



No. 12 RICE LIBERALIZATION: PREDICTING TRADE AND PRICE IMPACTS¹

SUMMARY

- ▶ *The economic and social importance of rice for most producing countries has led to strong government interventions, resulting in a highly distorted market.*
- ▶ *Model based analyses predict that liberalization will raise world market prices and increase trade. They also tend to concur on the relatively greater impact of reforms to border protection as opposed to reductions in domestic support.*
- ▶ *Liberalization will raise prices for medium grain, Japonica, rice by much more than for long grain, Indica, rice. Benefits are to accrue mainly to temperate-zone Japonica rice exporters and to consumers in protected Japonica markets.*
- ▶ *Impacts may be more modest for Indica rice. Consumers in low protection developing countries will lose from liberalization, as tariff removal would not offset rising import prices.*
- ▶ *Key to the above results are the low supply responses to changes in Japonica prices, as few countries other than those in temperate and sub-tropical zones can grow these varieties.*
- ▶ *Rice has many features that make it a prime candidate for being designated as special or sensitive product. This could mean that market liberalization will be far more limited for rice than for other agricultural sectors.*

1 Main commodity features

Rice is a principal source of calorie intake for about half of the world's population and a mainstay for rural populations and food security in many low income countries. It is mainly cultivated by small farmers in holdings of less than one hectare. Rice also plays an important role as a "wage" commodity for workers in cash crop or non-agricultural sectors.

Since the early 1990s, global rice production has been expanding marginally above population growth. Developing countries account for 95 percent of the total, with China and India alone responsible for over half of world output. Global trade in rice has grown strongly, on average by 7 percent a year over the past decade.

Nonetheless, the international rice market remains thin, accounting for only 5 to 6 percent of global output. Unlike other bulk commodities, rice is segmented into a large number of varieties and qualities, which are not easily interchangeable because of relatively strong consumer preferences. Ordinary Indica, long grain, rice varieties are the most widely traded, accounting for 75 percent of international trade flows in the early 2000s, followed by Japonica, medium grain rice and aromatic (Basmati and fragrant) rice, each accounting for 12 percent of trade.² Developing countries are the main players in world rice trade, with a share of 83 percent of world exports and of 85 percent of world imports. In contrast to highly fragmented import markets, concentration is particularly high on the export side, as five countries (Thailand, Vietnam, India, China and the United States) account for about three quarters of global export supplies. Because of the importance of the commodity for food security

¹ This Brief draws on a longer technical review of quantitative models assessing the impact of market liberalization in rice, but focuses on the policy implications of the findings. FAO Trade Policy Technical Note No 12 on Rice is available at www.fao.org/trade/policy_en.asp.

² Glutinous rice is estimated to account for another 1 percent of world trade.

and political stability, a significant share of either exports or imports is conducted by state trading enterprises, some of which are also vested with the obligation of procuring or distributing rice domestically.

2 Negotiations issues of relevance to rice

The significance of the commodity and the far-reaching nature of rice policies mean that virtually all three WTO negotiation pillars are relevant to the global rice market. Concerns over food security, livelihood security and rural development are likely to dominate and bear upon the positions of many rice producing and consuming countries in the WTO negotiations. These concerns may steer the discussions particularly on the provisions on sensitive and special products, preference erosion, and state trading, contained in the July 2004 agreed framework for establishing WTO negotiating modalities (later referred as the "July Package").

DOMESTIC SUPPORT

Institutional support to the rice sector is common among producing countries and is provided principally through government research programmes, extension and input subsidies on seeds, fertilizers and irrigation. Some developing countries also grant subsidies on rice processing, storage and transportation. Government market interventions, though scaled down over the past 20 years, are still conducted in major producing countries, including Bangladesh, China, India, Indonesia, the Philippines, Malaysia, Brazil, Colombia, the Republic of Korea, the United States, and the European Union (EU). In better-off countries such as those of the EU, Japan, the Republic of Korea and the United States, market price support, largely falling within the Amber box, "production distorting" measures, has been cut since 1995 and replaced with direct payments under programmes designed to limit production, classified as "Blue box", or detached from the level of production or prices, classified as "Green box". However, monetary outlays to producers in those countries remain very high. Among developing countries, China, Mexico and Turkey also appear to have resorted to direct payments to assist rice farmers.

Given the far-reaching nature of domestic rice policies, negotiations on domestic support will be of special importance to rice producing countries, but in particular to the EU, Japan, the Republic of Korea and the United States, which continue to provide high levels of assistance to the sector. Difficult issues will likely relate to the **criteria** for classifying domestic policy measures according to the three boxes definition, **limits on their use** (including the extent to which distorting policies can be maintained under the **de minimis** provision) or the **speed** of implementation. The exceptions granted to

developing countries under **special and differential treatment** do not appear in the current agenda for negotiations. Such exceptions, if granted, could allow them to retain their right to use investment and input subsidies.

MARKET ACCESS

Despite the tariffication process undergone with the implementation of the Uruguay Round Agreement, there is still a wide array of trade measures that shield domestic rice markets from international competition, including high tariffs, variable levies, minimum import prices, state trading import controls, special safeguards and outright import bans.

Because of the importance of rice for many countries, **tariffs** on rice have generally been bound at very high levels, with the simple average of ad valorem bound rates reaching 99 percent in 1994, falling at the end of the implementation periods to 57 percent.³ Countries producing Japonica rice normally impose much higher tariffs than Indica-producing countries, usually in the form of specific tariff rates. As many governments undertake to safeguard their milling sectors, **tariff escalation** is a phenomenon of relevance for rice, with higher rates applied on imports of milled products. Seventeen countries committed to open **tariff rate quotas (TRQs)** or **minimum access quotas** under the WTO, most of which impose high out-of-quota bound tariffs. In addition, preferential access has been granted under regional agreements, which have proliferated over the past ten years, under the Generalized System of Preferences (GSP) and other arrangements like the Cotonou Agreement and the Everything-but-Arms Initiative of the EU. Eighteen countries have tagged rice as a product subject to the **special safeguard (SSG)**. **State trading enterprises (STEs)** are often the main, if not the sole, entities allowed to import rice. They are most important in Indonesia, the Philippines, Malaysia, Sri Lanka, Myanmar, Comoros, Cuba and Kenya. Although STEs are increasingly required to operate on commercial bases and to be financially self-sustaining, they have also pledged to fulfil social-oriented functions, such as domestic price stabilization and food distribution to the poor.

Negotiations regarding the kind of formula to be used in the conversion of specific tariffs into ad-valorem tariffs, reduction of the bound tariffs or expansion and administration of minimum access quotas are all important to rice. Agreement on the proposal to establish a special safeguard mechanism for developing countries could give them an instrument of defence against rice import surges, beyond the protection they may derive from designating rice as a sensitive or special product. Erosion of preferences is a major concern for a number of

³ Those averages exclude specific tariff rates.

developing countries. Streamlining STEs that hold rights over rice imports has not been earmarked as an element for discussion in the market access section of the July Package.

EXPORT COMPETITION

Officially, only the EU still appears to make use of **export subsidies** to sustain rice sales abroad, generally meeting its WTO limit of 133 000 tonnes in milled equivalent. Other forms of assistance to rice exporters have been granted in the form of **export credit guarantees**, in particular by the United States. **Food aid** in rice has hovered around 1.4 million tonnes in the early 2000s, representing about 5 percent of world trade. The principal donors have been the United States, Japan and countries in the EU. In 2002 and 2003, large volumes have also been donated by the Republic of Korea and China. **State control over rice exports** is less frequent than for rice imports, but is still dominant in China, Cambodia, Laos, Myanmar and Viet Nam. The bulk of Australia's rice exports are handled by a **single-desk trading board**. Especially where trade is under state control, **rice export bans/taxes** are sometimes triggered as a means to prevent domestic prices from soaring. Taxes on rice exports are applied by a few countries as a source of government income. A number of them also impose permanent export bans on paddy rice to ensure an adequate supply of raw material for the milling industry.

In short, a number of issues related to the export competition pillar of the negotiations are of utmost relevance for rice, the most sensitive of which are the revision of the principles disciplining food aid and STEs.

SPECIAL PRODUCTS AND SENSITIVE PRODUCTS

The July WTO Framework Agreement introduces two new elements of flexibility to the implementation of the commitments on Market Access, in the form of Sensitive Products and Special Products. A number of **sensitive products** could be designated by both developing and developed countries for special treatment that would exempt them from the full application of formula-based tariff reduction. In concession, tariff quotas for those exempted products will have to be expanded. The introduction of the sensitive product concept will undoubtedly help countries like Japan or the Republic of Korea to maintain a relatively high level of tariff protection to their rice sector. In addition, the Framework Agreement foresees that developing countries (only) may designate products as "**special**", based on food security, livelihood security and rural development needs. Being a likely candidate for such a designation, rice may be selected as "special" by many developing countries, which would limit their obligation to make concessions on rice market access.

The major issues concerning sensitive and special products have to do with the selection criteria and treatment that will be applied to them, the number of such products and the level of definition they can be designated (e.g. tariff lines, product headings at four, six or more digits). In addition, an important matter in the case of sensitive products deals with the extent to which the preferential quota would have to be expanded as compensation.

3 What would be the impact of rice liberalization? What do model based analyses tell us?

Models have been widely used to analyse the consequences of rice market liberalization. As they do not capture all the complexities of rice policies and markets, models have mainly concentrated on the removal of domestic support in industrialized countries and the elimination of tariff barriers and export subsidies. Results vary, depending on the choice of parameters and base year and on the disaggregation of the commodity and policy space. Despite their differences, models are consistent in predicting price and trade impacts following reform, with world market prices and rice trade set to increase.

According to the models, full liberalization, namely the removal of domestic and trade distortions, will raise international (export) prices in the order of 10 to 14 percent and expand trade by between 29 and 47 percent. Results from studies simulating less than full liberalization are far more divergent. Partial liberalization, such as policy reforms in the EU, Japan, the Republic of Korea and the United States only, indicate international prices will respond by -3 percent to +21 percent.

Models that distinguish rice varieties represent the market better. Analyses reveal that liberalization will lead to much sharper price increases for medium grain than long grain rice, because of greater policy distortions in medium grain rice markets. The differentiated price impacts for the two also reflect the assumption that temperate-zone producing countries have only limited capacity to increase medium grain production while traditional Indica producing countries cannot easily shift from Indica to Japonica cultivation to respond to relative price changes.

Models differ in assessing the effects of policies falling within the three pillars of the negotiations, but typically find that the greatest impacts stem from the reduction of border protection.

Finally, models fail to provide any guidance on the role and effects of state trading agencies which, however, are key players in the world rice market.

4. What are the policy implications?

The welfare implications of higher world prices in a liberalized market will mainly depend on the net trading position of individual countries. In normal conditions, net importing countries would lose from rising international prices, especially if their base tariff level is already relatively low and the scope for further tariff cuts is limited, as in many sub-Saharan African countries. The opposite holds true for net exporting countries with low current protection, which stand to gain from market liberalization. Government positions regarding the strengthening of world prices from market liberalization are, therefore, likely to depend on whether their countries are net importers or exporters.

A strong increase in Japonica rice prices is of particular interest to temperate and sub-tropical rice-exporting countries which have some potential for expanding production and exports. Major gains also would accrue to medium grain rice consumers in the liberalizing countries who, in spite of the world price increases, face lower domestic prices once tariffs are eliminated or drastically reduced. By contrast, Indica rice consumers, especially in developing countries with low border protection, stand to lose from liberalization, as tariff removal will not offset the effect of rising world prices, resulting in more expensive domestic rice. Traditional Indica exporting countries account for the bulk of world rice production and trade and have limited capacity to cultivate Japonica rice. This prevents them reaping much benefit from liberalization, especially as the projected rise in Indica prices would be much smaller than for Japonica rice.

Large differences in Indica and Japonica prices are unlikely to be sustainable in the longer term, as they will stimulate technological

innovations in Japonica varieties to make them suitable for cultivation in tropical regions. Thus, over a longer time horizon, price impacts from market liberalization are likely to be similar for the two rice market segments and generally weaker than predicted by model based analyses.

Although model-based analyses do not always concur on the relative importance of domestic support versus trade policies in influencing markets, the issue is particularly relevant to current negotiations, given the different emphasis countries place on the two sets of policies. For instance, the United States provides extensive domestic support to producers, while maintaining relatively low tariff protection. In contrast, Japan relies mostly on border measures to insulate its rice markets and resorts exclusively to Blue or Green box domestic support measures. More generally, models concluding that domestic support removal would have only small, if not negligible, impacts on the international rice market tend to shift the focus of negotiations towards the market access or export competition pillars.

The above discussion raises several issues for policy makers. In particular, there are questions about the emphasis and extent to which developing countries will accept to dismantle policies often aimed at improving food security or protecting the livelihoods of the rural poor from external shocks. The July Package recognises the legitimacy of governments pursuing such objectives by allowing them to designate selected products as special or sensitive which would be subject to differential treatment. Rice would seem to qualify for such a designation by many countries, with the possible consequence that the process of market and trade liberalization pursued in the WTO Round of Negotiations would be weaker for rice than for the other agricultural products.