OECD publishing

Please cite this paper as:

Fulponi, L. and A. Engler (2013-10-08), "The Impact of Regional Trade Agreements on Chilean Fruit Exports", *OECD Food, Agriculture and Fisheries Papers*, No. 64, OECD Publishing, Paris.
http://dx.doi.org/10.1787/5k3z0kd43z5f-en

OECD Food, Agriculture and Fisheries Papers No. 64

The Impact of Regional Trade Agreements on Chilean Fruit Exports

Linda Fulponi

Alejandra Engler

OECD FOOD, AGRICULTURE AND FISHERIES PAPERS

The OECD Food, Agriculture and Fisheries Papers series is designed to make available to a wide readership selected studies by OECD staff or by outside consultants. This series continues that originally entitled OECD Food, Agriculture and Fisheries Working Papers.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

This document has been declassified on the responsibility of the Working Party on Agricultural Policies and Markets under OECD reference number TAD/TC/CA/WP(2012)3/FINAL.

Comments on the series are welcome and should be sent to tad.contact@oecd.org.

OECD FOOD, AGRICULTURE AND FISHERIES PAPERS

are published on www.oecd.org/agriculture

Abstract

The Impact of Regional Trade Agreements on Chilean Fruit Exports

by

Linda Fulponi (OECD) and Alejandra Engler (Universidad de Talca, Chile)

This report analyses the impact of Chile's free trade agreements (FTAs) on fresh fruit exports. It finds that the FTAs have been important instruments for providing increased market access for Chilean products based on both an econometric analysis and structured surveys of exporters. While the impacts on profits were not considered to very significant according to exporters, the agreements are considered necessary to maintain a level playing field with Chile's competitors. Both SAG, Chile's plant and animal health authority, and Pro-Chile, Chile's export promotion agency, were viewed as essential to promoting Chile's reputation as an exporter of quality products. Interviews with trade associations covering a wide range of export products, found that while the FTAs provided entry points into markets, actual market access did not always benefit all sectors equally.

This report was declassified by the OECD Joint Working Party on Agriculture and Trade on 24 May 2013

Key words: Free Trade Agreements(FTAs), fruit exports, agricultural trade impacts, exporter surveys and tariff concessions.

Acknowledgements

The authors thank Chilean government officials in DIRECON and ODEPA for their co-operation in facilitating contacts with trade associations and export firms. The authors also thank Dr. Sebastien Jean for assistance for the econometric estimates of trade impacts. All errors and omissions are the responsibility of the OECD.

Acronyms

WTO	World Trade Organization
RTA	Regional trade agreements
FTA	Free trade agreement
DIRECON	Direccíon General de Relaciones Económicas Internacionales (Ministerio de Relaciones Exteriores)
ODEPA	Oficina de Estudios e Politicas Agricolas (Ministerio de Agricultura)
SAG	Servizio Agricola y Ganadero
SPS	Sanitary and Phyto-Sanitary

Table of contents

Boxes

Executive summary

Free trade agreements are now an important part of many countries' trade policy strategies. Chile has concluded 22 Free Trade Agreements with some 60 countries and more are under negotiation. Since the 1990s Chile has pursued an outward looking trade policy reducing tariffs unilaterally as well as through multilateral, bilateral and plurilateral trade agreements. The reduction in tariffs and other trade barriers is viewed as a stimulus to growth both in terms of increasing market access for its products and in reducing costs of imports necessary to modernise the economy and promote growth.

Within the agricultural world, Chile is now one of the world's leading exporters of fresh fruits. This study examines the impacts of Chile's Free Trade Agreements on its fruit trade. It asks to what extent if any these agreements have stimulated trade and how the agreements are viewed by fruit exporters as well as agricultural trade associations more generally.

This small study employs two approaches to answer these questions: econometric analysis and a survey of exporters' and trade associations' perceptions of the agreements.

The econometric analysis measured the impacts of the agreements on fruit trade, in particular the effects of preferential tariffs on Chile's fruit exports (HS-08) to its agreement partners. The method accounts only for a tariff reduction and does not take into account changes in other trade measures such as tariff-quotas or SPS measures among others. It isolates the change in trade due uniquely to tariff reductions under the trade agreements.

What did the econometric estimates find? For some 48 agreements a 1% decrease in the tariff inclusive price generates an increase in trade of 5%, and the mere existence of a FTA, with tariff preferences of 5 % or less, appear to boost trade by over 65% compared to the no agreement case. Furthermore the increase can reach 100% where the preferential margins are substantially over 5%. The preferential margin is simply the price wedge in percentage terms attributable to the preferential treatment applied under the trade agreement compared to the MFN (Most Favoured Nation) tariff. The impact of the agreements on trade in new products, in contrast, was found to be very weak: a 2% increase in trade compared to a no agreement situation. Even when the marginal preference was 10% the trade impact was only about 3.5%.

Though these econometric results indicate quite a positive impact on trade at the sector level of the trade agreements, caution must be used in their interpretation given they are based uniquely on the reduction in tariffs under the agreement. Furthermore, given the new estimation method applied these results need to be considered exploratory. Most importantly these results cannot be generalised either to the agricultural sector as whole for Chile or other trade agreements.

What did the surveys find? From the small survey of exporting firms and trade associations there appears to be a consensus that Chile's free trade agreements have improved both firm level competitiveness and export outcomes. Even if the competitive advantage is being eroded given that countries have multiple agreements, not having a free trade agreement with any given market could place exporters at a marked disadvantage.

The gains in trade appear to be driven mainly from tariff reductions provided by the agreements, but these tariff preferences are now being eroded with multiple, overlapping agreements by Chile's importers. The role of government in providing institutional, regulatory and physical infrastructure is viewed as fundamental to stimulating trade. These are seen are part of enabling environment for the expansion of trade by both exporters and the trade associations.

The fresh fruit export firms interviewed reported being satisfied with the overall infrastructure and institutions supporting trade. They were particularly pleased with SAG, Chile's plant and animal health authority, which is credited with assisting the sector by providing information and technical support to meet SPS requirements as well as in negotiating implementation procedures which can satisfy regulations in the importing countries. It is worth noting that though an SPS chapter is included in almost all agreements, these do not go beyond what is required under the WTO-SPS agreement.

PROCHILE, the government institution responsible for promotion of Chilean products in world markets is credited with providing assistance in providing information and in identifying new markets for Chilean products.

The fruit exporters also found that their trade associations were fundamental in representing the private sector demands in negotiation process of the trade agreements, in the dissemination of important outcomes and developments in the agreements as well as in monitoring their implementation.

The trade associations of the main agricultural sectors as well as manufactured foods found that the trade agreements were key in promoting market access for Chilean products. In general, they were satisfied as to their role in the negotiation process as well as in the outcomes of the agreements even if their demand were not always met. They also expressed satisfaction with the institutional frameworks which support the sector in trade matters, in particular SAG and PROCHILE. Collaboration between the public sector and the private sector at the trade association level was also considered to be an important element to the overall positive outcomes achieved for the sector thus far.

Though the study was limited to the impacts of free trade agreements on fruit trade for Chile, it did highlight the importance of the institutional framework to enable firms to operate competitively, even if the survey was limited to fruit exporters. Not only are the agreements important but also the commitment of national institutions such as SAG, PROCHILE as well as the government in creating an environment for the private sector to operate competitively in international markets. These institutions enable firms to take advantage of the expected benefits from the preferential market access offered under the agreements.

While the econometric analysis focussed only the impacts of tariff reductions for trade, non- tariff measures, particularly sanitary and phyto-sanitary measures

are equally important for trade. Indeed, for agricultural products the SPS chapters are a central element in the agreements because they can determine whether or not a product can effectively enter the country. Compared to the tariff element of the agreements, the SPS chapters of the agreements do not generally go beyond what is offered under the WTO-SPS agreement. Thus, they do not appear to provide additional benefits beyond those under the WTO-SPS agreement. Many of Chile's RTAs however do offer the opportunity for closer contacts between regulatory agencies through the creation of technical committees and even ad-hoc committees to resolve procedural issues for specific products. Looking forward, for RTAs to remain and become more trade facilitating, further exploration of ways and means to improve cross such border collaboration on standards and regulations, such as mutual recognition agreements (MRAs) or new mechanisms of institutional co-operation, could be warranted.

1. Introduction

According to the WTO the number of regional trade agreements continues to increase. As of January 2013 some 372 regional trade agreements (counting goods and services separately) were in force, with some 60% being free trade agreements. The WTO allows for regional trade agreements if they promote free trade among members and do not raise barriers to non-members. This requires that the agreements eliminate tariffs and non-tariff measures on most goods in a reasonable period of time and that no important sector be excluded (GATT-Article XXIV).[1] While multilateral trade liberalisation remains the aim of WTO members, failure to move forward with the multilateral trade liberalisation agenda may have spurred countries to negotiate bilateral or pluri-lateral free trade agreements[2] (Stallings and Katada, 2009). Increasingly countries have multiple free trade agreements (FTAs).[3]

Free trade agreements (FTAs) are now a common component of the trade and growth strategies of countries, large and small. But how important are these agreements for trade outcomes of any one country or for any one sector or product? Recent OECD econometric analysis found that regional trade agreements can have a significant positive impact on trade for the agricultural sector overall (OECD, [TAD/TC/CA/WP (2012)2/FINAL]). But do these benefits hold for a specific country or product sector? And how are agreement outcomes perceived by the private sector?

Chile's trade policy strategy has relied in part on free trade agreements to provide preferential market access for its exports and to reduce barriers to imports.[4] It has concluded 22 preferential trade agreements with 60 countries and additional ones are under negotiation.[5] These agreements are viewed as an essential component of its trade and growth policy. These agreement partners account for over 85% of world GDP and approximately 60% of the world's population (DIRECON, 2012). The share of trade in Chile's GDP has grown from

1. According to the WTO must, however, ensure that *duties and other restrictive measures regulations of commerce (except where necessary, those permitted under Articles xi, xii, xiii, xiv, xv and xx) are eliminated with respect to substantially all trade between constituent territories or at least with respect to substantially with respect to all trade in products originating in such territories' (GATT, Article xxiv, para. 8). Furthermore these are to be implemented within a reasonable length of time, interpreted as ten years in general (Art XXIV, 5.c).*

2. The term Regional trade agreements and free trade agreements are used interchangeably in this document for simplicity. They may also be referred to as preferential trade agreements.

3. The designation free trade agreement is used interchangeably with the whole set of preferential trade agreements in this study. These include customs unions, bilateral and pluri-lateral trade agreements.

4. Reducing tariffs on capital goods and encouraging foreign direct investment was important to the modernization of the economy and stimulus to growth.

5. See Appendix 1 for a complete list of Chile's regional trade agreements.

45% in 1994-96 to 68% in 2008-10 (World Bank, 2012).[6] Growth in GDP averaged over 4.7% per annum over the 2000-2011 periods (OECD, 2012) and much of this is attributed to growth in trade. Over 90% of Chile's exports are destined to countries with which Chile has an FTA.

Tariff reductions are an important component of the agreements. The preference margin for Chilean products through the agreements was estimated at around 90% in 2011 (Direcon, 2012). The average MFN tariff for agricultural imports of Chile's agreement partners was 12.4% compared to a tariff of 1.47% under the free trade agreements.[7] For the entire economy the average MFN tariff incidence was 3.3% compared to .3% under the agreements. Many other elements of the agreements, though not quantifiable can stimulate trade (Direcon, 2012). These may include development of institutional and commercial links with agreement partners and opportunities for discussion of behind the border regulatory coherence and consistency.

Agricultural trade has grown substantially over the past decade and now accounts for approximately 11% of total exports with fruit exports accounting for roughly 40% of agricultural trade.[8,9,10] The trade performance of the fruit sector has made it a leading sector of the agricultural economy and important to Chile's overall trade balance. The fruit sector now accounts for approximately half the value of agricultural GDP and is considered to have contributed to economic development in rural areas, having generated some 400 000 permanent and temporary jobs in the economy.[11]

6. Ratio of value of trade to GDP calculated three year average: 1974-76 and 2008-10. World Bank Economic Indicators

7. Tariff averages calculated for 2010 over trade with tariff agreement partners compared to what the incidence would have been with the same partners but with MFN tariffs.

8. The 40% is calculated based the share HS-8 (edible fruits and nuts) of total exports HS 1-24 to the world. Other calculations from Banco Central de Chile data give a much higher estimate-Series de Indicadores, exportaciones agropecuarias, silvícolas y pesca." http://www.bcentral.cl/estadisticas-economicas/series-indicadores/index.htm

9. Both favorable geography and climate provide Chile with natural advantage in fruit production for export markets. Located in the Southern hemisphere and stretching over 4 200 km in length it produces of a wide variety of temperate fruits practically throughout the year. Furthermore its natural borders, the Andes and the Pacific Ocean, keep it relatively free of pests and disease. Located in the Southern hemisphere means it can supply northern consumers in off season fruits without competing with their own (North) domestic production.

10. Fresh fruit exports account for 1.5% of total exports or 5% if copper is excluded. Its world market share of exports have grown significantly over the past decade: from 18% to 25% for grapes; 10% to 34% for berries, 6% to 24% for cherries, prunes from 13% to 27%; avocados from 15% to 9% and dried fruits from 3% to 8% and frozen fruits from 5% to 8%. Chile is ranked the number one exporter of grapes, prunes, cherries, berries and dried apples and second or third for avocados, fresh and frozen fruits

11. Small and medium fruit export firms have been considered important for growth in rural areas, even though they tend to focus on a limited number of products and market destinations. They perform well as they are able to adjust rapidly to changes in market conditions and utilise flexible marketing strategies. They have provided a means for

Given the export performance of Chile's fruit sector one may ask how important the free trade agreements have been to the outcomes of the sector. To answer this question two approaches are used: an econometric analysis of the impacts of the agreements on trade flows for the fruit sector and a survey of exporters' perceptions of the agreements contribution to their performance. The econometric analysis aims to measure the impact of the agreements on trade and assumes the main impact is through tariffs, the only easily quantifiable policy measure. The econometric estimates find a fairly modest impact of tariff reductions on trade. A one per cent increase in tariff preference (or an approximate one per cent decrease in the tariff inclusive price) generates a 5% increase in trade relative to other suppliers, that is what trade would have been without the agreement if only tariffs mattered. A short survey of exporter's and leading agricultural trade associations' perceptions of impacts of the agreements provides a qualitative analysis of agreement impacts. Overall exporters found that the agreements through a decrease in tariffs increase their competitiveness and stimulate exports. The role of the government is considered to be important in providing both a regulatory, administrative and institutional frameworks as well as physical infrastructure to enable firms to exploit the benefits that can be had from these agreements. The views expressed by the private sector regarding the agreements can also provide insights as to how future agreements might be improved or how better to accompany operators within the present set of agreements. The study is limited in scope, dealing only with the fruit sector and cannot be interpreted in any manner as applicable to either Chile's entire agricultural sector or to impacts of the free trade agreements in general.

The paper is organised as follows: Part 2 provides an overview Chile's trade policy of free trade agreements and main characteristics of these with respect to agriculture; Part 3 presents an analysis of the impacts of the Free trade agreements for the fresh fruit sector; and Part 4 summarises and concludes.

2. Overview of Chile's policy of free trade agreements

Chile's economic growth and development over the past several decades has relied on trade expansion within an overall market oriented policy framework. Trade is seen as key to keeping Chile on a strong growth path given that Chile's relatively small size means it cannot rely solely on growth in domestic demand.[12] In this optic, the public sector views its role as one of providing an enabling environment for trade, that is, the operation of the institutional, administrative, regulatory and physical infrastructure/frameworks necessary to facilitate trade.

Beginning in the mid-1970s, Chile's development strategy changed course: it abandoned a policy of import substitution in favour of a market oriented export led growth strategy. Now bilateral free trade agreements (FTAs) are a significant component of its trade policy strategy. Chile now has 22 FTAs with 60 countries,

ensuring more inclusive growth among small and medium size producers (Asociación Chilena de Fruta Fresca (2010)

12 Trade liberalisation provided incentives to specialise according to its comparative advantage, land and climate.. Attempts to diversify exports, however, have proven difficult and copper and unprocessed goods still account for nearly 50% of Chilean exports.

for which over 95% of tariffs are zero or will be when fully implemented. (A complete list of agreements presented in Annex A) These agreements cover approximately 93% of Chile's exports. Table 1 presents the average applied tariffs under MFN and FTAs for selected agreements. Under the free trade agreements the average tariff on Chilean exports decreased by over 90%, from 3.2% to 0.31% for all goods and from 12.4% to 1.4% for agro-food products. The margin of preference for the agricultural sector implied by these figures is approximately 88 % but values range from 0% for its agreement with India to 100% for Canada. Given the significant size of these margins of preference, efforts at tariff reduction are a non-negligible element in the trade agreement negotiations. Box 1 synthesises the evolution of the main elements of Chile's trade strategy.

Box 1. Chile's trade driven growth strategy

Beginning in the mid-1970s Chile's development strategy was based on three policy components: (i) privatisation, (ii) reduction of market interventions and (iii) trade liberalisation (Meller, 2004). The trade liberalisation strategy component relied on two main elements; unilateral and multilateral trade liberalisation *via* across the board tariff reductions and the negotiation of preferential trade agreements.

The unilateral reduction in tariffs was to lower the cost of capital goods and technology and stimulate foreign direct investment (FDI) needed to modernise the economy. The negotiation of preferential or free trade agreements were to ensure and to improve market access for its goods and services while encouraging domestic as well as foreign investment (World Bank 2010, summary for Chile's Overview Report). Chile's tariff reductions were undertaken in 3 phases: 1) unilateral reduction in import tariffs beginning in the mid-1970s, with uniform tariffs ranging between 10 and 35% and the elimination of most non-tariff barriers (Saez, 2002); 2) second reduction in MFN tariffs to 11% by 1994 prior to the signing of the WTO-URA (Uruguay round agreement) and 3) a reduction of tariffs to 6% over the 1999-2003 period.

The second part of the trade driven growth strategy was the use of free trade agreements. Their objective is to increase market access by reducing trade barriers so as to increase trade both for goods already traded as well as for goods that were not previously traded.[13] The trade agreements of the 1990s were limited to Chile's to its South American neighbours, first with Economic Complementation Agreements (ECA), then as Free Trade Agreements in the mid-1990s. After 2000, the FTA strategy broadened and the geographic reach of the agreements extended to North America, Europe, Asia and the Pacific.

Some suggest that for a small open economy such as Chile, free trade agreements offered an opportunity to combine the static benefits of trade liberalisation with dynamic benefits of economies of scale from extended markets (Saez et al., 1999; Silva, 2004, Stallings, 2009). The FTAs were also seen as contributing to trade governance through transparent and stable trade rules that should decrease costs of doing business. Furthermore, the importance of the private sector in the positive trade driven growth experience of the 1990s meant that the exporters continued to view FTAs as vital to their economic expansion as well as minimising economic dependence on only a few markets (Wehner, 2011). Given the close collaboration between the private sector and government, it is suggested that the export sector was able to influence government's decisions to expand the FTA horizons.[14] (Stallings et al., 2009)

13. The agreements likewise provided incentives for foreign direct investment and imports of capital goods which have been valuable in modernising Chile's economy and stimulating growth.

14. The push for greater trade liberalisation is likely to also have met with objections from sectors that might not be as a competitive as their treaty partners. Wehner suggests that

Agriculture in the free trade agreements

Agreement negotiations

DIRECON is the government department responsible for coordinating the negotiation of Chile's trade agreements so as to achieve coherency in their formulation and implementation of its trade strategy.[15] The agreements are negotiated in close collaboration with the Ministries of the Treasury, Economics, and Agriculture whose representatives participate in the permanent committee on treaty negotiations along with the Executive Secretary of the President.[16] The Treasury is the most important participant providing assessments of tariff reductions and other measures on the budget, growth, employment and exchange rates, while the ministries of Economics and Agriculture are responsible for providing analyses of sector impacts.

The private sector plays an important role in the agreement negotiations and implementation. For the agricultural sector, the trade associations participate through their advisory role, in the 'cuarto adjunto/ next room' where they physically sit during negotiations.[17] During the negotiation process they are consulted regularly and provide firm and sector level information and feedback on proposals during the intermediate rounds. The associations are viewed by the government as important actors in the negotiation process providing private sector input that helps to shape the final agreements (Silva, 2002,2006, Porras, 2003, Saez 2006,).[18] This process can be considered fundamental to the political acceptance of the final agreement outcomes, in particular when not all demands of the private sector players are met. To a large extent it relies on trust between government and trade associations with both knowing that the best interests of all are in view (Porras, 2003).

---

the government did find ways to compensate expected losses or to mitigate by extending implementation periods. This was the case for meats in agreement with MERCOSUR.

15. From the middle and late 1990s all trade negotiations were undertaken by DIRECON in order to pursue a unified trade negotiation strategy. DIRECON thus coordinates the collaboration of diverse government agencies and ministries in international trade negotiations. This is done through the Interministerial Committee for International Economic Relations (Comité Interministerial para las Relaciones Económicas Internacionales). This committee is presided over by the Ministry for Foreign Affairs and includes representatives from the Ministries of Economics, Treasury, and Agriculture with the executive secretary of the President of Chile. Consultations with the Congress, the private sector, trade unions and civil society in general are also coordinated by DIRECON on a permanent basis (Silva, 2006, discussion with government officials and Direcon, 2011) http://www.direcon.gob.cl/pagina/1489.

16. The preferences and concessions which Chile's agreements provide for investments and capital goods imports has been extremely important in transforming Chile's economy and helping it modernise and putting it on a growth path.

17. This procedure has been described in the literature (Saez(2004), Silva(2002, 2006)), Informal discussions with government officials confirmed their role.

18. Among the agricultural trade associations participating in the 'cuarto adjunto' are: ASOEX (fruit exporters), Fedefruta (fruit producers), Chilealimentos (processed food), FAENACAR (beef producers), ASPROCER (pork producers), and APA (poultry producers).

Chile has designed and maintained a trade strategy in agriculture whose basic criteria has been to increase market access for its products (ODEPA, 2011). In general, Chile's trade negotiations attempt: i) to include agriculture in each agreement recognizing its sensitivities and particularities; ii) go beyond the norms of the WTO where possible and advisable; iii) proceed in a congruent manner agricultural negotiations with the different countries or groups of countries, recognizing their specificities and iv-advance simultaneously tariff and non-tariff negotiations (ODEPA,2011). In the case of agriculture, the trade associations such as, Fedefruta (fruit producers), Chilealimentos (processed foods), Faenacar (beef producers), Asoprocer (pork producers), APA (poultry producers), Wines of Chile and ASOEX (fruit exporters) have been important actors not only in the negotiations but also in the diffusion and implementation of the agreements. For instance, with respect to implementation they signal difficulties in the application of specific rules or regulations under the agreements which are then taken up by the relevant technical offices of the partners for resolution. The agreements could not be efficiently and easily implemented without their participation at all stages (Source: discussion with trade associations).

Agreement structure

The structure of the agreements does not vary much across countries. For agriculture the relevant chapters pertain to tariffs and tariff quotas, SPS-TBT regulations, and Rules of Origin. Tariff concessions are seen as the key element in the agreements because of their perceived impact on the competitiveness of Chile's exports. The strategy for tariff negotiations has generally been towards reciprocity, even though Chile has been a unilateral liberaliser. Even if tariff reductions in certain sectors are minimal they are seen to maintain a level playing field with competitors. Nonetheless, Chile is attentive to its sensitive sectors of cereals, sugar and meats in agricultural trade negotiations. The agreements for the agricultural sector have brought significant benefits, in particular for the fruit and wine sectors. For the processed food and meat sectors, outcomes have been less satisfactory. Tariff reductions in processed foods are less than for raw agricultural goods and tariff quotas are often applied to meat sector exports.

Tariff and tariff quotas

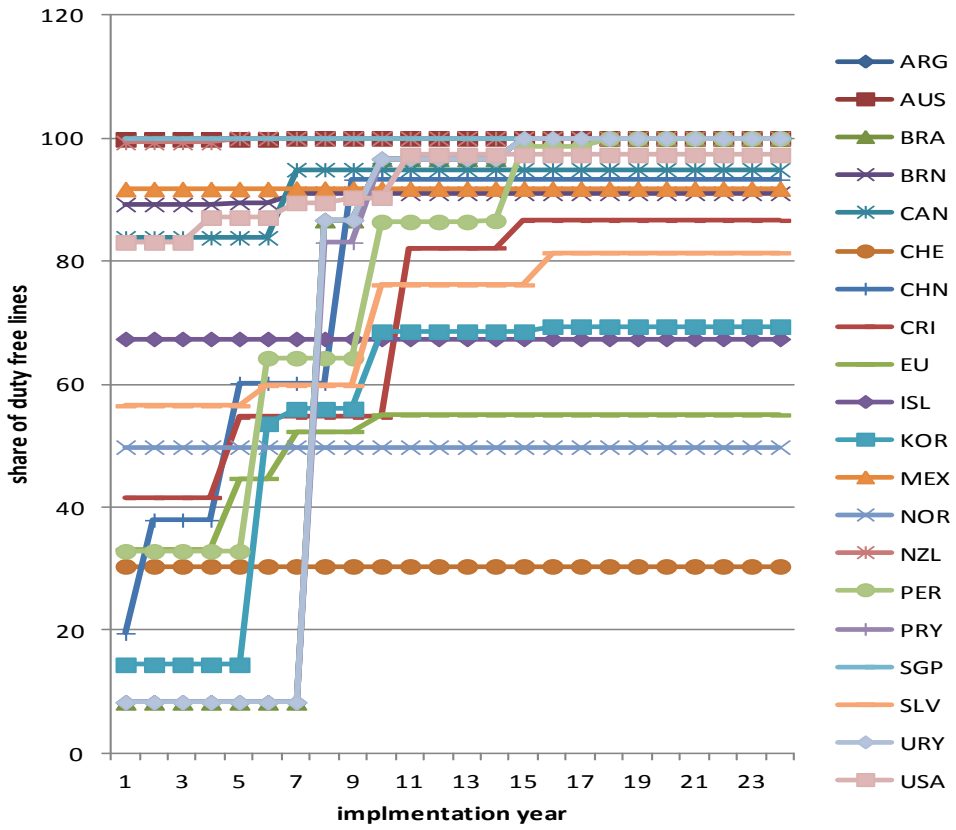
Each partner to an agreement offers a tariff reduction schedule in which for each tariff line the year by year tariff reduction over the specified period is set out. The implementation period can extend up to 18 years or more for certain products, though most are fully implemented within ten years after coming into force. What does Chile offer and what does it receive in terms of tariff reductions?

An overview of average tariff concessions, in terms of share of duty free lines, offered to and by Chile in its agreements for HS chapters 1-24 is presented in Figures 1-3.[19] (Schearer et al., 2009). Figure 1 presents the trajectory for the average share of duty free tariff lines over the implementation period offered to

19. Agriculture according to the WTO includes HS chapters 1-24 excluding HS 3and selected products under HS chapters (29, 22, 35, 38: oils, finishing agents, mannitol etc.) (41 & 43-hides and skins), (50-53, cotton, wool & silk). For this section of the analysis agriculture is defined uniquely HS 1,2 and 4-24.

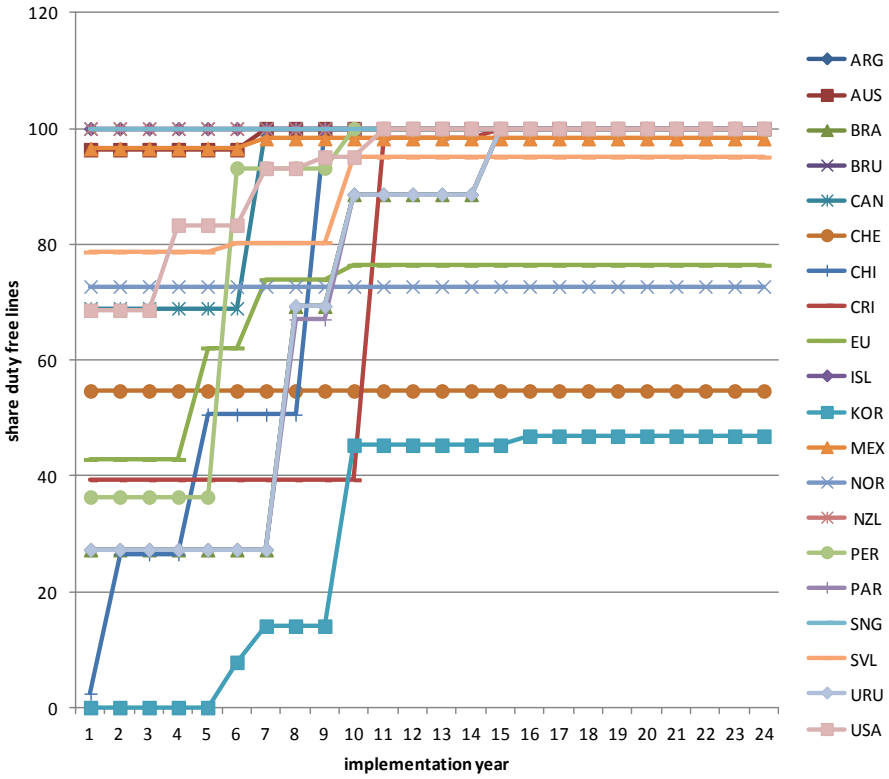
Chile under each agreement. Not all tariffs are eliminated. In the case of EFTA agreement only 50% of the tariffs are duty free at full implementation, while for the European Union the share is 70%. Certain countries, such as New Zealand, Singapore and Australia grant 100% tariff reductions from the first year of the agreement.

Figure 1. Average share of duty free tariff lines by partner over the implementation period for the agrifood sector (HS 1-24)



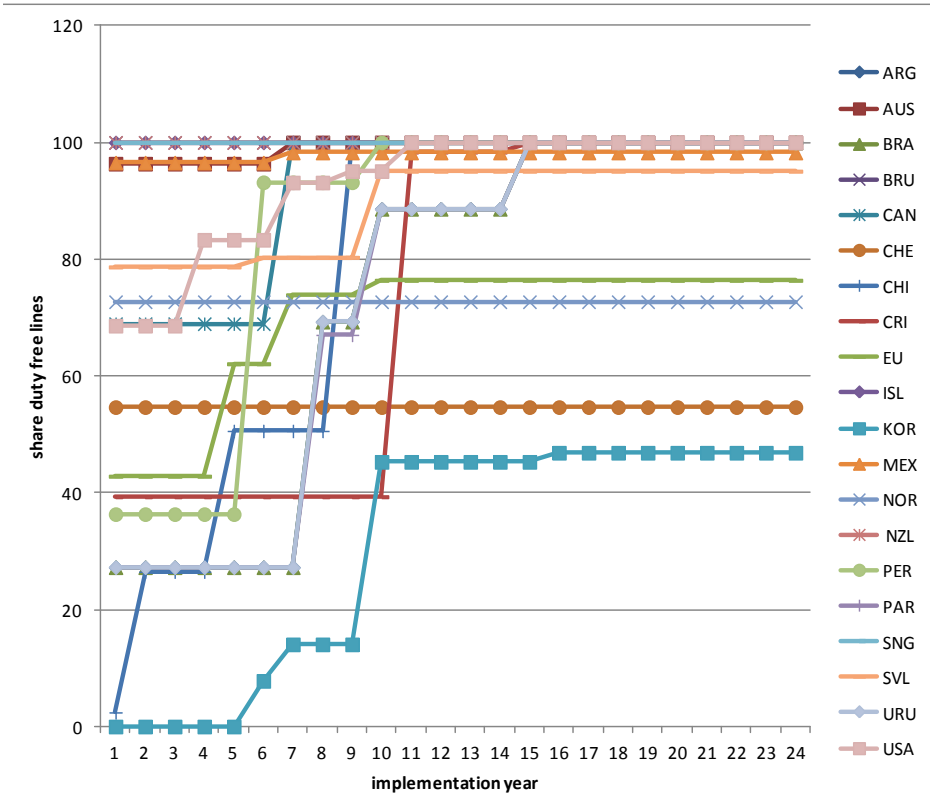
Source: Secretariat calculations from trade agreement schedules, (Fulponi et al, 2010).

Figure 2. Average share of duty free tariff lines by partner over the implementation period for the fruit sector (HS-08)



Source: Secretariat calculations from agreement schedules (Fulponi et al., 2010).

Figure 3. Average share of duty free tariff lines accorded by Chile and by implementation year for the food sector



Source: Secretariat calculations from agreement schedules (Fulponi et al., 2010).

Additional insights on the importance of the tariff concessions can be had by comparing the incidence of the MFN tariff to the negotiated tariff with respect to its partners. A summary table of both preferential and MFN tariffs are shown in Table 1 for agriculture and total trade for selected agreements. The percentage difference between the two tariffs (MFN and preferential tariff) provides an estimate of the preferential margin provided by an agreement. The preferential margin, computed over all agreements, is about 90%, for both agriculture and total trade (Direcon, 2012). It varies across agreements, from 0 for India to 100% for Canada for the agricultural sector. This preference margin can be significant in determining the competitiveness of Chile's exports compared to its competitors. Many countries however have multiple agreements, in particular Chile's main trading partners, the European Union and the United States. Thus the actual margin of preference *vis-à-vis* that of its competitors is likely to be much less than appears from a simple calculation of the preference margin. However it does provide an approximate measure of the preference margin from an agreement. Maintaining a preferential margin *vis-à-vis* competitors may be a significant factor in exporters' support of FTAs.

Figure 2 describes Chile's tariff concessions in terms of the average share of duty free tariff free lines. The share of duty free lines increases slowly in the first years of the agreement, then rise sharply towards the end of the implementation

period generally 10 years. The elimination of tariffs or their reduction to final agreed levels tends occur at the ten-year mark both for agriculture as well as other sectors, as recommended by the WTO committee on regional trade agreements. For countries which immediately accord duty free access to Chilean products, such as Singapore, New Zealand, Mexico and Australia, Chile reciprocates. For Korea and Switzerland the share of duty free lines is less than 60% at full implementation, while for Norway and the European Union it reaches 75% when fully implemented (Schearer et al, 2009).

Figure 3 provides the average share of duty free tariff lines for chapter HS-08, edible fruits and nuts, which account for about 60% of Chile's agro-food exports.[20] A number of countries do not completely eliminate tariffs for these products even at the end of the implementation period. Compared to agri-food sector as a whole (Figure 1), the share of duty free lines increases more slowly and exemptions are significant even when implementation is completed. Again Korea, Norway and Switzerland eliminate tariffs for only approximately 50% of their tariff lines and the European Union does so for approximately 70% of its tariff lines when fully implemented. This reticence to reduce tariffs, indicated by coverage and speed, would imply that the partners aim to protect their domestic production from Chilean imports. This may be due to Chile's competitive position in the fruit sector even if it is moderated by being an off-season supplier. Most agreements nonetheless do provide almost complete tariff elimination on fruit imports from Chile. The fruit and wine sectors appear to have been significant beneficiaries of the agreements with respect to tariff reductions and this is likely to have enhanced Chile's competitive position.

Table 1. Applied average tariffs for Chilean exports by FTA

	Average tariffs to Chilean exports			
	Agricultural sector		All sectors	
	MFN	FTA tariff	MFN	FTA tariff
Mercosur	15.3	0,2	7.7	0.02
Andean Community	13.7	0.8	9.7	0.7
Mexico	54	2	20	0.6
United States	3.2	1	2	0.2
Canada	10	0	2.5	0
Central America	13.2	3	6.5	1.8
Panama	14.6	10	11	4
Australia	1	0	0.4	0
Korea	32.1	12	4.1	0.7
European Union	9.1	0	1.2	0.04
EFTA	8.3	4.7	0.7	0.3
China	15.1	6.9	1.6	0.1
India	50	50	3.1	2.8
Japan	8	6	0.8	0.5
Total	12.7	1.47	3.2	0.31

Source: Departamento de Acceso a Mercados, DIRECON, (Direcon, 2012).

20. In these figures the agricultural sector is defined over HS 1-24 and fruits HS-08.

Tariff quota

Tariff quotas are often viewed as complex instruments whose objective is to essentially limit trade in sensitive products. Over quota exports are generally subject to prohibitively high tariffs making expansion in exports beyond the quota difficult. Their administration can also be particularly complicated adding another layer of difficulty in exporting to countries applying the tariff-quotas.

Tariff quotas are applied on Chilean exports of beef to the United States, Korea and the European Union which is a sensitive product for these importers. However, in the case of the United States due to the increase in the quota over time they are effectively eliminated at full implementation. In a similar fashion, avocado exports to the United States are also governed by tariff-quotas which have been effectively eliminated due to expansion of the quota over time. In the case of exports to the European Union, seasonal quotas for grapes, kiwis have increased over time thus have been effectively removed their trade constraint. Although quotas are revised periodically in most agreements where they exist, they remain the least satisfactory outcomes of the agreements. Chile's strategy has generally been to apply tariff-quotas to a partner country if its agreement partner does so.

Sanitary and phyto-sanitary (SPS) regulations

For agricultural products the SPS chapters are a central element in the agreements because they can determine whether or not a product can effectively enter the country. Though a significant and sensitive topic they are not generally an issue for negotiation. The agreement SPS chapters do not generally go beyond what is offered under the WTO agreement. Thus SPS chapters of the agreements appear not to indicate substantial benefits with respect to SPS regulations compared to international principles and standards of the WTO-SPS agreement.[21] The agreements however do offer the opportunity for closer contacts between regulatory agencies through technical committees and even ad-hoc committees to resolve procedural issues.

A closer look at procedures involved in the implementation of the SPS regulations, however, indicates that there may be benefits from the agreements. The most important one is the provision of a technical committee to handle specific issues tied to the implementation of the agreement. The main advantages of the bilateral SPS committees are their role to prioritise products with partner countries, to agree to regulations based on an international standard or a risk analysis for the entry of certain products as well as to monitor commitments between partner countries. Once the agreements are signed, product by product or product category negotiations of the regulations and their implementation begin. Indeed many of the most significant SPS outcomes for trade have been negotiated on a product by product basis through the *ad hoc* or permanent SPS technical committee.

The work of the technical committee is considered to be very important because it can resolve bilateral conflicts on SPS issues, thus allowing for entry of

21. Officials from SAG participate in the negotiations and are important in negotiation product by product SPS type regulations and entry requirements.

certain products in specific markets, such as the United States, the European Union and China. For example, the principle of mutual recognition for poultry and beef products was agreed upon through the SPS technical committee of Chile-United States. In addition, Chile has been able to negotiate more favourable entry conditions for its products, such as inspection and certification procedures, and transparency procedures in certain cases. However, they have not always been successful. For instance, few agricultural products have been allowed entry into China due mainly to the SPS regulations and their required documentation procedures.

In only three of Chile's agreements, European Union, P-4 and Colombia, is there a partial commitment to apply the principle of equivalence beyond that required of the WTO-SPS agreements by developing mechanisms that will gradually incorporate this principle for a specific product or group of products rather than an overall generalisation of the principle. Though the principle is written into the agreements it does not mean that equivalence has indeed been implemented. Equivalence is defined as the acceptance of a partner's SPS measure as equivalent to one's own even if different. Chile has usually developed equivalence of measures but not systems of equivalence. One example of a systems approach however has been developed with the United States which aims to replace the quarantine treatment for fruit. Chile also works towards the principle of mutual recognition as in its agreements with Mercosur and European Union, that is a commitment to work on how to make operative mutual recognition rather than committing to the principle in the agreement.

Rules of origin (RoOs)

To limit the benefits of tariffs or tariff quotas to agreement partners, rules of origin define which products should be considered as originating in a partner country and thus benefit from the preferential tariff or tariff/quota. Generally, primary agricultural goods easily fulfil the requirements since these are domestically produced. While most of Chile's agricultural trade is raw agricultural products and thus not much affected by RoOs, there are products for which RoOs can be binding. These are the processed agri-foods such as canned fruits, powdered juices whose basic ingredients are fruit and imported sugar. The use of an imported input in final good composition can make the RoOs regulations bind and the preferential tariff inapplicable. The product composition, based on % of value added or % of imported content determining conformity with the rules of origin regulations are set at a product by product level in most agreements.

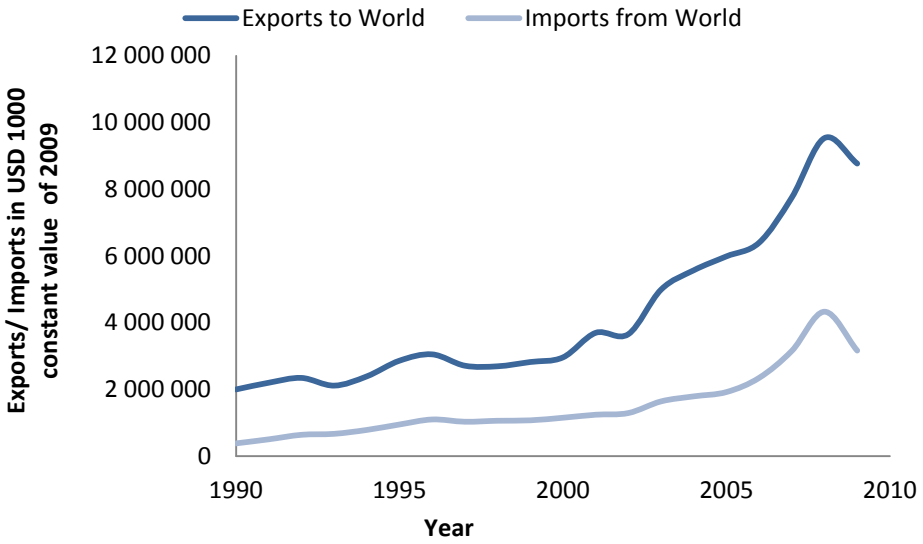
For agricultural exports, Chile's procedures for certification of origin can be considered efficient and flexible. The requirements are generally fulfilled through i) auto-certification or ii) certification by a government agency. In this latter case it is DIRECON which authorises the RoOs certificates, but delegates this task to the Chamber of Commerce (agricultural and fish products). The process to certify is considered simple and costless, thus not a trade constraint.

3. Analysis of the impacts of Chile's free trade agreements on fruit exports

Trade in agricultural products has grown significantly over the past two decades, both in terms of exports and imports in real terms as shown in Figure 4.

Trade performance has been particularly significant over the past two decades with exports experiencing a six-fold increase and imports a five-fold increase. Over 85% of agro-food trade now takes place with FTA partners and the share for fresh fruits is over 90%(2011). Since 2002 agro food trade increased at an average annual rate of about 20% in contrast to the previous decade's growth of only 6.8%. Over the same period there was a significant increase in the number of FTAs signed including those with its most important export markets, the United States, Japan and the European Union. The import and export share of agricultural products for 2009 according to agreement are shown in Figure 5 and indicates that Chile's exports remain relatively concentrated over a few agreement countries. The largest export markets are the United States, the European Union and Japan and the largest source of imports is Mercosur.

Figure 4. Chile's agro-food trade



Source: Banco Central de Chile/ODEPA.

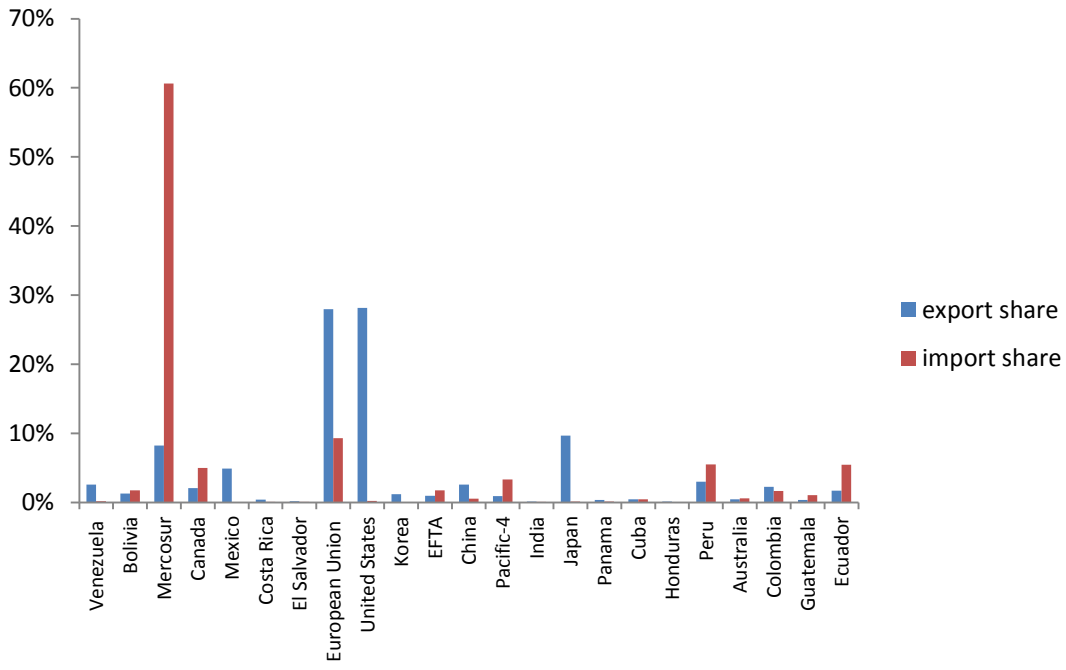
The most important agricultural exports are fresh fruits and wine. Temperate fresh fruit exports are leading product due to Chile's comparative advantage in their production and its geographical location making it an off-season supplier to the Northern hemisphere countries. Approximately 40% of agricultural trade (as a share of exports of HS1-24-Servicio Nacional de Aduanas) is accounted for by fruit exports, HS-08, which have increased by almost 6 fold over the period 1990 and 2011. This evolution is shown in Figure 6. The share of fruit exports under trade agreements is nearly 90%. Chile's main fruit exports are fresh grapes, avocados, apples and kiwis, but the importance of berries as an export product has risen substantially in the past decade. The top ten fruits export products are shown in Table 2.

Table 2. Export shares of the top 10 products of HS 08 and HS22

Product	HS code	Participation in the Chapter (Average 2007 – 2009)
Avocado	080440	6%
Fresh grapes	080610	33%
Apples	080810	16%
Pears	080820	3%
Cherries	080920	4%
Peaches	080930	3%
Plums	080940	4%
Bluberries	081040	5%
Kiwifruit	081050	4%
Wine with DO –HS22	22042110	78%

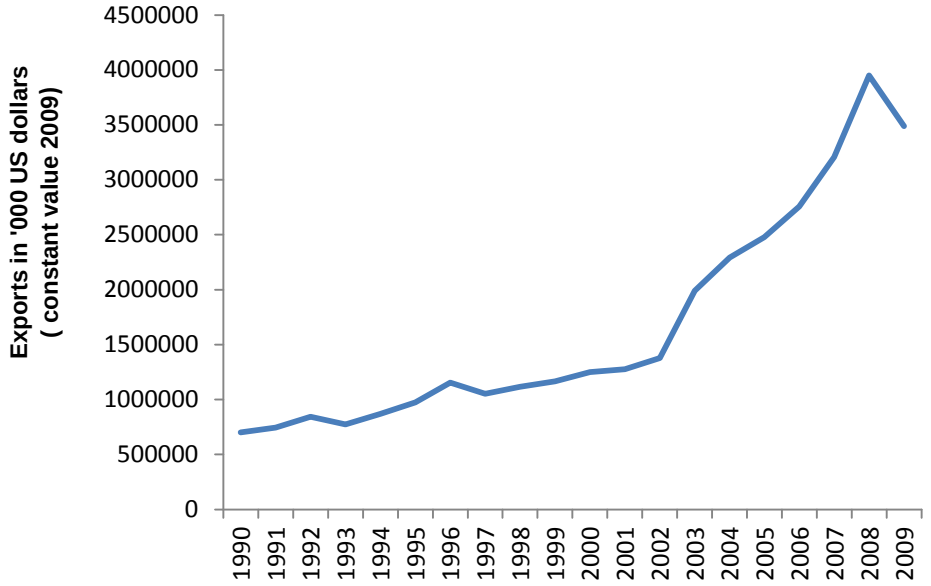
Source: Servicio Nacional de Aduanas Servicios de Chile.

Figure 5. Agro-food import and export shares by FTA-2009



Source: DIRECON-2010.

Figure 6. Total fruit exports in million USDs-HS 08



Source: ODEPA/Banco Central de Chile.

This section describes the approaches used to evaluate the impacts of the agreements on fresh fruits trade. The first approach uses recent econometric techniques to measure the impacts on both pre-existing traded products as well as on their trade in new products by focusing on the implied tariff reductions. While these estimates should be considered exploratory they do provide initial quantitative estimates of trade impacts of the agreements. The second approach uses structured interviews and asks how exporters perceive and assess the outcomes of the agreements. Because of the bias that may be introduced examining the leading agricultural export sector the impacts cannot be applied to the entire agricultural sector. Structured interviews of trade associations were also undertaken to have a wider view of how these agreements are perceived.

Econometric analysis of free trade agreements on fruit exports (HS-08)[22]

Though trade has increased along with the number of FTAs, this does not imply FTAs have necessarily been the cause of increased trade flows. We use an econometric method to analyse the impacts of FTAs on Chilean fruit exports. What are the average impacts of the free trade agreements on Chilean fruit exports? Have the agreements increased or decreased trade for Chile and how important might these impacts be? The impacts can be measured in terms of changes in both trade for pre-existing traded goods, that is the intensive margin and as well as for trade in goods not previously traded, that is the extensive margin. Measurement of both of these effects requires a benchmark of what these trade flows would have been without these agreements. This is however

22. The econometric analysis refers to products classified under HS-08 though the text refers to fruit trade/fruit exports as these represent the largest product share of the HS-08 category.

observationally impossible. The problem is somewhat similar to measuring the impacts of a given treatment - here a FTA - on trade compared to outcomes for a control group - those countries which trade with no FTA. This can be done through an appropriate transformation of dependent variable so that a modified difference in differences approach may be applied.

The approach used is that of the study, *The Impacts of Regional Trade Agreements on Agricultural Trade* [TAD/TC/CA/WP(2012)2/REV1]. As in that study this analysis should be considered exploratory given the relatively new method of estimation. The analyses focuses on the trade in fruits and nuts (HS-08), which is the key agricultural export for Chile and for which specific trade goals have been set in the context of the economic policy objectives. The analysis covers 42 country schedules under some 18 agreements. These are listed in Table 1 of Annex B. The following discussion is taken from the above study.

The gravity model is most commonly estimated for evaluating determinants of trade flows whose basic form is written,

$$(1) \qquad \boldsymbol{X_{ijt} = G_t\, S_{it} M_{jt} \phi_{ijt}}$$

where the indices *i, j* and *t* denote the exporting country, the importing country, and the year, respectively. **X** represents the value of the trade flow, **S** is a vector of the exporter's attributes, and **M** is a vector of the importer's attributes. The determinants of trade specific to each country pair are represented by the vector of variables $\boldsymbol{\phi}$.

To avoid the above common estimation errors raised in the literature the strategy adopted here is to transform the dependent variable to make use of the multiplicative structure of the model. This transformation makes the estimation amenable to interpretation as differences in differences in their logarithmic form. The differences in differences approach is commonly used to evaluate the outcomes of experiments where one group receives a treatment and the other does not. In this case the treatment group are the trade flows under bilateral trade agreements and the control group are bilateral trade flows without an agreement. They are, in fact, product-level differences between supplier countries and differences between export markets. Application of this method requires both an exporter control group and an importer control group. By choosing as control groups, for example, countries whose trade policy toward agreement partners did not change during the study period, bilateral trade determinants with control groups can be assumed unchanged. Therefore movements in the difference in differences in trade flows can only be explained by trade liberalisation between the agreement partners (OECDa 2012)

Starting from the basic equation (1) and with appropriate transformations and simplification the estimated equation is:

$$(2) \qquad \boldsymbol{\ln(B_{ijkt}) = \alpha_{ijk} + \sigma \ln\left(\frac{\tau_{ijkt}}{\tau_{ljkt}}\right) + \beta_{it} + \gamma_{jt} + u_{ijkt}}$$

Where $\mathbf{B_{ijkt}} = \left(\frac{\mathbf{X_{ijkt}}}{\mathbf{X_{i'jkt}}}\right) \Big/ \left(\frac{\mathbf{X_{ij'kt}}}{\mathbf{X_{i'j'kt}}}\right)$, with i' the control group of exporters i (i=Chile) and j' the control group of importers j,(j'=M importers) whose policies towards Chile over the estimation period did not change ; u represents an error term and $\alpha_{ijk} = ln(\lambda_{ijk})$, β_{it} and γ_{jt} are exporter-by-year and importer-by-year fixed

effects, introduced to control for the possibility of country-specific factors in a given year.[23]

This specification includes one fixed effect specific to each exporter-importer-good triplet. As a consequence, estimated elasticities of substitution between imports from different origins (σ), assumed to be equal across products, only depend on changes over time within each of these triplets. Fixed effects by exporter, importer, or good, or by any combination of two of these dimensions, are thus implicitly accounted for. This approach permits estimation of the elasticity of the preferential margin on trade. The elasticity of substitution between imports measures the product-level sensitivity of bilateral trade flows to the tariff-inclusive price wedge resulting from preferential tariff treatment, as specified in equation(2). The dependent variable thus measures the change in treaty partner imports from Chile over and above what is expected given the increase in Chilean exports and trade partner imports with respect to the control groups. The latter are those without the trade agreements with Chile or its importers.

Estimation results

The econometric analysis indicates a significant positive impact of trade agreements on Chilean fruit exports: a preferential margin corresponding to one per cent reduction in the tariff inclusive price, increases trade by 4.95% relative to other exporters. This result is shown in Table 3 column 1 and indicates that the agreements do yield statistically significant positive benefits to exporters.[24] The analysis finds that the mere existence of an FTA even with no preferential margins boosts trade by almost 65% (exp(.524)-1~=.65) compared to no agreement. The larger the preferential margin the larger the impacts: for positive preferential margins trade is increased by over 100% relative to other suppliers shown in Table 1 column 2. While these results are considered exploratory, they do give an indication of the possible importance that the agreements have for trade in Chile. The import elasticity of substitution of between products from different exporters indicates, to a large extent, how sensitive imports are to relative prices

Do the FTAs stimulate trade in new products? The answer to this is particularly important for future growth of the sector, where trade in many traditional products is stagnating. The estimates of the probability of exporting, Table 3 column 4 are not statistically significant, thus no there is no apparent impact on new trades that can be statistically attributed to the agreements. Some significant impacts are however found when different size classes of the preferential margin are examined. The mere presence of an agreement even without a preferential margin does increase the probability to export a new products by about 2% relative to other countries and for preferential margins greater 10% the agreements increases the probability of exporting a new product

23. We may, for example, consider variations in the bilateral exchange rate relative to the control groups. Given that these control groups are defined differently for each importer and each exporter, the corresponding fixed effects must be two-dimensional.

24. Given the estimations are carried out for one sector the highly significant results provide support for the efficacy of the FTAs for Chile's fruit export sector.

by approximately 3.4%. While the positive impact of large preferential margin can be explained as providing a competitive price advantage *vis-à-vis* competitors, it is more difficult to explain why a small positive effect should obtain simply from the existence of an agreement and none for small or medium size preferential margins. It may that having an agreement allows for commercial contacts between the countries not had without the agreement, but that in general the marginal preference would need to be at least 10% for any impact. The estimates thus provide only limited evidence of promoting trade in new products between trade-agreement partners compare to other countries.

Very few studies are available to compare the results obtained here with those of the literature. A very recent study assessing the impact of the EU-Chile FTA and using the same methodology found that the import elasticity of substitution for the fruit sector was -9.48 and significant at the 5% level. This means a 1 preferential margin corresponding to one per cent reduction in tariff inclusive price yields an increase in exports of over 9% compared to those of other suppliers. These results can also contrasted with the impact of the FTAs for the agricultural sector overall and for over 59 partners which finds that the impact of a one per cent decrease in the tariff inclusive price generates an increase in agricultural trade of 2% compared to other suppliers.(OECD, 2012, [TAD/TC/CA/WP(2012)2/FINAL]).

Table 3. Estimation of the impacts of preferential margins on bilateral trade

	Dependant variable:	Diff in diff log exports		Export probability	
		(1)	(2)	(3)	(4)
Independent variable:					
Log price wedge linked to preferential duties					
Chile-fruits	*FTA's first year*	-1.79		-0.05	
		(-0.82)		(-0.30)	
	Subsequent years	-4.95 ***		-0.16	
		(-2.68)		(-1.26)	
Size class of Preferential margin					
Chile-fruits	*PTA in force, but preferential m*		0.524 ***		0.021 *
			(2.94)		(1.66)
	0 < preferential margin < 5%		0.859 ***		0.029
			(4.45)		(1.49)
	5% < preferential margin < 10%		0.726 ***		0.013
			(3.34)		(0.64)
	10% < preferential margin		0.762 ***		0.034 *
			(3.17)		(1.68)
Balanced panel		No	No	Yes	Yes
	Adj. R-squared	0.015	0.015	0.010	0.010
	Observations	181,272	181,272	1,181,244	1,181,244
	Observations for Chile's export	3,334	3,334	12,180	12,180
	Panel units	31,927	31,927	98,437	98,437

Survey of export firms

This section summarises the results of the survey of fresh fruit exporting firms. The survey consisted of structured interviews. Most firms were interviewed

in person but several were undertaken by telephone for logistical reasons. The survey addresses the following issues: impacts of tariff reductions; effects of other trade policy measures; role of government and trade associations in facilitating access to benefits of the agreements. It asks exporters if they find these agreements have improved competitiveness and increased exports; opened new markets; increased profitability; stimulated innovation as well as their view of importance of the SPS regulations for trade. The questionnaires guideline for the exporter and trade association interviews are provided in Annexes D and E respectively.

A survey of 21 fresh fruit exporting firms was undertaken using structured interviews with the firm's commercial or general manager.[25] The sample was selected from the Directory Eximfruit 2009 (Inglobo) which includes 207 large, medium and small fresh fruit export firms that sell to markets across the globe. The firms were selected randomly from the population, without stratifying it.[26] When a firm could not be contacted or refused to answer we selected a firm among the sample that was closest in size to the one that failed to respond. However, it is important to note that the seven largest fruit export firms are also included in the survey. The firms interviewed account for approximately 28% of the export market in volume terms.

A description of firms used in the survey is provided in Table 4. All but the smallest firms are members of the main exporter association ASOEX. Surveys were undertaken in person or by telephone with either the firm's commercial or general manager of the firm. Of the 21 firms surveyed 11 are both producers and exporters, with four exporting their own production exclusively. The remaining ten firms are exporters only.

To partially remedy this limited number of firms, the fruit trade associations ASOEX and Fedefruta, the agricultural trade associations were interviewed to understand how the agreements were perceived in the aggregate by the sector's actors. These results as well as those of other trade associations sectors are summarised in Box 2.

Table 4. Exporter survey sample characteristics

Export firm characteristics	Average value	Range
Export Value (in thousand dollars)	39.171	600 – 180.000
Labour - operation (in number of employees)	786	8– 2.220
Percentage of production destined export (in %)	97	85-100
Lifespan (in years)	19	4 – 54
Number of products	8	1 – 55
Number of markets	27	1 – 85

25. Contacts were provided by PROCHILE.

26. The excel random number function was used to select firms.

Dissemination of information on FTAs

All firms except one had a general knowledge of Chile's FTAs, though none reported having detailed knowledge of these. For over 50% of the firms the main source of information about the agreements and their expected benefits is exporters' trade association ASOEX (Associacion de Exportadores), followed by the press and clients with only approximately 20% indicating the government as their main source of information. ASOEX is also viewed important for the diffusion of agreement information in a timely manner as it participates in the trade negotiations through the *cuarto adjunto*, and has immediate access to negotiation outcomes, which it communicates rapidly to its membership.The United States and the European Union were identified as the most important markets for three-quarters of the respondents. These two markets alone account for over 56% of Chilean exports, and were Chile's largest trading partners before the agreements. The Asian markets of Korea and China were singled out as markets for which the agreements have had an important impact on trade since prior to the agreements the tariffs applied by these countries were high and may have limited their exports. Table 5 provides an overview of the ranking of export markets according to FTA impacts. Caution must be exercised in interpreting this data given the small sample used.

Table 5. Ranking of markets according to FTA impact

First mentioned		Second mentioned		Third mentioned	
Market	Frequency	Market	Frequency	Market	Frequency
EU	7	USA	7	EU	3
USA	6	Asia	4	USA	2
Korea	2	Korea	1	Latin America	2
China	2	China	1	Japan	1
Colombia	1	EU	1	China	1
No answer	2	No answer	6	No answer	13

Perceived benefits of the FTAs

In general FTAs were found to benefit the sector through the impacts on competitiveness provided by the tariff concessions, but this finding must be nuanced. For exporters it is not simply having a competitive edge through reduced tariffs but ensuring a level playing field that is important. They recognised that the previous competitive advantage over competitors offered by the tariff preference is being eroded with the multiplication of FTA agreements by its main importers with Chile's competitors. Not having an FTA would constitute a disadvantage for certain markets, and the economic disadvantage might be large enough to force an exporting firm to exit the market. Approximately 85% of the respondents find that the FTAs increase trade flows in existing markets and opened new ones and 33% of those surveyed strongly support this view.

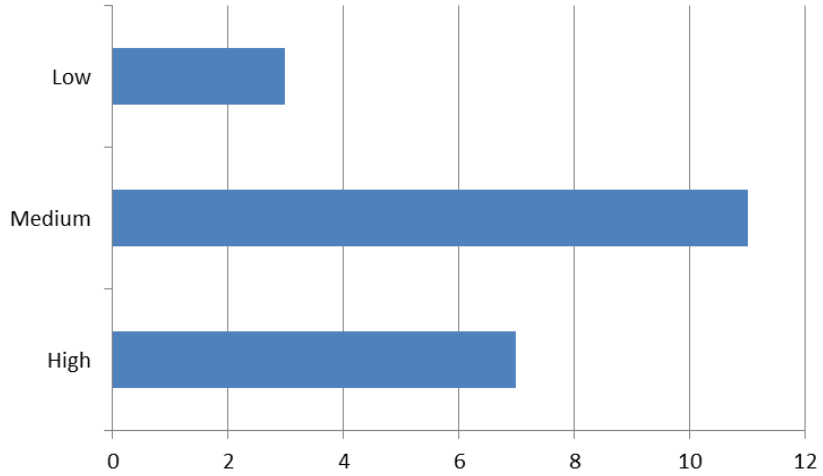
Exporters believed that the benefits for the agro-food sector as a whole are greater than for their sector and firm. This could imply that detailed knowledge and experience may temper assessments that are made at the aggregate level. Neither firm size nor the number of destinations appeared determinant in an

exporters' assessment of FTAs: both large and small firms exporting to wide and narrow range of markets are found among those that estimate they receive large benefits as well as among those that find they receive limited but positive benefits from the agreements. These responses are summarised in Figure 7.

The evaluation of the FTAs capacity to promote trade in new products effectively varied markedly across firms: 53% agree that agreements can promote trade in new products, 33% were uncertain and 14% disagreed. Those that were uncertain or disagreed argue that it is market dynamics and consumer preferences that create new product opportunities and not administrative agreements.

The agreements were perceived to be able to stimulate innovations in processes or outputs particularly in the logistics area by 62% of respondents, while 10% did not find they had an effect and 29% did not have an opinion.

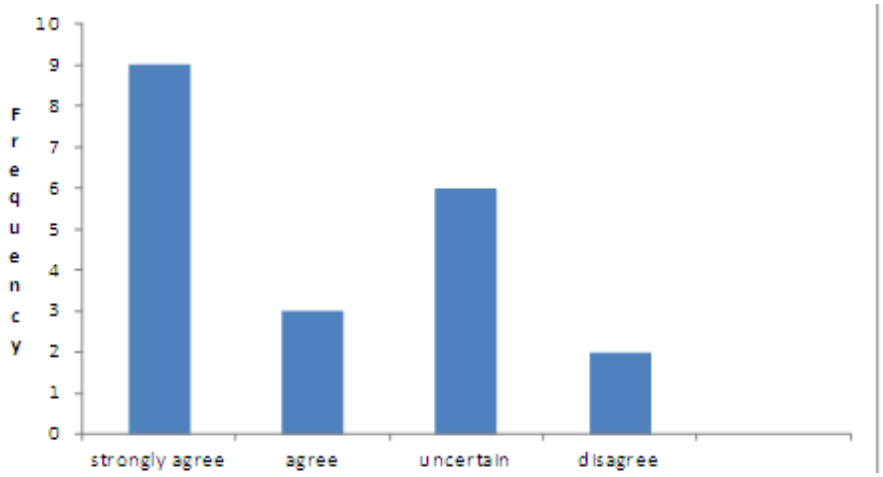
Figure 7. Firm level perceptions of the benefits of Free Trade Agreements



Tariff preferences

Approximately 76% of respondents reported utilising tariff preferences however they also indicated that the presence of an FTA was not necessarily the most important determinant for market destination decisions. Market selection is considered to be driven first and foremost by price. These results can be better understood by considering the exporters' perception of the size of tariff preferences offered in the agreements. Figure 8 indicates that only about 60% find that the preferences for Chile's fruit sector are large. But 30% are uncertain and 10 % disagree. These latter figures may be due to the fact that for specific markets implementation is not yet complete or their products will not experience any significant tariff reductions.

Figure 8. Perception that tariff preferences are high



Firm level impacts

Approximately 76% of respondents find that the agreements have a positive impact on competitiveness and 67% also find positive impacts on profitability of which 29% and 24% respectively strongly agree. Only 10% do not find benefits on competitiveness and profitability. These results are summarised in Table 6. Moreover, the Chilean exporters find that the trade agreements make them more competitive than competitors without preferential arrangements. Regarding the relation between profitability and FTA, most respondents noted that profitability depends on a complex set of variables, like exchange rate, input prices, transport costs, etc., and attributing these simply to an FTA is unlikely to be a real reflection of its contribution to profitability.

Table 6. Firm level impacts of Free Trade Agreements

FTA impacts on the export firm	Perception in percentage				
	Strongly agree	Agree	Indiffere,nt	Disagree	Strongly disagree
FTA open new markets	33%	52%	14%	0%	0%
FTA increase trade flow in existing markets	33%	52%	14%	0%	0%
FTA promote the introduction of new products	10%	43%	33%	14%	0%
FTA promote innovation in the firm	0%	62%	29%	10%	0%
FTA increases competitiveness	29%	48%	14%	10%	0%
FTA increases profitability	24%	43%	24%	10%	0%

Tariff quotas and exports

Tariff quotas were generally not perceived as impediments for exports to countries even if these are still in place for certain products and markets. For instance, several exporters noted there is a seasonal tariff quota for table grapes in the European Union but as the quota has expanded it is no longer binding. Likewise several respondents noted that for the United States the quota on avocadoes has expanded and is no longer binding, furthermore it is due to expire in 2015.

Other trade policy measures in the agreements

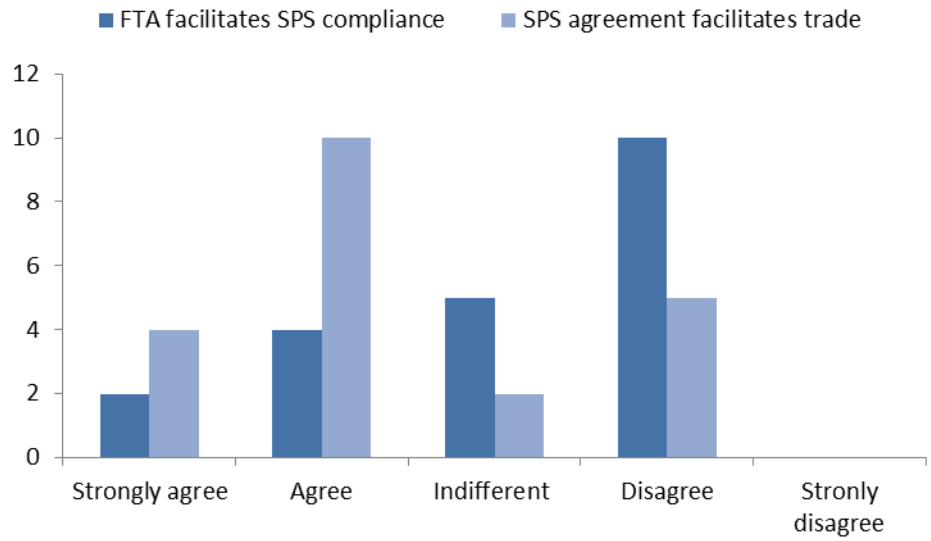
Rules of Origin and other technical requirements

Technical or special requirements for accessing preferential tariffs were not considered a constraint for over two-thirds of the respondents. Respondents noted that there were no special or technical requirements for exporting under preferential tariffs. For those that were familiar with Rules of Origin requirements, the certification of origin was not viewed as a constraint for accessing preferential tariffs. A third of the respondents noted they needed a certificate of origin for exporting under preferential tariffs but that the certificates were costless and simple to obtain. The only disadvantage of the certification mentioned was that the institution granting these, the Chamber of Commerce, is generally not available on weekends.

Do FTAs facilitate meeting SPS requirements? Do they modify SPS requirements?

Meeting SPS requirements is an important aspect of market access and some 67% of the firms interviewed consider that an FTA can assist in opening markets through assistance in defining and clarifying procedures to meet SPS requirements. Firms do not expect the FTAs to modify the SPS regulations since these are official requirements for food safety, plant and animal health. They appreciated the negotiation efforts by SAG with the food safety and plant health authorities in each partner country. In particular, SAG was able to facilitate market access conditions through negotiating procedural requirements and certifications in the technical committees.

Figure 9. FTA in SPS compliance and opening of markets



Several firms noted that in the case of China, Korea and the United States, countries considered to have stringent risk analysis procedures, having an FTA was seen as helping to accelerate authorisation processes for product entry. As to whether the agreements can facilitate compliance, only 29% find this to be the case. Two-thirds of firms interviewed do not have difficulties in meeting an

importer's SPS requirements. The distribution of responses to these two issues is shown in Figure 9.

The respondents valued highly the activities of the SAG. It is viewed as an agency exercising a very positive impact on the sector's ability to export. It is seen as providing an essential service along the supply chain from production to exports. A criticism was voiced with respect to the differing inspection criteria applied over regions since this complicates the export certification process.

Importance of the public sector in maximising benefits from FTAs

While 71% of the respondents believe that the government has been important in promoting and informing firms of the benefits from FTAs, 29% did not agree or were uncertain. In general, the trade association ASOEX has been the more visible agency in the diffusion of information concerning FTAs and opportunities they can bring. Thus it tends to be viewed as more relevant than the government in promoting FTAs and their benefits.

The governmental institutions considered the most efficient in assisting exporters enter new markets or expand in present ones are Pro-Chile-71% and SAG - 57%. In contrast, official diplomatic representatives are not seen as being instrumental in increasing market size or entering new markets (Table 7).

Table 7. Perception of the role of the government in promoting benefits of Free Trade Agreements

	Perception in percentages	
Most efficient institutions in supporting export firms	Positive	Percentage
ProChile	15	71%
SAG	12	57%
Embassy/Diplomatic services	3	14%

ProChile, the government export promotion agency plays a significant role in assisting exporters in their marketing through financing their participation in international fairs and exporter missions in prospective agreement countries. The exporters surveyed indicated that assisting exporters in making contacts with importers in new markets is the most effective action that the government can provide to ensure and to strengthen the benefits from the agreements.

A substantial share of the success of Chile's exports was attributed to the public-private sector collaboration, in particular between Pro-Chile and producer-exporter associations. They were seen to have jointly explored markets abroad and have discovered business opportunities for new fruit varieties. PROCHILE has played an important role in the diversification strategy through financing of exporters' participation in marketing fairs as well as assisting in identifying new import markets.[27,28]

27. This evaluation of ProChile by exporters supports the views of Agosin and Bravo who find that once buyers in importing countries having successfully marketed one or more varieties they have sought out other products, the role of Pro-Chile in facilitating exporters to market new and old varieties must be recognised (Agosin and Bravo, 2009).

Greater efforts by government in communicating the content of the agreements and their implementation as well as in the updating of developments to the agreements could generate further benefits from the agreements. As the agreements were seen as 'living' documents and as such to be revised periodically as to specific procedures and regulations, better communication of these changes was seen to be needed. Improved access to government resources for making use of agreements also was suggested by many firms.

Trade association perceptions of the free trade agreements

The agricultural trade associations have an important role in the both the negotiation and the dissemination of results of the trade agreements thus are a fundamental link between the government and producers, exporters and other professionals in the agricultural sector. They are also important players once agreements are implemented as they can signal problems in procedures or other issues. The associations surveyed were: ASOEX (Fruit Exporters), Fedefruta (Fruit Producers), Chilealimentos and AssoGourmet (Processed Foods), Federcarne (Beef producers), Asprocer (Pork Producers and Wine Producers as well as the Sociedad Nacional de Agricoltura representing all agri-food producers along the food chain.[29]

To place the results of the fruit exporter survey in more general agro-food sector context Chile's main agricultural/agri-food trade associations were interviewed as to their perceptions or assessment of the agreements. A structured interview approach was used to allow respondents to elaborate their answers if they so wished. See Annex E for the questionnaires used to guide the interviews with the trade associations. The trade associations expressed satisfaction with their role in the negotiations, via the *Cuarto Adjunto* even if they recognised that their views are not always reflected in final agreements. Overall they perceived the agreements to contribute very positively to Chile's agricultural exports. Some also added that the agreements have greatly benefited the economy in general. They did not perceive that the agreements benefited the large firms more than small firms, even if large export firms have a tendency to fare better in export markets.

The issues addressed in the interviews include: tariff reductions; tariff quotas, rules of origin, sanitary and phyto-sanitary measures, impacts on innovation and market access as well as the role of government in facilitating access to benefits of the agreements. Box 2 provides a synthesis of their responses.

28. Multinational firms, such as Dole, Chiquita as well as large Chilean exporters that purchase fruit from independent producers have added new varieties to their export portfolio thus offering importers more choice.

29. The beef and poultry FAENACAR (beef producers) and APA (poultry producers) are also important trade associations in Chile but were not interviewed.

Box 2. Summary of Trade Association interviews

Tariffs/Tariff-Quotas-The trade associations strongly agree that the free trade agreements have increased exports and have been fundamental in maintaining market share in a world where their most important export markets are countries with multiple trade agreements. Increases in trade were attributed in large measure to the reduction in tariffs. However, views differed among associations on the extent of impacts of these reductions recognizing that other factors may play an important role. The fruit and wine sector believed they benefited the most compared to other agricultural sectors as their tariffs are reduced rapidly and they do not have binding quotas or rules of origin constraints. The processed food sector however found tariffs had not been sufficiently reduced in addition often facing rules of origin constraints. Trade agreements with their preferential tariffs were viewed by all as necessary to maintaining a level playing field with competitors particularly in markets where importers had multiple agreements. Without these some felt they would have lost market shares. But the trade agreements can also imply that imports compete with domestic goods as imports from lower cost countries can enter the domestic market at lower prices. For instance beef imports from Mercosur were seen as undermining local markets due to price competition.

Tariff quotas outcomes were considered disappointing since the quotas can constrain their exports. Though tariff quotas differ across agreements, the responses of the associations reflect their application by the most important importers, the European Union and the United States. Though the quotas are revised periodically by these partners, they did not consider that the outcomes had been very favourable. The poultry/pork export markets are those where quotas appear to fill rapidly and for which over quota tariffs are high, reaching 100% or more for specific products. These were the most affected they thought. While the beef sector exports are subject to quotas, Chile's exports aim at high-end niche markets, for which the quota is generally not binding. Chile has the strategy of imposing quotas on products if partners do.

Market access opportunities – Agreements were perceived to have provided trade opportunities, both in terms of trade in pre-existing traded products and in new products/markets. This was believed to be the case for markets of the EU, USA, and Japan and to some extent China, and Korea. Expectations for large market opportunities in China in particular were not seen as materializing. Other agreements notably those with EFTA countries were not perceived as offering any substantial tariff reductions or increased exports. Most associations felt that while high income or middle income emerging markets seem to offer the most promise, even small markets could provide export opportunities and were not neglected. Essentially no markets are seen as too small.

Profitability - There was no consensus as to whether the agreements increased exporter profitability. Tariff reductions were not seen as going *pari passu* with increased profits. The impact of exchange rates on exports was considered a key in determining profitability and this weighs on their competitiveness. The wider economic setting in which competitiveness and profitability are determined needs to be included in the discussion of the impacts of the agreements and how to improve their outcomes. Several insisted that it was price rather than tariffs that made the difference to their profitability. The wine sector, in particular, however did find that the agreements do contribute to both their competitiveness and profitability.

Innovation - Little stimulus to innovation was had through the agreements, except in the fruit industry which did note that the lower import tariffs provided cost reductions in imported capital goods and technology. They believed these stimulate the adoption, modern technologies in logistics and telecommunications, along the entire production chain.

SPS measures - All associations concurred that the SPS requirements are justifiable because these apply to all markets to protect domestic consumer and plant and animal health and should not be a subject of negotiation. All associations strongly supported the development of technical committees not only to resolve differences regarding regulations/testing/certification of specific products but also to move forward on transparency and mutual recognition as well as equivalency. They view the agreements as contributing to putting the issues on the table if they are not yet resolved. They attributed their success in the negotiation of specific protocols on mutual recognition or equivalence with major importers for specific products to the competence of SAG, the plant and animal health regulatory agency. Mutual recognition for certain poultry and beef products was agreed with the US through SAG efforts. China and Korea were however singled out as having difficult compliance procedures and negotiations had to be carried out at the detailed product levels via the technical committees of each country to gain limited market access.

Rules of Origin - These were not considered to limit exports of the agricultural sector since most agricultural exports are domestically produced. However for processed fruit-based products which account for most of Chile's processed food exports, ROOs can limit access to the preferential tariff in cases where the ROOs requirement is for a 100% domestic production and inputs such as sugar, which is often imported are used in their preparation. Procedures for certification of ROOs were considered, simple and not costly. The certification procedure has been highly streamlined over time.

Role of government - All associations strongly agreed that the promotional activities of ProChile with partner countries were extremely important for exports. Participation in activities such as trade fairs, specific market study tours to introduce Chilean products to trade partners and to allow Chilean exporters to learn about the partner country's market characteristics were seen as key in building an image of Chilean and thus stimulating trade.

4. Conclusions

Both the econometric analysis of the impacts of Chile's free trade agreements on fruit trade and the results of a small exporter survey find that these agreements have had a positive impact on trade. Approximately three quarters of those interviewed find the agreements increased trade flows and over 50% find they are useful in promoting trade in new products. In addition those interviewed find that they improve competitiveness through tariff reductions and two thirds find positive impacts on profitability. Both exporters and trade associations agreed that the trade agreements were necessary to maintaining a level playing field with their competitors. In spite of the erosion of preferences with the increase in multiple agreements by Chile's major importers, the tariff preferences appear to remain an important element in their trade decisions, but not the only one. Given the very limited sample these results cannot be generalised either to other agricultural sectors or to other trade agreements.

While tariff reductions are important, other factors such as promotional efforts of Pro-Chile identifying new markets and providing links to importers are also important. These activities were considered essential to understanding what buyers want in terms products, quality and required logistics. Free trade agreements with large, high income markets such as the European Union, the United States and Japan, were viewed as the most important because these tend to generate largest sales. But even small markets can bring export opportunities and should not be neglected.

The efforts of SAG to assist exporters in meeting SPS standards for exports as well as through negotiation of procedural requirements were seen as essential. Meeting SPS regulations was not construed as trade barrier, but simply as a business requirement. Thus firms recognised the important role played by the SAG in assisting them in meeting requirements through information provision and guidance as well as in their negotiating procedures for implementing requirements and certifications.

For agricultural products the SPS chapters are a central element in the agreements because they can determine whether or not a product can effectively enter the country. The agreement SPS chapters do not generally go beyond what is offered under the WTO agreement. Thus SPS chapters of the agreements appear not to indicate substantial benefits with respect to SPS regulations compared to international principles and standards of the WTO-SPS agreement. The agreements however do offer the opportunity for closer contacts between regulatory agencies through technical committees and even ad-hoc committees to resolve procedural issues.

The econometric analysis, focusing uniquely on tariffs for the HS-08, (edible fruits and nuts) finds that a one per cent decrease in the tariff inclusive price generates a 5% increase in trade relative to other suppliers. Furthermore the impacts increase with the increase in the tariff reductions, so that tariff reductions of 5 and 10% generate very significant trade effects impacts, in some instances exceeding 100%. These findings with respect to trade at the intensive margin, that is, trade in existing traded goods are thus consonant with views of exporters, as well as the fruit trade association.

The probability that the trade agreements generate trade in new products was surprisingly not statistically significant. Here the econometric results differ from the perceived effects of the majority of exporters and trade associations for whom the FTAs do contribute to opening markets for new products and cited in particular markets.

The views of the non-fruit trade associations surveyed also argue that the agreements are necessary to maintaining a level playing field with other suppliers. The valuations of the impacts were not as positive as those of the fruit sector because the agreements dealt differently with their products. In particular, tariff quotas for which over quota quantities can generate high tariffs were viewed as limiting expansion of trade in their products. Nonetheless the tariff-quota in the agreements was improvement from URAA levels and these are renegotiated periodically. The processed food trade association views also differed from those of the fruit trade as their tariffs are reduced much less and their products cannot always benefit from preferential tariff due to RoOs.

The exporters and trade associations emphasised that the agreements were necessary to maintaining a level playing field with competitors who have trade agreements with the actual or prospective importing countries. This raises an important question as to possible impacts on third countries, that is those without a network of trade agreements and which rely uniquely on the multilateral outcomes.

While the econometric analysis focussed only on the impacts of tariff reductions for trade, non- tariff measures, particularly sanitary and phyto-sanitary measures are equally important for trade. Indeed, for agricultural products the SPS chapters are a central element in the agreements because they can determine whether or not a product can effectively enter the country. Compared to the tariff element of the agreements, the SPS chapters of the agreements do not generally go beyond what is offered under the WTO-SPS agreement. Thus, they do not appear to provide additional benefits beyond those under the WTO-SPS agreement. Many of Chile's RTAs however do offer the opportunity for closer contacts between regulatory agencies through the creation of technical committees and even ad-hoc committees to resolve procedural issues. Looking forward, for RTAs to remain and become more trade facilitating, further exploration of ways and means to improve cross border collaboration on standards and regulations, such as mutual recognition agreements (MRAs) or new mechanisms of institutional co-operation, could be warranted.

The results of this small case study cannot be generalised to Chile's entire agro-food sector or to other countries. The econometric results are limited to the fruit (HS-08) sector. The private sector interviews supplement and enrich the econometric analysis by providing more sector specific information and contributing to understanding at least partially how different aspects the trade agreements may determine outcomes.

Annex A

Current Chilean Trade Agreements

Country/ Group	Type of Agreement	Year	Partners` GDP share[4]
Venezuela	ECA	**1993**	0.47
Bolivia	ECA	1993	0.05
Mercosur[1]	ECA	1996	3.9
Canada	FTA	1997	1.8
Mexico[2]	FTA	1999	2.09
Costa Rica[3]	FTA Protocol	2002	0.07
El Salvador[3]	FTA Protocol	2002	0.06
European Union	EAA	2003	20.45
United States	FTA	2004	19.74
Korea	FTA	2004	1.97
EFTA	FTA	2004	3.9
China	FTA	2006	17.4
Pacific-4[5]	EAA	2006	1.03
India	Partial Ag	2007	5.4
Japan	EAA	2007	5.85
Panama	FTA	2008	0.06
Cuba	Partial Ag	2008	-
Honduras[3]	FTA Protocol	2008	0.05
Peru[2]	FTA	2009	0.37
Australia	FTA	2009	1.91
Colombia[2]	FTA	2009	0.58
Guatemala[3]	FTA Protocol	2010	0.09
Ecuador[2]	EAA	2010	0.15
Turkey	FTA	2011	1.29
Nicaragua	FTA Protocol	2012	.02
Malaysia	FTA	2012	.056

ECA: Economic Complementation Agreement
FTA: Free Trade Agreement
EAA: Economic Association Agreement
Partial Ag: Partial Agreement
[1] Argentina signed an ECA with Chile in 1991, which was later absorbed by the agreement with Mercosur in 1996 agreement.
[2] ECAs were signed with Mexico (1991), Peru (1998), Colombia (1993), Ecuador (1994) and were later renegotiated and signed as FTAs
[3] A single protocol was signed with Costa Rica, Salvador, Honduras, Guatemala and Nicaragua in 1999 to open negotiation with each country separately.
[4]. GDP share of world total (PPP) for 2010.source: World Bank economic indicators
5. GDP share includes Chile
Source: DIRECON, columns 1-3, http://www.direcon.gob.cl/pagina/1897

Annex B

Summary of the Estimation Method

The gravity model is most commonly estimated for evaluating determinants of trade flows.

The basic form of the gravity model is written

$$X_{ijt} = G_t \, \mathbf{S}_{it} \mathbf{M}_{jt} \boldsymbol{\phi}_{ijt} \quad (2)$$

where the indices *i, j* and *t* denote the exporting country, the importing country, and the year, respectively. **X** represents the value of the trade flow, **S** is a vector of the exporter's attributes, and **M** is a vector of the importer's attributes. The determinants of trade specific to each country pair are represented by the vector of variables $\boldsymbol{\phi}$.

In the simplest version of the model, which is unfounded theoretically but most closely reflects the universal law of gravity in physics, **S** and **M** represent the respective GDPs of the trading partners and $\boldsymbol{\phi}$ the inverse of the distance. In practice, many other determinants of trade flows must be considered. This equation is most commonly used for the entire economy, but it can be applied across sectors.

Most approaches for assessing the impact of RTAs on trade are all based on the use of a dichotomous indicator variable to indicate whether an agreement existed between the members or not. While the simplicity of this approach allows many agreements and countries to be studied simultaneously, it relies on several questionable assumptions.

Transformation of the Dependent Variable

To avoid the above common estimation errors raised in the literature the strategy adopted here is to transform the dependent variable to make use of the multiplicative structure of the model. This transformation makes the estimation amenable to interpretation as differences in differences in their logarithmic form. The differences in differences approach is commonly used to evaluate the outcomes of experiments where one group receives a treatment and the other does not. In this case the treatment group are the trade flows under bilateral trade agreements and the control group are bilateral trade flows without an agreement. They are, in fact, product-level differences between supplier countries and differences between export markets. Application of this method requires both an exporter control group and an importer control group. By choosing as control groups, for example, countries whose trade policy toward agreement partners did not change during the study period, bilateral trade determinants with control groups can be assumed unchanged. Therefore, movements in the difference in

differences in trade flows can only be explained by trade liberalisation between the agreement partners (OECDa. 2012)

Starting from the basic equation (1) and with appropriate transformations and simplification the estimated equation is:

$$(2) \qquad \ln(Bijkt\ ) = \alpha_{ijk} + \sigma \ln\left(\frac{\tau_{ijkt}}{\tau_{ljkt}}\right) + \beta_{it} + \gamma_{jt} + u_{ijkt}$$

where u represents an error term and $\alpha_{ijk} = ln(\lambda_{ijk})$. β_{it} and γ_{jt} are exporter-by-year and importer-by-year fixed effects, introduced to control for the possibility of country-specific factors in a given year.[30]

This specification includes one fixed effect specific to each exporter-importer-good triplet. As a consequence, estimated elasticities of substitution between imports from different origins (σ) only depend on changes over time within each of these triplets. Fixed effects by exporter, importer, or good, or by any combination of two of these dimensions, are implicitly accounted for. This approach permits estimation of the elasticity of the preferential margin on trade.

The estimators are robust to heteroskedasticity and serial correlation of the errors within each panel unit (i.e. each exporter-importer-good triplet). This type of estimation is however vulnerable to selection bias, since many trade flows are zero and are therefore not included in the estimation. In our case, this issue is compounded by the fact that trade flows involving the control groups may also be null, increasing the potential sources of missing observations. To avoid selection bias, the impacts of the preferential tariffs on the intensive margin are measured by limiting our estimation to importer-exporter-product triplets for which the flow of trade is not zero during any year of the sample, thus the period 2002-09 is chosen. An unbiased estimation of the effect of preferential agreements on pre-existing trade flows can be obtained in this manner. The approach follows that of Romalis (2007).

To measure the incidence of preferential tariffs on the extensive margin, we estimate the probability of exporting. As with estimations on trade flows, and for the same reasons, econometric modelling of this probability requires accounting for determinants specific to each (potential) exporter-importer-good triplet, as well as exporter-by-year and importer-by-year fixed effects. The retained specification is thus identical to that in equation (2) except for the endogenous variable, which is now the probability that exports are non-zero. We use a linear model to estimate the probability of exporting following the lead of Frazer and Van Biesebroeck (2010) and Head *et al.* (2010).

Application of this method requires the creation of control groups specific to each importer and exporter. For a given country, the corresponding control group consists of all countries in our database[31] not having signed a preferential agreement with this country by 2009. This composition is specific to each country, but stable over time.

30 We may, for example, consider variations in the bilateral exchange rate relative to the control groups. Given that these control groups are defined differently for each importer and each exporter, the corresponding fixed effects must be two-dimensional.

31 Our database excludes trade between two countries having signed a RTA when we do not have information on the nature of concessions granted by the accord.

Annex C

List of Agreements Used in estimAtion

Argentina-Chile	Chile-Korea	Uruguay-Chile
Chile-Argentina	Korea-Chile	Chile-Uruguay
Australia-Chile	China-Chile	United States-Chile
Chile-Australia	Chile-China	Chile-United States
Brazil-Chile	EU-Chile	New Zealand-Chile
Chile-Brazil	Chile-EU	Chile-New Zealand
Brunei-Chile	Peru-Chile	Singapore-Chile
Chile-Brunei	Chile-Peru	Chile-Singapore
Canada-Chile	Salvador-Chile	Chile-Island
Chile-Canada	Chile-Salvador	Island-Chile
Chile-Switzerland	Mexico-Chile	Norway-Chile
Switzerland-Chile	Chile-Mexico	Chile-Norway
Chile-Costa Rica	Paraguay-Chile	
Costa Rica-Chile	Chile-Paraguay	

Annex D

Guidelines for Exporter Interviews: Impacts of Trade Agreements

I. General Information

1.Firm name			
2.Contact person			
3.Address		4. City	
5. Telephone / Fax		6. E-mail	
7. Number of workers	Permanent Temporary Administrative	8. Age of firm	
9.Trade/professional associations membership			
10. Indicate the number of products exported			
11. Indicate the number of market destination			

12. Indicate the most important products exported as a share of total sales

Products	%

7. Indicate the most important destination markets and share in total sales

Countries	%

8. Indicate the average value of export sales over the past 3 years	Miles de USD:
9. What share of sales are exports?	

II. Free Trade Agreements and their impacts

1. Do you know about Chile's trade agreements?
□ In detail
□ In a general
□ No I do not know about them

2. What has been the main source of your knowledge about the agreements?
□ National government
□ Local government
□ Producer/exporter associations
□ News media
□ Other _____

3. .To what extent do you agree with the following statement: trade agreements have had benefits for Chile's Agricultural sector.
□ Strongly agree
□ Agree
□ Indifferent
□ Disagree
□ Strongly disagree
Why?

4. Has your firm experienced direct benefits from the trade agreements?
□ Yes very many
□ Yes, somewhat
□ No

5. Which agreements have been most beneficial for your firm?

6. Has your firm made use of the preferential tariffs in its exports?
□ Yes
□ No
If not, why not?

7. If you have you used the preferential tariffs, have these influenced your selection of destination markets?
□ Yes
□ No

8. Do you agree that the preferential margins of tariffs in the agreements are high?
□ Strongly agree

□ Agree
□ Indifferent
□ Disagree
□ Strongly disagree

9. To what extent to do you agree with the following statement? The trade agreements have permitted the opening of a new market for my firm.
□ Strongly agree
□ Agree
□ Indifferent
□ Disagree
□ Strongly disagree

10. To what extents to do you agree with the following: the trade agreements have stimulated an increased trade for my firm.
□ Strongly agree
□ Agree
□ Indifferent
□ Disagree
□ Strongly disagree

11. To what extent to do you agree with the following statement? The trade agreements have generated opportunities for the development of new products
□ Strongly agree
□ Agree
□ Indifferent
□ Disagree
□ Strongly disagree

12. To what extent to do you agree with the following: thee trade agreements have stimulated the innovation process in the firm.
□ Strongly agree
□ Agree
□ Indifferent
□ Disagree
□ Strongly disagree

13. To what extent do you agree with the following: the trade agreements have permitted my firm to increase its competitiveness?
□ Strongly agree
□ Agree
□ Indifferent
□ Disagree
□ Strongly disagree

14. To what extent do you agree with the following: the trade agreements have permitted my firm to increase its profitability?
□ Strongly agree
□ Agree
□ Indifferent
□ Disagree
□ Strongly disagree

15. Do you find that signing the trade agreements are significant contributors to the development of exports of the country in general?
□ Yes, greatly
□ Yes
□ No

16. To what extent do you agree with the following statement: The tariff quotas are an impediment to expanding trade?
□ Strongly agree
□ Agree
□ Indifferent
□ Disagree
□ Strongly disagree

17. Are there special procedures needed to access the benefits of preferential tariffs? Is certifying origin a constraint to accessing preferential tariffs?
□ Yes
□ No

18. To what extent do you agree with the following statement: the certification of origin of products is an impediment to accessing the benefits of preferential tariffs?
□ Strongly agree
□ Agree
□ Indifferent
□ Disagree
□ Strongly disagree

19. Who undertakes the certification of origin?
□ Public sector
□ Private sector agents

20. Is the process of certification of origin complex?
 Yes
 No

21. In the process of certification of origin costly?
 Yes
 No

22. To what extent to do you agree with the following statement? The trade agreements have facilitated the fulfilment of the SPS regulation for the destination markets.
 Strongly agree
 Agree
 Indifferent
 Disagree
 Strongly disagree

23. If you agreed with the preceding statement, what do you consider the major benefits?
 Greater market access
 Lower regulatory requirements
 Greater and better information
 Other

24. To what extent do you agree with the following statement: The trade agreements have allowed the opening of new markets with respect to sanitary and phyto-sanitary measures.
 Strongly agree
 Agree
 Indifferent
 Disagree
 Strongly disagree
For which markets?

25. What other type of regulations or market restrictions do you think have facilitated of the trade agreements?

26. To what extent to do you agrees with the following: The government has undertaken actions to facilitate the use of benefits from the trade agreements.
 Strongly agree
 Agree
 Indifferent
 Disagree
 Strongly disagree

27. Which state institution/department in your judgement is the most efficient in supporting trade and the use of trade agreements?
 PROCHILE
 Embassies
 SAG
 Other

28. What actions do you consider the most important to support the benefits of the trade agreements?

29. To what extent to do you agree with the following: The trade associations have contributed to facilitating the utilisation of the trade agreements
 Strongly agree
 Agree
 Indifferent
 Disagree
 Strongly disagree

30. Which actions of the trade associations have been the most important?

31. What other actions could be useful to promote better the benefits of the trade agreements?

Annex E

Guidelines for Interviews: Trade Associations

Name of the association	
Actors represented	
Number of members	

1. To what extent do you agree with the following statement trade agreements (FTA) have been beneficial for the Chilean agriculture?
□ strongly agree
□ agree
□ indifferent
□ disagree
□ strongly disagree

2. What has been your role in the negotiations of the agreements? Have you made suggestions for the agreements? Were these suggestions taken up in the agreements?

3. Are you satisfied with the process of negotiation of the trade agreements (FTAs)?
□ yes
□ no

4. Have your members made use of the agreements?
□ yes
□ no

5. Do you agree that the tariff preferences from the agreements are high?
□ strongly agree
□ agree
□ indifferent
□ disagree
□ strongly disagree

6. To what extent do you agree that FTAs are necessary to maintain a level playing field vis a vis competitors? How important are the preferential tariffs? What other factors are important?
□ strongly agree
□ agree
□ indifferent
□ disagree
□ strongly disagree

7. To what extent do you agree with the following: Tariff quotas remain an important constraint in accessing the benefits of the trade agreements? What is the experience in your sector?
□ strongly agree
□ agree
□ indifferent
□ disagree
□ strongly disagree

8. To what extent do you agree with the following statement: the trade agreements have stimulated increased trade?
 strongly agree
 agree
 indifferent
 disagree
 strongly disagree

9. To what extent do you agree with the following statement: the trade agreements (FTAs) have permitted the opening of new markets?
 strongly agree
 agree
 indifferent
 disagree
 strongly disagree

10. To what extent do you agree with the following statement: The trade agreements have stimulated innovation in products, processes and the logistics? Specific experiences?
 strongly agree
 agree
 indifferent
 disagree
 strongly disagree

11. To what extent do you agree with the following: the trade agreement have permitted an increase in competitiveness of the sector?
 strongly agree
 agree
 Indifferent
 disagree

12. To what extent do you agree with the following statement? The trade agreements have permitted to increase the profitability of your sector? /
 strongly agree
 agree
 indifferent
 disagree
 strongly disagree

13. Do you find that the form of the trade agreements has been a significant factor in the development of your sector's exports? Why?
 yes, very important
 yes, important
 no not important

14. Do you feel that the larger firms have benefited more from the agreements than the small firms?
 yes
 no

15. What procedures/requirements are necessary to certify the origin of products (RoOs)?

16. To what extent do you find that the procedures for certification of origin efficient? Costly? Complex?
 strongly agree
 agree
 indifferent
 disagree
 Strongly disagree

17. To what extent do you agree with the following: certificates of origin are a constraint for the sector's exports?
 strongly agree
 agree
 indifferent
 disagree
 highly disagree

18. To what extent do you agree with the following statement: the trade agreements have facilitated meeting sanitary and phyto-sanitary requirements?
 Strongly agree
 agree
 indifferent
 disagree
 Strongly disagree

19. What specific aspects of the sanitary and phyto-sanitary regulations were facilitated?
 technical committees
 transparency of information
 mutual recognition
 equivalence of regulations
 other

20. To what extent do you agree with the following: Sanitary and phyto-sanitary regulations are an impediment to exports?
 strongly agree
 agree
 indifferent
 disagree
 strongly disagree

21. What activities has your Association undertaken to promote the use of the agreements by your members?

22. To what extent do you agree with the following statement: The government undertakes actions to promote the use of the trade agreements?
 strongly agree
 agree
 indifferent
 disagree
 highly disagree

23. What specific actions do you feel the government should undertake to promote the use of and benefit from the agreements?

24. Which agreements have been most beneficial for your sector? For the agro-food sector as a whole?

References

Agosin-, M and C.Bravo-Ortega, (2009), The Emergence of New Successful Export Activities in Latin America:The Case of Chile. *Research Network Working Paper #R-552*. Inter-American Development Bank. New York, USA.

Asociación Chilena de Fruta fresco, 2010, Industria frutícola Chilena. Available at www.chileanfreshfruit.com/img/img_promocional/promocion_ing.pdf .

Asociación Chilena de Fruta fresco, 2011, www.chileanfreshfruit.cl

Banco Central de Chile (2011), Statistical Databases. Available at www.bcentral.cl

Casanueva, Héctor, (2006), Una nueva forma de mirar la integración. Democracia,Gobernaza y Desarrollo en el Mercosur, Hacia un proyecto propio en el Siglo XXI » » ,UNESCO, CLACSO.

DIRECON-Departamento de Estudios, (2012), *Beneficio en el comercio de biens derivados de los acuerdos comercials suscrito por Chile* , Santiago, Enero 2012.

DIRECON-Departamento de Estudios, (2010) *Desarollo del sector agroindustrial exportador en relación al proceso de innovation tecnological que implican los accuerdos commerciales* , Junio 2010

CONICYT, 2006, The Fruit Sector in Chile: Research capabilities and science en technology development areas. Available at http://www.embassyofchile.se/espanol/Documentos/Frutic_Fruit_BD.pdf .

Frazer, G. & Van Biesebroeck, J. (2010), 'Trade Growth under the African Growth and Opportunity Act', *Review of Economics and Statistics* **92**(1), 128-144.

Fulponi, L., M. Shearer, and J. Almeida, (2011), Regional Trade Agreements: Treatment of Agriculture, OECD Food, Agriculture and Fisheries working papers, No.44, OECD.

Head, K.; Mayer, T. & Ries, J. (2010), 'The erosion of colonial trade linkages after independence', *Journal of International Economics* **81**(1), 1-14.

Inglobo, 2009, Análisis de exportaciones frutícolas. Soc. Piedra Roja Ltda. Santiago. Chile.

ITAQ, 2012, Evaluation of the Economic Impact of the trade pillar of the EU-Chile Association Agreement, Paris, France.

Meller, Patricio, 2004, *Chile: de la economía semi-cerrada a la economía globalizada*, Revista TodaVÍA Vol 8. Santiago, Chile.

ODEPA, (2011) "Inserción de la agricultura Chilena en los mercados internacionales . Publicación de la Oficina de Estudios y Politcas Agrarias- ODEPA, Ministerio de Agricultura

ODEPA, 2010, Inserción de la Agricultura Chilena en los Mercados Internacionales. Documento de trabajo Serie Comercio Exterior. Santiago, Chile.

ODEPA, 2011, Statistical Databases. Available at www.odepa.cl

OECD, 2012, The impact of regional trade agreements on trade in agricultural products, TAD/TC/CA/WP(2012)FINAL.

Porras, J. I., (2003) , ''La estrategia de acuerdos comerciales : an análisis politico '', Division de Comercio Internacional e Integración, Santiago, Chile. Diciembre.

Romalis, J. (2007), 'NAFTA's and CUSFTA's Impact on International Trade', *Review of Economics and Statistics* **89**(3), 416-435.

Rosales, Osvaldo V., (2003) , "Chile-US Free Trade Agreement : lessons and best practices", Paper presented to the American Chamber of Commerce in Washington D.C. 28 April 2003.

Sáez, Sebastián and Juan Valdés, (1999), "Chile and its 'Lateral' Trade Policy, CEPAL Review 67: 85-131.

Saez, Sebastián, (2005) "Trade Policy Making in Latin America: A Compared Analysis", Cepal Serie Commercio International, n.55, http://www.eclac.org/publicaciones/xml/8/23238/lcl2410i.pdf

Shearer, M.atthew, J. Salles-Almeida and C. Gutierrez, (2009) "the Treat of Agriculture in Regional Trade Agreements in the Americas," IDB working paper series, P -145, IDB. Washington D.C.

Silva, Verónica, (2004), Chile a Multi-Track Market Access Strategy". In *Trade Policy Reforms in Latin America* edited by M. Lengyel and V. Ventura-Dias. New York : Palgrave Macmillan 27-43.

Stallings, Barbara, (2009), "Chile a Pioneer in Trade Policy" . In *Competitive Regionalism: FTA, Diffusion in the Pacific Rim*, edited by M. Solís, B. Stallings, and S. Katada, Basing stroke: Palgrave Macmillan 1-24.

Stallings, Barbara and Saori Katada, (2009), "Conclusion: FTAs in a Competitive World". In *Competitive Regionalism: FTA, Diffusion in the Pacific Rim*, edited by M. Solís, B. Stallings, and S. Katada, Basing stroke: Palgrave Macmillan , 236-251.

Wehner, Leslie, (2011),"Chile's Rush to Free Trade Agreements", Revista de Ciencia Politca, 31:2 207-226.

World Trade Organization, 2009, Trade Policy Review. Report by the Secretariat Chile. Available at http://www.wto.org/english/tratop_e/tpr_e/tp320_e.htm.