Trade rules and food security
Scope for domestic support and food stocks
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by
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Abbreviations used in the text

ACP    African, Caribbean and Pacific Group of States
AMS    Aggregate Measure of support
AoA    Agreement on Agriculture
APTE RR ASEAN plus three Emergency Rice Reserve
ASEAN  Association of Southeast Asian Nation
BIT    Bilateral Investment Treaty
BRIC   Brazil, Russia, India, China
CAP    Common Agricultural Policy
CARIF ORUM The Caribbean Forum
CIC SS Comité inter-État de lutte contre la sécheresse au Sahel
       (Permanent Interstate Committee for Drought Control in the Sahel)
CIF    Cost, Insurance, Freight
CU     Customs Union
ECOWAS Economic Community of West African States
EPA    Economic Partnership Agreement
EU     European Union
FDI    Foreign Direct Investment
FERP   Fixed Eternal Reference Price
FOB    Freight on Board
FTA    Free Trade Area
GATT   General Agreement on Tariffs and Trade
GDP    Gross Domestic Product
GSP+   Generalized System of Preferences
GSSE   General Services Support Estimate
ICTSD International Centre for Trade and Sustainable Development
ISDS   Investor-State Dispute Settlement
LDC    Least-Developed Countries
MFN    Most Favored Nations
NAMA   Non-Agricultural Market Access
NFIDC  Net-Food Importing Developing Countries
OECD   Organisation for Economic Co-operation and Development
PSE    Producer Support Estimate
RESO GST Réseau régional des offices chargés de la gestion des stocks nationaux de sécurité alimentaire
       (Network of Structures for the Management of national food security Stocks in the Sahel
       and in West Africa)
RTA    Regional Trade Agreement
SCM    Subsidies and Countervailing Measures
SPS    Sanitary and Phytosanitary (issues)
SSG    Special Safeguard Mechanism
TRIMS  Trade Related Investment Measures
TRQ    Tariff-Rate Quotas
UN     United Nations
US     United States (of America)
WTO    World Trade Organization
The current World Trade Organization (WTO) negotiations, the so called “Doha Development Round”, have been pending for years. As a result, many of the large trade actors increasingly resort to bilateral instead of multilateral agreements.

Despite the dissipated expectations of the international community, the headline news at the end of 2013 celebrated a historical and enthusiastic breakthrough at the WTO Ministerial Conference in Bali. An Agreement on Trade Facilitation was to be adopted and supplemented among others by a decision on new rules for agricultural subsidies that support food security stocks (“The Bali package”). However, these more generous rules compared to the prior ones were considered non-permanent. Current rules limit such subsidies, if they were assumed to influence production.

It was India fighting strongly for more scope on the use of subsidies. The strategic reason behind that is that India is in conflict with its subsidy commitments that it made during the last negotiation round 1986 - 1994, the Uruguay round. Due to newly introduced food security policies, India risks threatening its past WTO commitments on agricultural subsidies. The new Indian National Food Security Act of 2013 will provide food for nearly 75% of Indian population in terms of 5 kg of food grain per month. A minimum price system is supposed to stimulate production. But the new programs may double the recent $19 billion government outlay per year leading to costs of nearly 3% of the Indian Gross Domestic Product (GDP). This program gained large domestic political support during the last Indian presidency election phase. However, it puts new burden on fulfilling the Indian WTO commitments.

After the initial enthusiasm on this putative breakthrough in Bali, disappointment came on the heels. India declared the withdrawal of its commitment to the Trade Facilitation Agreement unless the food stock compromise would be defined as permanent. It took one year to find a final solution between India and particularly the US, India’s visible major counterpart. Formally, a final decision on the exception still has to be found. This is envisaged for the end of 2015 at the WTO Ministerial Council in Nairobi.

The history of the compromise reveals some general questions behind this specific agricultural topic: How flexible should and can the WTO community be in order to overcome the pending process? Does food security symbolize new needs that require consideration by trade rules?

The major reasons for the increasingly difficult WTO negotiations at least on agriculture are related to (1) a change in the market situation since the adoption of the current rules in 1994, (2) a change in countries’ trade positions since 1994 and therefore, in their interests, and (3) a certain WTO rule not allowing flexible adjustments (“ratchet mechanism”):

(1) For decades, agricultural prices have been steadily decreasing mainly due to high rates of productivity pushing supply over demand. This underlined the interest in protecting against imports and in supporting farm incomes. Respective measures were implemented extensively in the past: Mostly in the form of tariffs and large subsidies and especially paid by developed countries. After several unsuccessful trials, the Agreement on Agriculture (AoA) could be adopted in 1994 and defined rules to cap and reduce the huge number of agricultural trade measures and subsidies. However, since the turn of the millennium, a shift in trend towards increasing prices and possibly more volatile prices seems apparent. This causes a shift in risks and interests: High prices are by nature a problem for importing countries and especially for economically weak countries which cannot easily cope with raising import expenditures due to price hikes. This may also threaten food security. Therefore, today the interest in new rules is more present in importing countries.

(2) In addition, there is a change in trade actors, partially linked to the different market situation but as well to economic development. Countries like Brazil, India and China became large actors on the world market since the last WTO agreement. Moreover, they heavily increased their national agricultural budgets in terms of subsidies. This explains their interest in updated rules that may allow new and more subsidies. In addition, some developing countries also follow the idea of lending more public support to agriculture, such as the self-commitment made by the Maputo Declaration of African countries. Such public support programs may result in the need for more scope for subsidies at WTO level. This is in particular valid for those countries that originally did not grant large subsidies in 1994.

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With respect to urgency and options for improvement of food security support within the WTO frame, one may conclude that:

- In the short-term, the developed countries could improve understanding and knowledge of developing countries about existing WTO rules and scope. This stimulates their use of appropriate measures. The developed countries could share their experiences. Thereby the existing policy scope could be better used for food security measures. Besides reaching formal compatibility with rules, it should be the political aim to find the best instruments to support food security which are tailor-made for the vulnerable country at stake. This can be followed by specific evaluation and monitoring of applied policies’ effectiveness.

- Mid and long-term improvements address any changes to WTO rules: A real new concept for agriculture requires a general and self-critical check of the use of subsidies especially by the developed countries. Historically, developed countries applied the allowed subsidies at a level which supported their competitiveness, often at the disadvantage of developing countries. A real new approach would require an honest examination and general reduction of subsidies – something that had been comprehensively negotiated before the Doha negotiations collapsed, at the end of 2008.

The Bali compromise can support to overcome the WTO halt. It is a helpful political signal to consider the changed market and power-situation among member countries. However, the Bali outcome still needs to be accompanied by an oversight mechanism that would monitor possible trade effects. Developing countries should not press towards identical rules, as a matter of principle only. They already have the opportunity to support agriculture through other subsidies than relying on amber box measures to which they often have no access. They should not copy mistakes made by developed countries for decades. It is in developing countries’ best interest to seek better suited types of allowed subsidies and of internal policies to support food security. This could be measures such as investments in infrastructure and rural development or the establishment of social policies helping poor households.

(3) No adjustment mechanism is foreseen that consider such changes. To the contrary, this approach known as “ratchet mechanism” supports a conservative subsidy structure: Countries could apply for the right to use a certain subsidy type only once in the last Uruguay round. The subsidy limit was set at zero level if they did not apply for it, and cannot be changed later. This is why India faces problems, as it started using certain subsidies without having its subsidies registered in 1994. For the Maputo countries such risk may arise in the future as well.

This study draws conclusion on the impact of trade and food security and on WTO reform options to support food security. As general conclusions one may highlight that:

- Food security is too complex as to address it only with trade policy alone. Nevertheless, trade measures are frequently used and a politically “convenient tool” compared to more difficult domestic policy changes, as for example taxes. In development and economic theory, there is consensus that open trade fosters economic development and consequently also food security. However, there are exceptions explicitly for agriculture: for example in times of unusual food shortage that may justify the use of trade policy instruments.

- There is respective flexibility within the existing WTO rules to support food security using trade-related means. Since the very beginning of the General Agreement on Tariffs and Trade (GATT), respective rules for food security are often defined explicitly and exclusively. Due to historical factors, there is an asymmetric focus on import measures, like tariffs, protecting against low prices rather than measures, like export taxes, against high prices. This implies that there is more scope for protection against high prices since this area is less regulated. This scope however may cause market insecurity if for examples implemented as an export ban by a large exporter.

With regards to domestic subsidies, there are more requirements and restrictions for producer than for consumer subsidies. This again leaves scope for using the latter for food security reasons. In addition to the specific support of food stocks, at stake in Bali, other subsidies can be implemented such as “development” subsidies or support under “de Minimis”. Various developing countries use a whole set of these possible subsidies.
Considering potential trade rule reforms to support food security requires identifying the linkages between trade and food security—does trade in any case support food security? The question is addressed by the overall debate on trade and growth and its correspondence to poverty reduction. This debate has undergone different phases due to the changing nature of the current problems and perspectives. The debate has developed in line with economic philosophies over time. Likewise, currently implemented trade policy followed the assumptions of different economic theories and problems:

- The economic ideas of the 1960s and 1970s reflected the existing challenges of this period, i.e. the oil price volatility and the debt crises in the development world. This led to a more protectionist view and to a closing of domestic markets.

- The 1980s and 1990s were influenced by a subsequent push in the opposite direction, towards a free trade and export-oriented perspective. This ideology has played an important role in large development programs, e.g. by the World Bank.

- A renaissance for more intervention can be observed, especially in the course of the ‘food price crises’ in 2008 and 2011. Considerable research has been undertaken on price volatility at that time. These high prices did not only result in a rise in global hunger levels, but they also triggered violent riots in about 20 countries which to a certain extent exasperated the political crises like the Arab spring. Since then, both the awareness of the agricultural sector and the volume of public expenditures for agriculture (e.g. by development aid) has increased.

The paths of how trade influences food security can be direct and indirect:

- **Direct supply-related effects** occur via food imports and internal food security may increase. High prices increase importing countries’ food bills but raise exporting countries’ export revenues.

- **Indirect effects occur via growth stimuli** and investments: Increased prices may encourage agricultural investments and thereby increase production and possibly food security. Lower prices and increased competitiveness may result in raising food exports increasing food security in trade partners.

The explicit causality of food security and trade is shown by using the Food and Agriculture Organisation’s (FAO) definition of food security, being composed of four dimensions. This concept of food security as such (Table 1) is trade-neutral in the sense that it does suggest neither free trade nor self-sufficiency:

1. The availability of food in terms of physical supply can be satisfied by domestic production, by imports or by food aid. A trade-relevant parameter is the producer price compared to the world market price—this influences the attractiveness of investing in domestic agriculture. Both domestic quantities (affected by import and export costs) and global supplies influence domestic supply. Incentives for donors to offer food aid also depend on comparative costs—the higher world prices are, the less attractive is aid compared to commercial selling.

2. Access to food addresses the income level and prices. Especially in countries with low income level households already spending the bulk of their income on food. Any price increase, therefore, results in an essential deficiency. Prices may be influenced again by quantities and trade costs but also by growth effects leading possibly to higher incomes. Most relevant here are the consumer prices. Contradictory effects may appear which are relevant for political decisions: Whom to support, by what means, and to consider what side effects there may be on other actors. For the consumer, a reasonable price is a low price, whereas for the producer, in contrast, a high price is of benefit. In addition, the groups of consumers and producers need to be differentiated. The urban consumer is mainly a pure consumer, whereas the rural consumer is often also a producer at the same time, and therefore simultaneously benefits and suffers from low food prices.

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Graph 1: Food security, trade and examples for trade-measures

(3) Stability in terms of both a stable access and availability situation. There is a direct link to price volatility which, again, is depending on the global stock situation, quickly releasable quantities may relax price tensions but require stocks in terms of surpluses. 5

(4) Usability is the most complex dimension as it is referring to the overall framing of food security. Food security is only effective if other essential services are available also, such as public health and drinking water quality. One example is how the recent humanitarian Ebola catastrophe has also developed into a food crisis. Only looking at food will not sufficiently address the crisis, however it remains an important part. There must be multiple parallel approaches to the different aspects of crisis. This analysis will not focus on this dimension, as its link to food trade issues is not as direct.

The free trade idea dominates in trade theory, but with few exceptions relevant for food security

Conventional trade theory suggests in general liberal trade, i.e. no trade measures should hinder optimal factor allocation. This maximizes welfare which in principal is growth stimulating. In addition, regarding price volatility, it can be shown that liberal trade supports the buffer function of larger international markets compared to thinner domestically closed markets. 6 By assessing the correlation between food insecurity and open trade, no benefit of restricting trade could be revealed (Matthews 2014b). 7

However, some restrictions to trade are supported, even by conventional theory in certain situations: 8

- Individual optimal tariffs. Large countries may increase their individual welfare but at the expense of global welfare as they can influence their terms of trade. This explains global free trade as a prisoner’s dilemma requiring strong and enforceable global rules as offered by the WTO.

6 Hla Myint, „The classical theory“ of international trade and the under-developed countries. The Economic Journal 68.270 (1958): 317–337; FAO, Trade Reforms and Food Security (see note 4).
7 Alan Matthews, Trade rules, food security and the multilateral trade negotiations, European Review of Agricultural Economics 43.3 (2014), 512–535.
Especially for countries with an internationally not competitive agricultural sector in developing countries not sufficiently competitive in comparison with other countries. However, such tariffs should be abolished once the domestic production is competitive. This time limit often is not implemented due to resistance of beneficiary actors.

Market failures (spill overs, public goods). These are directly linked to trade, like environmental damages via transport which may also justify trade measures to internalize the effects, as long as welfare would increase in consequence. Whether food security can be seen as public goods calling for public intervention is part of an ongoing debate. Some authors support the argument that food security can be considered as a public good. However, others claim the private character of food supplies. The public goods character implies that policy intervention is needed to offer food security or solve underlying market failures.

Existing trade rules reflect this understanding of allowing restrictions only if they justify for exceptions (chapter 3.) which is often applicable especially to agriculture.

Explicit concepts of trade and food security: Self-reliance, self-sufficiency and sovereignty

Especially for countries with an internationally not competitive but domestically dominant agricultural sector, a trade-liberal dependence on food imports is not necessarily the silver bullet for poverty alleviation. Instead, it could be an option to reduce food imports through own domestic production. This idea supports the strategy of self-sufficiency which is one option within the dichotomy of free trade and autarky:

The free trade approach ("self-reliance") implies that food security can also be achieved through imports, if that reflects optimal allocation of production factors. Thereby a country may use its currencies received by exports to buy-in food. Relying on this approach supports free trade, i.e. avoiding trade barriers.

The approach of self-sufficiency starts from the argument of stability, i.e. not to rely on international markets or other countries as supply and following price changes may affect access to food. High food prices push up import bills and may hinder food security as countries may no longer able to import during these phases. Likewise, political crises may suddenly shorten food imports. This approach is very often adopted by countries in the area of critical commodities, like agricultural raw products, but also for energy commodities. For example, in the EU this idea was a major rationale for the design of the Common Agricultural Policy (CAP) and remained an unchanged policy objective since the Rome Treaty in 1957 (Art. 39). In principle, this objective is supported by the idea of food security being a public good which calls for political regulation. The question remains as to what constitutes the best type of political regulation. This target of self-sufficiency bears the risk of inefficient political means to achieve it. Often, strong political support through subsidies or price guarantees is justified by this objective and accompanied by high border protection to avoid cheaper imports.

From the food security perspective more political and rights-based arguments are supported:

The idea of "food sovereignty" was first initiated by small farmers’ non-governmental organisations, stressing a country’s independent decision of defining it’s individual national food policy. Other connotations interpret this idea as equal to self-sufficiency and thereby to trade protectionism.

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The **rights-based approach** focuses on the right to food as a human right. This may link trade agreements to human rights in the sense that they should not hinder countries to fulfill their human rights duties to respect, protect and fulfill the right to food. There is no comprehensive theoretical coverage of the link between trade and the right to food. Some authors generally demand for protective trade measures similar to some interpretations of sovereignty as they consider high risks for human rights in the course of liberalisation.16

**Subsidies and food security**

The effect of subsidies on food security can be direct and indirect: They can directly influence production (food availability) or prices and, thereby income (food access).

There are subsidies addressing primarily the producer (income support, input or loans subsidies) or the consumer (VAT reductions for food), which however may counter-productively influence also other relevant actors (lower consumer prices function like producer taxes). More indirectly, they may influence the international competitiveness by making a supply price-attractive even within uncompetitive, expensive surroundings. For example, in mountainous European areas, where agricultural production is expensive, it would require high prices to cover these costs without subsidies. Consumers would not be willing to pay these prices. Even if such subsidies are designed completely market-neutral as a lump sum, they still increase the income basis of a farmer and remain an incentive to continue farming.17

To evaluate their effects on food security, it is important to distinguish between the short and long term perspective, between producers or consumers affected first and the effects for either domestic or foreign markets. Short-term subsidies can increase domestic production and food supply, however in the long term, counterproductive effects may appear as subsidies can hinder actors from acting risk-oriented and effective—an experience known from the long CAP history leading to ineffective surpluses. Supporting consumers can impose a burden on producers as this may function like a producer tax.

And even though there can be positive domestic impacts in the short term, this may not be the case for other countries, via world market effects. A counterproductive negative effect may be the case, if economically large countries support their exports, what may lower world market prices. If vice versa they abolish export subsidies, they push world market prices.

**Stocks and food security**

The release of stocks is a intuitively logical reaction to tense situations of shortages. Due to the recent phases of increasing price volatility there was a renaissance of this dominant research issue already analyzed by Newbery and Stiglitz (1981). Von Braun and Torero (2008) conclude a combined physical and virtual reserve, i.e., an option to intervene on financial markets. It is important to differ according to the stocks’ spatial–global, regional, national, and local level and the stocks’ purpose—providing emergency supplies or affecting prices. These different modes address either food availability or access and can have different impacts on international markets. Buffer stocks are mainly envisaged at global or regional level to influence the general price level, whereas emergency stocks are often limited to the regional level. Emergency stocks can be effective and not trade-distortive if their release and distribution are clearly based on needs. For buffer stocks, risks are seen as their intention is to affect prices. Political failure may arise so that the welfare-maximal level aimed at cannot be reached. Then they reduce price peaks at higher costs than benefits.

Stocks are linked to subsidies. Either because their volumes are generated by the help of subsidies that provide delivery incentives to farmers or because they can be a side effect of genuine subsidies. This was the case in the EU when the subsidy type “guarantee prices” which led to surpluses filling the intervention stocks for a long time.

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15 Olivier De Schutter, Promotion and protection of all human rights, civic, political, economic, social and cultural rights, including the right to development, Human Rights Council 4 (2009); Stefan Tangermann, Balancing international trade with the right to food, Agra Europa (2012): 20–21.

16 Ibid, 42.


18 Joachim von Braun and Maximo Torero, Physical and Virtual Global Food Reserves to Protect the Poor and Prevent Market Failure, IFPRI Policy Brief (2008).


Investments, trade and food security

The link between foreign direct investments (FDI) and trade is discussed within the spectrum of being substitutes or complements. That is, companies either trade or invest or they complement both. As a consequence, investments may increase or reduce trade. The first may happen via vertical integration and the use of input factors produced abroad for domestic production. The latter occurs if former exports are replaced by direct production within the economy of the host country of FDIs.

Compared to trade theory, the addressed actor is different: The focus is mainly on private actors (or state owned enterprises) i.e. the investing company contrary to the focus on countries in trade theory. The behavior however is influenced by states’ rules.

Additionally, different from trade theory, there is no closed investment theory but links can be found to those trade theories that look specifically at allocation and production factors:

- **Comparative factor availability**: Production factors will be used where they are less scarce or cheaper. These comparative costs may be also affected by trade measures. Such differences play a role regarding land and energy prices and resulting land investments abroad (“land grab”).

- **Barrier hopping**: To bypass trade barriers, direct production in the host country can be attractive.

Regarding food security, there are very few empirical studies that analyze the impact of investments. However, some general analyses show that increasing productivity lead to positive growth effects and related food security effects. Moreover technology transfer may increase growth.

Crowding in describes a push on investments in the way that investments are induced by FDI beyond the original investment volume, e.g. by surrounding infrastructure. A negative crowding out may reduce investments by replacing and abolishing formerly existing investments.

Recent literature on land investments explores risks due to replacing former local producers by large and competitive investors. This may lead to income and food insecurity. Replacing land formerly used for domestic supply by export crops can reduce domestically available food supply. Loss in water supply and biodiversity and by that midterm losses for food security can occur, too.

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Matthews summarizes that the impact of agricultural trade and trade liberalization on food security is mediated by other factors like markets, infrastructure, political institutions and governance. Matthews and Brooks (2015) explicitly conclude that best policies accompany a liberal trade approach by compensating occasional problems resulting from trade, i.e. social and tax policies.

But despite of this plea for acknowledging the complexity of food security, trade often remains very much in the focus of both the public and the political debate: Trade arguments often are part of a dogmatic political debate on general north-south or developed-developing countries’ depression or the criticism on globalization. Trade measures additionally seem to be easily applicable and “cheap” policies compared to other more complex domestic approaches. For instance, social policy reforms to increase food access can provoke risky domestic debates on income distribution. On the other side, tariffs do not stress public budgets but are in the contrary a source of public revenues. In some developing countries, they are even a primary source of revenue.

Differentiation needed: Food security for whom?

In trade theory, often the aggregated level of an economy’s supply situation or the per capita situation is addressed to describe food security. Thereby the internal distribution of food to single households (and income by growth effects) is neglected or it is assumed that redistribution will take place. To further evaluate the disaggregated effects, it is important to observe the household’s food situation. However, often the data situation is weak. Especially in agriculture, the relevant actors, the farmers, mostly are both producers and consumers of agricultural commodities. Thereby, they are affected by policies in opposing ways at the same time.

Trade policy only one bit in a puzzle but easy to be used and to be blamed

According to literature, the role of trade is seen as “second best” or as “accompanying” other, more tailor made policies, like national agricultural policy or general economic and social policies. Neither free trade nor the opposite, i.e. ‘trade restrictions’, are perceived as silver bullet for food security and the same is valid for growth. Torero (2013) stresses the importance of accompanying the pure growth strategy with multi-sectorial approaches. Some empirical studies have found that there is a non-linear impact of growth on food security, i.e. a 10 percent growth in GDP only increases food security by 6 percent. This implies that there are other relevant factors for food security.

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26 GIZ, Agricultural trade policy for rural development and food security (see note 3).
27 Maximo Torero, Food Security brings economic growth and not the other way round, IFPRI blog (2013/10).
29 Alan Matthews, Trade Rules, Food Security and the Multilateral Trade Negotiations, (see note 7), 9.
3. Existing trade and investment rules

Traditionally, there are two different governmental frames to address either trade or food security. The explicit trade rules fall under the umbrella of WTO. The general development and food security frames are mainly addressed by UN Institutions. Both frames refer to each other: Trade arrangements address food security as an exception from the general objective to liberalise trade. Within the development/food security frame, trade rules are seen as measures of implementation to support food security. This is the case in the recently defined sustainable development goals.

The existing set of trade rulings can be divided into general rules, based on GATT and already valid prior to the AoA of 1994 and other Agreements adopted within the Uruguay Round 1986-1994.

General pattern of trade rules on agriculture:
Three pillars and different country groups

At WTO level only in the last Uruguay Round an AoA could be concluded. Prior to that agriculture commodities mainly were treated as exceptions compared to industrial goods, i.e. facing larger scope for trade measures for instance in terms of higher tariffs. This historical agreement was only possible after long years of negotiations and the risk already at that time that the whole round might collapse. A milestone was a bilateral compromise between the, at that time, leading agricultural actors, the EU and the US.

The AoA addresses three pillars: Market access, export competition and domestic support. Rules were generally adopted in a manner of defining maximal levels for the protective measure not to be exceeded ("bound") and concrete numerical steps for reduction. For domestic subsidies, another major reform was a model to categorize subsidies.

In addition to these general principles, individual rules are defined for different country groups (Box 1):

- **The category of developing countries** is based only on self-declaration which leads to the fact that two third of WTO members are developing. They face lower commitments in terms of e.g. cutting tariffs and longer implementation phases.

- **Least-developed Countries (LDCs)** do not need to fulfill any commitment.

- **Net food importing developing countries (NFIDCs)** face the specific threats of being affected by increasing prices and food insecurity. They do not benefit from certain special rules but are addressed by a general call on other WTO members to consider their needs.

The retrospective about the Uruguay round reveals a certain impetus regarding the relevance of trade negotiation different from today: 1986-94 prices tended to be low and were continuously decreasing. This was mainly due to high rates of technical progress supporting productivity and thereby increased supply. The dominant interest of relevant key players at that time was therefore to protect against low prices by tariffs and subsidies to increase farmers’ income. This was of interest to the leading importers at that time having enough budget to support famers, i.e. developed countries. This period, was in general characterized by very high tariffs and high levels of subsidies. Therefore the AoA rules to limit these measures was a large step towards reducing trade distortion.

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New challenges: New actors, new market situation

Since the time of adopting the AoA a change in global trend patterns has occurred, increasing not only the economic but also the political importance of developing countries: Between 2000 and 2013, the BRICS’ share (Brazil, Russia, India, China) of world agricultural exports (imports) increased from 9.9% (6.5%) to 17.9% (16%). The bulk of this trade is dedicated to intra-BRICS trade: 24% of Brazil’s total agricultural exports in 2013 went to China. 32

In parallel the political pattern also transformed. During the Uruguay Round it was the EU, who was one of the most protectionist actors, especially in terms of domestic support with very high subsidies’ levels. Until today this changed over the course of several reforms of the European Common Agricultural Policy (CAP). Domestic support paid by emerging economies has been significantly increasing while the levels of developed countries went down. In 2010 Chinese, Russian and Indonesian support have increased greatly and become nearly equal to the amounts of those paid by the EU or the US. 33 Altogether emerging countries now spend one third compared to the sum of OECD countries. 34 Hereby the interest in more scope for subsidies is with the group of emerging countries, whereas the old protectionist actors like the EU no longer need additional scope. This demand for more scope with respect to subsidies may continue in the future as economic progress led to increasing budget options to support agriculture, often also supported by political initiatives like the Maputo declaration for 54 countries to spend 10% of the budget to agriculture. 35

Within this context of a changed pattern of both trade and political reality, the issue of fair ruling at WTO was raised. 36 Some developing countries claim unfairness in terms of outdated ruling that would not offer sufficient scope to them for subsidies. At the time of adopting the AoA they did not use subsidies and consequently registered applied levels of subsidies at zero levels.

As a result of this so called “ratchet mechanism” to keep a certain adopted status, developed countries face until today more scope for subsidies. 37

The negotiation progress since the AoA took place in this atmosphere of perceived asymmetric rules, growing economic strength and a changed international economic world with increasing and more volatile agricultural prices. The AoA’s preamble already stated the long-standing objective to reduce protection and considers that commitments should be made to “regard ... non-trade concerns, including food security.” 38

Starting in 2001 the Doha Development Round recalled this long-term objective and specified to aim at “substantial reductions in trade-distorting domestic support...” and to “enable developing countries to effectively take account of their development needs, including food security and rural development.” 39 In particular, developing countries became strong supporters of reducing overall subsidies’ levels. This would affect mainly developed countries and they themselves anyhow have only scope for their own subsidies.

The aftermath process negotiations were delayed but since 2008 they resulted in a very comprehensive modalities’ paper – especially on subsidies (Annex 6.1). The final adoption failed due to a missed consensus on new exceptions for safeguard tariffs.

The overview on existing rules reveals for the WTO that there is some bias on measures against downward prices, i.e. respective measures are ruled in terms of bound levels but as well in terms of allowing exceptions. However, the lower coverage of measures against higher prices leaves at the same time a lot of scope for policy decision without any limiting rulings.

32 OECD, Global forum on Agriculture Issues in Agriculture Trade Policy, Session 1, Setting the scene: The policy and market environment Issues, No. 2 (2014).
33 ibid.
34 Bettina Rudloff, Where does the money go … and where does it come from? Presentation for the Conference Agriculture in Transition, Heinrich-Böll-Stiftung, (2013).
35 In 2011 only 9 countries did fulfill this commitment (Zambia, Burundi, Burkina Faso, Mali, Niger, Republic of Congo, Senegal, Ethiopia, Malawi).
37 Panos Konandreas and George Mermigkas, WTO domestic support disciplines: options for alleviating constraints to stockholding in developing countries in the follow-up to Bali, Prepared for the FAO Expert Meeting on Stocks, (2014), 1.
38 WTO, Agreement on Agriculture (1994), Preamble.
39 WTO, Ministerial declaration, WT/MIN(01)/DEC/1, (2001).
Article VI on Anti-dumping and Countervailing Duties allows for trade defense measures to compensate for damages due to dumping or not allowed subsidies applied by trading partners. The respective agreements linked to this, the Agreement on Subsidies and Countervailing Measures (SCM) and the “Anti-Dumping Agreement” (Agreement on Implementation of Article VII of the GATT 1994) provide further details. These protective measures have been increasingly used by developed countries since the start of the economic crisis in 2008.

Some provisions of GATT are specifically defined for agriculture. This symbolizes that the specific relevance and nature of the agricultural sector is acknowledged since the very beginning of multilateral trade rules. Food security, however, is addressed under the general term of “insufficient production”, i.e. more in line with the understanding of food security as food availability:

Quantitative import restrictions are in principle forbidden according to GATT XI on the General elimination of quantitative restrictions. However, exceptions are addressed specifically for agriculture and fisheries in times of insufficient domestic production (2c, i), to react on surpluses (2c, ii) or (2c, iii) by restricting imports as inputs for animal production.

Article XX on General exceptions gives scope to use measures which are generally forbidden – such as quantitative restrictions. Protective measures are allowed when the following reasons are given among others: (a) protect public moral, (b) to protect human, animal, plant life or health, (g) protection of exhaustible resources, (i) restrictions on exports necessary to ensure essential quantities of such materials to a domestic processing industry during periods when the domestic price of such materials is held below the world price as part of a governmental stabilization plan, and (j) essential to the acquisition or distribution of products.

To evaluate the impacts of measures, both to protect against low and high prices, it is relevant for the domestic decision to differ according to the time horizon. In the short term, political price support increases income and production. In the long term, an artificial increase in production can lead to inefficient surpluses and consequent price pressure – an experience the EU made in the past. Another relevant perspective for the WTO is to look at the affected actor: Limiting exports can increase own food security in the short term. However, pushing prices further, thereby threatens food security for others. Indirect reactions to high prices – like increasingly attractive FDI in land – can also be counterproductive to other countries’ food security.

In the following overview, it will become clear that there are several exceptions from the overall objective to liberalize, especially for agriculture. These rules either are integrated in the overarching and founding GATT or addressed within the AoA.

3.1 Import ruling by tariffs and others

Possible restrictions of imports are mainly allowed in unusual situations, which can be characterized by extraordinary quantities flooding the markets. Specific measures can be either quantitatively or price-related.

(1) General rules of GATT

The basic GATT agreements already included several exceptions from unhindered imports:

First, Article XII on Restrictions to Safeguard the Balance of Payments allows for import restrictions which are generally forbidden. A provision allows to support the balance of payments.

Article XIX refers to emergency actions in terms of increased imports causing an injury. In such a situation a country may withdraw tariffs concessions. According to the linked Agreement on Safeguards of 1994, quantitative restrictions can be used. It is required to prove a serious injury or threat of an injury. However, if a delay in proving can cause damages, provisional measures may be applied.

WTO rules individual tariff commitments of members within so-called ‘schedules’ (GATT, Art. II). For agriculture, a general cutting formula had been adopted applicable to all products and members. This is different from industrial tariffs.
Trade rules and food security

Tariff–rate quotas (TRQs) allow lower tariffs for a certain quantity and thereby combine price and quantity related measures. In general, they are prohibited as they constitute a quantity restriction. However, for agriculture, they are part of the agricultural commitments. They are very often used especially within bilateral trade agreements, as they provide a restricted option for free trade (“minimum market access”). Recently, 43 WTO members uses them for a total of 1,425 tariff lines.

A country may deviate from these cutting rules:

- Up to the bound tariff anyhow an increase is possible.
- Tariff–rate quotas (TRQs) allow lower tariffs for a certain quantity and thereby combine price and quantity related measures. In general, they are prohibited as they constitute a quantity restriction. However, for agriculture, they are part of the agricultural commitments. They are very often used especially within bilateral trade agreements, as they provide a restricted option for free trade (“minimum market access”). Recently, 43 WTO members uses them for a total of 1,425 tariff lines.

To address this formula, tariffication is required. For this, all different types of measures that generate higher border prices than world market price are aggregated into one value, a so-called tariff equivalent. To this, different tariff cutting approaches may be applied:

- **Bound tariffs and reduction.** These calculated tariffs were then set as ceiling. Tariff reductions of 36% on average and 15% for single tariff lines (24% and 10% for developing countries) over a six year period (10 years for developing countries) were defined. Actually applied tariffs are not allowed to go above these bound levels. Developing countries not only face lower cuts and longer implementing periods, they often did not undergo the tariffication process. They simply announced a certain ceiling which was often much higher than applied tariffs at the time. This led to large scope to increase applied tariffs up to that level (“water in the tariff”) e.g. to protect agricultural production from competing imports. LDC members were required to bind all agricultural tariffs, but not to undertake tariff reductions.

- **Up to the bound tariff anyhow an increase is possible.**

One of Africa’s most important staple food: Maize. Market in Rwanda.
In times of low prices a Special Safeguard Mechanism (SSG) is triggered automatically. This automatism differs from the general safeguards as defined under GATT for industrial products. However, this mechanism had to be already announced for individual products in 1994 when adopting the AoA. A precondition for this option was the tariffication. Due to complexity, only few developed countries followed this and therefore are beneficiaries of the SSG. Among these, the following developing countries can be found: Botswana (161 tariff lines announced for SSG), Namibia (166), and El Salvador (84). The EU announced this option for more than 500 tariffs, the USA only for 190 tariffs.

Other reasons for a border closure are laid down in the Agreement on Sanitary and Phytosanitary issues (SPS) which refers to the GATT general exception of Article XX. It allows for normally prohibited measures like export restrictions when used to protect human, animal and plant health. Different from food security for food safety these restrictions follow very rigid requirements: Measures have to be proven as necessary, based on scientific standards or justified by risk assessments. If justified a necessary import measure shall be “not more trade-restrictive than required” (SPS, Art. 5, 6) implying that some trade effect may occur. This differs from respective conditions for subsidies calling clearly for “no or least-trade-distorting” effects.

3.2 Export ruling by subsidies and others

For the export side there are less rules leading to more scope for affecting exports. This may be explained by the need for rulings, at the time of the agreement. The fear at that time was more that with lower world market prices, cheap imports may destroy domestic markets.

(1) General rules of GATT

In all export-related rules some agricultural focus can be found:

GATT XI on General Elimination of Quantitative Restrictions rules exceptions especially for agricultural trade. Export restrictions are specifically allowed in phases of critical shortages of food supply or other essential products (GATT, Art. XI 2a). Here an explicit link to food security is given. The counterpart is on incentives for exports, i.e. export subsidies or refunds. This can be relevant in a situation where domestic prices are higher than world market prices. Such price relations were at stake in the phases of large domestic subsidies, leading to surpluses countries wanted to get rid of, i.e. by means of export subsidies. They are considered as especially harmful already under GATT XVI, but are nevertheless, permitted. However, for “primary products” which cover agriculture their abolishment is proposed.

(2) Specific rules for agriculture

Article 12 on Disciplines on Export Prohibitions and Restrictions repeats GATT XI by adding the condition to consider explicitly the food security impact on importing countries and to notify the measure. These conditions should not apply to developing countries. In general, no definition or proof for a critical shortage situation and no time limit are foreseen for such measures.

For the critical measure of export subsidies numerical reductions are defined in the AoA (AoA, Art. 8, 9). Budgetary and quantity commitments for developed countries were defined in the countries’ individual schedules: 36% of export budgets and 21% of outlays are to be cut in 6 years (for developed countries 24% and 14% in 10 years). Article 10 additionally rules the relation of disciplines on export competition and food aid: Food aid is not limited quantitatively. Countries could strategically misuse them by declaring export volumes as food aid and thereby circumvent the cutting requirements. This is not allowed and operationalized by respective rules on food aid, i.e. by a whole procedure that requires to declare and to justify food aid needs formally.

3.3 Development exceptions and bilateral options

Since the beginning of GATT, there have been exceptions from the general trade liberalization approach especially for the group of developing countries. However, as the status of developing country is only based on self-declaration the following exceptions are applicable to the bulk of WTO members. For the defined group of LDCs, few individual rules exist.
Trade rules and food security

(1) General rules of GATT

The Enabling Clause of 1979 allows for developing countries to differ from the general most-favored nation principle (MFN) of GATT Article I. Hereby an asymmetric design of trade rules, i.e. stricter rules for developed than for developing countries is supported.

Article XVIII on Governmental Assistance to Economic Development provides the basis for exceptions to developing countries. It allows for sufficiently flexible tariff schemes to protect markets and as well for possible quantitative limitations.

(2) Specific rules for agriculture

Specifically on agriculture the preamble of the AoA repeatedly acknowledges the special burden of possible price increases – that may be even initiated by the WTO liberalization process— for net food importers.

The Marrakesh Decision repeats the preamble of the AoA which assumes negative effects of the envisaged liberalization for some countries. The expected resulting price increase due to opening markets will affect negatively mainly the food supply and the import bill of LDCs, and net-food importing countries. The decision at a stable volume of food aid and that financial support is provided. It addresses altogether 78 countries being either least developed according to UN criteria or net-food-importing.

The AoA provides very operational specifics for developing countries:

Article 15 of the AoA defines special and differential treatment for developing countries as integral part with respect to (lower) commitment and (longer) implementation phases. For LDCs no reduction commitment is foreseen.

Article 16 is linked to the Marrakesh Decision and considers LDCs and NFIDCs recognizing their risk of being negatively affected by the AoA consequence of higher prices.

(3) Bi- and plurilateral amendments to WTO baselines

Measures addressed by regional trade agreements (RTAs) refer to liberalized market access, export subsidies and investments but rarely to domestic subsidies, as they often can not be allocated to single products and therefore not be addressed by bilateral rules. Any bilateral rules is based on WTO rules as baseline.

On tariffs certain rules in addition to the basic WTO rules have to be followed in RTAs and may allow bilateral protection:

- According to Article XXIV on CUs and FTAs, it is relevant to liberalize what is called “substantially all the trade.” The understanding of what that exactly means is flexible and up to negotiations. However, it leads to the fact that in bilateral agreements a part of tariff lines can be excluded from liberalization. Often around 20-30% of tariffs are excluded. There is a general understanding that this should not be dedicated solely to one sector, like agriculture. However, very often the bulk of maintain national tariffs is defined for agricultural products. This reflects the relevance of scope for individual rules for this sector.

- Safeguards in terms of increasing tariffs or quantitative import restrictions in addition to what is ruled by WTO are often introduced in bilateral agreements (e.g. under the European Partnership Agreements (EPAs) with ECOWAS and CARIFORUM). However, often they are excluded for those tariff lines for which tariffs have been bilaterally reduced. For instance, the SSG of the WTO is suspended for a defined time period in EPA-CARIFORUM and EPA-ECOWAS. This can be of relevance for developing countries, as then, the stronger trade partner restrict himself not to increase tariffs on such products relevant for bilateral trade and thus, really keep the markets open.

- Other regimes specifically address the human rights approach in terms of conditionality. This is used within the EU’s Generalized System of Preferences (GSP+). It provides incentives for increased market access if certain criteria like ensuring human rights are applied.

40 WTO, List of Net-Food Importing Developing Countries for the Purpose of the Marrakesh Ministerial Decision on Measures Concerning the possible negative Effects of the Reform Program on Least Developing Countries, G/AG/L/ Rev.10,(2012).

41 Alan Matthews, Economic partnership agreements and food security, Institute for International Integration Studies Discussion (2010), 319.
In agriculture, plurilateral agreements on dairy and on beef had been adopted in 1980 which aimed at stabilizing prices. Due to insufficient membership, especially of relevant market actors they did not function and thus ended in 1997. These “club agreements” may be a tool to overcome a blockade by setting a compromise for a group of countries which then can be applied to other countries.

3.4 Investment ruling

The political setting for investments is completely different compared to that for trade. As no consensus on a comprehensive agreement at WTO level could be found, the bulk of rules are addressed by bilateral agreements:43

At WTO level, mainly the free market access is ensured by the WTO Agreement on Trade Related Investment Measures (TRIMS). Respective rules address support free access to domestic capital markets (pre-establishment rules). Investment rules should not be discriminatory and should not restrict an investor’s right to export.

A list of prohibited measures is given as well among which is the “local content prohibition”: It is not allowed to define conditions on investments to use domestic input factors like certain commodities or labor forces. This may threaten local employment if local employers (see chapter 3.5.1) by foreign ones hired by the investing actor. This rule is comparable to the prohibition for conditioned subsidies, e.g. by binding them on the use of local inputs. In contrast to this customary principle one may find several conditions to use local inputs in existing private contracts of private actors. Their rightfulness may be ruled in occurring cases.

In the investment context bilateral investment treaties (BITs) are dominant. They address investors’ treatment once they entered foreign countries’ market (post-establishment rules). The starting point for the rules is protecting the investing actor once it entered the territory of a foreign country, as the latter has the full sovereignty to change policies affecting foreign investors:

TRQs are typical measures for bilateral agreements. The EU has used them in many instances as a first step to open agricultural markets with Mediterranean countries within the Association Agreements. They often are re-negotiated and flexibly adjusted.

On exports, some specific rules exist, too:

- Reducing export subsidies is often used by the EU as “incentive” mechanism to motivate the partner for offering market access. For instance, in the Agreement with Carribean countries EPA-(CARIFORUM) EU offers to abolish export subsidies for those products for which the developing country offers duty free access. Towards Westafrican countries EPA-(ECOWAS) all export subsidies on relevant products are eliminated.

- Compensation mechanisms for losses in export revenues. In the past phases of price volatility, certain measures to stabilize export revenues especially for developing countries were established when they depended only on very few export products. Within the EU’s Lomé Agreements with ACP countries, such a compensation mechanism for reduced export return was in place for mining (Sysmin) and for agriculture (Stabex). They were abolished in 2000 by the Cotonou Agreement due to pressure of the WTO to change the whole system of EU ACP-Agreements to make them reciprocal.

Plurilateral agreements for a group of countries are also possible within the WTO frame. Different types exist according to openness for non-signatories:42

- Plurilaterals can only be adopted unanimously by all WTO members but will be then only valid for signatories. Examples exist outside agriculture, e.g. the Agreement on Public Procurement.

- Critical mass agreements are only adopted by signatories but have to be applied to all countries like the International Technology Agreement.

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No expropriation without compensation: Expropriation can also include indirect forms e.g. by policy changes leading to higher costs for investors. Hereby the host country faces limited policy scope as changes may cause compensation that is potentially claimed for investor-state dispute settlement (ISDS) disputes. These are very much criticized as the procedures are not transparent and they build a parallel structure in addition to domestic jurisdiction. The judgments are not taken by independent (tenured) judges but by advocates announced ad hoc for each panel.

Right to export: The investor may export any goods from the investments. This may conflict with food security in terms of food deficits and can be in conflict with the right to restrict exports under GATT and AoA. However, as an exception, BITs allow for export restrictions in situations of political or economic crisis. It is not unambiguously clear whether food crises can be summarized under these. Only a respective dispute may clarify this.

Trade rules and food security is given by the investor’s right to use relevant inputs like water and energy. This may threaten food security, if increased production leads to overexploiting these resources.

Especially on land investments several rules were recently developed to avoid risks for domestic growth and especially food security. One such example is the voluntary FAO guideline on land tenure and on responsible agricultural investments.

Specific investment strategies for commodities

The latest price peaks were not only affecting agriculture but all commodities in 2008 and 2011. They initiated a comeback of international interventions’ system on commodities which were already targeted in the 1970s. They mainly address market access and investment strategies. On non-food commodities, Germany initiated new bilateral agreements to protect market access with Mongolia (2011), Kazakhstan (2012) Chile (2013) and Peru (2014). This bilateral national strategy was followed although according to the Lisbon Treaty, as for trade, investment policies newly became part of the EU’s exclusive competency.
Both the agreements on SCM and AoA offer a classification which is not identical. As the peace clause has expired at the end of 2003, in principle the stricter SCM approach is valid now. This could lead to the fact that many subsidies would break these stricter rules. However, silence is maintained and hardly any disputes refer to this issue.

The Agreement on Subsidies and Countervailing Measures not only categorizes subsidies according to their competitiveness impact but also according to the degree of “generality”. Additionally, it allows countries to take actions to counter the effects of subsidies used in other countries (trade defense measures). These are the so called “countervailing measures” in terms of raising tariffs under defined conditions. The subsidies addressed by SCM are both export- and domestic- related.

According to the SCM, in principle most agricultural subsidies fall under the crucial types and therefore had to be protected against challenges by the SCM via Article 13 of the AoA (“due restraints”, “peace clause”):

- **Prohibited subsidies** are those which either are linked to export performance or require the use of domestic goods instead of imports (“local content”). The latter is in line with a respective prohibition of such a condition for foreign investments’ access (chapter 3.4). They can be challenged and can initiate countervailing measures.

- **Actionable subsidies** are specific subsidies for a single enterprise, a certain industry or a group of industries. These allow for countervailing measures which are possible if a country can prove that the subsidy leads to an “adverse effect” on its interests in terms of damages or injury. Such damages can affect the domestic industry of an importing country due to the flooding-in of subsidized imports. They can affect as well the exporting sector, if exports are displaced on third countries’ markets by competing exports of a country using prohibited subsidies. After having conducted a detailed investigation on the amount of subsidies and the proof of an injury, a countervailing measure can be implemented (mainly a specific import tariff). However, its duration shall be limited until the actionable accepted subsidies are abolished.
Non-actionable subsidies are those that are not specific and those meeting the following criteria: Assistance in research activities within defined limits, assistance of disadvantaged regions and adapting to new environmental legislation.

Since the start of the financial crisis in 2008 the OECD observed under its regular monitoring exercises an increase in countervailing measures. This indicates either an increase in at least actionable subsidies to protect the own economy as they would justify countervailing measures. Alternatively, countervailing measures themselves are strategically applied by claiming that trading partners use actionable subsidies.

Specific rules for agriculture

The more generous rules of the AoA provide a different classification and sets quantitative ruling comparable to tariffs. The classification is based on the idea of a subsidies’ production impact and thereby trade-distorting effects: Following a traffic light scheme, “green box measures” are permitted, “amber box measures” are bound and have to be reduced and the “blue box” addresses a category in between, being allowed under certain conditions. The “red box” covers not explicitly mentioned measures but all those beyond the bound amber box. Although these categories broadly address production effects – their definition and the allocation of specific measures lastly follow a political consensus by WTO members. They reflect how much the members were willing to reduce at the time the AoA has been adopted. This approach differs from the OECD’s concept to measure support that is based on economically-derived impacts on prices: These schemes of Producer Support Estimates (PSE) or the General Services Support Estimate (GSSE) are regularly monitored for OECD countries (and irregularly for other countries). They refer to the actual price effect influenced by policy.

Quantitative commitments are defined individually for different categories and country groups and are based on a certain mechanism for calculation (Box 2):

Box 2: Calculating the Aggregate Measurement of Support

- **Formula for AMS:** An administered or supported price is the major part of AMS. Consequently, the AMS is calculated by multiplying the difference between the applied administered price in WTO members and a specified fixed external reference price (FERP) by the quantity of the production eligible for support. Then the actual deviation from the bound AMS can be determined. A positive AMS means higher administrative prices than FERP and indicates producer support whereas a negative AMS means a consumer support through reduced prices (AoA, Annex 3, Art. 1).

- **Eligible production:** Not finally clarified in the AoA but interpreted legally by case-law (US-Korea dispute on beef). In principle, it is referring to the total marketable production which can be however limited (by a policy like national quota or in disadvantaged regions). While the EU and the US understand it as maximal possible production, India limits the definition to the volume factually affected. Thereby the calculated AMS volume is reduced.

- **Fixed external reference price** as defined per AoA Annex 3 is linked to the base period of 1986-88. For exporting countries, it should be the FOB (freight on board) value and for importing countries the CIF (costs, insurance, and freight). As prices in the past were lower than recently, the overall scope for the amber box was higher than under recent conditions. That means that the past definition results in higher scope for allowed subsidies than if the FERP was adjusted according to inflation. It is not predefined what currency is to be applied to calculate the FERP and administered prices. The choice of currency influences the current AMS per year. Depreciation would lead to less real scope, but can be strategically bypassed by not converting values.

Capping and reduction is valid for the Amber box: This support is assumed to increase production and thereby will distort trade. Comparable to the tariff equivalent, it summarizes different types of subsidies having an impact on prices, i.e. the aggregate measurement of support (AoA, Art. 6). Members announced in 1994 their historical levels of product-specific and non-product specific support paid on average in the years before. These had to be capped at that level (maximal bound level) and to be reduced for developed countries by 20% in six years (13% in 10 years for developing countries). In order to define whether a country is keeping this discipline it has to notify its current Aggregate Measure of Support (AMS) on an annual basis.

There are several exceptions from the reduction commitments of the amber box. These exceptions leave scope to use subsidies:

- **Small volumes addressed by a “de Minimis” rule:** A certain volume of AMS measures can be excluded from the reduction and that is set at 5% of the production value for product-specific support and at 5% for non-product support (AoA, Art. 6.4). For developing countries, the caps are foreseen at 10% each. These absolute levels change over time with changing production value, i.e. progress in production (or in value) increases the scope for subsidies under this category.

- **Unlimited exceptions** are possible for three different types of support: (1) The “development box” applies specifically to developing countries. They may use investment subsidies generally available, agricultural input subsidies available to low-income or resource-poor producers and they may support diversification from growing illicit narcotic crops (AoA, Art. 6.2). (2) **Payments under production limiting programs (blue box)** are possible for all countries for those measures not seen as production-neutral, however related to production limiting measures like set-asides (AoA, Art. 6.5). (3) **Green box measures** are defined as being production and trade neutral and are therefore allowed. Green box measures however refer to different types of requirements (see Box 3) (AoA Annex 2). This category includes also stocks for food security purposes and domestic food aid. A fundamental criterion is the minimal trade distortion effect, which however has not been further operationalized.

**Box 3: Allowed green box coverage and requirements**

1. **Fundamental criteria (Annex 2, 1):** No or minimal trade distorting effect or effects on production, publicly-funded program including revenue foregone, no transfers from consumers, no effect of price support to producer

2. **Policy areas (Annex 2, 2-13)**
   - Annex 2, 2: General services (research, pest and disease control, services on training, advisory services, inspection, marketing, infrastructure)
   - Annex 2, 3: Public stockholding for food security purposes
   - Annex 2, 4: Domestic food aid
   - Annex 2, 5-13 direct payments in exceptions as defined by 6-13 (5), direct payments to producers, if decoupled (6), for income insurance and income safety-net (7), for relief from natural disasters (8), producer retirement (9), resource retirements (10), investment aid (11), environmental programs (12), regional assistance (13).

Source: Agreement on Agriculture.

A problem that developing countries often raise is their limited or zero scope for the amber box that results from the history of the AoA. At the time of adopting the AoA only 28 members announced AMS measures which subsequently were bound and had to be cut. Within this country group, half belonged to developing countries, however mainly those which are emerging countries: Argentina, Brazil, Colombia, Costa Rica, Israel, Jordan, Korea, Mexico, Morocco, Papua New Guinea, South Africa, Thailand, Tunisia, Venezuela.

Other countries did not register AMS measures – even at a low level – which in many developing countries’ cases were limited due to budget restraints. The AoA is following the idea of a “ratchet mechanism”, i.e. new rules should not fall below agreements once decided on reducing subsidies. Therefore, developing countries could not apply for any AMS measures any longer at any later point.
Trade rules and food security

Graph 2: Use of domestic support by 104 developing countries (2013)

Developing countries’ pattern of domestic support

The majority of developing countries have to keep their commitments to a zero AMS level as their registered level in 1994. Alternatively, they can use all other exceptions of de Minimis, of Article 6 for development support, support of the blue box, or exceptions of Annex 2. Negative AMS resulting from administrative prices lower than FERP may diminish large positive AMS, however only if AMS had been notified already. This reflects an asymmetry regarding consumer subsidies as they are not facing WTO disciplines. This is even though they also have an effect on producer prices similar to a a producer tax.

Notification is required at an annual basis for all categories. Without reduction commitments, a justification has to be provided that support falls under de Minimis. Any modifications and new measures have to be notified.

For reviewing the implementation of countries’ commitments the committee may consider “excessive rates of inflation” (AoA, Art. 18.1). This condition sometimes is referred to for calling for a better calculation method for AMS by applying inflation to the FERP.

However, so far it is limited to monitoring – nevertheless, inflation would be considered when assessing a country’s compliance with WTO rules.

In summary, none of the developing countries uses the whole set which is in principle available for exceptions, i.e. green box, de Minimis, development subsidies, blue box (graph 2). This is because none of the countries announced blue box measures. Only very few use the whole range of three exceptions (10), among which is India. Some countries use only green box measures (16), like Indonesia and some use only the development box (2) like Malawi. Half of the countries either do not implement any support or did not notify it. This may indicate either budget limits prohibiting any support or technical problems with the notification mechanism (mainly LDCs).

To evaluate how the category of green box is allocated to single measures including food stocks, a closer look into individual countries’ notifications would be necessary.

Source: Panos Konandreas and George Mermigkas, WTO Domestic Support Disciplines (see note 37), 7.
3.5.2 Special rules on subsidies for food security and food aid

Food security justifies allowed domestic support. It is addressed by either food stocks or consumer subsidies within the category of the completely allowed green box in Annex 2 of the AoA.

(i) On public stockholding (AoA, Annex 2, 3) as general rule, the expenditures should be part of a national legally based food security program. As specific criteria are mentioned that:

- Targets and volumes are dedicated solely for food security and are predetermined.
- The process on accumulation and disposal must be transparent.
- The purchase is to be done at current market prices.
- Sales shall be at no less than the domestic market price. However, in developing countries the provision of food for urban and rural poor at subsidized prices shall be at “reasonable” prices. This displays again the more generous treatment of consumer than producer subsidies at least in developing countries.
- If administered prices are at place, the difference of acquisition price and FERP has to be calculated as part of AMS. This may cause threats to WTO commitments for those countries limited to zero AMS.

The Bali dispute and final compromise refers to the last conditions of to what extent price support is allowed or has to be calculated as AMS. The latter would restrict its use to countries not having registered any AMS. Without any price support component, no limit is relevant.
Trade rules and food security

Asymmetry in trade rules: Less scope for export measures and producer subsidies

Generally it can be concluded that there is some asymmetry in existing trade rules. Due to a different historic market situation there are more rules on measures protecting against low prices than against high prices. The latter are less disciplined leading to more political scope. In general, more exceptions for restricting imports than exports are possible, that is ruling on export restrictions is stricter. However, those restrictions that are allowed for exports are often exclusively permitted for food to react to shortages. This is crucial, as export bans can be counterproductive and push prices further, which may lead to food insecurity. Regarding subsidies, producer subsidies are stricter than consumer subsidies, even though economically, consumer subsidies can be understood as a counterpart to producer subsidies.

Different from the producer side, consumer prices may be subsidized, i.e. leading to lower prices than market prices. This ruling reveals an asymmetry between producers’ and consumers’ subsidies. For the producers’ side the general WTO logic is to limit them as they increase the competitiveness.\footnote{Franck Galtier, Managing food price instability: Critical assessment of the dominant doctrine, Global Food Security 2.2 (2013), 72–81.} In contrast, for subsidized consumer prices no ruling or reduction is defined. Thereby, they may influence producer prices in a negative way, depending on the degree of price transmission. Moreover, the competitiveness of the own agricultural production in these countries can be diminished, which however lies in the sovereign decision of the country and is not ruled by the WTO. This type of aid is the bulk of US agricultural payments and accounts for the majority of the US budget for agriculture.

Domestic food aid (AoA, Annex 2, 4) is not addressed by the Bali compromise. But it is worth looking at the specific ruling as counterpart of producer subsidies. These subsidies are understood both as expenditures and revenue foregone (e.g. by tax reductions).

As criteria, it is stated that:

- Eligibility of beneficiaries is to be based on by defined criteria.
- Aid is possible as in kind and monetary to buy at market and subsidized prices.
- Purchases should be done at current market prices.
- The provision of food at subsidized prices shall be at reasonable prices like the stock releases in developing countries.

\footnote{Domestic food aid (AoA, Annex 2, 4) is not addressed by the Bali compromise. But it is worth looking at the specific ruling as counterpart of producer subsidies. These subsidies are understood both as expenditures and revenue foregone (e.g. by tax reductions). As criteria, it is stated that: Eligibility of beneficiaries is to be based on by defined criteria. Aid is possible as in kind and monetary to buy at market and subsidized prices. Purchases should be done at current market prices. The provision of food at subsidized prices shall be at reasonable prices like the stock releases in developing countries. Different from the producer side, consumer prices may be subsidized, i.e. leading to lower prices than market prices. This ruling reveals an asymmetry between producers’ and consumers’ subsidies. For the producers’ side the general WTO logic is to limit them as they increase the competitiveness.\footnote{Franck Galtier, Managing food price instability: Critical assessment of the dominant doctrine, Global Food Security 2.2 (2013), 72–81.} In contrast, for subsidized consumer prices no ruling or reduction is defined. Thereby, they may influence producer prices in a negative way, depending on the degree of price transmission. Moreover, the competitiveness of the own agricultural production in these countries can be diminished, which however lies in the sovereign decision of the country and is not ruled by the WTO. This type of aid is the bulk of US agricultural payments and accounts for the majority of the US budget for agriculture.}
4. The WTO-Bali compromise(s)

26 | 27

The Bali compromise revisits some older negotiation positions. They were integrated in the last WTO consensus before the break in the year 2008 (Annex 6.1). However, the early US criticism on some large developing countries, including India for violating their WTO commitments on subsidies, finally led to a large study analyzing notifications of India, China, Turkey and Thailand.\(^\text{48}\) It identifies especially for India the excess of its zero AMS commitment. This is due to the voluminous Indian food security program clashing with its WTO commitments. Therefore India became the strongest defender of rule changes.\(^\text{49}\)

The Doha Ministerial Declaration of 2001 compromises the agenda for negotiations by stressing development needs. On agriculture, it builds upon the further reform process as part of AoA Article 20, that foresees a continuation of negotiations already in 2000 and defines as long-term objective a fair and market-oriented trading system. “Non-trade concerns” are mentioned. This had been interpreted as covering food security. The Doha Declaration additionally defined a time frame for agriculture, starting with modalities in 2003 and aiming to finalize agriculture negotiations as part of the single undertaking in 2005.

In 2003 a phase started on first negotiating a broader framework and subsequently to bargain more detailed modalities. In Hong Kong (2005) a sequential process was agreed upon to end first negotiations on agriculture and on non-agricultural market access (NAMA). Several versions of technical details on agricultural issues like tariffs, export subsidies and domestic subsidies were revised till the latest revision in December 2008 (Annex 6.1).

A final adoption of this very progressed consensus could not be realized as major conflicts remained on further disciplines of domestic support. The other conflicting area was an increased open market access especially supported by the US. Developing countries defended the need for exclusive developing country-only safeguard mechanisms to exclude any sensible products from tariff cuts.

After the deadlock in 2008, the procedural idea arose to change the negotiation modalities towards sequential negotiations starting first with issues relevant for LDCs. This was not accepted by the US requiring equitable offers at least by emerging countries (BMWi 2014).\(^\text{50}\)

At the 8th Ministerial Conference in 2011 it was agreed by members to focus on the most consensual issues first (“early harvest”). However, since the comprehensive 4th revised draft modalities in December 2008 no further progress could be achieved. Only a summary of the Agricultural Committee’s Chairperson could be provided repeating the existing scope of compromise and identifying major conflicts. The next real new consensus was achieved during the 9th Ministerial Conference in Bali in December 2013. The “Bali Package” consists of a series of decisions on agriculture in addition to stocks (general services, tariff rate quota, export competition) and on other issues, namely trade facilitation, cotton and development and LDC issues (Table 1). General services are part of the allowed green box measure and they were explicitly extended to programs related to land policy, e.g. to support the building of cadasters.

However, after the compromise, India, in 2014, rejected the implementation of the consensus on trade facilitation as part of the Bali package until the decision on food stocks would be made permanently. This conflict especially between India and the US could be solved in the end of 2014 at the G20 meeting in Brisbane. This led to a General Council decision on stocks.

4.1 Negotiation positions over time

The countries’ support of subsidy reforms has also changed over time:

In 2002 the African Group started the issue with the proposal to remove any reference to trade distorting subsidies in the context of food stocks and not to calculate them like AMS. In 2006 the group repeated this after the draft modalities in 2003. They voted for changing the draft modalities into the direction of a complete green character of stock programs in case they support low-income or resource-poor producers.

\(^{48}\) DBT Associates, Domestic Support and WTO Obligations in Key Developing Countries (see note 46).


\(^{50}\) Bundesministerium für Wirtschaft und Energie (Federal Ministry for Economic Affairs, BMWi), Das Wunder von Bali – die multilaterale Handelspolitik ist zurück, (2014).
In 2012, the G33 (including 14 members of the African group) took the lead on the issue and stressed the importance of the prior proposal from 2006.

In 2013 the G33 amended this old and repeated proposal by adding concrete options:

- Two proposals were on possible technical adjustments like accurately considering the changes in market situation (by changing the reference period to calculate AMS or considering inflation).
- The other suggestion was on postponing the final decision by offering first a peace clause. This should protect subsidies for stocks from applying the usual AoA rules. The latter was essentially adopted by the Ministerial Decision in Bali. As a targeted deadline for finding a permanent solution the 11th Ministerial Conference in 2017 was set (Table 1).

In the end, the G33 dissociated their group from the increasingly strict Indian position.

**What has finally been concluded?**

In principle, the final Bali outcome defines a peace clause that foresees not to apply existing rules:\(^{51}\) Thereby subsidies related to food security stocks should be protected from dispute challenges under certain conditions (Table 1).

Some conditions on stocks were defined, for example that a national food security program must have been in place prior to Bali. This aims at avoiding strategically implementing such programs now.

As well, a better monitoring of threats to WTO requirements is foreseen, which can serve as an alert system.

A comparison of the first conclusion on the 9th Ministerial Conference in 2013 and the next one at the end of 2014 shows minor changes in wording: The protection of the interim solution seems to be strengthened by a strong statement of “shall not challenge”.\(^{52}\) The timing is a bit tightened by introducing the aim of finding a permanent solution by the end of 2015 instead of 2017. The next phase after November 2014 is dedicated to negotiating a permanent solution. As well, an interim step to evaluate the state is foreseen. However, the interim solution is defined to be in place until a permanent solution can be found, assuming that the adopted substance may remain in place for good.

**EU position.** So far no official and public EU position has been provided. Only some Member States reveal some officially published positions:

- The German Government (Deutscher Bundestag 2013) supports the agreed interim solution. It stresses that the volume of subsidies as such is not most relevant for evaluating their efficiency but the design according to the WTO rules.\(^{53}\) No explicit position on adjusting FERP can be identified.

- A recent option (Deutscher Bundestag 2015) stresses again that the interim solution is seen as the most pragmatic approach compared to the complex strategy of adjusting subsidies in general.\(^{54}\)

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51 Comparable to the one already existing in Article 13 of the AoA. According to Häberli it is not legally clear whether the decision is a general peace clause in WTO understanding or a more political expression of minor binding character: Christian Häberli, After Bali: WTO Rules applying to Public food reserves, prepared for the FAO Expert Meeting on Stocks, Markets an Stability, 30–31 June (2014).


53 Deutscher Bundestag (German Parliament), Antwort auf die kleine Anfrage, Drucksache 18/466 der Abgeordneten Uwe Kekeritz, Claudia Roth, Annalena Baerbock et al., Die Beschlüsse von Bali, bilaterale Handels- und Investitions schutzabkommen und die Auswirkungen auf Entwicklungsländer, BT18/632 (2013).

54 Deutscher Bundestag (German Parliament), Antwort auf die kleine Anfrage. Drucksache 18/03797 der Abgeordneten Bärbel Höhn, Uwe Kekeritz, Friedrich Ostendorff et al., Agrarhandel und Ernährungssouveränität, BT 18/03797 (2015).
The next steps: the working program

In Bali 2013, members agreed to pursue for the 12 months following the compromise a clearly defined work program on the remaining Doha Development Agenda to be further addressed. In the context of the broader post-Bali agenda, members committed to the work program mentioned in the previous paragraph. The aim is to conclude it no later than the 11th Ministerial, which would be in 2017. After the consensus in Brisbane it was agreed to set July 2015 as the deadline for defining the working program.57 This deadline was missed and WTO’s Director-General Azevedo urgently calls now to intensify negotiations till the Ministerial Conference in December.

As well, in Sweden a discussion in the country’s Parliament revealed the general support for the first Bali compromise.56 Unlike the German position at that time, the Swedish Trade Minister clearly supported a general free trade strategy by abolishing subsidies in general, especially in developed countries. This strategy should also address the European agricultural policy. The Minister acknowledges the problems associated with the high level of European subsidies and the support for the Swedish position to minimize them.

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The Bali compromise in the scientific literature

The Bali compromise has motivated extensive research on existing WTO rulings. Sophia Murphy has already presented some of the general aspects on reserves and WTO prior to Bali. She proactively warned actors to define a timely-limited peace clause. She assumed the status quo being more against the G33’s than against India’s interest. ICTSD (2009) identifies general problems not only regarding the design of subsidies but also the sheer amount to be ruled. Wise (2014) argues strongly for abolishing existing asymmetries. Galtier 2013 also claims for a general balance of rules so far in favor of those actors dominant at the time of the AoA. He argues for better protection options for developing countries by acknowledging the difficulty not to be too generous to avoid counterproductive effects. Bureau and Jean (2013) give an overview on the different AoA aspects that have been overcome since adoption. Especially on domestic support, they define the recent binding rules as more stringent for developing than for developed countries. Some provide concrete details on WTO reforms: Konandreas and Mermigkas (2014) reveal specific options for changing stock subsidies and especially the general calculation method for subsidies. They explore different case studies on single countries’ notifications. Montemayor (2014) defines real scenarios in applying individual technical changes to abstract types of countries. These scenarios include changes regarding reference prices, eligible production and combinations thereof. He identifies under what circumstances which changes may lead to problems under WTO rules. Diaz-Bonilla (2014) gives an overview on all possible change options (reference price, administrative price, market price in relation to administered price, eligible production, inflation) by a very detailed evaluation of such changes. He considers immediate effects as well as indirect influences by adjustments via exchange rates.

Matthews (2014) looks in detail into all references and conditions set for stocks and how to adjust them possibly. Galtier (2013) summarizes the possible technical adjustments following the Bali compromises. He particularly stresses the different severity of ruling producer (stricter) and consumer support (less strict).

4.2 Empirics: Relevance of stockpiles and domestic support

4.2.1 Existing stocks worldwide

The WTO rules referred to in Bali refer to a certain type of stocks only, namely to those that increase food security. However, there exist different stock types that may raise food security but with different side effects and risks: (1) emergency stocks in case of disasters, (2) social stocks explicit aiming at general food security purposes, and (3) buffer stocks to stabilize prices which are mainly allocated to the international level. However, existing stocks often follow mixed objectives, leading to a continuum of different designs. Most often, all types consist of a physical part and a financial part (“virtual reserve”).

A large number of already implemented stocks reveal the high relevance of new rules for stocks. However, it remains also important to first identify the specific design of existing stocks and their possible impact on other countries’ food security. This monitoring is also envisaged by the Bali compromise.

Existing multilateral buffer stocks

During the period of the 1970s some international mechanisms especially for commodities, encompassing also agricultural commodities, had been established. This was part of the overall general debate on a “New international economic order” focusing on a better integration of developing countries into the global trade system. This period was characterized by volatile commodity prices, which pushed ideas to balance the interests of commodity exporters (mainly developing countries) and importers (developed countries).

58 Sophia Murphy, Agriculture on the Road to Bali – Food Security, Livelihoods and Trade, Institute for Agriculture and Trade Policy IATP, September, (2013);
60 Timothy A. Wise, Will the WTO fast-track trade at the expense of food security? Globalization Commentaries (2014).
61 Franck Galtier, See note 43.
62 Jean-Christophe Bureau and Sébastien Jean, Do Yesterday’s Disciplines Fit Today’s Farm Trade, Challenges and policy options for the Bali ministerial conference. ICTSD issue paper (2013).
63 Panos Konandreas and George Mermigkas, WTO domestic support disciplines (see note 37).
65 Alan Matthews, Trade Rules, Food Security and the Multilateral Trade Negotiations, (see note 7).
One outcome was the adoption of the “Integrated Commodities Program” in 1979 aiming at stabilizing prices for 18 commodities by different means; for some interventions like building international buffer stocks or harmonized national stocks were foreseen (coffee, cocoa, rubber, tin), others only included measures to enhance market transparency (sugar, olive oil, wood, jute). To finance such interventions a “Common Commodity Funds” was founded. Today, this fund operates more as a source for development aid.

The past price peaks in 2008 and 2011 initiated a renaissance of such ideas as proposed by the G8 summit in 2008 in L’Aquila and the subsequent G20 summit in 2011. One following project was interregional reserves at ECOWAS-level (PREPARE) supported by the EU and Germany, however, the recent status remains unclear.

Existing regional stocks

Regional emergency stocks are considered to be more effective than buffer stocks. They coordinate different risks e.g. harvest losses due to differently arising climate problems across the region. However, trust in the liquidity at times of scarcity, an effective coordination and clear definitions of beneficiaries are relevant.

Only few known regional reserves exist:

Asia. At regional level the most long-standing experience can be observed for a price-related stock program among large rice ex- and importers since the 1980s. This had been extended now to more countries in the “ASEAN plus Three Emergency Rice Reserve” (APTERR), including the 10 ASEAN (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam) plus three other countries (China, Japan, Korea).

Africa. The G20 idea to support African reserves build upon existing experiences in the ECOWAS region. These countries already have a system in place to coordinate their national stocks.

This approach of the “Network of Structures for the Management of national food security Stocks in the Sahel and in West Africa” (RESOGEST) already started in 2010 under the aegis of ECOWAS. It is technically managed by the “Permanent Interstate Committee for Drought Control in the Sahel” (CILSS). The new interregional initiative of G20 to use RESOGEST for a real regional stock (PREPARE) started under the umbrella of the World Food Programme (WFP) as pilot project by a feasibility study (ECOWAS 2011). The establishment shall take place in three steps until 2023. It combines a smaller physical and a larger financial stock and aims at the two objectives of both price stabilization and providing emergency supply. Major funding takes place by the US (24 Mill. US $) and the EU (56 Mill. Euro). The progress of this project recently seems to be on hold as no further information could be found.

Existing national stocks and domestic food aid

Altogether 95 countries members could be identified as holding public stocks (Graph 3), out of these, 89 are WTO members. Approximately only one-third of countries have notified stocks to the WTO. For the bulk of the nearly 70 countries without notifications there are stockholding activities identified via official information on stockholding (e.g. by respective ministries). However, a differentiation into general food security and limited emergency stocks is not explicitly made. The latter is the case for some European Member States. The G33 group is dominantly represented: Within this group 30 members have stocks, and again, only a minority submitted a notification. The missing notification may be explained either by strategically violating WTO rules – which was the criticism towards India – or by missing technical capacity.

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68 Deutscher Bundestag (German Parliament), Antwort auf die kleine Anfrage, 2015 (see note 54).
72 Deutscher Bundestag (German Parliament), Antwort auf die kleine Anfrage, 2015 (see note 55).
73 Vietnam and Korea have double identification as they have older notifications in 2005 and 2008 not repeated later. As they are members of the regional APTERR stock they are assumed to have implemented stocks.
Graph 3: 95 countries with food stocks (27 notified and 68 not notified, state after 2005)

Notified

G33: Botswana, Guatemala, Guyana, India, Indonesia, Philippines, Zambia
ECOWAS: Mali, Mauretania, Sierra Leone
Other APTERR: Cambodia, Japan, Malaysia, Thailand
Other WTO: Albania, Armenia, Costa Rica, Iceland, Israel, Kingdom Saudi Arabia, FYR Macedonia, Namibia, Nepal, Norway, Oman, Ukraine, EU

Not Notified

G33: Benin, Bolivia, Côte d’Ivoire, China, Cuba, Dominican Republic, El Salvador, Grenada, Honduras, Kenya, Korea, Mauritius, Mongolia, Mozambique, Nicaragua, Pakistan, Senegal, Sri Lanka, Tanzania, Turkey, Uganda, Venezuela, Zimbabwe,
ECOWAS: Burkina Faso, Cap Verde, Chad, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia (not WTO), Niger, Togo
Other APTERR: Brunei, Laos, Myanmar, Singapore, Vietnam
Other WTO: Argentina, Bangladesh, Burundi, Cameroon, Djibouti, Ecuador, Egypt, Jordan, Kuwait, Kyrgyzstan, Malawi, Morocco, Qatar, Rwanda, South Africa, Switzerland, United Arab Emirates, Yemen, (WTO since, 14), Czech Republic, Estonia, Germany, Hungary Latvia
Other non-WTO: Algeria, Eritrea (no public program), Ethiopia, Irak, Iran, Lebanese Republic (no public program)

Source: Based on WTO notifications’ database at http://agims.wto.org/Pages/Search.aspx; Deuss 2014, World Bank 2012; Matthew 2014 and official governmental websites. 74

Developing countries used stock releases during the food price crisis 2008 and classic production support measures following tariff reductions. Such stock releases were chosen by 35 countries of which 15 were Asian countries (e.g. India), 13 African countries (Algeria, Benin, Cameroon, Egypt, Eritrea, Ethiopia, Kenya, Malawi, Mauritania, Nigeria, Senegal, Sierra Leone, Togo) and another 22 Latin America and Caribbean countries. Not only stock releases were used but also food aid and cash transfers. These are all potential green box measures.

In contrast developed countries dominantly used trade defense measures like countervailing measures and anti-dumping. Several of their protective measures are without clear WTO limits (e.g. on public procurement). Emerging countries, like Argentina, used rather the scope that the WTO provides for export restrictions.

4.2.2 Use of stocks as part of the policies’ set

Subsidies and stock releases are only one option within the whole range of possible and trade-relevant measures to react on food shortages. The actual use of possible measures differ in developed and developing countries. The latter often use measures as tariffs as these are not causing any budget. However, stocks play an important role as well:

Domestic food aids reflect the other category of subsidies principally not limited as part of Annex 2 of AoA. They were notified only by less than 20 countries. From the G33 countries this includes: Cuba, Indonesia, Jamaica, Madagascar, Nicaragua, Peru, Panama, Philippines, and Mali. Additionally Japan, Vietnam, Brazil, Costa Rica, EU, Georgia, Jordan, Morocco, South Africa as non-G33 countries. At enormous volume, the USA also provides domestic food aid which accounts for the bulk of the total American agricultural budget. The nature of this measure is more social than agricultural policy. In the USA these aids replace a missing general social policy.
To sum up, the empirics reveal the high relevance of green box subsidies during the price crisis 2008 to insure food security. Stocks are among the three most important response measures. This supports the need to better monitor existing stocks. This holds in particular with respect to design and potential trade distortion effect. The lack of notifications limits a sound monitoring and calls for support to facilitate notification. However, these improvements are in principle addressed by the Bali compromise.
5. Conclusion

Any reforms of existing trade rules to achieve food security have to be evaluated regarding their actual impact on food security. There are several options how trade rules can be used to increase food security. However, not always the most targeted measures are used but rather the politically easiest ones to implement.

Pushing for reforms can be justified by several arguments: First, as a matter of upholding the principle of equal opportunities for all countries at any time, the use of amber box subsidies should be allowed to all members irrespective of whether they have fulfilled a former bureaucratic deadline for applying for certain rules. Such proposal would require a change in rules so that countries may establish amber box subsidies once they have the budget and priority in doing so. On the other hand, this approach would result in an increase of such problematic subsidies – something the WTO agreements wanted to restrict by the concept of a “ratchet mechanism”. A second argument in favor of reforms may be to consider the actual changes taking place within the economic landscape since the adoption of the existing rules 20 years ago: Increased food prices could for instance be respected by calculating the relevant budget limits with inflation. Finally, a comprehensive reform would not only look at adjusting the existing frame but may lead to much larger cuts in subsidies or a complete abolishing of agricultural subsidies.

All these reform proposals have been debated extensively for years during the Doha negotiations. Even an overall compromise on cutting subsidies was already part of the modalities paper in 2008 (Annex 6.1). However, these modalities were eventually not adopted.

Reform options for agriculture

At first glance, the Bali compromise only refers to the limited issue of food stocks. Such stocks are often used by developing countries in phases of high prices. Therefore, it is relevant to better understand how they are applied, what impacts they have, and whether better rules should be found to define their use. This is initiated by the Bali package. A first step was correct notifications.

Beyond limiting stocks, the broader issue of defining and treating subsidies is touched by the Bali decision, as underlying subsidies should not be subject to the usually applied limitations.

Possible reform options for subsidies can be summarized with increasing level of ambition and be split into short-term and long-term improvements (Annex 6.2):

1. **Short-term improvements**: Already a major improvement would be the better use of the status quo that the WTO framework allows, i.e. to use the possible scope for subsidies and food security within the existing agreements. Developing countries use this scope very differently and could be further supported by respective training and capacity building projects.

   The final Bali outcome also belongs to these short time options. But better monitoring, documentation and notification are required and training will be relevant. Finally, it is required that the allowed stocks should not distort food security of others. Therefore, accompanying and continuous evaluation projects are of high relevance to monitor all existing and eventually newly extended stocks. Technical adjustments of how to calculate the parameter that are determining the overall sum of AMS need to be supported by advising countries on that.

2. **Long-term comprehensive reform**: General reforms imply a forthcoming resolution in Doha. They are linked to opening the general “agricultural box” by aiming at strengthening rules also for developed countries. This would recall the proposals of the modalities in 2008. It requires reform willingness from developed countries on reducing their current high levels of subsidies. On this, a debate is needed between the major actors like the EU, the US and new emerging actors like China.

   Even further it can be a step to abolish any agricultural exception. This in fact has already started with the expiration of the peace clause (AoA, Art. 13). Since then, the general and stricter rules of the SCM are applicable, at least within disputes. However, so far hardly any claims have risen on this basis with the exception of the Cotton case (Brazil against US) as probably all developed countries would be vulnerable in terms of subsidies violating SCM. A merging of the different AoA and SCM rules would provide a common and unambiguous basis.77

An alternative option “outside WTO” could be foreseen by supporting interregional concepts for stocks and accompanying risk reducing measures. Respective issues may be addressed in plurilaterals as well as bilaterals as the EPAs.78

Does Bali serve to overcome the WTO blockade?

The Bali decision and the disputes in the run-up revealed how important the dynamics of a changed economic surrounding and political claims have become. Therefore, considering scope for flexibility can be an important political signal and can support a breakthrough in the overall negotiation’s blockade. This signal can be send in two phases:

As a first step, technical adjustments (level one and two as shown in the table in Annex 6.2) like new modes for calculating AMS can be a start and a comparatively easy way. They may at least support trust building in the sense that changed needs are considered.

However, the main disputes since the beginning of the Doha Round centered on the general concept of subsidies: Lars Brink (2014) stresses the importance of addressing subsidies in order to come through the pausing negotiations.79 This is a relevant issue which the developed countries could raise as a signal. Häberli (2014) additionally does not see that the Bali decision as such supports food security.80 Instead, he proposes to open the discussion on all relevant issues for food security including disciplines on export restrictions.

In a subsequent second phase after technical adjustments, general reforms (levels 3 to 5 in Annex 6.2) could be addressed. Domestic subsidies as addressed in the AoA are the real unique selling point for the WTO – they are hardly covered in bilateral agreements.81 This is a strong argument for concluding a new deal on agriculture and for building upon the already found and progressed modalities compromise of 2008.

Even if no changes can be agreed on, at least the status quo of unchanged rules can be better utilized: Instead of debating new rules, one may make better use of the existing ones. Very few developing countries use de Minimis or blue box support. Several countries do not apply the development subsidies (e.g. Kenya and Zambia) which are possible to support small farmers. Instead they mainly use input subsidies. In particular, the Maputo countries are aiming at increasing the agricultural budget and may search for a better use of existing rules.

Finally, beyond all agricultural measures it is even more important to improve general poverty policies. However, these can only be decided for and implemented via tax and social policy by the vulnerable countries themselves.
### 6.1 Negotiating food subsidies: History and major issues (marked in grey: touched by Bali)

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<tr>
<td>(1) Calculation and cuts</td>
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</tr>
<tr>
<td>(a) Disciplines</td>
<td>Art. 6, 3</td>
<td>- Price and product-related subsidies to be cut (Amber Box)</td>
<td>- Comprehensive overall trade-distorting domestic support (OTDS), total AMS + de Minimis + blue box</td>
<td>- OTDS</td>
<td>not addressed</td>
</tr>
<tr>
<td></td>
<td>• Cut by 21%</td>
<td>• Tiered formula</td>
<td>• Caps for some products</td>
<td>• Additional reduction per subsidies' line</td>
<td></td>
</tr>
<tr>
<td>(b) Exceptions</td>
<td>Art. 6, 4</td>
<td>- Payments &lt; 5% (10% for DCs) production value (&quot;de Minimis&quot;)</td>
<td>Cap for Blue Box (5% of production value)</td>
<td>Cap for Blue Box (2,5% of production value)</td>
<td>Specific caps for the US</td>
</tr>
<tr>
<td></td>
<td>• Decoupled payments, if accompanied by production limiting measures (&quot;Blue Box&quot;)</td>
<td></td>
<td></td>
<td></td>
<td>not addressed</td>
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<tr>
<td></td>
<td>Art. 13 peace clause</td>
<td>• Due restraint for applying SCM till end 2013</td>
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<td>• Due restraint for applying SCM till end 2013</td>
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<td></td>
<td>Annex 2, para. 6</td>
<td>Decoupled payments (&quot;Green box&quot;)</td>
<td>Review and clarification</td>
<td>Prefix, para. 2</td>
<td>General services extended by land and rural programs</td>
</tr>
<tr>
<td></td>
<td>• No price support to producer</td>
<td>• Monitoring</td>
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<td></td>
<td>• No or minimal trade distorting</td>
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</tbody>
</table>
## Trade rules and food security

### Exceptions

<table>
<thead>
<tr>
<th>Developing Countries</th>
<th>Art. 6.3, 4</th>
<th>If mainly de Minimis applied, no cuts</th>
<th>DCs with AMS only face 75% of reduction</th>
<th>not addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Cut by 13% • De Minimis at 10%</td>
<td>• No de Minimis cut for DCs • if no AMS • If AMS most for subsistence • if NFIDC</td>
<td>• no complete exception of de Minimis cut</td>
<td></td>
</tr>
</tbody>
</table>

| Art. 6.2 | • Exceptions for cutting • for general investment subsidies • for input subsidies to low income and poor producer • to diversify from narcotic crops | • Continued access to Art. 6.2 |

### Special exceptions Annex 2 (Other „Green Box“)

<table>
<thead>
<tr>
<th>Natural disasters</th>
<th>Annex 2, para 8</th>
<th>• Review of measures by considering no or minimal, trade-distorting effects or effects on production • Considering no trade concerns</th>
<th>• smaller trigger threshold for developing countries • easier calculation methods • amendments for disease-related disasters</th>
<th>not addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Threshold at 30% production loss and compensation only for actual costs</td>
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</tbody>
</table>
### Specific exceptions for food security

<table>
<thead>
<tr>
<th>Public stocks for food security, public support of private stocks</th>
<th>Annex 2, Abs. 3</th>
<th>not addressed</th>
<th>Price difference may be accounted under de Minimis (not to be reduced)</th>
<th>Price difference shall not be required to be accounted for in the AMS</th>
<th>Additional criteria for payments compared to AoA sales not only for urban rural households but as well for poor farmers</th>
<th>Peace clause: subsidies on stocks not to be challenged</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Expenditures (or revenue foregone) for accumulating and holding of stocks, if</td>
<td>• Legal program</td>
<td>• Transparent</td>
<td>• Pre-defined targets</td>
<td>• Acquisition (and sales) at current (domestic) market prices</td>
<td>• Difference administered and FERP as part of AMS</td>
<td>• Developing countries specifically mentioned to apply the rules</td>
</tr>
<tr>
<td>• Legal program</td>
<td>• Transparent</td>
<td>• Pre-defined targets</td>
<td>• Acquisition (and sales) at current (domestic) market prices</td>
<td>• Difference administered and FERP as part of AMS</td>
<td>• Developing countries specifically mentioned to apply the rules</td>
<td></td>
</tr>
</tbody>
</table>

<p>| Consumer subsidies, domestic food aid | Annex 2, Abs. 4 | not addressed | ● Transparent criteria with nutritional objective | “In kind” &amp; “cash” | Cash support: to buy at market or subsidized prices | Governmental purchase at current market prices | |</p>
<table>
<thead>
<tr>
<th>(2) Other areas with explicit links to food security</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General objective</strong></td>
</tr>
<tr>
<td>• Consider food security as non-trade concern</td>
</tr>
<tr>
<td>• Consider LDCs and NFIDCs</td>
</tr>
<tr>
<td>• Art. 9 List of covered measures, no specific State trading enterprise (STE)- mentioning</td>
</tr>
<tr>
<td>• Not to circumvent disciplines for export competition</td>
</tr>
<tr>
<td>• Not to circumvent disciplines for export competition</td>
</tr>
<tr>
<td>Special acknowledged and allowance of STE monopolies in developing countries which ensure food security</td>
</tr>
<tr>
<td><strong>Others</strong></td>
</tr>
<tr>
<td>Food aid linked to export competition (Art 10)</td>
</tr>
<tr>
<td>• Not to circumvent disciplines for export competition</td>
</tr>
<tr>
<td>No change</td>
</tr>
</tbody>
</table>

Source: World Trade Organization (WTO), Committee on Agriculture Special Session, July framework adopted (WT/L/579); revised draft modalities for agriculture, 2007 (TN/AG/W/4 and Corr.1); December 2008 (TN/AG/W/4/Rev.4); WT/MIN (13/38); Draft WT/GC/W/688 of 24 November 2014
## 6.2 Reform options

<table>
<thead>
<tr>
<th>Better use the status quo</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>De Minimis</td>
<td>Increase subsidies parallel to productivity and/or value growth</td>
</tr>
</tbody>
</table>
| Art. 6.2: Development subsidies | • Inform and support the use of special development related subsidies  
                                    • Better criteria for supporting poor smallholder farmers |
| Art. 6.5: Blue Box       | Inform and support the use of special development related subsidies |
| Annex 2                  | Use whole range of possible support |

### (1) Bali

| AMS accounting | No reduction for stocks’ subsidies |

### (2) Bali + technical adjustments for subsidies

| Fixed external reference price (FERP) | Regular or automatic update of historical reference period |
| Eligible production                  | Use factually subsidized volume instead of maximal volume |
| Inflation                             | Automatic adjustment to recent inflation |
| Currency                              | Clear rules on what currency to be used |
| Define an overall food security clause | New, combined rules for food stocks and domestic aid |
| AMS announcement                      | Allow for new announcements instead of current ratchet clause |
| Domestic food aid                     | Merge/align Annex 2.4 to Annex 2.3: not allow subsidized consumer prices or allow subsidized producer prices |
| Marrakesh decision                   | Increase support to NFICs |
## Trade rules and food security

### (3) Bali ++: AoA reform (modalities rev. 4)

<table>
<thead>
<tr>
<th>New classification of subsidies</th>
<th>Address overall support, use more economical based indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>More asymmetry</td>
<td>More cuts by developed countries, extend sensible/special goods</td>
</tr>
<tr>
<td>Commitments on export subsidies</td>
<td>Abolishment</td>
</tr>
<tr>
<td>Commitments on export restrictions</td>
<td>Clearer definition and limitations, only for DC</td>
</tr>
<tr>
<td>Country groups</td>
<td>Defining of developing status, consider specific food vulnerability</td>
</tr>
<tr>
<td>“Least-trade distorting”</td>
<td>Definition</td>
</tr>
</tbody>
</table>

### (4) Bali +++: abolish agricultural exception

| Unique basis                    | Merge rules of SCM and AoA                                 |

### (5) Bali X: beyond WTO

| New Food Security box           | Improve Food Aid Convention by coordinating globally national stocks |
| Support and accompany regional reserves | Use of bi- and plurilateral agreements and ODA to improve stocks |

Source: World Trade Organisation (WTO), Committee on Agriculture Special Session, July framework adopted (WT/L/579); revised draft modalities for agriculture, 2007 (TN/AG/W/4 and Corr 1); December 2008 (TN/AG/W/4/Rev.4); WT/MIN/13/38; Draft WT/GC/W/688 of 24 November 2014