SAFEGUARDING FOOD SECURITY IN VOLATILE GLOBAL MARKETS

EDITED BY

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Safeguarding food security in volatile global markets

Edited by Adam Prakash

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Chapter 9

The world rice market in 2007-08[1]

David Dawe and Tom Slayton[2]

So far, the commodity focus of this volume has been on major grains and oilseeds, given their strong link to food security against the fact that global price determination and discovery are centred on commodity exchanges in developed countries. There is of course another staple food crop which plays a critical role for food security across the world.

Being produced on different types of land and in largely in different countries, and, in the main, being consumed by different groups of consumers, rice is somewhat disconnected with markets for other cereals. Empirical evidence shows that shocks to rice supply and demand are not significantly correlated with those to other grains. That the major global futures markets[3] are inconsequential to the world market for rice and that the crop does not constitute a commercial feedstock for bio-energy production also distinguishes the commodity from others. Finally, that only a fraction of global production is supplied on international markets also sets it apart from other major staples.

But this apparent uniqueness has not mattered in past crises and high price episodes. For instance, within the space of a growing season, reference rice prices trebled during the episode of 2006-08, and doubled in the 1973-74 crisis.

More importantly, and for illustrative purposes for the book, it showed how the lack of policy coordination among major producing and consuming countries, can instigate exceptional bouts of turmoil in markets.

Background

Between October 2007 and April 2008, a span of just six months, world market rice prices for Thai 100 %B tripled, from USD 335 per tonne to over USD 1000 per tonne, reaching the highest level ever recorded in nominal terms. Even during the world food crisis of 1973-7, world rice prices had never doubled within six months, much less tripled. More than any other event, this price surge brought tremendous media attention to the global price episode of 2007-08.

It is important to note that, after adjusting for inflation, peak prices in 2008 were well below the levels reached during the world food crisis in 1973-74. Indeed, in real terms, the

1 This chapter is based on Dawe & Slayton (2010).

2 David Dawe, Agricultural Development Economics Division (FAO); Tom Slayton, Founding Publisher and owner of the "Rice Trader", United States of America.

3 Note that futures markets exist in both Asia (e.g. Bangkok) and Chicago, but their influence on international markets and prices are minimal.

Figure 9.1: Monthly inflation-adjusted rice prices: January 2000 to September 2007

Source: FAO (2009a) for rice prices, IMF (2009) for United Stated consumer price index. Data refer to Thai 100 %B FOB.

average price in 2008 was not even half of the average price during those three years. Even more strikingly, the peak in 2008 (again in real terms) was *below* the price in 74 of the 82 years between 1900 and 1981![4] This shows how much real world rice prices have declined over the longer term.

While the historical perspective is interesting and important, the world rice market turmoil of 2007-08 led to substantial surges in domestic rice prices in many countries around the world (Dawe & Morales-Opazo, 2009), which in most countries led to substantial adverse impacts on the welfare of the poor (Ivanic & Martin, 2008; Zezza et al. 2008; Dawe et al., 2010). Because rice is the most important source of calories for the world's poor, the world rice market turbulence was probably the most serious shock to world food security in the previous 25 years. Thus, it is an event well worth explaining.

For the previous 20 years, the world rice market had been relatively stable (Dawe, 2002), and as late as September 2007 it seemed as though the world rice market would not be subject to the price surges seen on the world maize and wheat markets: world maize prices increased 54 percent from August 2006 to February 2007, followed by an increase in world wheat prices of 125 percent from May 2007 to March 2008. While world rice prices nearly doubled in nominal terms between the trough reached in April 2001 (USD 170 per tonne for Thai 100 %B) and September 2007 (USD 333 per tonne), the gain in real terms was just 67 percent, and, more important, the rise had been very steady and gradual, especially compared with later events (Figure 9.1).

Because the rise was gradual and from a very low starting point (the lowest real price since at least 1900), and because many Asian governments stabilize domestic prices, the price increase on world markets between 2001 and 2007 did not lead to substantial domestic price increases (Dawe, 2008a). But the world price increases that began in October 2007 were too

[4] Seven of the eight exceptions were during the depth of the Great Depression and the three years immediately prior to the 1973-74 world food crisis.

large and too rapid for most countries to neutralize. The objective of this chapter is to describe and explain what happened to the world rice market during this time.

Rice market fundamentals were not the cause

The turmoil in the world rice market in 2007-08 was not caused by adverse shocks to rice production or low rice stocks. First, FAO estimates that world rice production increased from 635.2 million tons of paddy in 2005/06 (FAO, 2007) to 642.1 million tons in 2006/07 (FAO, 2009b), an increase of 1.1 percent. While not a large increase, it is similar to the rate of population growth in Asia, which is the main driver of demand as per capita rice consumption is declining in most countries and is generally stagnant in others.[5] In the subsequent two years, once world and domestic prices began to increase, world rice production increased by 2.9 and 4.1 percent, much greater than the rate of population growth.

Second, the world rice stock to use ratio was roughly constant in the three years preceding the turmoil (2004/05, 2005/06 and 2006/07) at 18 percent. It is true that the world rice stock to use ratio was much higher in earlier years (e.g. 37 percent in 2000/01), but this was almost exclusively owing to very high levels of stocks in Mainland China, which reached levels that exceeded annual use on several occasions in the late 1990s (i.e. a stock to use ratio of greater than 100 percent) before they were considerably reduced (Dawe, 2009).[6] China (Mainland) is often an important rice exporter, but it is difficult to argue that the decline in Mainland China's rice stocks from 1999/2000 to 2003/04 (several years before the high price event) caused the world rice market upheaval in 2007/08, especially as the decline in stocks did not lead to any major change in Mainland China's international trade flows.

In line with the favourable world rice production and stock situations noted above, it is also important to note that world rice trade increased during the turmoil. World rice trade in the first four months of 2008, when prices increased by more than 150 percent, was 20 percent higher than in the first four months of 2007 (Slayton & Timmer, 2008). Thus, there were ample supplies available on world markets. The favourable situation as regards production, stocks and trade strongly suggests that factors other than basic market fundamentals were at work.

Several factors external to the rice sector, however, arguably set the stage for turbulence in the rice market. Rising oil prices since 2004, a weak United States Dollar, and biofuels mandates and tariffs all contributed to rising maize and soybeans prices, and a 4.7 percent weather-induced decline in world wheat production from 2005/06 to 2006/07 led to a 67 percent increase in world wheat prices from May to September 2007. These price increases for petroleum, maize, soybeans and wheat created an atmosphere of concern and thus contributed to the policy decisions by key rice trading countries, both exporters and importers. It was these policy decisions that led to a substantially larger and more rapid price increase on the world rice market than on world maize and wheat markets, and the next section of this chapter will discuss these policy decisions in more detail.

[5] It should be noted, however, that world and Asian rice production have been growing at rates slower than Asian population growth since 1990 (Dawe, 2008b). This is a serious medium to long term problem, but does not change the fact that sudden production shortfalls did not spark the world rice crisis. The slow long-term growth of yield (and production) relative to population was most likely responsible for the gradual climb in rice prices from 2001 to 2007.

[6] The stock releases in Mainland China stabilized domestic consumption in the face of large declines in production for both rice (19 percent) and wheat (24 percent) between 1999 and 2003. The production declines were due primarily to large declines in area harvested in the face of increased labour scarcity.

Policies, uncertainty and "rational panic"

While[7] maize markets had to contend with biofuels policies and mandates (which added to demand), and wheat prices had to contend with bad weather (which reduced supply), there was no similar fundamental challenge that rice markets had to contend with (other than policies). Rice is also barely traded on futures markets, removing another factor that arguably influenced maize and wheat markets (Gilbert, 2009, Timmer 2009). Thus, policies and panic are the only plausible explanation for why rice prices increased so much more, and so much faster, than maize and wheat prices. The thin nature of the world rice market, and the large role that governments play in it, make the world rice market more vulnerable to such occurrences.

The atmosphere of uncertainty on world commodity markets noted above created incentives for policy-makers to secure additional supplies as soon as possible. While such an approach might be rational for an individual country, it serves to propel prices higher in a vicious circle if all countries implement similar policies. Such policy decisions also create further uncertainty within countries, and can easily cause individual producers, traders and consumers to also engage in hoarding. While the action of any one individual is irrelevant, Timmer (2009) shows that the cumulative effect when millions of households behave in this fashion can be quite substantial. Eventually market fundamentals took hold, and when they did, the "bubble" popped. In addition to this "rational panic," the manner in which the demand was expressed (e.g. supplies were purchased at prices well above then-existing market prices) also contributed to the turmoil.

While many countries changed their trade policies during the episode, the focus here is on three countries that played especially important roles given their large roles in the world rice trade. In 2007, India and Viet Nam were the world's second and third largest rice exporters and the Philippines was the world's largest rice importer. While shipments from Thailand (the world's largest exporter) played an essential role in preventing even greater price surges, several statements by its government officials unnerved the market.

India

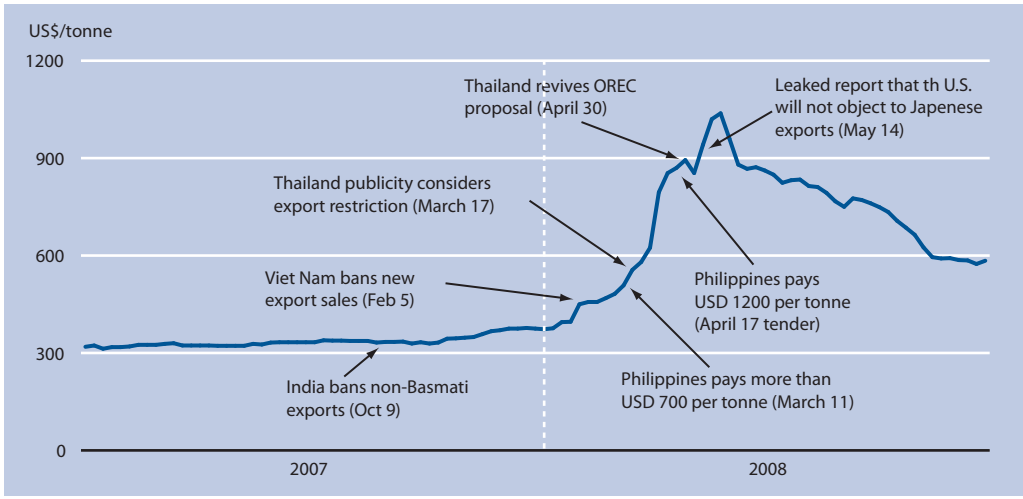
As noted above, the situation in the world rice market up until September 2007 was relatively stable, despite the volatility in other commodity markets. But, on 9 October 2007, India banned exports of non-Basmati rice (Figure 9.2). This was a key decision from a country that, from 2002 to 2006, supplied about 17 percent of the world market. This ban was replaced three weeks later with a series of ever-higher minimum export prices (MEP) that were set well above world price levels.[8] India then once again reverted to an outright ban on 1 April 2008. In the wake of these decisions to restrict exports by the world's second largest exporter in 2007, the world market price for Thai 100 %B increased from USD 335 per tonne in October to USD 481 per tonne in February 2008, an increase of 43 percent in four months, before soaring further in March and April as additional policy decisions in other countries exacerbated the uncertainty (see below).

India's decision to restrict rice exports had its roots in weather-related damage to its 2006 wheat crop and resulting wheat imports in 2006/07 (April-March) of 6.7 million tonnes, the

7 The discussion in this section draws heavily on Slayton (2009).

8 The first MEP on October 31 was set at USD 425 or USD 100 per tonne above prevailing Pakistani 25%, but in late December it was raised to USD 500 - USD 150 per tonne above FOB Karachi values. On March 9, 2008, the MEP was boosted to USD 650 or USD 190 over Pakistani 25% quotes.

Figure 9.2: Timeline of key events in the world rice market turbulence



Note: Price data are weekly, Thai 100 %B FOB (FAO, 2009a). Quoted Philippine prices are converted from Viet Nam 25% brokens C&F to Thai 100 %B FOB by using freight costs of USD 30 per tonne, financing costs of USD 10 per tonne, and the average quality differential between Thai 100 %B and Viet Nam 25% from March 2007 to February 2008 of USD 40 per tonne (the quality differential is calculated based on data in FAO 2009b). Event details are from Slayton (2009).

highest level in more than 30 years. Furthermore, world wheat prices were rising rapidly in mid-2007. Continuation of high levels of wheat imports was thus both expensive and politically problematic in the run-up to provincial and national elections.[9] As a result, India bartered rice for wheat by reducing both wheat imports and rice exports. This stabilized aggregate national cereal supplies and eliminated the need for wheat imports.

It should be noted that some exemptions to the ban/MEP were permitted, especially to Bangladesh. For example, India on 1 December 2007, agreed to supply Bangladesh with 500 000 tonnes under a Government-to-Government (G-to-G) contract and two months later agreed to a price of USD 399 C&F (the C&F price includes the cost of the rice plus the freight costs for shipment to the destination port). India, however, supplied only 100 000 tonnes at this price and eventually the balance was contracted at USD 430 C&F on 3 April 2008. The latter contracts provided for shipment within 60 days of the opening of the letters of credit, but the shipments were only completed in December 2008.

During the six-month period between October 2007 and March 2008, official statistics indicate over 2.5 million tonnes of non-Basmati were exported from India. Even after non-Basmati exports were once again banned on 1 April, shipments continued - above and beyond those exceptions allowed for the G-to-G sale to Bangladesh and sales agreed upon to Bhutan, Sri Lanka and others. From April to December, India exported 905 000 tonnes of non-Basmati, bringing calendar year 2008 movement to over 2.0 million tonnes, or 3.2 million tonnes below year-earlier shipments.

[9] There were elections in several important states such as Madhya Pradesh, Rajasthan, Chhattisgarh and Delhi in late 2007 and the national election in 2008. Traditionally, food inflation plays a significant role in deciding the election outcome as high food prices impact the livelihood of *aam aadmi* (common man) who spend more than half of their income on food.

Although trade did not stop completely, the export restrictions created substantial uncertainty in the market, especially because the duration of the restrictions was not clear (the restrictions had still not been lifted as of November 2009). Informed observers generally expected a substantial shortfall in Indian exports.[10] There is little doubt that the uncertain nature of the restrictions, both in terms of the temporal duration and the magnitude of the expected export shortfall, made importers nervous.

Viet Nam

Rice production in Viet Nam is spread over three seasons, with the winter-spring crop being the largest and the one that recharges the country's exportable surplus. The Government regulates the quantity of rice exports, and, in a typical year, the export sales quota has been reached by late summer. A new quota is then not issued until the eve of the harvest of the winter-spring crop in the Mekong River Delta (MRD), which typically begins in late February. At this point in time, it is relatively clear how large the winter-spring harvest will be, and thus easier to set an export quota while still ensuring that domestic supplies will be adequate. Between late summer and late February, the execution of previously approved contracts is allowed, but new sales are not.

In 2007, the export sales quota was reached by 21 July and no further supplements to the quota were issued. Thus, while there was an export sales ban in place in Viet Nam before that in India, this ban was anticipated and did not substantially disrupt the international rice trade nor create added uncertainty.

The situation changed in early 2008, however. New export sales were once again allowed from mid-January, but they were only allowed for two and a half weeks before the Government banned new sales owing to fears over unseasonably cold weather in the Red River Delta. Initially, it was not clear how long the prohibition was to last. Traders were eventually advised that the ban would be lifted by the end of April, but this was subsequently extended through June, and then was only lifted after a large G-to-G sale was negotiated with the Philippines. These actions added to uncertainty in the market.

Negotiations between Viet Nam and the Philippines

Despite the ostensible ban on new sales, Vinafood 2 (a state-owned exporter) and selected provincial food exporters were permitted to participate in the National Food Authority (NFA)'s December 2007 and January 2008 tenders for imported rice. (The NFA is the state-owned rice importer in the Philippines). These tenders resulted in contracts for over 700 000 tonnes, of which about 620 000 tonnes were scheduled for first quarter arrival in the Philippines. The level of arrivals scheduled for the first quarter was higher than could be delivered given limited carryover stocks in Viet Nam and the fact that the winter-spring harvest in the MRD does not begin until late February, making it difficult to ship such large volumes to Manila before the end of March. In the event, only about 320 000 tonnes were actually delivered during the first quarter. Furthermore, the price paid in the January tender was about USD 70 per tonne higher than that paid in the December tender, despite much smaller increases in both local Vietnamese and Thai export prices during that time.

In March and April, the Philippines continued to put out more large tenders. More important, however, it agreed to pay the increasingly high prices being quoted by Viet Nam,

[10] USDA initially forecast a 1.8 million tonne decline in exports (USDA, 2007), but revised this to a decline of 3.5 million tonnes as the magnitude of India's 2008 export volume became apparent (USDA, 2008a).

even though they were above market levels.[11] While government stocks were low in the Philippines, private stocks (which constitute the bulk of total stocks) were estimated to be ample, and official forecasts were for a record dry season crop. The eventual outcome for the 2008 dry season crop (which is harvested January to June, with the bulk occurring in March and April), was an increase of 5.8 percent over the previous record set in 2007. Domestic prices did increase from January to February, but the increase was in line with what would be expected based on normal seasonal patterns. Thus, there were no signs of upheaval in the Philippines when the 11 March tender was signed, although prices did soar soon afterwards.

Despite the solid market fundamentals in the Philippines, it agreed at the 11 March tender to buy 25% brokens at a price of USD 716 C&F, almost 50 percent above the previous sales price, far above prevailing prices in the MRD and USD 150 per tonne above prices in the spot market. Then, nine days before the 17 April tender, NFA announced that there would be another large tender in early May. This announcement contributed to higher prices and lower quantities offered at the April tender, when NFA bought about 365 000 tonnes, including 80 000 tonnes of Viet 25% at an average C&F price of USD 1 200 per tonne, USD 484 higher than the sales price of just one month earlier and again higher than the spot market.

These tenders fuelled speculation and higher prices in both the MRD and in the Philippines, as well as globally. When news of the April sales circulated within the MRD, local traders - including those involved in trading other commodities - jumped into the market as buyers and within a week there was a run on rice in Ho Chi Minh City (HCMC). Within the course of a two-day period, local prices doubled as rice disappeared from the markets within the city (prices subsequently fell quickly from these peaks). Monthly national average wholesale rice prices increased in the Philippines by 7 percent in March, another 18 percent in April and by a further 19 percent from April to July.

During this time, the Philippines made repeated efforts to commercially tender for United States of America rice, even though the delivered prices would be very high given the usual premium for rice from the United States of America and the higher freight rates entailed by the longer shipping distance. The President of the United States of America also publicly pursued a Memorandum of Understanding (MOU) with Thailand for more rice deliveries. These actions, coupled with the acceptance of the high Vietnamese prices offered at the tenders, conveyed the impression that the Philippines would be willing to pay almost any price for rice imports. This very inelastic demand is difficult to reconcile with the large dry season harvest, which has accounted for 42 percent of the annual harvest in recent years. Furthermore, it is not clear why the tenders were so large, or why a subsequent tender in May required a sovereign guarantee. Both of these conditions made it more difficult to procure rice at competitive prices from a wide array of traders.[12]

Thailand

While a number of countries restricted exports during the high price episode, Thailand, in the end, never did. For six consecutive months beginning with October 2007, monthly Thai exports topped 1.0 million tonnes and during the subsequent four months shipments averaged 914 000 tonnes. Indeed, over the 12 months ending in September 2008, Thailand exported more than 11.7 million tonnes.[13] Without these exports, it is hard to imagine how high world prices would have gone.

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11 This same practice of paying above market levels continued into 2009 (Reuters, 2009).

12 Viet Nam's policy of limiting domestic participation in the NFA tenders also helped to propel world prices higher.

13 This was 3.1 million tonnes above the export levels averaged during 2002-06.

Nevertheless, Thai policies and statements also contributed to the uncertainty in the world market. In February 2008, the head of the Ministry of Commerce's Public Warehouse Organization called for the newly elected government to auction off half a million tonnes of its 2.1 million tonnes of stocks. Thai exporters were in favour of this proposal, but the Government kept almost all of its stocks off the market. In mid-March, the Vice-Minister of Commerce was quoted as saying that the Government was considering imposition of export restrictions for the first time in more than a generation. Then, on 28 March, the Minister urged farmers not to sell as he predicted prices would reach USD 1 000 per tonne by June (he did not specify whether he was referring to prices of Jasmine rice or 100 %B). Thailand later insisted that it would not restrict exports and, indeed, it did not, but the threat of such action added to market uncertainty.

In late April, the Thai Government resurrected a proposal that Thailand, Viet Nam, Cambodia and Myanmar create a rice exporter cartel, the Organization of Rice Exporting Countries (OREC). Not surprisingly, this proposal heightened market fears, and the Philippines and international organizations like the Asian Development Bank came out against the proposal. The cartel plan was endorsed by Cambodia's prime minister, but world public opinion forced Thailand to withdraw the proposal on 6 May - just one week after it had been unveiled (USDA, 2008b).

Government stockpiling, more export restrictions, the media and international organizations

In addition to efforts by the Philippines to stockpile rice, other countries made similar moves. Malaysia, for example, announced plans in mid-January 2008 to increase Bernas' stock levels six-fold from two weeks (92 000 tonnes) to three months (550 000 tonnes).[14] Nigeria announced plans to increase imports by an extra 500 000 tonnes and build up its strategic reserve by the end of 2008. While these plans failed to materialize after world prices reversed direction, the statements of intent contributed to sending prices higher.

Exporters other than India, Viet Nam and Thailand also contributed to market uncertainty. Egypt suspended exports in mid-January, and the ban remained in place for almost a month, although it was then replaced with an export tax of more than USD 50 per tonne. By the end of March, a ban was back in place, due to expire in October. In early June, however, the ban was extended to April 2009. China (Mainland) delayed issuance of export quotas during the turbulence, and shipped out only 56 000 tonnes at the peak of the market during April-June 2008, down from 170 000 tonnes during the same period one year earlier, despite holding substantial stocks.[15] And Cambodia also temporarily banned exports, although this ban was not as strict or effective as many thought (see next paragraph).

The media also played a role through superficial reporting of some of the export restrictions. For example, Cambodia's decision in late March 2008 to ban exports was given more play in the popular press than was warranted given its actual impact. Not only was the ban temporary (two months), but it was also soon largely lifted. About two-thirds of Cambodia's exports are made via Viet Nam, and the ban on shipments by the three eastern-most provinces was lifted within two weeks of the original announcement. Further, Cambodia is a very minor exporter (USDA, 2009) estimates its annual exports averaged about 330 000

14 Bernas is Malaysia's sole rice importer.

15 Mainland China's annual export quotas for rice are typically only decided by the National Development & Reform Commission about one month after the end of the lunar New Year celebrations. As of late April 2008, however, a senior official was quoted as saying export quotas for 2008/09 still had not been issued.

tonnes from 2004/05 to 2006/07) and movement out of the country probably had largely occurred before the ban was announced - most of Cambodia's shipments occur around the beginning of the calendar year immediately after its main crop is harvested. Finally, the Cambodian-Vietnamese border is very porous and enforcement of the edict was likely difficult.

Similarly, at the peak of the turmoil in late April it was reported that Brazil - also a minor exporter USDA (2009) reports its exports over the preceding three years as averaging just over 250 000 tonnes) - had banned all rice exports. Within a few days, it was clarified that this only involved government-held stocks, but most buyers likely did not hear of this distinction.

Finally, statements by key officials of well known international organizations forecast higher prices. While understandable on one level given the declining funds devoted to agricultural development during the past twenty years, such statements are viewed by many as authoritative and contribute to market jitters.

In sum, a series of government actions in India, Viet Nam, the Philippines, Thailand and other countries created substantial uncertainty in the world rice market.[16] These policy decisions collectively created a speculative bubble that encouraged farmers, traders and consumers to hoard rice, further increasing prices.[17]

The "bubble" pops

The first two weeks of May brought two natural disasters, as Cyclone Nargis struck Myanmar's Irrawaddy Delta on 3 May and a strong earthquake jolted Sichuan province in Mainland China on 12 May. Initial estimates of losses owing to Cyclone Nargis were placed at 2 million tonnes of paddy, although these estimates eventually proved to be too high.

But, around the same time, the Philippines aborted its 5 May tender as there was only one bidder (Vinafood 2; at least two bids are legally required in order to execute a purchase), and that one did not meet the sovereign guarantee requirement that the Philippines imposed. Four days later, the Philippines publicly disclosed that it was negotiating with Japan for 60 000 tonnes of its domestic rice. That same day, the Center for Global Development (CGD) released a paper arguing that world rice prices could be reduced drastically and quickly if the United States of America would allow Japan to export some or all of its 1.5 million tonnes of imported rice (Slayton & Timmer, 2008). The paper also pointed out that Thailand and Mainland China had large stocks available for export.

United States of America Congressional Committee hearings on the food market turmoil were held 14 May, and that evening Bloomberg news quoted an unnamed United States of America trade official that the country would not object if Japan were to release its stocks. That week, rice futures prices in the United States of America fell for four straight days, and rice futures prices in Thailand began a 29 percent decline from 13 May to 3 June. The Philippines

[16] Other government actions fuelled speculation in domestic markets, but those actions are not discussed in this chapter, which focuses on the world market. For more details, see Slayton (2009).

[17] It might be objected that the data on stocks do not show a large increase during this time. However, FAO and USDA, the two main sources of stock data, only maintain data on an annual basis. Furthermore, the quality of the data is acknowledged to be low given the difficulties of convincing market participants to provide accurate information, and this difficulty would be amplified in a crisis situation where some governments threatened severe penalties (e.g. life imprisonment) for hoarding or speculation. The volume of stocks held by billions of small consumers across Asia is another large source of uncertainty).

announced on 19 May that Japan might provide it with 250 000 tonnes, including 200 000 tonnes of imported rice. On 21 May, major Thai exporting companies began to once again provide daily price quotations, a longstanding practice they had suspended in February. At a high level conference at FAO on 2 June, Japan pledged to export over 300 000 tonnes of imported rice. In the event, Japan never did export the rice that it pledged; indeed, rice exports in 2008 were only 117 000 tonnes, less than in 2007. But the mere prospect of this additional rice being released onto world markets seemed to have been sufficient to reverse the upward momentum of prices. According to weekly (FAO, 2009a) data, Thai 100 %B rice prices peaked in the second half of May at more than USD 1 000 per tonne FOB and slid downward from there. The decline in rice prices thus occurred even though crude oil prices were still rising (they did not peak until early July).

NFA then concluded a Government-to-Government deal with Viet Nam for 600 000 tonnes in mid-June, and signalled that it had met its import demands for the year, and a few days later Viet Nam lifted its export ban. Thailand had also indicated that it was considering unloading some of its stocks. These events helped reverse the dominant bullish market psychology that held sway just several weeks earlier.

This downward momentum was eventually sustained by larger macroeconomic forces and the financial and economic crisis. Freight rates, as measured by the Baltic Dry Index, began a sharp decline that saw rates decline 94 percent from early June to the end of the year. World oil prices peaked at a monthly average of USD 133 per barrel of West Texas Intermediate in July, and urea prices peaked in August. For the remainder of the year, cereal prices declined substantially. By December, average monthly prices for rice, wheat and maize had all declined by 45 to 50 percent from their peaks earlier in the year.

Conclusions

While free markets do not always deliver optimal price stability, turmoil in the world rice market during 2007-08 was not owing to a failure of free markets: government policy decisions were decisive in sparking and fuelling turmoil. The world rice market is particularly vulnerable in this regard because it is relatively thinly traded[18] and because of the large role played by governments in the international trade that does take place.

Government interventions by many countries, including major exporters and importers, created uncertainty and encouraged hoarding and panic on the part of other governments, farmers, traders and consumers. The role of state-owned enterprises was particularly problematic during the event owing to their lack of transparency in conducting trade. While the private sector is not transparent either, its activities are constrained by competitive forces, which is not true for governments.

The world market price turbulence eventually led to domestic price surges in a number of countries. The increases in domestic prices caused severe hardship for many poor consumers, who in most of these countries dominate the lowest parts of the income distribution. These consequences underline the need to improve the functioning of the world rice market in times of extreme volatility and crisis.

While governments will most likely continue to play an important role in this market, this role needs to be more transparent and predictable, and should be tempered by a much greater role for the private sector. Such relatively simple changes would most likely have

[18] During the period 2000-2007, world exports constituted 7, 13, and 20 percent of production for rice, maize and wheat, respectively.

been sufficient to avoid the turmoil that occurred, even in the absence of other measures that have been discussed (e.g. regional stocks, larger national stocks, virtual reserves).

References

Dawe, D. 2002. The changing structure of the world rice market, 1950-2000, *Food Policy*, 27(4): 355–370.

——— 2008a. Have recent increases in international cereal prices been transmitted to domestic economies? The experience in seven large asian countries, *Working Papers 08-03*, Agricultural and Development Economics Division of the Food and Agriculture Organization of the United Nations (FAO - ESA).

——— 2008b. Running out of steam: One cause of today's high rice prices is slowing productivity growth - suggesting it is time to step up investment in international agricultural research, *Rice Today*, 7(3): 41.

——— 2009. *The unimportance of "low" world grain stocks for recent world price increases,* FAO, Rome.

Dawe, D., Block, S., Gulati, A., Huang, J. & Ito, S. 2010. Domestic rice price and marketing policies, in *Rice in the 21st century global economy: strategic research and policy issues for food security*, ed. by S, P. International Rice Research Institute.

Dawe, D. & Morales-Opazo, C. 2009. *How much did developing country domestic staple food prices increase during the world food crisis? How much have they declined?,* FAO.

Dawe, D. & Slayton, T. 2010. The world rice market crisis of 2007-08, in *The Rice Crisis*, ed. by Dawe, D. London, Earthscan.

FAO 2007. *Rice market monitor,* Rome.

——— 2009a. *International commodity prices online,* Rome.

——— 2009b. *Rice market monitor,* Rome.

Gilbert, C. L. 2009. Understanding spikes and speculation in agricultural commodity markets, in *Paper presented to the Experts Meeting on "Institutions and Policies to Manage Global Market Risks and Price Spikes in Basic Food Commodities" 26-27 October, FAO.*

IMF 2009. *International financial statistics online,* IMF (International Monetary Fund).

Ivanic, M. & Martin, W. 2008. *Food prices and food security,* The World Bank.

Reuters 2009. *Philippines bought rice above market prices,* July 3.

Slayton, T. 2009. Rice crisis forensics: How Asian governments carelessly set the world rice market on fire, *Working Papers 163*, Center for Global Development.

Slayton, T. & Timmer, C. 2008. *Japan, China and Thailand can solve the rice crisis - but U.S. leadership is needed,* Center for Global Development.

Timmer, C. P. 2009. Did speculation affect world rice prices?, *Working Papers 09-07*, Agricultural and Development Economics Division of the Food and Agriculture Organization of the United Nations (FAO - ESA).

USDA 2007. India grain and feed quarterly lock-up report, *GAIN Report IN7103*, United States Department of Agriculture.

——— 2008a. India grain and feed quarterly lock-up report, *GAIN Report IN8045*, United States Department of Agriculture.

——— 2008b. Thailand grain and feed OREC, *GAIN Report TH8071*, United States Department of Agriculture.

——— 2009. *Production, supply and distribution online,* United States Department of Agriculture.

Zezza, A., Davis, B., Azzarri, C., Covarrubias, K., Tasciotti, L. & Anriquez, G. 2008. The impact of rising food prices on the poor, *Working Papers 08-07*, Agricultural and Development Economics Division of the Food and Agriculture Organization of the United Nations (FAO - ESA).