to observe countries using trade policy or stocks policy to stabilise market, but not both. This is because if one is effective the other should not be. Trade policy is likely to be more effective when domestic markets are integrated with world markets; stocks policy when they are not. However, Abbott *et al.* (1998) found that many developing countries use both in order to maintain consumption in the face of domestic production variability.

If price spikes are infrequent, then there are high opportunity costs in carrying large stocks from one year to the next. An alternative is to guarantee import financing, as the European Union and the IMF have done in the past. However, these facilities were seldom used, as the conditions were stringent and high import food costs did not always coincide with a dearth of foreign exchange.

Measures such as pan-seasonal pricing and variable levies eliminate price risk altogether and with it the incentive for private agents to hold stocks or adopt their own risk management strategies. Price band schemes, on the other hand, can be used to protect against extreme price movements, but are illegal under the 1995 WTO Uruguay Round Agreement on Agriculture. Such a scheme was adopted by Chile for wheat and sugar, more from a concern to protect producers from low prices than to address higher

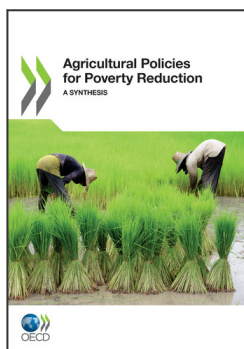
prices. However, this scheme was dismantled in order to comply with a WTO ruling in 2007. The advantage of a variable levy over a stocks policy is that holding and transaction costs need not be borne in normal years. However, if the base level of protection is low, reducing the tariff to zero may not be effective in containing upward price shocks. Price bands could also be vulnerable to speculative attacks. For example, if a subsidy is needed to maintain the domestic price below the imported c.i.f. price, domestic traders may be able to test the financial constraints of the government.

Ad hoc or discretionary interventions seem like a sensible approach to dealing with rare and extreme price shocks. If they are interpreted by those benefiting to be one-off actions, then they are less likely to induce moral hazard (i.e. deter agents from managing their own risk) than rules based approaches. However, Jayne and Tschirley (2009) provide examples of how, in Africa, such an approach has induced strategic behaviour and aggravated price shocks. In some cases, traders, faced with rising prices, have anticipated that the government will waive tariffs and delayed their imports, thus causing prices to rise further. This was the case in Zambia in 2005/06, and in Kenya in 2003/04 and 2008/09. Alternatively, a shortfall in national food production has been anticipated, so the state has announced plans to import, which has caused private traders to wait. The state has then incurred delays in contracting and prices have risen further. This happened in Zambia in 2001/02 and 2002/03, and in Malawi in 2001/02 and 2005/06. The third failure has been when an adequate harvest has been incorrectly predicted, so there has been no granting of import licences. Supplies have subsequently been lower than expected, which has led to hoarding and trader manipulation, with prices again rising sharply. This occurred in Malawi and Zambia in 2008/09.

Notwithstanding these drawbacks, market stabilisation can meet political objectives and can avoid catastrophic outcomes (albeit if, when markets are integrated, the problem is exported). The primary need is to focus on reducing the need for these instruments by correcting market failures as far as possible and ensuring that the financial resources are available to address unacceptable welfare (income) outcomes on clearly identified constituencies.

Notes

1. Several proposals were made in the wake of the food price crisis including the greater use of futures markets by developing countries; the establishment of an international clearing house to ensure contracts are honoured in world markets and supplies are reliable (Sarris, 2009); and the creation of an international virtual reserves scheme (Von Braun and Torero, 2009).
2. Newberry and Stiglitz (1981) showed circumstances under which stabilising prices can destabilise income.



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