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Examining Agricultural Support and Subsidies in the U.S. and Mexico

Daniel Scheitrum
Deptartment of Agricultural and Resource Economics
University of Arizona

Agricultural & Resource Economics

PO Box 210078
The University of Arizona
Tucson, AZ 85721-0078

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Daniel Scheitrum
Assistant Professor of Agricultural and Resource Economics
University of Arizona

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Contents

1 List of Abbreviations

AD	Anti-dumping
AoA	Agrrement on Agriculture
AoSCM	Agreement on Subsidies and Countervailing Measures
CPI	Consumer Price Index
CVD	Countervailing Duty
EQIP	Environmental Quality Incentives Program
FAS	Foreign Agriculture Service
GAO	Government Accountability Office
NAFTA	North American Free Trade Agreement
NPS	Non-product Specific
OECD	Organisation for Economic Co-operation and Development
PROAGRO	Program for Promotion of Agriculture
PS	Product Specific
USD	United States Dollar
USDA	United States Department of Agriculture
USMCA	United States–Mexico–Canada Agreement
WTO	World Trade Organization

2 Introduction

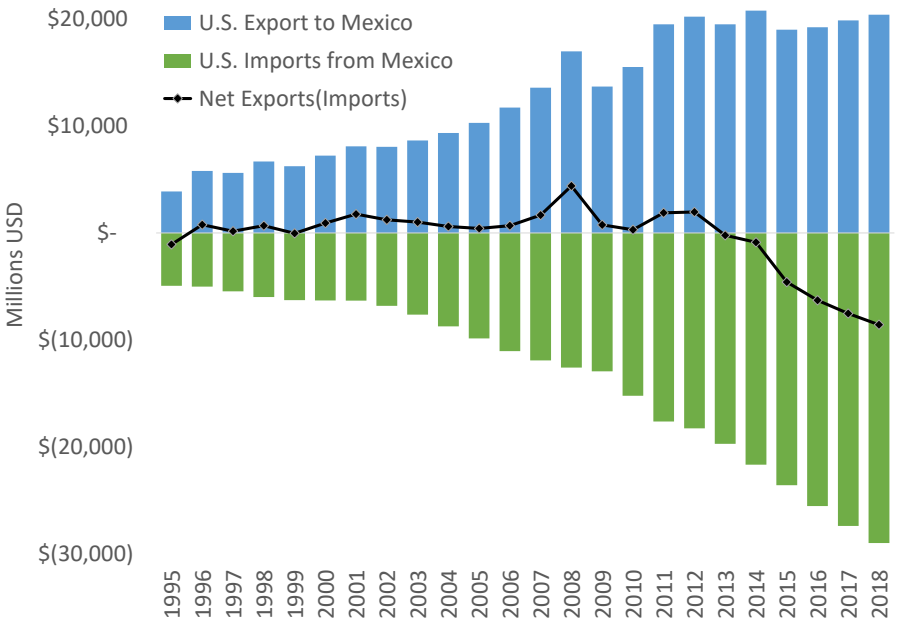
The United States and Mexico are intimately linked by trade. The balance of trade has alternated over the past 25 years between the U.S. being a net exporter and a net importer of agricultural products. As recently as 2018, the U.S. is a net importer of Mexican agricultural products (USDA, 2019*a*). The history of U.S.-Mexico agricultural trade has been marked by several notable disputes regarding apples[1], avocados[2], beef[3], corn[4], pork[5], sugar[6], and tomatoes[7] (Hufbauer, 2005). Trade flows between these countries of grains (corn and soybeans) and fruits & vegetables are of interest recently due to questions arising of whether these countries' respective agricultural programs supporting these products violate WTO rules (Johnson, 2017; Schnepf, 2018).

Trade flows in agricultural products between the U.S. and Mexico are presented in Figure 1. As of 2018, U.S. agricultural exports to Mexico amount to $20.4 billion USD and U.S. agricultural imports from Mexico amount to $29.0 billion USD. U.S. net imports amount to $8.6 billion USD of agricultural products as of 2018. Percentages of agricultural exports comprised of corn, soybeans, fruits, and vegetables are presented in Figure 2 for the U.S. and Figure 3 for Mexico. As of 2018, U.S exports consisted of corn (15%), soybeans (9%), fruit (4%), and vegetables (2%). That same year, U.S. imports of agricultural products consisted of fruit (25%), vegetables (24%), almost no corn or soybeans.

Prior to 1994, the U.S. and Mexico engaged in managed trade in agricultural products. The adoption of the North American Free Trade Agreement (NAFTA) led to reductions in trade barriers between the two nations and more liberalized trade in the agricultural sector over time (Hufbauer, 2005). However, during the negotiated phaseout of barriers to trade in the agricultural sector, some commodities experienced disputes concerning dumping, countervailing duties, and other trade remedies.

[1] North American Free Trade Agreement Chapter 19 Binational Panel Decision MEX-USA-06-1904-02
[2] Peterson and Orden (2008)
[3] North American Free Trade Agreement Chapter 19 Binational Panel Decision MEX-USA-00-1904-02.
[4] North American Free Trade Agreement Chapter 19 Binational Panel Decision MEX-USA-98-1904-01.
[5] North American Free Trade Agreement Chapter 19 Binational Panel Decision MEX-USA-06-1904-01
[6] Schmitz (2018)
[7] Baylis and Perloff (2010)

Figure 1: U.S. Mexico Balance of Agricultural Trade



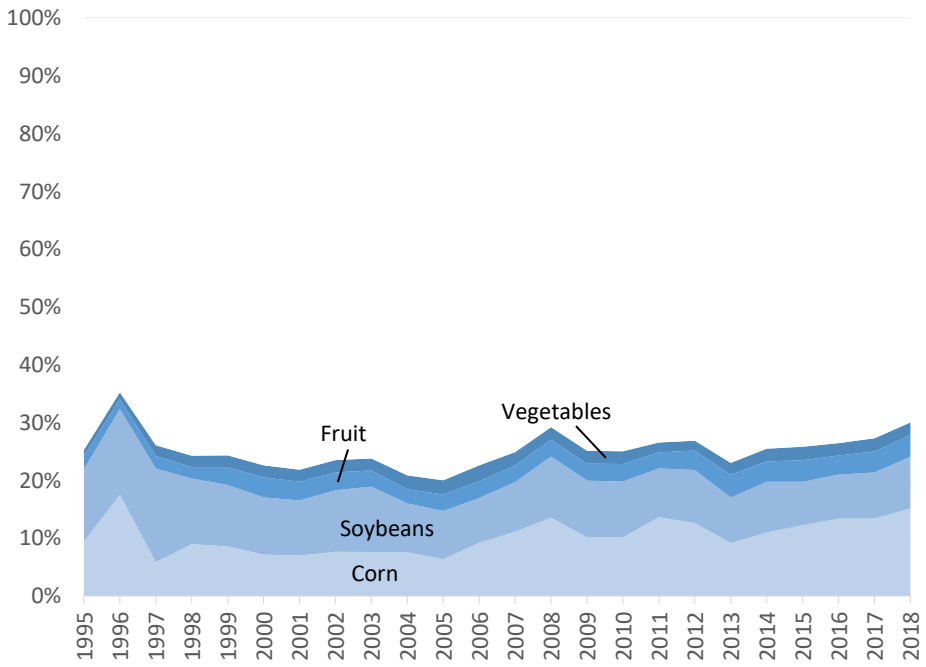
Source: *USDA (2019a)*

3 Agricultural International Trade Requirements

U.S. and Mexico must abide by restrictions on agriculture subsidization and support as set forth by the World Trade Organization (WTO) and NAFTA. The WTO guidelines are set forth in the WTO Agreement on Agriculture (AoA) and the WTO Agreement on Subsidies and Countervailing Measures (AoSCM). NAFTA further specifies a large set of goods which may be traded tariff-free between the U.S., Mexico, and Canada and prescribes how disputes between NAFTA member countries may be resolved. NAFTA further liberalizes trade, but may not set conditions more restrictive than those set by the WTO.

The justification for NAFTA was a means to integrate the three North American economies, to liberalize trade, and simultaneously enrich the three member nations (U.S. Trade Representative, 2004). At a ten-year retrospective on NAFTA in 2002, former president George H.W. Bush remarked that NAFTA "created the largest, richest, and most productive market in the world" and "solidif[ied] closer ties with our trusted Canadian and Mexican neighbors." The original champion of NAFTA then cautioned that "we must be sure to avoid having regional trading pacts turn inward, and evolve into protectionist blocks" (Woodrow Wilson International Center, 2005).

Figure 2: Components of U.S. Agricultural Exports to Mexico



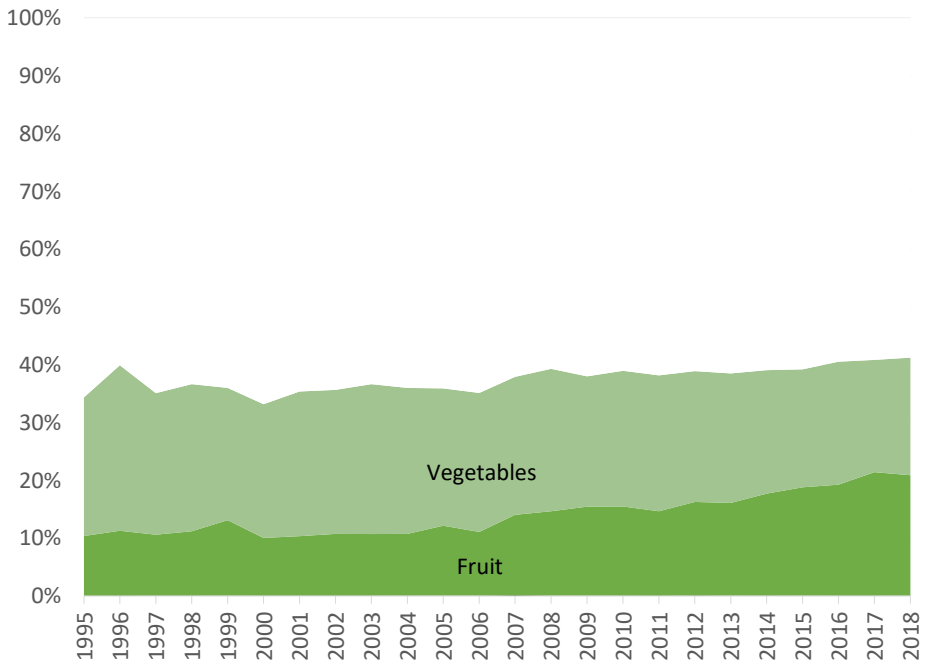
Source: *USDA (2019*a*)*

3.1 WTO Agreement on Agriculture

The U.S. and Mexico are both members of the WTO. As members of the WTO, these countries must ensure that any forms of governmental support for agriculture comply with the WTO AoA. This agreement classifies forms of government support according to the degree to which they distort production, trade, and prices into "green box" programs which are permitted, "amber box" programs which are tolerated but reduction in amber box outlays are encouraged, "red box" programs which are prohibited, and "blue box" programs which are essentially amber box programs with conditions restricting them (World Trade Organization, 1994*a*). These domestic support categories are summarized in Table 1.

Programs which cause, at most, minimal trade distortion are categorized as "green box" programs. This form of support is permitted without limit. Programs that have a distorting impact on production or trade are categorized as "amber box" programs and are allowed, so long as a country's aggregate outlays of all amber box spending do not exceed that country's amber box spending limit. Further, the WTO allows for certain amber box programs to be exempted from counting towards the spending limit if the level of support is *de minimis*. Programs are further categorized as

Figure 3: Components of U.S. Agricultural Imports from Mexico



Source: *USDA (2019*a*)*

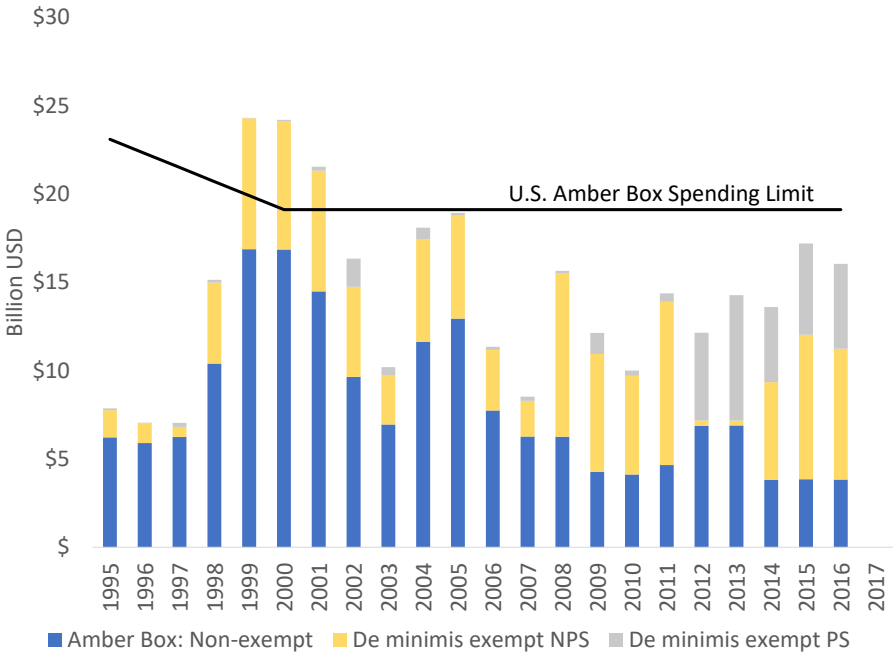
product-specific and non-product-specific. Product-specific programs are categorized as *de minimis* if program outlays amount to less than 5% of the value of production of the program's target commodity. Non-product-specific programs are categorized as *de minimis* if program outlays amount to less than 5% of total value of agricultural production. For developing countries, the threshold for programs to be considered *de minimis* is 10% rather than 5%. Additionally, developing countries may classify certain support programs which "encourage agricultural and rural development [and] are an integral part of the development programs of developing countries" as "development box" programs that do not count towards a developing country's amber box spending limit (World Trade Organization, 1994*a*).

U.S. outlays on amber box programs, including outlays claimed exempt, are presented in Figure 4. Since the inception of the WTO in 1994, the U.S. has never exceeded its amber box spending limit, however, "the de minimis exemptions have been instrumental in helping the United States avoid exceeding its amber box limit in 1999, 2000, and 2001" (Schnepf, 2019). The last notification of Aggregate Measure of Support the U.S. has made to the WTO was in 2016. Since then, the United States has dramatically expanded levels of agricultural support through trade retaliation assistance. In response to Chinese retaliatory tariffs imposed on U.S. soybeans, *inter alia*, the USDA

Table 1: WTO Domestic Support Boxes in Agriculture

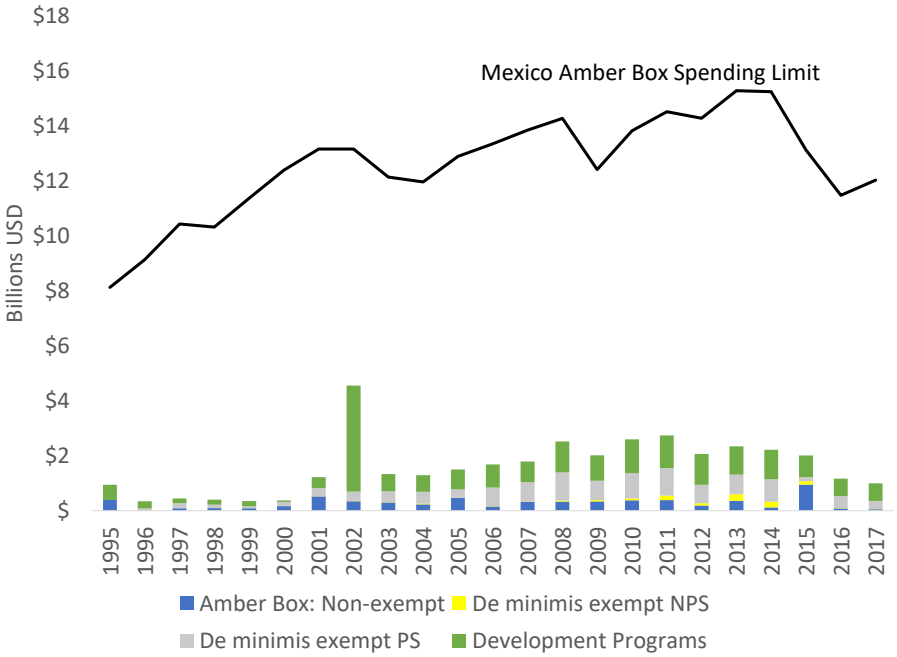
Category	Qualification	WTO Limit	Examples
Green	No more than minimally trade or production distorting	Permitted	Domestic Food Aid
Amber	Distorting impact on production/trade	Must be reduced De minimis allowed	Market price support
Red	Does not apply to agriculture	N/A	N/A
Blue	Production limiting programs	Permitted	Production-limiting amber box programs
Development	Development programs	Permitted for developing countries	Agricultural input subsidies to low-income or resource-poor producers

Figure 4: U.S. Amber Box Spending Including Exemptions



Note: On average, the U.S. spends 41% of its limit of non-exempt amber box spending (see Table 2). Values are in nominal USD.
Source: *Schnepf (2019), U.S. Notifications to the WTO 1995-2016 (World Trade Organization, 2019*a*).*

Figure 5: Mexico Amber Box Spending Including Exemptions



Note: On average, Mexico spends 2% of its limit of non-exempt amber box spending (see Table 2). Values are in nominal USD.
Source: *Mexico Notifications to the WTO 1995-2017 (World Trade Organization, 2019*a*).*

instituted the Market Facilitation Program which provides direct payments to farmers of soybeans, sorghum, corn, wheat, cotton, dairy, and hogs. Additionally, the USDA initiated payments via the Food Purchase Program and Trade Promotion Program. These three programs together were authorized for $12 billion of payments to farmers in 2018 and $19 billion of payments in 2019 (USDA, 2018, 2019*b*). The spending in the Food Purchase Program and Trade Promotion Program have historically been classified as green box expenditures and will likely not count toward the U.S. amber box spending limit (Schnepf, 2018). However, expenditures through the Market Facilitation Program are likely to be categorized as amber box payments (Schnepf, 2018). Whether these payments cause the U.S. to exceed its amber box spending limits depend on whether the program is considered product-specific or non-product specific. A non-product-specific classification would qualify the 2018 Market Facilitation Program payments as *de minimis* (Schnepf, 2018).

Mexican outlays on amber box spending, including exemptions, in nominal USD are presented

in Figure 5.[8] Mexican non-exempt expenditures on amber box programs do not exceed 10% of the amber box spending limit compared to a U.S. high of 88%. Amber box spending as a percent of spending limit is presented in Table 2. On average, the U.S. spends 41% of its limit of non-exempt amber box spending whereas Mexico spends 2% on average. Just as the U.S. makes use of exemptions to amber box spending limits, Mexico claims exemptions on *de minimis* support programs (both product-specific and non-product specific) as well as development box programs. Out of the four categories presented in Figure 5, development box program spending is most often the largest category of spending. On July 26, 2019, President Donald Trump issued a presidential memorandum to the U.S. Trade Representative indicating a need to reform how countries are classified as developed and developing as it concerns the World Trade Organization. Among other countries, President Donald Trump listed Mexico, along with South Korea and Turkey, as G20 nations and members of the OECD, thus contradicting their claim to be developing countries which should be afforded "entitlement to longer timeframes for the imposition of safeguards, generous transition periods, softer tariff cuts, procedural advantages for WTO disputes, and the ability to avail themselves of certain export subsidies" (Federal Register, 2019). There is no one criterion for determining a country's status as a developing nation. However, even if Mexico were to lose its status as a developing nation in the eyes of the World Trade Organization and all of its development box expenditures were to be recategorized as non-exempt amber box spending, it would still fall well under its spending limit.

3.2 WTO Agreement on Subsidies and Countervailing Measures

In addition to the WTO AoA, the WTO AoSCM imposes an additional set of restrictions on agricultural support programs. The WTO AoSCM categorizes support programs into two categories, prohibited and actionable. Prohibited programs include export subsidies and local content subsidies World Trade Organization (1994*b*).[9] Other support programs not considered to be prohibited are

[8]Mexico's notifications to the WTO report measures of agricultural support and the spending limit in constant 1991 pesos. These values have been converted to nominal peso values according to the National CPI for Mexico retrieved from the St. Louis Federal Reserve (Series MEXCPIALLAINMEI). Nominal Mexican peso values converted to nominal USD according to historical exchange rates obtained from the Federal Reserve table H.10.

[9]Local content subsidies are those that subsidize the consumption of domestically produced goods instead of imported goods.

Table 2: Amber Box Spending as Percent of Spending Limit

	U.S.		Mexico	
Year	Non-Exempt	Including Exemptions	Non-Exempt	Including Exemptions
1995	27%	34%	5%	12%
1996	26%	32%	0%	4%
1997	29%	33%	1%	4%
1998	50%	73%	1%	4%
1999	85%	122%	1%	3%
2000	88%	127%	1%	3%
2001	76%	113%	4%	9%
2002	50%	85%	3%	35%
2003	36%	53%	2%	11%
2004	61%	95%	2%	11%
2005	68%	99%	4%	12%
2006	41%	59%	1%	13%
2007	33%	45%	2%	13%
2008	33%	82%	2%	18%
2009	22%	63%	3%	16%
2010	22%	52%	3%	19%
2011	24%	75%	3%	19%
2012	36%	64%	1%	14%
2013	36%	75%	2%	15%
2014	20%	71%	1%	15%
2015	20%	90%	7%	15%
2016	20%	84%	1%	10%
Average	41%	74%	2%	12%

generally categorized as actionable. An actionable program is not prohibited outright, however, another country may challenge the program if they can demonstrate that their local industry is adversely affected (World Trade Organization, 2019*b*). Until 2004, the WTO AoA contained a Peace Clause which categorized all green box programs in agriculture as non-actionable for challenge under the AoSCM (Yumin, Hongxia and Mayu, 2004). However, the Peace Clause expired at the end of 2003 and, since then, green box programs in agriculture are subject to claims under the AoSCM if a local industry can demonstrate adverse impact.

3.3 Seasonality Issues Raised in the Context of USMCA

Presently, under NAFTA, a local industry may bring an anti-dumping (AD) or countervailing duty (CVD) claim against another NAFTA country if industry members representing at least 50% of the

industry agree to file an injury claim. Claimants must then rely on three years of industry data to demonstrate injury (Johnson, 2017). During negotiations for the United States-Mexico-Canada Agreement (USMCA), the trilateral trade agreement to replace NAFTA, some fruit and vegetable producing groups in the U.S. advocated for a Seasonality Provision that would allow claims to be brought by regional groups even if they do not make up a majority of the domestic industry. Additionally, under the proposed Seasonality Provision, claimants could rely only on one season of industry data to demonstrate injury, rather than three years worth under the current agreement.

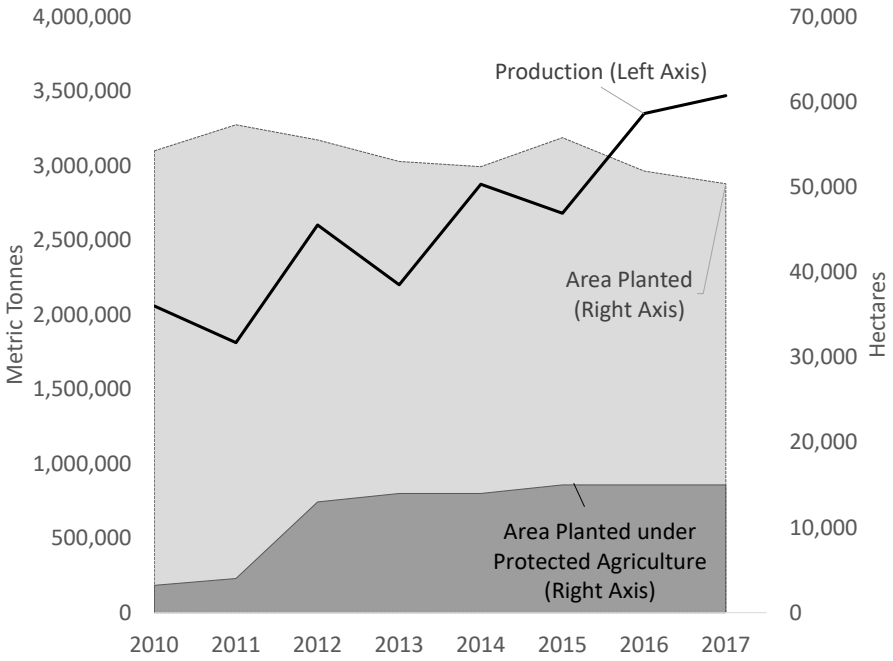
3.4 Potential Developments

The proposed Seasonality Provision to the USMCA as well as the proposed legislation "Defending Domestic Produce Production" Act would dramatically lower the barrier to bringing AD/CVD cases against other member countries. In a letter to the U.S. Trade Representative, eight members of Congress voiced concerns that a Seasonality Provision "would lead to an uncontrolled proliferation of regional, seasonal, perishable remedies against U.S. exports" (Schweikert et al., 2017). By reducing the share of industry needed to agree to bring a claim and reducing the time over which injury must be demonstrated from three years to one season, a tit-for-tat environment of retaliatory trade remedies is a distinct possibility. In the end, the USMCA agreement did not include a seasonality provision (Angulo, 2019).

4 Mexican Support of Fruit and Vegetable Production

Mexican tomato production along with total area planted and total area planted under protected agriculture is shown in Figure 6. According to USDA estimates, tomatoes planted under protected agriculture has remained relatively constant since 2012. Mexico began transitioning to protected agriculture for tomatoes around 2010. Government support of protected agriculture in tomatoes introduces "this production method to rural and poorer areas as a form of social development" (USDA FAS, 2011). This article estimates Mexican spending on cost-sharing capital investment of drip irrigation amounted to 1.6 billion pesos (US$ 101 million) in 2015. Mexican spending on cost-sharing of capital investment in protected agriculture amounted to 281 million pesos (US$18

Figure 6: Mexican Tomato Production, Total Area Planted, and Area Planted under Protected Agriculture



Source: *USDA FAS (2010, 2011, 2012, 2013, 2015, 2016, 2017, 2018)*

million) in 2015. These capital investment assistance programs are not product specific and are extended to growers of various fruits and vegetables in Mexico including tomatoes, cucumbers, bell peppers, berries, zucchini, grapes, brussels sprouts, habanero peppers, and green peppers, among other specialty products (Johnson, 2017). These programs are conducted under the Program for Promotion of Agriculture (PROAGRO) and these programs are categorized as green box programs in the Mexican notifications to the WTO (World Trade Organization, 2018*a*). Even if the capital investment cost-sharing programs for drip irrigation and protected agriculture were categorized as amber box programs, Mexico has plenty of headroom in their amber box spending limit. However, it is possible that a country could challenge the validity of classifying these programs as green box. In the Brazil-U.S. cotton dispute, Brazil successfully argued that U.S. production flexibility contracts and direct payments violated green box requirements (World Trade Organization, 2005).

Table 3: USDA Environmental Quality Incentives Program Spending, ($millions)

EQIP Practice Category	2009 - 2014	2015
Irrigation - Micro/Surface/Subsurface	$ 591	$ 100
Irrigation - Other	$ 406	$ 66
Other Water Conveyance	$ 186	$ 35
Tunnels, Roofs, & Covers	$ 153	$ 41
Other EQIP Funding	$ 3,618	$ 646
Total EQIP Funding	$ 4,954	$ 888

Source: *U.S. Government Accountability Office (2017)*

5 U.S. Support of Fruit and Vegetable Production

The Mexican drip irrigation and protected agriculture programs have corollaries in the USDA Environmental Quality Incentives Program (EQIP). The USDA EQIP program allocates funding for a variety of environmental and conservation programs throughout the U.S. Among the projects supported by EQIP are payments for investment in irrigation projects (micro, surface, subsurface, etc.) general water conveyance projects (ditches, ponds, etc.) and protected agriculture in the form of high tunnels, roofs, and shades. A 2017 report by the Government Accountability Office details EQIP spending by practice category for the time period 2009-2015 and for the year 2015. Table 3 details EQIP spending on practice categories that match what is supported in the Mexican drip irrigation support program and protected agriculture program as well as other EQIP spending. In 2015, the USDA EQIP program funded $166 million worth of irrigation projects, an additional $35 million in projects related to other forms of water conveyance, and $41 million in protected agriculture projects in the form of tunnels, roofs, and shades. The U.S. also categorizes all EQIP funding as green box in its notifications to the WTO (World Trade Organization, 2018*b*).

6 Conclusion

The U.S. and Mexico both face restrictions set forth by the WTO and NAFTA on how they may support and subsidize agricultural production so as not to distort prices and trade. Until recently, both countries have operated within the limits set by the WTO Agreement on Agriculture. Since 1995, Mexican spending on amber box programs has averaged just 2% of their allowable spending under WTO guidelines. U.S. spending on amber box programs has averaged 41% of its limit over

this same time period. However, in recent years, the U.S. has made massive payments of $12 and $16 billion dollars in effort to compensate farmers suffering from retaliatory tariffs. These payments are not yet recorded in notifications to the WTO, but there is a possibility that these payments be classified as amber box spending and result in exceeding the spending limit thus violating the WTO AoA. If these payments are categorized as green box programs in the 2017 and 2018 notifications to the WTO, that categorization may face challenges by other nations.

In terms of Mexican support of fruit and vegetable production, the available evidence does not indicate any direct financial support to produce growers and it does "not indicate existing export subsidies benefiting Mexico's fruit and vegetable growers" which is "similar to the situation that prevails in the United States" (Johnson, 2017). Rather, Mexico has an environmental program to cost–share capital investment in drip irrigation and protected agriculture shade structures wich are not product-specific. This capital investment cost–sharing program is similar to expenditures made in the USDA EQIP program which has helped fund investment in irrigation and shade structures in the U.S.

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