

# AGRICULTURAL TRADE INTERESTS AND CHALLENGES

## AT THE WTO MINISTERIAL CONFERENCE

IN BUENOS AIRES

*A Southern Cone  
Perspective*



EDITED BY

Valeria Piñeiro and Martín Piñeiro



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Edited by  
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December 2017



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Agricultural trade interests and challenges at the WTO Ministerial Conference  
in Buenos Aires: A Southern Cone perspective



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# FOREWORD

This publication, which is the product of joint efforts between the Bolsa de Cereales, Fundación INAI, GPS, ICTSD, IFPRI and IICA, comes at a time of crucial importance for the future of agricultural trade around the world, a time when there is need to create new paradigms to preserve what has been gained, and a time to provide solutions to those challenges that remain unresolved.

The last five years have been characterized by increased scrutiny of the impacts and benefits of globalization and by radical changes in several national policies adopted by important world players who question the importance of global and multilateral trade agreements.

Parallel to this, the last five years have also witnessed increased concern for environmental issues that are beginning to play a more important role in defining the future of trade and agriculture.

While this was taking place, Latin American countries, and particularly those that make up the Southern Cone of our Continent, continued to expand their reach and influence in international food markets, thus consolidating the region as one of the most important food providers to the world and a key player in global food security. These countries have a particular interest in ensuring that agricultural trade is supported by transparent mechanisms, and that the WTO continues to make progress toward the achievement of a more equitable and sustainable trade system.

This book is presented, within the framework of the WTO Ministerial meeting in Buenos Aires, as an effort to share opinions and ideas in order to advance the complex issues that impact agricultural trade, and to provide information on their importance for the economic and social progress of the countries of the Southern Cone of the Americas.

There is still much to be done, and we all should continue to work together to truly make trade an engine for development and an instrument of social justice and environmental sustainability.

**Miguel Garcia-Winder**

*IICA Representative to the United States*

*Head of the Center for Strategic Analysis for Agriculture (CAESPA)*

Washington DC.



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The content of the individual papers is the responsibility of the authors, and therefore the analysis, conclusions, and recommendations presented herein should not be attributed to IFPRI, GPS, IICA, INAI, ICTSD, or Bolsa de Cereales.

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Valeria Piñeiro and Martin Piñeiro





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# The future of the global agri-food trade and the WTO

By Valeria Piñeiro and Martin Piñeiro

## >> The International Context

In recent years, the international trade context has seen, as a consequence of political changes, social unrest and violence, increased uncertainty and instability. Two main trends, one economic and one political, have affected the economic and political environment in which the evolution of the global trading system has been taking place.

On the economic side, global economic growth and trade have been sluggish for much of the past decade, especially in the developed world. However, over the last two years, a significant recovery has taken place - the most recent projections by the IMF indicate that in 2017, global GDP will grow at 3.5% and global trade will grow at 4.0%. Thus, it is possible to conclude that the global economy is no longer the major factor driving uncertainty and instability in the trading system.

On the other hand, political instability has greatly increased in recent years. Important political movements in a number of developed countries, such as USA and Britain, have sprung up expressing widespread dissatisfaction with the effects of globalization, trade, and technological innovation on employment and income distribution. The success of these movements has raised doubts about the effectiveness of the rules and legal arrangements that regulate trade and the institutions that generate these rules and oversee their implementation and compliance. As a consequence, the existence of these movements has also been brought into question.

These political shifts have made it particularly important for middle-income countries to actively participate in trade deliberations in general and support the WTO multilateral rules in particular, for it is within the domain of these multilateral rules that these countries can be protected from the unilateral decisions of larger countries and can find space for negotiation.

## >> Some major trends in food demand and international trade

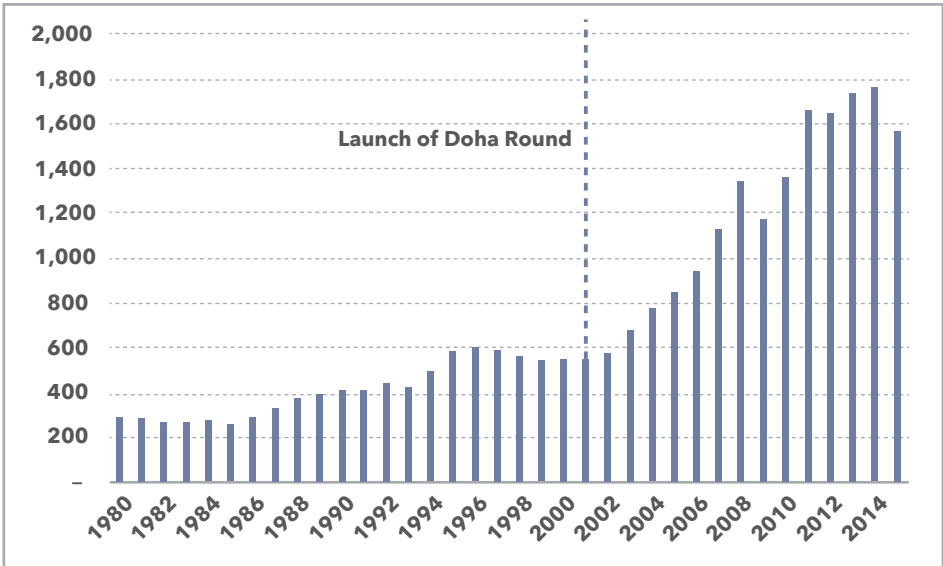
Over the last two decades, four major trends in food demand and agricultural trade have developed which typify the international environment in which net food-exporting countries will have to function:

a) **Global food trade and expected prices.** As shown in Figure 1, agricultural trade has increased quite rapidly since the launch of the Doha Round in 2001; by 2015, agricultural trade had increased by almost 200 percent. This stunning growth is the result of significant increases in food demand from developing countries, stemming from several trends: demographic growth (mainly in Africa), rapid urbanization, and exploding

middle-income populations (mainly in Asia) that tend to demand both more and higher quality food. Given the world's growingly scarce agricultural resources, the pressures of this increased food demand have also resulted in higher food prices.

Although food prices and trade decreased during the recent global economic crisis, experts predict that high food demand, mainly from Asia, will sustain agricultural prices at present levels. Recent projections by FAO and OECD<sup>1</sup> sustain this view and confirm that food demand and market opportunities will expand.

**FIGURE 1: Global agricultural exports, in US\$ billions**

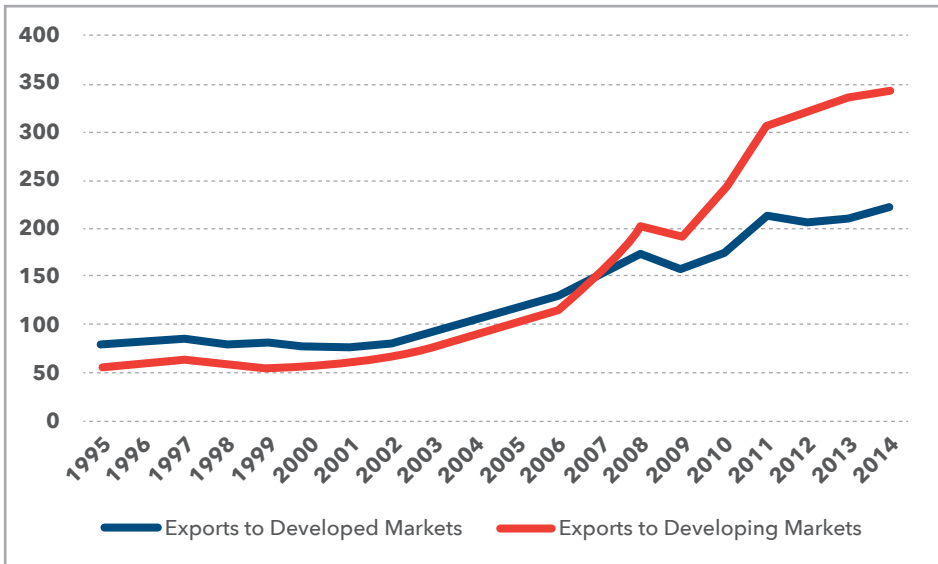


Source: WTO database, 2017

b) **Agricultural trade: More players from the South.** As populations and food demand grow, so, too, will the need for food imports to the developing world, as many developing countries will not be able to fulfill their domestic demand with their own domestic production. Between 1995 and 2015, the share of produced calories crossing an international border increased from 16.1 percent to 19.1 percent (Deason and Laborde, 2015), and much of this expansion in food trade has come from developing countries themselves (see Figure 2). This growing disequilibrium between where food is consumed in relation to where it is produced, will occur in all continents but will be especially significant in Asia, the Middle East, and some parts of Africa. Expanded need for imports will amplify trade opportunities for exporting countries, which will have to develop sound trade strategies and be active in multilateral and regional trade agreements in order to represent their interests and needs. This will require improving market access in all countries, as well as improving trade liberalization agreements in relation to domestic support measures.

<sup>1</sup> OECD-FAO Agricultural Outlook 2016-2025.

**FIGURE 2: Destination of exports from developing countries, US\$ billions**

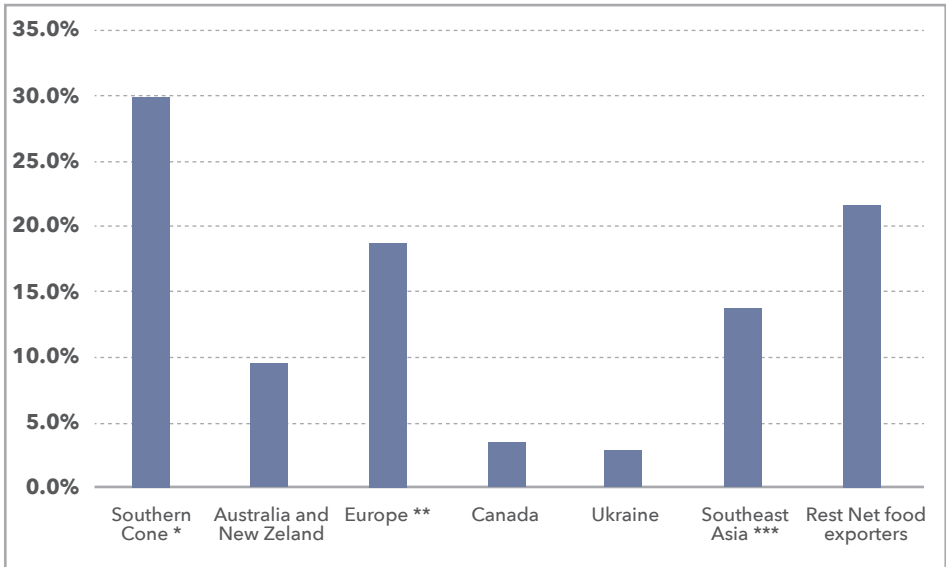


Source: UNCTAD database, 2016

c) **Food trade concentrated in a few large net importers and net exporters.** In recent years, global agricultural trade has been largely concentrated in a relatively small number of countries. The situation is even more apparent in terms of net importing and exporting countries or sub-regions (see Figures 3 and 4). On the one hand, a few importing countries, mainly in Asia (Japan, China, Middle East, and Korea), represent almost 50 percent of net food imports. On the other hand, a small number of mainly developing countries (MERCOSUR and Oceania, plus Ukraine and a few Asian countries north of Oceania) represent about 56 percent of net food exports. This large concentration of net exports and net imports in a few countries could create, because of the large influence that any one of them could exercise on the global market, instability in international prices and/or trade patterns. It would seem that special agreements between these large players would result in a more stable and balanced trade environment.

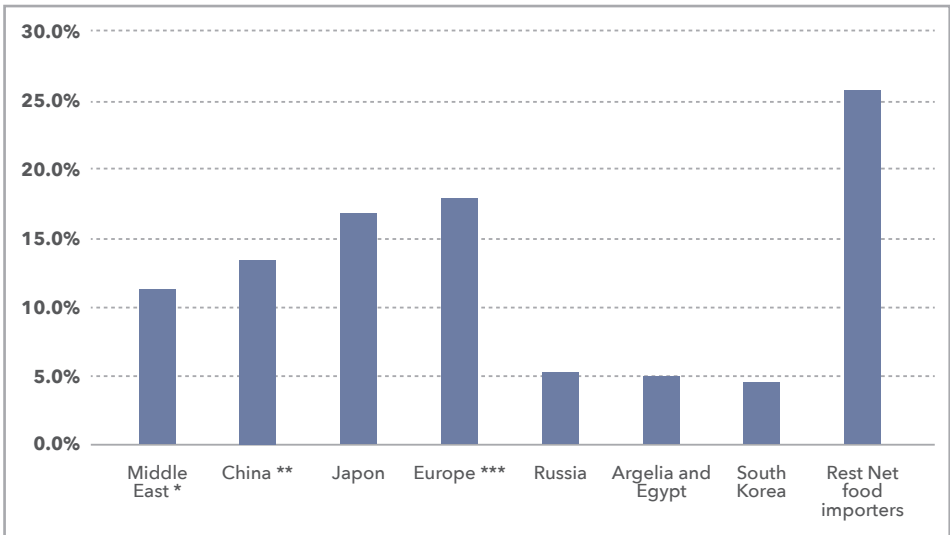
Again (see figure 2), it is important to note that a very large proportion of food trade now occurs between developing countries. Thus the interests, positions, and alliances in multilateral trade negotiations will need to change. Developing countries should be especially alert during the next WTO XI Ministerial Conference (MC) to take advantage of new opportunities.

**FIGURE 3: Net Food Exporters (2015), shares in US\$**



Source: Authors with UN Comtrade data  
 \* Argentina, Brazil, Paraguay, and Uruguay  
 \*\* Netherlands, Spain, France, Poland, Denmark  
 \*\*\* Thailand, Indonesia, India, Malaysia

**FIGURE 4: Net Food Importers (2015), shares in US\$**



Source: Authors with UN Comtrade data  
 \* Saudi Arabia, Iraq, Iran, United Arab Emirates, Kuwait  
 \*\* Including Hong Kong and Taipei  
 \*\*\* United Kingdom, Germany, Italy, Sweden, Finland

d) Environmental concerns and their relation to trade. Environmental concerns have grown exponentially in recent years and are starting to play a large role in agricultural trade matters. After the Paris agreement (COP21), greenhouse gas emissions in general and the carbon footprint in particular have emerged as major concerns affecting agricultural production. Some countries (for example, the European Union) have initiated a process that could eventually create environmental standards that would restrict food imports. Similarly, recent G20 meetings have incorporated environmental concerns as a major agenda item. While these concerns are legitimate, in order to include them in WTO trade negotiations, many issues remain to be discussed and agreed upon. For example, different products and processes have different carbon footprints and thus should be measured in terms of greenhouse gas emissions and carbon sequestration. Since global food security will require increased food production, products and processes with low carbon footprints should be encouraged by giving them better market access.

## **>> The new trade environment and main themes on the table of the WTO XI Ministerial Conference in Buenos Aires**

### **Agricultural trade environment**

The four trends described above define the world's rapidly changing agricultural and trade environment. Both new actors (mainly from developing countries) and new issues need to be incorporated into trade negotiations, while taking into account the complex and uncertain global economic and political environment.

It is probably safe to say that in this difficult trade environment, we should not expect great progress in the XI WTO Ministerial Conference (XIMC). However, the Ministerial is indeed an extraordinary opportunity to make strong commitments to the overall multilateral rules and disciplines that have already been laboriously agreed upon. Furthermore, it is an opportunity to support and reaffirm the need for the institutional arrangements that have been created for the development and implementation of global trade rules. Developing countries have a major role to play in this new environment, both individually and collectively, and should focus on optimizing their new common interests and new opportunities for working together.

### **Expectations and main agenda items**

As we enter the final months leading up to the XIMC, it is important to be aware of all the topics that are still on the table, even though it is not realistic to think that all of them will be resolved in Buenos Aires this coming December.

Some of the ongoing and emerging issues in agricultural trade negotiations related to the Agreement on Agriculture (AoA) and developing countries include market access, export restrictions, special safeguard mechanisms, export competition, domestic support, public stockholding, cotton, and environmental issues.

In the market access pillar, complex market access barriers, tariff escalation, and tariff peaks have played the most relevant role in the previous negotiations (Laborde, 2014 and Laborde and Martin, 2011). These factors will continue to play a role in the current Ministerial, given the difficulties faced in finding common ground. One idea that has been proposed by Paraguay and Peru is to deal with the problems of market access in two stages: 1) convert all barriers in the agricultural sector to ad valorem values and 2) during in the XIIMC, discuss tariff reductions, including tariff escalation, tariff peaks, and the gap between the maximum tariff limits allowed under the WTO and actual applied tariffs.

Many countries responded to the food price increases of 2007, 2010, and 2012-2013 by imposing food export restrictions. These restrictions increased the volatility of international prices by restricting supply and creating panic in food-importing countries (Martin and Anderson, 2011). In 2011, the G20 agreed not to impose export restrictions on the World Food Program (WFP)'s food aid; however, this allowance has not been expanded to include the WTO (Díaz Bonilla and Hepburn 2016). In 2017, Singapore introduced the idea of improving transparency in agricultural export restrictions under the WTO.

The Special Safeguard Mechanism (SSM) has been extensively discussed during previous Ministerials (Hertel, Martin and Leister, 2010) and will play a role in the upcoming Ministerial as well. A small group of agricultural exporting countries and Russia each presented a submission asking for the elimination of the SSM, based on the argument that SSM can be used as trade protection; however, other countries do not want to eliminate the SSM, arguing that the measure is needed to insulate producers from international price fluctuations and sudden import increases.

The most significant outcome of the Nairobi Ministerial Meeting was the agreement on export competition (Díaz Bonilla and Hepburn, 2016) covering export subsidies, export credits, food aid, and state-trading enterprises (STEs) exporting agricultural products. There are still concerns about countries' obligation to export subsidy reductions, the level of the maximum repayment period for export credits, and the agreement of only "*best efforts*" from STEs in following the new rules on export subsidies, as well as the need to find a solution to the problem of STEs receiving financing at below-market rates.

Domestic support also remains an important topic, as it creates market distortions, giving wrong signals to producers and thereby helping to create inefficiencies and give production incentives to non-competitive countries or producers (Brink, 2014; ICTSD, 2017). Domestic support can also create false competitiveness in the countries that use these policies, allowing them to compete in the domestic markets of other countries. The first topic under this pillar is the level of domestic support allowed; some countries are pushing for an overall limit on agricultural domestic support, measured as a percentage of the current value of production or as a percentage of the value of production from a fixed period. This group is also discussing the definition of Overall Trade Distorting Support (OTDS) to be used - AMS, *de minimis*, Blue Box, and Article 6.2 - and the need to include a cap per product to avoid concentration of support on a small number of commodities. Another group of countries is requesting the total elimination of current entitlements - Amber Box - as a necessary condition for any other reform to be accomplished.

In addition, there has been increasing concern about the classification of specific domestic support programs under the different boxes. For example, input subsidies have been reported under the Green Box by some countries and under the Amber Box by others; the need to coordinate and improve the timing and consistency of countries' WTO notifications will be worth discussing in the next MC.

Public stockholding for food security reasons may serve to offset the effects of domestic food shortages, but concerns arise when these policies also provide market support to countries' agricultural producers. In fact, the issue of public ownership of stocks was raised at both the Bali and the Nairobi Ministerial trade meetings and remains an issue in the WTO (Díaz-Bonilla, 2014; Matthews, 2014; Glauber, 2016). There are two different positions under the WTO negotiations regarding public stockholding. The first (represented by some developing countries, especially India) thinks that developing countries should be exempt from having to count food purchased at minimum prices toward



their OTDS limit, while the second (represented by food-exporting countries) argues that countries that buy food for food security purposes under these programs should improve the transparency of those purchases. The latter group also emphasizes that when food stocks are released into international markets, they can cause trade distortions and cause food insecurity in other countries.

Because of its great economic significance in many developing countries, cotton has been suggested as one commodity that should receive different treatment in WTO negotiations. A group of cotton-producing countries in West Africa, along with proposals from EU-Brazil, has called for an ambitious treatment of trade-distorting support in the cotton sector.

Another change that we are seeing prior to the XIMC is the desire by some countries to link topics under the AoA, for example, linking the discussion of public stockholdings with that of domestic support<sup>2</sup> or linking the discussion of SSM with access market concessions.<sup>3</sup> In addition, while environmental concerns have not been explicitly taken up in the WTO negotiations to date, they will probably be dealt with, at least on the margins, at the next MC.

Finally, fisheries, e-commerce, services, and investment facilitation will be discussed at the XIMC; however, as they are not covered under the AoA, those topics are not included in this book.

## >> Content and objectives of this book

This book focuses on presenting some of the main themes that are pending in the WTO negotiations, with an emphasis on the views and perspectives of the Southern Cone countries. These countries' interests and perspectives are influenced by the importance of agriculture in their economies and by the important role they play as the largest net food exporters.

The book has three Parts in addition to this introduction. The first Part presents the main issues included in the three main Pillars of the Agreement on Agriculture which are still unresolved and that are of special interest for the Southern Cone countries. The second Part presents two themes that, although having been discussed, have not been seriously considered in the WTO deliberations to date – the elimination of export restrictions in food products and the incorporation of environmental disciplines in the WTO agenda. Finally, the third Part presents some conclusions, suggestions, and recommendations.

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<sup>2</sup> EU and Brazil proposed addressing public stockholding jointly with domestic support, while the G-33 have argued against establishing a linkage between the two areas.

<sup>3</sup> G33 countries are in favor of SSM, while exporting countries want the linkage with market access concessions.

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# PART I: The main negotiating themes in the three pillars

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## Domestic Support

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### Chapter 1. Options for WTO Negotiations on Agriculture Domestic Support

By Christophe Bellmann and Jonathan Hepburn

*This chapter was originally published as an information note by the International Centre for Trade and Sustainable Development (ICTSD) in May 2017. It summarises some of the main findings of a longer ICTSD study, "Negotiating Global Rules on Agriculture Domestic Support: Options for the WTO's Buenos Aires Ministerial Conference," which was published in April of the same year.*

#### >> Introduction

At the United Nations, governments have agreed to end hunger and all forms of malnutrition by 2030, as part of the seventeen Sustainable Development Goals. One of the targets used as a means to achieving this goal includes, "correcting and preventing trade restrictions and distortions in world agricultural markets."

Since the tenth ministerial conference of the World Trade Organization (WTO) in Nairobi in 2015, negotiators from different countries and groups have put forward a number of different ideas and suggestions on agricultural domestic support. While some negotiators argue that new disciplines need ultimately to lead to lower levels of applied trade-distorting support, others emphasise that any new rules ought to redress historical imbalances in allowable support levels - with many considering both objectives to be important. The bulk of the organisation's membership favour an outcome in this area at the WTO's eleventh ministerial conference, due to be held in Buenos Aires, Argentina in December 2017.

This article explores various recent ideas that governments have put forward on the issue of agricultural domestic support, with a view to helping negotiators and other actors better understand how these might affect actual levels of support as well as the maximum permitted ceilings under WTO rules.

## >> Approaches based on the existing structure of the WTO Agreement on Agriculture

A first set of ideas involve cutting support using the categories under the WTO's existing Agreement on Agriculture. These categories include highly trade-distorting "amber box" subsidies calculated using the Aggregate Measure of Support (AMS); *de minimis* support; production-limiting "blue box" support; and Article 6.2, which is a clause in the WTO Agreement on Agriculture which allows developing countries to provide certain types of input and investment subsidies without limits.

### BOX 1: Existing WTO rules on agricultural domestic support

**Amber box:** domestic support for agriculture considered to distort trade and therefore subject to reduction commitments.

**De minimis:** minimal amounts of domestic support that are allowed even though they distort trade – up to 5% of the value of production for both product-specific and non-product-specific support in developed countries. Most developing countries are allowed twice this limit.

**Blue box:** support that is similar to amber box subsidies, but with constraints on production or other conditions designed to reduce the distortion, and currently not limited under WTO rules.

Some agricultural exporting countries have argued that AMS and *de minimis* support need to be targeted aggressively, especially when this support is used by the world's largest producers and exporters. Others, particularly developing countries, want Article 6.2 to remain unchanged.

Concerns remain that this approach to cut support using categories under the WTO has been tested in the past with limited success and might also do little to correct current imbalances in the maximum permitted support levels across countries.

## >> Overall cap approaches

A second set of ideas focuses on a cap on all trade-distorting support as a basis for future gradual cuts over time. This could either be a fixed limit (e.g. based on a past reference period) or a variable ceiling (e.g. a share of the value of agricultural production (VoP), which measures the actual production output of a country). Many developing countries have said any new ceiling should lower the gap between current permitted maximum levels and actual applied levels of trade-distorting support.

While some countries would like a cap to include all types of trade-distorting support listed under the Agreement on Agriculture, others have explicitly excluded input and investment subsidies for low-income, resource-poor farmers.

Negotiators would also need to agree on whether countries could provide *de minimis* support on top of the overall cap. Regardless of how it would be defined, however, the purpose of such an overall cap would be to bind existing levels of support and to serve as a basis for further gradual reduction over time.

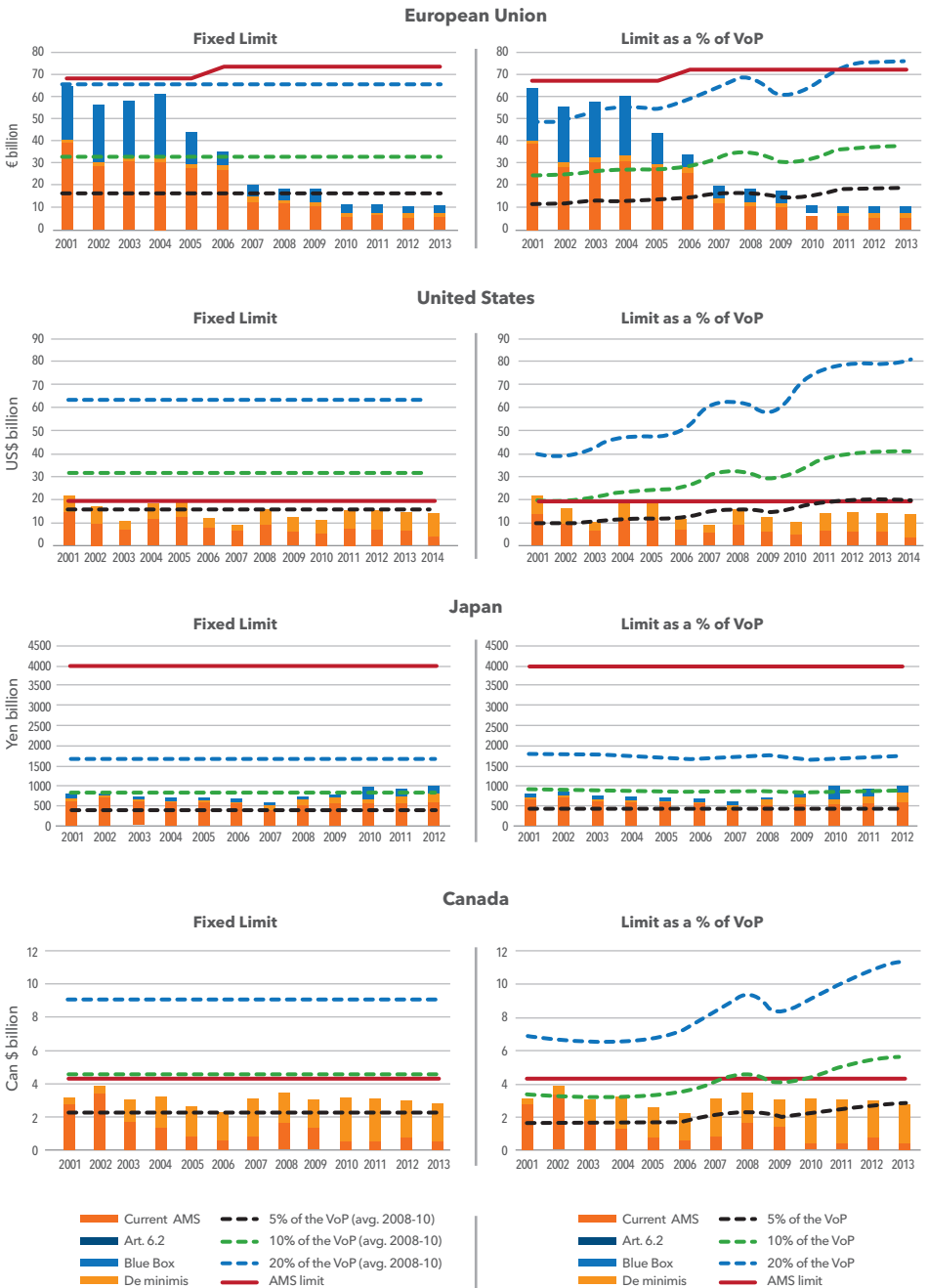
This article examines these options by looking at historical support levels provided by major economies, based on government data reported to the WTO. It explores scenarios with a fixed cap set at 5, 10, or 20 percent of VoP, either in a fixed base period (2008-10), or as a share of the current VoP.

On the basis of recent WTO notifications, only some negotiating options would seem to lead to effective cuts in applied levels of trade-distorting support<sup>4</sup>. Looking at Figure 1, while a low cap set at 5 percent of farm output would not require the European Union (EU) to reduce actual applied trade-distorting support levels, this would nonetheless be below current applied support levels in Japan (and possibly also Canada), and would be only slightly above those in the United States (US). At the same time, a much less restrictive cap set at 20 percent of farm output might actually be higher than the existing ceilings some countries have agreed to respect at the WTO under existing rules: this would be the case for Canada, the US, and (in the case of a floating, or variable, cap) also the EU. Establishing such a cap would still constrain existing flexibilities if the new limit were to include *de minimis* support and blue box payments in addition to AMS entitlements.

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<sup>4</sup> India and Japan have reported most recent data since this article was written: however, the new figures do not reveal any significant shift in the overall amounts or composition of support.

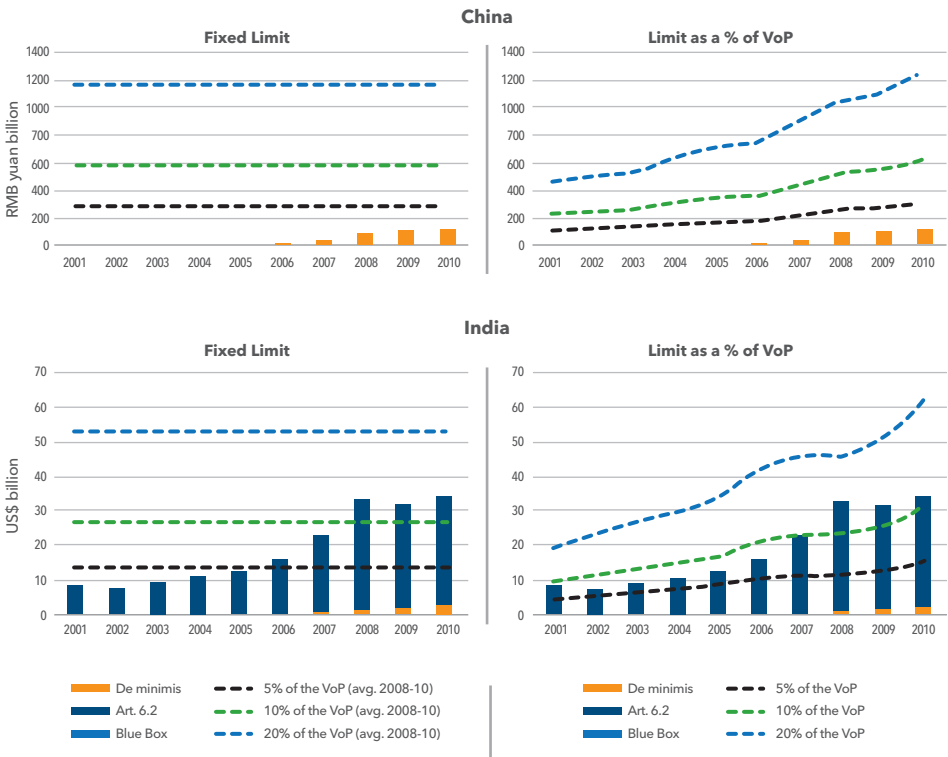
**FIGURE 1: Options for setting an overall limit on trade-distorting support**



Source: Authors' calculations based on WTO notifications

The official farm subsidy data submitted by China and India to the WTO for the years up to 2010 indicates that applied levels of trade-distorting support are considerably lower than 5 percent of the VoP—unless India’s input and investment subsidies to low-income, resource-poor producers are also included in the calculation. For those countries, none of the tested scenarios would require effective cuts in applied support. However, with the exception of a scenario in which *de minimis* is capped at 20 percent of current VoP (i.e. the status quo), all scenarios would impose additional constraints on those countries. This would be a significant departure from draft negotiating texts tabled in the past. Proposals for a cap would therefore need to accommodate the specific circumstances of different members and be phased in gradually over a multi-year implementation period. A hybrid approach between a fixed and a floating, or variable, cap could also usefully be considered.

**FIGURE 2: Options for setting an overall limit on trade-distorting support**



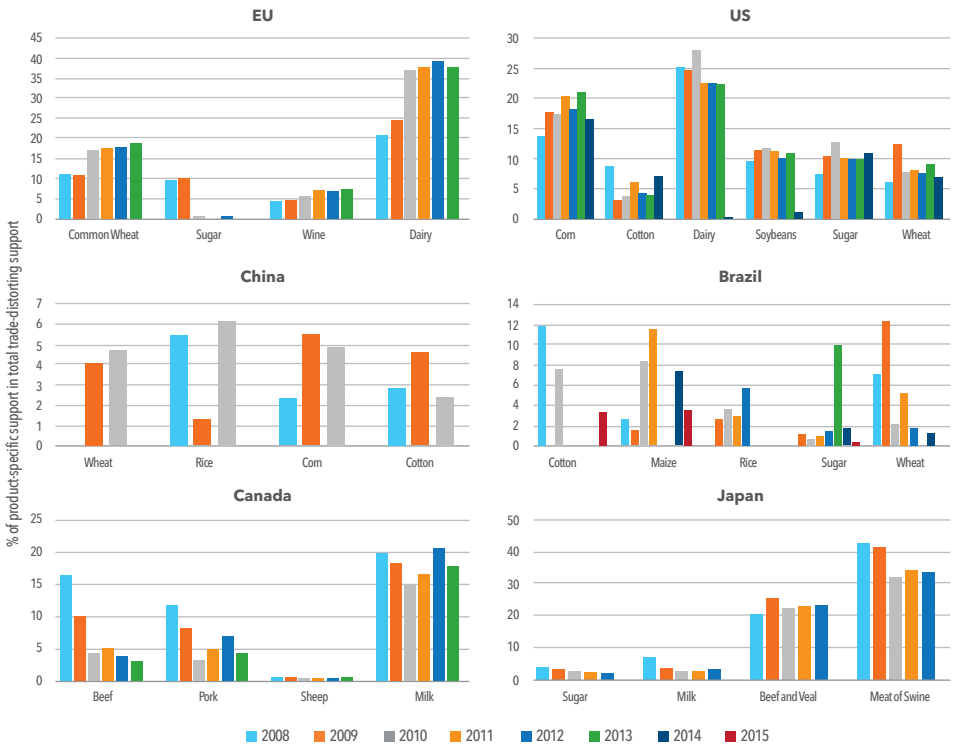
Source: Authors’ calculations based on WTO notifications

## >> Product specific disciplines and anti-concentration approaches

A third set of ideas have focused on avoiding excessive concentration of support by establishing disciplines, or rules, on product-specific support. Here again, developed and developing countries support agriculture differently, with a larger share of developed countries' trade-distorting support being devoted to product-specific interventions and developing countries preferring non-product-specific support (e.g. fertiliser subsidies).

In South Korea, rice alone accounted for 70 percent of all trade-distorting support, while in the EU this share represented 35 percent for dairy and nearly 20 percent for wheat. In the US, dairy and corn accounted for nearly 40 percent of all trade-distorting support, while in Japan the share for pork and beef together represented nearly two-thirds of the total level.

**FIGURE 3: Product-specific support as a percentage of all trade-distorting support**



Source: Authors' calculations based on WTO notifications.



Negotiators have suggested several options for product-specific disciplines. The first option would consist in fixing a product-specific ceiling defined either as a fixed limit or as a percentage of the VoP. Another possible approach could involve defining a product-specific limit as a certain percentage of total trade-distorting support. Similarly, in a third approach, the product-specific limit could be defined as a certain percentage of the total trade-distorting support allowed under a new overall cap. Finally, an innovation proposed by the LDCs as one option to deal with cotton could consist in setting a limit on transfers to cotton producers expressed as a percentage of gross agricultural revenue from cotton.

Overall, however, the high variations in the level of product-specific support across commodities and countries may make it difficult in the short term to set a uniform limit for all products, unless specific exceptions or flexibilities are envisaged. A possible way to overcome this problem could be to set limits based on historical levels with gradual reduction commitments.

## >> Approaches to the treatment of trade distortions

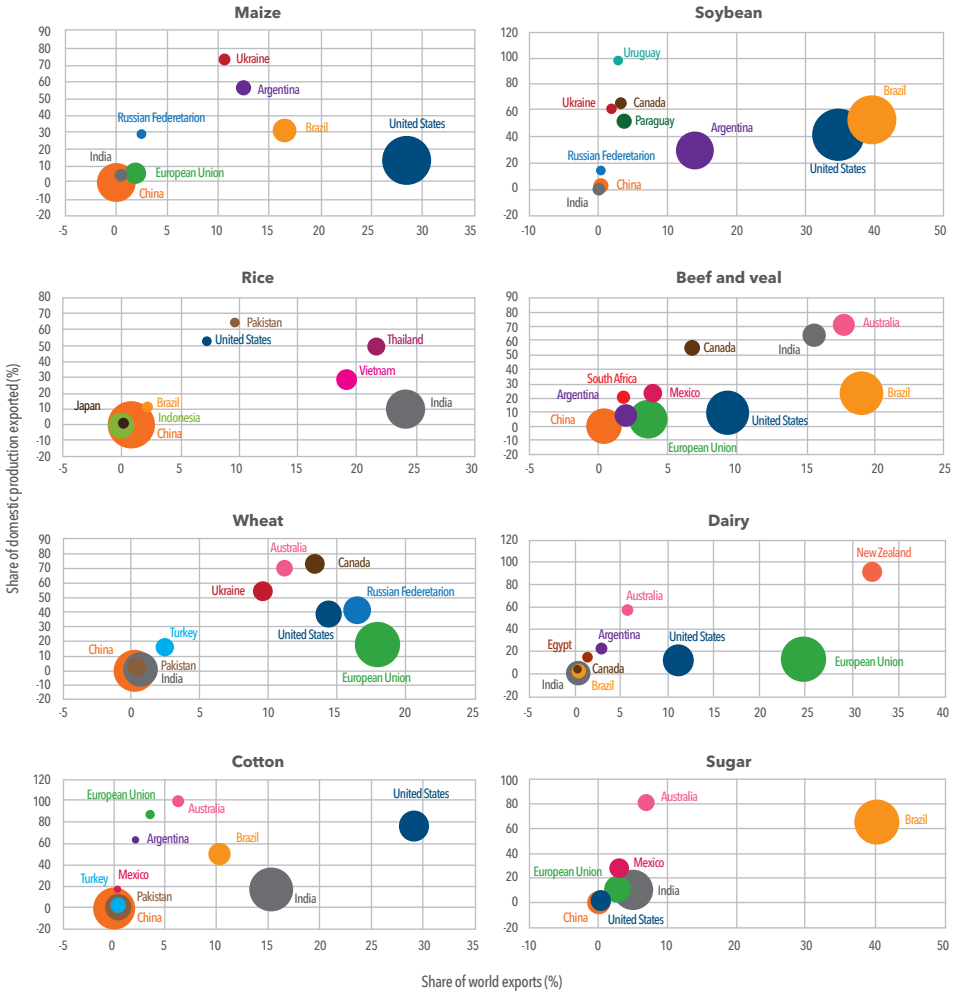
Finally, several ideas regarding the treatment of trade distortions have focused on calibrating the levels of commitments based on different factors.

As in the past, numerous WTO members continue to emphasise the need for special and differential treatment for developing countries, least developed countries (LDCs), small vulnerable economies, and net food-importing developing countries. Special and differential treatment may entail that these countries falling within these groups be exempt from any reduction commitments related to domestic support, as well as technical assistance and capacity building.

However, other options include taking into consideration factors such as the significance of trade flows, production volumes, or the impact on poor countries when designing disciplines on support.

Figure 4 examines the extent to which selected countries play an important role in the production and trade of eight heavily-traded and subsidized commodities. Larger circles represent greater volumes of production in a given country, while those that are closer to the right hand side of the horizontal axis account for a large share of world exports of the commodity concerned, and those that are closer to the top of the vertical axis export a greater share of their total production. Consequently, large countries represented with large circles that are towards the corner of the top-right quadrant have the potential to affect global markets more significantly than others, in the event that they provide substantial levels of trade-distorting support for the product concerned. These figures should therefore be combined with country specific data on intensity of support provided to the respective products.

**FIGURE 4: Top producers and exports as a percentage of production**

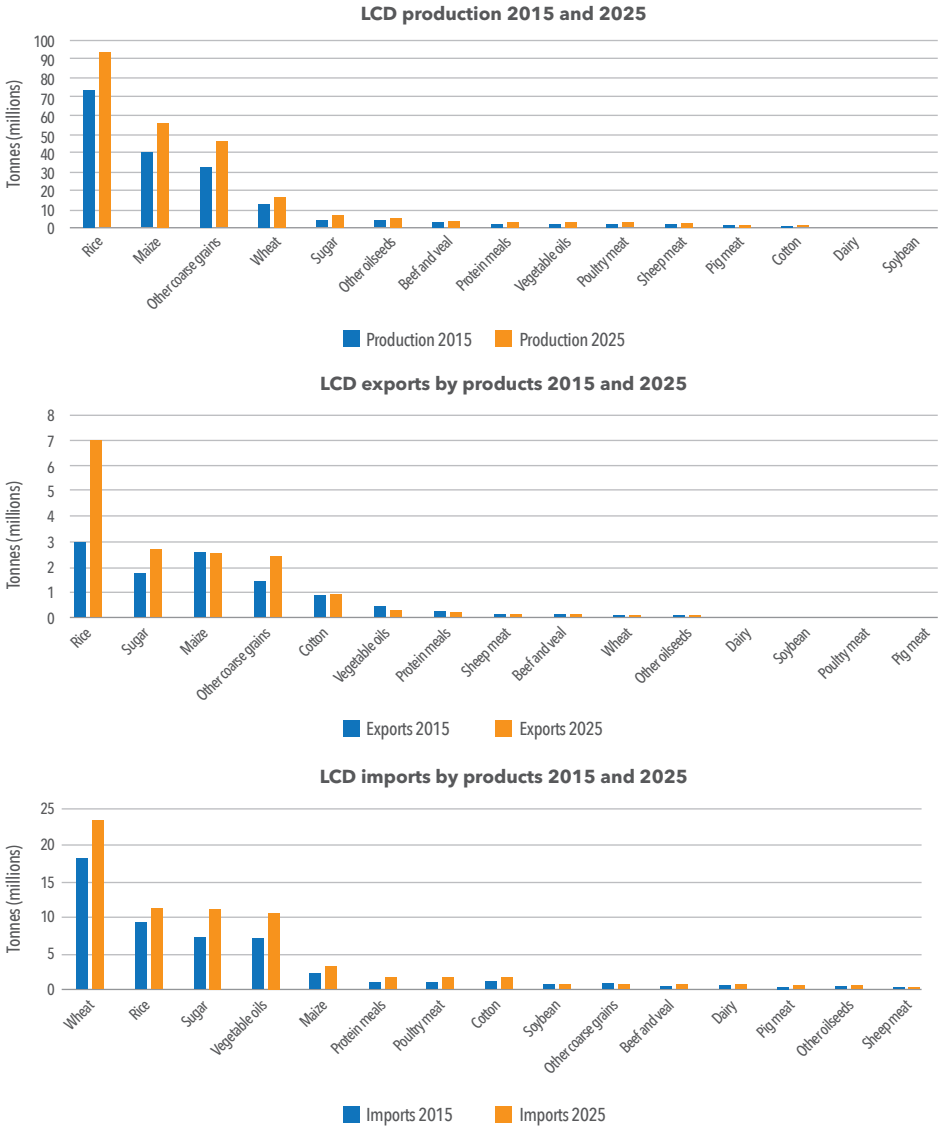


Source: Authors' calculations based on OECD-FAO Agricultural Outlook database (data for 2015)

Countries could consider developing an index, or a formal indicator, combining different variables such as the volume of production, the share of domestic production being exported, the share of world exports the country accounts for, and the support intensity, probably defined as product specific support as a share of the VoP. Under this approach, the index would provide for each WTO member a coefficient which would in turn inform the level of commitment to be undertaken by the country.

Similarly, countries could also consider developing stronger disciplines on distortions affecting products of particular significance to LDCs. Using analysis in the Agricultural Outlook prepared by the Organisation for Economic Co-operation and the UN Food and Agriculture Organisation, it is possible to identify a set of products which are of particular importance to the group, either because they are expected to be produced in large volumes by LDCs, or because they are exported or imported in large volumes. While rice and maize stand out as being especially significant in this respect, other heavily distorted products are seemingly less important to the group (such as beef, pork, and dairy).

**FIGURE 5: Products of special interest to least developed countries**



Source: Authors' calculations based on OECD-FAO Agricultural Outlook database

## >> Conclusion

Negotiators at the WTO's eleventh ministerial conference will need to achieve a careful balance between agriculture and other issues. Among other things, they will need to consider how best to achieve progress on agricultural trade issues while also giving due consideration to countries' sensitivities, including in the area of domestic support.

There is widespread recognition that negotiators will need to take meaningful steps to redress historical imbalances in maximum permitted levels of trade distorting support, while establishing an adequate framework to disciplines applied to support levels in the future.

The broad ideas already put forward provide a useful starting point for further discussions on how best to shape future disciplines. Policy makers and negotiators now need to consider how such ideas can be further refined and elaborated so as to contribute towards more equitable and sustainable markets for food and agriculture.

## >> Reference

ICTSD (2017), *"Negotiating Global Rules on Agriculture Domestic Support: Options for the WTO's Buenos Aires Ministerial Conference."* ICTSD, Geneva. <http://www.ictsd.org/node/99366>

## Chapter 2. MC11: A new opportunity to reduce distortions in the global agricultural trade system

By David Laborde Debucquet, Valeria Piñeiro and Joseph Glauber

### >> Introduction

The Eleventh Ministerial Conference (MC11) of the World Trade Organization (WTO) will take place from 10 to 13 December 2017 in Buenos Aires, Argentina. The Ministerial Conference which is attended by trade ministers and other senior officials from the organization's 164 members, is the highest decision-making body of the WTO. The last Ministerial Conference was held in Nairobi, Kenya in December 2015. This will be the first Ministerial Conference to be held in South America and will provide an opportunity to reduce trade barriers and further liberalize the global trading system.

While the Doha Round<sup>5</sup> itself involved more than 20 topics (not just agriculture) and while agricultural trade makes up less than ten percent of global trade, the issue of agriculture remains key for both developed and developing countries, particularly regarding the goal of ending poverty and hunger worldwide. In addition, while five decades of General Agreement on Tariffs and Trade (GATT) negotiations liberalized the industrial sector, especially for developed countries, agriculture remained largely outside the trade policy reform trend for a long time and was only included in the global trade discipline starting with the Uruguay Round in 1995.

Agricultural negotiations are organized around three pillars: market access, domestic support (i.e. farm subsidies) and export competition. The latter topic was tackled in Nairobi with a firm commitment to phase out export subsidies by developed economies (see Laborde and Díaz Bonilla, 2015, for an analysis). Market access negotiations have made limited progress, and countries appear to be exploring bilateral and regional agreements to achieve new tariff concessions. In this context, a particular area of interest will be whether members are willing to commit to further reforms in agricultural domestic support, an issue that could be handled only in multilateral negotiations.

### >> Domestic Support—Ripe for Reform?

A landmark achievement of the Uruguay Round (UR), and specifically of the Agreement on Agriculture (AoA), was the full inclusion of agriculture in a system of multilateral rules and disciplines, particularly disciplines governing agricultural support. Farm policy measures were classified, and put in different “boxes” based on the level of trade distortions.

Domestic support levels were bound and subject to reduction commitments (20 percent reduction over six years for developed countries; thirteen percent cuts over ten years for developing countries). Significantly, countries were encouraged to adopt support policies that had minimal production and trade-distorting effects and which were exempt from reduction commitments (the so-called Green Box).

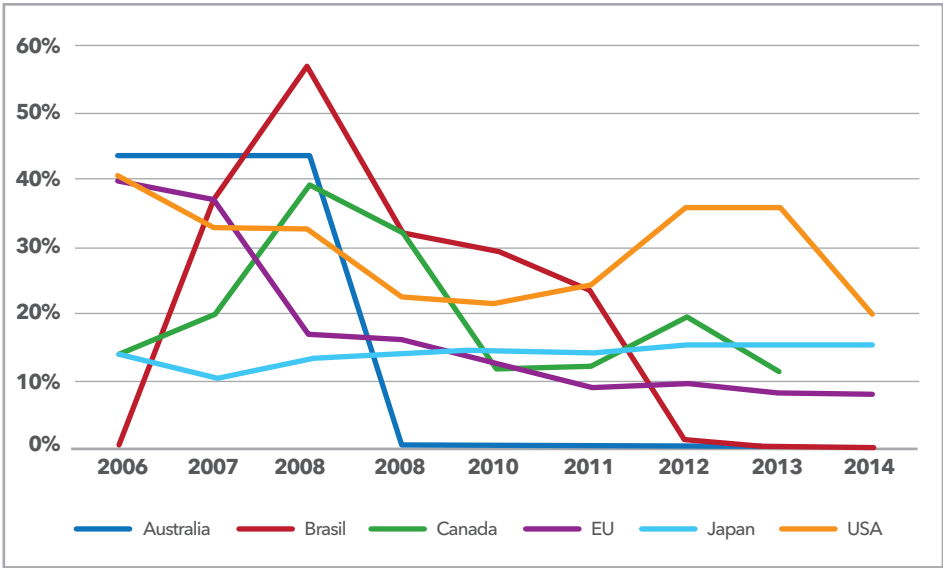
Trade-distorting support as measured by the total aggregate measurement of support (AMS) has declined substantially for the major subsidizing countries over the last 20 years (Brink, 2014). Major domestic policy reforms in Japan, the EU and the USA have

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<sup>5</sup> See Laborde, 2017 for a complete narrative of the Doha Round negotiations.

resulted in support levels for those countries significantly below bound levels. Figure 1 shows reported AMS levels relative to country bound levels for selected countries. All are currently well below 25 percent, although there is some variation particularly for countries whose support levels are tied to market prices (such as the USA and Canada). This suggests that those countries could readily absorb large cuts in bindings with minimal changes to their domestic support programs. New disciplines will lead to limitations on the policy space of these countries and future program expansions, instead of actual reduction to payments made to farmers.

**FIGURE 1: Total AMS as a percentage of AoA binding**



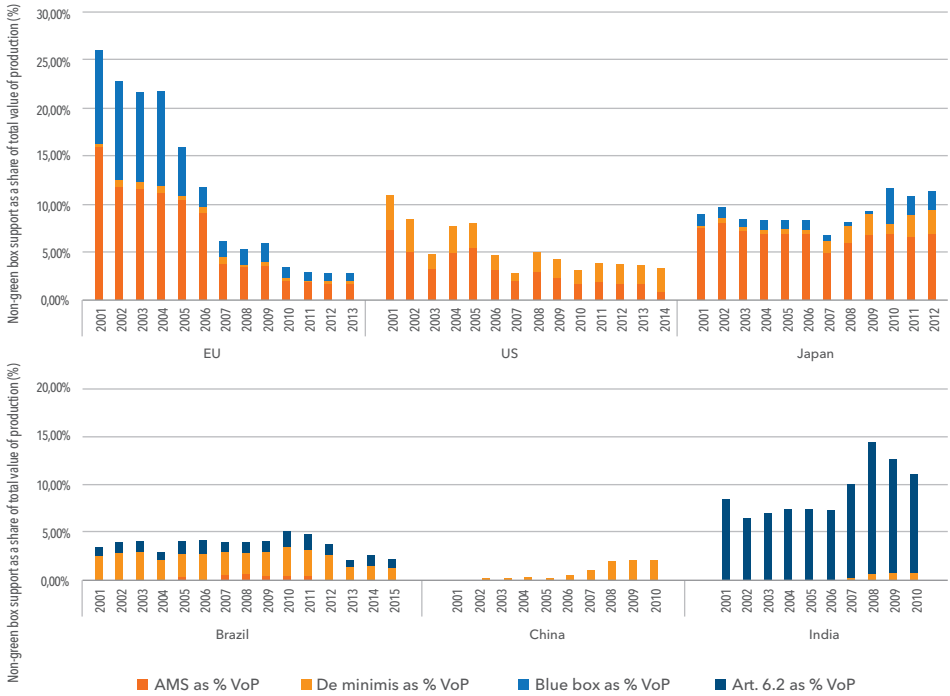
Source: WTO, 2017.

Note that for the years 2006 and 2007, the EU in the graph represents EU 25; for other years, it is EU 27.

Despite those reductions in AMS levels, concerns about domestic support levels remain. First, the AoA also contains provisions that exempt large levels of trade-distorting support from reduction commitments. Those exemptions include certain direct payments to farmers where the farmers are required to limit production (sometimes called “Blue Box” measures, covered under Article 6.5 of the AoA); certain government assistance programs to encourage agricultural and rural development in developing countries (covered under Article 6.2 of the AoA); and other support on a small scale (“de minimis”) when compared with the total value of the product or products supported (five percent or less in the case of developed countries and ten percent or less for developing countries).

Figure 2 shows a measure of “non-Green Box” support for selected countries – referred to as Overall Trade Distorting Support or OTDS – expressed as a percentage of the value of production. Non-Green Box support for the EU and the USA has declined to below five percent of the value of agricultural production. By comparison, Japan’s OTDS remains relatively high at over ten percent of the value of production. Among the developing countries shown here, Brazil and China’s OTDS levels are less than five percent of the value of agricultural production, while that of India exceeds ten percent. It is important to note that China has not notified support levels since 2010.

**FIGURE 2: OTDS as a percentage of value of production**



Source: ICTSD, 2017

Note: India has reported new notifications covering the years 2011 through 2014, but they do not show significant change in the overall amount of the support.

A second concern about domestic support is that the current caps on domestic support apply only to the aggregate level of support across all commodities. The AoA provides no disciplines on spending on individual commodities for members with AMS bindings<sup>6</sup>. Thus, countries could theoretically concentrate support to just one commodity and still remain compliant with AoA disciplines<sup>7</sup>.

Product-specific support remains concentrated in a handful of commodities including rice, wheat, sugar, cotton, beef, pork, and dairy (Greenville, 2017). Developed countries have tended to provide most of their trade-distorting support in the form of product-specific subsidies. This is especially true in the EU and Japan, where 90 and 80 percent of trade-distorting support, respectively, is granted in the form of product-specific subsidies. In some cases, product-specific support is quite concentrated. For example, 35 percent of the total EU trade-distorting support is for dairy products and almost 20 percent for wheat. In the USA, dairy products and maize account for 40 percent of all trade-distorting support, while in Japan the share of pork and beef accounted for almost

<sup>6</sup> For countries without AMS bindings, the de minimis level provides an effective cap on individual commodity support.

<sup>7</sup> However, such support could be vulnerable to challenge under the Agreement on Subsidies and Countervailing Measures.

two-thirds of the total. For some developing countries, product specific support is quite high as well. In South Korea, domestic support for rice accounts for about 70 percent of South Korea's total trade-distorting domestic support.

More typically, developing countries have tended to provide non-product-specific support. This is particularly the case in India or Brazil, where more than 90 percent of aid received in recent years has been provided as non-product-specific payments (ICTSD, 2017).

Third, concerns have been expressed about the growth in Green Box spending, particularly in the areas of decoupled income support (Paragraph 6 of Annex 2) and agricultural insurance programs (paragraphs 7 and 8). Both the EU and the USA have notified large amounts of decoupled support under paragraph 6. In 2012/13, the EU notified its Single Payment Scheme and other decoupled programs totaling more than 32.8 billion euros under Paragraph 6 of Annex 2. In 2013, the USA notified direct payments totaling \$5 billion USD under Paragraph 6 (the direct payment program was eliminated in the 2014 farm bill). Recent empirical research has questioned whether decoupled support is truly decoupled (O'Donoghue and Whitaker, 2010; Bhaskar and Beghin, 2009).

At the time of the launch of the Uruguay Round, agricultural insurance schemes were present in only a handful of countries and were minor in scope. Since then, agricultural insurance programs have grown from 2 billion USD in premium volume in 1986 to over 30 billion USD in 2014 (Glauber, 2016). Programs in the USA and China account for about half of this total, but insurance programs are reported in over 100 countries, as reported in a 2007 World Bank survey (Mahul and Stutley 2010). The evidence on the effects of agricultural insurance on production is mixed. Studies have mostly indicated that crop insurance subsidies have had small impacts on production overall in areas where insurance is broadly available across crops. Crop insurance likely has larger impacts on crop choice when insured crops compete against uninsured crops, or when crops where revenue insurance is available compete against crops with only yield insurance (Glauber 2015).

Last, while non-green box support levels in developed countries have largely declined since 1995, support in advanced developing countries such as Brazil, China, India and Indonesia has increased, although moving from very low levels. Support has largely been in the form of input subsidies (India and Indonesia) or investment subsidies (Brazil). China's price support programs have grown considerably in recent years, particularly since the fall in global prices in 2013. With build-ups in government-held grain stocks in emerging markets such as China, questions have arisen regarding the sustainability of such policies. To that end, China has recently announced reforms in domestic support policies for cotton and corn.

## >> Analytical Framework

To analyze the effects of potential reforms, we used MIRAGRODEP (Laborde et al. 2013), a global computable general equilibrium (CGE) model that includes 35 sectors (including 19 agro-industrial sectors) and 31 regions. The MIRAGRODEP model shares similarities with other global CGEs - such as the GTAP or the LINKAGE multi-country CGE - and allows for a detailed and consistent representation of economic and trade relations with the rest of the world. International economic linkages are captured through the international trade of goods. A dynamic version of the model is used by solving the model sequentially and moving the equilibrium from one year to another. In our study, we assume perfect competition in all sectors. In each region, the government is explicitly modelled



as different from private agents and uses a varied set of instruments (taxes, subsidies) to implement its policies.

The model includes three important assumptions: the private account closure, the external account closure, and the government account closure. Due to the role of such assumptions in driving some of the results, it is important to clarify them. The private account closure assumption is concerned with the savings-investment closure. We follow a Neo-Classical closure and assume that savings determines investment: the marginal propensity to save is constant such that variation in income leads to variation in savings, which brings variations in investment. The external account closure is concerned with the assumption on the current account (the current account includes exports and imports of goods and services, plus public and private transfers from or to the rest of the world). We consider that the real exchange adjusts in such a way that the current account balance is constant. This allows meaningful welfare analysis. Last, for the government account closure we consider that public expenditure per capita is constant. Therefore, we use an endogenous consumption tax to ensure that government net savings are constant in terms of GDP. In this specific study, it means that any cut in farm subsidies due to new disciplines will lead to redistribution to the tax payer-consumer through a reduction in existing consumption taxes.

The model is calibrated on the Social Accounting Matrix (SAM) and trade data of the Global Trade Analysis Project (GTAP) 9.1 (Aguiar and al, 2016). The GTAP Database is a fully documented global database which contains complete information on bilateral trade, transport, and protection linkages among 130 regions for all 57 GTAP commodities for 2011.

In this study, the model and the data have been adjusted in several ways to properly tackle the issue at hand and provide the most up-to-date set of information on agricultural production and farm policies.

Regarding the data and the policy instruments used in the model, we have re-processed the global SAM to accurately target the value of agricultural production of each sector in each region in the base year. We use the latest WTO notifications available by country, and the FAOSTAT value of production information to fill the gaps. Similarly, all the policy information on farm policies, except tariffs, available in GTAP are replaced by actual data from the latest WTO notifications. Each policy/instrument detailed in the notifications is mapped to a model variable: subsidies to inputs, payments to factors of production, or production in ad-valorem or ad-volumen form. In addition, we include for each instrument a breakdown by box classification to allow different accounting and disciplines. Therefore, for a given commodity and country, an input subsidy could have an “Amber Box” component and an “Article 6.2” one depending on the notifications and the focus on smallholders of the policies. In such a case, different disciplines will apply.

In the baseline, we keep all these policies constant, except if total AMS levels are binding. As soon as the disciplines are binding (either in millions of constant dollars or in percentage of the value of production depending of the discipline/scenarios), we implement a proportional reduction of applied subsidy rates until constraints are checked. This radial shifter is applied on all policies under disciplines (e.g. all non-Green Box measures) in the scenario when the overall constraint is reached, or at a sectoral level when a specific product cap is reached.

This type of model results in a “business as usual” run where changes in production, exports, and other macro variables are seen in the event that no policy change occurs

while economic growth, demographics, and productivity drive the evolution of world and domestic markets. Comparing these results with scenarios designed (where policy changes are introduced) allows us to analyze the impact of disciplines on various domestic support measures.

## >> Potential Reform Scenarios and Results

A number of scenarios were considered, given the global situation described and the communications submitted on the issue by countries in preparation for the upcoming WTO Ministerial Conference. These communications have in common the idea that the introduction of a general limit to domestic support is needed. As already mentioned, the OTDS gathers the Amber Box, *de minimis*, Blue Box and under certain scenarios, payments under Article 6.2, and is an important element of the 2008 domestic support modalities of the Doha Round. However, exact implementation requires many concrete options on how the limit should be designed: as a percentage of the current value of production versus a fixed reference value; upper bounds of OTDS by category of countries; limits by product; a special case for cotton where it should have specific commitments; and options on how reductions will be phased in over time. Each option has its pros and cons, both in terms of conceptual relevance and the capacity to have an operational monitoring of the new discipline. Last, it has also contrasted impacts for different countries.

For instance, having an OTDS cap measure as a percentage of the actual value of production<sup>8</sup> of a country, compared to using a reference year number for the value of production, is consistent with the existing *de minimis* approach and allows it to be a dynamic constraint, allowing expansion of policy space for a growing agricultural sector in the developing world and solving the inflation and exchange rate issue around a fixed amount in nominal terms. At the same time, it leads to a pro-cyclical policy space (high level of payments allowed when prices are high). It will also lead to a declining level of support for vulnerable agricultural sectors in advanced and aging economies (e.g. Japan), leading to concerns for policy makers, more uncertainty about the level of future farm policies in emerging economies, and no automatic reduction in relative support overtime - a soft policy reform feature of anchored discipline in absolute terms.

Regarding product-specific disciplines to avoid the concentration of subsidies on a subset of products, different options include using a percentage of total OTDS in product-specific programs (easy to monitor but still lacking specific discipline at a product level); a ceiling on the product-specific program for each product, expressed as a percentage of the value of the production of that product (similar to the *de minimis* approach); and designing the limit by looking at the importance of exports of the product made by the member in the international market. In our study, when this discipline is included, we consider an actual limit of payments done for one sector in terms of OTDS eligible measures expressed as a percentage of production of this product. Therefore, it includes policies labeled as "*product-specific*" in terms of WTO notifications and a fraction of "*non-product payment*" received by farmers producing this good.

Table 1 shows the dimensions that were taken into account at the time of designing the scenarios for this study. In addition to the important issue of how OTDS is defined in terms of current vs fixed value of production, and alternative rules for product specific

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<sup>8</sup> If the reference period is chosen, the years for the period will have to be discussed as well as the amount of years included in the period.

limits, we explore the inclusion of all or some of the Blue Box and of Article 6.2 into the definition of OTDS.

The idea of the scenarios presented in this article is to show the range of possible outcomes, given the already mentioned elements and dimensions related to domestic support under the WTO, showing where each scenario is positioned in the political space available for each country, going from the least ambitious scenario to the most ambitious one.

**TABLE 1: Scenarios**

Scenario #	1	2	3	4
<i>Label</i>	OTDS with variable VoP	OTDS with fixed VoP	OTDS with product VoP	High Ambition
<i>OTDS limit for</i>				
<i>Developed</i>	10%	10%	10%	10%
<i>China</i>	17%	17%	17%	17%
<i>Developing</i>	20%	20%	20%	20%
<i>OTDS expressed as % of</i>	Current VoP	Fixed Reference VoP	Current VoP	Fixed Reference VoP
<i>Blue Box payments included in OTDS</i>	Yes	Yes	Yes	Yes
<i>Article 6.2 included in OTDS</i>	No	No	No	Yes
<i>Product Limit</i>	No	No	Yes**	Yes**
<i>OTDS allowed rate reduced over time</i>	No	No	No	Yes**

Source: Authors.

Notes: \*2% reduction for developed countries and 3% reduction for developing countries starting in 2022

\*\* 7.5% developed countries, 12.75% China and 15% developing countries

Scenario 1 defines the OTDS as the sum of the total AMS, *de minimis* and Blue Box measures and is measured as a percentage of the current value<sup>9</sup> of production. Scenario 2 has the same definition of OTDS but differs from scenario 1 in the way the OTDS is measured, in this scenario being a percentage of a fixed period value. Scenario 3 shows the limit of total OTDS as a percentage of the current value of production (as in scenario 1) and it also includes product-specific caps to avoid excessive product concentration of support<sup>10</sup>. Scenario 4 shows the most ambitious proposal, given the dimensions for an OTDS agreement already mentioned, with an OTDS defined as the sum of AMS, *de minimis*, Blue Box and Article 6.2 measures, expressed as a percentage of a fixed reference period (2010-2014) and including a declining OTDS limit over time<sup>11</sup>. The policy reform is fully implemented by 2022 for developed countries and 2025 for developing countries. In all scenarios, we remove the UR AMS policy space for developed countries<sup>12</sup>.

<sup>9</sup> The reference period is a five-year average, 2010-2014. This period is associated with a price spike, resulting in a high level of VoP (or it just compensates for a few years of growth in volume). Put differently, the five-year average for the period 2010-2014 will lead to a level similar to the 2015 VoP. It is important to note that a dynamic VoP, or a mobile average will have other implications.

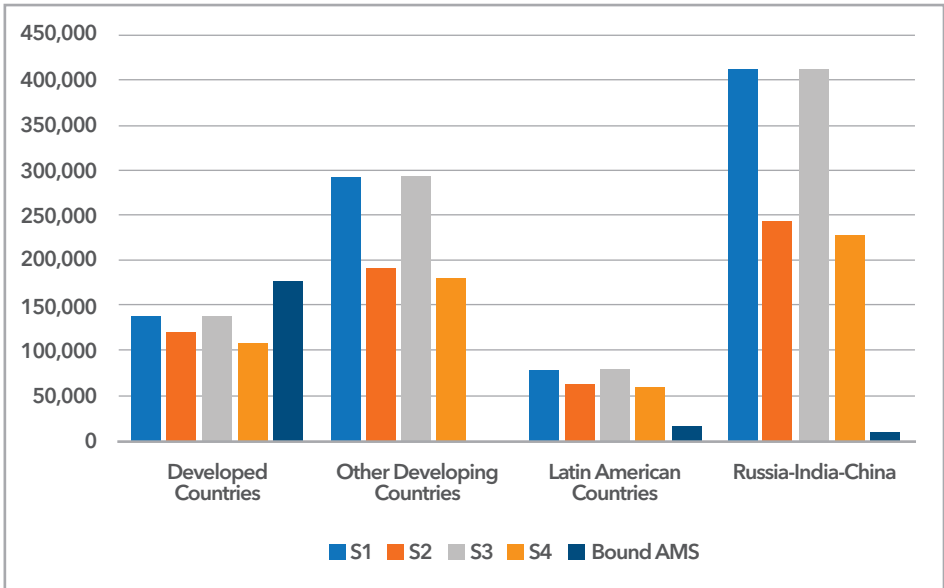
<sup>10</sup> The cap limit per product can be defined as a percentage of total OTDS expenditures or as a percentage of domestic value of production. For scenario 3, we chose to measure the limit of product specific OTDS as a percentage of current value of production.

<sup>11</sup> Scenario 4 includes a three percent reduction of OTDS limits per year for developed countries and two percent reduction per year for developing countries. The reduction is introduced starting in the year 2022.

<sup>12</sup> We also analyzed a scenario where the policy space coming from AMS is added to the OTDS limit for developed countries but as excluded it does not lead to policy reform in these countries. Similarly, excluding Blue Box programs from the OTDS have been investigated but lead to minor changes compared to these scenarios at the global level.

Considering the features of the scenarios and the endogenous production evolution driven by the model, in Figure 3 we can display the evolution of OTDS limit by group of countries.

**FIGURE 3: Bound AMS and OTDS limit by scenario and group of countries in 2025, millions of USD (constant 2011)**



Source: MIRAGRODEP simulations.

As implied by the scenario design and preliminary discussions, the first scenarios have limited impacts: policy constraint in OTDS are poorly binding, and only a few advanced economies have to reduce their distorting farm subsidies. Interestingly, when increased disciplines are considered, both overall OTDS constraints and product cap provisions aim to limit support in similar sectors, especially the livestock industries, leading to gains for key exporters of these products among both developing and developed countries. Also, in scenarios 1 and 2 some feed suppliers to the very intensive livestock sectors that will be reformed see a reduction in the demand they face.

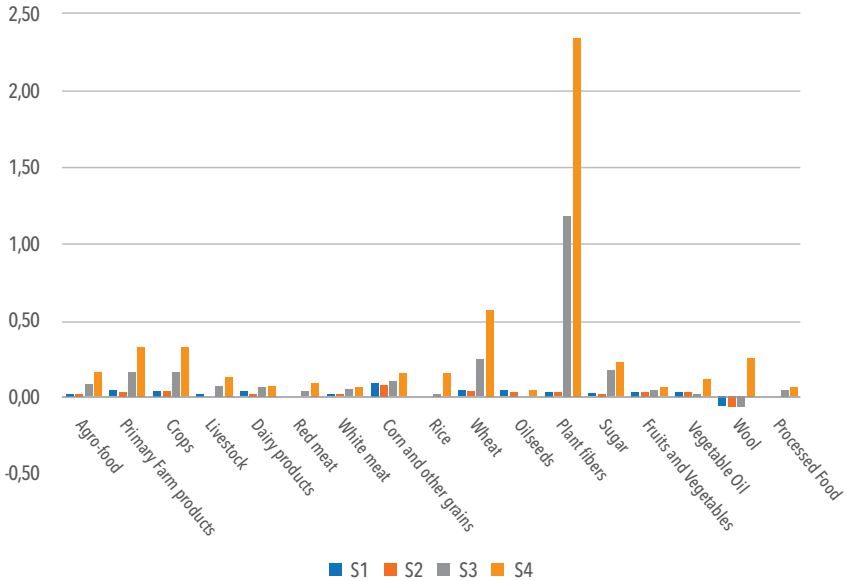
Figure 3 also shows the bound AMS for 2025 in the case that a new agreement is not reached. All of the scenarios analyzed will deliver lower OTDS limits that bind AMS for developed countries and for the developing countries that have an AMS commitment.

Also, it is important to note that OTDS payments will be higher in the case where Article 6.2 is included in the definition of OTDS compared to the scenarios where OTDS is only defined by AMS, *de minimis* and Blue Box measures.

A first indicator to consider in such an analysis is how world agricultural prices will be impacted by the new WTO disciplines. Indeed, it will be a key channel of transmission between markets and will show how a reduction in domestic support in some countries will benefit other farmers worldwide through reduced subsidized competition. Figure 4 shows this indicator for each agricultural product in the model, as well as an aggregate (agricultural products and processed food). As explained before, we compare the prices

in 2025, under average economic and weather conditions (trend) with and without policy changes. Therefore, we focus on structural changes, important drivers for long-term decisions, and not year-to-year fluctuations.

**FIGURE 4: Agricultural World FOB Prices (Percentage Changes with Respect to the Base in 2025)**



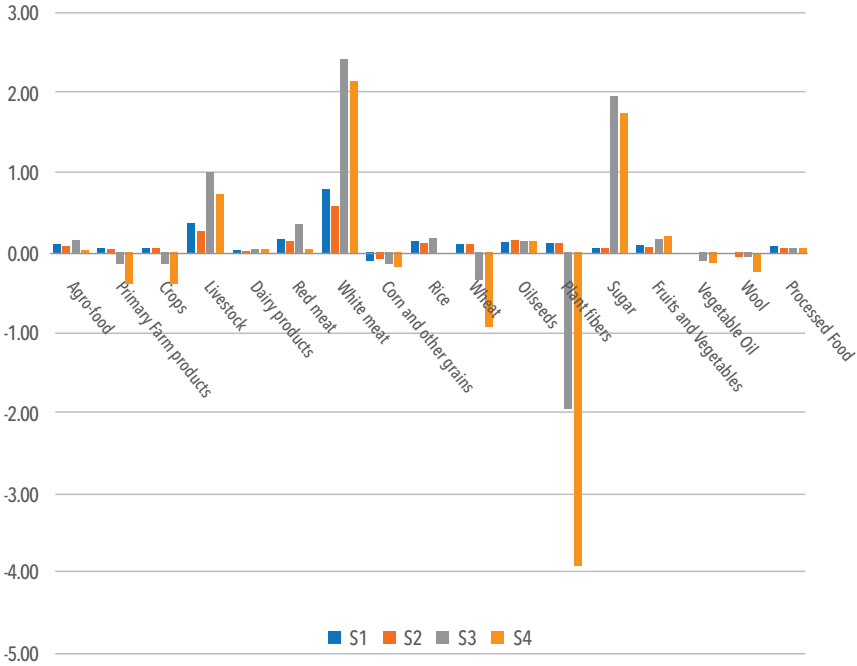
Source: MIRAGRODEP simulations

We can see that the first two scenarios have less of an effect on prices compared to the last two - where a product cap is included. Deeper examination shows that cotton is the commodity with the highest increases in prices, given the reduction in cotton production in the USA and other developed countries, followed by wheat and grains. For wheat and cotton, the impact on prices is magnified when Article 6.2 payments of India are constrained (scenario 4).

These price changes have some important welfare implications through the terms of trade effects: net exporters of commodities with price increase will gain from these policy reforms, while net importers may lose due to a higher import bill of global markets.

Following the sectoral price changes, we can now analyze the evolution of global agricultural trade in Figure 5. Agricultural trade follows the pattern seen in international prices, where the scenarios with limits on the OTDS (as percentage of current VoP or a fixed period) do not have a significant effect compared to the scenarios in which a product cap is also imposed. In the most ambitious scenario cotton trade decreases by four percent with respect to the base by 2025, given the reduction in the US production as a consequence of the imposition of a product cap plus a reduction of the OTDS limit over time. The same can be said for wheat and to a lesser degree for vegetable oil and wool. Instead, livestock (red meat and white meat) and sugar see an increase in trade, given the reduction of production in countries with high levels of domestic support, which creates the need for increased imports to satisfy domestic consumption, with imports originating from countries with stronger comparative advantages.

**FIGURE 5: Agricultural Volume of Trade (Percentage Changes with respect to the Base in 2025)**



Source: MIRAGRODEP simulations

Due to different product specializations, but also domestic policy constraints, we can observe heterogeneous impacts among countries in Table 2. First, we can see some differences between the value and the volume effects on net agricultural trade (including processed food products), the latter being smaller in scenarios 1 and 2 due to changes in the commodity mix of international trade, while in scenarios 3 and 4, the decline in volume of “subsidized” exports is counterbalanced by higher world prices. (See Figure 4.)

**TABLE 2: Key Indicators by Region (percentage changes with respect to the base in 2025)**

	Agricultural Export Volume				Agricultural Export Value				Farm Production			
	S1	S2	S3	S4	S1	S2	S3	S4	S1	S2	S3	S4
WORLD	0.22	0.24	0.05	-0.46	0.14	0.12	0.25	0.20	0.05	0.06	-0.03	-0.15
Developed Countries	-0.84	-0.66	-2.22	-2.37	0.16	0.14	0.11	0.11	-0.25	-0.20	-0.67	-0.70
Other Developing Countries	0.46	0.44	0.61	0.77	0.13	0.12	0.27	0.42	0.08	0.08	0.08	0.09
Russia-India-China	0.72	0.69	0.96	-0.96	0.17	0.15	0.41	-0.42	0.18	0.18	0.17	-0.07
Latin America	0.28	0.26	0.66	0.42	0.09	0.08	0.42	0.42	0.06	0.06	0.07	0.01

Source: MIRAGRODEP simulations.

The volume of agricultural exports from developed countries decrease between 0.8 percent to 2.4 percent with respect to the base in 2025 depending on the scenario analyzed, with the smallest decrease being in the least ambitious scenario and the biggest decrease in the most ambitious one. However, it is important to note that the difference between scenarios 3 and 4 is only 0.15 percentage points. Given that developed countries do not have domestic support under Article 6.2, that difference is explained by the reduction of the OTDS limit over time imposed in scenario 4.

For Russia, India and China, a positive increase in exports is seen in all scenarios with the exception of scenario 4, where the expenditures on Article 6.2 are included in the definition of OTDS.

The four scenarios have a positive impact on Latin American agricultural exports, with scenario 3 being the most favorable (Brazil is adversely affected under scenario 4 because its support includes Article 6.2, which is capped under scenario 4). Instead, other developing countries see scenario 4 as the scenario with the higher increase in agricultural exports.

Table 2 shows that developed countries see a contraction of their farm production in all scenarios, while production levels in Russia, India and China see small gains under all scenarios except scenario 4, where Article 6.2 is also accounted for the limit in the level of OTDS. Latin America and other developing countries increase their agricultural production in all scenarios, noting that in the case of other developing countries their production does not differ much between scenarios.

When looking at the income received by the farmers (Table 3), the story does not change for developed countries. Having to take measures to comply with the new limits on domestic support, farmers' income levels decrease and in different amounts depending on the scenario. For developing countries, the impact of the four scenarios is considerably different between them, with the most ambitious scenario being 0.05 percentage points higher than the scenario with limit on the OTDS calculated as a percentage of a fixed period plus a product cap.

An important implication, and a stepping stone in the negotiation process, is the potential political economic impacts of these reforms. We measure it in Table 3 through the changes in real farm value added; it is a simple metric for farmers' gross income, net of input costs, and we look at it with and without including subsidies<sup>13</sup>. Let's keep in mind that any losses in farmer's income could be compensated through non-distortive income support policies (Green Box) but we do not model such adjustment.

Summarizing, at the regional level, we can see five categories of countries: first, the advanced economies with defensive interests (e.g. EFTA, Japan) that have to cut subsidies and need to replace domestic production with imports; second, the advanced economies that have a mixed outcome with some domestic subsidies reduction but new market opportunities in other advanced economies (e.g. Canada). The third category comprises advanced economies (e.g. Australia) that do not have new domestic constraints and can benefit from third parties' policy reform. Fourth are developing economies (e.g. Mercosur countries) that can grasp new opportunities on world markets. Finally, the last category is largely composed of net agricultural importing countries (e.g. South Korea)

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<sup>13</sup> The latter value shows the evolution of the volume of activity and production due to the fixed Leontieff coefficient in our model between production and value added in volume.

that have limited gains in exports and face higher world prices in imports; their trade balance in volume improves but the outcome in value is more contrasted.

Finally, we can provide an overall economic impact of these reforms through welfare changes. Two effects are driving the results: the terms of trade effects, explained above, and depending directly if you are an exporter or importer of products that benefit from large price increase on world markets, and also the efficiency gains arising from reduced distortions domestically. This mechanism implies that by cutting subsidies, then labor and capital (mainly leaving agriculture), and land within the agricultural sector, are moving to sectors and products where countries have stronger comparative advantages. This last effect is an important source of gains for EFTA countries and Japan, counter-balancing the negative terms of trade effects.

Two observations must be noted: first, the welfare results are quite small but this should not be unexpected, based on the nature of the scenarios (partial changes in discipline affecting farm subsidies) and the analytical tool (CGE).

**TABLE 3: Real Farm Income by Region (percentage changes with respect to the base in 2025)**

	S1	S2	S3	S4
<b>WORLD</b>	-0.02	0.00	-0.15	-0.47
<b>Developed Countries</b>	-0.73	-0.58	-1.53	-1.58
<b>Other Developing Countries</b>	0.10	0.10	0.14	0.19
<b>Russia-India-China</b>	0.19	0.18	0.21	-0.44
<b>Latin America</b>	0.11	0.10	0.17	0.02
Argentina	0.02	0.01	0.04	0.11
Brazil	0.04	0.04	0.15	-0.05
Australia and New Zealand	0.09	0.08	0.24	0.46
Canada	0.14	0.14	-0.75	-1.84
EU28	0.04	0.03	0.05	0.11
India	0.19	0.19	0.23	-2.43
Japan	-7.29	-5.47	-13.75	-13.46
South Korea	0.09	0.09	0.10	0.15
EFTA	-20.10	-18.35	-25.68	-24.77
South Asia	0.03	0.03	0.08	0.25
Sub-Saharan Africa	0.06	0.06	0.09	0.16
USA	0.06	0.05	-0.74	-0.98

Source: MIRAGRODEP simulations.



Agriculture is a small share of GDP (less than four percent globally, less than eight percent for key exporters like Brazil, Argentina, Thailand) for most of the countries described in Table 3. We look at second-order effects through reallocation of factors (efficiency gains) for countries most affected by the reform<sup>14</sup> and market mediated (i.e. changes in world prices) impacts for developing economies. Still, we observe some noticeable differences that explain the differences among countries' interests and involvements.

Second, looking at the results presented in Table 2 and Table 3 we can see the conundrum of the domestic support negotiations: limited economic gains can be easily outweighed by the political cost of the reform and the expected losses for some domestic farmers. This situation is particularly striking for developed countries such as the EU and Japan and illustrates the role of domestic farm policies as an important, even if poorly effective, redistribution instrument. In this situation, it is important to look at the farm support negotiations in a broader context, including market access reform in agriculture, to generate larger efficiency gains, but also opportunities of reduced cost for the food processing industries in advanced economies, as well as non-agriculture sectors to balance the overall agreement.

## >> Conclusions

The Eleventh Ministerial Conference of the WTO provides an opportunity to improve the world trade system through further reforms of the domestic support provisions under the AoA and provides an updated framework for the future. Largely because of domestic policy reforms made over the past 20 years, large subsidizers like Japan, the EU and the USA have applied considerable levels of domestic support under their bindings. For many countries, reducing bindings to applied levels would be arguably relatively painless in terms of real cuts to domestic support, although as shown by Glauber and Westhoff (2015), countries with price-dependent support policies such as the USA could suffer income losses under low price scenarios<sup>15</sup>. Scenarios 2 through 4 would place effective caps on overall trade distorting support for both developed and developing countries.

While the aggregate results reported here are relatively small, reduced bindings would be particularly effective in low price scenarios when counter-cyclical policies tend to be large. This would reduce the ability of governments to insulate producers from price signals which would allow markets to more readily adjust to demand and supply shocks and will contribute to reducing global price volatility.

Agreeing on a well-defined product cap generates the biggest changes in the global markets - changes in prices and volume traded - given that it forces countries to reduce their expenditures in domestic support to specific commodities. This will generate a more efficient use of inputs and natural resources at a global level. At the same time, the most subsidized commodities - bovine and porcine meat, dairy products, and cereals - are going to see continuous expansion in future years with the rise of global income, especially among the poorest countries. Making sure that these new market opportunities can be grasped by farmers in low income countries and in particular Less Developed Countries (LDC) that will not have the capacity to enter in a subsidy race

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<sup>14</sup> The model assumes constant employment in the labor market, however developing countries with unemployment could have a more favorable result if they could increase employment.

<sup>15</sup> Our scenarios do not include short term price fluctuations and imply only minor real price increases for food products between 2015 and 2025 in the baseline.

with advanced and emerging economies, is a key element in guaranteeing inclusive globalization. In addition, even if we do not address this issue in our analysis, the gains of domestic support reform will be increased by market access reform. Indeed, production reallocation and trade expansion will benefit from lower tariffs, less binding tariff rate quotas and transparent sanitary and phyto-sanitary regulations. This dimension is particularly important for the livestock and dairy sectors where the product-cap should deliver the stronger discipline on domestic support.

Last, if the WTO rules on domestic support are to be effective, compliance must be monitored and enforced. Article 18 of the AoA requires domestic support measures to be notified to the WTO Committee on Agriculture. The Committee on Agriculture identified the need for annual reporting of applied support and prompt notification of new or modified measures (Brink 2011). Notification requirements, however, are not binding and there have been significant delays in reporting, including for major subsidizing members<sup>16</sup>. Questions have arisen as well as to whether domestic support has been notified appropriately in accordance with Article 6 and Annex 2.

For example, Glauber (2015) reports how members have reported crop insurance subsidies as product-specific Amber Box, non-product specific Amber, Green Box and as Article 6.2 support, often with little documentation on how the specific measure operates. For example, China has failed to report subsidies for its agricultural insurance programs, which totaled almost 3 billion USD in 2012 alone. (Glauber 2015). Concerns have also been raised about the reporting of price support programs, particularly under public stockholding programs. This last issue is of particular interest regarding the overall food security debate and will shape the future of the peace clause reached in Bali.

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<sup>16</sup> For example, the USA failed to report support under its 2002 farm bill until October 2007. The EU failed to report support under the 2003 CAP reforms until 2009. As of July 2017, the latest year of support notified by China was 2010 (World Trade Organization 2017).

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## Chapter 3. WTO 11th Ministerial Conference - Buenos Aires: What's at stake for domestic support in the context of agricultural negotiations

By Nelson Illescas, Nicolás Jorge and Sofía C. Perini

### >> Introduction

With the stagnation of the Doha Round, the WTO has started a process known as “*early harvest*”. The first results were achieved four years ago in Bali<sup>17</sup>, the process continued in Nairobi and is expected to have some outcomes in Buenos Aires, during the **11th Ministerial Conference of the WTO (MC11)**. In this context, the question is what to expect in Buenos Aires, especially in agriculture.

The WTO Agreement on Agriculture includes rules for three pillars: **Market Access** (the use of trade restrictions, such as tariffs on imports), **Export Competition** (the use of export subsidies and other government support programmes that subsidize exports) and **Domestic Support** (the use of subsidies and other support programmes that directly stimulate production and distort trade). For the first one, given that it is a topic closely related to the non-agricultural negotiations (NAMA), it is going to be difficult to have results only in agriculture. The second one had some results during Nairobi, but nothing more until now. The last one is going to be the focus of this paper.

According to a Statement by the Chairman of the Committee on Agriculture in Special Session<sup>18</sup>, Ambassador Stephen Ndūn’Gū Karau (Kenya), communications held with Members showed the **nearly universal support among them for an outcome on Domestic Support**. Most consider that limiting domestic support is a priority for MC11. However, Members recognize the contextual difficulties involved in this topic and have revised their expectations about what is achievable in December. There is also consensus that **whatever the outcome at MC11, it should not be considered as a final outcome on Domestic Support, as work will continue thereafter**.

Proposals on this pillar could address the topic as a whole or emphasize the components considered to be the most trade-distorting. Different options could include reductions of current commitment levels or cuts on the *de minimis* levels. It would even be possible to negotiate new rules. However, nothing is as yet defined.

### >> Importance of domestic support

The current framework of trade negotiations is characterized by relatively low prices in relation to former years and an Agenda 2030 for Sustainable Development that aims to end hunger and poverty, ensuring global food security.

Likewise, in recent years, changes have been made in agricultural policies implemented by both developed and developing countries, with a notable increase in support to producers granted by emerging economies such as China, India, Indonesia, Turkey and Thailand.

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<sup>17</sup> It was announced on February 22 by the WTO that the Trade Facilitation Agreement (TFA) had entered into force, having surpassed the minimum requirement of 110 ratifications from Members.

<sup>18</sup> <http://goo.gl/NSPBER> - Statement by Amb. Stephen Ndūn’Gū Karau to the Committee on Agriculture in Special Session - 1 June 2017.

In addition, there are new factors of global uncertainty related to the outcome of the referendum in favor of Brexit, Trump taking office in the USA, the threat of protectionism and the stagnation in negotiations of mega-regional agreements.

In this context, production subsidies have returned to the center of the scene and the WTO has gained importance in its role, not only as a means for conflict resolution, but also as a forum where countries can agree on future commitments in order to avoid proliferation and increase of trade-distortive agricultural subsidies.

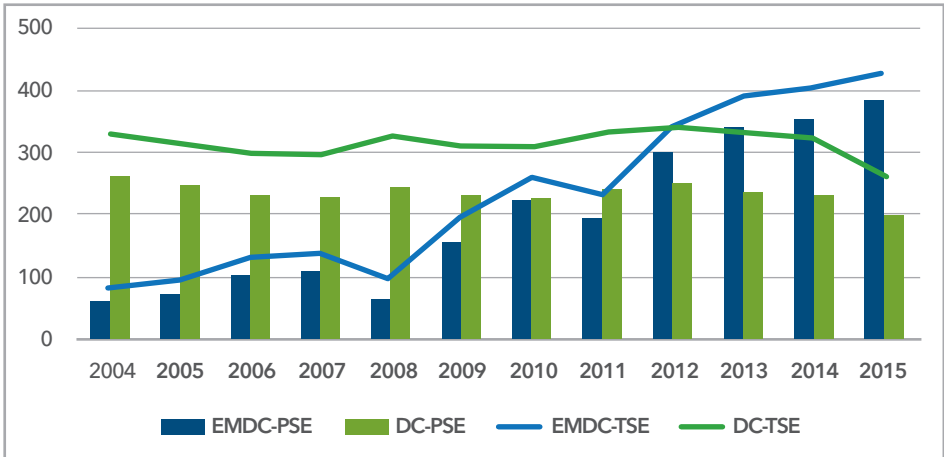
In order to illustrate the importance of domestic support in agriculture, we take two indicators from OECD as a reference: the **Total Support Estimate (TSE)** and the **Producer Support Estimate (PSE)**<sup>19</sup>.

The first one (TSE) consists of transfers to agricultural producers (PSE), to consumers and to support general services in the agricultural sector. The Percentage of TSE represents the total transfers expressed as a share of Gross Domestic Product (GDP).

On the other hand, the PSE, which is the indicator we used for our analysis below, measures the annual monetary value of gross transfers from consumers and taxpayers to support agricultural producers, measured at farm gate level and arising from policy measures, regardless of their nature, objective or impacts on production or income.

As displayed in Graph 1, both indicators (TSE and PSE) show the same trend: developing countries have been raising the amount of support given while developed countries have been lowering it. Notwithstanding, support granted by developed countries remains high.

**GRAPH 1: Producer (PSE) and Total Support Estimate (TSE). Billion USD**



EMDC: Emerging Markets and Developing Countries / DC: Developed Countries  
 Source: Generated by the authors based on data from OECD (2016). As the 2015 data for Russia is not available, it was assumed to be similar to 2014.

<sup>19</sup> It includes estimates for the value of transfers provided by market access measures, such as tariff and tariff quotas, input subsidies, direct payments coupled and decoupled to prices or production.

This is due to the remarkable increase in the amount of subsidies given to agricultural producers in China since 2008, via price support, government procurement and direct payments. With total support estimated at about USD 340 billion in 2015, agricultural support in the Asian giant is vastly higher than that granted by the USA and the EU: more than four times what the USA gives and three times the EU. China's support explains the 80% of emerging markets and developing countries (EMDC in the graph) subsidies.

At this stage, it is important to point out that there is no PSE data for India, one of the biggest subsidizers among emerging countries. So, it is possible that if such data existed, the percentage of EMDC would increase even more.

In the following table (Table 1) the previously mentioned tendencies can be observed. China turns out to be the main subsidizing country, with 48% of the total subsidies given by the countries analyzed, with a growth of 866% in the last 10 years.

On the other hand, Japan, the European Union and the United States, show a reduction of between 6% and 15% in the amounts of support given. Nonetheless, the three of them remain among the main subsidizers. Indonesia follows in China's footsteps, as does Korea, but on a smaller scale.

At the aggregate level, there was an inversion in the share of the subsidies given by Emerging Markets and Developing Countries (EMDC) and Developed Countries (DC) in the past 10 years. It is noted that in the period 2003-05 DCs accounted for about 80% of subsidies, while in recent years EMDCs have taken the lead and reached 62% (mainly explained by China).

**TABLE 1: Main Countries - Producer Support Estimate (PSE)**  
*Million USD*

Country	AVG 2003-05	AVG 2013-15	Share % total	Δ 10 years
China	29.213	29.213	48%	↑ 866%
EU28	124.469	124.469	18%	↓ -15%
Japan	46.472	46.472	7%	↓ -9%
USA	39.320	39.320	6%	↓ -6%
Indonesia	3.037	3.037	5%	↑ 942%
Korea	19.348	19.348	4%	↑ 9%
EMDC-PSE	65.836	360.463	62%	↑ 448%
DC-PSE	246.644	224.619	38%	↓ -9%
Total	312.480	585.082	100%	↑ 87%

Source: Generated by the authors based on data from OECD (2016).

In terms of products, as presented in Table 2, the main subsidized include cereals, meat and sugar. Rice is the product that receives more subsidies; in average value for the years 2013 to 2015 the PSE exceeds USD 63 billion. It is followed by pork and bovine meat, which collect around USD 31 billion each.

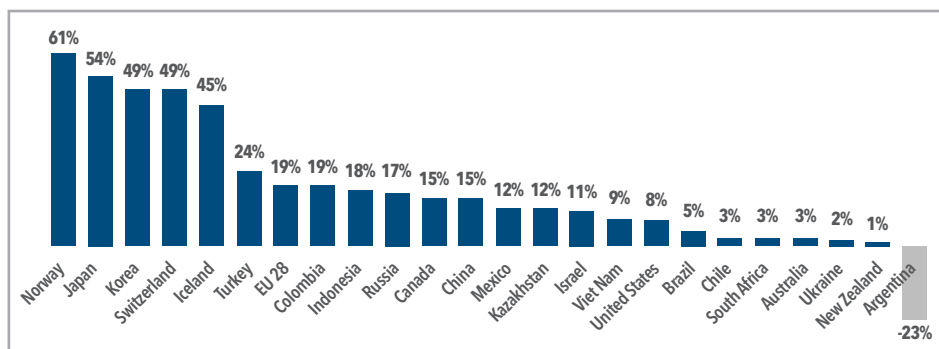
**TABLE 2: Main Products - Producer Support Estimate (PSE) Million USD**

Product	AVG 2013-15
Rice	63.781
Pork meat	31.943
Bovine meat	31.512
Corn	27.526
Milk	23.663
Wheat	18.820
Poultry meat	10.345
Sugar	8.880

Source: Generated by the authors based on data from OECD (2016).

Another interesting indicator is the percentage of PSE that represents the transfers to agricultural producers expressed as a percentage or share of the gross farm revenue. Graph 2 displays that indicator for selected countries.

**GRAPH 2: Producer Support Estimate (% PSE) Three year average (2010-12)**



Source: Generated by the authors based on data from OECD and Agrimonitor-IADB.

It is noticeable that there are some countries like Norway, Japan, Korea and Switzerland, where more than half of their gross farm receipts came from transfers (subsidies) from consumers and taxpayers. In the case of the EU, the percentage of transfers rises to almost 20% and in the USA, to 8%. While in all other countries we observe positive transfers to agricultural producers, in the case of Argentina the figure is negative mainly due to the effect of export taxes. This means that in net terms the Argentine agricultural sector subsidizes other sectors of the economy.



## >> Methodology

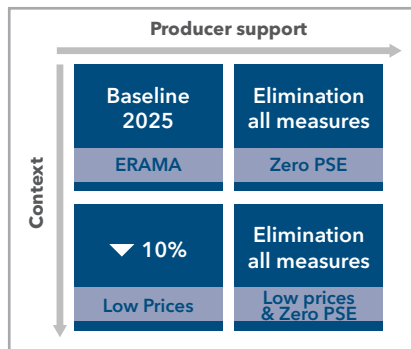
As mentioned previously, we used the PSE indicator as a reference point for our analysis. To understand the methodology used, it is important to know that the PSE can be split into different kinds of support. In order to run the simulations in this article, the PSE categories were modelled considering the following parameters<sup>20</sup>:

- **Market price support:** Modelled as a gap between domestic and external price. However, tariffs were modelled separately, and left out of the simulations, given that they are part of the “*market access*” pillar. Intervention price policies in most countries were also modelled explicitly.
- **Payments based on output:** Modelled as an increase in producer price.
- **Payments based on input:** Modelled as a reduction in production costs.
- **Payments based on income, area or animal numbers:** Modelled as an increase in land revenues, although the payments were excluded in the cases where production is not required.
- **Other payments:** Not modelled.

## >> Scenarios

With the aim of providing more tools to allow the negotiators to reach a consensus and to address the importance of this topic, in this section an impact analysis was done of a full domestic support elimination in the context of two different scenarios (See Chart 1. Simulated Scenarios).

**CHART 1: Simulated Scenarios**



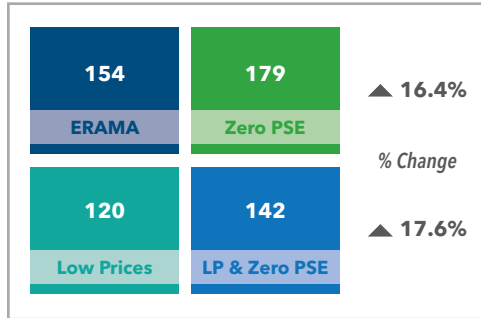
In the first case, the **baseline scenario** reflects INAI Foundation’s **ERAMA 2025** (World and Argentine Agribusiness Reference Scenario), which consists of a long-term outlook for the levels of international trade, production and consumption of the main agricultural goods, constructed by means of the PEATSim-Ar simulation model of the INAI Foundation and experts validation.

<sup>20</sup> The modelling was based on OECD (2009) “*The PSE Manual*”

The second scenario was called **Low Prices** as a result of a simulation of a 10% drop in world food demand. This drop in demand, in turn, affects international prices, so that some subsidy programs that remained latent in the baseline scenario are now activated.

Table 3 below summarizes the results for world trade in both scenarios and for the case when full elimination of subsidies occurs (Zero PSE). As is noticeable, in the baseline (ERAMA) it is expected that world grain and oilseed imports would reach USD 154 billion by the year 2025. Thus, in the case of domestic support elimination the import value rises to USD 179 billion, an increase of 16.4%.

**TABLE 3: World grain and oilseed imports**



Source: PEATSim-Ar model simulation

On the other hand, under the low prices scenario, imports display a drop of 21.8% to USD 120 billion (from the baseline scenario). In this scenario, the elimination of domestic support would allow it to reach USD 142 billion of imports, which represents an increase of 17.6% in trade flows.

Therefore, the **elimination of domestic support is a matter of importance for exporting countries** under a baseline scenario, and even more in a context of low prices when some support programs are activated.

Similar conclusions can be reached if the data for specific products is analyzed. As displayed in Table 4, for Argentina, Brazil, Paraguay and Uruguay (ABPU countries), the elimination of producer support would imply increases in exports for all meats. In fact, the impact on pork would be remarkable. Positive results can also be seen for milk powder, rice, wheat, soy, cotton and even sugar.

It is important to note that the soybean row includes beans as well as oil and meal. Even though the aggregate effect is positive, the simulation causes an increase on bean exports and a decline in oil and meal. This occurs because China is assumed to demand greater amounts of beans, prioritizing local crushing. Thus, this behavior arises from the *ceteris paribus* assumption (“everything else constant”), which is not necessarily realistic given that a total subsidy elimination would probably be accompanied by other policy changes.

**TABLE 4: ABPU net export changes**  
2025 -  $\Delta$  000 tons and %

	Baseline		Low prices	
	$\Delta$	$\Delta$ %	$\Delta$	$\Delta$ %
Beef	67	1,8%	101	3,4%
Poultry	118	1,8%	90	1,5%
Pork	217	24,0%	191	27,8%
Whole dry milk	34	13,4%	54	28,3%
Rice	46	1,4%	521	21,1%
Wheat	670	8,7%	1.483	25,4%
Corn	-3.701	-4,3%	-7.063	-9,2%
Soybean*	3.934	2,5%	3.422	2,3%
Cotton	30	2,2%	19	1,5%
Sugar	2.727	10,8%	2.673	11,1%

Source: PEATSim-Ar model simulation

\* Includes oil and meal

Table 5 exhibits the increases on imports for the main importing countries and products under both scenarios when a full elimination of subsidies is simulated. There it can be seen, for example, how China would significantly increase its imports of wheat or rice. The impact is larger in the low prices scenario than in the ERAMA, given that the role of the intervention price policy is greater when there are lower world prices. The increase in the purchases of soy and sugar is also very important in both scenarios in China, as well as the case of pork in Japan.

**TABLE 5: Net import changes**  
2025 -  $\Delta$  000 ton

		Baseline	Low prices
<b>China</b>	Soybean	40.420	38.091
	Rice	7.459	24.627
	Wheat	2.289	20.478
	Sugar	3.311	3.147
	Cotton	387	190
<b>EU-28</b>	Soybean meal	2.595	2.414
	Sunflower oil	32	67
	Beef	32	42
<b>Indonesia</b>	Rice	7.126	4.841
	Corn	2.020	2.247
	Sugar	364	360
<b>Japan</b>	Pork	1.141	1.128
	Barley	765	737
	Sugar	137	165

Source: PEATSim-Ar model simulation.

## >> The road ahead

At the **Ninth Ministerial Conference in Bali** (2013), Ministers adopted the “*Bali Package*”. A series of decisions on agriculture that included: an agreement to negotiate a Permanent Solution to the Public Stockholding for Food Security Purposes and to refrain from challenging breaches of domestic support commitments resulting from developing countries’ public stockholding programmes for food security, provided certain conditions are met (regarding notification and not causing adverse effects on other Members food security); a call for greater transparency in the administration of tariff quotas; and an expansion of the list of general services eligible for green box assistance (not subject to non-distorting limitations).

During the **Tenth WTO Ministerial Conference held in Nairobi** (2015), the “*Nairobi Package*” involved six Ministerial Decisions on Agriculture, Cotton and Least Developed Countries (LDC) issues. The main result was the decision to eliminate export subsidies for agricultural products and to establish disciplines on export measures having equivalent effect. Developed countries would immediately eliminate export subsidies, except in the case of a few agricultural products, while developing countries have longer terms to do so.

The question is **what to expect** in agricultural issues during the **Eleventh Ministerial Conference**, to be held in Buenos Aires in December. Ambassador Stephen Ndün’Gū Karau, current Chairman of the Committee on Agriculture (CoA), has pointed out in a recent report to the CoA in Special Session<sup>21</sup> that the domestic support pillar remains as one of the priority issues for Members to address in December.

In particular, in order to understand how domestic support may be dealt with during the MC11, there are different proposals that have been submitted to the Committee on Agriculture. On the one hand, the group of **Least Developed Countries** and the **African, Caribbean and Pacific States** presented documents that advocated a substantial reduction in subsidies applied to agricultural trade. On the other hand, the **CAIRNS Group** of agricultural exporting countries distributed a document<sup>22</sup> that develops the group’s objectives for MC11 and beyond, establishing elements of a possible outcome in terms of domestic support and other areas. In addition, some members of this group presented a technical analysis, which describes four different scenarios of restrictions on agricultural subsidies aimed at limiting the different types of support.

One of the most well-known has been the joint proposal<sup>23</sup> submitted by **Brazil and the European Union**, co-sponsored by Colombia, Peru and Uruguay, on measures to support agricultural production and food security. It is a restricted access document but, according to a European press release, its objective is to limit/restrict market distortions generated by domestic support measures (production subsidies) and to ensure equal conditions for farmers, taking into account the particular needs of developing countries. The submission proposes to establish conditions of fair competition among WTO members by limiting agricultural subsidies that distort markets in proportion to the size of the agricultural sector in each country. It also recognizes that Least Developed Countries would be exempt from limits and other developing countries could provide more aid and would have more time to adjust.

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<sup>21</sup> JOB/AG/107 - Report by Amb. Stephen Ndün’Gū Karau to the Committee on Agriculture in Special Session - 25 July 2017.

<sup>22</sup> JOB/AG/91 - The Cairns Group’s objectives for MC11 and beyond - Communication by the Cairns Group - 19 May 2017.

<sup>23</sup> JOB/AG/99 - Proposal on domestic support, public stockholding for food security purposes and cotton from Brazil, European Union, Colombia, Peru and Uruguay - 17 July 2017.

Recently, several countries have circulated new proposals on domestic support. For example, **Japan**<sup>24</sup> presented a document of the relevant elements for discussion in domestic support. Likewise, **China and India**<sup>25</sup> unveiled a proposal to phase out the Aggregate Measurement of Support (AMS) to reduce distortions in global agricultural trade. The **G10**<sup>26</sup> also distributed a document on agricultural negotiations and domestic support in view of the MC11.

In this respect, Amb. Karau highlighted that Members could be divided into two large groups regarding the expectations for the MC11: those in favor of an overall limit (either fixed or floating) and those who support the elimination of the AMS<sup>27</sup> entitlements as a prerequisite for any other reform of domestic support.

With regard to the overall limit, he clarified that there are different views on what it should apply to, both in the short run and at a later stage (whether or not to include subsidies from Blue Box<sup>28</sup> and Article 6.2.<sup>29</sup>), and whether it should be complemented by disciplines for product-specific support (anti-concentration). Other ideas were also suggested, considering per capita support and inflation rates. With reference to AMS, on the other hand, some Members required a substantial reduction while others demanded its complete elimination for developed countries, or making it correspond to the value of production in the case of developing Members.

Concerning **product-specific limits**, opinions ranged from setting general caps to setting per capita constraints, including a reduction of the per product support that exceeds the *de minimis*<sup>30</sup> level allowed.

The ambassador also mentioned the **red lines and/or sensitivities** expressed by Members, mainly related to Article 6.2. of the Agreement on Agriculture and *de minimis* for Developing Members, an overall limit based on the value of production, the Blue Box, and product-specific disciplines.

According to Karau, the views expressed by the delegations show evidence of interest in achieving results in the MC11 regarding public stockholdings for food security purposes, domestic support, cotton and export restrictions, but not for the rest of the issues. In general terms, while some consider that substantial results are still possible, others raise serious doubts.

An additional important issue about domestic support is the **notification status**. For the negotiations it is crucial to have information on what the Members are doing to support their farmers. However, only less than 25% of Members of the WTO can be considered to be up-to-date in their notifications to 2014.

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<sup>24</sup> JOB/AG/104 - Important elements for domestic support discussion - Communication by Japan - 18 July 2017.

<sup>25</sup> JOB/AG/102 - Elimination of AMS to reduce distortions in global agricultural trade - Submission by China and India - 18 July 2017.

<sup>26</sup> JOB/AG/103 - Agricultural negotiations on domestic support in view of MC11 - Communication by the G10 - 18 July 2017.

<sup>27</sup> It includes distortive measures of trade and production, subject to limits (the Current value could not exceed the Consolidated level) and reduction commitments. Total AMS includes total aid per product-specific and non-specific.

<sup>28</sup> It includes trade-distorting measures but are subject to production limitation programs. Currently the only two countries that register use of this type of aid are the EU and Japan.

<sup>29</sup> Corresponds to subsidies granted through Development Programs applied by Developing Countries (may include subsidies to investments, inputs, etc.) and are not subject to reduction commitments.

<sup>30</sup> Level of minimum trade-distorting aid allowed: 5% of the value of agricultural production for developed countries, 10% for developing countries and 8.5% for China.

On **Public Stockholding for Food Security Purposes**, Members presented their well-known positions, with proponents considering that their 2014 proposal should be the basis for the negotiations for the Permanent Solution, and the non-proponents rejecting the proposal as it stands.

Moving on to the other pillars, there has been an increase of interest in the negotiations for **Market Access**, with some Members identifying, including in their latest submissions, specific topics of interest such as the special safeguard on agriculture, tariff escalation, tariff simplification, tariff peaks or tropical products. However, this is an area closely related with NAMA, so is going to be difficult to achieve results only for agriculture.

The chairperson understands that Members expressed a wide range of views on the likelihood of an outcome on this pillar. It seems to be that some of the countries thought incremental steps would be feasible at MC11 (for example on tariff peaks, escalation, simplification and in-quota duties), whereas others considered that a commitment to pursue market access negotiations post-MC11 would be a realistic outcome. Likewise, other Members found it difficult to reach advances in this topic.

In terms of the negotiations on Market Access, while some Members would like to have concrete discussions on specific elements, others considered it would be better to focus on a work programme. Others thought that they should focus on transparency and updated information in order to prepare the groundwork for future work and outcomes.

Another issue is the **Special Safeguard Mechanism (SSM)**. The proponents seek an SSM to address imports surges, price volatility and food security objectives whereas the other side cannot envisage an SSM in the absence of a market access outcome.

With regard to the pillar of **Export Competition**, there has not been a discernible shift in negotiating positions since July, and actually since the Nairobi Ministerial. Members recognized this is not a priority for MC11. However, what really matters now is the **implementation** of the Nairobi Decision. Australia was the first country to comply with the commitment made in the MC10, notifying the WTO of its intention not to use agricultural export subsidies again by eliminating this entitlement from the schedules of commitments.

Amb. Karau, mentioned that a couple of Members suggested that some Sanitary and Phytosanitary (SPS) issues could be part of the deliverables for the next MC meeting, but recognized that they were still considering which body would be the most appropriate forum to discuss their submission.

## >> Final remarks

As is evident, domestic support really matters for exporting countries.

In the framework of the XIMC, it is essential to achieve results in agriculture, in order to give a positive signal to deal with the new context and to strengthen the WTO as a field of policy formation and definition of multilateral rules.

According to the President of the Committee on Agriculture, there are some things that need to be taken into account for the next Conference. First of all, the latest contacts with Member states show the willingness to move forward in domestic support negotiations and target trade-distorting supports, including cotton. In fact, Amb. Karau revealed that the discussions confirmed that reducing trade-distorting domestic support is a priority

for virtually all delegations. Nevertheless, there is still significant difference in how to go about it.

This could be addressed as a whole or by highlighting the most distorting components. One option could be the reduction of consolidated levels (AMS) or maybe of the *de minimis* levels. As we have seen recently, this last one seems to be the path of granting aids that is growing exponentially, particularly in developing countries such as China. Or why not, new rules could be negotiated. However, there is still nothing definite.

In addition, the enforcement of commitments is fundamental. It is important to develop new definitions but it is also essential to comply with existing rules in a scenario of uncertainty. In this regard, it is necessary and appropriate to follow up on the cases in the Dispute Settlement Body (DSB) such as the US case against China for subsidies to agricultural producers.

Likewise, it is important to note the need to have updated notifications of domestic support and other sanitary or technical measures likely to create unjustified barriers to trade. Also, it is necessary to carry out different analyses, measuring the impact of the current proposals in Domestic Support. It is also very important to analyze the other pillars and eventually develop some alternative proposals.

It is worth highlighting the support that has been provided through various international forums to the multilateral trading system and the holding of an upcoming meeting of the successful MC.

For instance, at a meeting of Ministers of the Organization for Economic Co-operation and Development (OECD), special mention was made of the need to strengthen WTO negotiations, dispute settlement and monitoring functions, and the commitment to work together to reach a successful 11th Ministerial Conference. In particular, the need to press for the removal of market distorting aids and to recognize the right to use legitimate WTO-consistent trade defense measures to address such practices was emphasized.

The G20 was not far behind and at the twelfth Group Leaders Summit they committed to working together to make the WTO Ministerial Conference in Buenos Aires a success. They stated that they will cooperate to ensure that trade rules and commitments are effective and enforced, as well as improving negotiation, monitoring and dispute settlement mechanisms.

Finally, at the regional level, the Mercosur Member States, through a Presidential Declaration, committed themselves to working together to ensure that positive and substantive results are achieved at the MC11. Moreover, they reaffirmed the need to promote and strengthen the rule-based, open, transparent, inclusive, non-discriminatory and equitable multilateral trading system that has the WTO as a cornerstone. Presidents called for coordinating efforts to achieve results in the MC11 to ensure the continuity of the process to reform international trade rules in agricultural products, in particular, on the domestic support pillar, and in the elimination of the fisheries subsidies.

Argentinian Ministers, during an informal meeting of a group of Ministers in Oslo in October 2016, said that *"it would be impossible to be in Buenos Aires and not have an outcome on agriculture"* and one could add: Domestic Support would be the best starting point.





## Chapter 4. Public stockholding programs: what options for a permanent solution?

Eugenio Díaz-Bonilla

### >> Introduction

The use of public food stocks for food security purposes is a hotly debated topic in agricultural negotiations within the World Trade Organization (WTO) (see Díaz-Bonilla, 2014, 2017a and 2017b). That debate needs to consider both the legal standing of public food stocks under the WTO framework, but, also, the more substantive issue of whether those instruments make sense in economic terms, particularly whether they are the best option to achieve food security. In this chapter I discuss briefly both aspects, starting with the economic considerations and then moving on to legal issues (a more detailed discussion of both topics can be found in Díaz-Bonilla, 2013, 2014, 2017a and 2017b).

### >> Economic Considerations

#### NATIONAL ASPECTS

A common operational problem for food stocks is that they lack clear objectives or have multiple and sometimes conflicting objectives (NEPAD, 2004; Dorosh, 2009). Those objectives may include coping with emergencies, helping populations suffering from chronic hunger, stabilizing prices for producers at profitable levels, and providing food to urban populations at prices that are stable and affordable. Such a variety of objectives can result in food stocks of an inadequate size (too high or too low), confusing decision-making and management structures that are prone to political interference and short-term horizons, high costs and operational inefficiencies, and inappropriate levels of funding and misallocation of resources. A basic starting point, therefore, is to properly define the problem that the food stocks try to solve, which leads to the consideration of the three categories of public food stocks discussed below (Díaz-Bonilla, 2017a; NEPAD, 2004; World Bank, 2005 and 2012).

Table 1 lists different objectives for the use of public food security stocks (PFSS) linked to food security concerns (in terms of the usual components of availability, access, utilization, and stability), plus a more general objective of macroeconomic stability in the left column, and a summary of potential policy instruments in the right column.

The question a policy maker must ask is: given the desired objective (or objectives), is PFSS the best policy instrument or are there other potentially better interventions?

The first objective is related to food availability in emergencies. Emergency food stocks try to cope with natural disasters and other disruptions in the domestic or international food supply. These stocks are usually small and are supposed to bridge the supply gap until the arrival of commercial supplies or food aid. Hazell (1993) suggests that relatively small percentages of total consumption (which he estimates at 5 percent of total consumption in the case of SSA countries) may suffice to act as an insurance mechanism. Other estimates are higher: for instance, NEPAD (2004) calculates that such stocks should be able to cover two to three months of consumption, which amounts to 17–25 percent of total consumption.

**TABLE 1: National Economic Objectives and Possible Instruments**

Objectives	Instruments: are public food security stocks (PFSS) the only (or best) ones?
1. Food Security: Availability in emergencies	1. Emergency food stocks, but also private stocks, food aid, trade, financial facilities...
2. Food Security: Access through the operation of national safety nets	2. Public stocks to supply food distribution programs, but also food stamps, cash transfers...
3. Food Security: Stability. Price stabilization (different meanings). Food policy dilemma: high/low prices	3. Buffer stocks (different types), but also private stocks, trade, macroeconomic policies. Incomes and poverty?
4. Food Security: Utilization. Nutritional aspects	4. PFSS appear "cereal focused." Bad for dietary diversity and adequate nutrition?
5. Macroeconomic stabilization	5. Unusual that 1 or 2 food prices affect macroeconomy (Indonesia, an exception?); other factors more relevant, e.g exchange rate. Reverse causality: fiscal/macro crises

Source: Author

However, PFSS are not the only possible instruments, because availability can be ensured by private food stocks, food aid, trade, and financial facilities.

The next objective (food access) can be addressed by a second type of PFSS that may be called food redistribution stocks: they serve as a rotating stock that backs up the distribution of food through a variety of programs. For instance, they can include targeted safety nets to help the poor and vulnerable, school lunch programs, supplementary feeding programs for women and children, food-for-work (FFW) schemes, semi-targeted public distribution systems (such as fair price shops and ration shops) or even non-targeted public systems (although this option has been generally discontinued because of its high cost). Food redistribution stocks may also be used like the previous type of food stocks to cover emergencies, such as natural disasters, that disrupt food supply.

Food redistribution stocks are typically bigger than emergency stocks (mentioned in the first objective), depending on the coverage and scope of the food distribution system of which they are a component. For instance, India's Targeted Public Distribution System (TPDS) is the largest food system of this type in the world (Dorosh, 2008). Even before India's National Food Security Act of 2011 was expanded and revised in 2013, the TPDS had reached some 600 million food-vulnerable or undernourished people. With the new Law, the coverage has been increased further to about 800 million people. Such a large system obviously requires large inventories; to achieve these inventories, the government has purchased annually up to one-third of the wheat and rice produced in the country in recent years (Hoda and Gulati, 2013).

Again, there may be other instruments such as food stamps, cash transfers, and so on, that can achieve the desired objective of facilitating food access without resorting to PFSS. For poor consumers, it may be more efficient to use cash transfers or food vouchers and to let the private sector manage the physical handling of food product (see Hoddinott et al., 2013). Some nongovernmental organizations have argued that managing cash transfers or food vouchers is far more cumbersome than the physical distribution of the food items, but this argument appears largely incorrect. If the government has a system to identify poor households and to distribute the physical product, it can do the same with food vouchers.

The administrative costs and the possibility for corruption and misallocation may be similar in both schemes; with food vouchers, however, the government avoids losses stemming from handling the grain through bureaucratic structures. Of course, those public losses need to be compared with the ones affecting potentially ineffective and underdeveloped private sector channels supplying the food bought with vouchers. The other challenge stems from the possibility of abuse of market position by private sector operators, which must be compared with the possibility of corruption and abuse by the public staff operating governmental schemes. And finally, there is still the issue of how to ensure the physical delivery of food products to isolated areas, which cannot be guaranteed by simply handing out vouchers. The expansion of a private sector delivery network is something that evolves along with general economic development and supportive government policies. In this context, the question of whether the government or the private sector is better equipped to handle physical distribution becomes an empirical issue.

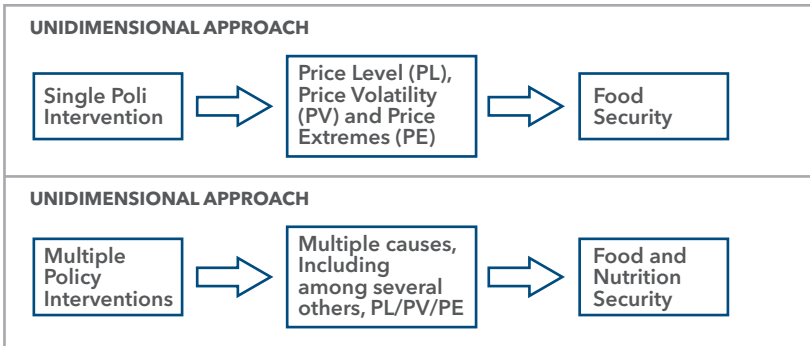
The third objective is related to price stabilization, which has different meanings. Stabilization stocks (a third type of PFSS) differ in their definition of price targets (i.e., single price, symmetric price bands of different widths, and extreme values). If the real objective of the food stock program is price stabilization (as opposed to subsidizing producers with above-market prices or taxing them with below-market prices), then the target levels for single prices or for price bands should be updated to track mean trend values over the period of stabilization, such as a three-to-five year rolling average (Timmer, 1989). However, historical examples show that these stabilization stocks tend to drift into subsidized price support to producers, to the detriment of consumers and taxpayers, or into taxing producers with low prices to help consumers.

Analyses of the welfare effects of price stabilization have generally found small positive effects for consumers (Gouel, 2013), as well as some small efficiency gains for producers (World Bank, 2005), but usually with significant fiscal costs, which may lead to macroeconomic instability. Furthermore, as in the case of the previous objectives, PFSS are not the only instruments; other approaches, such as private stocks, and trade and macroeconomic policies, are very important for price stabilization.

In addition, it must be noted that prices are not the only variable impacting food security, nor are they even always the main one. At the same time, many different policy instruments, not just public food stocks, affect the level and volatility of prices. Therefore, a unidimensional approach that only considers the link from food stocks to price stability to food security would be highly constraining (Chart 1). In fact, it is important to consider all dimensions of income generation and of poverty drivers, and not only food prices (Díaz-Bonilla, 2015).

The fourth objective is related to utilization and the associated nutritional aspects. The world now suffers from a “triple burden” of malnutrition (Pinstrup-Andersen, 2007): under-nutrition, the traditional focus on insufficiencies in calories and proteins (hunger); macro and micronutrient deficiency (sometimes called “hidden hunger”); and over-nutrition, particularly the overconsumption of fat, sugar, and salt, leading to problems of obesity, diabetes, and cardiovascular disease. The triple burden of malnutrition should be considered when analyzing food security stocks. For instance, a food security program centered on a limited number of products selected mainly because of their calorie content will not address the fact that a lack of dietary diversity appears more correlated with the prevalence of child stunting and wasting and with underweight mothers than simply the average of consumption calories (Arimond and Ruel, 2006).

## CHART 1: Unidimensional versus multidimensional policy approaches



Díaz-Bonilla, 2015

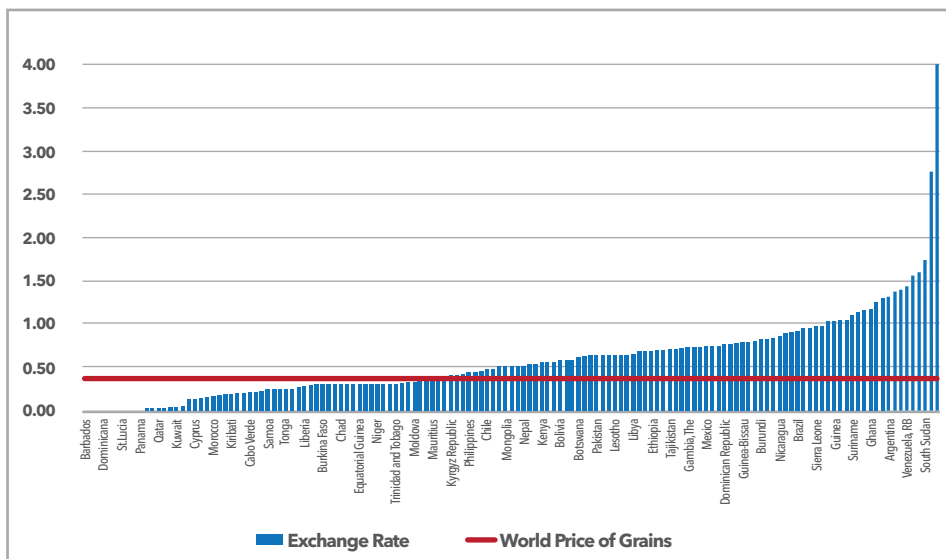
More generally, changes in consumption patterns linked to increasing incomes in developing countries, which have led to the expanded use of products other than the usual staple crops considered in food security stocks, bring the limited focus of these programs into question (see, for example, Hoda and Gulati [2013], who criticize India's National Food Security Act of 2013 for being "cereal centered"). In summary, the usual PFSS that operate with two or three "food security products" because of their calorie content, would be bad for dietary diversity and for adequate nutrition.

The fifth objective goes beyond the four components of food security and takes a macroeconomic view. For instance, Indonesia in the 1980s and perhaps 1990s has been considered a positive example of price stabilization that led to greater macroeconomic stability as well (Timmer, 1989 and 2013). However, the example of this country is based on a product that is storable (rice) and that in the 1980s represented around 56 percent of the calories and 53 percent of the proteins consumed; more recently, in the early 2010s, that product still represents, respectively, close to 48 percent of the calories and 40 percent of the proteins consumed in Indonesia on average (according to the food balance sheets shown in FAO/FAOSTAT, 2014). On the other hand, many developing countries in Africa, Asia and Latin America and the Caribbean have a more diversified structure and/or depend on products (such as cassava and yams) that are difficult and/or costly to store, making the example of Indonesia less applicable.

Therefore, except for the decreasing number of countries in which a significant proportion of calories and nutrients depends on only one or two products, episodes of food price inflation and upward price spikes, are associated with a larger basket of goods, and building a PFSS that includes all of them would be very costly and difficult to operate. More to the point, when food price inflation or spikes occur, they are generally related to macroeconomic imbalances, such as fiscal deficits (to which badly managed PFSS may contribute). Thus, food security stocks may not have the product breadth to address broad price inflation, and may in fact contribute to creating macroeconomic imbalances through high fiscal costs.

For instance, Chart 2 shows that volatility in the exchange rates in a large number of developing countries is far more than volatility in the prices of cereals in world markets, showing the importance of macroeconomic causes, which cannot be addressed by PFSS, and may actually be worsened by badly managed schemes.

**CHART 2: Volatility (1980-2016): Exchange Rates and World Price of Grains**



Source: Author, based on data from the World Development Indicators of the World Bank, and from the commodity price database of the IMF

In summary, emergency and redistributive food stocks can play an important role in food security arrangements. However, carrying stocks as an insurance mechanism or as a component of safety nets is different from using stocks to stabilize domestic grain prices, which, as noted, usually requires larger stocks and which may be expensive and have a history of failures. Although it has been argued that some stabilization schemes seem to have worked better in Asia, the same cannot be said about many of the stabilizing schemes used in African countries (see Galtier and Vindel, 2013; NEPAD, 2004). This last observation coincides with the findings in Minot (2011 and 2012) about the destabilizing effects of domestic policies in several SSA countries. Developing countries in LAC, which tend to have relatively diversified diets and more developed private systems for food processing and distribution, have in general moved away from public food stocks and have linked their domestic food programs to general safety nets, mostly using cash transfers.

As discussed later, neither emergency stocks nor food redistribution stocks should conflict with WTO disciplines if the products are purchased at market prices (I returned to this aspect below). Some countries and observers have argued that buying at market prices would be ineffective to help with food security. This seems mistaken. Certainly, to build food security stocks for emergencies and to provide domestic food aid for poor consumers, governments in developing countries would be far better off financially if they bought at market prices (especially in a context of high food prices). For poor countries, it does not make sense to add to the costs of the food security program by using above-market administered prices, which generate further losses through buying high to support farmers and selling low to subsidize consumers. On the other hand, conducting the operations at market price, will ensure that the program is part of the domestic support allowed under the Agreement on Agriculture.

If the objective is to help poor producers, there are better instruments than buying some products above the prevailing market price, which would ensure that the subsidy goes to larger producers that have more product to sell. Rather, it is far better to use safety nets for poverty reasons, considering that providing income support to poor producers goes directly to the heart of the matter<sup>31</sup>. If a country wants to help its poor and vulnerable populations, then targeting crops or livestock production is an indirect, and many times inefficient and inequitable, way to achieve poverty reduction and food security. When food security concerns are invoked, the focus of the policy analysis should be on people rather than on crops or food products.

Still, it is important to note that even when purchases are made at market prices, the program would nonetheless offer some support to farmers (Islam and Thomas, 1996). This impact is reinforced if the food stocks are utilized annually and rotated as part of social safety nets or other public systems of food distribution targeting the poor and needy. This type of redistributive program expands “effective demand” (that is, demand backed by purchasing power, in this case intermediated by government purchases) and leads to higher prices for producers than would have been the case otherwise. Although this cost would be borne by those consumers who do not receive food aid and by the taxpayers, it would allow poor people to attain higher levels of food consumption.

It should be further noted that even without the government having to physically purchase food and distribute food aid, an income-redistribution program with discounted food vouchers for poor consumers would also lead to higher demand and therefore higher prices for farmers when compared with the counterfactual of no program<sup>32</sup>. Of course, this assertion depends on the existence of a private sector that can adequately cover the national territory, that operates reasonably efficiently (that is, there are no large losses in the physical handling of the products), and that behaves competitively along the procurement and marketing chain. In this situation, the comparison is between the quality and efficiency of the coverage, efficiency, and competitive behavior of the private sector, on one hand, and the performance of the public bureaucracy distributing food, on the other.

## INTERNATIONAL ASPECTS

Chart 3 shows the case of a country that the market conditions for a product without government interventions are such that the domestic price ( $P_1$ ) is within the import parity price (IPP) and the export parity price (EPP)<sup>33</sup>. If so, the country will not export nor import that product, and it will consume  $Q_1$  of the product.

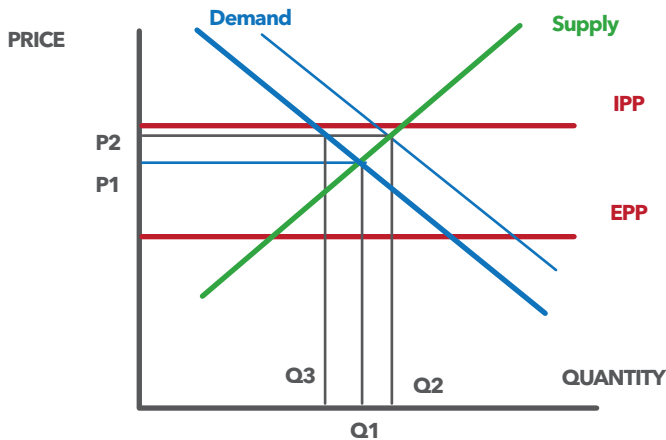
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<sup>31</sup> This is another application of the Bhagwati rule (see Diaz-Bonilla 2015), regarding the need to target policies as closely as possible to the source of the problem in order to prevent second-round problems that may occur if the policy focuses only on a proxy.

<sup>32</sup> In the case of the United States, the political economy of the series of Farm Bills has always featured the alliance of farmers and social advocates who support food vouchers and similar redistributive programs. That alliance was maintained in the 2014 Farm Bill (Orden 2014).

<sup>33</sup> The calculation of IPPs and EPPs may include import and export border measures and instruments allowed to the country under its agreements within the WTO. Those measures would be market access issues that are considered separately from the domestic support interventions discussed here.

**CHART 3**



Source: Author

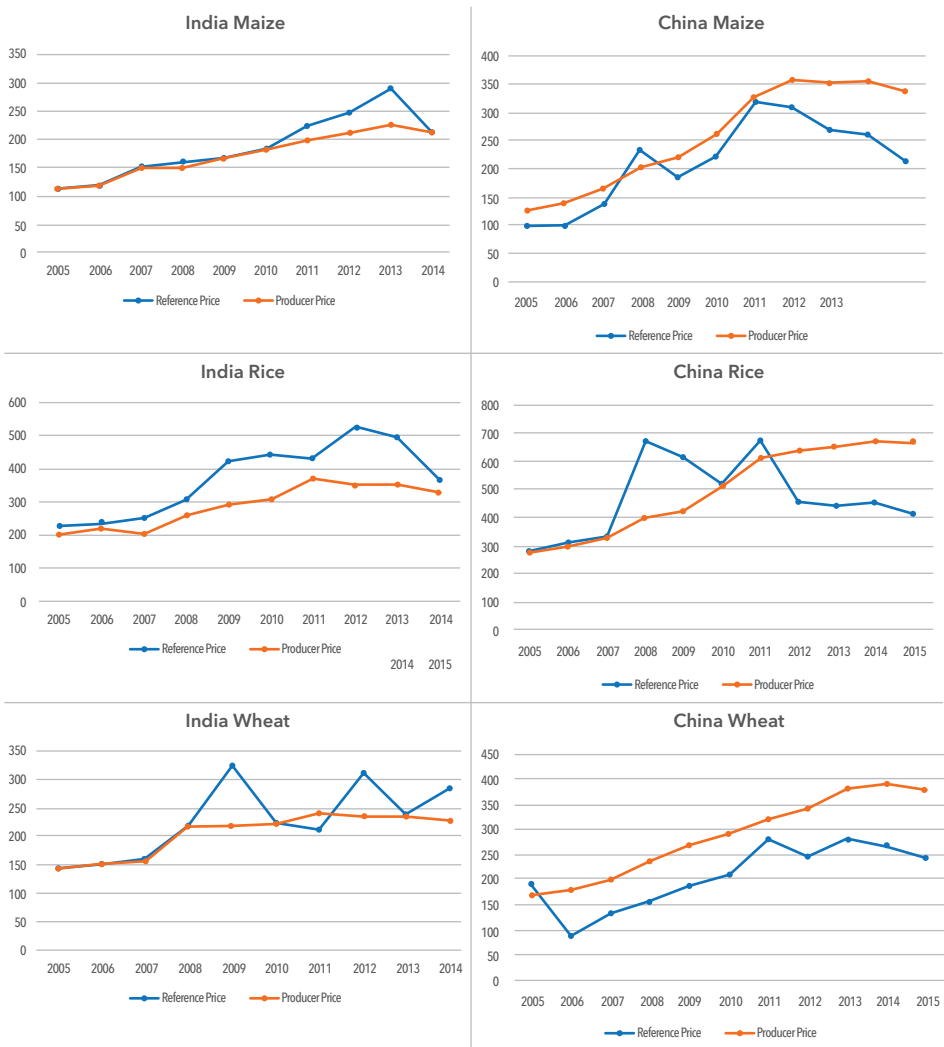
Now assume that the country buys domestically a “food security product” to build the PFSS for any of the reasons mentioned before. Now the domestic demand shifts to the right, increasing the domestic price ( $P_2$ ), increasing supply to  $Q_2$  and reducing demand to  $Q_3$ . I am assuming that the government accumulates the difference ( $Q_2 - Q_3$ ) in the PFSS, but that the domestic price does not go above the IPP. Then, the international repercussions depend on what does the government do with the quantity accumulated in the PFSS. In some scenarios, the PFSS even if increasing the domestic price would not affect international markets of that product. For instance, the accumulated product may be distributed to the poor who would not have been able to purchase it otherwise. Also, the stocks may get spoiled in the public silos (which would a very inefficient way of generating an internal transfer from consumers to producers).

On the other hand, if the country decides to export the accumulated product, it would need export subsidies to do so, negatively affecting other countries. Also, the public acquisition price may go above the IPP, which would require the country to use other trade measures to limit imports, affecting exporters. Finally, the accumulation of stocks per se may affect markets (but the impact may be minor if the volumes involved are also small).

Of course, besides these partial equilibrium effects, there will be general equilibrium ramifications, resulting from the complex interaction of changes in income and relative prices for a variety of goods. A relatively obvious effect would be that, because the product bought by the PFSS is now more expensive in the domestic market, then imports of substitute goods may increase. Other general equilibrium effects may be far more complex.

Chart 4 shows the examples of India and China in relation to the domestic and border prices of three products: wheat, rice, and maize.

**CHART 4: Reference and Producer Prices (database Ag-incentives.org)**



Source: Calculations from the Author based on the database Ag-Incentives.org

India seems to have been operating mainly below the IPP for those products, but accumulated large reserves and ended up exporting part of the wheat and rice stocks. China, on the other hand, has set prices above the IPP, and then had to use additional border measures to control imports.



In summary, it seems important to understand whether a country is operating within the IPP-EPP band and what the government may do with the quantity bought. This should be kept in mind when discussing the legal options under the WTO in the next section. If a country is within the band, and the quantity accumulated goes to help the poor (which otherwise would not have been able to buy it), or the effect is a simple redistribution of costs and benefits within the domestic economy without international repercussion, then the operation of the PFSS should not, in principle, be an issue for trade negotiations. On the other hand, if the operation of the PFSS leads to subsidized exports or border measures to control imports, then those impacts are relevant for the WTO negotiations.

## >> Legal Issues

### BACKGROUND

The debate about PFSS before and during the Bali Ministerial (2013) revolved around two sections of Annex 2 of the AoA (Green Box): food security stocks (AoA, Annex 2, paragraph 3) and domestic food subsidies (AoA, Annex 2, paragraph 4). Prior to that Ministerial, a group of developing countries (known at the WTO as the G-33) presented a proposal based on the 2008 Modalities that included new language for paragraph 3 (Public Stockholding for Food Security Purposes) and paragraph 4 (Domestic Food Aid). The details of the legal debate and possible solutions are in Díaz-Bonilla, 2014, 2017b, and Glauber, 2016.

The main legal points to consider are:

First, the Agreement on Agriculture allows the creation of public food stocks for food security reasons under Annex 2, if they are built by buying at market prices and follow some other conditions (see Díaz-Bonilla 2017b). They can also be built by buying at “*administered prices*” (i.e. government prices presumably not in line with market prices), but in that case the difference between that administered price (AP) and the fixed external reference price (FERP) (which for countries that were part of the creation of the WTO in 1994 is the average 1986-1988), has to be multiplied by the quantity eligible to receive that support and that value counted as distorting domestic support and compared to the allowed amount of such support (which for many developing countries is only the 10% *de minimis*).

It is important to note three crucial concepts – the fixed external reference price (FERP), the applied administered price (AP), and the eligible production – because they feature prominently in the legal discussions.

Second, some developing countries, particularly India, believed that if they had to account for the gap between administered prices and fixed external reference prices, they would bump against, and probably exceed, the domestic support allowable under the WTO in some key products (which for most of those countries is the product-specific limit of 10% *de minimis* of total production)<sup>34</sup>. Further, they argued that, given the increases in international prices during the last years, it did not make sense to compare buying prices to the external reference prices that, for most WTO members, were defined under the AoA as those prevailing in 1986-1988. In fact, if purchases were made at administered prices that closely tracked current world prices (and therefore would not be distortionary in an economic sense), the AoA comparison with the 1986-1988 values would still show (largely imaginary) margins of market price support.

Based on these concerns, the language proposed by the G-33 exempted the difference between administered prices and the FERPs from the obligation of being included in the AMS when developing country governments have purchased products for food security stocks (paragraph 3) and domestic aid (paragraph 4) from a specific type of producer—that is, those that are “*low income or resource poor*” (LIRP; this category is already considered by the AoA for some special treatment in Article 6.2).

This approach generated two basic objections. First, it appeared to go against the conditions established for the Green Box (Annex 2, paragraph 1), particularly the second basic criteria (point b), which indicates that “*the support in question shall not have the effect of providing price support*” (Annex 2, paragraph 1). The G-33 proposal clearly led to the provision of price support, at least to a certain type of producer; therefore, there was the fear that once a loophole was created in the Green Box general criteria and conditions, anything could happen with the rest of the programs listed there. Furthermore, other developing countries were concerned about the leeway already granted under the current Annex 2 to provide income support that is, in theory (but not clearly in fact), decoupled from prices. According to this objection, offering price support to LIRP producers would significantly undermine the possibility of disciplining those other Green Box measures which are currently used mostly by industrialized countries<sup>35</sup> and which may create more than minimal trade distortions.

Third, some countries worried that the stocks allegedly accumulated for food security reasons would end up being sold abroad, affecting their own domestic or export markets. WTO members that provide price support to LIRP producers could potentially accumulate products in excess of domestic consumption and then decide to sell those surpluses in external markets to help finance the program’s fiscal cost. In fact, during 2011-2012 and 2012-2013, about 20 percent of Indian wheat exports were drawn from public stocks (Dorosh and Rashid, 2012).

Those debates led to an interim solution (the “*peace clause*”) at Bali (Bali Ministerial Decision (WT/MIN(13)/W/10), which was clarified and changed by the Decision at the General Council of November 2014 (WT/L/939), and ratified by the Ministerial Decision at Nairobi in 2015 (WT/MIN(15)/44 – WT/L/979). The peace clause is the current status quo. It protects developing countries that were operating PFSS, even if buying through administered prices, from challenges in the dispute settlement mechanism of the WTO under the AoA (although they may be challenged under the Agreement on Subsidies and Countervailing Measures). WTO developing members that want to be protected by the peace clause face more stringent notification and transparency requirements regarding domestic support, forcing those that are extremely behind schedule in their notifications to become current in their obligations under the AoA. This requirement will facilitate closer scrutiny and monitoring of the different programs of domestic support in the countries using this interim solution (for more details about the peace clause, see Díaz-Bonilla, 2014 and 2017b). The decisions mentioned before also committed countries to find a permanent solution, which is the topic briefly discussed immediately.

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<sup>34</sup> This limit does not affect other options, such as the rest of the Green Box measures, Blue Box measures of support, and, for developing countries only, those considered in Article 6.2.

<sup>35</sup> Some developing countries, such as China, have been fast increasing the use of that type of support.

## POSSIBLE PERMANENT SOLUTIONS

Several possible permanent solutions have been discussed (for a full review see Díaz-Bonilla 2014 and 2017b; Glauber 2016).

The first point to be noticed is that developing countries can provide domestic food aid to consumers out of PFSS (Annex 2, paragraph 4). The question is procurement prices from producers. The best way of avoiding WTO problems is to buy at market prices; this approach is compliant with Annex 2, paragraph 3 of the AoA. The United States, Brazil, and other countries do buy food for their domestic food security programs at market prices. It also makes sense in terms of fiscal account: buying at market prices will not further increase the program's procurement costs (though other operational costs and the sales subsidy still remain). In addition, as in Brazil, some percentage of the food purchased must come from small farmers as defined in national legislation (Krivonos, 2013), which is one of the aspects highlighted by the G-33's original proposal.

Other options include (see Díaz-Bonilla, 2017b):

- i.** Provide indicative prices, use allowable trade measures to guide prices, but still buy at market prices.
- ii.** Provide indicative prices, buy at market prices, and offer income support to producers using Annex 4 of the AoA (Equivalent Measure of Support, EMS), when market price support exists *"but for which calculation of this component of the AMS is not practicable."* However, it may be difficult to show why that calculation *"is not practicable."* Define *"eligible production"* in a way that focuses more closely on quantities actually bought following the Korean Beef case (WTO, 2000a). But the actual trade impact of such approach has to be analyzed. There is also the related suggestion of excluding self-consumption from the eligible quantity.
- iii.** Define the FERP in US dollars or even in Special Drawing Rights. This approach hinges on the discussion about what does it mean that the price is *"fixed"* and whether the calculations have been done *"in accordance"* with Annex 3 and *"taking into account"* constituent data and methodology in original schedule.
- iv.** Change the 1986-1988 FERPs to more current prices. However, changing the FERPs would open an entirely new set of difficult issues (such as the valuation of the commitments by countries with declared domestic support in the base year).
- v.** Consider adjustment by inflation, perhaps applying art. 18.4 of the AoA. But that article refers to what the Committee on Agriculture can take into consideration, not what countries can do to adjust their calculations. However, the fact that there are some examples of the Aggregate Measure of Support in constant domestic prices, may lead to more debate about this option.
- vi.** Exempt those operations that are smaller than some percentage (to be defined) of domestic production, or of global trade in that commodity.
- vii.** Exempt LDCs. But if food security is the problem, there are non-LDC countries whose profiles are similar to those of other food insecure countries (see for instance, Díaz-Bonilla and Thomas, 2016).
- viii.** Clarify the link between *"administered prices"* and *"market prices"* (Díaz-Bonilla, 2013, 2017b) and keep administered prices within the IPP-EPP band. Countries may be rebuttably presumed in compliance of not providing price support if, both administered prices track domestic market prices or, at least are below import parity prices and there are no exports from the PFSS. If exports take place from PFSS (directly or indirectly) (other than those that may be mandated by a global emergency as determined by the appropriate UN agencies), then the PFSS would not be considered a *"food security"* stock, and the domestic support will have to

be calculated according to current rules (possibly leading to challenges under the AoA if it exceeds the allowed limits).

- x. Transform the interim solution into a permanent one under the AoA, and extend it to all developing countries. Keep all the information requirements of the current “*peace clause*.” But, conceivably, if the PFSS offers domestic support in excess of the country’s allowed limits, the practice may be challenged under the Agreement on Subsidies and Countervailing Measures (ASCM) (Glauber, 2016).

Carefully defining “*eligible production*” (perhaps by capping the percentage of production to be bought, by restricting purchases to come only from a certain type of producer, such as LIRP ones, or by other similar approaches) and allowing the FERP to be defined in US dollars (or a basket of currencies, such as the SDRs) may go a long way toward preventing developing countries from exceeding the *de minimis*. This is a combination of (iii) and (iv). It would allow distorting domestic support, but within the limits currently allowed by the WTO.

The proposal more adequate to avoid trade distortions and or to discipline them through de the WTO dispute settlement mechanism are (ix) (Díaz-Bonilla 2013 and 2017a) and (x) (Glauber, 2016). The first one would force PFSS to operate within their IPP-EPP band. The second one, would have some similar economic effects, to the extent that operating outside the IPP-EPP band could lead to challenges under the ASCM (in Díaz-Bonilla 2013, and 2017b, the country could also be challenged under the AoA).

## >> Conclusion

Even if a permanent solution is found under the WTO legal framework, that would not necessarily be the main issue regarding whether the use of public food stocks is an appropriate approach to solve food security concerns in developing countries. Economic and operational considerations (as discussed in the first section of this paper, and in greater detail in Díaz-Bonilla, 2017a), are more relevant for food security in poor countries than legal issues.

Overall, in developing countries, the most important constraints to designing and implementing adequate trade and non-trade policies to ensure food security continue to be the limitations of those countries’ financial, human resources and institutional capabilities. It must also be remembered that general trade policies are not necessarily the main factor affecting food security and that, in any case, trade policies are blunt instruments with which to address the challenges of poverty and hunger. Therefore, special and differential treatment defined at the national and crop level may not focus on the main problem; rather, it is important to have well-targeted safety nets for the poor, both consumers and producers.

Turning specifically to food security stocks, several economic and operational issues do merit analysis. In line with other analyses, this paper distinguished food stocks for emergencies (type 1) and redistribution (type 2) from stocks for price stabilization (type 3). Based on a country’s conditions, emergency and food redistribution stocks (types 1 and 2) may help to achieve food security objectives. Governments of landlocked countries, which have a consumption pattern concentrated on a limited number of food products that are less perishable and which suffer from difficult access to international markets, may find it necessary to maintain food security stocks to help prevent potential breakdowns in supply. If that food is procured domestically, those purchases, well-timed at

harvest, will provide some price support for farmers, even if those purchases follow prevailing market prices.

Depending on the conditions prevalent in the country, a food redistribution stock (type 2) could also be a useful component of a country's social safety nets and targeted food programs. It is important to have such safety nets (conditional cash transfers, nutritional programs for women and children, school lunches, food-for-work programs, and so on) in place so that they can be scaled up if and when sharp upward price spikes, or other events that disrupt food supply, occur. But again, buying at market prices is the best option with which to build these stocks because if a developing country is buying food above market prices to provide farmers with high price support and selling below market prices to help poor and vulnerable populations, it will most likely get into severe fiscal problems long before other WTO members consider the possibility of bringing a trade case against that country. Along with the extension of safety nets for poor consumers, governments should also consider safety nets for poor and vulnerable agricultural producers; these safety nets could provide income support for poverty reasons, and may be scaled up in emergencies such as when harvests fail or in the case of sharp downward price spikes.

This chapter also notes that food stocks for emergency purposes and those that operate as redistributive devices backing up safety nets and other targeted food aid programs, if purchased domestically, expand domestic food demand and support prices for producers, as compared with the cases where no such program exist.

The challenge posed by the triple burden of malnutrition was also discussed. Recent studies show that increases in dietary diversity, not in calorie availability, are more closely related to declines in stunting and wasting in children and underweight in mothers. Thus, food security stocks based on a limited number of staple crops, usually selected only for their calorie content, may not be the best approach for tackling the multiple challenges of malnutrition. Also, food price inflation and price extremes would be better managed by macroeconomic, trade, and investment policies, combined with safety nets that supplement the incomes of the poor.

If public food stocks are built, they must operate with clear objectives and decision-making rules, as well as with strong financial, accounting, and audit safeguards. They should also be adequately sized and properly located (with the necessary transport, storage, and communications infrastructure). Finally, there should be adequate funding arrangements with properly trained staff (NEPAD, 2004; World Bank, 2005 and 2012).

Whatever type of public food stocks is implemented, it will be important to consider additional policies, such as credible early warning and food security information systems about harvest prospects, potential food shortages, and emergency needs. In addition, governments should embed the operation of stocks in an integrated policy framework for food security. This framework should consider a full array of policies that support production, ensure market development, invest in infrastructure (transport, storage, and communications), help farmers and farmer associations create and expand their own stock-holding facilities (including traditional on-farm options) through warehouse receipts and credit, adequately use trade to enhance food security, expand safety nets for the poor and vulnerable, and avoid ad hoc policy interventions (NEPAD, 2004). In addition, the integrated policy framework must also include other components—from overall good governance and macroeconomic stability, to different types of infrastructure and social investments, to programs supporting women's empowerment and community organization and participation.

The debate about the treatment of public food stocks within the WTO legal framework is an important component of the negotiations towards the WTO Ministerial in Buenos Aires in December 2017. This debate will require full consideration of the legal, economic, and diplomatic issues involved, some of which were briefly discussed here.

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## Market access

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### Chapter 5. WTO 11th Ministerial Conference - Buenos Aires: contributions on market access

By Agustín Tejada Rodriguez and Sofia C. Perini

#### >> Introduction

The Market Access pillar is one of the most significant in the WTO Agreement on Agriculture because of its magnitude and the impact of any change on agricultural trade rules. The reform of this pillar has not been possible since the Doha Round partly due to its ties to non-agricultural negotiations. The principle of single undertaking specified in that round of negotiations implies that virtually every item of the negotiation is part of a whole and indivisible package and cannot be agreed separately: *"Nothing is agreed until everything is agreed"*.

This framework may have hindered the achievement of results in this pillar and led to a series of negotiations on market access through regional trade agreements. Different options for further tariff reductions through bilateral or regional agreements vs. multilateral negotiations have long been discussed. Recently, with the stagnation in negotiation of the so-called mega-regional agreements, the chances of making progress at the multilateral level assumed importance once more.

In this context, moving forward with market access appears possible for the 11th Ministerial Conference (MC11). Making progress remains a priority, a requirement even, for agro-exporter countries to grant access by their products to the main importing markets. The negotiation regarding market access is vital because of the possible advantages for the entry of developing country products into world markets, as well as for the threats of rolling back the current access by means of exceptions for sensitive and special products.

At this juncture, it is important to mention that, beyond tariff reductions *per se*, there are certain aspects that assume special importance for the agro-industrial sector, such as the Special Safeguard Mechanism (SSM), tariff escalation and tariff peaks. This article will highlight the main aspects of the proposals that are on the negotiation table, focusing on the possible results for the Ministerial Conference to be held in Buenos Aires next December.

According to Ambassador Stephen Ndün'Gū Karau, current Chairman of the Committee on Agriculture (CoA), *"Members have expressed a wide range of views on the likelihood of an outcome on market access for MC11"*<sup>36</sup>. He explained that some Members are of the view that incremental results would be feasible, others believe in a commitment to pursue market access negotiations post-MC11, while others think that an outcome in this area will not be possible.

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<sup>36</sup> JOB/AG/108 - Report by the CoA-SS Chair, Amb. Stephen Ndün'Gū Karau to the informal meeting of the Trade Negotiations Committee - 27 July 2017.

Furthermore, all Members acknowledge the importance of this pillar and cannot disregard the original mandate of the Agreement on Agriculture in terms of the continuation of the reform process.

## >> Advances in Ministerial Conferences

Since the Uruguay Round, Members have been discussing agricultural trade reform *“recognizing (that) the long-term objective of substantial progressive reductions in support and protection resulting in fundamental reform is an ongoing process”*<sup>37</sup>. This was reinforced by the Doha mandate which aims *“[...]to establish a fair and market-oriented trading system through a programme of fundamental reform encompassing strengthened rules and specific commitments on support and protection in order to correct and prevent restrictions and distortions in world agricultural markets”*<sup>38</sup>.

However, despite achieving some results in market access, the negotiations could not progress to develop the reform programme. After the stagnation of the Doha Round the WTO started a process known as *“early harvest”* that involves seeking a series of results in specific topics in order to advance. Even though there was no substantial progress, early harvest in this pillar comprised results related to the tariff quota administration and the Special Safeguard Mechanism.

In fact, at the **Ninth Ministerial Conference in Bali (2013)**, Ministers adopted the *“Bali Package”*, a series of decisions on agriculture, which included an understanding on Tariff Rate Quota Administration Provisions of Agricultural Products. This Ministerial Decision called for more transparency in tariff (or tariff-rate) and for governments not to create trade barriers by means of the quota distribution mechanism among importers. Besides, *“importing Members shall ensure that unfilled tariff quota access is not attributable to administrative procedures that are more constraining than an “absolute necessity” test would demand”*<sup>39</sup>.

Tariff rate quotas were agreed in the Uruguay Round for the purpose of allowing exporters some access (quota) to other countries’ markets at lower import duties when the normal (out-of-quota) tariffs are high. However, some Members were concerned that the methods governments apply to administer the quotas among traders could become an additional trade barrier. They argued that the direct result of such behavior was under-filled quotas. In this case, the Bali Decision enabled it to continue by making the process transparent.

On the other hand, during the **Tenth WTO Ministerial Conference held in Nairobi (2015)**, the *“Nairobi Package”* involved an agreement to continue negotiations on a **Special Safeguard Mechanism (SSM) for Developing Country Members**<sup>40</sup> that would allow developing countries to temporarily raise tariffs on agricultural products in cases of import surges or price falls.

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<sup>37</sup> The Original Mandate. Article 20 of the Agriculture Agreement.

<sup>38</sup> The Doha Mandate from the Doha Ministerial Declaration, November 2001. Agriculture. Paragraph 13.

<sup>39</sup> Ministerial Conference: Ninth Session, Bali, 3-6 December 2013. WT/MIN(13)/39, WT/L/914 - 11 December 2013

<sup>40</sup> Ministerial Conference Tenth Session Nairobi, 15-18 December 2015 Special Safeguard Mechanism for Developing Country Members. WT/MIN(15)/43 WT/L/978 - 21 December 2015

## >> Special Safeguard Mechanism

Under the Hong Kong Ministerial Decision (December 2005), Members had agreed that *“Developing country Members will also have the right to have recourse to a Special Safeguard Mechanism based on import quantity and price triggers, with precise arrangements to be further defined”*. Yet, since that Decision, twelve years after Hong Kong no decision had been taken on that mechanism.

During the last MC in Nairobi (2015), Ministers adopted a Decision on SSM which underpinned the remarks made in Hong Kong, by indicating the determination to pursue negotiations on an SSM for developing country Members, in dedicated sessions of the Committee on Agriculture in Special Session (CoASS) and under the surveillance of the General Council that shall regularly review the progress made in these negotiations.

In view of the next Ministerial Conference a proposal on a **Special Safeguard Mechanism (SSM) for Developing Country Members is being discussed as part of the agricultural negotiations**. Even though there are other safeguard measures available for developing countries (under Article XIX of GATT, WTO Safeguard Agreement and Article 5 of the Agreement on Agriculture), this new mechanism would be another tool to allow them to raise tariffs temporarily to deal with import surges or price declines.

In order to better understand the differences between existing safeguard measures and what is being discussed in Geneva, following is a short review of the main guidelines of each mechanism.

The original safeguard measures under Article XIX of General Agreement on Tariffs and Trade (GATT) were contingency restrictions on imports applied temporarily to deal with special circumstances such as an import surge. This means that Members can restrict imports of a product temporarily (take emergency action on imports of particular products) if their domestic industry is injured or threatened with injury caused by a surge in imports.

At the time, the WTO Safeguards Agreement was established in order to avoid discretionary measures by governments to protect their domestic industries and to regulate this type of practice. Safeguard measures under this Agreement are applicable to all products and the import restrictions can be quantitative (such as a quota) or an increase in tariffs above the bound rate. The process requires a demonstration of injury and negotiations for compensation. When an importing country applies this measure, the agreement says the exporting country (affected) can seek compensation through consultations or, if no agreement is reached, can even retaliate by taking an equivalent action.

In regard to developing country Members, the Agreement proposes special and differentiated treatment. It stipulates that an importing country can only apply measures to a product from a developing country, if it is supplying more than 3% of the imports of that product, or if with less than 3% import share, it collectively accounts for more than 9% of total imports of the product concerned<sup>41</sup>. It also indicates that a developing country can extend the period of application for a safeguard measure for a period of up to two years beyond the maximum of eight years.

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<sup>41</sup> Paragraph 1. Article 9: Developing Country Members. Agreement on Safeguard: *“Safeguard measures shall not be applied against a product originating in a developing country Member as long as its share of imports of the product concerned in the importing Member does not exceed 3 per cent, provided that developing country Members with less than 3 per cent import share collectively account for not more than 9 per cent of total imports of the product concerned”*.

Additionally, for the agricultural sector there is a special provision in **Article 5 of the Agreement on Agriculture** that delimited the **Special Agricultural Safeguard (SSG)**. In this case, the emergency measures involve only agricultural products and higher safeguard duties can be triggered automatically when import volumes rise above a certain level<sup>42</sup> or if prices fall below a certain level<sup>43</sup>. It is not necessary to demonstrate that serious injury is being caused to the domestic industry in order to apply the safeguard measure.

Another distinction is that the SSG can only be used on products that were tariffed<sup>44</sup> and cannot be used on imports within the tariff quotas. Additionally, the governments who reserved the right to apply the SSG in their Schedules or Lists of commitments on agriculture are the only ones allowed to use them. Actually, only 39 WTO Members<sup>45</sup> have reserved in their Lists the right to have recourse to the SSG for certain products. Thus, the number of products differs between countries. According to a WTO Secretariat background paper<sup>46</sup>, the number of tariff items for which the SSG can be invoked is 6,156 for the 39 countries<sup>47</sup>, though in practice this recourse has been used in only a few cases.

Under Article 5, the provisions of the SSG *“shall remain in force for the duration of the reform process as determined under Article 20”*<sup>48</sup>. Therefore, the right to recourse to the SSG shall apply until Members reach another agreement. In fact, Members had to decide whether the SSG provisions should be eliminated or if they should reduce the number of lines eligible for a certain percentage of its schedule tariff lines, and if that will have immediate effect upon the entry into force of further market access commitments or by a future date and whether for all countries or only developed ones.

In this regard, recently the Russian Federation submitted a paper proposing the elimination of the SSG<sup>49</sup> of Article 5, which would be immediate for developed countries, while developing countries would have a schedule for gradual elimination. Similarly, Argentina, jointly with Paraguay, Uruguay, Australia, Colombia, New Zealand, Pakistan and Vietnam had presented a proposal<sup>50</sup> in November 2016 where they stated that Article 5 shall expire from the date of adoption of the decision (the proposal said an outcome for the MC11), due to the decrease in the use of both price-based and volume-based SSG, in terms of the number of products as well as the number of Members that apply such measures.

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<sup>42</sup> A trigger level which relates to the existing market access opportunity.

<sup>43</sup> A trigger price equal to the average 1986 to 1988 reference price for the product concerned.

<sup>44</sup> Represent less than 20% of all agricultural products in terms of tariff lines, according to Agriculture Negotiations: WTO Backgrounder. [https://www.wto.org/english/tratop\\_e/agric\\_e/negs\\_bkgnd11\\_ssg\\_e.htm](https://www.wto.org/english/tratop_e/agric_e/negs_bkgnd11_ssg_e.htm)

<sup>45</sup> Australia (10), Barbados (37), Botswana (161), Bulgaria (21), Canada (150), Colombia (56), Costa Rica (87), Czech Republic (236), Ecuador (7), El Salvador (84), EU (539), Guatemala (107), Hungary (117), Iceland (462), Indonesia (13), Israel (41), Japan (121), Korea (111), Malaysia (72), Mexico (293), Morocco (374), Namibia (166), New Zealand (4), Nicaragua (21), Norway (581), Panama (6), Philippines (118), Poland (144), Romania (175), Slovak Republic (114), South Africa (166), Swaziland (166), Switzerland-Liechtenstein (961), Chinese Taipei (84), Thailand (52), Tunisia (32), United States (189), Uruguay (2), Venezuela (76).

<sup>46</sup> G/AG/NG/S/9/Rev.1 - February 2002

<sup>47</sup> Table 4 - Potential Application of the Special Agricultural Safeguard by Member and Product Category (number of tariff items)

<sup>48</sup> Paragraph 9. Article 5: Special Safeguard Provisions. Agreement on Agriculture.

<sup>49</sup> JOB/AG/95 - Committee on Agriculture - Special Session - Special agricultural safeguard article 5 of the Agreement on Agriculture - Submission by the Russian Federation - 29/05/2017

<sup>50</sup> JOB/AG/85 - Committee on Agriculture - Special Session - Special agricultural safeguard - Submission by Paraguay, Argentina, Australia, Colombia, New Zealand, Pakistan, Uruguay and Vietnam - 11/11/2016

Returning to the issue on the negotiating table, under the **new safeguard mechanism for developing countries**, Members have to decide which product coverage would be appropriate: all agricultural products or only a limited set of products to ensure food security.

At this point, it is important to remember that before the stagnation of the Doha Round of negotiations, Member countries were discussing key elements of the SSM, such as the activation levels, the requirement of a *cross check*, additional duties, duration of the implementation of higher tariffs, product coverage, etc. In fact, one of the main issues that caused a lack of an understanding during the Doha Round was the possibility of higher tariffs at a level that exceeds bound tariffs pre-Doha (Uruguay Round) that would represent a serious setback for the liberalization process.

There have been disagreements among Member countries about various aspects of the SSM. The proponents seek an SSM to address import surges, price volatility and food security objectives, whereas the other side cannot envisage an SSM in the absence of a market access outcome. In fact, Ambassador Karau, pointed out in a recent report to the CoA in Special Session<sup>51</sup> that the proponents continue to stress the importance of this tool to protect domestic producers from import surges, to fight against poverty and promote rural development and they think that a concrete, incremental outcome focusing on the price-based SSM should be a workable option at MC11.

In connection with the foregoing, the G33<sup>52</sup> submitted proposals covering the technical aspects of the mechanism, related to operational elements such as product coverage, remedies and duration, etc. This group, also known as *"Friends of Special Products"*, is a coalition of developing countries pressing for flexibility for them to undertake limited market opening in agriculture. In each submission they express the need for an SSM to address the negative impact of agricultural volatility and seek to have meaningful engagement of countries in order to reach an agreement on this mechanism.

Yet, some developing countries have raised concerns on the potential negative effect of the SSM on their exports. This mechanism should not be used for protectionist purposes affecting the normal flow of trade or for taking a step backwards from the Uruguay Round. *"The form this mechanism adopts will determine its transformation into a real policy instrument against a threat of injury from increased imports or a serious obstacle detached from trade considerations for exports from agricultural exporting countries to the developing world such as Argentina"*<sup>53</sup>. (Dobles, 2009)

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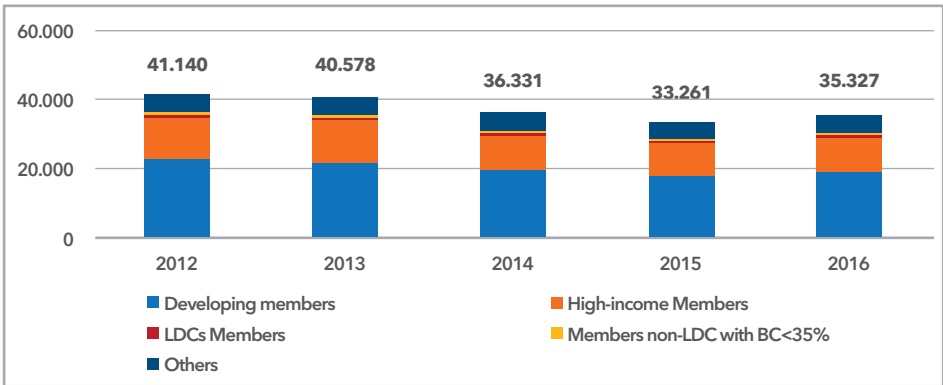
<sup>51</sup> JOB/AG/108 - Report by the CoASS Chair, Amb. Stephen Ndūn'Gū Karau to the informal meeting of the Trade Negotiations Committee - 27 July 2017.

<sup>52</sup> Antigua and Barbuda, Barbados, Belize, Benin, Bolivia, Plurinational State of, Botswana, China, Congo, Côte d'Ivoire, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, India, Indonesia, Jamaica, Kenya, Korea, Republic of, Madagascar, Mauritius, Mongolia, Mozambique, Nicaragua, Nigeria, Pakistan, Panama, Philippines, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Senegal, Sri Lanka, Suriname, Chinese Taipei, Tanzania, Trinidad and Tobago, Turkey, Uganda, Venezuela, Bolivarian Republic of, Zambia, Zimbabwe.

<sup>53</sup> Dobles, I., (2009), *"Efectos del Mecanismo de Salvaguardia Especial en el comercio de Argentina con las demás economías en desarrollo"*, Programa de Inserción Agrícola. Apoyo a los procesos de apertura e integración al comercio internacional ATN/ME-9565-RG BID/FOMIN

Dobles made an analysis to measure the impact of an SSM for Argentina on its trade with other developing countries. This study quantified the number of times that the SSM could have been applied in the past, according to different proposals discussed during 2008, presented by the G33, the Agricultural Committee Chairman, the Director-General of WTO Pascal Lamy, and others. The author pointed out that in the case of Argentina, the mechanism could have a significant impact on its exports to developing countries due to the share of these countries in its total exports of agricultural products. If we observe the trade data for the last few years, this conclusion can be strengthened. As shown in the graph below, developing country Members of WTO represent 54% of total Argentine exports of agricultural products on average for 2012-2016.

**Argentine Exports of Agricultural Products** *in million USD*



Source: World Integrated Trade Solution (WITS-World Bank). Product group: WTO\_H4\_Agagri.

Dobles identified a series of products and markets where the frequency of activation of the SSM would have been high during the period of analysis from 2000-2007. If the recourse to the SSM was applied for a period of 4 years or more, with a minimum of 20% increase in imports for volume-SSM or a decline in price of more than 15% for price-SSM, she defined it as a high level of activation. For both cases of SSM triggers she identified the following affected products: fresh and frozen bovine meat and offal, milk powder, cheese, honey, fresh fruits, cereals, etc. The importer countries included China, Chile, Colombia, Brazil, India, Indonesia and Thailand.

This analysis serves as an example of the consequences of a safeguard mechanism for agro-exporter countries which destined a large portion of their exports to markets with a high frequency of activation of this measure. Those cases could represent a real threat for exporting countries.

**>> Other topics on market access**

In terms of expectations for agricultural issues at the **Eleventh Ministerial Conference**, to be held in Buenos Aires in December, a report to the CoA in Special Session<sup>54</sup> highlights

<sup>54</sup> JOB/AG/107 - Report by Amb. Stephen Ndün'Gü Karau to the Committee on Agriculture in Special Session - 25 July 2017.

the domestic support pillar as one of the remaining priority issues. However, there has been increased interest in the negotiations for Market Access, with some Members identifying and including in their latest submissions, specific topics of interest such as tariff escalation, tariff simplification, tariff peaks or tropical products.

Amb. Karau notes that Members expressed a wide range of views on the likelihood of an outcome on this pillar. Some countries thought incremental steps would be feasible at MC11 (for example on tariff peaks, escalation, simplification, and in-quota duties), whereas others considered that a commitment to pursue market access negotiations post-MC11 would be a realistic outcome, focusing on transparency and updated information in order to prepare the groundwork for future work. Likewise, other Members found it difficult to make progress on this topic.

It is well known that the agricultural sector has the most complex tariff structure that includes ad valorem duties, specific duties, entry prices and mixed or combined duties (specific plus minimum and/or maximum duties). In some cases, like the EU, the customs tariffs of some agricultural products are applied on the basis of their composition (the level of fats and dairy proteins, sugar and starch).

There are some recent proposals on the negotiating table, submitted during 2016 and 2017, regarding the continuation of the reform process, the tariff overhang, a revision of the most frequent problems for agriculture, tariff peaks and escalation. However, the fact that these topics are closely related to non-agricultural market access (NAMA), makes it difficult to think that there would be any real prospect of an outcome in Agriculture at the next MC if there is no trade-off with NAMA.

In relation to the tariff overhang, Paraguay, Argentina, Australia, Colombia, Uruguay and Vietnam had circulated a report<sup>55</sup> that displayed a sample of tariffs applied by some countries to certain products. It revealed the great disparities that exist among Members' schedules (among their own bound and applied tariffs) that lead to discretionary increases by countries, the present large tariff overhangs, the bound tariff peaks that apply more to processed products, and the tariff escalation noticeable mainly in bound tariffs.

Paraguay and Peru had submitted a proposal regarding the continuation of the reform process by making incremental steps. They proposed what they called the first steps in that process, which should include tariff simplification, a reduction of the tariff overhang in cases of tariff peaks, a reduction of bound tariffs in cases of tariff escalation and a cut in bound in-quota tariffs. Special and differentiated treatment for developing countries was taken into account in all cases.

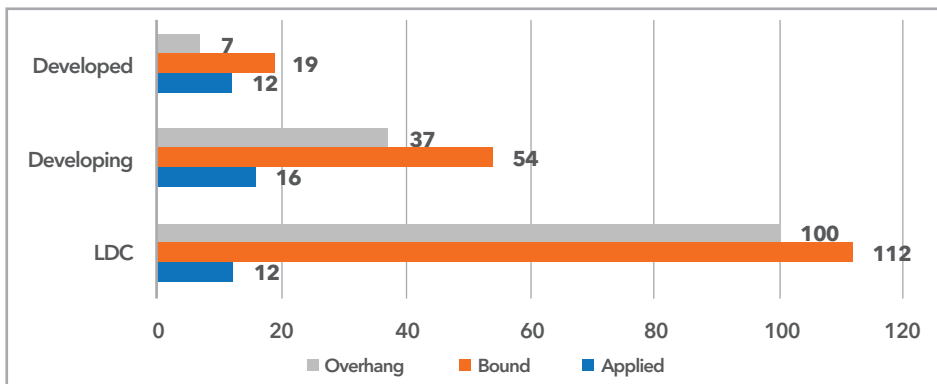
According to an UNCTAD Discussion paper<sup>56</sup>, presented in 2014, that compares MFN bound and applied tariff averages of developed, developing and least developed countries (LDC) on agricultural products, while average applied tariffs are relatively not very different across these three groups of countries at 12%, 16% and 12%, respectively, the gap between their bound average tariffs is quite high with 19%, 54% and 112%. So, the overhang is 7%, 37% and 100%, respectively, as shown in the next graph. This suggests that agricultural sector tariff overhangs in the three groups still matter and they leave the door open for the adoption of discretionary measures by governments.

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<sup>55</sup> JOB/AG/84 - Committee on Agriculture - Special Session - Market Access. Tariff Overhang - Submission by Paraguay, Argentina, Australia, Colombia, Uruguay and Vietnam - 14/11/2016

<sup>56</sup> Comparison of MFN Bound and Applied Tariffs Trade Weighted Averages on Agricultural Products of Developed, Developing and Least Developed Countries (LDCs): Current Status Reference UNCTAD Discussion paper 22 September 2014.

## Agricultural Product Tariffs *In percentages*



Source: Generated by the authors based on data from the UNCTAD Discussion paper which uses UNCTAD TRAINS/WITS latest available data.

Consistent with the position of Paraguay and Peru on reducing tariff overhang and peaks, the above-mentioned paper points out that, on aggregate level, the shares of peaks in agricultural products, for applied tariffs rates, are 30%, 41% and 48% for developed, developing and LDCs, respectively. It notes that tariff peaks exist in all Harmonized System (HS) chapters of the agricultural sector in the three groups although some chapters are more affected than others. This demonstrates the importance of dealing with this issue in a multilateral negotiation because it involves every country and has a negative impact on world agricultural trade.

In developed countries, the most affected products are dairy, milling industry, preparations of vegetables, fruits and nuts, preparations of cereals and flour and meat. In developing countries, the share of peaks is higher than 30% in 16 of the 23 chapters of the agricultural sector with the top five being preparations of vegetables, fruits and nuts, beverages and spirits, preparations of meat or fish, tobacco and fruits. In LDCs the presence of peaks is even more pronounced.

Regarding tariff escalation, there is a CEPAL study<sup>57</sup> that discusses tariff averages of certain products related to selected value chains and applied by nine of the world's leading importers of these goods, namely, the EU, USA, Canada, Mexico, South Korea, Japan, China, India and Egypt. This paper claims that tariff escalation is clearly present in the chains of grapes, pears and apples, pork, tobacco, sheep meat, berries, garlic, rapeseed, soybeans and forestry.

In other chains such as barley, sugar cane, olive, sunflower and cotton the escalation occurs mainly between goods without transformation and those of second transformation. The chains of pork, sheep, garlic, maize, soybeans, rapeseed, sunflower, sugarcane, tobacco, cotton and forestry show the largest number of importers using tariff escalation and in these chains it is found that at least seven of the nine countries surveyed have tariff escalation in the constituent products.

<sup>57</sup> Rebizo, M.M., Tejada Rodríguez, A. (2011). "Balance de inserción internacional de las cadenas agroindustriales argentinas". CEPAL, United Nations, Santiago de Chile.



It is also useful to mention the results of an analysis presented in a Bridges<sup>58</sup> article, related to one of Lamy's last proposals during the Doha Round regarding a cap on agricultural tariffs. This proposal implies that developed countries should cap their "non-sensitive" product tariffs at 100 percent, but could maintain tariffs above this limit for products designated as "sensitive". According to the study, the proposed tariff cap would result in little new market access in the four economies examined (Canada, EU, Japan, USA) because it is highly likely that the majority of products with post-Doha tariffs above 100 percent will be designated as sensitive, and most of those that are not will be covered by the 1-percent exception for non-sensitive tariff lines in major export destinations. The most affected products as per the analysis are meat, dairy, peanut, cereals and tobacco. In terms of the negotiations then, it is important to bear in mind that a formula like the above-mentioned might not guarantee new market access. To be granted effective market access sensitive products should be included in the proposals.

Last but not least, it is important to mention that nowadays market access issues could not be addressed without contemplating non-tariff barriers that are increasing each year. Some Members have expressed their concern about the increasing relevance of these measures to market access. The case of sanitary and phytosanitary measures was brought into the discussions.

Nonetheless, while tariff barriers are decreasing and non-tariff barriers are increasing, the former remain high. The data from studies presented above is useful to understand the situation of tariff barriers in market access, as it proved that different types continue being applied by all groups of countries and for many agricultural products. Therefore, this implies that tariff issues on the negotiating table (peaks, escalation, overhang, etc.) could not be omitted from discussions because it was demonstrated that they still matter.

## >> Final Remarks

Based on the work done to date, statements by different WTO Members and the few months remaining to reach agreements in order to achieve deliverables at the Buenos Aires meeting, the expectations regarding this pillar are low. In spite of this, the uncertainty and change of mood in certain countries could change the whole scenario.

Given the negative effect on their development and exports, developing countries have to push for advances in market access and discussions on the topics that could end up harming their economies. For agro-exporting countries, gaining effective market access is vital to their development and that is why negotiations on this pillar remain a priority on their agendas. Also, this is crucial for importing countries as a means of ensuring sustainable food security and connecting suppliers and buyers in regions with food deficit.

Agricultural reform cannot be addressed without an outcome in market access, at least by incremental steps. As was mentioned, it is difficult to achieve major deliverables during the months remaining until the Ministerial Conference, but incremental steps are a necessary signal for moving forward and these little steps could be achieved in Buenos Aires. MC11 should be an opportunity to make progress, at least to lay the basis for future work.

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<sup>58</sup> Rebizo, M.M. (2008). "How Useful Is the Proposed Cap for Agricultural Tariffs?". BRIDGES, VOLUME 12 - NUMBER 5

The negotiations of the SSM should be led so as to avoid unjustified obstacles to trade. They should not be used for protectionist purposes affecting the normal flow of trade or represent a step backwards from the Uruguay Round. In terms of tariffs, the focus should be on simplifying structures, reducing tariff peaks and overhangs, at least laying the groundwork for real advances in the next Ministerial Conferences.

There is still work to be done and many countries have expressed their support for multilateral negotiations. The G20 in its last meeting underlined the crucial role of the rules-based international trading system and committed to work together with all WTO Members to make the eleventh WTO Ministerial Conference a success. Actually, G20 Leaders have committed: *“to further improve the functioning of the WTO, we will cooperate to ensure the effective and timely enforcement of trade rules and commitments as well as improve its negotiating, monitoring and dispute settlement functions”*.

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# Export Competition

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## Chapter 6. Export Subsidies after Nairobi

By Nelson Illescas

### >> Background: GATT and WTO legal framework

The first provision on export subsidies appeared in the first paragraph of Article XVI of The General Agreement on Tariffs and Trade of 1947 (GATT). The paragraph mainly established an obligation to notify the contracting parties, which provided the possibility to discuss the effect of the subsidization and, in the event of prejudice or threat, evaluate the possibility of limiting said subsidization.

In 1955, Section B of this Article was introduced and this led to the first distinction between subsidies on primary products (including agricultural products) and on products other than primary products. For the latter, the article established a prohibition<sup>59</sup>, as from 1 January 1958 or the earliest practicable date thereafter, of any form of subsidy on the export of any product other than a primary product *“which subsidy results in the sale of such product for export at a price lower than the comparable price charged for a like product to buyers in the domestic market”*.

The situation was different for primary products. In this case, the commercial effects criterion was applied. This implied that the contracting parties *“should seek to avoid”* these kinds of measures. However, if a subsidy was granted, such measure couldn't be applied in a manner which resulted in that contracting party having more *“than an equitable share of world export trade in that product”*.

Such was the situation when the Uruguay Round took place. The Agreement on Agriculture (AoA), which establishes the first set of rules regulating subsidies on the export of agricultural products, was established in these negotiations. Article 1 of this agreement defines these measures as subsidies *“contingent upon export performance”* and in article 9 is listed a series of measures<sup>60</sup> that group most of the practices relating to export subsidies, practices which were frequently applied in the agricultural sector.

Paragraph 3 of Article 3, Article 8 and Article 10 establishes a prohibition on export subsidies in excess of the budgetary outlay and quantity and levels of commitment specified in the Members' Schedules.

In this regard, only twenty-five Members of the WTO are authorized to provide export subsidies, and they will only be able to do so in respect of the products for which they have undertaken reduction commitments.

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<sup>59</sup> Most parties did not apply such a prohibition immediately. Later, during the Tokyo Round, a Subsidies Code -where the prohibition was extended to more contracting parties - was established. However, it was the Agreement on Subsidies and Countervailing Measures of the Uruguay Round of 1995 which finally established the prohibition of subsidies on the export of non-agricultural products, with some special considerations towards developing countries and transitional economies.

<sup>60</sup> We can mention those contingent upon export performance, the sale of non-commercial stocks at a price lower than the comparable price in the domestic market, measures to reduce costs, subsidies financed by producers, subsidies on internal transport and on incorporated products.

## Countries with reduction commitments\*

Australia (5)	Iceland (2)	Romania (13)
Brazil (16)	Israel (6)	South Africa (62)
Bulgaria (44)	Mexico (5)	Switzerland-Liechtenstein (5)
Canada (11)	Norway (11)	Turkey (44)
Cyprus (9)	New Zealand (1)	EU (20)
Colombia (18)	Panama (1)	Uruguay (3)
United States (13)	Poland (17)	Venezuela (72)
Hungary (16)	Czech Republic (16)	
Indonesia (1)	Slovak Republic (17)	

Source: WTO

\* The number of products that each country can subsidize appears between brackets.

Countries which have not undertaken commitments are unable to provide export subsidies on agricultural products. However, the provisions related to the Special and Differential Treatment (SDT), which appear in Article 9, paragraph 4 of AoA, allow developing countries to use two types of export subsidies:

- Subsidies that aim to reduce the costs of marketing exports of agricultural products, including upgrading and other processing costs, and the costs of international transport and freight;
- Internal transport and freight charges on export shipments, on terms more favourable than for domestic shipments.

## >> More negotiations: the Doha Round and the Nairobi conference

Once the WTO was established, it was agreed that negotiations on the reform of the agricultural trading system would continue<sup>61</sup>. Therefore, negotiations would be initiated by the beginning of 2000. By November 2001, the negotiations on agriculture became part of the “single undertaking” of the Doha Round.

In 2004, members of the WTO managed to agree on a group of decisions, which led to the “July package” of 2004. The main section in relation to agriculture provided a framework for what could have been a definitive agreement. Members managed to work out their differences in the Hong Kong Ministerial Conference (December 2005) but negotiations could not be completed. The signed Declaration aimed to ensure the parallel elimination of all forms of export subsidies and disciplines on all export measures with equivalent effect to be completed by the end of 2013.

<sup>61</sup> Article 20 of AoA

In the succeeding years, different draft texts and revisions on agriculture<sup>62</sup> were presented. By the end of 2008, a fourth revision of the project of agreement on agriculture was published, showing the progress made but also the on-going differences. This was the closest step towards an agreement. The project of agreement established that export subsidies had to be eliminated in five years, in order to comply with the term of 2013 fixed in Hong Kong. However, negotiations halted and all efforts were in vain. It is argued by many that the search for the “single undertaking” was one of the main causes of negotiations slowing down, given the different interests of members with different stages of development.

In 2011, conversations centered again on the mitigation of the differences in the positions of Members. In the Ministerial Conference at the end of that year, ministers agreed to focus on the items on which progress was more probable.

At the Bali Ministerial Conference, held in 2013, important decisions on agriculture were taken<sup>63</sup>. In relation to export competition, Ministers agreed<sup>64</sup> to exercise “utmost restraint” with regard to any recourse to all forms of export subsidies and to ensure “to the maximum extent possible” that the progress towards the elimination of all forms of export subsidies would be maintained. Ministers also reinforced the commitment to maintain the level of such subsidies as low as possible in relation to Members’ commitments.

The tenth Ministerial Conference, which was held in Nairobi in 2015, saw one of the greatest advances in the agricultural sector since the creation of the WTO. That Conference culminated in the adoption of the “Nairobi Package”, a series of six Ministerial Decisions on agriculture, cotton and issues related to least-developed countries (LDCs).

In regard to agriculture, the topics were: i) a Special Safeguard Mechanism (SSM)<sup>65</sup> for Developing Country Members, which gives those countries the right to temporarily increase tariffs in the face of import surges by using an SSM; ii) the Public Stockholding for Food Security Purposes, a decision which commits members to engage constructively in finding a permanent solution to this issue<sup>66</sup>; and iii) a third document on Export Competition, which is discussed below.

In regard to this last topic, a Ministerial Decision was taken<sup>67</sup>. This Decision included, inter alia, the commitment to eliminate export subsidies on agricultural products.

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<sup>62</sup> [https://www.wto.org/english/tratop\\_e/agric\\_e/chair\\_texts08\\_e.htm#dec08](https://www.wto.org/english/tratop_e/agric_e/chair_texts08_e.htm#dec08)

<sup>63</sup> There were Ministerial Decisions on topics like General Services (WT/MIN(13)/37 or WT/L/912), **Public Stockholding for Food Security Purposes** (WT/MIN(13)/38 or WT/L/913) and Administration of agricultural tariff quotas (WT/MIN(13)/39 or WT/L/914). Furthermore, there were Ministerial Declarations on Cotton (WT/MIN(13)/41 or WT/L/916) and on Export Competition (WT/MIN(13)/40 or WT/L/915).

<sup>64</sup> [https://www.wto.org/english/thewto\\_e/minist\\_e/mc9\\_e/desci40\\_e.htm](https://www.wto.org/english/thewto_e/minist_e/mc9_e/desci40_e.htm)

<sup>65</sup> It was established that Members would continue with the negotiations on the mechanism in dedicated sessions of the Committee on Agriculture, but there has not been an agreement on volume or threshold of subsidies for the application of the SSM yet.

<sup>66</sup> Under the Bali Ministerial Decision of 2013, developing countries are allowed to continue food stockpiling programmes, which are otherwise at risk of breaching the WTO’s domestic subsidy cap, until a permanent solution is found by the 11th Ministerial Conference in Buenos Aires (2017)

<sup>67</sup> Ministerial Decision on Export Competition (WT/MIN(15)/WW/47).

In this regard, the Decision specifies that Developed Members shall immediately eliminate export subsidies, except for some agricultural products<sup>68</sup>. On the other hand, based on the Special and Differential Treatment, the Decision establishes that developing country Members shall eliminate their export subsidy entitlements by 2018. In addition, they will keep the flexibility to cover marketing and transport costs for agricultural exports until the end of 2023. The poorest and food-importing developing countries will enjoy additional time to cut export subsidies.

Furthermore, the Decision seeks to avoid the use of other export policies as a disguised form of subsidies. This includes terms to limit the benefits of financing support to agricultural exporters, establishing a maximum repayment term of 18 months and the fact that export credit guarantee, insurance and reinsurance programmes shall be self-financing and cover long-term operating costs and losses. It also established rules on state enterprises engaging in agricultural trade, which shall not operate in a manner that circumvents any other rules. Lastly, it establishes provisions to ensure that food aid does not negatively affect domestic production, by setting a series of commitments to prevent or at least minimize the potential of such measures to displace national or regional trade and production.

Again, there is a difference in the terms of application, based on the degree of development of the countries.

## >> The day after Nairobi

In relation to the Nairobi Decision, WTO Director-General Roberto Azevêdo has pointed out that WTO Members – especially developing countries – had consistently demanded that measures on export subsidies be taken due to the enormous distorting potential of these subsidies for domestic production and trade. He affirmed that such a decision tackled the issue once and for all<sup>69</sup>. The question now is: Does it?

It is stipulated that the decision is legally binding, establishing the elimination of these subsidies and preventing governments from reverting to trade-distorting export support in the future.

Strictly speaking, the Nairobi Decision does not replace, reform or even amend the AoA. It is only a decision of the Members by virtue of Article IX: 1 of the WTO Agreement and, as such, cannot modify rights or obligations.

The Nairobi decision did not prohibit export subsidies, but committed the pertinent Members to present a new Schedule within the GATT to amend Section II, Part IV of its national schedule of commitments, inserting zero in the budget limit and the subsidized volume. That is, for that decision to be implemented, countries must make an amendment to their lists.

In this regard, it is important to mention that Australia has notified the WTO of its intention to stop subsidies on the export of agricultural products by eliminating this right from its schedule of commitments. Consequently, it became the first country to follow up on Nairobi's achievements.

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<sup>68</sup> Processed products, dairy products and pig's meat.

<sup>69</sup> [https://www.wto.org/english/news\\_e/news15\\_e/mc10\\_19dec15\\_e.htm](https://www.wto.org/english/news_e/news15_e/mc10_19dec15_e.htm)

In effect, what Australia did was to unilaterally modify its schedules of commitments by removing export subsidies. If all countries with such commitments on their schedules did the same, the Decision would be implemented and Article 8 of the AoA would apply: *“Each Member undertakes not to provide export subsidies otherwise than in conformity with this Agreement and with the commitments as specified in that Member’s Schedule”*.

In response to the question posed before: it does. In accordance with what was previously explained, in order to effect the Nairobi Decision, countries must implement the commitments through the modification of their schedules. If such implementation does not occur, members can continue applying export subsidies without breaching international regulations.

For this reason, it is important to follow the implementation of the Decision by the Members. The Buenos Aires Ministerial Conference could provide an excellent opportunity to reinforce the need for compliance. This would finally enable the guarantee of the implementation of the reform that took place in Nairobi, which, in terms of the AoA, has been the most significant reform since the creation of the WTO.

## >> Some final considerations

Although the implementation of these agricultural aids has been significantly reduced since the 2000s, it is still a tool used by certain countries on a contingency basis.

As a matter of fact, a document<sup>70</sup> by the Cairns Group in the WTO underlines that of the 18 Members of the Organization that had scheduled export subsidy commitments, Australia, Brazil, Colombia, Iceland, Indonesia, New Zealand, South Africa and Uruguay have reported zero use of export subsidies since the Doha Round started in 2001. But it also highlights that five new countries—Barbados, Republic of Korea, India, Mauritius and Mexico—have implemented these policies and warn about the delay of many countries in notifying the WTO Secretariat on the use of subsidies.

Following the negotiation process, which peaked at the end of 2008 when the Doha Round was almost ended, there was a process of trust-building in the multilateral trading system. In this context, the advances in Bali and Nairobi were the alternative to progress on certain issues. These were probably not as significant as had been hoped, but they represented a vote of confidence in the WTO.

In regard to the use of Decisions as an option to *“legislate”* specific topics, this could be a window of opportunity for the Buenos Aires Ministerial Conference to produce results. This seems to be the better option to continue moving towards trade liberalization, at least until the international situation allows for a comprehensive reform of the WTO Agreements.

Given the current situation, this seems to be the most viable option, although we must not lose sight of the accomplishment of *“the long-term objective of substantial progressive reductions in support and protection resulting in fundamental reform”*, which was established in the Original Mandate, Article 20 of the AoA and reinforced through the Doha Mandate: *“to establish a fair and market-oriented trading system through a pro-*

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<sup>70</sup> Annual export competition review. Submission from the Cairns Group to the 80th meeting of the Committee on Agriculture (CoA) in June 2016

*gramme of fundamental reform encompassing strengthened rules and specific commitments on support and protection in order to correct and prevent restrictions and distortions in world agricultural markets”.*

It is in this direction that work continues, at a multilateral level and through a continuous process that guarantees desired results in the long term. The Buenos Aires Ministerial Conference seems to be the right environment to reinforce the role of the WTO as the place to address and regulate international trade, bringing some certainty and stability to the global uncertainty.



## PART II: New issues to be considered in the WTO negotiating agenda

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### Food security and the elimination of restrictions on food exports

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#### Chapter 7. A Proposal for the Elimination of Export Restrictions on Food Products

By Eduardo Bianchi and Martin Piñeiro

##### >> Introduction

The episodes of higher and volatile food prices during 2007-2008 and 2011-2012 have raised concerns about the role of agricultural export restrictions in further raising international prices and its impact on the food- insecure population in net food-importing developing countries. Although many arguments have been invoked to justify the application of export restrictions, mainly food security concerns, it is clear not only from theoretical studies but also from historical research, that these measures have a multiplier effect on spikes and the volatility of international prices. The negative impacts of these beggar-thy-neighbor policies are widespread among countries, although they have been more severe in those less developed net food- importing countries, with a large share of their population being the urban poor. Moreover, significant damage to trust in the world market as a reliable source of food was inflicted during these food crises.

Many factors, such as stronger links between agricultural and energy markets due to biofuels, farm productivity growth lagging behind population growth, together with increasing food demand and diet changes in developing countries, suggest that food prices are likely to continue to experience a small, upward trend, in nominal terms, over the next decade, with climate change as a factor which will generate further instability in supply and hence, increase volatility.

The WTO agreements include commitments for constraints and reduction in policies limiting agricultural imports, while leaving the use of policies limiting agricultural exports very weakly regulated. Despite the concerns for the recent widespread use of export restrictions, no agreement has been reached to discipline them, particularly in the case of export taxes, the most popular measure for export restrictions. If there are spikes again in the future, having in place a multilaterally agreed regulatory framework will avoid the negative effects of export restrictions on food security that were identified during the food crisis of 2007-2008 and 2011-2012.

The paper reviews the types of export restrictions, the main arguments used for justifying their application, the spread of these measures during the recent food crises and the present disciplines on export restrictions for food products. We conclude with a concrete proposal for achieving a multilaterally acceptable solution to avoid the additional problems export restrictions impose on the poor worldwide in the event of future price surges.

## >> Types of export restrictions

Export restrictions, also called export restraints or export controls, have been broadly defined as “*measures instituted by exporting countries to supervise export flows*” (Goode, 2003). The WTO Panel Report on *United States - Measures Treating Export Restraints as Subsidies* regarded them as “*a border measure that takes the form of a government law or regulation which expressly limits the quantity of exports, or places explicit conditions on the circumstances under which exports are permitted, or that takes the form of a government-imposed fee or tax on exports of the products, calculated to limit the quantity of exports*” (WTO, 2001). Export restraint measures comprise restrictions on the quantities of exports, which limit the volume of exports, and export taxes, which impose a tax on exports.

Quantitative restrictions on exports include: export quotas, export bans (also export prohibition or export embargo), non-automatic export licensing (also export permits), minimum export price or price reference for exports and export restrictive state-trading enterprises. Export taxes are also called export duties, export charges, export tariffs, fees or export levies. These taxes can be set either on an *ad valorem* basis (a percentage of the export value) or a *per unit* basis or specific tax (a monetary amount per unit or weight of the exported product), or a mix of the two. Export taxes can be differential, depending on the price of the product, a higher tax when the price is high, or depending on the degree of value added of the product, i.e., a higher tax on the unprocessed exports and a lower rate on processed exports.

OECD (2015) also identifies the following measures: VAT tax rebate reduction or withdrawal (when the VAT reimbursement is denied in whole or in part), restrictions on customs clearance points for exports (when the government specifies ports through which exports of a good is to be channeled) and qualified exporters list (when the rights to export a certain commodity are allocated to specific companies by the government, through a process of application and registration).

All these policy instruments can be equally used to get a lower volume of exports. However, they differ in many respects, for example, in the event of an exogenous shock they yield different volumes of exports; they have different distributional effects; different levels of transparency and in the administrative burden involved in their implementation (Anania, 2013). Export taxes and export quotas and licenses have been the most commonly used instruments of export restrictions. It is argued that, among the different export restrictions, export taxes are the preferred measures because they are transparent and easy to administer compared to, for instance, export quotas and licenses, which require cumbersome administration.

## >> Arguments for using export restrictions

Different arguments have been used to justify the imposition of export restrictions, although most of them have received severe criticism in economic terms.

### **a) The terms of trade argument**

The tenet of this argument is that export restrictions can improve the terms of trade of a country when the country has market power in a product, i.e., the ability to influence the world price of the product. Thus, a large country, by levying an export tax, for example, will increase the world price of the taxed product, improving the relative price of a country's exports compared to its imports.

The extent of the increase of the world price and the distributional effects will depend highly on the elasticity of world demand. If the demand for the product is perfectly inelastic, then the incidence of the export tax would be entirely supported by consumers in the importing countries, since the world price will increase, while the domestic price will be unchanged. When the demand is not perfectly inelastic, the export tax will increase the world price of the product, but not by the full extent of the tax, so that part of the tax incidence is supported by the domestic producers, since the domestic supply of the product will increase while the price in the domestic market will fall.

The terms-of-trade argument is not applicable for countries that lack the market power to influence the world price. Since many developing country exports only represent a small percentage of world exports of a particular product, they will not see any improvement in their terms of trade. On the other hand, the existence of an optimal tax, which maximizes national social welfare, depends on the degree of market competition and market contestability in such a way that, in many market structure configurations, such an optimal tax may not exist at all. In addition, export taxes may depress the incentive to invest in the production of the taxed product, affecting the long-term supply and resulting in higher domestic prices.

As Piermatini (2014) notes, the risk that the trading partners of the tax implementing country may retaliate, canceling the desired welfare gains, together with the difficulty of setting the appropriate optimal export tax, if it exists, makes the use of export taxes (and the remaining export restrictions) a risky policy to improve the terms of trade, since national welfare can diminish rather than increase.

### **b) The infant industry argument**

This argument relies on the belief that primary commodity exporters lag behind exporters of manufacturing products. Thus, countries that specialize in lower value-added sectors will have a production structure that results in lower growth rates than those of countries specialized in higher value-added sectors. The infant industry argument then, states that temporary protection or subsidization of a newly established manufacturing industry could enable the development of a comparative advantage in that sector. In this context, export restrictions, such as export taxes on primary products, constitute an indirect subsidy to higher value-added manufacturing industries or an incentive for the development of domestic manufacturing industries with higher value-added exports.

Evidence as well as theoretical arguments suggest that the consequences of export restrictions on raw commodities can be adverse. On the one hand, there is a risk of encouraging the development of inefficient industries that will depend on government subsidies to survive in the market. On the other hand, an export tax on a raw commodity implies the redistribution of welfare from primary commodity suppliers to downstream processors. This outcome could increase income inequality within a country, since, generally, primary commodity producers are located in the poorest sector of the population. Also, since there are several layers between the raw commodity producers and the

processors, a one-to-one pass through from farmers to processors cannot be expected. Hence, imperfect competition in the domestic market lowers the cost-saving effect of the export restriction on a raw commodity, undermining the effectiveness of this measure as an industrial policy. Finally, some studies have identified negative environmental effects associated with the use of export restrictions on natural resources, since they may disincentivize owners to conserve them and encourage their depletion (Piermartini, 2014).

### c) Countervailing tariff escalation

Export taxes have been suggested to countervail the effects of tariff escalation in importing countries. Tariff escalation means charging higher import tariffs on processed products than on unprocessed products, reducing the competitiveness of processed products from abroad. Since developed countries markets are crucial for developing countries, tariff escalation in developed countries can block the development of a local high value-added industry in developing countries, while at the same time favoring processing industries in developed countries. In this way, tariff escalation in developed countries disincentivizes diversification of production in developing countries and increases their dependence on unprocessed primary commodities. Tariff escalation is one of the major constraints to vertical diversification of agricultural products in developing countries. Although food is a major component of developing countries' exports, they are usually comprised of food in the first stage of processing. FAO studies show that significant tariff escalation in agricultural products exists in developed countries, mostly at the first stage of processing (Table 1).

Although the importance that developing countries attach to reducing tariff escalation is widely recognized, little progress has been made in this area. The structure of escalated tariffs in world trade is caused and maintained by the rent-seeking behavior of economic agents and the resulting political economy of trade policies in developed countries. Food-processing industries in developed countries are proponents and beneficiaries of escalated tariffs. As agricultural commodity chains, particularly those of high-value crops and processed products, become increasingly dominated by a few giant enterprises, industry's incentives and ability to maintain tariff escalation grow stronger. Developing countries and consumers in developed countries are the losers from tariff escalation.

The elimination of tariff escalation would be the first-best policy, removing the distortions. However, an export tax on the unprocessed commodity, by reducing its domestic price, will encourage the development of the local processing industry, offsetting in this way the distortionary effect created by tariff escalation. However, all the problems resulting from the use of export taxes as an infant industry policy also hold in this case. Mainly, the export tax on raw commodities will discourage investment in this sector, will reduce the income of poor commodity producers and might have negative environmental effects.

**TABLE 1: Tariff escalation in selected developed countries and selected products**

Average bound tariff MFN (%)				
Product	United States	European Union	Japan	Canada
<b>Rice</b>				
Husk	5.1	61.9	1069.2	0.0
Polished	5.6	89.7	1003.4	0.8
<b>Cattle</b>				
Live	0.5	35.9	119.0	0.0
Frozen meat	13.5	128.6	50.0	13.2
<b>Pig &amp; pig meat</b>				
Live	0.0	20.0	40.5	0.0
Frozen pork	0.3	28.0	83.6	0.0
<b>Sheep &amp; sheep meat</b>				
Live	0.0	42.8	0.0	0.2
Frozen mutton	0.9	88.7	0.0	1.3
<b>Poultry</b>				
Live	1.0	10.4	0.0	96.3
Frozen poultry	10.0	39.5	8.2	123.0
<b>Soybean</b>				
Seed	0.0	0.0	0.0	0.0
Crude oil	19.1	4.8	20.7	4.8
<b>Sugar</b>				
Raw	32.8	134.7	224.9	6.5
Refined	42.5	161.1	328.1	8.9
<b>Cocoa</b>				
Beans	0.0	0.0	0.0	0.0
Chocolate	6.9	21.1	21.3	59.0
<b>Coffee</b>				
Green	0.0	0.0	0.0	0.0
Roasted	0.0	9.0	12.0	0.4
<b>Orange</b>				
Fresh	3.5	16.7	24.0	0.0
Juice	11.0	39.4	31.0	1.0

Source: FAO (2003).

In the context of the WTO, many negotiating proposals have called for eliminating or reducing tariff escalation as an explicit goal within the market access pillar of the Doha Round of negotiations. There is little consensus, however, about how reductions should proceed. Thus no agreement has so far been reached on reducing and eliminating tariff escalation, and the official position of the WTO is that a formula needs to be found. Different tariff cutting methods have been proposed, but until now, there has been no unanimous support for any one method or modality. For example, one approach is that where the tariff on a processed product is higher than the tariff for the product in its primary form, the rate of tariff reduction for the processed product shall be equivalent to that for the product in its primary form multiplied, at a minimum, by a factor of 1.3. In other words, whenever the formula results in positive tariff escalation, a factor of 1.3 will be applied to reduce the gap.

This rather concrete proposal for reducing tariff escalation was not, however, carried forward in the subsequent texts because it was found to be “fraught with technical problems,” most notably the use of a single multiple factor (Sharma, 2006). This author argues that agreements on escalated tariff-cutting formulas must be reached on two key building blocks. First, a list of processed products and their corresponding primary products should be identified for applying the formula, no matter what formula is used. A group of 20-25 processed products, about 100 tariff lines, and 150-200 tariff lines for the corresponding primary products should be selected for the targeted list. In addition, an agreement would be needed on a threshold, or a *de minimis* level, within which to contain the tariff escalation for the products identified. The *de minimis* level could be, for example, a tariff wedge of 5 percentage points between primary and processed products for developed countries and 10 percentage points for developing countries. It would then be relatively straightforward to determine the required adjustment factors for tariff reduction rates, over and above the formula rates.

#### d) The domestic price regulation argument

Export restrictions are frequently applied in the context of rising food prices. Food security concerns is a popular argument to impose export restrictions aimed at preventing domestic food prices from rising or to cap their increase, by eliminating or limiting the transmission to domestic prices of increasing world prices. Both high food price levels and volatility have important effects on food security, affecting household incomes and purchasing power, converting vulnerable people into poor and hungry people. The larger a country’s share of low-income non-rural population, the more severe the consequences on food security. This situation poses strong pressure on governments to intervene, with export restrictions as one of the preferred policy instruments to address this problem, as was documented by many studies regarding the recent food crises (Estades, Flores and Lezama, 2017).

Export restrictions will mitigate totally or partially the spillover of the higher world prices into the domestic markets, thus protecting local consumers. An export tax, for example, will first reduce the domestic price of the taxed product; second, it will lower the costs for processing industries, thus furthering a reduction in consumption prices for processed goods; and third, by reducing the income from exports in the short term. It will also reduce the impact that higher international prices have on the domestic market through their adverse effect on consumption.

If the country deciding to restrict its exports has market power at the world level, then its policy intervention will affect not only the domestic price but also the international price. Restricting exports by a large exporter to limit the transmission to domestic prices, of higher international prices, will make international prices increase further, making this intervention a beggar-thy-neighbor type of policy. As Anania (2013) clearly states, the more the export restriction is effective in insulating the domestic price from the international one, the more it will distort trade. In a globalized market, the price volatility induced by a shock, wherever it occurs, will spread over all markets. Export restrictions, by perfectly insulating the domestic price from the international one, force all the price volatility to be borne by the other countries. An increase in international prices can also take place when many small exporters apply such measures.

Additionally, as food exporters intervene to avoid significant increases in domestic prices by restricting exports, food importers may pursue the same goal by lowering import barriers or by subsidizing imports. The joint effect of exporting and importing countries individually reacting to rising international prices of agricultural products by restricting

exports or facilitating imports, will be to significantly reduce the ability of the policy reaction of each country to deliver the desired effect, since their policies will partially offset each other's. Moreover, both kinds of interventions, by leading to further increases in international prices, will trigger a chain reaction as other countries intervene by restricting exports or facilitating imports, which makes the international price increase even greater, which moves more countries to intervene. This domino effect characterizes a prisoner's dilemma situation, where countries will find themselves far from where they could be in terms of protecting domestic consumers. Both importers and exporters will find themselves better off if they all jointly decide to restrain themselves from intervening (Anania, 2013).

#### e) Other arguments

Other frequently used arguments favoring the use of export restrictions include: collecting revenues, large currency depreciation, limiting the over exploitation of domestic exhaustible resources and protecting endangered species of fauna and flora. Export taxes were historically used to collect revenues, since for many developing countries with a low tax base, primary commodity exports constituted an easily exploitable taxable resource. However, currently few countries collect public revenue from export taxes and none of them collects more than 5% of public revenue from it (Prichard, Cobham and Goodall, 2015).

### >> Export restrictions and food security in recent food crises

During the most recent crises in food prices in 2007-2008 and 2011-2012, international prices of different agricultural products showed significant fluctuations and rose above the relatively low levels registered in previous decades. In this context, as reported by various studies (for example, Piñeiro et al., 2010), many countries applied export restrictions to isolate domestic prices from the levels and fluctuations of international prices, while many other countries reduced the import tariffs levied on these products. The causes behind the price spikes and volatility were diverse, as claimed by many studies: rising energy prices, weather-related events in key exporting countries, low stocks, increased demand for agricultural products used in the production of biofuels, increased food demand in developing countries due to rising per capita incomes and urbanization and shifting diets towards more meat consumption.

Independently of the factors causing the spikes and fluctuations of agricultural product prices, several authors suggest that export restrictions, together with other price insulating policies, contributed to exacerbating these behaviors of food prices. For example, according to Anderson, Ivanic and Martin (2013), price insulating policies applied by exporters as well as importers increased the world price of rice by 52%, wheat and maize by 18% and edible oils by 31%. Reviewing various reports, Estrades, Flores and Lezama (2017) find that most of them show evidence that during both episodes of price booms, changes in border measures had an impact on world prices. In this sense, there is wide agreement in the literature about the recent food crisis regarding the multiplier effect of trade policies on food prices.

Estrades, Flores and Lezama (2017) claim to have developed the only comprehensive database of all export restrictions applied worldwide in the case of agricultural products, focusing on the 10-year period 2005-2014 from different official sources and research institutions. The analysis of the data collected by these authors shows that:

- a) Of the 692 agricultural products as defined at the 6-digit HS 2002 classification, 504 had some kind of export restriction in 2006-2012, i.e., 73% of all agricultural products was affected by export restrictions during those years. This percentage jumps to 77% when we consider the period 2005-2014.
- b) Between 2005 and 2014, 36 countries imposed export restrictions. Most countries imposing measures were developing countries. Anania (2013) reports that export taxes were used by 39 countries in the 1995-2002 period and by 65 countries in the 2003-2009 period.
- c) The agricultural products that were mostly affected by export restrictions in 2005-2014 were cereals (20% of total export restrictions applied during this period), followed by vegetables (10%), fats and oils (10%) and dairy (8%).
- d) Regarding the types of export restrictions, export bans represented 35% of total measures introduced, 36% of agricultural products affected and an average of 2.5 years in force. Export taxes represented 23% of total measures introduced, 29% of agricultural products affected and an average of 3.5 years in force. Export quotas, reference and minimum prices and non-automatic licenses were also applied during this period, but to a lower degree, affecting fewer agricultural products.
- e) The most frequent justifications given by governments for imposing export restrictions were “to guarantee domestic supply”, “for food security purposes” and “to stabilize or control domestic prices”, all of which could be considered as food security concerns. In most cases, however, no justification was given. In the case of the short-term measures (less than 6 months in place) the most common justification was to increase public revenues for food security purposes, whereas the infant industry argument was more frequently used to justify longer-term measures.
- f) The study also shows that both big exporters and big importers applied trade policies more actively to reduce exports or increase imports.
- g) The study also finds a positive effect of export taxes as well as other export restrictions on world prices. The results suggest that even without market power, some countries did affect international prices with the application of export restrictions.

## >> Disciplines on export restrictions for food products

The arguments presented in the previous sections make it extremely important to address the issue of how to discipline export restrictions at the multilateral level, particularly if prices spike and volatility is expected over the next decades. It is recognized that the only solution to the prisoner’s dilemma trap generated by interventions of both food exporting and importing countries, is for countries not to resort to individual decisions, but to look instead for multilaterally agreed joint strategic action. According to Anania (2013), this outcome can be achieved through a formal cooperation mechanism, with well-defined rules and binding commitments, such as in a WTO agreement, or through a gradual learning process by all sides through “repeated games”. It seems clear that the non-cooperative option is very costly for all participants and that a multilateral agreement looks to be the most promising alternative.



Quantitative export restrictions are regulated in the WTO, although these rules are not usually enforced. Export restrictions in general are included in provisions in the GATT 1994 (Article XI) and, concerning agricultural products, in the Agreement on Agriculture (Article 12, Part IV). Article XI of GATT establishes that quantitative measures, such as export bans, quotas or licenses shall not be applied, except temporary measures “applied to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party.” The Agreement on Agriculture extends these exceptions by stating that countries imposing these measures shall notify the WTO and affected importing countries.

Thus, despite the distortions that export taxes have on world markets, they are not regulated in the context of the WTO agreements. In this sense, a country can always decide to restrict its exports using export taxes, even at levels to make exports economically unviable, having the same effect on quantities as an export ban. On the other hand, the text used in Article XI of GATT 1994 has been considered too vague for enforcement. The meaning of terms such as “temporarily”, “prevent”, “relieve” or “critical shortage” remains open to a wide range of equally legitimate legally sound interpretations, as Anania (2013) points out.

Consequently, the WTO law on export restrictions is considered to be an area of evident “under-regulation” or “regulatory-deficiency”, as it neither properly defines the circumstances under which quantitative restrictions can be used, nor regulates export taxes. This implies a clear asymmetry with policies that limit agricultural products imports. It is interesting to note that by reducing border protection of domestic markets (market access) and reducing direct and indirect forms of export subsidization, the WTO regulations make international prices increase. If the WTO were to effectively regulate export restrictions, this would make prices in international markets decline.

Some authors have hypothesized that the lack of any mention of export taxes within the WTO framework was an intentionally reserved area of “policy space”. Anania (2013) explains the under-regulation of export restrictions at the Uruguay Round with the argument that when these negotiations were launched, agricultural prices were low and stocks were high, so prices were not a source of concern at that time.

In the last few years, these two facts have changed and several countries have placed the focus on export restrictions, partly because import tariffs have effectively been reduced and food prices rose sharply in the mid-2000s. G20 Summits in 2011 and 2012 proposed to eliminate export restrictions and extraordinary taxes on food purchased for non-commercial humanitarian purposes, mainly by the World Food Program, but these decisions were not discussed at the WTO and represent a small proportion of food exports.

In spite of this lack of progress, disciplines on export restrictions have moved ahead on two cases: on new countries joining the WTO and in regional trade agreements (RTAs). In the first case, WTO members forced acceding countries to accept significant limitations on their ability to restrict exports. Several countries that acceded to the WTO after the conclusion of the Uruguay Round had to accept obligations which go beyond existing WTO rules in this area, a sort of “WTO-plus” commitments. These obligations include the elimination for certain products of existing export restrictions different from export taxes, such as minimum export prices, but also the elimination of existing export taxes for certain products or the introduction of binding levels.

In the second case, RTAs often include limitations on the use of export restrictions which are more severe than those multilaterally agreed in the WTO. In a review of provisions on

export restrictions included in 93 RTAs, Korinek and Bartos (2012) find that 16% include rules that are stricter than the WTO provisions regarding quantitative export restrictions. However, more than 70% include disciplines on export taxes, which are not included explicitly in the WTO. Regarding agricultural products, some regional trade agreements include products for which countries may impose export restrictions (quantitative or taxes), in some cases within a specific period of time. Most trade agreements allow exemptions to export restrictions when there are shortages in foodstuffs. The authors find that, in general, provisions on export restrictions in these agreements increase transparency among members, as they usually establish a way of communicating new restrictions, often in advance, thus improving predictability as well.

Despite the progress in the protocols of accessions within the WTO and in some RTAs, no advancement has taken place at the multilateral level. There have been proposals for the elimination of all export restrictions on agricultural products and the binding at zero of all export tariffs, with a flexibility clause for LDCs. Other suggestions implied symmetric obligations for export restrictions to those existing for import restrictions, for example, tariffing all export restrictions, replacing them with export taxes and binding all export taxes, including those introduced in the future. For products subject to export taxes, it was suggested that quotas be established in which a certain amount of exports will be exempt from the export tax, plus disciplines for short-term, temporary emergency measures necessary before export taxes were introduced. The abolition of export taxes and the prohibition of the use of export taxes for restricting exports were also proposed.

Nevertheless, the Ministerial Declaration which launched the Doha Development Agenda Round did not explicitly mention export restrictions when the mandate of the negotiations on agriculture was designed. As Anania (2013) states, not much happened neither in the Doha Round negotiations or in the debate on imposing stricter discipline on export restrictions after the food crises of 2007-2008 and 2011-2012. Although these events forced the international community to pay greater attention to food insecurity concerns, no tangible results have been obtained with respect to modifying existing WTO obligations on the use of export restrictions and taxes, instruments which have proved to significantly amplify food price increases in world markets.

## **>> Conclusion: A multilateral agreement on export restrictions and import tariff escalation**

As discussed in the previous sections, there are very good reasons to avoid, in case of future events of spikes in food prices and volatility, the additional upward pressure motivated by export restrictions and import policies reactions.

1. Stricter disciplines on export restricting policies will restore the confidence in international trade to deliver food security.
2. The existence of rules will increase predictability, leading to less uncertainty in investment decisions in agriculture.
3. A credible coordination of the responses by countries is needed to avoid falling into a prisoner's dilemma trap, with all countries losing in the process.
4. A "*consistency approach*" is needed for equalizing rules within the WTO, since countries that had acceded to the WTO after the Uruguay Round have stronger rules than those that apply to the rest of the WTO members.
5. The recognition that stricter disciplines are already in force in the framework of RTAs.

6. There is an opportunity to eliminate the asymmetry in regulations within the WTO, with rules on policies that restrict imports and almost no regulation on policies that restrict exports.

Several possible options for a WTO agreement on export restrictions have been discussed, containing different levels of aspiration in terms of their capacity to limit the policy space currently available to exporting countries. These options include, for example, improving the enforceability of existing disciplines; limiting the effects of export restrictions rather than imposing disciplines on them; and prohibiting the use of export restrictions, other than export taxes, on exports directed towards poor net food importing countries.

A proposal for the unilateral abolition of export restrictions does not seem a politically feasible option for a WTO agreement. Exporters should not be willing to give up their ability to limit their exports without obtaining anything in exchange. We think that the interest of food exporting countries to negotiate the elimination of export restrictions on food products, can be stimulated if it is associated with the abolition of import tariff escalation on food products. The necessity to jointly address tariff escalation and export restrictions has already been proposed by Cairns Group (2000), but no progress has been made on this option.

The elimination of import tariff escalation will contribute to encouraging the capacity of food exporting countries to develop processing industries and high value-added products, while removing one of the motivations to apply export restrictions. Modalities should be designed, together with flexibilities aimed at LDCs included in a Special and Differential Treatment, to get an agreement that will ensure a fair and market-oriented trading system for food products.

Countries can resort to other less distorting policies than trade measures to protect the vulnerable part of their population from extraordinary spikes in food prices and volatility. Food price stability in a globalized world is a global public good that requires a cooperative approach through a multilateral agreement.

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## Chapter 8. Looking at Export Tariffs and Export Restrictions: The Case of Argentina<sup>71</sup>

By Valeria Piñeiro, David Laborde Debuquet, Eugenio Díaz-Bonilla and Pablo Elverdin

### >> Introduction

Export taxes have been used in many countries. They have multiple effects at the macroeconomic and sectoral levels, including on the terms of trade (resulting from the market power of key suppliers), the reduction and stabilization of consumer prices (which influence food security) or on intermediate input prices (which may affect in different ways the processed goods using them), government revenues and income distribution. These taxes can also create serious negative externalities for trade partners and affect long-term investment and innovations in the targeted sectors. Recent years have been marked by a renewal of interest in this issue from the trade community. The 2007-08 food price crisis shed light on export policies' dangerous consequences for food security during periods of price spikes (Anderson and Martin, 2011; Bouët and Laborde, 2011).

In particular, Argentina implemented export taxes for almost all tariff lines. In general, export tariffs were at the rate of 1% for hydrocarbons (if international price of crude was less than US\$71 and a mobile tax rate if it exceeded that amount) and around 5% for mineral and industrial products. However, the export tax rate was particularly high for the most important crops (23% on wheat, 20% on maize, 32% on sunflower and 35% on soybeans)<sup>72</sup>, vegetable oils (30% on sunflower oil and 32% on soybean oil) and bovine meat (15%). In addition, during the period of higher prices, quantitative restrictions, such as export bans and quotas, were implemented.

At the end of 2015, the new Argentine government repealed taxes on exports of agro-industrial goods, except for soybeans (and by-products), with an initial reduction of 5 percentage points<sup>73</sup>. At the same time, the current Administration also eliminated export duties for other industrial goods (most of which had a rate of around 5%), but they remained on fossil fuels and other specific mineral products<sup>74</sup>. In a subsequent decision, the export tax on fossil fuels was eliminated. As for the soybean complex, a yearly reduction of 5 percentage points until 2021 was announced. In October 2016, however, it was decided not to implement the scheduled tariff reduction for the oilseed complex in 2017. Decree 1343/2016 in early 2017 established a 0.5 percentage points monthly reduction starting in January 2018 until finally reaching an export tax rate of 18 percent in December 2019<sup>75</sup>.

During the past 15 years, several papers have been written on the impact of export duties and other export barriers in Argentina. The area of analysis (poverty, employment, public revenues, etc.), and the methodology have varied in each case. However, most of the literature has utilized a partial-equilibrium framework, or has used economy-wide

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<sup>71</sup> The full document is an International Food Policy Research Institute (IFPRI) discussion paper. Forthcoming.

<sup>72</sup> During 2007, wheat had an export tax peak of 28% and maize of 25%.

<sup>73</sup> Decree No. 133/2015, of December 17, 2015. <https://www.boletinoficial.gob.ar/#!DetalleNorma/138329/20151217>

<sup>74</sup> Decree No. 160/2015, of December 21, 2015. <https://www.boletinoficial.gob.ar/#!DetalleNormativa/1107127/null>

<sup>75</sup> Decree 1343/2016, of February 1, 2017: <https://goo.gl/gYvpZk>

models, focused on comparative statics in the short-term, not including medium-term projections for the most important economic variables (such as GDP, exports, agricultural production, and employment). Additionally, most of those studies were done during the first decade of the new millennium, when food prices and the evolution of trade and global growth were different from the current context.

Based on the recent changes in legislation, this study aims to analyze the impact of changes in agricultural export duties on Argentina's economy, measuring its impact on different economic variables. The scenario also includes the elimination of other Non-Tariff Barriers (NTBs) on agricultural exports.

However, our analysis has its limitations, since the scope of this exercise involves a wide range of situations regarding export tax policies. We consider export taxes to be fixed and removed exogenously, independently of the level of world prices and the actions of other countries. By doing so, we eliminate strategic interactions. We discuss other aspects of our framework below.

## >> Argentina Export Duties

As mentioned, export duties in Argentina were imposed horizontally on many exports, including agricultural products (where they were particularly high), metal raw materials and other minerals, hides and skins, oil and natural gas, capital goods, and oil derivatives. Export taxes, all things being equal, have an *"inverse tariff escalation structure"*, also known as a differentiated export tax structure: raw materials are taxed higher than processed goods, which provides a cost incentive to the domestic industry and keeps internal prices lower than without those taxes.

Under the Argentine legislation, export duties were used as price policy tools to soften the impact of exchange rate devaluations on domestic prices, especially those of key products in the food basket of families<sup>76</sup>, and as a fiscal measure, depending on the situation of the public finances<sup>77</sup>. Moreover, the Argentine government considered that export duties were a valid development tool to counter the import tariff escalation that existed in many importing countries and that forced exporting countries to be mere suppliers of raw materials<sup>78</sup>.

The tax base for calculating the duty was generally the Free On Board (FOB) value less the Cost, Insurance and Freight (CIF) value of the imported goods incorporated in the product exported. For some agricultural products (included in Law No.21, 453/1976) the basis of calculation was the tax base (index price, FOB value, minimum or equivalent FOB value) in force on the closing date of each sale<sup>79</sup>, or the *"official price"*<sup>80</sup>.

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<sup>76</sup> Resolution No.11/2002 of the former Ministry of the Economy and Infrastructure.

<sup>77</sup> Resolution No.35/2002 of the former Ministry of the Economy and Infrastructure.

<sup>78</sup> WTO document WT/MIN(11)/ST/19 of 16 December 2011.

<sup>79</sup> Law No.21.453 of 11 November 1976 (as amended).

<sup>80</sup> Secretariat for Finance, online information from the Ministry of the Economy and Public Finance, Normas: Tributos vigentes en la República Argentina a Nivel Nacional (updated 30 September 2012). Viewed at: <http://www.mecon.gov.ar/sip>.

Export taxes were re-implemented to temporarily support public revenues during the Argentine crisis of 2001, and to counteract the increase in prices as a result of the currency devaluation (Argentine peso - AR\$). Despite being announced as temporary, they were not eliminated and became important for public finances and a feature of Argentina's trade policy in the last fifteen years.

Since 2002, all Argentine exports, with the exception of some dairy products (34 eight digit tariff lines), have been subject to export duties<sup>81</sup>, and some export duties in agricultural products increased after that date. According to WTO, in 2012, rates varied between 5 and 100%, whereas in 2006 the maximum rate was 45%. The 5% rate was the general rate and applies to 97.5% of the tariff universe. The other rates applied were 10%, 13%, 15%, 20%, 23%, 30%, 32%, 35%, 40%, 45% and 100%, depending on the goods. The 100% rate, which did not exist in 2006, applied to natural gas (HS2711.11.00 and HS 2711.21.00). In general, export duties were ad valorem; however, the export duty for crude oil was calculated based on the international price of oil.

At the same time, there are some special regimes as far as export duties are concerned. For example, exports for consumption in free zones were subject to an export tax equivalent to 15% of that which prevails in the general customs territory<sup>82</sup> and the mining enterprises that qualify for the mining investment regime benefit from fiscal stability and this regime also included export levies. At the same time, some goods or types of goods were exempt from export duty. This applies, for example, to goods imported temporarily which have been incorporated into exports<sup>83</sup>; material intended to advertise tourism and the holding of fairs and exhibitions; and goods, up to a limit of US\$2,000, carried personally by travellers on their way to MERCOSUR countries, provided the corresponding commercial invoice can be produced.

The importance of export duties for Argentina's finances can be seen in Table 1. From 2006 to 2015, the tax revenue from export duties increased progressively to reach AR\$75,939 million in 2015 (almost 7,900 million dollars at the official exchange rate of that year).

**TABLE 1: Export duties, 2006 2015. Current AR\$**

Export duties	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total collected (AR\$ million)	14,712	20,450	36,055	32,042	45,547	54,163	61,315	55,465	84,088	75,939
Annual growth rate (%)	19.4	39.0	76.3	-11.1	42.1	18.9	13.2	-9.5	51.6	-9.7
As a percentage of total tax revenue	9.8	10.2	13.4	10.5	11.1	10.0	9.0	6.5	7.2	4.9

Source: Authors based on AFIP. 2017.

<sup>81</sup> Resolution No.11/2002 of the former Ministry of the Economy and Infrastructure.

<sup>82</sup> Article 49 of Law No.24.331 of 17 June 1994.

<sup>83</sup> Resolution No.530/2002.

However, after 2010, although the value in domestic currency kept on increasing, the importance of export duties in Argentina's total tax receipts dropped significantly. In 2008 it represented 13.4% of revenue, 11% in 2010, 6.5% in 2013 and finally, less than 5% in 2015 (4.9%)<sup>84</sup>.

During the whole period, the impact of agro-industrial exports on the total obtained for export duties was very significant. For example, in 2014, the collection for export duties on agro-industrial goods reached AR\$64,601 million (of a total of AR\$84,088 million), representing 76.8% of total tax revenue for this group. Soybeans and their by-products accounted for 4.5% of total tax revenue (with just over AR\$53,000 million)<sup>85</sup>. However, not all the measures put in place generated additional fiscal revenue for the government, but were simply aimed at reducing internal consumer prices. The quantitative restrictions on the export of grains, meat and dairy are a clear example of this.

## >> Impact of export barriers on internal prices

In general, agricultural policies implemented in the last decade in Argentina have had the effect of reducing domestic prices received by the producer compared to corresponding export prices. These were reduced by the effect of taxes on exports, but also by export restrictions and other trade controls.

In fact, the analysis made by Nogués (2011), concludes that quantitative export restrictions have reduced producer prices in some products nearly as much as the high export taxes in place. In addition, the producer price effects of these restrictions have been more unstable than either those related to international prices or export taxes.

Graph 1 shows the evolution of the differences between the prices received by the producer and the FOB prices in Argentina for wheat in the period 2007-2014. We can observe a difference between the FOB price and the theoretical Free Alongside Ship (FAS)<sup>86</sup>. This difference is the result of the impact of export taxes and quotas. This lower price received by the producer results in an extraordinary margin for the exporter (or industrialist), above their costs and normal margins.

We can also see in Graph 1 the exceptional situation for some months in 2013, due to a circumstantial shortage of supply that caused a short-term insufficiency of wheat in the domestic market. For this reason, producer prices of that good increased significantly during that period, and were above the international reference price.

Meanwhile, in Graph 2, we can see what happened in the case of corn. Almost throughout the period under review, the price received by the producer was less than the theoretical FAS (except for a few months), although the extraordinary margins were less than the ones received in the case of wheat.

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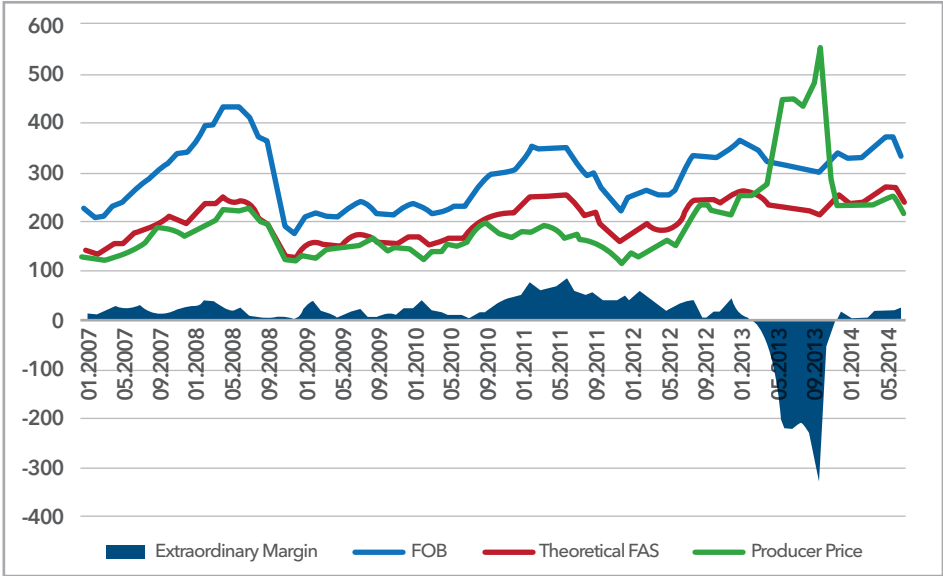
<sup>84</sup> Source: Annual Report Collection of Federal Public Revenue Administration (AFIP). <https://www.afip.gob.ar/institucional/estudios/>

<sup>85</sup> Source: Annual Report Collection of Federal Public Revenue Administration (AFIP). <https://www.afip.gob.ar/institucional/estudios/>

<sup>86</sup> The FAS price includes all charges up to the ship at the port of departure while the FOB price includes all charges incurred until the merchandise is on board the ship.

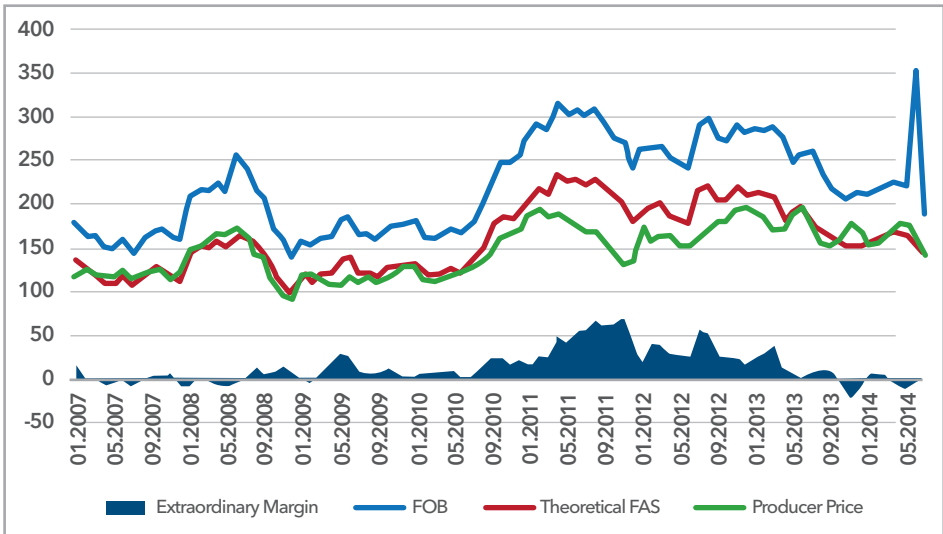


**GRAPH 1: Evolution of export prices and domestic wheat in Argentina. 2007-2014 period. US\$ per ton**



Source: Regúnaga and Tejada Rodriguez, 2015.

**GRAPH 2: Evolution of export prices and domestic corn in Argentina. 2007-2014 period. US\$ per ton**



Source: Regúnaga and Tejada Rodriguez, 2015.

In Table 2, we can see more clearly the difference between the export price and the price received by producers at the port of shipment for wheat, corn and soybeans. Data shows the discount applied as a result of export taxes, as well as the combined impact of these taxes, together with the NTBs to exports and shipping costs.

**TABLE 2: Impact of export taxes and NTBs on wheat, corn and soybeans, in equivalent "ad valorem" FOB price in Argentine ports. Period 2007-2012**

Year	Export taxes (%)			Total Export discount (%)**			Tax share in the total discount (%)		
	Wheat	Corn	Soy	Wheat	Corn	Soy	Wheat	Corn	Soy
2007*	21%	21%	28%	44%	25%	30%	48%	84%	94%
2008*	30%	36%	38%	45%	31%	38%	65%	83%	100%
2009	23%	20%	35%	35%	31%	37%	65%	65%	94%
2010	23%	20%	35%	37%	31%	36%	62%	64%	97%
2011	23%	20%	35%	47%	42%	37%	49%	48%	95%
2012	23%	20%	35%	39%	37%	34%	58%	54%	100%

\* During different months of 2007 and 2008 the aliquots were attended.

\*\* The total savings include the effects of export taxes, NTBs and shipping costs.

Source: Regúnaga and Tejada Rodriguez, 2015

While with soy the difference between the export price and the price received by producers is largely explained by export taxes, in the case of maize and wheat, NTBs to exports have played an important role. The NTBs to exports have caused the discount on the domestic price of these products to be higher than for soybean, even when export duties on corn and wheat were up to 15 percentage points lower than oilseed.

The NTBs to export put in place in Argentina include many less obvious costs associated with frequent changes of market regulations and the granting of export permits (ROEs for its acronym in Spanish); increase in administrative burdens arising from regulations; risks of sanctions for alleged breaches of some bureaucratic requirements; and financial costs associated with excessive delays in the reimbursement of taxes (VAT and export refunds).

## >> Impact on crop area and total production

Despite the restrictions, total production grew at an annual rate of 3.5% between 2000/01 and 2013/14, evolving from 64 to 105 million tons between each harvest<sup>87</sup>. The main source of growth was not the yield per hectare, but the increase in planted area, including the effect of expansion of double cropping, at a rate of 2.5% per year. However, the export restrictions implied that Argentine agricultural production had less dynamism than that in other producing countries for the years 2007-2014<sup>88</sup>. During that

<sup>87</sup> The strong devaluation in early 2002 and then the recovery in world prices since the middle of the 2000s helped to support production.

<sup>88</sup> After new quantitative restrictions were imposed in 2006 (ROEs) and exports duties were increased in 2007. For example, soybeans exports duties rose from 23.5 to 27.5 percent in January 2007 (Res. 10/2007 of the Ministry of Economy) and 27.5 percent to 35 percent in November 2007 (Res. 369/2007 of the Ministry of Economy).

period, the production of soybeans and corn, grew at a slower rate than in Brazil, Australia, USA and Ukraine, while wheat and beef production actually declined<sup>89</sup>.

In Argentina, grain production increased strongly during the 2000-2007 period, at a rate of 4.8% annually<sup>90</sup>. But, once export restrictions were increased in the 2007/08 season, the growth in total grain production slowed to 2.7% annually. A slower or even negative growth pattern can also be observed in other activities, such as beef and dairy from 2007.

It is worth mentioning that since 2007, a growing appreciation of the real exchange rate (by a devaluation lower to inflation rate evolution), which also affected the profit margins and growth of the agricultural sector has been observed. Soybeans led the growth of grain production, doubled its production during the period (up 4.6% annually). Corn production also increased, but at a slower pace, to 25 million tons in the 2013/14 harvest. However, wheat production fell from 16 million tons in 2000/01 to 10 million in 2013/14.

The growing importance of oilseeds in Argentine productive structure is noted in the evolution of the planted area. During the period 2000/01-2013/14 the area with oilseeds grew significantly; however, the area with cereals did not register a growing trend during those thirteen harvests. This is attributable to the increased profitability of soybean, its lower cost of planting and cultivation, and the reduced uncertainty associated with government interventions (not subject to the NTBs to exports that were applied to wheat and corn).

In particular, the share of soybeans recorded a significant increase in the composition of the area planted with grains increasing from 45% to 65% of the total area between 2000/01 and 2013/14. The area under soybean increased about 720,000 hectares per year during that period, exceeding 20 million hectares in 2013/14. On the other hand, wheat was the crop that recorded the biggest loss of planted area (250,000 hectares per year), falling from 6.5 million hectares in 2000/01 to 3.6 million hectares in 2013/14.

At the same time, other major crops, such as corn and sunflower, lost share in area cultivated, falling from 23% of the planted area in 2000/01 combined to 16% during the 2013/14 harvests. The exception was barley, which as a result of restrictions on the wheat market, partially replaced this cereal and tripled its cultivated area between 2007/08 and 2013/14 from 1% to 4%.

## >> Impact on exports

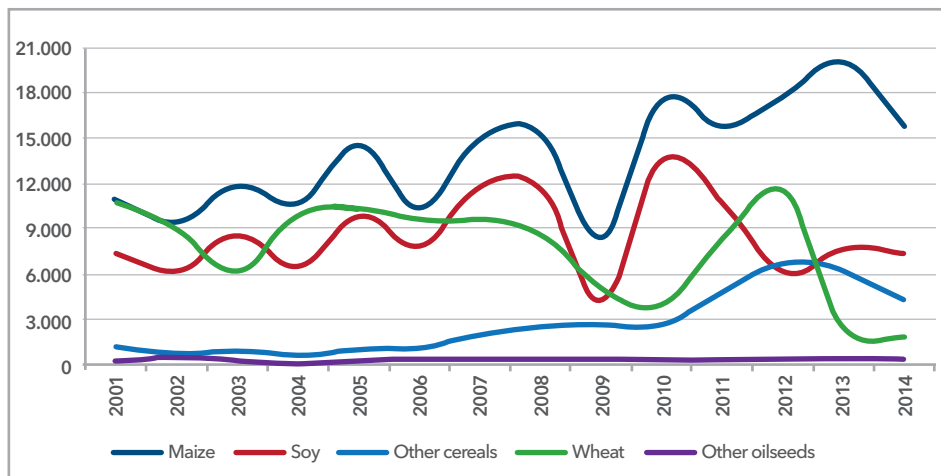
Exports were also affected by the policies implemented. Graph 3 shows the evolution of exports of the main cereals and oilseeds. While corn and other cereals (mainly thanks to barley exports), show a positive evolution in recent years, soybeans and wheat have been declining. This is particularly so in the case of wheat, which has shown a downward trend since 2003 (briefly interrupted in 2012), and reached historic lows in 2014, with exports below 2 million tons.

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<sup>89</sup> For detailed information see full report, IFPRI discussion paper. Forthcoming

<sup>90</sup> An important negative factor for production was the severe drought in 2008-2009.

**GRAPH 3: Evolution of Argentine exports of grains. Period 2001-2014  
(in thousands of tons)**



Source: Authors based on Comtrade. 2016

However, despite the drop in volume, soybeans remain as the larger export product in value within this group of primary crops, with US\$ 3.7 billion (40% of sales of grains and oilseeds in 2014).

Meanwhile, products directly derived from agricultural production, such as oils, have also shown a negative growth in recent years. Particularly, the drop in exports of soybean oil was 36% from its peak period (2007), although it still amounts to about US\$ 3.4 billion.

Despite the significant drop in soybean oil, the crushing of soy showed a more stable evolution, and after a small drop in 2008 and 2009, by 2010 had already recovered the levels of 2007. This was related to the fact that after legislation supporting the production of biofuels was implemented (Law No.26,093), a substantial part of the soybean oil was destined to the production of biodiesel. That legislation established a regime for the promotion of investments and the use of biofuels in the domestic market. In particular, it established the obligation to combine fossil fuels with biofuels (in 2010, the content requirement was a minimum of 5% blend, up to 10% today)<sup>91</sup>.

In the case of meat, we can see two different and well-defined trends. On the one hand, there was a sharp contraction in exports of beef between 2005 and 2014 (-57%), a direct consequence of the export restrictions (similarly to what happened with wheat). On the other hand, there was a significant growth in exports of poultry meat, which jumped from less than 20 tons in 2001 to over 350 tons in 2013 (an increase of 1,750% for the period as a whole).

Nevertheless, beef still accounts for 65% of the amount of foreign sales of meat, doubling the amount contributed by poultry meat (US\$ 1.1 billion vs. US\$ 546 million).

<sup>91</sup> Resolution No.7/2010 and modifications, of the Secretariat of Energy.

## >> Scenarios

To analyze the effects of export tariffs and export restrictions, we used MIRAGROPDEP (Laborde et al. 2013), a global computable general equilibrium (CGE) model that includes 35 sectors (including 19 agro-industrial sectors), and 31 regions. The model operates in a sequential dynamic recursive setup (that is, it is solved for one period, and then all variable values, determined at the end of a period, are used as the initial values of the next period). The model is calibrated to the social accounting matrices and trade data from the GTAP9.1 database, which describes the world economy in 2011 (Aguiar, Narayanan and MacDougall, 2015). In this study, the model and the data have been adjusted in several ways to properly tackle the issue under analysis.

In this case, we are interested in looking at the effects of an elimination of export tariffs and export restrictions for agricultural products in Argentina. The scenario used, replicates the part of the export tariffs established by Decree No. 133/2015 and Decree No. 160/2015 of December 2015 that apply to the agricultural sector. In these decrees, export duties were removed for all agricultural tariff items, except for soybeans and derivatives which were reduced to 30% and 27%, respectively. As mentioned before, the export taxes in the soybean complex were not fully eliminated. In 2015, a yearly reduction of 5 percentage points until 2021 was announced. However, in October 2016, the government announced that there was not going to be a reduction in the tariff for 2017 in the oilseed complex, and in January of 2017 announced a monthly 0.5 percentage point decrease from January 2018 until December 2019, to reach the goal of an 18 % tax rate for soybeans and 15% tax rate for oils in December 2019<sup>92</sup>.

The Argentine government also eliminated export restrictions (ROEs), which strongly affected the exports of wheat, maize, bovine meat and some dairy products. Grain restrictions (green ROE) were modified by Resolutions No. 4/15 and No. 7/15, while dairy restrictions (white ROE) were amended by Resolutions No. 69/16, No. 84/16 and No. 101/16. On the other hand, the requirements for the export of meat (red ROE) maintain the previous regulations (Resolutions No. 3433/08 and No. 6687/09) but the procedures for granting the export permits have been streamlined and made more transparent, implying a virtual elimination of the restrictions.

This paper presents three scenarios that illustrate the changes in policies (export taxes and export restrictions) under different circumstances. For our first scenario (central) we assumed that the government will keep decreasing the export tax rate at the same rate until 2021, leaving a 6% tax rate from that year until the end of the period under consideration for soybeans and a 3% tax rate for oils. The second scenario shows the important role that the government deficit plays in the way the economy adjusts with the resources it has and the third scenario illustrates the effect of the export tax differential on the soybean complex on the value chain and the rest of the economy.

The results are presented as a comparison between the baseline, without policy changes, with the scenarios, with changes in policies. In the baseline, capital accumulates according to investments, labor supply follows demographic projections, and total factor productivity is calibrated to reproduce the World Bank gross domestic product (GDP) projection up to 2025.

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<sup>92</sup> Decree No. 1343/2016 of January 2017. This scenario was also run but the results are not showed in this paper given that they are very similar to the central scenario described in the paper where the export tax is reduced for two more years.

## >> Results

It is important to note that our central scenario illustrates the effect of the elimination, or in some commodities, the reduction, of export taxes and export restrictions only in Argentina. Given the size of the Argentine economy, it is not surprising that the impact on the rest of the world is very small<sup>93</sup>; however, there are some changes in the international prices of some commodities of which Argentina is a large exporter<sup>94</sup>.

The decrease in world prices of soybeans and grains will negatively impact countries that produce those commodities (Brazil and NAFTA) and benefit the countries that import them. Overall, world consumption of soybeans and wheat increases by 0.3% with respect to the base in 2025 and 0.04% in the case of other cereal grains. Interestingly, the price of vegetable oils decreases more than the price of oilseeds since this market is impacted by the removal of both export taxes on the outputs (oil) and inputs (soybeans). While Argentina is not a major dairy exporter<sup>95</sup>, the dairy sector sees a decline in world prices due to lower feed costs for the industry.

**TABLE 3: World prices (percentage change with respect to the baseline in 2025)**

Paddy rice	-0.02	White meal	-0.06
Wheat	-0.47	Vegetable oils	-1.09
Cereal grains	-2.17	Dairy products	-0.33
Vegetables and Fruits	0.00	Processed rice	-0.02
Oil seeds	-0.63	Sugar	-0.04
Plant-based fibers	-0.04	Food products	0.01
Other crops	-0.06	Beverages and tobacco	-0.02
Cattle	-0.14	Leather products	-0.15
Other animals	-0.02	Agro-food	-0.28
Fisheries	-0.03	Industry	-0.02
Red meat	-0.02	Services	0.00

Source: Author's worksheet

## >> Macro variables

The change in trade policies implemented by Argentina will be seen in the effects on the trade balance. The value of total exports in real terms grows by about 6.51% with respect to the baseline in 2025 (Table 4). The aggregate performance is explained by the increase in agricultural exports, which grow by 21.7% over the base in the first ten years after the elimination of the tax and export restrictions, while industrial exports decrease

<sup>93</sup> The world welfare will increase 0.01 in this scenario.

<sup>94</sup> Some examples of the importance of Argentina in the global market for agricultural products, we can see that exports of soybean oil, leather, maize and soybeans represent 46%, 35% 14% and 7% of global exports, respectively (average period 2012-2016, Comtrade).

<sup>95</sup> Argentina accounts for less than 1.5% of world exports

by 5.8% and services decline by 7.8% (Table 5). Indeed, since we assume a fixed current account in value, the growth of agricultural exports leads to a real exchange rate appreciation and a higher domestic absorption of goods and services from the secondary and tertiary activities.

Argentina has market power in some agricultural commodities which implies that the terms of trade tend to work against the country: the changes in export tax and export restrictions push international prices down. In our scenario, the terms of trade for Argentina decrease 1.3% with respect to the baseline by 2025.

The Argentine economy will grow 0.13% more than in the case of not eliminating the export taxes by 2025, driven by growth in the agricultural sector given the change in export policies towards the sector (see Table 4). The moderate GDP increase is related to the assumptions regarding factor employment. We assume constant employment of labor and capital and therefore real GDP growth is only driven by efficiency gains and real exchange rate effects.

**TABLE 4: Macro results (percentage changes with respect to the baseline 2025)**

	Central Scenario
GDP	0.13
Welfare	0.72
Imports	5.06
Exports	6.51
Terms of trade	-1.33
Investment	-2.03
Government Revenue	-4.47
Government Savings	-7.79

Source: Author’s worksheet

Note: GDP, imports, exports, investment, government revenues and government savings are in constant AR\$

Welfare is calculated as Equivalent Variation (EV) which can be interpreted as real consumption.

Another noticeable result is that when export taxes decrease, causing a small expansion in GDP, it is not related to an increase in the aggregate level of investments, even if investments in agriculture go up. The reason is that in this scenario the government deficit worsens due to the drop in revenues caused by the reduction in export taxes. In turn, this leads to a crowding-out effect on private investments due to the now bigger government deficit (a decline of government savings of almost 7.8% of the GDP by 2025 compared to the baseline) (see Table 4).

In fact, total investment will be 2 percent less than the baseline at the end of the period in the case of elimination of export taxes (only reduction for the case of the oilseed value chain). However, the sectors for which the export restrictions are eliminated experience an increase in investment of between 7% and 30% with respect to the baseline in 2025. For the rest of the agricultural sector the level of investment will be lower when export taxes are eliminated, showing the same crowding-out effects of the now bigger government deficit.

**TABLE 5: Value of exports (changes with respect to the baseline 2025, percentage change constant US\$)**

Paddy rice	-40.83	White meal	5.35
Wheat	41.83	Vegetable oils	37.14
Cereal grains	25.17	Dairy products	87.99
Vegetables and Fruits	-18.54	Processed rice	-16.12
Oil seeds	9.09	Sugar	-25.07
Plant-based fibers	-21.51	Food products	-18.05
Other crops	-30.46	Beverages and tobacco	-2.74
Cattle	-45.15	Leather products	81.71
Other animals	-19.36	Agro-food	21.68
Fisheries	-1.08	Industry	-5.81
Red meat	156.82	Services	-7.78

Source: Author's worksheet

The consumer price index increases about 3.8% with respect to the reference in 2025. Looking at producer prices, those in the agro food sector increased by 18.2%, while in Industry by 2.3% and service sectors, 2.8% (each by the end of the period analyzed when compared to the baseline). Prices play an important role as a mechanism of adjustment for this economy after the elimination of the export taxes and restrictions. Domestic prices in Argentina will increase more rapidly than in the rest of the world leading to a real appreciation of the exchange rate as discussed above.

Overall welfare also increases by a small 0.7% with respect to the baseline at the end of the period analyzed. It is important to note that this result applies to all Argentine households as a whole (it is the sum of all households in the economy); obviously, this does not mean that all of them may benefit from the change in policy.

## >> Production by sector (production and employment)

Table 6 reports the changes in 2025 observed in production when comparing the trajectory of keeping export taxes and restrictions versus eliminating them. We can see that the commodities in which the export taxes are eliminated or reduced increased their production at the expense of the commodities that did not have export taxes originally.

Those are results at the end of the period analyzed. But there are also adjustments over the years to the policy changes implemented that are worth mentioning.

Cereals saw a big increase in production (around 20% for the first years) after the export tariffs and restrictions are eliminated; however, in the years that follow, the level of production increases at a rate comparable to the one obtained when restrictions were still in place, showing the effect of the ROE on wheat production.

In the case of soybeans, the increase in production takes place at a steadier growth after 2017, given that the export tax is not eliminated completely in the first year, but, instead, it had an initial 5 percentage point decrease in 2016 and no reduction at all in 2017, followed by a 0.5 percentage point reduction every month from January 2018 to December 2021.



**TABLE 6: Sectoral production (changes with respect to the baseline 2025, percentage change constant AR\$)**

Paddy rice	-16.79	Red meat	10.91
Wheat	16.07	White meal	-9.96
Cereal grains	13.34	Vegetable oils	31.03
Vegetables and Fruits	-11.47	Dairy products	8.61
Oil seeds	20.60	Processed rice	-10.74
Plant-based fibers	-13.01	Sugar	-7.46
Other crops	-17.08	Food products	-8.28
Cattle	3.64	Beverages and tobacco	-0.66
Other animals	-16.13	Leather products	25.79
Fisheries	-3.03		

Source: Author's worksheet

Vegetable oils show the same pattern as oilseeds, but with a somewhat higher annual growth, in the order of 10% for the first years and then only around 1% for the last four years of the period analyzed.

We should note that soy meals as well as flour milling are part of the food processing sector, preventing a detailed analysis of the effects of the policy changes in these sectors.

The livestock sector in Argentina has experienced many challenges. The number of bovines slaughtered and the extraction rate (slaughter/beef cattle stock<sup>96</sup>) in the country over the last three decades fluctuated between 29% and 22%, being the highest in 2009 and the lowest in 2016. The elimination of export restrictions, aided by the initial lower rate of extraction, will lead to an increase in the production of meat and leather in the upcoming years as shown in Table 6. On the other hand, non-beef production of meat declines, affected by the higher price of feed products.

The favorable situation for the agricultural sector can be seen in that employment in the agricultural sector increased 6% while employment in the non-agricultural sector decline 1.1% with respect to the baseline at constant total employment. Overall, the real wage for unskilled workers (deflated by the CPI) increased by 1%. Also, the amount of land dedicated to oilseeds, wheat and other cereals increased by 9.9%, 7.1% and 5.4% respectively over the 10 years analyzed to the detriment of the other agricultural commodities.

## >> Fiscal accounts

As noted, the Government deficit increases in the first years given the decrease in tax revenues. This is reflected in a decline in investment spending. The transmission mechanism for this "crowding-out" in a macroeconomic model with financial variables would include channels, such as, that the government borrowing drives up interest rates, decreasing investments. In this CGE model, without financial variables, there is a direct

<sup>96</sup> In the year 2010 the extraction rate in the USA (37.6%), Australia (31.1%), Uruguay (18.6%), Brazil (14.0%), Paraguay (12.2%) and India (5.0%).

negative effect from reduced savings to investments through changes in the available net savings for the private sector.

Government revenues will be 4.5% smaller than in the case where export taxes are not eliminated in 2025, while the ratio of government revenue over GDP will decrease by 4% with respect to the baseline by 2025. However, although there is a considerable decrease in revenues in the first six years, after that the revenues in this scenario grow at a slightly higher rate than the baseline, due to the expansion of the tax base related to higher economic growth, but never reaching the previous levels as percentages of the GDP (10 years is not enough for government revenues to catch up with the level they would have reached in the case where taxes were not eliminated). Government savings follow a similar path. With the elimination of export taxes, not only government revenues, but also government savings are smaller than the case with export taxes since we do not consider an alternative tax strategy and we do not reduce public expenditures.

So far, the discussion considered a government closure in which deficits can increase and the government relies only on domestic savings. In what follows other closures are considered for the government accounts.

## >> Other closures for the government accounts

In this section, we assume that the public budget balance is a constant proportion of GDP and that an increase in the consumption tax rate is implemented to offset the loss of revenue caused by the reduction of export taxes. In this scenario, the alternative public closure is also applied in the baseline, leading to different baseline levels in each of the scenarios.

Table 7 shows the results from the scenario in which export taxes and restrictions are eliminated for almost all the agricultural sector (with the exception of the oilseed value chain in which the export tax is reduced but not totally eliminated by 2021), using a different government closure.

The first thing to notice is that when government savings as percentage of GDP is kept at the same level as in the base, there is no crowding-out of investment (it will be 1.1% higher than the baseline in 2025) and GDP is 1.4% above that baseline as well (Table 7).

As can be seen in the results, there are implications for allowing an increase in the government deficit. If the deficit increases in response to the decrease in government revenues, there will be less domestic savings in the economy; this is translated into lower total investment and lower GDP growth. However, consumers, as a whole, will still benefit from the somewhat higher levels of consumption they can now achieve. In the case of the second scenario -government deficit stays constant as a percentage of GDP- there will be no crowding-out of investment. There will be higher GDP growth but household consumption (and, therefore, welfare) will be smaller, given the increase in the consumption tax rate necessary to compensate for government revenue losses from export tax elimination.

**TABLE 7: Macro results with different government closures (percentage changes with respect to the baseline 2025)**

	Consumption tax Adjustment	Central Scenario
GDP	1.44	0.13
Welfare	0.16	0.72
Imports	6.35	5.06
Exports	6.39	6.51
Terms of trade	-1.57	-1.33
Investment	1.08	-2.03
Government Revenue	0.03	-4.47
Government Savings	0.06	-7.79

Source: Author's worksheet

Note: The central simulation has flexible government savings as a percentage of GDP. GDP, imports, exports, investment, government revenues and government savings are in constant AR\$

Welfare is calculated as Equivalent Variation (EV) which can be interpreted as real consumption.

No matter the closure we chose in this report, welfare is higher than if there was no elimination of export taxes (or reduction for the soybean complex) and of export restrictions in the agricultural sector. It can also be noted that instead of a consumption tax, other taxes could be applied, such as a progressive income tax or a land tax that could mitigate the effects on consumers.

### >> Tax differential in the oilseed value chain

The situation in the oilseed value chain does still reflect the fact that, as has been mentioned in the previous sections of this paper, the export tax has not been totally eliminated. The most recent decree only covers the period until 2019, the next steps being unclear.

We run one additional scenario that relates exclusively to the oilseed value chain. The idea is to illustrate the differences that will result from totally eliminating the export taxes, which, obviously also implies the elimination of the export tax differential. The simulation allows changes in the government's fiscal deficit.

In this scenario, the production of soybeans and vegetable oil grow 4.7 and 2.5 percentage points, respectively, compared to the case where the export taxes on those products are not totally eliminated, and, therefore, the export differential remains. The results are in line with similar findings obtained in a partial equilibrium framework by Bouët, A. et al. (2014), showing that the elimination of the export tax differential will not necessarily lead to declines in the processed product<sup>97</sup>.

The impact on the rest of the economy will be different as well. Table 8 shows the macro results for the two scenarios for the oilseed value chain under the same closure (i.e. allowing fiscal deficits to increase).

<sup>97</sup> This result can be rationalized as the combination of several effects: on the one hand, the export tax differential gives some price advantage to the processors by reducing the cost of raw material, but it reduces the amount of primary production available to be processed; eliminating the differential leads to more primary production, which spills over into more processing activity. In the first case the processors would have a larger profit margin but over a smaller quantity; in the second, the crushing/processing sector would have a lower profit margin but over a larger quantity. Given the fixed costs in the industry that need to be covered, the expansion of production even at lower margins may lead to better overall economic results for the processing sector.

**TABLE 8: Macro results scenarios for the oilseed value chain  
(percentage changes with respect to the baseline 2025)**

	Central Scenario	Total Elimination
GDP	0.13	0.09
Welfare	0.72	0.87
Imports	5.06	5.26
Exports	6.51	6.79
Terms of trade	-1.33	-1.40
Investment	-2.03	-2.57
Government Revenue	-4.47	-5.07
Government Savings	-7.79	-9.32

Source: Author's worksheet.

Note: GDP, imports, exports, investment, government revenues and government savings are in constant AR\$.

Welfare is calculated as Equivalent Variation (EV) which can be interpreted as real consumption

Total welfare of Argentina will be 0.15 percentage points higher by 2025 in the case of total elimination of the export taxes, compared to the scenario described in the first section of this paper where export taxes in the oilseed value chain are not totally eliminated. GDP will grow 0.04 percentage points less in the case of the total elimination of the tax compared to the scenario where 6% and 3% export tax rate is left for oilseed and vegetable oil, respectively.

Government savings will be 1.5 percentage points lower in the case of the total elimination of export taxes for the oilseed value chain, and government revenues will be 0.6 percentage points less in this case. All this suggests that the main impact of eliminating all export taxes is on the government accounts.

## >> Conclusions

This paper provided an economic analysis of the elimination of export taxes and export restriction in the Argentine agricultural sector.

Several arguments have been used to justify the implementation of such trade practices: (i) export taxes can raise the world price of exports and therefore improve terms of trade; (ii) export taxes can reduce the domestic price of the taxed commodity and benefit final consumers of this commodity; (iii) export taxes can reduce the domestic price of the taxed commodity and benefit intermediate consumption of this commodity (important when the commodity is a primary one and expansion of the manufacturing sector that buys it is at stake -- soybean value chain); (iv) export taxes increase public revenue, which is beneficial in a country where fiscal receipts on the domestic base are small, provided that the tax does not reduce total production of the taxed good; and (v) export taxes are a means of redistributing income from domestic producers of the good taxed to domestic consumers of that good, and to the public sector. We considered several of them in this paper.

First, we found that export taxes and restrictions in Argentina do affect world prices, and the country's terms of trade. The removal of those taxes and restrictions leads to

declines in world prices, particularly in those products whose supply was most affected in that country by the lower domestic prices for producers generated by the policy interventions. These declines negatively affect producers of similar products in other countries, but benefit consumers. However, the overall change for world welfare, although positive, is basically negligible in value, given that the size of the Argentina in the global economy is small.

Second, the removal of export taxes and restrictions leads to small increases in GDP in Argentina compared to the baseline maintaining them. Those policy changes also generate small increases in overall welfare. What changes most is the structure of production, rather than the overall level of GDP or welfare. In fact, the agricultural and agro-industrial sectors whose supply was affected by the restrictions increase significantly (wheat and other cereals, the oilseeds complex, red meat production), but others contract, affected by competition for land and/or increases in the costs of raw materials (such as animal feed in the case of the production of white meat). Outside the agricultural sector, industry (other than agro-industries) and services decline compared to the baseline with taxes and restrictions due to the real appreciation of the peso (AR\$) and our assumption of constant employment. Investment declines overall, when the deficit is allowed to increase with the removal of export taxes, but again, there are important differences across sectors, with investment increasing in the sectors benefitting from the policy changes, while declining in other sectors. It would be important to further analyze these issues in the context of less than full employment of factors.

Third, an important consideration is that the reduction in export taxes increases the government deficit; therefore, other taxes or adjustments in fiscal accounts will be needed to maintain fiscal balances and to deal with the possible negative crowding-out effect on investment. In fact, in the simulation that increases consumption taxes to compensate for the decline in export taxes, investment increases (i.e. not crowding-out effect). Other options to maintain the level of investment in the first years would be foreign borrowing by the government or expansion of foreign direct investment; but, of course, these options would require increases in external payments in the future.

Fourth, contrary to the idea that the elimination of the export tax differential in the oilseeds value-chain would lead to a decline in the production of the processed products (such as soybean oil), the simulations show that the impact of the expansion of the primary product (when the elimination of the differential is combined with an overall reduction of export taxes) also leads to an increase in the production of processed products. Besides the economic aspects discussed so far, it is important to remember the legal issues involved. Article XI of GATT 1994, among other things, prohibits the application of quantitative restrictions to exports, but includes an exception related to *“export prohibitions or restrictions temporarily applied to prevent or relieve critical shortages of food-stuffs or other products essential to the exporting contracting party.”* The applicability of this exception hinges on the interpretation of several undefined terms such as *“temporarily,” “critical shortages,”* and what are *“essential”* products. On the other hand, export taxes are allowed under the WTO.

Export taxes and export restrictions will probably be discussed at the next WTO ministerial conference in Buenos Aires, Argentina, considering that some Member countries introduced negotiating documents with the purpose of regulating export taxes under the WTO. Net food export countries should be prepared to discuss with net food importers the possibility of a compromise on the use of export taxes, perhaps combined with some expansions in market access.

This paper has tried to contribute to that debate, looking in some detail at the experience of Argentina.

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# Accelerating tariff elimination through beneficial environmental food products

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## Chapter 9. The link between agricultural trade, climate change and food security. Tariff elimination for environmentally efficient agricultural goods (EEAG)

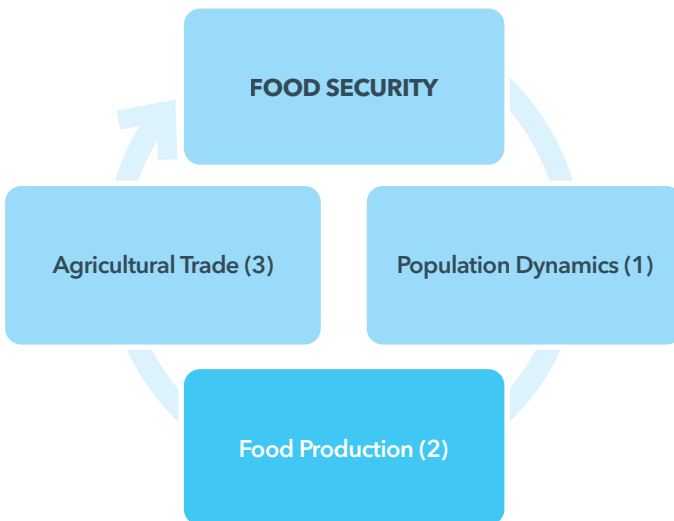
By Sabine Papendieck and Gustavo Idígoras

*«Trade can be an ally of environmental conservation, not its enemy.» ... In a world without artificial economic borders, goods can come and go. You can trade freely. In this world, a country with a dry climate does not need to use its scarce water resources to maintain crops that need heavy water consumption and that can be imported. Thanks to trade, it can save its precious water resources. Also in that world, a country with limited access to the sea does not need to deplete its fish stocks to feed its people. Thanks to trade, it can import fish to stock up on food and manage its fishery resources sustainably. Trade can enable a more efficient distribution of all resources, including natural resources. In the public's view, it can be an ally of environmental conservation, not its enemy.»*

Speech given by the General Director of the WTO, Mr. Lamy,  
At the 2005 WTO Symposium on Trade and Sustainable Development

### >> Challenge of Global Food Security: the population projection for 2050, the demand for food and the role of agricultural trade

Food security, as defined by the FAO World Food Summit in 1996, is achieved “when all people have permanent physical, social and economic access to safe, nutritious and sufficient food to meet their nutritional requirements and food preferences, and, in so doing, lead an active and healthy life”. This definition directly relates population dynamics, food production and trade to reach a positive balance.



Regarding the first variable in this tripartite relationship, the statistics on the global population dynamics (United Nations Population Fund) show that in October 2011 the world population was 7 billion. By mid-2015 it had grown to 7.3 billion people. Currently 60% of this population lives in Asia (4.4 billion), 16% in Africa (1.2 billion), 10% in Europe (738 million), 9% in Latin America and the Caribbean (634 million) and the remaining 5% in North America (358 million) and Oceania (39 million). China (1.4 billion) and India (1.3 billion) are still the countries with the largest population. Both have more than 1 billion people and represent 19% and 18% of the world population, respectively.

According to data from the United Nations Population Fund, the world population is projected to increase by more than 1 billion people over the next 15 years, reaching 8.5 billion in 2030, 9.7 billion in 2050 and 11.2 billion in 2100. Over half of the world's population growth by 2050 is expected to take place in Africa because of its current rate of population growth (increasing annually at a rate of 2.55% from 2010 to 2015). Next in line is Asia, which is expected to become the continent making the second highest contribution to the growth of the world population, with an addition of 900 million people between 2015 and 2050.

According to FAO data, one in nine people worldwide suffered from hunger in 2014-16. Therefore, Sustainable Development Goal (SDG) No. 2 - Zero Hunger - of the 2030 Agenda seeks to end all forms of hunger and malnutrition, by ensuring that all people have access to adequate and nutritious food. As a result, projected population growth through 2030 is expected to increase demand for food, energy and water by at least 50 percent, 45 percent and 30 percent, respectively. To meet this food challenge, it is estimated that a minimum 60/70 per cent increase in agricultural productivity will be required by 2050, including a 100 % increase in developing countries. Food security is no longer just a question of quality but, given the population dynamics projected, it must also address the problem of food availability. Faced with this new scenario, food-producing countries face a new challenge: to produce more to feed the world.

**International agricultural trade must positively redistribute food production, increasing both quantity and quality in all regions, and thus ensuring food security on a global scale.** Agricultural trade accounts for 10% of world trade (WTO data 2016). It is led by the EU (28), followed by the USA, Brazil, China, Canada, Indonesia, Argentina, Thailand, India and Australia. These countries make up the top 10 of the world's agricultural exporters, with a share of 73 percentage points, totaling US\$ 1.159 billion in 2016. In turn, the EU is the main importer of agricultural goods worldwide with a share of 35 percentage points, followed by the US and China.

Although work on food security is carried out in the Agricultural Committee at the WTO, to date there is no specific entity for agricultural trade research and analysis as a tool for food security. It was only in 2013 at the Bali Ministerial Conference that WTO Members agreed to negotiate and find a permanent solution to the issue of public stock programs for food security. They pledged not to penalize such programs if they exceeded the agreed limits of domestic assistance. Under these programs, developing countries buy and store food and distribute it to people in need. However, some programs involve granting aid to farmers and are therefore seen as causing trade distortion. During the 2015 Ministerial Conference in Nairobi, the commitment made in Bali was reaffirmed and members were encouraged to reach a definitive commitment. To date it has not been reached.



**TABLE 1: Top 10 exporters and importers of agricultural products, 2016***(Billion dollars and percentage)*

	Value	Share in world exports/imports				Annual percentage change			
	2016	2000	2005	2010	2016	2010-16	2014	2015	2016
<b>Exporters</b>									
European Union (28)	598	41.9	44.2	39.3	37.7	2	1	-13	-3
extra-EU (28) exports	160	10.0	9.7	9.4	10.1	4	1	-12	2
United States of America	165	13.0	9.7	10.5	10.4	2	4	-12	3
Brazil	77	2.8	4.1	5.0	4.9	2	-3	-9	-4
China	76	3.0	3.4	3.8	4.8	7	6	-3	5
Canada	63	6.3	4.8	3.8	4.0	3	4	-7	-1
Indonesia <sup>a</sup>	38	1.4	1.6	2.6	2.4	1	3	-10	-4
Argentina	37	2.2	2.2	2.5	2.3	1	-10	-9	7
Thailand	37	2.2	2.1	2.6	2.3	1	-2	-8	1
Australia	34	3.0	2.5	2.0	2.1	4	3	-7	-6
India	34	1.1	1.2	1.7	2.1	5	-3	-19	-5
<b>Above 10</b>	<b>1159</b>	<b>76.9</b>	<b>75.9</b>	<b>73.9</b>	<b>73.0</b>	-	-	-	-
<b>Importers</b>									
European Union (28)	602	42.7	45.3	40.3	36.8	1	1	-12	2
extra-EU (28) imports	166	12.3	12.6	11.1	10.2	1	3	-10	0
United States of America	160	11.6	10.6	8.4	9.8	5	7	0	2
China	155	3.3	5.0	7.8	9.5	6	3	-6	-3
Japan	75	10.4	7.3	5.6	4.6	-1	-5	-10	2
Canada <sup>b</sup>	38	2.6	2.4	2.3	2.3	3	4	-5	-1
Korea, Republic of	32	2.2	1.9	1.9	2.0	3	5	-6	-3
India	29	0.7	0.8	1.3	1.8	8	12	1	5
Hong Kong, China	28	...	...	...	...	5	5	-6	3
retained imports <sup>a</sup>	18	1.1	0.8	1.0	1.1	5	6	-9	1
Mexico <sup>b</sup>	28	1.8	1.8	1.7	1.7	3	3	-8	1
Russian Federation <sup>b</sup>	26	1.3	1.9	2.6	1.6	-5	-8	-33	-6
<b>Above 10</b>	<b>1162</b>	<b>77.5</b>	<b>77.9</b>	<b>72.8</b>	<b>71.1</b>	-	-	-	-

a. Secretariat estimates

b. Imports are valued f.a.b.

Source: WTO

**>> The role of conservation agriculture in the context of climate change**

The world has entered into a new era of action for sustainable development. As human life depends on land as well as water for sustenance and survival, the process of climate change and the multilateral commitments consequently assumed by the international agreement, impose on agricultural production a new context: environmental efficiency. In this regard, SDG No. 12 - Responsible Production and Consumption and SDG No. 15 - Life of Terrestrial Ecosystems, of Agenda 2030, are urgent to reduce the environmental footprint of growth and economic development through efficient resource management that reduces the pressure on the environment.

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In the past two centuries, according to the FAO, humans have deforested or converted 70 percent of grasslands, 50 percent of savanna, 45 percent of temperate deciduous forests and 27 percent of tropical forests for agricultural use. Over the last 40 years, almost one third of the world's arable land has been lost to erosion and it keeps on disappearing at a rate of more than 10 million hectares per year. At the same time, greenhouse gas emissions from agriculture, forestry and other land uses account for between 20 percent and 24 percent of the total global gross annual emissions that contribute to climate change. While the contribution of food systems to total greenhouse gas emissions varies from countries to regions, according to the structure of supply chains, carbon dioxide emissions from agriculture can be attributed mainly to loss of organic matter above and below the ground, through changes in land use, such as the conversion of forests into grassland or cropland, and land degradation, resulting from grazing. Most direct emissions of methane and nitrous oxide are the result of enteric fermentation in livestock, rice production in flooded fields and application of nitrogen and manure fertilizers, all of which can be reduced by applying better management practices.

Unless necessary action is taken, UNDP projects that the impact of climate change will be 30% less agricultural production than at present | by 2080 and instability in food availability, due to the occurrence of extreme phenomena and greater variability in weather. According to the IFPRI, using the International Model for Agricultural Product and Trade Policy Analysis (IMPACT), it was estimated that, by 2050, approximately 50 million more people could be at risk of malnutrition due to climate change. In addition, studies show that climate change will also have a negative impact on the nutritional quality of key food crops and the safety of final food, by an increase in foodborne pathogens, as well as pollution or chemical changes that increase the incidence of toxic compounds in them.

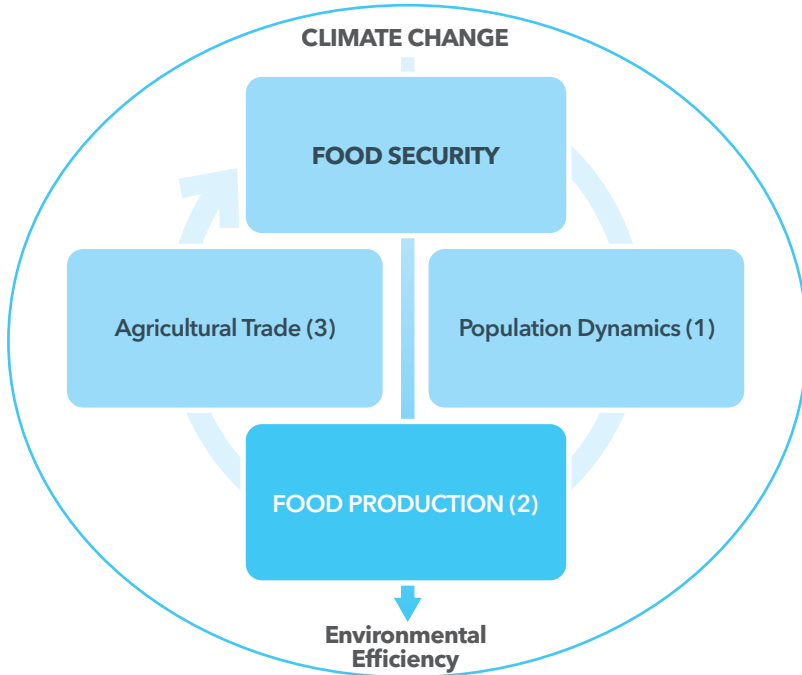
As a result, climate change in the agricultural sector further increases the gap between food production and food security. Therefore, it is concluded that population growth increases the pressure on the environment.

Consequently, **not only must we produce more food in a context of climate change but produce it efficiently by mitigating and/or neutralizing its environmental impact.** Agricultural production and climate change are posed as related challenges. As a result, a conservation or climate-smart agriculture, which is more productive with better yields without incorporating new land, is required in the short term, using the same or even smaller amount of resources currently used and reducing emissions through good environmental practices. According to the FAO, conservation agriculture has proven environmental benefits:

- Reduces soil erosion, increases organic matter and water conservation in the soil and improves soil structure and consequently its root structure
- Improves water quality
- Improves air quality
- Increases biodiversity

- Carbon sequestration.

In this new equation it is essential to emphasize that the agricultural sector, due to its physical nature, also contributes substantially to balancing the global carbon cycle favoring the capture of large amounts of atmospheric carbon dioxide. In agriculture, therefore, the concept of GHG inventory should be replaced by carbon balance, which accounts for gross direct and indirect emissions deducting them by CO<sub>2</sub>eq capturing activities, resulting in net emissions from the sector (ISO 14064:2006)<sup>98</sup>.



## >> The WTO as a tool to promote sustainable agricultural development

In the light of the projected population growth and the proposed objective of food security, the global system faces a double challenge:

- 1) Producing more food.
- 2) Reducing the environmental impact of the food produced.

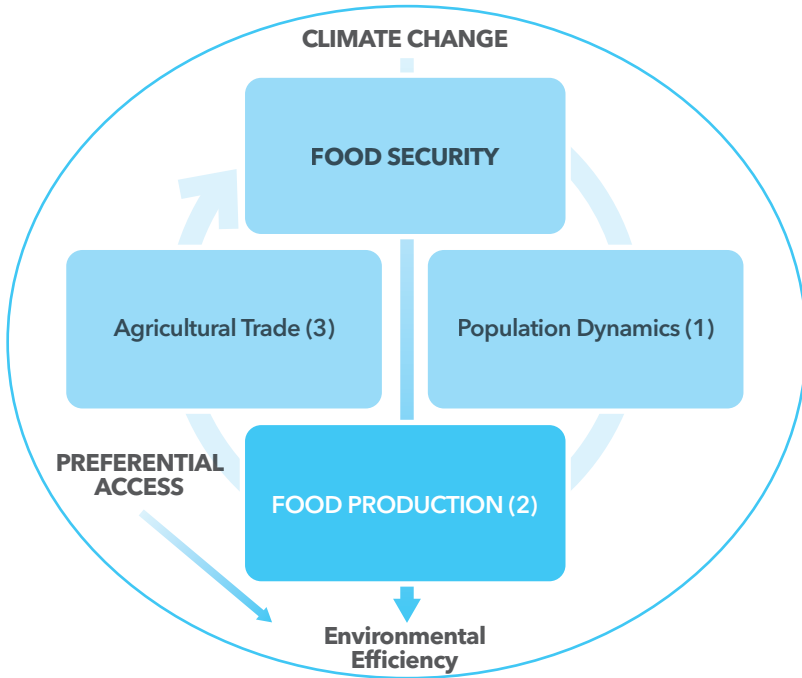
According to a UNDP estimate, the number of people at risk of malnutrition in developing countries by 2050 could be reduced by more than 120 million only by the widespread use of nitrogen-efficient crop varieties, for example. Despite this potential, farmers' adoption of improved practices is still very limited. Currently, there are 180 million hectares worldwide under the conservation agriculture system and although it has grown at an annual rate of 10 million since 2008, it is not a widespread practice today.

<sup>98</sup> In this reference on carbon balance please see E. Viglizzo (2017).

While there is a unanimous global consensus on the goal of producing more and better food, the market today is not paying the positive externality of conservation agriculture. There is currently no strong economic incentive to generalize and benefit environmentally from efficient agricultural activity on a global scale.

For this reason, there is a need for a guiding principle that is capable of integrating and harmonizing the environmentally efficient practices of millions of growers and that stimulates conservation agriculture, generating benefits for those who adopt them. The objective is to realign and integrate climate, agriculture and food security policies.

In this new perspective, international trade and its multilateral regulatory system are proposed as a tool to promote sustainable agricultural development. Greater openness of international trade, through preferential access for environmentally efficient products, would generate the economic incentive to reconvert current practices towards conservation agriculture on a global scale. Preferential international trade would generate the new environment that pays directly for the positive externality of climate-smart agriculture and indirectly reduce the environmental impact of agriculture by consistently increasing food production to achieve global food security.



**a) The relation between climate change and trade in the WTO legal framework**

Sustainable development and environmental protection and preservation are fundamental objectives of the WTO, reaffirmed in the Marrakesh Agreement within the concept of general welfare. Although there is no specific agreement dealing with the environment, as an exception, members may adopt commercial measures contrary to the principle of the Most Favored Nation (MFN) and National Treatment (NT), aimed at protecting the environment within the framework of WTO rules. This refers to Art. XX, paragraph B - to protect the health and life of humans and animals or to preserve plants.

In order to avoid covert protectionist purposes, it must first be demonstrated that the measure: protects legitimate public interests, is consistent with the domestic law of the country that establishes it, is effective in its objective, is necessary (for which it must be proven that there is not a less restrictive measure that equally meets the same objective), and there must have been a prior effort to reach the objective through international co-operation. In the second instance, under Article XX, it must be demonstrated that it is not applied in a manner that constitutes *"a means of arbitrary or unjustifiable discrimination between countries in which the same conditions prevail"* and that it is not *"a disguised restriction on international trade"*. Therefore, it is established in the legal framework that the burden of proof as an exception is extremely strict.

In turn, under the **TBT (Technical Barriers to Trade) Agreement**, non-discriminatory technical regulations, standards and conformity assessment procedures are expressly permitted. In the case of technical regulations, which are by their nature mandatory, the agreement states that they must be compatible with *"the protection of the environment"* (Article 2 (2)).

Likewise, in the Doha Mandate (paragraph 31 (iii) of the Ministerial Declaration), members are requested to conduct negotiations to reduce and/or eliminate tariffs and non-tariff measures on environmental goods and services. Accordingly, it assigns tasks to the Committee on Trade and Environment (CTE) in ordinary session. The CTE is open to the participation of all WTO members, and some international organizations have observer status. The work program of the CTE covers a number of relevant issues, from trade and the environment in general, liberalization and barriers to trade, and taxes, to various sectors such as services and intellectual property, and relations with organizations which deal with the environment. In recent discussions it has covered topics such as sustainable development, environmental requirements and access to markets, environmental labeling and testing.

As a result of this process and following the mandate of Doha, in a meeting held in 2014 outside the meeting of the World Economic Forum in Davos, negotiation commenced on an Environmental Goods Agreement (EGA). This open plurilateral agreement (which would come into effect once a certain percentage of global trade in goods by the signatory countries has been reached) would eliminate tariffs on environmental goods that can help meet environmental and climate protection objectives, for instance, through the generation of clean and renewable energy, more efficient use of energy and resources, battling air pollution, waste management, wastewater treatment, monitoring the quality of the environment and the fight against noise pollution.

Regarding the structure and functioning of the agreement, the draft currently considers:

- ▶ The elimination of tariffs would be through an annual tariff reduction schedule to be determined with differential treatment for developing and relatively less developed countries.
- ▶ There is no agreement on the definition of environmental good to date, but it is mainly aimed at facilitating access to technologies that favor environmentally efficient practices within clean development mechanism (CDM) projects.
- ▶ The draft of the current text of the agreement proposes a list of dynamic environmental goods, which can be incorporated over time and/or eliminated goods that become obsolete according to new scientific evidence.
- ▶ There is no consensus on the composition of the list of tariff items involved in the agreement. Taking a hybrid view of all submitted proposals (Australia, Colombia, Hong Kong, Norway and Singapore) to date each member state would have the power to submit its list of environmental goods to be included (national tariff line).

There would be a consensus list (where the submitted lists overlap) for which there would be a multilateral agreement between the parties and a complementary list of unilateral concessions. Additional lists could be included by bilateral negotiation, which would be extended to all members through the MFN principle. To date the lists exchanged include 409 tariff lines to a 6-digit harmonized system, comprising mainly machinery, electronics, metals, mining products, plastic, stones, glass, textiles, transportation, wood and chemicals.

- ▶ Regarding non-tariffs measures, the inclusion of this in the agreement has not advanced much even though it is intended to include customs procedures, standards, technical regulations, conformity procedures, labeling, intellectual property rights and patents.

At the moment there are 46 members, through 18 participants, who are working towards the finalization of this agreement, the benefits of which will be extended to all WTO Members. It means that they will enjoy better conditions in the markets of the participants in the Agreement on Environmental Goods.

This initiative makes it clear that WTO members recognize the need for consistent action by international institutions to address global environmental issues. The ongoing negotiations on the relationship between the WTO and Multilateral Environmental Agreements (MEAs) provide an exceptional opportunity to create positive synergies between trade and environmental programs at an international level.

#### b) Proposal: A new generalized system of preferences for environmentally efficient agricultural goods (EEAG)

Regarding agricultural and food trade, progress has been made multilaterally and specifically within the framework of the CTE in the descriptive analysis of private and public standards on the subject of sustainability, but there are no proposals for a trade system that makes a positive and significant contribution to curb environmental degradation. It is at this point that there is a proposal to devise a trading system that applies tariff preferences to environmentally efficient agricultural products (EEAG). EEAGs generate multiple profits per se:

1. Increased global agricultural trade through increased market access;
2. Lower food prices at a global level due to lower border tax burden;
3. Increase in food production;
4. Generalization of conservation agriculture and reduction of the environmental impact of agriculture through mitigation actions; and
5. Meeting global food security goals.

In short, the EEAGs respond to two growing uncertainties: food security and environmental security. Analyzing the progress that has been made, the proposal is to start a negotiation to create a generalized preferential system for environmentally efficient agricultural goods (EEAG):

- **Generalized:** without discrimination of origin - non-discriminatory treatment
- **Preferential:** reduction/elimination of import tariffs - schedule to be defined
- **Fixed list of agricultural goods - Tariff chapters included:** goods included in the WTO Agreement on Agriculture Annex I - the definition covers not only basic agricultural products such as wheat, milk and live animals, but also products derived from them, such as bread, butter and meat, as well as all processed agricultural products such as chocolate and sausages. It also includes wines, spirits and tobacco

products, fibers such as cotton, wool and silk, and raw hides of animals intended for the production of leather. Fish and fish products and forest products are not included.

## Appendix 1 Agreement on Agriculture: Products Included

i) Chapters 1 to 24 of the HS except for fish and fish products, plus*:		
ii) HS Code	2905.43	(manitol)
HS Code	2905.43	(manitol)
HS Code	2905.44	(sorbitol)
HS consignment	33.01	(essential oils)
HS consignment	35.01 to 35.05	(Alloys, modified starches, glues)
HS Code	3809.10	(Finishing products)
HS Code	3823.60	(sorbitol n.e.p.)
HS consignment	41.01 to 41.03	(leather and furs)
HS consignment	43.01	(raw hides)
HS consignment	50.01 to 50.03	(raw silk and silk waste)
HS consignment	51.01 to 52.03	(wool and hair)
HS consignment	52.01 to 52.03	(Cotton wool, cotton waste and carded or combed cotton)
	53.01	(raw linen)
HS consignment	53.02	(Raw hemp)

- **Environmentally efficient:** carbon balance 0 or negative balance - ISO 14064: 2006 (ISO is a standardization organization recognized by the WTO). They are preferable environmental goods because they are produced in ways that have a lower impact on the environment. It is a broader definition of environmental goods than that considered in the EGA.
- **Consider a non-restrictive non-tariff treatment.** Do not apply additional non-tariff barriers at the border to prevent or limit the entry of these products that will have zero or lower tariffs.

## >> Conclusions

International agricultural trade must positively redistribute food production, increasing both: quantity and quality in all regions, and consequently ensuring food security level on a global scale.

On the other hand, the world has entered a new era of action for sustainable development. As human life depends on land and water for sustenance and survival, the process of climate change and the multilateral commitments consequently assumed by the international agreement have imposed on agricultural production a new context: environmental efficiency.

The World Trade Organization (WTO) now has a historic opportunity to respond to the challenges of food security as well as to introduce parameters for improving world trade by advocating for measures in favor of climate change. To this end, food raw materials and food are especially important in this global challenge. The upcoming WTO Ministerial Conference in Buenos Aires could be the historic milestone for promoting a paradigm shift in agricultural negotiations, where the debate on market access that many countries are avoiding is resumed, linking it with the Sustainable Development Goals (SDG) in responding to food security and climate change. The link between these challenges is environmentally efficient agricultural goods (EEAG).

Promoting substantial reductions or elimination of border import duties, as well as the commitment not to establish non-tariff barriers to the EEAG, would produce a prompt response to food security as well as mitigation of the effects of climate change. The Ministerial Conference in Buenos Aires is the place for a historic agreement.

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## PART III: Some thoughts and proposals for a way forward

By Martin Piñeiro and Valeria Piñeiro

There is growing consensus that globalization, expansion of international trade, and rapid technological changes have favored developing countries more than developed ones. One clear example of this trend is the rapid Gross Domestic Product (GDP) growth rates experienced by developing countries compared to the growth rates experienced by more developed countries like Europe, the US, or Japan. This unexpected result has turned many projections of world development on their head and shifted the political thinking in many countries. One of the main consequences has been the growth of populist forces in a number of developed countries, as well as an increase in protectionist sentiments and policies around the world.

These protectionist sentiments, together with the uncertainties brought about by structural unemployment, global migration, and increasing conflict, both regional and global, have given the impression that the eleventh Ministerial Conference (XIMC) will take place in a difficult environment, making it almost impossible to advance the trade agenda and hampering the efforts of developing countries to achieve long-sought-after and long-negotiated goals.

While we concur with the overall diagnostic described above, we would also like to raise other considerations that paint a more optimistic picture. As mentioned previously, developing countries for the most part have gained from globalization and trade liberalization; they have also gained greater economic status in terms of their share of global GDP and global trade. As a consequence, these countries now have strengthened negotiating powers in international organizations in general and in multilateral negotiations in particular. It is in this context that developing countries must define their new role at the upcoming XI WTO Ministerial Conference. It seems that this MC provides the opportunity for developing countries to be especially active in presenting their views and interests in the traditional themes that are pending on the WTO agenda and, at the same time, to bring to the table new themes that need to be considered in future negotiations.

The first and main concern for developing countries should be to protect what they have gained up to now. In particular, they should push for the continued strengthening of the WTO's mandate to create global trade rules and disciplines and its role as an arbitration mechanism for trade disputes. Multilateralism is an institutional mechanism that helps small- and medium-sized countries to present and defend their special trade interests and circumstances. It is thus in their best interest for this mechanism to be strengthened. This matter gains even more importance given the Declaration agreed upon at the 2017 G20 meeting in Hamburg. A comparison of the text dealing specifically with trade issues in the last two G20 meetings (China in 2016 and Hamburg in 2017) shows some signif-

ificant differences. Although both Declarations uphold the importance of trade in world development, the text agreed upon in Hamburg is considerably weaker in its defense of freer and fairer trade and upholding of multilateralism. This suggests a new global environment that could affect the general attitude that some countries may bring to the next WTO meeting.

Developing countries, and in particular net food-exporting countries for whom agricultural trade is especially important, need to evaluate this new global political economy in relation to trade issues. There will be shifting interests and possibilities for new alliances that may lead to new types of agreements. For example, the growing importance of trade in meeting the SDGs' food security objectives could bring together large net importers and large net exporters.

Regarding the potential to reach agreements on themes that are presently being actively negotiated in the WTO under the three pillars - domestic support, market access, and export competition - there have been four informal WTO agricultural negotiating sessions since June 2017. In the last session, held on July 19, several proposals were presented and discussed. The main ones refer to domestic support, public stockholding for food security reasons, cotton, special safeguard mechanisms (SSM), and export restrictions. Market access issues were also considered, but to date no major advances have been made on this topic.

As presented in the first three chapters of Part I of this book, trade-distorting domestic support has declined substantially in the major agriculture-subsidizing developed countries over the last 20 years, while domestic support levels have been increasing in importance in developing countries. The first concern here is that despite those reductions in AMS levels, domestic support levels remain high in developed countries and are increasing in size for developing countries. A second concern about domestic support is that the current caps apply only to the aggregate level of support across all commodities. Developed countries have tended to provide most of their trade-distorting support in the form of product-specific subsidies, in most cases concentrated on products that harm net exporting countries, while developing countries have tended to provide non-product-specific support.

Bellman and Hepburn analyze some recent ideas presented by WTO members regarding domestic support. The first proposal involved cutting support using the categories under the AoA, while the second focused on a cap on all trade-distorting support as a base for future gradual cuts over time. The third proposal involves the implementation of rules on product-specific support, while the final one discusses the calibration of levels of domestic support.

Laborde et al. design a number of scenarios to show the range of possible outcomes of the domestic support debate, given the new global environment and the communications submitted by Member countries in preparation for the upcoming WTO MC. Their analysis shows where each scenario is positioned in the political space available for each country, ranging from the least ambitious scenario to the most ambitious one. The inclusion of all or some of the Blue Box and Article 6.2 into the definition of OTDS is discussed, as is the measurement unit for the OTDS limit based on a percentage of the Value of Production (reference period or variable year). In addition, the ideas of including a product cap and a possible reduction of OTDS expenditures over time are illustrated in the scenarios, showing the benefits of reaching an agreement on the issue. There remain many differences in opinion among WTO members regarding the question of domestic support for agriculture (see Illescas et al.), so it will be crucial to continue the

discussion on this topic if some kind of agreement is to be reached in Buenos Aires. At a time when there is a general tendency to implement more protectionist policies aimed at consolidating national production, eliminating water levels is a way of consolidating, or putting a ceiling on, the existing situation and preventing a return to the highest levels of domestic support allowed by current consolidated levels.

As mentioned in several of the articles in this book, if the WTO rules on domestic support are to be effective, compliance must be monitored and enforced. Additional questions have arisen as to whether domestic support has been notified appropriately in accordance with Article 6 and Annex 2.

The use of public stocks for food security purposes is also still widely debated within the WTO. As mentioned in the article by Díaz-Bonilla, it is important to start the discussion by defining the problem that food stocks try to solve. It is also important to note that neither emergency stocks nor food redistribution stocks should conflict with WTO disciplines if the products are purchased at market prices.

Under the market access pillar, the latest paper presented at the WTO by Paraguay and Peru has gained a lot of attention from other members. The paper proposes a continuation of the reform process in market access, done in steps; this would include tariff simplification, a reduction of the tariff overhang in the case of tariff peaks, a reduction of bound tariffs in the case of tariff escalation, and a cut in bound in-quota tariffs, following special and differential treatment for developing countries. The article by Tejada and Perini emphasizes that in order to grant effective market access, sensitive products should be included in this proposal and non-tariff barriers should be taken into account. These authors also mention the importance of the Special Safeguard Mechanisms (SSM) for the agro-industrial sector; there will also need to be an agreement between Members that see this policy instrument as key in addressing import surges, price volatility, and food security goals and Members that believe the SSM can be used as trade protection.

As stated in the article by Illescas, the issues surrounding export subsidies still constitute unfinished business, given that the Nairobi Decision does not replace, reform, or amend the Agreement on Agriculture (AoA). In order to make the Nairobi Decision effective, countries must implement the commitments through a modification of their schedules. If such implementation does not happen, members can continue applying export subsidies without breaching international regulations. It will be crucial that this need for compliance is raised and recognized at the XIMC.

The second Part of this book presents two subjects that the WTO has thus far considered in a very tentative way and that have therefore seen little or no progress. They are, however, themes of great importance and urgency for the evolution of global food security and agricultural trade.

The first theme concerns export restrictions. As with other topics that have been discussed throughout this book, WTO Member countries can be classified into two groups based on their beliefs about how to treat the issue. The first group supports the idea of improving transparency regarding export restrictions, in line with the arguments presented by Singapore, in the paper presented at the WTO in July 2016. A second group - mostly developing countries - emphasizes the importance of export restrictions as a policy tool to deal with price volatility in the case of food shortages and food security needs. Bianchi and M. Piñero present the main arguments used for justifying the application of export restrictions and describe their potential effect on food security. These authors conclude that countries can resort to less distortionary policies than trade measures to

protect their vulnerable populations from extraordinary food price spikes and volatility. They also suggest that food exporters could benefit from an agreement that eliminates export restrictions in exchange for better market access (such as an escalation of import tariffs on food products). In contributing to the discussion about export restrictions, V. Piñeiro et al. report that although export taxes and export restrictions decrease domestic prices, they also contribute to higher international prices; in the long run, these restrictions could discourage investment in the agricultural sector and hence could reduce food supply. This would accentuate the increase in international prices, but would also create upward pressure on domestic prices. Using Argentina's, experience, they analyze the effect of the change in policies - export taxes and export restrictions in the agricultural sector - on the domestic economy and the world.

Our conclusion is that export restrictions need to be looked at from a big picture perspective - the whole world - rather than from the perspective of just one country. Export taxes can be effective for the country applying them if the objective is to keep domestic prices at a certain level. However, this measure could have a completely opposite impact on other countries by reducing the global supply of that commodity, driving global prices up, and hence hurting consumers in food-importing countries. Finding the right balance between political constraints and countries' desired goals will be crucial in the upcoming negotiations.

The second new theme presented in Part II relates to the proposal to incorporate environmental standards into the multilateral disciplines. The world population is expected to reach 8,500 million by 2030; this explosive population growth, coupled with urbanization and rapid expansion of the middle class, will put enormous pressure on food demand (both quantity and quality).

These food demands will require increased use of progressively scarce natural resources and will inevitably increase the carbon footprint from agricultural production. In response to these concerns, a number of food-importing countries have begun to suggest the need to apply environmental standards to food trade. The article by Papendiek and Idígoras takes up this challenge and proposes the concept of environmental efficiency in food production. Such a proposal would provide trade access incentives to countries that comply with the agreed-upon environmental standards and consequently would promote, globally, more environmentally efficient food production and food trade.

All of the proposals discussed under these themes (the traditional five that fall within the three pillars of the AoA, as well as the two new themes discussed above) need to be negotiated if we are to achieve a global trade system with fewer distortions. However, these proposals are still relatively minor in their expected overall impact on agricultural trade liberalization. They also will have limited impact on the challenges emerging from the four main global trends discussed in the introduction of this book - growth in agricultural trade, more trade players from the South, food trade concentrated in a few large net importers and net exporters, and environmental concerns and their relation to trade.

In our view, the WTO and its Member countries need to look boldly into the future and commit to a dialogue that will serve as the basis for a stronger role for international trade in the context of the complex and challenging issues that lie ahead. In building this dialogue, it is important to recognize the links between the XI WTO Ministerial Meeting and the G20 process. This is particularly relevant today, since both Ministerial meetings will be held in Buenos Aires before the end of 2018.

Three broad and complex issues emerge as especially important in our minds. The first issue has to do with the correct interpretation of the role of trade in the structural unemployment that pervades the world. It seems to us that technological change (automation, information technologies, etc.) is the main driver of this trend. Globalization and trade are only the mechanisms through which these technologies spread around the world. The problem we need to resolve is not how to stop technological change, but rather how societies can adjust their economic and social organization to handle the reduced need for human physical labor and instead take full advantage of the opportunities provided by these new technologies.

The second issue relates to the need for a better understanding of the relationships and interactions among world food security, climate change, and food trade. As the global population continues to grow and become wealthier, significantly increased food production will be needed in the next three decades. At the same time, climate change will continue to pose challenges to agricultural production in many areas. The main question then, is how food production can be concentrated in geographic areas that can produce food with the greatest environmental efficiency due to their ecological conditions, agrarian structures, and technological patterns.

Finally, the third issue relates to the market instability that may arise as a consequence of the large and increasing concentration of food trade in a few large net importing and net exporting countries and sub-regions. The relatively large size of these markets creates instability in global markets. In the absence of strong multilateralism and in an increasingly uncertain world, these large net importing or exporting countries could be tempted to take self-serving actions which could result in even more unstable international food prices and trade flows.

In addition to public policies at the country and regional level, appropriate responses to these broad issues will require more liberalized and fairer trade. Multilateralism in general, and the WTO, have a major role to play in ensuring the establishment of such a trading system.



# CONTRIBUTORS

**Christophe Bellmann** (cbellmann@ictsd.ch) is a Senior Resident Research Associate at ICTSD with more than 20 years of experience working on international trade negotiations and policy making from a sustainable development perspective. His work focuses on international trade negotiations, development policies and environmental governance in areas such as agriculture and food security, fisheries, tariffs and non-tariff barriers, rules, regional trade, services and intellectual property rights. He holds an MA in International Relations from the Graduate Institute for International Studies.

**Eduardo Bianchi** (eduardodbianchi@gmail.com) is a professor and researcher at Instituto Universitario Escuela Argentina de Negocios (IUEAN) and Grupo CEO, Argentina. He is also international consultant and member of the editorial committee of IANAS Food and Nutrition Security for the Americas program. He was Secretary of Industry and Trade of Argentina and he was an instructor for WTO's training missions on trade. He is an economist from the University of Buenos Aires and from New York University (NYU). His current research work deals with international trade and food security.

**Eugenio Díaz-Bonilla** (E.Diaz-Bonilla@cgiar.org) is the head of the Latin America and Caribbean Program at IFPRI, Washington, DC. He has represented his country, Argentina, as a senior diplomat and as executive director at the Inter-American Development Bank. He has worked for several international organizations, including the World Bank, the United Nations Development Programme, the Food and Agriculture Organization of the United Nations, the International Institute for Cooperation in Agriculture, and the Organization of American States. He earned a master's degree in International Relations and a PhD in Economics, both from Johns Hopkins University, Baltimore.

**Pablo Elverdin** (pelverdin@gmail.com) is an external consultant in the Markets, Trade, and Institutions Division of IFPRI, member of Grupo CEO in Buenos Aires and coordinator of strategy and contents in the Group of Producing Countries of Southern Corn -GPS-. His research interests include economics, food security and trade. Previously, he performed functions of director in the areas of industry and foreign trade in the Argentine government.

**Joseph Glauber** (j.glauber@cgiar.org) is a senior research fellow in the Markets, Trade, and Institutions Division of IFPRI, Washington, DC, and a former chief economist at the US Department of Agriculture, Washington, DC. From 2007 to 2009 he served as the US chief agricultural negotiator in the Doha Round. He received his PhD in Agricultural Economics from the University of Wisconsin in 1984 and in 2012 was elected Fellow of the American Applied Economics Association.

**Jonathan Hepburn** (jhepburn@ictsd.ch) is the Senior Programme Manager, Agriculture at the International Centre for Trade and Sustainable Development in Geneva. He joined ICTSD in 2006, where he is responsible for the organization's work on how farm trade policy and rules affect food security, equity and the environment. He has previously worked on development financing as Oxfam International's representative to the World Bank and IMF in Washington, D.C.; and on trade, development and human rights issues with the Quaker United Nations Office, Geneva. He has written on a range of public policy and trade issues, including on development financing, intellectual property rules, climate change, and food, agriculture and biodiversity.

**Gustavo Idígoras** (gustavo.idigoras@gmail.com) has a degree on political sciences and a master degree on international affairs and business and a PhD in Agricultural Business Administration. He is a postgraduate professor and researcher on International Trade of Food in different Universities in Argentina. He is also Director of WTO-SPS E Learning Courses for Latin America and Caribbean Countries. He is a senior advisor of Group of Producing Countries from the Southern Cone (GPS).

**Nelson Illescas** (nillescas@inai.org.ar) is the head of the INAI Foundation (Institute for International Agricultural Negotiations), Buenos Aires, Argentina. He is an Argentinian lawyer and consultant in the field of international law and agricultural negotiations and has wrote articles and papers related to agricultural issues, negotiations, trade dispute, among others. He has worked as a consultant for international institutions, such as the International Development Bank, and national programs, like PROSAP. He has been invited to lecture in different seminars (IFPRI, ACSoja, MAIZAR) and universities (UBA, UNLP, UCA, UNTREF, UNLPam). He teaches in the Austral University, the Belgrano University and the National University of La Plata. He holds a law degree (FCJyS, UNLP, Argentina), and a Master's degree on international relations (thesis pending) from the International Relations Institute (IRI, UNLP, Argentina).

**Nicolás Jorge** (njorge@inai.org.ar) is an economist at the INAI Foundation (Institute for International Agricultural Negotiations), Buenos Aires, Argentina, with experience in simulation models and international trade. He studied in the University of Buenos Aires, and postgraduate studies at Torcuato Di Tella University. He has worked in the Undersecretariat of International Economic Relations of the Ministry of Production of the Province of Buenos Aires; in the Ministry of Agriculture and in the Ministry of Economy both of the nation. He was a consultant for BID-FOMIN.

**David Laborde Debucquet** (d.laborde@cgiar.org) is a senior research fellow in the Markets, Trade, and Institutions Division and the theme leader on Macroeconomics and Trade for IFPRI, Washington, DC. His research interests include international trade, measurement and modeling of protectionism, and multilateral and regional trade liberalization, as well as environmental issues (climate change, biofuels). Prior to joining IFPRI, he was an economist at the Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), Paris, between 2003 and 2007. He earned a PhD in Economics from the University of Pau in 2008.

**Sabine Papendieck** (sp@strateco.com.ar) is a senior researcher and consultant in international trade and sustainability in ESTRATECO, Buenos Aires, Argentina. Her research interest includes international trade, market access and sustainable trade related issues. She earned a master's degree in International Economic Relations from the Universidad del San Andrés, FLACSO and Universidad de Barcelona.



**Sofía C. Perini** (sperini@inai.org.ar) is an economist at the INAI Foundation (Institute for International Agricultural Negotiations), Buenos Aires, Argentina. With a postgraduate specialization in Negotiations and International Trade in Agro-industries (University of Buenos Aires). She has worked as a technical advisor in the area of Foreign Affairs of the Ministry of Agroindustry of the Argentine Republic and as an analyst in the area of Planning and Management Control for Banco Itaú Argentina. She has written articles and publications on issues related to agribusiness trade and international negotiations and also advised on consulting work for organizations such as Inter-American Institute for Cooperation on Agriculture (IICA) and SNV Latin America.

**Martin Piñeiro** (martin.pineiro2@gmail.com) has a Ph.D. (Agricultural Economics) from University of California, USA. Presently: Director Grupo Ceo, Chair of the Committee on Agriculture of the Argentine Council of International Relations (CARI), Argentina. Member of the GPS. Formerly: Undersecretary, for Agriculture, Argentina. Director General of the Inter-American Institute for Cooperation on Agriculture (IICA). Member Board of Trustees and Chair of Program Committee of the International Service for Agricultural Research (ISNAR), Board Chair International Food Policy Research Institute (IFPRI). Has published 10 books and more than 100 papers about development, agricultural policies, and institutional development.

**Valeria Piñeiro** (v.pineiro@cgiar.org) is an Economist in the Markets, Trade, and Institutions Division at the International Food Policy Research Institute and a faculty member at the Applied Economics Master's Program in the Johns Hopkins University. Her research interests include international trade, development strategies and economic growth, growth linkages and regional dynamics, and sources of growth and structural change. She received her Ph.D. in Agricultural Economics from the University of Maryland.

**Agustin Tejada Rodriguez** (atejada@bc.org.ar) is currently Chief Economist at the Buenos Aires Grain Exchange. He is also external consultant on agricultural and trade policies at different international organizations and institutions, such as ECLAC and ICTSD. Mr. Tejada is professor at postgraduate and graduate courses in different national universities. He has published several articles and papers in journals and magazines. Mr. Tejada has a bachelor degree in Economics from the University of Buenos Aires and postgraduate studies in International Relations at the University of La Plata and Agribusiness at the University of San Andrés.







Av. Corrientes 123-Pb.  
C1043AAB Buenos Aires Argentina  
T. +54-11-4515-8200  
F. +54-11-4515-8300  
Email: web@bc.org.ar  
Web: www.bolsadecereales.com



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INTERNACIONALES

Av. Corrientes 127 4to piso, of. 413-415  
C1043AAB Buenos Aires, Argentina  
T. +54-11-4312-1092  
+54-11-4515-8200 int. 3500/1  
Email: inai@inai.org.ar  
Web: inai.org.ar



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55-2200 San José, Vázquez de Coronado  
San Isidro 11101, Costa Rica  
T. +506-2216-0222  
F. +506-2216-0233  
Email: iicahq@iica.int  
Web: www.iica.int



**ICTSD**

International Centre for Trade  
and Sustainable Development

International Environment House 2  
Chemin de Balexert 7-9  
1219 Châtelaine, Geneva, Switzerland  
T. +41-22-917-84-92  
F. +41-22-917-80-93  
Email: info@ictsd.ch  
Web: www.ictsd.org



INTERNATIONAL  
FOOD POLICY  
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INSTITUTE

**IFPRI**

1201 Eye Street, NW  
Washington, DC 20005 USA  
T. +1-202-862-5600  
F. +1-202-862-5606  
Email: ifpri@cgiar.org  
Web: www.ifpri.org