

# CONSEQUENCES AND IMPLICATIONS OF IMPORT SURGES IN DEVELOPING COUNTRIES

# 8

## 8.1 Injuries and consequences

Investigating the consequences of import surge in developing countries is important for estimating its actual impacts on stakeholders and determining the appropriate measures to limit or magnify the impacts. The term 'injury' originally relates to producers' loss and its use may be misleading and too narrow in the examination of the consequence of import surges for at least two reasons. First, not all types of producers lose from an import surge and even for those who lose, the extent of the loss varies greatly. Small-scale farmers are often worse off while large-scale producers for example may not lose much because the latter have more ability to endure and cope with the risks associated with the surge. Some large-scale producers may even benefit from the competition with foreign agriculture products that embed technology and knowledge in them. Second, the impacts of import surge on agents other than producers within the sector or other agents outside the sector may be different (e.g. losses for local butchers versus meat packers; butchers versus transporters). It is therefore more insightful to use the term 'consequence' and to specify who loses and who gains in examining the impacts of the import surge over a broad spectrum of stakeholders.

This chapter highlights the main consequences of import surge in the case study countries and focuses specifically on its effects on price competition, volume and market shares of the domestic sector and the level of profits. Investigations on the positive consequences of the import surges in developing countries are also reported in this chapter. Table 8.1 summarizes some

of these consequences and confirms that although there are many cases of injuries, not all groups of stakeholders lose from import surges.<sup>1</sup> These findings will be discussed in detail in subsequent sections. This chapter also addresses the difficulties encountered in measuring the consequence of import surges, especially on how to isolate the impact on producers or consumers, and on what benchmark to use for measuring the change in the stakeholders' welfare or profit.

Similarly, Box 8.1 reports the multicountry studies on specific commodities and describes the consequences of import surges on the affected sectors.

## 8.2 Price competition

The case studies show that import surge often stirred the competition between imported and domestic products and led to the fall in domestic price, especially when the two products are substitutes. This applied specifically for the cases of rice and poultry in Côte d'Ivoire, dry milk in Kenya, poultry meat and vegetable oil in Mozambique, onions in the Philippines and rice in the United Republic of Tanzania. The extent of the fall in domestic price however varied greatly among sectors.

There were, however, cases where import surge had no effect on the domestic prices. The poultry, rice, vegetable oil sectors in Cameroon, and tobacco in the Philippines, are examples for which the import surge had little or no effect on the domestic prices of these

<sup>1</sup> Besides the FAO briefs, sources include Sharma et al. (2005)

**TABLE 8.1**  
**Consequences of agriculture import surges in developing countries**

| Country                   | Commodities    | Negative Price effect | Level of domestic production falling  | Declining market share of the domestic production (volume share) | Declining market share of the marketed domestic production over total (%sale) | Declining profit in the domestic sub-sector | Who benefits (beside consumers) | Who loses the most ?      |
|---------------------------|----------------|-----------------------|---|--|---|---|---------------------------------|---------------------------|
| Cameroon (1999-2004)      | Poultry        | no                    | yes   | yes  | yes   | yes   |                                 | farmers, local industries |
|                           | Rice           | no                    | yes   | yes  | yes   | yes   |                                 | farmers, local industries |
|                           | Vegetable oils | no                    | yes   | yes  | yes   | yes   |                                 | farmers, local industries |
| Côte d'Ivoire (1996-2004) | Poultry        | yes                   | yes   | yes  | yes   |   |                                 | farmers, , local broilers |
|                           | Rice           | yes                   | yes   | yes  | yes   |   |                                 | farmers                   |
|                           | Sugar          | no                    | no (it is rather the drop in domestic production that increases the Import) |  |   |   |                                 |                           |
| Ghana (1998-2004)         | Rice           | no                    |   | yes  | yes   |   |                                 |                           |
|                           | Poultry        | no                    |   | yes  | yes   |   |                                 |                           |
|                           | Tomato paste   | no                    |   | yes  | yes   |   |                                 |                           |
| Honduras (1991-2005)      | Rice           |                       | yes   | yes  |   |   |                                 | local farmers, millers    |
|                           | Dairy          |                       | yes   | yes  |   | yes (collapse)                              |                                 |                           |
| Jamaica (1980-2005)       | Poultry        |                       | no  | no   | no  | no, profits rose                            | domestic producers              |                           |
|                           | Onions         |                       | yes   | yes  |   | yes (collapse)                              |                                 | domestic producers        |

|                            |                 |                         |     |  |  |     |  |  |  |     |           |                                 |
|----------------------------|-----------------|-------------------------|-----|--|--|-----|--|--|--|-----|-----------|---------------------------------|
| Kenya<br>(1973-2003)       | Dry Milk Powder | yes                     |     |  |  | yes |  |  |  |     |           | small producers, processors     |
|                            | Maize           |                         |     |  |  |     |  |  |  |     |           |                                 |
|                            | Sugar           |                         |     |  |  |     |  |  |  |     |           | local sugar farmers             |
| Malawi<br>(1980-2004)      | Dairy           | No harm in general      |     |  |  |     |  |  |  |     |           |                                 |
|                            | Maize           | no (price rose instead) |     |  |  |     |  |  |  |     |           |                                 |
|                            | Sugar           | yes                     |     |  |  |     |  |  |  |     |           | domestic producers (industry)   |
| Mozambique<br>(2001-2004)  | Poultry meat    | yes                     |     |  |  |     |  |  |  |     | importers | local broilers and producers    |
| Mozambique<br>(2002-2004)  | Vegetable Oils  | yes                     | yes |  |  | yes |  |  |  |     |           | domestic producers (industry)   |
| Philippines<br>(1999-2004) | Onions          | yes                     |     |  |  |     |  |  |  |     |           | small farmers                   |
|                            | Tobacco         | no                      |     |  |  | yes |  |  |  | yes |           | small farmers                   |
| Sri-Lanka<br>(1985-2005)   | Dairy products  | yes                     | yes |  |  | yes |  |  |  |     |           |                                 |
|                            | Dairy           |                         |     |  |  |     |  |  |  |     |           | large processors and importers  |
| Tanzania<br>(1997-2004)    | Maize           |                         |     |  |  |     |  |  |  |     |           | medium scale millers, retailers |
|                            | Rice            | yes                     |     |  |  |     |  |  |  |     |           | medium scale millers, retailers |

**Box 8.1****Import surge cases and their main consequences**

**Sri Lanka – onions:** some vegetable producing subsectors, notably onions and potatoes, have been found to be highly vulnerable to import surges. In 1999, an import surge of onions and potatoes resulted in a decline in cultivated area of these crops, affecting the livelihood of approximately 300 000 persons involved in their production and marketing. The immediate possibilities for affected farmers to turn to other crops are limited.

**Haiti – rice:** imports of rice increased from an average annual level of about 17 000 tonnes (milled equivalent) in 1984-89 to 226 000 tonnes in 1995-2000, a thirteenfold increase. The decline in production in the corresponding periods, however, was modest, from about 84 000 to 78 000 tonnes. Although it is difficult to estimate the extent to which production would have increased if not for the massive imports, analysts believe that imports played a major role in negatively impacting rice production.

**Kenya - dairy products:** the Kenyan case presents a good example of the link between the surge in the import of dairy products and domestic production of milk. During 1980-90, the volume of milk processed rose steadily from 179 000 to 392 000 tonnes, i.e. by more than 100 percent. From 1990 onwards, the volume processed fell dramatically to as low as 126 000 tonnes of milk in 1998. At the same time, the imports of milk powder rose from 48 to 2 500 tonnes (in fresh milk equivalent, 408 000 litres to 21 million litres). The influx of the imported milk powder, as well as other dairy products, depressed the demand by milk processors for fresh local milk. Small milk producers in particular bore the brunt of the impact. Also, Kenya's ability to diversify into processing activities was undermined.

food products. There were even cases, like that of the maize sector in Malawi, where import surge did not stop the price from rising. The main reason was the various forms of market segmentation prevailing in many developing countries. A spatial segmentation of the market isolated the impact of the import surge on limited areas as it is often the case in the segmentation of urban versus rural markets or of accessible versus landlocked areas. Another form of segmentation that is part of the explanation is based on product differentiation as the imported and local products had different clientele. Similarly, the two products may not be viewed by consumers as competing substitutes. In these cases, the weighted average price at national level is little affected by the surge. However, these observations require further analyses to provide more evidence.

### 8.3 Decreases in volume of production, market shares and profits

The decline in domestic production as an immediate consequence of the import surge stems from the idea that an import surge lowers farm price and thus, reduces the farmers' production incentive. This is supported by the evidence from the country case studies such as in the case of rice and poultry in Cameroon, dairy products in Sri Lanka, and vegetable oils in Mozambique. There is however some counter examples where import surge did not affect the volume of production as the case of rice in Côte d'Ivoire and poultry in Jamaica showed.

Similarly, in almost all of the sectors investigated, the volume share of domestic production out of the total supply fell when import surge occurred. This is not surprising especially in cases where the farm prices had also fallen. In cases where the farm prices were not affected by import surges, the market share still shrunk because the growth in the volume of import outpaced the growth in domestic supply. Similarly, in many countries, the value share of the sale from the sector in which the import surge occurred had declined. The only exception to all those shrinking shares is the poultry sector in Jamaica where the volume and value shares increased despite the incidence of import surge. This again indicates that the domestic poultry meat and the imported one grew apart with separate markets and different clientele.

The decrease in profits for many of the sectors investigated was a direct result from the fall in either output price, volume or both. The severity of the negative impact of the surge on profit however differs considerably. While most of developing countries' affected sectors survived the shrinking profits, a few such as Jamaica's onion and dairy sectors did not resist and collapsed altogether.

In general the shrinking profits affected mostly small farms (e.g. in rice, dairy). Large farms (such as the large dairy farming in Kenya), perhaps because of their capacity to cope with the price risks, were least affected. Similarly, the profit in the sectors whose price import surges were not affected remained in general unscathed.

Uncertainties generated by the sudden increase in import might have already harmed the revenue and incomes of producers and processors in the sector but the case studies could not cover them. For instance, some of the output price volatility associated with the surge (and the measure taken to adjust to it) required immediate adjustment on the amount of input uses but as local producers did not foresee such volatility, they may have already purchased more (or less) inputs than they actually needed. The surplus (or shortage) of input could generate some additional costs (e.g. input storage costs in case of surplus, or higher input prices in case of shortage) to their activities. Investigating these risks would contribute to a complete account of the impact of import surges.

#### 8.4 Any beneficiaries beyond consumers?

Analysts and policy-makers often focus on the negative impacts of import surge and overlook some of its positive impacts. Beyond consumers' increased welfare stemming from the fall in price and the widening of consumers' choice (as the import surge brings about a source differentiated product), others such as manufacturers, marketers and transporters and even taxpayers at large often benefited from the surges. The case studies revealed that dairy processors, especially the large ones, in Kenya and the United Republic of Tanzania, reported benefiting from the import of low priced powder milk. Taxpayers may also benefit from import surge as the revenue on import tax rises, even if the tariff is relatively low. The positive impacts of import surge may also expand to other

sectors where the increase in import of the cheap dry milk, for instance, may have boosted production and sale in food and beverage manufacturing using the dry milk as one of its inputs. As mentioned, a sector like Jamaica's domestic poultry industry grew despite the surge in poultry import, and as the stakeholders' survey pointed out, Jamaica's broiler producers have clearly gained. In Malawi, stakeholders (except the small-scale producers) agreed that, overall the surge in the import of maize, milk and sugar benefited them and were not in general harmful to any of them.

Externalities of import surge also include the spillover effects on the sector's R&D assets as trade may have facilitated the transfer and adoption of technology in developing countries. Moreover, taking into account the health and environmental effects of the imported products would have made the assessment of the surge's impact more accurate.

#### 8.5 Non-attribution analysis

Identifying the causes of an injury was complex because of numerous causes involved. Making sure that an observed injury is caused only by an import surge were even more complex in the developing countries' case studies because of the lack of information on other factors explaining the changes in import volumes. On a particular injury (e.g. the declines in domestic production and market share), the developing countries' internal causes constitute most of the non-attribution factors of import surge. The non-attribution factors include the various taxation of agriculture, lack of infrastructure to release products from fertile but landlocked areas, and removal of input subsidies. A non-attribution factor includes also official government programmes like in the United Republic of Tanzania's SGR, which have had a capacity of 150 000 tonnes of maize; the project was suspected of having depressed domestic prices during procurement, emergency release and recycling of its stocks.

#### 8.6 Concluding remarks: some undressed measurement issues

##### 8.6.1 Dynamics of the impacts of import surge

Investigation of the impacts of import surge in developing countries may be biased as the

measurement is often limited to the immediate aftermaths of the surge, and does not extend to the examination of the impact over time. The following is a typical example showing the ambiguity arising from the lack of analysis of the impact over time. An upward shift in demand or a supply shortfall, for instance, increases domestic prices and the shift should benefit the domestic producers. The domestic sector is however unable to respond to the shortage, or the government does not allow the price to be too high so almost at the same time import is allowed to increase the amount supplied. The imports will gradually curb the initially high price and increase the share of import in the domestic market, but the fall in price will affect the domestic supply negatively. So in this case, the domestic sector initially gains when the shortage occurs, but then the sector loses out to the import products later. In the end, whether the producers gain or lose overall is unclear.

### 8.6.2 Causality and sequence problems

One particular case of the lack of clarity on the effect over time is the confusion over the sequence and timing leading to the import surge's impacts which then creates an ambiguity on the estimation of the actual impacts. Comparison between two cases shown in Diagram 8.1 illustrates the ambiguity. In case (a) where an import surge, resulting from, for example, a tariff reduction, which is a familiar case in many developing countries, may have a negative impact on domestic prices especially when the import and domestic products are related (e.g. for products that are substitutes). The import surge, in this case, may lead to a domestic supply shortfall

as the depressed price discourages the farmers' incentive to produce more. In this example, it is clear that the injury, the falling price and falling domestic production, is caused by the import surge and more precisely by the tariff reduction.

There is however, also a different situation shown in case (b) in which a supply shortfall, caused by supply shock events such as bad weather conditions, triggers the coming of an import surge, lowering both the volume and price of the domestic production. Analyses showed for instance that this was the case for the United Republic of Tanzania's rice and maize sectors for which the changes in import volumes were associated with changes in domestic market prices. In this latter case, what one may observe is only the cumulative effects leading to the outcome in stage (iv) in case (b), namely the reduced domestic price and production. However, the analyst may need to distinguish the direct impacts of the import surge from the impacts of the bad weather conditions on domestic production and price. This is important because as the diagram shows, the import surge in stage (iii) is only responsible for affecting the outcome in stage (iv) and cannot be held accountable for any outcome prior to (iii). In the country case studies, the lack of data and monitoring made the assessment based on the distinction between the two impacts extremely difficult. This problem is not much different from the non-attribution problem, except that the timing and sequence of the events leading to the injuries, rather than the type of simultaneous competing sources of injuries, are more relevant.

### 8.6.3 Path-dependence (persistence)

Another source of confusion is on the possible path dependent effects of the import surges. In many developing countries, events such as bad weather or outbreak of plant and animal diseases have caused severe supply shortfalls, and eventually a sudden increase in domestic price triggers an Import surge. As the import grows, the domestic price starts to fall but by how much it falls depends on the market conditions. If the new price remains above the price before the event (bad weather or plant or animal disease outbreak) happens, domestic production may continue to rise. But it may also be the case that the new price falls below the price before the supply

**DIAGRAM 8.1**  
**Causality and sequence in an import surge study**

case (a) : (i) Tariff reduction → (ii) Import surge  
 → (iii) Low price and low domestic production

case (b): (i) Bad weather → (ii) Low domestic production but high price → (iii) Import surge →  
 (iv) Lower domestic price and lower domestic production.

shortfall (i.e. an overshooting of the import surge and causing a net loss to the producers), and as a result, domestic production may further shrink. The decline in domestic production will trigger more imports and the cycle continues over time until the entire domestic sector collapses. Here the challenge for the assessment of the consequence of import surge lies not only in the identification of the sequence of events, but more importantly in the dynamic and path dependent effect following the starting event.

## References

- Sharma, R., Nyange, D., Duteutre, G. & Morgan, N.** 2005. The impact of import surges: country case study results for Senegal and Tanzania, FAO Commodity and Trade Research Working Paper No. 11. Commodities and Trade Division, FAO, Rome.