Volume 23 Number 1 2022/pp.13-30 www.usask.ca/esteyjournal

The Estey

Journal of International Law and Trade Policy

AMS and the Agreement on Agriculture: The World Trade Organization's Flawed Treatment of Domestic Subsidization

Milan Singh-Cheema

J.D. Candidate, Faculty of Law, Queen's University, Canada

Abstract

Both developed and developing countries allege that the Agreement on Agriculture's (AoA) treatment of domestic subsidization is flawed due to its treatment of Aggregate Measurement Support (AMS). AMS is the metric for determining the value of domestic subsidization a country may use. Despite the present consensus on its flawed nature, no consensus has been developed as to how it can be fixed.

This paper demonstrates how the current methodologies for calculating and classifying a countries' domestic subsidization allowance under the AMS system do not adequately account for their actual trade-distorting effects. These misclassifications detrimentally affect developing country agricultural producers in the international trading arena. While some countries have addressed this problem in joint submissions to the WTO, none have comprehensively dealt with all of the AoA's domestic subsidization issues in a single proposal. This paper seeks to go beyond what has been considered and proposes two simple solutions to modify AMS calculations that could solve the AoA's domestic subsidization woes.

Keywords: agriculture, AMS, AoA, developing countries, subsidies

I. Introduction

In November of 2020 tens of thousands of Indian farmers camped out in the outskirts of Delhi. The farmers were protesting the central government's proposed removal of the '*mandi* system', an agricultural support system that guarantees a certain "minimum support price" provided by the government to farmers for certain crops.[1] This system ensures that farmers would not be subject to massive fluctuations in prices that could render them unable to repay debts taken on to afford the price of agricultural inputs such as seeds and fertilizer.[2]

These farmers' complaints and the government's actions lie at the intersection of debates over equity in international trade within the agricultural sector, pitting the priorities of developing and developed country primary producers against one another. In 2019, the United States and Canadian governments issued communications that accused the Indian government of using the market support price to subsidize five crops in excess of their prescribed limit as determined by the Agreement on Agriculture (AoA).[3] On the other hand, in 2018 India and China submitted a joint report criticizing the World Trade Organization's (WTO's) approach to agricultural subsidies as a whole, alleging that their methodology has proliferated asymmetries in the international trading system for agricultural products.[4]

While there are several points of contention within the AoA, this paper focuses on the AoA's approach to domestic support, contending that it is fundamentally flawed such that it detrimentally affects the World Trade Organization's (WTO) 117 developing member states. This is particularly due to the methodology it has adopted to calculate and classify individual nations' domestic subsidization. Aggregate Measurement Support (AMS) calculations do not adequately prevent the use of subsidies that distort international prices for agricultural products and cause changes in supply. By using AMS as a metric for determining domestic support, the AoA has perpetuated an asymmetry that unfairly disadvantages developing country governments, such that they cannot adequately subsidize their agricultural sectors.

Looking at the various joint proposals currently under consideration, this paper suggests two simple and politically palatable reforms which may be made to AMS calculations to create a more equitable international agricultural trading regime. The AMS should account for actual take-up, as opposed to proposed or potential take-up of agricultural support measures. This would allow developing countries to avoid "AMS wastage" (funds that count towards AMS but are not being utilized by farmers), and thus better allocate their funds to make their primary producers more competitive. I further suggest that the reference prices used in AMS calculations should be updated to accurately reflect inflation and changes to international markets. While small, both of these changes would help precipitate North-South equality in agricultural trade.

II. Background: What is Domestic Support?

The AoA consists of three pillars; market access, domestic support, and export subsidies, each of which pertains to a different aspect of trade liberalization for primary products. Under the edifice of domestic support, the WTO targets subsidies to domestic producers that are not contingent to export performance which are subject to spending caps and reduction commitments. The AoA utilizes a statistic known as the Aggregate Measurement Support (AMS), in order to determine whether a country is exceeding their allocated spending allowance. Under the AMS regimen, domestic subsidies are characterized based on their effects and whether or not they will count towards a country's AMS calculation. Green box domestic support measures are those which theoretically cause effects on trade and do not count towards AMS. Amber box or *de minimis* domestic supports are thought of as to affecting international trade and thus do.[5] The AoA also contains a "blue box" category, which acts as an exemption to the amber box. This allows certain domestic price supports which affect international trade to not count towards AMS if they concurrently restrict production.[6]

Green box measures are defined in Annex 2 of the AoA. To qualify as a "non-trade distorting" subsidy, measures must be provided by a publicly-funded government program not involving transfers from consumers and should not have the effect of providing price support to producers.[7] In addition to these general qualifications there are extensive criteria which must be met depending on the type of support.[8] [9] Payments that could create an incentive to expand production and depress the prices of a particular product are not permitted.

Aside from these measures the green box allows governments to aid with things like environmental research under the ambit of general services, food stockholding programs, direct payments to producers (provided they have no impact on production decisions), structural adjustment assistance, environmental payments, and regional assistance payments.[10] The key commonality between all measures are that they decouple type and volume of production by producers. Furthermore, they are also subject to stipulations that prevent them from incentivizing the production of certain products versus others and are also not related to market prices for given products. Currently, the US, Japan, and the EU are the WTO members utilizing the most green box measures.[11]

Article 6.2 contains a unique exemption outside of the green box, allowing developing countries to build their agricultural infrastructure through input and investment programs without contributing to AMS.[12] As such, developing countries can subsidize an unlimited amount under this article, to construct their agricultural sector. With exempt measures under Article 6.2, green box measures and blue box measures, countries must inform the WTO about any changes and their monetary value within 30 days or as soon as practicable pursuant to Article 18.3.[13]

Amber box and *de minimis* measures include all non-exempt forms of domestic support such as India's minimum support pricing system. Countries are allowed to provide amber box measures provided their current total AMS does not breach their final bound AMS as set out in part IV of its schedule.[14] For countries that do not have a final bound AMS, the *de minimis* level is set out in the agreement.[15] *De minimis* levels are expressed as percentages of the value of product-specific support and non-product specific support. They are 10 % for developing members, 8.5 % for China and Kazakhstan, and 5 % for developed members respectively. Every country is also obligated to reduce their current total AMS.[16] Developed countries must thus reduce their total AMS by 20% over 6 years while developing countries must reduce by 13 % over 10 years.[17]

Calculation of AMS is key to determining whether or not a country is exceeding its limits under the AoA. The AoA creates two separate AMS calculations; one for each product that is receiving support, and one that takes the total monetary value of all domestic support.[18] These calculations total the values of non-exempt direct payments and market price supports provided by a government to their producers. The values of these two variables are determined by multiplying the quantity of eligible production (QEP) by a price gap reflecting the trade-distorting effect of the subsidy. The price gap is calculated by subtracting an applied administered price (AAP), which is the price that is given by a government to producers, by a Fixed External Reference Price (FERP), which is a stipulated commodity price based on world prices in 1986-87. [19] These calculations are based on the economic theory that subsidization creates changes in supply, which when held up against the world supply for a given commodity, affects world price.

Thus, while not solely directed towards exporters, AMS calculations can greatly affect the competitiveness of a nation's overall agricultural sector. Forcing countries to make difficult choices as to where they allocate their sparse funds, the AMS allowance system can determine which primary producers are given access to sparsely available support. For example, exceeding their AMS for rice in 2018, India was forced to utilize a peace clause agreed upon in the Bali Ministerial meeting, which indemnifies developing countries against legal action due to public procurement for food security purposes.[20]

III. The AoA's Unequal Treatment of Domestic Support

AMS Calculations

The AoA's method of quantifying export subsidies using AMS has come under extensive criticism as out of sync with the realities faced by primary producers in developing countries.[21] Developed countries are composed of much larger farming operations than their developing country peers. While not reflective of the full diversity which the labels 'developed' and 'developing' contain, the difference in average farm size between the world's two largest democracies is a good indicator of this, with farms in the US being 444 acres, on average, while in India they are a mere three.[22] [23] Furthermore, developed countries' agricultural sectors constitute a much smaller proportion of GDP and employment than in developing nations (with 60 % of India employed in agriculture versus 10 % in the US).[24] Aside from differences in their sector's compositions, developing countries must account for issues like food insecurity which are not faced by their developed peers.

Owing to these differences, developed countries subsidize their agricultural sectors in ways that do not entail subsidies based on volume of production or the direct purchase of crops. The United States was once one of the largest providers of direct payments to farmers but stopped handing them out in 2014.[25] This was partially due to political pressure, and also due to the fact that the agricultural sector achieved record incomes in the years following the 2008 financial crash.[26] The United States has thus began to subsidize in other ways such as providing a safety net to their agricultural sector through the provision of subsidized income insurance.[27] These subsidies are provided in large part due to the private market's failure to provide adequate insurance, and a lack of willingness by primary producers to pay for it, as demonstrated by several willingness to pay studies.[28] As noted by Smith and Glauber, this is clear evidence of market distortion, as without subsidization, no natural market for such subsidies would occur.[29] This is further incentivized by many of these subsidies' classification under the AoA as falling within the 'green box' and thus constituting non distorting domestic support.[30]

The EU has adopted a similar approach to agricultural subsidization as the United States. Subsidization in the EU is governed by the Common Agricultural Policy (CAP) and thus takes place on both a continental and national level with countries' different levels of support based on the size of their agricultural sector.[31] Once largely consisting of direct payments to farmers, the CAP has steadily adjusted to include more green box measures.[32] This has encompassed a variety of risk insurance schemes and safety-net measures which have led to increases in agricultural production.[33]

Theoretically not market-distorting, many green box measures have demonstrably distorted the market in ways beyond providing insurance. They have been shown to make farmers less risk-averse, increase land values, create expectations in farmers about future support and differentiate the allocation of labor in farm households. All of these things have effects on production which can be market-distorting. Farm payment schemes that are decoupled from production for example, are classified as green box measures and thus unbounded and not factored into AMS. However, they have been shown to increase production as farmers become less risk-averse.[34] In the EU for example, studies have suggested that beef production would not be sustainable without decoupled payments which are provided to primary producers.[35] Economic modeling has shown increases in acreage for different products by a substantial percentage due to decoupled payments, such as 23.83 % for peas in Manitoba, due to the expectation effects' impact on supply. [36] As increases in supply affect world prices for agricultural products, these undoubtedly have effects that are seen in international trade.

Developing countries subsidize differently, reflecting their relative lack of mechanization, lower productivity, and different priorities. With less access to credit and other inputs, developing country farmers tend to be very vulnerable to external price distortions which downwardly affect the prices of their crops. For example, substantial downward distortions in cotton prices led to an almost 50% decline in the supply of cotton by farmers in Benin between 1996 and 2009.[37] As such, developing countries tend to provide a guaranteed price to farmers of certain crops. This ensures that supplies will be constant and thus small producers are able to continue producing despite downward distortions in price which may eliminate resource-poor developing country farmers' ability to do so.

India's subsidization approach is one such demonstration of this divergence. As per the latest surveys, small and resource-poor farmers accounted for 99.3% of the agricultural economy.[38] Thus, India is the largest user of Article 6.2 in the WTO providing 22 billion dollars through investment and input support.[39] This accounts for the majority of India's domestic subsidization and provides for the purchase of inputs such as fertilizers and the provision of irrigation to farmers.

The majority of India's *de minimis* spending involves the purchase of 25 crops by the government from farmers at prices set by the central government under the *mandi* system.[40] As part of the *mandi* system farmers bring their crops to a *mandi* yard where state-level procurement agencies purchase them at a minimum support price set by the government, provided that they are within the necessary quality standards.[41] Much of this purchased crop is held by the government and then provided through a public distribution system to poor consumers at a reasonable price.[42] As a *de minimis* measure, this has been deemed to affect supply as it incentivizes the production of certain crops which benefit from these safeguards.[43]

Many have pointed out that the contention that this classification is unfair to the WTO's developing members is vastly overstated. Developing countries do have considerable flexibility not accorded to their developed counterparts, particularly with regard to the subsidization of agricultural inputs.[44] Subsidization of agricultural inputs is a type of subsidy that has been proven to cause considerable market distorting effects. Developing countries are allowed to use them under Article 6.2 while developed countries are not. [45]

Furthermore, developing country subsidies under the *de minimis* label still have the potential to greatly affect the world price of given crops. As their crops are heavily subsidized, developing countries could potentially negatively impact international prices. One could point to the *mandi* system in India as an example. Crops are bought for public stockholding purposes by the government but there is little way of ensuring that these crops are not then exported as noted by the EU in 2018.[46] Thus, trade distortions could potentially occur due to the export of highly subsidized agricultural products stemming from India's public procurement system.

While these arguments appear convincing, they lack rigor when held up to the realities of global trade and domestic production. The possibility of India selling its reserves of food into the international market reflects a fundamental misunderstanding of India's agricultural policy. As a developing country India faced severe food shortages on independence and was at a high risk of famine. Thus, the *National Food Security Act* was created in the 1960s to primarily ensure food security while also increasing self-sufficiency in the agricultural sector.[47] Within the act there are a large number of stipulations about the amount of food the government must hold in order to safeguard against a potential famine. Given India's growing population and these legal requirements the possibility of India reaching a surplus to export was found to be extremely remote.[48]

Furthermore, India's subsidization does not amount to actual support when held against global standards. India's minimum support price was well below global prices for rice in 2018.[49] Yet, India still exceeded their product-specific AMS for rice that year by 1.6 %.[50] This is because while nominal prices for goods have risen, the FERP has stayed the same. The Organization for Economic Cooperation and Development (OECD) found that Indian farmers have a negative net total support per farmer of 5 % (meaning that they are actually implicitly taxed and not subsidized). Yet, they are in breach of their WTO commitments.[51] The United States has a net total support of plus five %. However, as this is the result of green box spending they are well within their bound AMS.[52] The WTO's erroneous classifications penalize resource-poor farmers with little effect on the outside world due to their governments' food-security driven public procurement policies. On the other hand, wealthier farmers can produce cheaply and affect global commodity prices, while being indemnified against a variety of risks.

The WTO's Dispute Settlement Body (DSB) and AMS

Additional criticism has been levelled at the DSB's interpretation of the AMS, which is out of touch with the realities of developing countries. As discussed previously, many developing countries subsidize through minimum support pricing which is classified as an amber box or *de minimis* measure according to Article 6 of the AoA. Calculations on the extent that these measures contribute to AMS are crucial for many of the WTO's developing members. This metric was decided by the DSB in *DS161: Korea — Measures Affecting Imports of Fresh, Chilled and Frozen Beef* and *DS 511: China-Domestic Support for Agricultural Producers*.[53]

In *Korea-Beef* the United States alleged that Korea was providing domestic support to its cattle producers in breach of its AMS commitments under the AoA.[54] As the measures at issue were minimum pricing supports, the panel was tasked with interpreting paragraph 8 of Annex 3 of the AoA which stipulated how minimum price support (MPS) is supposed to be calculated (the gap between FERP and AAP multiplied by QEP).[55] In making its determination, the panel decided that the quantity of eligible production was the quantity of production which was eligible to receive the MPS regardless of whether or not they actually did. In addition, the panel determined that Korea had erred by using an FERP that was not reflective of the world price between 1986 and 1987 but rather 1989 to 1991.[56]As such, Korea was determined to have breached their AMS and WTO commitments.[57]

In *China- Agricultural Producers* the WTO was once again faced with the same interpretive task, this time more than 20 years later.[58] The United States alleged that China was unfairly subsidizing their indicia rice, japonica rice and corn producers. China's calculations for Indica rice relied on a weighted average of AAP. [59] This weighted average reflected the amount paid by producers at different points of the season (as the MPS differed) and calculated based on a QEP, which then looked at the amount of rice actually purchased at each different interval. Thus, China was accounting for the actual uptake of its MPS as opposed to its overall eligible quantities. [60] The panel squarely rejected this method of calculation once again defining QEP as the total amount eligible for MPS.

The panel's decision was grounded on assumptions of both the functioning of, and farmer reactions to MPS.[61] For example, *Korea-Beef* noted that all farmers benefit from such MPS pricing which causes a price distortion in the market. However, this is not always the case. Information asymmetries often make it such that primary producers are not aware of any government procurement or subsidization for their given crop. A study conducted in India found that only 32.2% of farmers who reported sales of paddy were aware of any minimum support price set by the government. Out of those farmers, only 13.5% actually sold their crop to a government procurement agency.[62] Thus, only a small minority of farmers were utilizing subsidization which would be accounted for in AMS. These funds could be allocated elsewhere as part of India's *de minimis* spending to develop its agricultural sector.

Some may argue that these decisions are the result of a careful judicial balancing act which reflects the WTO DSB's numerous constraints rather than any adverse prioritization of developing countries. Thus, such judgements are necessary as they are an indication of the WTO's impartial judiciary. One could point to the DSU's text-first approach when interpreting WTO treaties as evidence of this impartiality.[63] WTO treaties were negotiated to maximize all parties' welfare and thus they must be interpreted according to what is *textually* relevant regardless of other considerations.[64] In *China Agricultural Producers* for example, the interpretation of QEP was determined in accordance with the ordinary meaning of the term based on its interpretation in *Korea-Beef*.

This reasoning does not stand up to scrutiny when one examines just what the judicial decision-making powers of the WTO entail. WTO panel decisions and appellate bodies often make interpretive decisions based on the ordinary meanings of words. For example, in *US-Shrimps* the WTO accounted for member's own understanding of the word equilibrium when determining what its meaning was.[65] The WTO has also in the past deferred to experts on manners concerning the environment and economics. As such, a panel decision based on policy factors is not in itself unheard of and could have been instituted in the case of domestic subsidization to account for actual (rather than perceived) distortions to international trade.

IV. What Reforms are Currently Proposed and Are they Adequate?

The Doha Draft Proposal

There are currently several proposed reforms to the AoA. Commencing in 2001, the Doha round of negotiations and subsequent draft proposal suggested several ways to mend the asymmetries in international agricultural trade flows.[66] The Doha draft proposal included a three-pronged approach to fixing domestic support. This included establishing a new constraint for bound AMS based on a new formula premised on overall trade distorting support (OTDS). OTDS would be based on adding the final bound AMS stated in a nation's schedule, product specific and non-product specific *de* minimis spending in the base period and, the higher of average blue box payments or 5 % of the average total of agricultural production in the base period.[67] Reduction commitments would be based on this new formula and most developing countries (including India and China) would be exempted from these commitments.[68] Furthermore, traditional categories of support such as blue box payments would be cut or limited, and product specific limits would be added to both AMS and blue box spending.

While it was a step in the right direction, the Doha draft proposal still lacked the necessary corrective power to secure more equitable trade for the agricultural sector. The proposed OTDS reforms did not include any caps on green box measures utilized by developed countries (particularly the United States and EU). Furthermore, they did not propose any reclassification in the sphere of domestic support which would constrain the usage of trade distorting domestic support by developed countries.

Nevertheless, the Doha draft suggestions never came to fruition as negotiations stagnated for several years. Following the 2008 Geneva Round of negotiations, Carin Smaller of the Institute for Agriculture and Trade Policy noted that the impasse reflected an ideological divide between the belief that a free market would solve everything and that sometimes protections were necessary to protect domestic farmers.[69] Furthermore, it has been noted that a lack of political will effectively stymied the ability for these negotiations to proceed. While slashing subsidies may be necessary to truly liberalize international trade, the institution of such reforms would greatly affect one's electability and thus make it an undesirable political move. Ultimately, the United States rejected the Doha draft proposal stating that it did not reflect the current state of play due to large economic gains made by developing countries such as India and China.[70] Thus, the contours of negotiation have drastically changed.

Multilateral Joint Submissions

In lieu of the Doha draft proposals, countries have created several different joint submissions which suggest how the problems with AMS could be solved. India and China have suggested a complete elimination of domestic AMS entitlement for developed countries starting with a phasing out of product-specific AMS support.[71] This is far out of touch with reality. Product-specific support for product's like dairy products and milk are still a large part of developed country spending and are politically contentious issues domestically.[72] Thus, politically this reform would likely prove unpalatable within the United States and EU. Similarly, Australia and New Zealand submitted a joint proposal that noted the massive rise in amber box and *de minimis* spending from 2001 onwards.[73] The proposal noted that trade-distorting support entitlement must be capped and reduced and that a reclassification must take place to include the trade-distorting effects of uncapped spending.[74] While helpful in progressing negotiations, the proposal added little substance in terms of methodologies on how to do so and thus lacked the rigor needed to create a workable solution to the AMS's inadequacies.

Brazil, the EU, Colombia, Peru and Uruguay circulated a joint submission which suggested limiting OTDS based on a single percentage of a nations' total value of agricultural production (based on average value of production for the three most recent years).[75] The joint submission posited two alternate methods to do so. The first, would grant developing members an additional two percent flexibility to subsidize their agricultural sector with the base year being 2018 for developed nations and 2022 for developing ones (not including least developed nations). [76] The alternate proposal suggested that both developing and developed members have the same OTDS percentage, however developing nations' base years would be undetermined (and presumably later) than that of developed nations which would be 2018.[77] The proposal also suggested exempting food stockholding programs in developing countries from contributing to the OTDS.

This proposal represents a marked step in the right direction. By basing OTDS on more recent statistics, the proposal would eliminate the uptick in amber box and *de minimis* support caused by the outdated FERP statistics. Furthermore, it would allow public stockholding programs such as India's MSP to continue unfettered. However once again, there is no mention of green and blue box measures which would continue unencumbered.

Benin, on behalf of the African Group, also circulated a joint proposal. Similar to that of the EU and their Latin American peers, the proposal suggested capping agricultural production with the same methodology.[78] This proposal goes much further however. The proposal suggests that blue box support should be phased out on a notified end date upon which any continuation of blue box support would count towards OTDS.[79] Unlike the previous proposals, this joint submission includes reforms to the green box. It notes that green box supports must be evaluated to ensure that they are non-trade distorting. However, a methodology to do so is not laid out. Despite contouring necessary changes, the proposal requires further development to ensure viability.

While not directly related to AMS, an additional issue to note is the classification of 'developed' and 'developing' and thus the idea of "special and differential treatment" (SDT).[80] Developed countries such as the United States have argued in several proposals that SDT classifications unfairly advantage developing nations who get the equivalent of a free ride.[81] While this is salient to any solution regarding the AoA, it is an important topic which merits an exploration its own and thus cannot be covered in this paper.

V. What Reforms to the AoA's Treatment of Domestic Support Should Occur?

As the failure of the Doha round of negotiations was largely political, any solution to the AoA which would even out existing asymmetries must be framed in a careful manner. Any solution must reflect the plethora of viewpoints tabled and would represent a compromise despite the issues discussed in Section III. Thus, a wholesale reclassification of all green box subsidization, or a complete elimination of developed country amber box and *de minimis* spending as China and India suggested may prove untenable.

I propose reforming the AMS within its existing framework. While the adoption of OTDS is tempting, terminology is important and a complete overhaul to domestic support classification which also changes its terminology may appear more radical then it is in actuality. Thus, I propose two reforms which could help even out asymmetries in subsidization and could potentially prove politically viable.

Reforming FERP

One of the easiest changes that could be made to the AoA's domestic subsidization regime would be reforming FERP to reflect changes in world markets. This would allow for a more accurate reading of trade distortions and prevent countries from going over their *de minimis*/amber box allowance due to inflation in market prices for agricultural products. This reform was suggested in nearly every joint submission regarding domestic subsidization, thus it is clear a political consensus around this point exists within the WTO. Changes could be made in accordance with the joint submissions, by taking the average of the last three year's market prices and updating reference prices accordingly. However, countries with AMS values that are bound in numerical terms as opposed to *de minimis* percentages may object to such a change, thus some sort of a compromise must be reached. This could include converting bound AMS to the *de minimis* percentages agreed upon in accordance with the existing percentages or a different change as determined by member states.

Reforming the QEP

Reforming the QEP to account for the actual take up of subsidies as opposed to quantity eligible for them, is one change which appears minor and could be easily instituted. Working within the existing *de minimis/*amber box framework this QEP would allow developing nations that suffer from poor awareness of subsidization to utilize their precious AMS allowances elsewhere in the agricultural sector, thus somewhat ironing out asymmetries created by AMS in its current formulation. A new QEP could be accomplished in two different ways which would allow some equalization in favour of developing nations.

The first way such a reform could occur is by using this reformed QEP for all agricultural production in both developed and developing nations. This would allow developed countries to benefit from the reforms as well, making it more acceptable to strong United States and EU agribusiness lobbies. While this may appear counterintuitive, the benefits in developing countries should in theory exceed those in developed nations where access to information is greater, farming is more consolidated, and thus subsidy take-up percentages are much higher. Should developing nations find this proposal unacceptable it could be accompanied by an additional concession made by developed nations to reflect any gains made by this updated QEP.

This change would not come without its practical counter-arguments however. As noted prior *expectation effects* due to subsidy eligibility can cause trade-distorting effects. Thus, increases in land rents due to subsidization could be used as evidence that such a QEP would allow for much greater trade distortion than prior. However, the premise of this argument does not hold-up to scrutiny when one considers the underlying cause of AMS wastage; a lack of information about subsidies. Theoretically, if subsidies are underutilized due to lack of awareness, the corresponding expectation effects and thus trade-distortion would also be negated by the same unawareness causing their underutilization. While this is a compelling argument, more information is needed in order to conclusively understand the effects that such changes would have on expectation effects and trade-distortion.

Legal Counterargument

An additional issue that could be faced by both proposals is the fact that they would necessitate overturning existing WTO jurisprudence. Detractors could argue that WTO jurisprudence reflects its member states' collective will and should thus not be interfered with. Nevertheless, I believe such an argument is fundamentally flawed. It has been noted by several experts that DSB calculations are not inherently neutral. They represent the legal capacity of different member states, and their ability to raise various issues.[82] The fact that no LDC has launched a dispute with the DSB would seem to suggest that the WTO's richer members have also shaped the contours of its jurisprudence.[83] Such situations are commonplace in common law systems where reforms must often come from legislatures as opposed to judge-made rulings. While it is an international organization, the WTO is no different in this respect.

VI. Conclusion

I have argued that the AoA's approach to domestic subsidization is fundamentally flawed due to its inequitable effects on developing countries. This is primarily due to the methodology and outdated statistical references used to calculate countries' AMS. I have found that this calculation must be updated in a manner that reflects WTO negotiations' inherently political nature. Despite the sweeping changes required for green box calculations, smaller changes to amber box and *de minimis* calculations are likely a better starting place. The first reform could be updating the reference prices used for AMS calculations. This would allow countries' AMS to more accurately reflect the pressures on world commodity prices that they cause and which the AoA was attempting to prevent. The next such change would be a reform to QEP to account for AMS wastage caused by poor informational awareness. This would allow countries to reallocate their precious AMS allowance elsewhere. Nevertheless, recent failures of the WTO evidenced by the breakdown of the Doha round of negotiations means these proposals will face difficulty in attaining credence, despite their potential political palatability. Even if proposed through multilateral joint submissions, the lack of a venue for negotiations on this subject means that the consensus and contouring required for their actual proposal and implementation remains out of sight at this time. Thus the status quo will likely continue, and resource-poor developing country farmers will likely continue to bear the brunt of decades-old policies.

Endnotes

[1]Shreya Sinha, "In Punjab, the Centrality of the Mandi System." (18 December 2020) online: *Hindustan Times* <www.hindustantimes.com/analysis/in-punjab-the-centrality-of-the-mandi-system/story-V1QIJJuShlfDIRiaE7ukQJ.html>.

[2] Ibid.

[3]United States, *United States Department of Agriculture, United States Issues WTO Counter Notification Concerning India's Market Price Support for Various Pulses*, (Washington: USADA, 15 Feb. 2019) < www.fas.usda.gov/newsroom/united-states-issues-wto-counter-notification-concerning-india-s-market-price-support>.

[4] WTO, "Elimination of AMS Beyond De Minimis to Reduce Distortions in Global Agricultural Trade—Some Incremental Steps," Submission by China and India, JOB/AG/137, June 23, 2018.

[5] "Domestic support in agriculture: The boxes" (April 24, 2021) online: *World Trade Organization* <https://www.wto.org/english/tratop_e/agric_e/agboxes_e.ht>.
[6] *Agreement on Agriculture*, 15 April 1994, LT/UR/A-1A/2 (entered into force January 1, 1995).
[7] Ibid, Annex 2.
[8] Ibid, Annex 2.
[9] For example, government financial participation in income insurance and safety net programs outlined in paragraph 7 must; (a) be determined by an income loss taking into account only income derived from that which exceeds 30 percent of average gross income in the prescribed period (b) compensate less than 70 percent of income loss (c) relate solely to income and not type or volume of producing and (d) must cover less than 100 percent of loss if payments are given
[10] *Agreement on Agriculture*, 15 April 1994, LT/UR/A-1A/2 (entered into force January 1, 1995).
[11] Zhao Yumin, et al, "Green Box Support Measures Under the WTO Agreement on Agriculture and Chinese Agricultural Sustainable Development – Summary" (2003) online: *International Institute for Sustainable Development* ,www.iisd.org/system/files/publications/tkn_greenbox_china.pdf..
[12] *Agreement on Agriculture*, 15 April 1994, LT/UR/A-1A/2 (entered into force January 1, 1995): Article 6.2.
[13] "WTO Committee on Agriculture: What To Look For When Reviewing Notifications." - online: *Cairns Group* <,www.cairnsgroup.org/sites/default/files/Cairns Group Paper - What to look for when reviewing notifications.pdf>.
[14] "Domestic support in agriculture: The boxes" (April 24, 2021) online: *World Trade Organization* <https://www.wto.org/english/tratop_e/agric_e/agboxes_e.ht>.
[15] *Agreement on Agriculture*, 15 April 1994, LT/UR/A-1A/2 (entered into force January 1, 1995): Article 6.2.
[16] Joseph W. Glauber et al, "What National Farm Policy Trends Could Mean for Efforts to Update WTO Rules on Domestic Support." International Institute for Sustainable Development, Apr. 2020: < www.iisd.org/system/files/2020-08/farm-policy-trends-en.pdf>.
[17] Ibid.
[18] *Agreement on Agriculture*, 15 April 1994, LT/UR/A-1A/2 (entered into force January 1, 1995): Annex 3.
[19] *Agreement on Agriculture*, 15 April 1994, LT/UR/A-1A/2 (entered into force January 1, 1995): Annex 3.
[20]Kritika Suneja. "India Favours 'Support-per-Farmer' Rule at WTO Farm Subsidy Negotiations." *The Economic Times* online: <economictimes.indiatimes.com/news/economy/agriculture/india-favours-support-per-farmer-rule-at-wto-farm-subsidy-negotiations/articleshow/79215306.cms.>
[21] Timothy Josling. World Economic Forum, , "Rethinking the Rules for Agricultural Subsidies" (January 2015) online: <e15initiative.org/wp-content/uploads/2015/09/E15-Subsidies-Josling-Final.pdf .>
[22]United States, *National Agricultural Statistics Service*, *Farms and Land in Farms 2019 Summary,* (Washington: USADA, Feb. 2020) <www.nass.usda.gov/Publications/Todays_Reports/reports/fnlo0220.pdf>.
[23]Rukmini S. "Does It Pay to Be a Farmer in India?" (23 Sept. 2017) *The Hindu* online: <www.thehindu.com/data/does-it-pay-to-be-a-farmer-in-india/article10895031.ece>.
[24] SR Swain. "Trade Externalities of Agricultural Subsidies and World Trade Organization." *American Journal of Economics and Business Administration*, vol. 1, no. 3, 2009, p. 226., doi:10.3844/ajebasp.2009.225.231.

[25] Roman Keeney. "The End of the Direct Payment Era in U.S. Farm Policy" : *Purdue University*, EC-774-W at 2-3.
[26] Ibid.
[27]Ibid.
[28] Vincent Smith and Joseph Glauber. "Agricultural Insurance in Developed Countries: Where Have We Been and Where Are We Going?" (2012): Applied Economic Perspectives and Policy. 34. 10.1093/aepp/pps029.: at 9-10.
[29] Ibid.
[30] Ibid at 20-21.
[31] Ibid.
[32] Rashmi Banga. "Do Green Box Subsidies Distort Agricultural Production and International Trade?", (1 November 2014): Commonwealth Trade Hot Topics, No. 114, Commonwealth Secretariat, London, <https://doi.org/10.14217/5jxswbjhkszx-en> at 2-4.
[33] Ibid.
[34]Al Mussel et al. "Trade Study" (2017), online: *Canadian AgriFood Policy Institute Trade:*, https://capi-icpa.ca/wp-content/uploads/2019/09/2017-05-02-CAPI-Subsidies-Trade-Study-Full-Report.pdf>
[35]Ibid: 164.
[36]Samira Bakshi and William A. Kerr. University of Saskatchewan "Is there Supply Distortion In the Green Box?: An Acreage Based Approach" (May 2009) CATPRN Working Paper 2009-04.
[37] Didier Yélognissè Alia et al, "Heterogeneous Welfare Effect of Cotton Pricing on Households in Benin." *African Development Review*, vol. 29, no. 2, 2017, pp. 108., doi:10.1111/1467-8268.12244.
[38] OECD/ICRIER (2018), *Agricultural Policies in India*, OECD Food and Agricultural Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264302334-en.
[39] Ibid.
[40] Ibid.
[41]"In Punjab, the Centrality of the Mandi System." *Hindustan Times*, 18 Dec. 2020, <www.hindustantimes.com/analysis/in-punjab-the-centrality-of-the-mandi-system/story-V1QIJJuShlfDIRiaE7ukQJ.html>.
[42] D. P. K. Pillay and T. K. Manoj Kumar (2018) Food Security in India: Evolution, Efforts and Problems, Strategic Analysis, 42:6, 595-611, DOI: 10.1080/09700161.2018.1560916
[43] Ibid.
[44]Alan Matthews, "Prospects for Progress on the WTO Agricultural Agenda: CAP Reform." (12 Apr. 2021), online:, <capreform.eu/prospects-for-progress-on-the-wto-agricultural-agenda>.
[45] Ibid.
[46]"US, EU, Canada Question India's Agriculture Support Practices at WTO." (2 Oct. 2020), online: *Business Today* <www.businesstoday.in/sectors/agriculture/us-eu-canada-question-india-agriculture-support-practices-at-wto/story/417599.html>
[47] Rashmi Banga, (2015). Public stock holding of food in India: Can it distort international trade?. 10.13140/RG.2.1.3427.0885.
[48]Ibid.
[49] Kritika Suneja. "India Invokes Peace Clause Again as Rice Subsidies Exceed 10% Cap." (April 2021), online: *The Economic Times* <economictimes.indiatimes.com/news/economy/policy/india-invokes-peace-clause-again-as-rice-subsidies-exceed-10-cap/articleshow/82136756.cms.>
[50] Ibid.
[51]OECD 2020, *Measuring Distortions in International Markets: the Agricultural Sector*.
[52] Ibid.

[53] Nedumpara, James. (2019). Trade Disputes and the Agriculture Policies in the Developing World: Time to Clawback the Development Space under the WTO. 14. 343-351.
[54] Appellate Body Report, Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef, WT/DS161/AB/R
[55]Ibid.
[56] Ibid.
[57]Ibid.
[58]Ibid.
[59]Panel Report, China – Domestic Support for Agricultural Producers, WT/DS511/R
[60]Ibid.
[61] Nedumpara, James. (2019). Trade Disputes and the Agriculture Policies in the Developing World: Time to Clawback the Development Space under the WTO. 14. 343-351: 350
[62] OECD/ICRIER (2018), *Agricultural Policies in India*, OECD Food and Agricultural Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264302334-en.
[63] Shaffer, Gregory. "Interpretation and Institutional Choice at the WTO." Virginia Journal of International Law, vol. 52, no. 1, 2011, pp. 114–115. University of Minnesota Law School ,
[64] Ibid; 115.
[65]Ibid.
[66] Patnaik, Jagadish K., and Jagdish K. Patnaik. "THE DOHA ROUND OF WORLD TRADE NEGOTIATIONS : A PREVIEW AND PERSPECTIVE (A Developing Country Analysis)." *The Indian Journal of Political Science*, vol. 68, no. 3, 2007, pp. 547–560. *JSTOR*, www.jstor.org/stable/41856354. Accessed 22 Apr. 2021.
[67] Musselli, Irene. "Farm Support and Trade Rules: Towards a New Paradigm ." *Policy Issues in International Trade and Commodities Research Study Series* , vol. 74, 2016, pp. 2–3., <unctad.org/system/files/official-document/itcdtab76_en.pdf>.
[68]Ibid
[69] "Bridges Weekly Trade News Digest." (7 Aug. 2008), online: *International Centre For Trade and Sustainable Development* <https://ictsd.iisd.org/sites/default/files/review/bridgesweekly/bridgesweekly12-27.pdf>2
[70]United States, *United States Congress*, World Trade Organization Negotiations: the Doha Development Agenda, (Washington DC: December, 12,2011) at 6.
[71] WTO, "Elimination of AMS Beyond De Minimis to Reduce Distortions in Global Agricultural Trade—Some Incremental Steps," Submission by China and India, JOB/AG/137, June 23, 2018.
[72] "What National Farm Policy Trends Could Mean for Efforts to Update WTO Rules on Domestic Support " (April 2020), online: *International Institute for Sustainable Development* <www.iisd.org/system/files/2020-08/farm-policy-trends-en.pdf>.
[73]WTO,"Higher and higher - Growth in domestic support entitlements since 2001," Submission by Australia and New Zealand, JOB/AG/711, 22 November 2019.
[74] Ibid.
[75] WTO, "Proposal on Domestic Support, Public Stockholding for Food Security Purposes and Cotton", Submission by Brazil, European Union, Peru, Colombia and Uruguay, JOB/AG/99 17, July, 2017.
[76] WTO, "Proposal on Domestic Support, Public Stockholding for Food Security Purposes and Cotton", Submission by Brazil, European Union, Peru, Colombia and Uruguay, JOB/AG/99 17, July, 2017.
[77] Ibid.
[78] WTO "African Group Elements on Agriculture", Submission by Benin on behalf of the African Group, JOB/AG/173, 25 November 2019
[79] Ibid.

[80] James Bacchus and Inu Manak. “The Development Dimension: What to Do about Differential Treatment in Trade.” (April 13, 2020), Policy Analysis No. 887, online: *Cato Institute* <https://doi.org/10.36009/PA.887>

[81] Ibid,

[82]Daku, Mark and Krzysztof J. Pelc, Who Holds Influence over WTO Jurisprudence?, *Journal of International Economic Law*, Volume 20, Issue 2, June 2017, Pages 233–255, https://doi.org/10.1093/jiel/jgx017

[83] “Developing Countries in WTO Dispute Settlement” (April 24, 2021), online: *World Trade Organization* <https://www.wto.org/english/tratop_e/agric_e/ag_intro00_contents_e.htm>