Agricultural Import Surges in Developing Countries: How Do they Arise?
Harald Grethea and Stephan Nolteb
Humboldt-Universität zu Berlin, Institute of Agricultural Economics and Social Sciences, Germany.
a Luisestr. 56, 10099 Berlin, Germany, e-mail: harald.grethe@agrar.hu-berlin.de.
b Luisestr. 56, 10099 Berlin, Germany, e-mail: s.nolte@rz.hu-berlin.de.

Abstract
An import surge is considered a situation in which the quantity or value of imports suddenly exceeds a "normal" level. This paper identifies various internal and external factors that can contribute to the emergence of agricultural import surges in developing countries and discusses their relevance. External factors play a rather minor role. Internal policies, whether carried out for purely domestic reasons or for whatever kind of international commitment, have a much stronger potential to cause import surges.

Keywords: food security, import surge, trade policy.

1 Introduction
An import surge is considered a situation in which the quantity or value of imports suddenly exceeds a "normal" level. This somewhat loose concept leaves questions as to how "suddenly", "normal" and "excess" should be defined precisely, and whether a conceptual distinction needs to be made between symmetric surges (a fall after an increase in imports or vice versa), and asymmetric surges (an increase in imports which remains at a similar level thereafter). It also leaves open the question of whether imports are the right reference, or if instead net imports should be the relevant criterion.¹

Sudden increases in agricultural imports are widely considered to result from developed countries' agricultural policies and to be a problem for food security in developing countries because imports would replace domestic production. This, however, does not always hold and the prevalence of import surges does not allow for value judgments without additional information: import surges are not inherently "good" or "bad" phenomena with respect to development policy goals such as food security and poverty reduction. In the case of drastically reduced domestic supply, e.g. for climatic reasons, import surges may contribute significantly to food security and may be a proof of the successful integration of national markets in an international environment. On the other hand, an import surge resulting from a transitory exogenous factor (e.g. policies or climate in third countries) may result in low domestic prices and drive local suppliers out of the market. This, in turn, may affect food security negatively at a later stage.

Many factors can contribute to the genesis of import surges. Some of them clearly originate in the importing country. These include domestic supply instability because of climatic or political reasons, unilateral changes in trade policies, or changes in the exchange rate policy of the importing country. Others clearly stem from third countries, for example changes in agricultural policies or supply volatility for other reasons. For some factors, the mapping to domestic or exogenous origin is equivocal: an importing country may change its domestic trade regime due to external reasons such as the implementation of trade liberalization agreed upon in the WTO, the implementation of Structural Adjustment Programs (SAP) or membership in a Regional Trade Agreement (RTA). In such cases countries could escape the policy adjustment by not belonging

¹ For issues of the definition and quantification of import surges see DENIGRIS (2005).
to the WTO or the respective RTA, or not accepting a SAP. Higher ranking policy aims may, however, dominate aspects of agricultural policy. For this paper, such changes in domestic trade policies are grouped among importing country factors.

The objective of this paper is to identify the various internal and external factors that contribute to the emergence of agricultural import surges in developing countries and to discuss their relevance. The following two sections survey the importing country factors and the exogenous ones, both grouped in policy and non-policy factors in the emergence of import surges. In Section 4 the relevance of the different factors is compared and most crucial ones are identified.

2 Importing Country Factors

2.1 Policy Factors

2.1.1 WTO Membership

As a result of the Uruguay Round Agreement on Agriculture (URAA) WTO members had to tariffy all market access barriers for agricultural products in 1994, bind the resulting tariffs as an upper limit, and subsequently reduce tariffs during the implementation period of the URAA. For developing countries, however, two major exemptions were made from these rules. First, the implementation period was ten years, unlike for industrialized countries which had to introduce the reductions within five years. Second and more important, developing countries were free to bind their tariffs at any level they desired, which actually meant the reduction requirements were irrelevant for them. Furthermore the agreed reduction rates for developing countries were smaller than those for other WTO members and least developed countries (LDC) were fully exempted from the obligation to reduce their tariffs. In conclusion, market access requirements of the URAA do not seem to have narrowed the policy space for developing countries considerably. It may, however, have occurred that some countries have failed to utilize the free space which they were granted and have bound their tariffs at levels which were perceived as to low later. But these cases ignored, it is unlikely in general that WTO membership has contributed to agricultural import surges in countries which were members during the conclusion of the URAA.

The case is different for countries which joined the WTO after the UR of negotiations. These had to negotiate directly with WTO members the market access conditions they had to access. In such cases developing countries often had to bind their tariffs much lower than developing countries which bound their tariffs in the UR. As a result, these countries may, after accession to the WTO, lack the policy instruments to prevent import surges.

2.1.2 Structural Adjustment Programs of the IMF

In the 1980s basically all developing countries went through structural adjustment programs required by the International Monetary Fund (IMF) as conditions for the granting of loans. A detailed survey of the provisions of these SAPs was an effort far beyond the scope of this paper. One can, however, argue that if a SAP included the liberalization of agricultural trade policies this could have facilitated agricultural import surges or have limited developing countries' possibilities to combat import surges by raising tariffs.

2.1.3 Conclusion of Regional Trade Agreements

In July 2005, 180 RTAs have been notified to the WTO most of which have developing countries signatories or are agreements among solely developing countries (WTO, 2005). These RTAs differ widely with respect to the coverage of the agricultural sector. In the case of agreements between developing and industrialized countries agriculture is usually exempted from full liberalization and also market access commitments of developing country members are less

---

2 This paper mainly draws on the findings of an FAO informal expert consultation on 18 and 19 April 2005.
3 The URAA also established disciplines on policies other than market access, the two most relevant categories being domestic support and export competition. But such policies are rarely applied by developing countries (KONANDREAS and GREENFIELD, 1996). In addition, they are rather irrelevant as measures to combat import surges, particularly in developing countries.
significant than those of industrialized countries. Examples are the Euro-Mediterranean Agreements between the EU and North-African and Near-East countries (GRETHE, NOLTE and TANGERMANN, 2005) and the treaty of Cotonou between the EU and African, Caribbean and Pacific (ACP) countries (NOLTE, 2002). In these cases RTAs are less likely to contribute to the emergence of import surges. The case is different where agricultural products are included to a larger extent in the trade liberalization under an RTA. The obligation to lower or abolish intra- or extra-RTA tariffs can either immediately lead to import surges, or leave member countries with limited trade policy instruments to combat them.

2.1.4 Exchange Rate Policies

Many developing countries tend to overvalue their currencies. This increases the prices of domestic goods on foreign markets and decreases that of foreign goods on the domestic market. As this policy is mainly designed to be a stabilization policy it is unlikely that such price decreases of importables occur suddenly and, thus, contribute to surge-like phenomena. What comes suddenly is usually the adjustment of the exchange rate once it has departed from its equilibrium rate too far. This would, however, increase the price of importables and, therefore, not result in an import surge, either.

Recently, however, some developing countries embarked on policies of undervaluation of their exchange rate as a policy of export promotion. In a case where such a policy is suddenly abandoned, this will in fact decrease the price of imported goods and can facilitate import surges in the respective country. A recent example of such a policy is China which was forced by international pressure to appreciate the Yuan relative to the US$ it was attached to. The rate of appreciation was, though, low and no surges of imports have been reported so far. However, if in similar cases the appreciation rate would be considerably higher, this could lead to a sudden and substantial decrease of the prices of imported goods and thus evoke import surges.

2.2 Non-Policy Factors

The way internal non-policy factors can cause import surges is a reduction of domestic supply or an increase in domestic demand. The latter is, for many reasons, not a characteristic of agricultural markets. Demand for food products is usually very stable. Consumption habits change slowly and aggregate demand moves along with population and income. The case may be different with highly processed food products which underlie stronger fluctuations in demand. High expenditure shares for such products, however, are rather a feature of industrialized countries' markets than those of developing countries.

Rapid shortfalls in supply of an agricultural product are much more likely to cause a strong surge-like growth in imports. Whatever the reason of this production shortfall may be, in those instances an import surge is a phenomenon that highly benefits the largest part of the population in that country. Factors which could affect a country's agricultural output negatively can be categorized into ecological and armed-conflict-related ones. Ecological factors are natural disasters, pest and diseases of plants and animals and climatic fluctuations. Armed conflicts prevail in many developing countries and effect agricultural production by direct destruction of products and production factors or indirectly by deterring the rural population from production. Besides the possible domestic causes of import surges, there are lots of characteristics of the importing countries' markets that can facilitate or hamper the translation of a demand or supply shock into an import surge. These are for instance the market structure, i.e. the degree of competition in a certain market, and the spatial integration or segmentation of the importing country's market.4

4 These issues are addressed in detail in CONFORTI and RAPSOMANIKIS (2005), MCCORRISTON (2005) and WESTLAKE (2005).
3 External Factors

3.1 Policy Factors

3.1.1 Direct Export Policies

Direct export policies can be categorized into four basic types of instruments: export subsidies, subsidized export credits, food aid and policies of state trading enterprises. Export Subsidies for agricultural products may depress the world market price level in general or the price in a specific country where subsidized exports are shipped to in particular and thus evoke import surges. The global level of export subsidies has been declining considerably from roughly 23 billion US$ in the UR base period to 3 billion US$ in 2002, 90% of which were granted by the EU. For most products they amount to less than 1% of the world market volume, although there are notable exemptions like some dairy products. Despite being infamous for destroying developing countries markets, export subsidies are, given their low level, unlikely to have a major impact on agricultural prices. This is also reflected in a model analysis by the OECD (2002). Most world market prices are projected to rise insignificantly or even to fall in case all export subsidies were abolished. The only exemption are dairy products for which prices are expected to rise between 9 and 26%. Export subsidies, though not depressing world market prices greatly, may, however, have impacts on specific markets in specific periods of a year. On the other hand, export subsidies are almost certain to be abolished completely after the completion of the Doha round and therefore they will not matter for any future incidences of imports surges.

Subsidized export credits can have an impact on agricultural markets similar to that of export subsidies. The volume of subsidy elements in these credit is, however, minor with about 300 million US$ in 1998 (OECD, 2000). Their influence on world market prices can be regarded as negligible, therefore, and given the fact that most of these subsidized exports go to OECD countries they need not be expected to impact heavily on specific developing countries' markets, either.

Food aid by industrialized countries is often regarded to provide an acceptable outlet for surplus production of their agricultural sectors, which export subsidies do not. This is confirmed by the fact that the volume of food aid and the world market prices for the same commodities follow an anticyclical pattern. Food aid shipments are, therefore, frequently viewed as hidden export subsidies. The mechanisms by which they can possibly contribute to import surges are basically the same, although rules for the granting of food aid are part of various international agreements and are likely to be tightened further in future. In 2002 food aid of cereals in general accounted for 7.2% and of rice in particular for 25.2% of developing countries' imports. Taking into account that food aid may be concentrated on few developing countries, it has the potential to highly impact on prices in these markets.

In some countries external trade is controlled by state trading enterprises which either have the monopoly to export and import certain products themselves or are able to control external trade by the issuing of import and export licenses. Sudden changes in the policies of such agencies can have strong effects on world markets and markets of major trading partners, especially if the respective country is a large exporter or importer. One such incidence was the release of large stocks of rice in India to the world markets which led to rising imports of particularly Bangladesh and some other Asian and African countries in 2002 and 2003.

3.1.2 Other Policies which Impact on World Market Prices

Also policies that do not directly promote exports can contribute to the emergence of import surges, on the one hand by depressing world market prices, and on the other hand by increasing world market instability through isolation of domestic sectors from world market price signals.

---

5 This section summarizes chapters 3 and 4 of GRETHE and NOLTE (2005).
A survey of model based analyses yielded that world market prices of agricultural products are distorted to rather different degrees. Although model results are, partly because of different scenario assumptions, extremely heterogeneous, prices for dairy products are found to be most distorted with up to 39.6% for butter, whereas markets for crop products are generally found to be less distorted.

Empirical literature on the contribution of agricultural policies to world market price volatility is limited and heterogeneous in its conclusions. Bale and Lutz (1979) establish a simple two country model to show that it are chiefly policies of fixed prices and variable levies that contribute to international price instability. These policies, however, which were predominant in the EU, have been gradually disappeared over the last decade and continue to do so.

3.2 Non-Policy Factors

Among non-policy factors in third countries, those which were found to be most impacting on other countries commodity markets are currency devaluations and supply volatility. Other conceivable sources of import surges may be changing comparative advantages, changing consumption habits and strategic behavior of third countries' companies. These have, however, been found to be of minor importance and are, thus, not discussed in detail here.

The case of currency crises impacting on other countries' markets must be divided into two possible cases, the first being the case of an exporting country becoming more competitive after devaluation, the second being a devaluing importing country breaking away as a possible market for another country's exports which are then sold to another destination and can cause surge-like phenomena there. For both cases there are well documented cases. As a poultry exporting country Brazil faced a devaluation of the Real in 2001 and 2002 losing roughly half of its value relative to the US$. In both years Brazilian poultry exports increased enormously by almost 70% from 2000 to 2002. Most of the additional exports went to the EU, but also some developing countries faced large increases in imports.

A case of an importing country's currency devaluation causing import surges in other markets is Russia where the Rouble fell dramatically in 1998. Russia therefore was no attractive market anymore for US poultry exports which fell from 826 thousand tons in 1998 to 233 thousand tons in 1999. These quantities where then sold on other markets, where imports in some instances were rising sharply, both in terms of total imports as in terms of imports from the US.

With respect to volatility of agricultural markets, analysis of crop production and world market price data for agricultural products show that production is rather stable with coefficients of variation below 10% between 1985 and 2000 for most products. World market prices display much higher variability. Among crop products, coefficients of variation where highest for sugar with 28% and lowest for oilseeds with 13%. Among livestock products price volatility was higher for dairy products, with coefficients of variation between 15% and 24%, than for meats with 5% to 21%. Interpreting these figures one should note that the volatility observed, of course, is the result of climatic conditions as well as other non-policy and policy factors.

4 Conclusions

Various internal and external factors can contribute to the emergence of import surges. Detailed quantitative empirical analysis was not possible in most instances. But the existing evidence suggests that external factors play a rather minor role, and where third countries' policies are concerned, this role will even decrease in future due to the process of multilateral agricultural trade liberalization. Internal policies whether carried out for purely domestic reasons or for whatever kind of international commitment have a much stronger potential to cause import surges. Further investigation should therefore focus on these factors. The question of how to prevent import surges and how to cope with them applying appropriate policy measures has not been dealt with in this study. It will, however, also be a major issue in future research and policy discussion.
References


