AGRICULTURE:

FOOD SECURITY AND TRADE LIBERALIZATION

Paper prepared for the conference on
"Challenges Facing the World Trade System"
organized by Jagdish Bhagwati, Pravin Krishna & Arvind Panagariya
Columbia University, New York, and
Johns Hopkins University (SAIS), Washington DC,
29 September – 2 October, 2014

By Stefan Tangermann,
Professor emeritus,
Department of Agricultural Economics and Rural Development,
University of Göttingen
## CONTENTS

1 Introduction 1

2 New Conditions on World Markets for Agricultural Products 4

3 Evolution of the Policy Landscape 7
   3.1 Producer Support 7
   3.2 Import Measures 11
   3.3 Export Measures 13

4 Implications for Agricultural Trade Negotiations Post-Bali 15

5 Public Stockholding for Food Security: The "Indian Problem" 18

6 Conclusions 27

References 29

## FIGURES

- Figure 2.1: International Market Prices of Cereals in Real Terms, 1971-2023 5
- Figure 2.2: Price Projections for Selected Agricultural Commodities for the Average of Years 2014 to 2023 Percentage change of real prices relative to averages in two alternative base periods 6
- Figure 3.1: Producer Support Estimate as a Share of Gross Farm Revenue, 1995-2023 8
- Figure 3.2: Shares of Country Groups in Aggregate Producer Support of All 47 Countries Covered in the OECD's M&E 8
- Figure 3.3: Change of %PSE and Producer NPC from 2002-07 to 2012 (Percentage points for %PSE, absolute for NPC) 9
- Figure 3.4: Share of Potentially Most Distorting Support in All Producer Support, 2002-07 and 2012 10
- Figure 3.5: Bound and MFN Applied Tariffs for Agricultural Products, 2012 (Simple average of all agricultural tariff lines) 11
- Figure 3.6: Maximum Duty (MFN Applied) Among all Tariff Lines for Agricultural Products, 2012 12
- Figure 3.7: Change of Average Tariffs (MFN Applied) for Agricultural Products from 2007 to 2012 12
- Figure 3.8: Export Measures Affecting Agricultural Products: Number of Measures Taken, 2007 to 2011 15
- Figure 4.1: Ranges of Reduction Rates for Agricultural Tariffs in Developed Countries Suggested in the Successive Draft Modalities of 2006, 2007 and 2008 17
- Figure 5.1: Price Developments in India: International and Domestic Market Prices and Minimum Support Prices (MSP) for Rice and Wheat, US Dollar per tonne 24
1 Introduction

It seems paradoxical. Agriculture accounts for a small and declining share of global trade, less than 10 percent in 2013. Yet, in trade negotiations agriculture continues to cause immense trouble. The cast of combatants changes and the acute issues debated are somewhat variable, but the sector is continuously in the headlines. Agriculture remains an Achilles heel of the world trade system.

In the Uruguay Round the most prominent opponents in the talks on agriculture were the US and the EU, and on a number of occasions their inability to find common ground came close to breaking the neck of the negotiations overall.\(^1\) It was not before a compromise on agriculture was found between the US and the EU at Blair House that the Uruguay Round could be brought to a successful conclusion. The Agreement on Agriculture then concluded was a turning point in the history of dealing with farm trade in the GATT. It established firm rules and clearly specified quantitative reduction commitments. It also called for another round of negotiations, to deal with the "continuation of the reform process". The rather large amount of water the Uruguay Round results had left in the new disciplines would then be wrung out of the reduction commitments, and – who knows – in the end agriculture could perhaps be integrated fully into the WTO regime, without any sectoral exceptions.

It turned out that these agricultural negotiations could be integrated into the Doha Round – where agriculture began to cause trouble again right from the start. It took a major effort to agree on the precise wording of the objectives for agriculture in the Work Program for the new round. But the real difficulties began when the negotiations turned to the details of new modalities for agriculture. Encouraged by emphasis on the "development dimension" of the Doha Round, developing and emerging economies raised their voices. At the 2003 Cancún Ministerial of the WTO the newly created G20 began to play a major role. Often led by Brazil, and frequently represented jointly by Brazil, China, India and South Africa, the G20 pushed emphatically for agricultural reforms in the developed countries, arguing strongly that it was a matter of fairness and social justice to allow farmers in the poorer countries to compete on an equal footing with those in rich nations. Perhaps more than any other development, the ascent of the G20 as a powerful player in the Doha Round signaled the end of the era in which a handful developed countries, above all the US and the EU, could dominate business in the international trading regime. At the same time the prominence of the G20 indicated that agriculture continued to be pivotal in the new round. The subsequent formation of the G33, a group of developing food importers with large rural populations and,

---

\(^1\) The treatment of agriculture in the multilateral trade regime, including the Uruguay Round negotiations, is discussed extensively in Josling, Tangermann and Warley (1995). For an analysis of the fifty years history of US-EU conflict in agriculture, and potential resolution through TTIP, see Josling and Tangermann (forthcoming).
contrary to the G20, more defensive interests, also underlined the importance of agriculture in the negotiations.

As the Doha Round continued there were several occasions when agricultural matters caused significant difficulties. A culmination point was reached in July 2008 when time appeared increasingly ripe to reach closure on the modalities, in an informal meeting of the WTO's Trade Negotiations Committee at Geneva, with many countries represented at ministerial level. After negotiations at this mini-ministerial, in variable geometry of countries around the table, had proceeded for a number of days, without much progress, the WTO's Director General (Pascal Lamy at the time) decided to push forward by tabling a proposal suggesting headline numbers for the most important elements on the negotiating table. However, after another three days of hard negotiations it became clear that the US could not agree with India and China on cotton, and above all on limits for the Special Safeguard Mechanism (SSM) for agricultural imports into developing countries. On the latter point, the issue was under which conditions it should be possible to use remedies that would raise duties to a level above the tariffs that had already been bound before the Doha negotiations. The US wanted these conditions to be more restrictive than what India (and China, less outspoken but still determined) requested. Though agreement on most other issues was in sight already, the mini-ministerial collapsed over the impasse in agriculture, with several conspiracy hypotheses circulated as to why it had proven impossible to go the last mile.

After the bankruptcy of Lehman Brothers in September 2008 the possibility of calling a ministerial in December 2008 was explored, in the hope that it might finalize the modalities. The chairmen of the agriculture and the NAMA negotiations issued revised texts of draft modalities, reflecting results of both the July mini-ministerial and subsequent negotiations. However, gaps among negotiating positions remained so wide that risk of yet another failure appeared too high, and the ministerial was postponed. In the absence of any significant further progress in the Doha negotiations, the draft modalities of December 2008 documented for a long time what had, or had not, been achieved in the DDA negotiations on agriculture.

In the run up to the December 2013 WTO Ministerial at Bali, the view gained ground that to save the Doha Round from eventual death it was high time to achieve some tangible results. The new WTO Director-General, Roberto Azevedo, pushed negotiators hard in the preparation of a package of selected elements that might have a chance of being agreed at Bali. During the Ministerial, negotiations were tough and agreement hung by a thread, but this time the meeting could be saved from collapse and a "Bali package" was approved, much to the relief of the trade community that welcomed the first multilateral agreement struck in the WTO in nearly twenty years. The overall package contained a number of elements. Most important, agreement was reached on the trade facilitation package that had been negotiated over the years. In agriculture, the most hotly debated and most notable outcome was a
Ministerial Decision on "Public Stockholding for Food Security Purposes", an item for which India had fought vigorously. The Decision established some sort of a temporary peace clause and mandated negotiations on a permanent solution.

The fact that the Bali Ministerial had managed to arrive at a number of positive decisions ended five years of widespread frustration with a lack of progress in the multilateral trade talks. Negotiations were resumed again in relatively positive spirit. In agriculture it was discussed whether the draft modalities of December 2008 could continue to serve as a reference for further negotiations. Some delegates felt that was definitely the case. Others argued that so many things had changed since 2008 that there was a need to take stock and see where the world has arrived meanwhile, before continuing to negotiate the details of any modalities. Before the 2014 Geneva summer break the gap between these diverging views had not yet been closed.

However, a much more dramatic hiatus then struck the WTO. The much heralded Bali achievement fell apart when it proved impossible to find a way of bringing all WTO Members to adopt the protocol on the Trade Facilitation Agreement by 31 July 2014, the deadline agreed by Ministers at Bali. India would not let the trade facilitation package go forward as it felt there was not sufficient progress towards a permanent solution that would address its concerns regarding public stockholding of food. Thus, a few months after optimism had sprung up among WTO Members at Bali, the mood has suddenly and dramatically turned into deep pessimism. Like the WTO Director General many participants in the WTO business have made it known that they are "very, very concerned". Once again disagreement over agricultural matters has immobilized the WTO.

After the breakdown of 31 July 2014 the future of the Doha Round is in limbo. Whether and how negotiations will continue is unclear. Yet, if negotiations resume, in the agricultural talks two issues will receive priority attention. First, how has the agricultural world changed since 2008, and what are the implications, if any, for the modalities envisaged in the December 2008 Rev.4? Second, what should the response be to the concerns regarding public stockholding of food raised by India (and some other countries)?

The present paper will primarily discuss these two issues. Section 2 takes a look at the significant changes that have occurred in recent years on world markets for agricultural products. The evolution of agricultural policies in major countries since 2008 is considered in Section 3. Section 4 discusses implications these developments might have for negotiations as based on Rev.4. Section 5 then turns to the "Indian problem". Conclusions are drawn in Section 6.
2 New Conditions on World Markets for Agricultural Products

International markets for agricultural commodities are notoriously volatile.\(^2\) Most of that volatility originates on the supply side: output depends on the vagaries of weather and other natural factors, varying from year to year. Cyclical swings of output, reflecting lagged response of supply to price changes, can inject an additional degree of volatility into agricultural markets. As it happens, such output fluctuations on agricultural markets hit a demand that does not respond much to price variations. Hence prices have to change rather much in order to restore market balance. International trade could, in principle, even out much of that intrinsic volatility, given that weather variations and other supply shocks are typically regional phenomena. However, many governments have a tendency to try and stabilize their domestic markets through various types of policy intervention. In effect such policies export instability to international markets and prevent international market fluctuations from being absorbed in national markets. In consequence, international markets tend to be not less, but more volatile than most domestic markets for agricultural commodities.

In 'normal' periods, volatility on agricultural commodity markets is essentially symmetric: prices are sometimes above and sometimes below their trend, and the highs are more or less matched by corresponding lows. Once in a while, however, such 'normal' (though pronounced) volatility is interrupted by an extreme price spike, usually accompanied by particularly high volatility. This typical phenomenon of asymmetric price movements (or "skew") on agricultural (and other) commodity markets is closely related to stock changes. For storable commodities, stock variations can contribute to evening out some part of price volatility. However, once stocks are depleted they can no longer compensate for a decline of output. In that situation an output shortfall can drive up prices to very high levels. Uncertainty and nervousness of market participants then also tends to cause large volatility. If panic spreads to governments and some of them resort to ad hoc policy interventions such as export restrictions, price spikes and volatility are amplified even further.

Most of the time such episodes of extreme price spikes don't last very long. Output recovers, stocks are replenished and prices return to their usual levels. This was, for example, the nature of the pronounced price spike on international cereals markets in the mid-1970s. After the extreme price spike was over, markets calmed down again and continued their secular decline in real terms (Figure 2.1). More recently, in 2007 and subsequent years the world has experienced another extreme price spike on international markets for cereals. This time, however, the subsequent development of markets differed notably from the usual episode of a transitory price spike. After the original extreme price spike was over, prices did not revert to their pre-spike level. On the contrary, the first price spike was followed by more

\(^2\) The nature, determinants and policy implications of volatility on agricultural commodity markets are discussed more fully in Tangermann (2011) and the literature referenced there.
peaks, prices continued to exhibit much volatility, and even though they declined again from their extremely high levels of 2007/08, prices remained for the time being at a level significantly higher than before 2007, even in real terms (Figure 2.1).

**Figure 2.1: International Market Prices of Cereals in Real Terms, 1971-2023**

![Graph showing international market prices of cereals in real terms from 1971 to 2023](image)

Source: Database of OECD-FAO (2014)

Market projections for the coming years differ somewhat between authors and institutions. But there is general agreement that prices of most agricultural commodities are likely to remain at a high level for the foreseeable future. The OECD-FAO Outlook projects real prices of cereals to decline again slightly over the whole of the 2014-2013 period, but even at the end of that projection period they would still be considerably higher than before the 2007-08 price spike (Figure 2.1). Real prices for most other agricultural commodities are also projected to attain a level significantly above that known in the past. Prices for the average of the ten year period 2014-2024 are projected to be higher than those prevailing on average in the 1992-2006 period by some 15% to 35% in real terms for cereals, oilseeds and sugar, by 40% to 60% for poultry meat and dairy products, and by 25% for beef/veal (Figure 2.2). Only pigmeat prices are projected to remain slightly below their 1992-2006 average. Relative to the base period 2000 to 2006, which does not include the above-trend prices of the mid-1990s, the projected increase of real prices in the coming ten year period is even larger, for some products as much as 50% or even 80% (Figure 2.2).
It thus appears that in 2007 and subsequent years the world has not only experienced an extreme price spike and hefty volatility, but also a notable step increase in the price level of agricultural commodities. This is a remarkable departure from past trends on world markets for agricultural commodities. Real prices for agricultural commodities have trended downwards for a long time. AROUND THE YEAR 2000 THAT DOWNWARD TREND HAS SLOWED DOWN, and then it was interrupted by what appears to have been an upward step in the price level, an increase in the order of magnitude, roughly speaking, of one third. A number of factors are cited that may explain that step increase. A major influence is attributed to high and rising energy prices and the resulting cost push in world agriculture, both through direct energy consumption (e.g. tractor fuel) and through their impact on other input prices, in particular fertilizer. Another factor on the supply side is what appears to be a slowdown in yield growth and productivity improvement on a global scale. Moreover, resource constraints, specifically regarding the availability of water and land, become increasingly felt. On the demand side, food consumption continues to be stimulated by population growth and rising incomes, in particular in emerging economies. Growing use of agricultural commodities as feedstocks for the production of biofuels is also contributing to demand expansion. All of these factors appear to be of lasting nature for the foreseeable future. Thus it seems that the step increase in

---

3 For a statistical analysis of the long term movement of commodity prices, see Jacks (2013).
the level of real agricultural commodity prices that has occurred after 2006 is not just a transitory short term phenomenon.

3 Evolution of the Policy Landscape

3.1 Producer Support

In its annual "Agricultural Policy Monitoring and Evaluation" (M&E) the OECD provides estimates of producer support for a total of 47 countries. Included are the 34 members of the OECD, six non-OECD member countries of the EU and seven emerging economies. On aggregate, these 47 countries cover almost 80% of value added in world agriculture and thus provide a good impression of the global picture. It should, therefore, be useful to take a look at developments in these countries while the DDA negotiations were going on, comparing 2012 with the average of the six year period 2002-2007, the period before the Doha negotiations on agriculture ground to a halt. Over that time, the share of the Producer Support Estimate (PSE) in gross farm receipts, i.e. the %PSE, for the aggregate of all 47 countries declined from 20.3% in 2002-07 to 16.7% in 2012. The decline began in 2007 and continued in 2008, after which the support rate increased again somewhat, suggesting that much of the decline was a result of the rise of international market prices in 2007-08 (Figure 3.1).

Within this aggregate the evolution of producer support in different country groups has diverged notably. In the OECD area the %PSE has declined significantly since the beginning of the century, while the %PSE for the aggregate of the emerging economies included has increased equally significantly. In fact, as it happens in both country groups the %PSE has changed by about 15 percentage points since around the year 2000 – but in the OECD area downward and in the emerging economies group upward (Figure 3.1). As a result the shares of these country groups in aggregate producer support for the 47 countries have shifted fundamentally. While the group of seven emerging economies made up for no more than 17% of the total in 2002-07, its share had grown to 45% by 2012 (Figure 3.2).

4 The seven emerging economies included in the OECD's M&E are Brazil, China, Indonesia, Kazakhstan, the Russian Federation, South Africa and Ukraine.
5 Note that the OECD area does not include the six non-OECD member countries of the EU, even though they are also covered by the EU's Common Agricultural Policy.
Behind these averages for country groups there is a large variation across individual countries. While in the OECD area overall the %PSE declined by nine percentage points from 2002-07 to 2012, it decreased by 17 percentage points in Iceland and went up by two percentage points in Japan during that period (Figure 3.3). Among the emerging economies covered, changes of the %PSE during that period range from minus four percentage points in South Africa to plus ten percentage points in Indonesia. Given these large differences in the evolution of producer support across countries all of which faced similar developments of
international market prices it is clear that in several of the countries covered changing conditions on world markets can explain only some part of the observed changes in producer support. The remainder must have been due to exchange rate movements and the evolution of policy settings. The same conclusion can also be drawn from the wide variation in changes of the producer Nominal Protection Coefficient (NPC) during the period considered here (Figure 3.3). In most countries where the %PSE has declined, the producer NPC has also been reduced and *vice versa*, indicating that a reduction in support based on commodity output has contributed to the decline in overall producer support. In the OECD area overall, the NPC declined by 0.13, from 1.23 in 2002-07 to 1.10 in 2012. This means that the gap between domestic producer prices (inclusive of payments per unit of output) and international market prices was reduced by 13 percentage points. In the seven emerging countries the (unweighted) average of NPCs increased slightly from 1.07 to 1.08 during this period.

**Figure 3.3: Change of %PSE and Producer NPC from 2002-07 to 2012**
*(Percentage points for %PSE, absolute for NPC)*

Source: PSE database of OECD

The change in NPCs is one indication of the evolving composition of producer support. Another indicator is the share of potentially most distorting support in the PSE, consisting of support based on commodity output and payments based on variable input use without input constraints. This indicator exhibits much variation across OECD member countries, in terms of both its level and its change over the period considered here (Figure 3.4). The composition of support has improved (in the sense of becoming less distortive) in nearly all OECD

---

6 It should be noted that the producer NPC as defined by OECD includes not only market price support, but also payments per unit of current output (e.g. deficiency payments).
countries, with the exception of Israel and Canada.\textsuperscript{7} For the OECD area overall, the share of most distorting support in overall producer support has declined from 63\% in 2002-07 to 52\% in 2007. In the emerging countries covered, the (weighted average) share of the most distorting policies in all producer support is not only higher than in the OECD area, it also increased during the period considered here, from 68\% in 2002-07 to 75\% in 2002.

**Figure 3.4: Share of Potentially Most Distorting Support in All Producer Support, 2002-07 and 2012**

![Graph showing share of potentially most distorting support](image)

Source: PSE database of OECD

Notes: Potentially most distorting support is defined as support based on commodity output and payments based on variable input use without input constraints.

The Ukraine is not included in this figure as its share of most distorting support in the PSE was negative due to negative support based on commodity output.

The overall picture then is that since the beginning of the Doha Round negotiations the evolution of producer support has diverged notably between the OECD area and the emerging economies covered in the OECD's M&E. In the OECD area producer support as a share of gross revenue declined, while it increased for the aggregate of the emerging economies. The result was that the emerging economies' share of producer support in the aggregate of all countries covered has grown significantly. Also, while the composition of support has changed in the direction of less distorting measures in the OECD area, the opposite was the case in the group of emerging economies.

\textsuperscript{7} The increase of this indicator in New Zealand is irrelevant given that New Zealand's \%PSE is below 1\%. 

3.2 Import Measures

The level of tariffs in agriculture, averaged across all agricultural tariff lines (unweighted), differs very much across the countries covered here (Figure 3.5). In 2012, averages of MFN applied tariffs ranged from 1.2% in Australia to 53.2% in Norway. Among the emerging countries covered here, India's MFN applied tariff level in agriculture is highest, at 33.5%. It is also notable that in many countries the tariffs actually applied (MFN) are far below the tariffs bound. The "binding overhang" is largest in Norway and India where in both cases it amounts to nearly 80 percentage points. Contrary to what is sometimes suggested, large margins of binding overhang exist not only in emerging and developing countries.

Figure 3.5: Bound and MFN Applied Tariffs for Agricultural Products, 2012
(Simple average of all agricultural tariff lines)

Source: WTO (2014a)
Notes: For some countries, data relate to 2011.
In the WTO database, agricultural products are defined as under the WTO Agreement on Agriculture, and specific tariffs are converted to ad valorem equivalents.

In most countries, tariffs for individual agricultural products vary widely across tariff lines. In many cases the maximum duty for any agricultural tariff line is very far above the average tariff level, often as high as several hundred percent, in the cases of Norway and Switzerland even above thousand percent (Figure 3.6). Only Chile has a schedule of uniform tariffs, 6% for all agricultural products. Among the countries covered here, in only three other cases the maximum tariff is less than five times as high as the average, i.e. in China, India and New Zealand.

8 In addition to the countries included above in the section on producer support, India is included here in the review of tariff levels.
Figure 3.6: Maximum Duty (MFN Applied) Among all Tariff Lines for Agricultural Products, 2012

Source and notes: see Figure 3.5.

From 2007 to 2012, average applied tariffs in agriculture have declined in all OECD countries with the exception of Korea (Figure 3.7). Tariff averages have also declined in all emerging economies covered here with the exception of a minor increase in Kazakhstan. As tariff bindings did not change much since the end of the implementation period of the Uruguay Round (except where countries acceded later to the WTO), reductions in applied tariffs have gone along with an increase of binding overhang.

Figure 3.7: Change of Average Tariffs (MFN Applied) for Agricultural Products from 2007 to 2012

Source and notes: see Figure 3.5, and WTO, ITC, UNCTAD (2008)
Tariffs constitute only one category of the host of 'traditional' border measures (as opposed to non-tariff measures such as sanitary and phytosanitary restrictions). Another category of import barriers in agriculture is frequent use of tariff rates quotas (TRQ), many of which have resulted from the process of tariffication in the Uruguay Round. All WTO Members taken together maintained 1,094 TRQ for agricultural products in 2011 (WTO, 2013a). This number, which still stood at 1,430 in 2002, has remained nearly unchanged since 2007. Fill rates of these TRQ vary across countries, products and methods of administration. On average (unweighted) the fill rate over the 2002-2011 period was 61%, with rather little variation from year to year.9

3.3 Export Measures

An important exception for agriculture in the WTO is that export subsidies are still legal, though only within the country and product specific constraints agreed in the Uruguay Round. In the Doha Round negotiations, one aim is to eliminate that exception. At the Bali Ministerial Conference of the WTO, Ministers reaffirmed their commitment to the elimination of all forms of export subsidies and parallel disciplines on all export measures with equivalent effect. Following that declaration, the WTO Secretariat sent questionnaires to all Members, in order to collect information on export competition policies. The results were compiled in a Secretariat background document (WTO, 2014b and addenda) which provides up-to-date information on export subsidization.

Actual use of export subsidies has declined notably in recent years, in part as a result of high prices on international markets, but in part also due to policy reforms. Of the 18 WTO Members (counting all EU member countries as one) that had agreed non-zero export subsidy commitments in the Uruguay Round, ten countries10 have not used export subsidies in all years notified since the beginning of the Doha Round in 2001.11 Two countries have not submitted notifications since the Doha Round began.12 The remaining six WTO Members can be grouped in three classes. Three of them have continued to make ample use of their scope for granting export subsidies, using in the most recent years notified (up to 2011 or 2012) as much as about 20% (Canada and Switzerland-Liechtenstein) or even about 50% (Norway) of the sum of their aggregate budgetary outlay commitments (across all commodities). The US has made zero or only marginal use of its commitments since 2003 (2010 being the last year notified). The EU, finally, is the WTO Member that, when the Uruguay Round

---

9 It should, though, be noted that for many TRQ (accounting for around 40% of all TRQ between 2002 and 2008; more recent years may not be representative due to late notifications) no imports are notified, for various reasons.

10 Australia, Brazil, Colombia, Iceland, Indonesia, Mexico, New Zealand, Panama, South Africa and Uruguay.

11 The source of the data used in this paragraph is (WTO, 2014b).

12 The most recent export subsidy notification for Turkey was 2000 and for Venezuela 1998.
implementation period began, held by far the largest share of all export subsidy commitments in the WTO, amounting in 1995 to nearly 70% of all "rights" to budgetary outlays, and granted the overwhelming share of all export subsidies paid, accounting for nearly 90% of the total in 1995 (Tangermann, 2002). In the first years of the Doha Round, the EU still utilized about 40% of its outlay commitments. Since 2004 the EU’s export subsidies declined, and in 2011, the most recent year for which the EU notified export subsidization, it used no more than 2% of its outlay commitments. In 2013 the EU stopped using export subsidies, and under its new policy framework for the 2014-2020 period it has given up on using export subsidization as a systematic tool of its market policy, though it can still use export subsidies as an "exceptional measure". Under its 2014 Farm Bill The US has repealed the Dairy Export Incentive Program.

While use of direct export subsidies has declined significantly, the picture is less clear regarding other export measures "with equivalent effect", such as export financing, food aid and state trading enterprises. In particular, in the absence of data on the subsidy equivalent of export measures that are not direct subsidies it is not possible to gain an impression of the overall magnitude of the measures concerned and their evolution over time.

In the past, relatively little attention was paid to export restrictions, though there have always been occasional instances of governments blocking exports so as to maintain domestic food supplies in moments of acute shortages. Moreover, for a long time already some countries have tended to tax exports of raw materials in order to support availability to domestic consumers and processors, to collect fiscal revenue or for a host of other reasons. However, when agricultural product prices on world markets spiked in 2007-08 and a number of exporting countries imposed export restrictions, placing priority on domestic food security, the international community began to pay much more attention to the implications of export restrictions in the food sector, and the issue of how to deal with them in the international trading regime became an agenda item in various fora.

In the framework of the WTO, information on which country has adopted which type of export restrictive measures for which good is scarce. But in fact there was a large amount of activity regarding export restrictive instruments in 2007 and subsequent years. Liapis (2013) provides an overview, based on an inventory maintained by OECD. The measures used, by the 16 exporting countries covered in the inventory, include export duties, tax rebates on exported goods, quotas, bans, licensing requirements, and minimum export prices. In his Table 1 Liapis specifies the number of measures taken on four groups of agricultural products in the years 2007 to 2011, and his summary is presented here in graphical form (Figure 3.8). Liapis' count includes all measures taken, whether more restrictive or more liberalising.

13 Lists of rationales for imposing export restrictions are provided in Box 1 of Kim (2010) and Table 7 of Fliess and Mård (2012)
(following a restrictive measure), and each specific agricultural product affected counts as one measure. The height of activity regarding export restrictive measures was in 2008, with more than 900 measures taken. Depending on the year concerned, between 20 and 26 countries took export restrictive measures, but this number includes some double counting as some of the 16 countries covered have obviously adopted measures in more than one sector. Regarding the type of measures taken Liapis found that "thirteen of the 16 countries banned exports of at least one product in at least one of the five years between 2007 and 2011. Export taxes were used by nine countries while export quotas were used by eight".

In other words, at the same time when export support through export subsidies and equivalent measures was declining there was significant activity in the domain of export restrictive measures.

**Figure 3.8: Export Measures Affecting Agricultural Products: Number of Measures Taken, 2007 to 2011**

Source: Table 1 in Liapis (2013)

4 Implications for Agricultural Trade Negotiations Post-Bali

The point at which the negotiations on agriculture had arrived before Bali, after seven years into the Doha Round, is still essentially represented by the draft modalities for commitments in agriculture tabled by the then Chair of the agricultural negotiating group in December 2008, the so-called "Rev.4", in reference to the number of the respective WTO document (TN/AG/W/4/Rev.4). Rev.4 is extensive and highly detailed, it specifies all sorts of qualitative provisions and contains all the quantitative parameters needed to define reduction commitments regarding market access, domestic support and export competition. To the outsider these Rev.4 modalities may look like being very close to what might become a final
agreement. Yet, the negotiations in 2008 and after, including at Bali, have made it abundantly clear that WTO Members are still rather far from agreeing on this text or any modified version of it.

From a purely factual perspective it could be argued that the fundamentally changed market conditions should now make it easier than in 2008 to find agreement on the core of the modalities, i.e. the parameters for reduction commitments suggested in Rev.4. The negotiations from which these parameters resulted were conducted in the years before 2008, i.e. at a time when the price spike on world markets for food and agricultural products had not yet occurred and, more important, when it had not yet transpired from market projections that the world appears to have entered into a phase where prices will remain at a higher level for some time to come. The food price spike began in the fall of 2007 and prices reached a first peak in 2008. However, it appears that these changes in market conditions were not really reflected in the reduction parameters considered at the time. This is at least the impression one can gain if one compares, for example, the tariff reductions suggested in the successive draft modalities tabled in 2006, 2007 and 2008 (Figure 4.1). By 2006 the approach considered for tariff reductions in agriculture had stabilized to a tiered formula, with four tiers. The draft modalities tabled in 2006 still contained possible ranges of reduction rates for each of the tiers (in squared brackets). In the 2007 draft, these ranges were narrowed down considerably, and the 2008 Rev.4 had advanced to the point where only one reduction rate was still suggested for each of the four tiers. In terms of the negotiating dynamics, this evolution indicated good progress towards a common view. However, the orders of magnitude considered for tariff cuts did not change in response to market developments going on at the time. As reflected in Figure 4.1, there was perhaps a slight increase in the magnitude of cuts considered between 2006 and 2007, but the reduction rates suggested in Rev.4, tabled in 2008 at a time when the price spike had already caused much excitement in the 'real world' outside the negotiating rooms, were precisely the mid-points of the ranges considered already in July 2007, i.e. before food prices began to rise dramatically.
Figure 4.1: Ranges of Reduction Rates for Agricultural Tariffs in Developed Countries Suggested in the Successive Draft Modalities of 2006, 2007 and 2008

Tariffs generate a given margin between domestic and international prices. Yet, from the perspective of pursuing a set of well defined agricultural policy objectives that margin appears less relevant than the absolute level of domestic prices in relation to other domestic variables (such as farm incomes compared to incomes in the rest of the economy). On that basis it could be argued that a higher level of international prices should reduce the perceived 'need' for tariff protection – and hence facilitate agreement on tariff cuts.

The same argument holds for export subsidies and equivalent measures. The higher the level of world market prices, the less the 'need' for supporting exports. The decline in export subsidization actually observed in recent years (discussed above) is in line with that view. It should, therefore, be easier now than it was in 2008 to find agreement on an elimination of export subsidies and equivalent measures.

The situation is different for the market price support (MPS) element of domestic support commitments. As MPS is defined under the Agreement on Agriculture relative to fixed external reference prices, the increase in actual world prices has not reduced the calculated level of MPS. It is only where countries use deficiency payments towards a given target price (or other payments of a similar nature) that the level of domestic support is related inversely to movements of world prices. Where governments raised applied administered prices in response to rising international market prices, the MPS to be considered relative to WTO commitments has actually increased even if the administered prices were raised less

Source: WTO documents TN/AG/W/3; TN/AG/W/4; TN/AG/W/4/Rev.4

Note: In the 2006 document TN/AG/W/3 the tariff ranges suggested for tiers 1 to 4 were still 0%-[20-30%]; [20-30%]-[40-60%]; [40-60%]-[60-90%]; >[60-90%]
than the increase in world market prices. This is an issue of concern, for example, to India and is reflected in the Bali decision on public stockholding for food security purposes, discussed below.

Another issue of relevance in the DDA negotiations on market access in agriculture is the large binding overhang of tariffs that has accumulated in several countries. On a global scale, tariffs applied for agricultural products have come down to about half of the tariffs bound (Bureau and Jean, 2013b). Tariff cuts that do not go beyond 50% would, therefore, in many cases not result in any actual improvement of market access, but only eliminate the binding overhang. An additional reason that speaks in favor of considering relatively large tariff cuts in the DDA negotiations is the growing significance of RTAs. A disadvantage of these preferential arrangements is their discriminatory nature, potentially resulting in trade diversion at the cost of third parties. The danger of this happening is the less the lower the level of non-preferential tariffs.

In short, it is true that the world has changed considerably since the last draft modalities for agriculture were tabled in December 2008 (Rev.4). However, the nature of the most important changes that have taken place in world agriculture and agricultural policies was such that it should now be easier, politically and economically, than it may have been in 2008 to implement the reductions in tariffs, domestic support and export subsidization suggested at the time. If anything, larger reduction rates than considered in 2008 may now be appropriate, in particular regarding tariffs. On the other hand, experience with a significant use of export restricting measures in agriculture during the episode of food price spikes after 2006 suggests that more attention needs to be paid now to disciplines on export restrictions than what is reflected in Rev.4.14

5 Public Stockholding for Food Security: The "Indian Problem"

In the Doha Round negotiations, the G33 had for some time already demanded a relaxation of WTO constraints on government policies regarding stockholding of food. India spearheaded that request and made a solution to this issue a *conditio sine qua non* for overall agreement at the Bali Ministerial. It could proudly declare victory when a corresponding arrangement was indeed adopted in the last minute, in the form of a Ministerial Decision. The Decision is essentially an interim peace clause in which WTO Members have agreed not to bring disputes against a developing country that violates certain commitments. Under the Decision, WTO Members also agreed to work towards a permanent solution, to be achieved by the 11th Ministerial Conference of the WTO, i.e. by 2017. As already mentioned above, in

14 For a discussion of disciplines regarding export restrictions in agriculture, see Anania (2013) and Tangermann (2013).
July 2014 India then argued that work towards this permanent solution had not made sufficient progress, and it therefore blocked adoption of the protocol on the Trade Facilitation Agreement, jeopardizing the validity of the whole Bali package.

The Decision on food stocks is generally considered the most notable outcome of the Bali Ministerial as far as agricultural matters are concerned. When discussing that Decision, two dimensions need to be distinguished. First, what is its political and economic background? Second, what does it mean from the perspective of WTO rules for agriculture?  

As far as the political and economic dimension is concerned, it is interesting to note that India and the G33 were surprisingly successful in making political use of the revived concerns regarding global food security triggered by developments on world food markets in recent years. As discussed above, food prices in international trade spiked in 2007-08 and subsequent years, and meanwhile appear to have experienced a lasting step increase. There is no doubt that this has aggravated food security problems in a number of developing countries. Though food insecurity has always been a serious issue in given parts of the world where more than 800 million people suffer from chronic hunger, the exiting developments on global food markets since 2007 have lifted the issue of food security to a new and higher level of political attention, quite rightly so. Governments engaging in action to improve food security of their people can, therefore, count on sympathy in political circles and the media. India played that card very successfully at Bali. When addressing the plenary session of the Ministerial, India's then Commerce and Industry Minister Anand Sharma made the point that "Food security is essential for over four billion people of the world. For India, food security is non-negotiable. Need of public stock-holding of foodgrains to ensure food security must be respected. Dated WTO rules need to be corrected. ... A trade agreement must be in harmony with our shared commitments of eliminating hunger and ensuring the right to food. These are an integral part of the Millennium Development Goals." (The Hindu, 2013)

At Bali, when media and commentators referred to the increasingly dramatic negotiations on India's request they generally used terms such as "food security" or "food stock subsidies". The corresponding Ministerial Decision reached in the end is entitled "Public Stockholding for Food Security Purposes" (WTO, 2013b). Yet, when one looks at the actual substance of that Decision and considers the economics involved, this title is largely a misnomer.  

What the Decision allows governments of developing countries to do, under certain conditions, without being challenged through a WTO dispute is to exceed their domestic

---

15 For an extensive discussion of the Bali decision on food security stocks and potential responses see Diaz-Bonilla (2014).
16 To be fair it must be mentioned that the title of the Decision is precisely the same as the heading of the respective provision in the Agreement of Agriculture.
support commitments under the Agreement on Agriculture "in relation to support provided for
traditional staple food crops in pursuance of public stockholding programmes for food
security purposes". What is not explicitly said in that wording, but what it means without any
doubt is that the support referred to is support to farmers producing the staple food crops
concerned, not support to food consumers. The level of producer support is constrained under
WTO rules, and the Decision lets developing country governments of that hook when they
pay higher than otherwise allowable prices to their domestic farmers in acquiring food for
stockholding aimed at improving food security.

Do governments need to pay domestic farmers a supported price when they intend to
acquire food for stockholding? Not at all, except under one very specific twofold condition: if
domestic output of the relevant food product at market prices is less than the amount the
government means to acquire, and if, moreover, the government wants to procure only
domestically produced food, rather than imported produce. This condition does not apply in
India, which has become a large exporter of both wheat and rice (indeed the world's largest
rice exporter), the two relevant staple foods. The government of India can, therefore,
definitely find sufficient supplies of these crops on the domestic market, without having to
generate them through price support for domestic farmers. If it still wants to provide price
support to farmers this cannot be justified by the intention to procure sufficient quantities for
stockholding of food.

Price support for farmers is also not an effective way to overcome malnutrition. To
improve food security what is needed is to provide poor families better access to food. Two
major options can be considered to achieve this.\(^{17}\) The first and most efficient is to enhance
incomes of the families concerned, in the longer term through better employment
opportunities and more immediately through social safety net policies. The less efficient but
still effective option is to subsidize food. Neither of these policy options involves price
support to farmers producing staple food. Of course it can also be the case that the poor who
suffer from food insecurity include many farmers. One could then be tempted to argue that
price support enhances their incomes, allowing them to acquire more food. However, higher
prices for food products enhances real incomes only for families who are net sellers of the
food concerned – in which case these families are unlikely to suffer from inadequate
consumption of this food. The food insecure among rural people are primarily those families
who do not have a sufficient resource base to produce enough for their own food consumption
needs. These families are net buyers of the food concerned – and therefore suffer, rather than
benefit from higher prices. Agriculture can play an important role in reducing poverty and
overcoming food security in rural areas, but policies that interfere with the market

\(^{17}\) For a more extensive discussion of policy options to improve food security, see OECD (2013).
mechanism, such as price support or input subsidies, are far from optimal in fostering that role.  

In other words, what India (and the G33) wanted to achieve was more scope for providing price support to domestic farmers. The food security argument sounded good and was effective in persuading the international community to provide that scope. But this argument is not underpinned by economic logic.

But then the "Indian problem" also has the obvious dimension relating to concerns regarding legal rules under the WTO Agreement on Agriculture (AoA). To cut a long story short, and in non-legal terms, the provisions governing public stockholding for food security purposes are found among the rules defining the Green Box, exempting certain types of government expenditure from the constraints on domestic support. This applies to expenditure on the accumulation and holding of food security stocks as long as the food is purchased at current market prices and sold not below the current market prices of the products concerned. While this rule applies to all countries, there is an additional rule for developing countries, allowing them to deviate from the requirement to purchase at current market prices. They may acquire and release food security stocks at "administered prices", but then must account for the difference between the acquisition price and the "external reference price" in their Aggregate Measurement of Support (AMS), i.e. in the constrained Amber Box. Thus developing countries can acquire food security stocks at administered prices only if they have sufficient room in their domestic support commitment.

Where a country had no above-zero domestic support in the base period and hence has no non-zero commitment in its schedule, as is the case for India and many other developing countries, it can provide domestic support only within the de minimis levels defined under the AoA. For a developing country the de minimis constraint for product specific support (which is relevant when given products are acquired for food security stocks) is equivalent to 10 percent of the total value of production of the product concerned. The G33 and India felt that these provisions constrained their scope for acquiring food security stocks too much. Hence they requested, and received at Bali, the interim peace clause that saves them from

---

18 Policies that can unleash the potential of agriculture to contribute to reducing poverty are discussed in OECD (2006) and Brooks (2012).
19 AoA Annex 2, paragraph 3 and footnote 5. Footnote 5&6 also allows developing countries to provide "foodstuffs at subsidized prices with the objective of meeting food requirements of urban and rural poor in developing countries on a regular basis at reasonable prices" without having to include the related expenditure in their AMS.
20 AoA Article 4(a)(i) and (b).
21 Häberli (2014) has commented that "the main driver was India which had just raised the minimum producer price for rice and foresaw that this subsidy risked exceeding its Amber Box limit for 2013", and added the observation that "somewhat ironically, the massive devaluation of the Indian Rupee seems to have brought Indian farm support back below the AMS limit just at the time of the Bali Conference."
being challenged through WTO disputes when they do not comply with these constraints. And the Bali Decision promised that WTO Members would "negotiate on an agreement for a permanent solution" of this issue.

To understand the problématique of these AoA provisions on the acquisition of food security stocks in developing countries it is necessary to say a few words about the two prices involved, i.e. the "administered price" and the "external reference price". The meaning of the term "administered price" is not defined in the AoA. In the practice of notifying the market price support (MPS) element of the AMS it is interpreted as a price officially announced by the government, typically before the respective crop year, and maintained through some form of government intervention, in particular through buying into public storage (or into government supported private storage) or through export subsidization. It appears that the precise meaning of the term has also not been clarified very much in WTO jurisprudence. There is, though, wording in one panel report, to the effect that "for the type of price support contemplated in Annex 3 of the Agreement on Agriculture, .. a direct form of government control over domestic prices is required, in the form of a fixed, administered price".\(^\text{22}\) In any case, experience has demonstrated that the term is sufficiently vague to allow governments to play around with it. There are a few notable cases where governments have changed the wording, if not the nature, of the definition of their market policy such that the "administered price" was abandoned without any effect on the economic level of support actually provided – but with the implication that their domestic support level measured and notified to the WTO was greatly reduced.\(^\text{23}\)

The "external reference price" is much more clearly defined in the AoA. It is the border price actually observed on average in the years 1986 to 1988.\(^\text{24}\) This benchmark for calculating MPS under the AoA remains constant and has still to be used. It is, therefore, also referred to as the fixed external reference price (FERP). There is also no doubt about the concrete FERPs to be used in any country's domestic support notifications as all WTO Members had to specify these reference prices in calculating their base period AMS for their schedules. The MPS element of domestic support as defined under the AoA has, then, to be calculated "using the gap between [the] fixed external reference price and the applied

\(^{22}\) Panel Report on China – GOES, para. 7.87.

\(^{23}\) Japan's rice policy and the EU's policy for fruit and vegetables are cases in point, see for example Orden, Blandford and Josling (2011).

\(^{24}\) AoA Annex 3 para. 9: "The fixed external reference price shall be based on the years 1986 to 1988 and shall generally be the average f.o.b. unit value for the basic agricultural product concerned in a net exporting country and the average c.i.f. unit value for the basic agricultural product concerned in a net importing country in the base period. The fixed reference price may be adjusted for quality differences as necessary."
administered price multiplied by the quantity of production eligible to receive the applied administered price".25

These AoA rules for calculating MPS based on FERPs involve a number of issues that are relevant in discussing the "Indian problem". One of them is that inflation may have driven up domestic prices and hence the gap towards the FERPs. As a consequence, countries may see their policy space increasingly constrained even though they may not have changed their policy settings in real terms. Yet, two options can be used to counteract this effect. First, countries had the option of specifying the FERPs in a currency different from their own, for example in US dollars. Where they did so their domestic support constraint eroded not by the rate of inflation of their domestic currency, but only by inflation of the US dollar. In its original base period submission to the WTO, India had used the Indian rupee. Later, though, in its domestic support notifications it switched to the dollar. This helped to reduce the impact of rupee inflation, but according to Gopinath (2011) successive increases of the applied administered prices brought them close to (wheat) or even above (rice) the FERPs in 2007/08 and 2008/09 even in dollar terms. Moreover, it is rather questionable whether switching notifications to a different currency than used for the base period is legally acceptable.26

Another option is to take recourse to the AoA provision that due consideration shall be given "to the influence of excessive rates of inflation on the ability of any Member to abide by its domestic support commitments".27 Hoda and Gulati (2013) have presented a calculation with inflation-adjusted FERPs according to which India's MPS for rice and wheat was negative in all years between 2007/08 and 2010/11, except for rice in the year 2009/10. They found that even when product specific investment and input support was added, total product specific support for rice and wheat was negative in all years, except for rice in 2009/10 when it, though, remained far below the 10 percent de minimis constraint. It should, though, be noted that it has not yet been tested in WTO jurisprudence how the "excessive inflation" provision should be interpreted.28

Another issue involved in the AoA rules for calculating MPS is the relationship between the "applied administered price" and the actual market price. In economic terms, there is no price support as long as the administered price is below the international market price. However, under the AoA the benchmark for calculating MPS is not the international market price but the FERP. Hence, even where the administered price remains below the prevailing world market price, the AoA rules require a country to notify MPS whenever the administered

25 AoA Annex 3 para. 8.
26 For a discussion of that legal question, see Brink (2014) and Diaz-Bonilla (2014).
27 AoA Art. 18.4.
28 See the discussion by Brink (2014) and Diaz-Bonilla (2014).
price exceeds the FERP, and requests it to keep that 'virtual' price support within the limits of its domestic support commitments.

In the case of India, this creates a paradoxical situation. As shown by Hoda and Gulati (2013), India's minimum support prices for rice and wheat, as based on recommendations of the Commission for Agricultural Costs and Prices (CACP) and maintained through purchase operations by the Food Corporation of India (FCI), have remained below the relevant international market prices in most years from 2000/01 to 2011/12 (see Figure 5.1). Thus in economic terms India has not provided effective price support for rice and wheat in most years, and only marginal support in some years. Yet, as estimated by Brink (2014), when applying strict AoA rules for calculating MPS, India's product-specific support for rice and wheat exceeded the de minimis constraint of 10 percent of the value of production in all these years, mostly by a large margin.29

Figure 5.1: Price Developments in India: International and Domestic Market Prices and Minimum Support Prices (MSP) for Rice and Wheat, US Dollar per tonne

Source: Reproduced from Diaz-Bonilla (2014) who used data from Hoda and Gulati (2013)

A couple of thoughts follow from this brief discussion of the background to the "Indian problem" and the corresponding Bali decision, some related to India's position in the WTO negotiations, some to the future of WTO rules for domestic support in agriculture.

Regarding India's position it would be interesting to know why the government decided, along with governments of other G33 countries, to pursue the issue of food security stocks so vigorously in the WTO, pushing the Bali Ministerial to the brink of collapse and sinking the trade facilitation package (and the rest of the Doha Round?) on 31 July 2014. After all, India could have tried alternative approaches that might have yielded the same outcome in terms of policy space for procuring food security stocks. It could have invoked the "excessive

---

29 India has so far notified domestic support to the WTO for the years 1995 to 2003. According to these notifications, its price gaps for rice and wheat, expressed in US dollars, and hence its sums of product-specific market price support were negative in all years from 1998 to 2003, see Brink (2014).
inflation” clause. Did India feel this was too legally insecure? It could have abandoned the notion of administered prices, without actually changing its purchase operations, thereby freeing it from the WTO constraint on MPS. Did the government reject that option because it feels it needs to create some degree of certainty for farmers through announcing minimum support prices, even though the purchase operations based on these prices have little if any effect on actual market prices? Somewhat more controversial, India could have simply continued its policies and disregarded a potential violation of its WTO commitments on domestic support, crying foul when challenged in a dispute, on the grounds that its opponents prevented it from fighting food insecurity. After all it was precisely that argument which India employed with such political success at Bali. Why did the Indian government decide not to try any of these more subtle options, but rather to stage a big and politically visible fight, causing major trouble in the WTO?

At a different level one may also ask why India's government is so keen on maintaining its policy of procuring stocks from domestic farmers, so as to provide food to families in need. Stockholding is not only a rather costly operation, it also can do little to stabilize prices. Stock accumulation involves the danger that one day the government has to dispose of surplus stocks through subsidized exports. In fact, India's neighbors and competitors are rather concerned that India's policy might threaten to cause massive distortions of international markets. An alternative option to improve food security would be for the Indian government to move in the direction of targeted cash transfers to poor families who can then buy food in the market place. This policy approach would not only be unconstrained by the WTO, it would also be more effective and efficient from a domestic perspective.

Regarding the future of WTO rules for domestic support in agriculture, the "Indian problem" has brought a number of issues to the forefront. The wisdom of including MPS in the AoA's constraints on domestic support has been questioned right in the beginning, on a number of grounds (Josling, Tangermann, Warley, 1996). The scope for governments to provide MPS depends on their ability to prevent arbitrage between the domestic market and international trade through border measures, i.e. tariffs and/or export subsidies. Since the Uruguay Round, all tariffs in agriculture are bound and export subsidization is constrained. Hence there is, in principle, no need to impose an additional constraint on MPS through the domestic support provisions. In each individual market, only one of the three constraints on MPS is effective at any time, either the domestic support commitment or the tariff binding or the limit on export subsidization. To be sure, in many cases the tariffs applied are below the bindings (see above), and hence the domestic support commitments are often more restrictive than the tariff bindings. This is also the case for India. However, where a country is a net exporter (as is the case for rice and wheat in India), tariffs are anyhow not needed to prevent

---

30 For a discussion of policy options to deal with volatility on food markets, see Tangermann (2011).
arbitrage, and hence the scope for domestic prices is limited only by the room of manoeuvre for providing export subsidies. Thus, it would appear to make sense in the WTO to negotiate appropriate adjustments in tariff bindings and export subsidization and then to drop MPS from the domestic support provisions.

This would also do away with all uncertainties resulting currently from the vagueness of the AoA definitions of "administered price" and "eligible quantity". Above all, abandoning MPS from the domestic support provisions would eliminate the need to rely on the strange concept of fixed external reference prices, still dating back to the 1986-88 base period. The economic implications of using these FERPs have always been questionable. FERPs were introduced to the AoA as negotiators felt that governments could not commit, in a legally binding way, to disciplines whose quantitative parameters depended on something they could not control, i.e. volatile world market prices. Understandable as that may have been from an operational point of view, the approach adopted in the AoA has never made economic sense. The longer the 1986-88 base period dates back, and the more actual prices in international trade have moved away from these FERPs, the less reasonable is continued reliance on that approach. The situation becomes completely paradoxical where a country bumps against WTO constraints even though the (administered) prices at which it buys into public stocks are below the prevailing international market prices, as might be the case in India if the government were to notify domestic support for recent years under a strict interpretation of AoA provisions.

In the discussion on a "permanent solution" to the food security stock issue as evoked in the respective Bali decision, various options are being suggested. Some of them might also (or would even have to) be applied more generally to calculating all MPS under the AoA. In particular, an update of the FERPs to a more recent base period is sometimes considered, or a switch to a moving average of external reference prices. However, such fixes would not do away with the fundamental problems involved in making MPS a part of domestic support under the AoA. In the longer term it would make sense to reduce the concept of domestic support, as a binding constraint under the AoA, to just government expenditure (and revenue forgone) and rely on the commitments regarding border measures (tariffs and export subsidies) for constraining MPS. Of course that would require adjustments of the numerical values of domestic support commitments, and ideally also of tariff bindings, over and above those anyhow considered in relation to improving market access. All this would require negotiations on complex issues. Such more fundamental changes to the nature of AoA provision on domestic support will, therefore, most likely not be achievable in the Doha

31 See for example Montemayor (2014).
32 As there appears to be general agreement that export subsidies (and equivalent measures) should anyhow be eliminated in the Doha Round there is no need to adjust them in response to eliminating MPS from the domestic support provisions.
Round. But negotiators should not lose sight of the desirability of eliminating, at some point, the unconvincing elements of the AoA provisions on domestic support.

What could then constitute a "permanent solution" of the "Indian problem"? One possibility would be to agree that government set prices are only considered "administered prices" (in the AoA sense of generating MPS) if they exceed the border price equivalent (cif for importers, fob for exporters). This approach would largely do away with the problem India might have with its notifications. It would also eliminate the paradoxical situation that a country that is not effectively providing price support is still considered, under WTO rules, to do so. This solution would have the advantage of responding to the "Indian problem" constructively without acting as an invitation for developing countries to provide price support to their domestic farmers. It would thus avoid waste of resources and trade distortions. And it would constitute a first step in the direction of eliminating MPS altogether from the AoA provisions on domestic support.

6 Conclusions

In spite of the important achievements on agriculture reached in the Uruguay Round, agricultural matters continue to cause major trouble in the Doha negotiations. On a number of occasions, inability to agree on items related to agriculture has retarded or blocked progress in the Doha Round. The latest and rather dramatic incidence was refusal by India and a few other countries to let the trade facilitation package go forward, on the grounds that progress in negotiations on food security stocks was considered insufficient. How this will affect the future of the Doha Round remains to be seen.

In the first half of 2014, what appeared to have been some sort of a breakthrough at Bali had revived spirits in Geneva, including in the agricultural negotiations. Negotiators were in the process of taking another look at the December 2008 draft modalities for agriculture and engaged in discussions on whether they could still serve as the vantage point for further negotiations, or whether the world had changed so much that a new framework was needed.

Against this background this paper has looked, in its first part, at the changes in world agriculture since 2008. Prices of agricultural commodities in international trade have exhibited large volatility, but perhaps more important they also appear to have experienced a lasting step increase, by around one third. Agricultural policies in major countries have also changed. In the OECD area, the level of producer support in agriculture has declined, and policy structures have changed in the direction of less distorting instruments. Major emerging economies, though, have raised levels of producer support and resorted to somewhat more

33 This option is also discussed by Diaz-Bonilla (2014).
distorting policies. An important fact is that in many countries, in particular in the South, agricultural tariffs exhibit a large binding overhang. A phenomenon that also requires attention is the frequent use of export restrictions in the food sector observed when international market prices spiked after 2006.

In other words, the world has indeed changed since the agricultural negotiations of the Doha Round had ground to a halt in 2008. However, the changes that took place have not made the draft modalities for agriculture tabled in December 2008 obsolete. Given the changes observed on markets and in policies, the reduction rates suggested in those modalities (in "Rev.4") are now even more important than they were at the time, and they should also be more easy to implement in both political and economic terms. If anything, larger reductions could now be considered, in particular for tariffs. At the same time, disciplines on export restrictions are now more important than they may have appeared in 2008.

The second theme that has played a role in the agricultural negotiations during the first half of 2014 was public stockholding for food security purposes. This issue, so much emphasized by India, raises a number of interesting questions. From one perspective one can ask why India felt it needed to push this issue so hard. The economic rationale of the policies concerned in India is debatable. And in terms of mechanics under the AoA India could potentially have chosen different avenues. Whether the issue was worth threatening failure of the trade facilitation package, and possibly even the Doha Round, appears questionable.

However, at the same time one can also argue that India has pointed to a notable deficiency in the WTO provisions for commitments on domestic support in agriculture. Constraints on market price support, in addition to disciplines for tariffs and export subsidies, and in particular the use of fixed external reference prices dating back some three decades, coupled with a vague definition of "administered prices", don't make good economic sense. This element of the Agreement on Agriculture should be revisited in the longer term. However, this will probably not be possible in the current negotiations. Hence a different "permanent solution" to the issue of food security stocks will have to be found. It could come in the form of agreeing that procurement prices below prices prevailing on international markets are not considered "administered prices" and hence do not count in calculating the market price component of domestic support.

Whether a pragmatic decision of this nature has any chance of being realized in the Doha negotiations will depend on the fate of the negotiations overall. It is not inconceivable that the frustration about the failure of moving forward on trade facilitation is so pronounced and so widespread that the Doha Round may have the greatest difficulties to gain traction again. If that is the case it may turn out that those who have pursued the issue of food security stocks so vigorously have thrown out the baby with the bathwater.
References


Bureau, J. and S. Jean (2013a), The Impact of Regional Trade Agreements on Trade in Agricultural Products. OECD Food, Agriculture and Fisheries Papers, No. 65 Paris: OECD.


WTO (2014b), Export Subsidies, Export Credits, Export Credit Guarantees or Insurance Programmes, International Food Aid and Agricultural Export State Trading Enterprises – Background Document by the Secretariat. Documents G/AG/W/125 and addenda 1, 2, 3 and 4. 21 May 2014. Geneva: WTO.
