KOREA-CHILE FREE TRADE AGREEMENT – A CASE STUDY FROM THE CHILEAN SIDE TO ANALYZE HOW IT CAN BE IMPROVED

TRATADO DE LIVRE COMÉRCIO ENTRE COREIA DO SUL E CHILE – UM ESTUDO DE CASO DO PONTO DE VISTA CHILENO PARA ANALISAR COMO ESTE PODE SER AMPLIADO

Luis Felipe Maldaner[1]

ABSTRACT

Trade in the global market is one of the most important ways to achieve economic growth. Some countries sell raw materials and others sell value added products. Innovation is the key issue in this competition and, in a sense, it makes a big difference in trade balance worldwide. FTA (Free Trade Agreement) is one of the means to gain different markets. The Korea-Chile FTA is a good example of success in terms of trade agreement. Korea sells value added products to Chile, and Chile sells raw materials to Korea, mainly copper. Korea and Chile can improve their Free Trade Agreement to the higher level, which is to produce conductors and semi-conductors in Chile through Korea's investment. Korea has technology and Chile can offer tax advantages to Korean companies which are interested to invest in Chile. For Chile, it is possible to achieve a huge market in North and Latin America. This is one way to improve the successful Korea-Chile FTA.

Keywords: Free Trade Agreement. Innovation. Government Strategy. Results and Improvement.

RESUMO

O comércio no mercado global é um dos mais importantes caminhos para obter crescimento econômico. Alguns países vendem matérias-primas e outros vendem produtos com valor agregado. Inovação é um ponto-chave nessa competição e, em certo sentido, faz uma grande diferença na balança comercial mundial. Tratado de livre comércio é um dos caminhos para atingir diferentes mercados. O Tratado de Livre Comércio (TLC) entre Coreia do Sul e Chile é um bom exemplo de sucesso, tratando-se de acordos comerciais. Coreia do Sul vende produtos de valor agregado para o Chile e o Chile vende matérias-primas para a Coreia, principalmente cobre. Coreia e Chile podem ampliar o seu tratado de livre comércio para um nível mais elevado, qual seja, produzir condutores e semicondutores no Chile através de investimento coreano. A Coreia tem a tecnologia e o Chile pode oferecer vantagens tributárias para as empresas coreanas interessadas em investir no Chile. A partir do Chile, é possível atingir o gigantesco mercado da América do Norte e da América Latina. Esse é um dos caminhos para ampliar o TLC Coreia-Chile.

Palavras-chave: Tratado de Livre Comércio. Inovação. Estratégia de Governo. Resultados e Ampliação.

[1] Student of Doctor's Degree in Hankuk University of Foreign Studies in Seoul, South Korea, and former professor at Feevale University in Novo Hamburgo, Brazil; e-mail: felipemaldaner@yahoo.com.br.

1 INTRODUCTION

It is widely known that, under the current wave of globalization, international trade is a very important issue for countries' development and their sovereignty. A lot of countries only have raw materials to offer to the international community and they export goods with low added value. On the other hand, developed countries with a high level of technology and innovation sell products with high added value.

Technology and innovation of Latin American countries are staying in a low level, mainly because natural resources are abundant in most countries and some countries have a good comparative advantage in the agriculture sector. They are having a success in international trade by selling raw materials now. At the same time, however, these countries have no long-term strategy to invest and develop their own technology, and most of them do not have a developed National System of Innovation.

It is also a well-known fact that a country needs to develop its own technology to grow and achieve the development as the leading countries. But, technology is not simply given by one country to another. And, each country runs on its own way to develop the innovation system, such as South Korea, which is one of the best examples in the world of how to improve its own innovation system.

> Among the cases of success, Japan and Korea are mentioned as paradigms as a result of achievement on the creation of dynamic international enterprises intensive in technology sectors, and, because their exports performance as well as their figures in deposit of patents in US and Europe (ARBIX & MENDONÇA, 2005, p. 236-237).

If a country wants to become a big global player, there are some ways that it needs to pave. First of all, the government strategy needs to be posted. Second, the National System of Innovation must be articulated and this system should necessarily run under the government strategy. Third, it is indispensable that all agents and institutions must be integrated in a big ambience, in which the scientific and engineering basis must be included. And finally, the financing system of the whole project must be presented.

This paper is an attempt to study the Korea-Chile Free Trade Agreement in a sense to know what its history of success is like and how both countries can improve this FTA to reach the higher level in the bilateral relationships.

In the first part, the reason why the Korea-Chile FTA was chosen for this study will be explained. Descriptions regarding the government strategy of development, innovation and the correlated system of Chile will follow. And then, the Korea-Chile FTA will be studied from its history to results. In the final section, suggestions for the improvement of relationships between both countries, Korea and Chile, under the development theory will be discussed.

2 OBJECTIVES AND METHODOLOGY: WHY KOREA-CHILE FTA?

According to Se-jeong Kim, "Trade Minister Kim Jong-hoon also recognized the success of Korea-Chile FTA, which set an example for other free trade negotiations that are either complete or under way (KIM, 2009)". Thus, to simply study this case will neither bring any new point of view nor add anything new. But, the objective of this study is to go over the results and bring another point of view, which is how to improve the actual stage of it.

From the Chilean side, it has great importance to improve its relationship with Korea because Korea is a country with a high level of technology and innovation, and has a high necessity in raw materials. Another noticeable point is that Korea has been transformed into a high-tech country in a very short period of time. From 1980 to 2000, Korea grew rapidly and turned to a major exporter of value added products. In addition, Korea evolved a strong National System of Innovation, from which Chile can study to learn from it.

From the Korean side, to improve its relationship with Chile is fundamental to guarantee that Korea will continue to receive raw materials, especially copper, from Chile.

In short, improving the Korea-Chile FTA to a higher stage is a win-win strategy for both countries in a long term.

The main objective of this paper is to analyze the Korea-Chile FTA, in an attempt to link innovation, trade and technology transfer, focusing on how both countries can improve it for new mutual benefits in the future. The methodology used here is a case study, based on up-to-date bibliographic research.

3 THE GOVERNMENT STRATEGY

The Technology Development stage at which a country is situated depends on its strategy and decision that it has taken in the course of its history. According to Mintzberg & Quinn (2001), strategy is a standard or a plan that integrates the main goals, policies and the actions of an organization.

> In sum, the global leader enterprises are adopting a technology strategy

> that focuses on the company, on the integration of all functions, on their core competences and on the development in core products in which they are global leader, with a strategy of alliances and joint-venture to maintain the competitive advantage, optimizing their economies of scale and scope. The logical of this strategy is associated to the complementary in terms of technology acknowledge (FLEURY; FLEURY, 1997, p. 59).

The framework in Figure 1 shows that a certain structural hierarchy exists in the technology development of a country. The orientation of government strategy is in the first place, which means the directions of its industrial development policy defined in the structural development plans which cannot be confused with economic plans.

The directions of industry, technology and foreign trade policy are delineated from the industrial development policy. All of these policies will be sustained by the financial policy which is determinate in accordance with the government strategy. The next step is to determine S & T (Science and Technology) policy, including the guidelines for several agents, such as universities, research centers and enterprises, in order to have a coordinated actuation among them. The final stage is for a country to achieve the technology development defined in the strategy.

Even though the globalization spreads very fast, the development of a single country is essential to achieve the main objective of the Nation-State, the well-being of its folks. In the capitalist system, the effective means that a country can break the economic circle is innovation, taking advantage of opportunities that occur in the global market. For this, it is fundamental that a country improves the environmental technology, so-called National System of Innovation. According to Porter (1998), the technological change is one of the main points of the concurrency. Economy receives a new impulse with the innovation, and it usually begins from the enterprises which are considered as the dynamo of the innovation. A company wants to achieve a good level of innovation for two main reasons: to gain more profits and to survive in the market competition where the stronger becomes the winner.

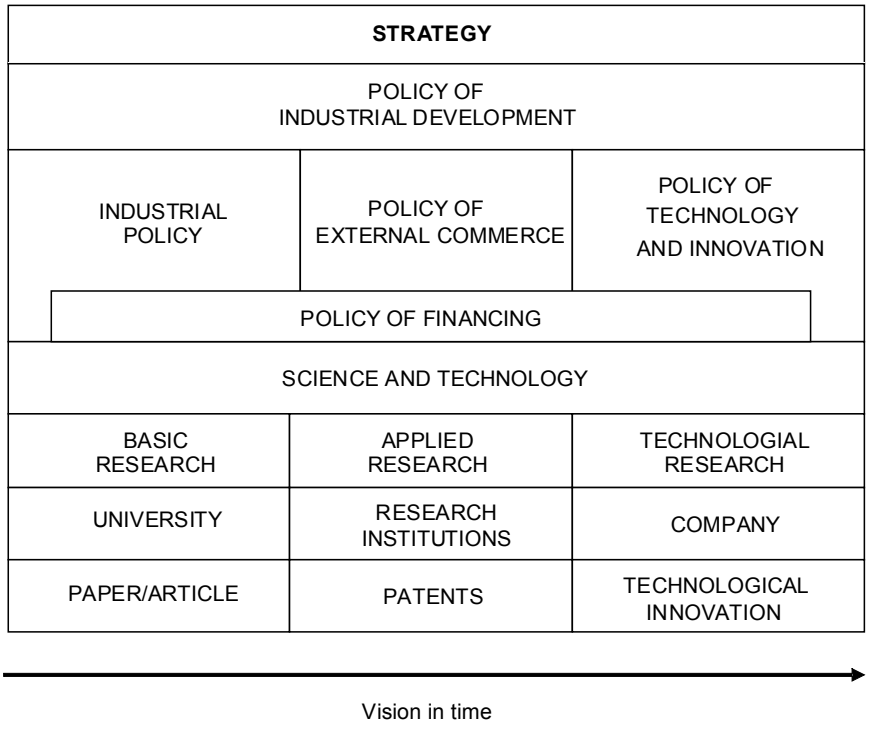

Figure 1 – Framework of the Development Structure of a country
Source: produced by the author (2006)

Coordination of all activities and the articulation among several agents are fundamental pre-requisites to attain the objectives of all of them. And the government cannot abdicate this task in order to avoid the subordination to leading countries, especially, in case of technology innovation.

At the same time, in this framework included is the "policy of external commerce" under the main "policy of industrial development" and all these policies are under the national strategy.

4 NATIONAL SYSTEM OF INNOVATION

Innovation does not occur by fortuity, nor isolated. It is conjunctions of actions and agents that interact among themselves to the affectivity of the changing process, which is, in the Schumpeterian vision, the new element responsible for the trajectory alteration of the economic circle flow. "The National System of Innovation is an institutional construction, a product from a planned and conscious action, which impulses the technology progress in complex capitalists economies" (ALBUQUERQUE, 1996, p. 57).

According to Dahlman & Frischtak (1993), the System of Innovation can be defined as a relationship and interchange network among several institutions and economic agents that work in new technologies. In the emerging economies, the system should include new technology transfers, importation of new equipments and FDI (Foreign Direct Investment), and also public and private investment for the research, development and diffusion of technology innovations.

There are diverse systems in accordance with its own development stages in which each country is situated. According to Albuquerque (1996), innovation systems are divided into three different categories, as shown in Figure 2 below:

1st category	Developed countries, mature systems, close to the technological frontier	United States, Japan, Germany, France and Italy
2nd category	Countries with technological dynamics concentrated in diffusion; small in terms of territory and close to developed countries	Sweden, Denmark, Netherlands, Switzerland, South Korea and Taiwan.
3rd category	Countries with developed C&T, but who have not completed their own system of innovation	Brazil, Argentina, Mexico and India.

Figure 2 – Innovation Systems categories
Source: Albuquerque (1996)

Dutrénit (1994) considers the National System of Innovation as a conjunction of agents, institutions, articulations and social practices associated with innovative activity inside a country. According to the author, the innovative dynamic depends more on the learning process than the resources. And, it is inside the national systems where the learning process occurs and it allows reproduction and feedback to the individual and collective memories, which, in turn, generates conditions to have interactions among agents and organizations, in a kind of *moto-continuous* in which the learning process of innovation is developed. It is important that, according to the author, the technology accumulation happens inside the company and the external ambience of company would be an ideal space where the positive dynamic conditions for the technology innovation are generated.

According to the OECD (Organization for Economic Cooperation and Development) reports (2002), innovation results from a growing complex of local, national and global interactions among individuals, firms and other knowledge institutions. Governments also have strong influence on the innovation process through the financing of public organizations which are involved in knowledge generation, such as universities, research institutions, and also through the financing incentives to all agents involved in the innovation system.

Knowledge has an important role in the economic development, and innovation is in the center of economy. According to the OECD Oslo Manual (2004), innovation is a systemic and complex phenomenon. This systemic concept changes the focus of policy, putting more emphasis on the institutional interactions. Thus, "to this conjunct of institutions and knowledge flow was given the name National System of Innovation (OECD, 2004, p. 17)", an expression, originally created by Freeman (1990) in 1987, is highlighting the concept

of 'national' and the relevance of the articulation among all agents, as such governments, universities, research institutes and enterprises.

5 CHILEAN NATIONAL SYSTEM OF INNOVATION

In the section 3 and 4 above, the recent theory regarding the National System of Innovation, including OECD's perspective, was described. It is significant to connect the theory with a real case to know if any country is working in a recommended way to reach a high level in S, T & I (Science, Technology and Innovation).

Chile has been changed in the latest years. Some may be surprised by the improvement that Chile achieved in its National System of Innovation. First of all, the Chilean government established a solid development strategy in five main areas: "Aquaculture, agribusiness, mining, global services and tourism of special interests. The initial focus is on the first three areas. There are two areas of transversal support, environment and energy, two areas of public interest, education and health, and finally, two fields which are considered as strategic opportunity areas, oceanography and astronomy (CONICYT 2009b, p. 40-47)".

S, T & I policy is delineated from this development strategy. The structure of the Chilean National System of Innovation is shown in the Figure 4. Directly connected with the Chilean government, there are National Council of Innovation and the Inter-ministerial Committee of Innovation. Under this Inter-ministerial Committee, there are two important institutions responsible for carrying out innovation policies. These are: a) CONICYT (Comision Nacional de Investigación Científica & Tecnológica) under the Ministry of Education; b) CORFO (Corporación de Fomento de la Producción de Chile) under the Ministry of Economy. CONICYT is responsible for the projects development in the scientific and technological point of view and CORFO provides financial support.

In addition, there are thirty nine Research Centers in Chile (Figure 3), nine of which are considered as centers of excellence in innovation. These centers are able to receive projects from the private sector to develop new technology according to the law 20.241, which offers tax incentives for companies.

Figure 3 – Research Centers in Chile – 2005 to 2009
Source: Conicyt (2009b, p. 34)

Tax incentives under the law 20.241 can be applied for the companies which pay income tax. Companies can spend 35% of their taxes to carry out the innovation projects in one of those research centers.

Figure 4 - National System of Innovation - the Chilean model
Source: Conicyt (2009a)

Concerning the technology transfer, the Chilean government already posted a regulatory framework in order to take advantages of its high level of worldwide trade agreements. Until 2008, Chile has signed 54 FTAs, showing its trade strategy focused on bilateral agreements.

In 2006, Chile counted 24 projects of technology transfer, as demonstrated in the figure 5 below. Additionally, Chile has increased the number of projects of international cooperation, as shown in the table 1 below. But, it is important to remember that, in case of Chile and Korea, only one science cooperation agreement was signed in 2004 between CONICYT and KFT (Korea Foundation of Technology).

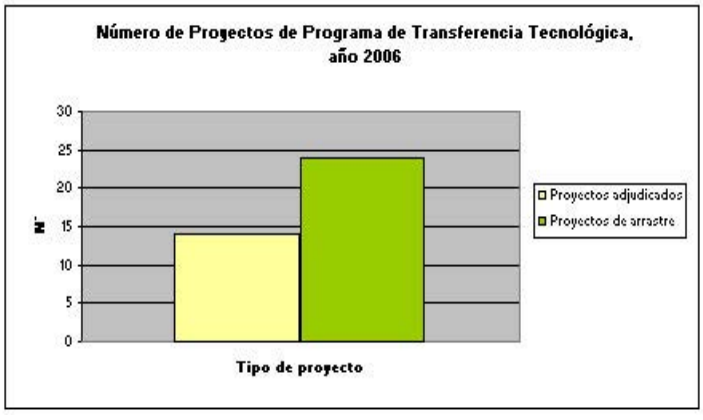

Figure 5 - Chile - Technology transfer - number of projects in 2006
Source: Fondecyt (2009)

Table 1 – Chile - Number of Projects of International Cooperatio

Número de Proyectos de Incentivo a la Cooperación Internacional adjudicados	
año	N°
2001	94
2002	101
2003	90
2004	165
2005	166
2006	174

Source: Fondecyt (2009)

One important point relevant to this discussion is the expenditure of the Chilean government spent for S, T & I, which was only 0,7% of GDP (Gross Domestic Product) in 2007, compared with other developing countries, such as South Korea which spent around 3% of GDP in S, T & I. The Chilean goal for 2010 is to spend 1,1% of GDP and there are several programs running under CORFO's financing in different areas, including mining.

At this point, two question remains unsolved in this paper: 1) What kind of connections can be made between S, T & I, trade and technology transfer?; 2) Why deal all of these in one subject in this paper? First of all, in this global society, international trade is one of the ways to grow economically; Second, a country needs to improve its National System of Innovation to sell value added products in the international market, instead of selling raw materials and natural resources only; Third, one of the ways to improve the innovation system is a technology transfer in the areas where there is a lack of knowledge. Fourth, if a government of certain country wants to take advantage of some kind of trade agreements or FDI agreements, they need to have a good framework regarding technology transfer because to have this agreement only without any regulation in this area means a lost opportunity. And, to include or combine all of these subjects in this paper is an attempt to discuss some kind of improvement that can be accomplished in the Korea-Chile FTA. As Korea is one of the top countries in terms of S, T & I, its partnership with Chile can offer a good opportunity to Chile to receive some new technology.

In the next section, trade theory, trade policy and trade agreements will be discussed, focusing on Korea-Chile FTA.

6 TRADE POLICY AND TRADE AGREEMENTS

A trade theory asserts that benefits come from trade between firms or countries. To understand these benefits, it is necessary to clarify the concepts of absolute advantage, comparative advantage and specialization.

An absolute advantage indicates a producer who can produce the same thing at less cost. According to Mankiw (2009, p. 54), "economists use the term absolute advantage when comparing the productivity of one person, firm, or nation to that of another. The producer that requires a smaller quantity of inputs to produce a good is said to have an absolute advantage in producing that good."

To review the concept of a comparative advantage, it is important to trace back to David Ricardo, a founder of this theory.

> Under a system of perfectly free commerce, each country naturally devotes its capital and labour to such employments as are most beneficial to each. This pursuit of individual advantage is admirably connected with the universal good of the whole. By stimulating industry, by regarding ingenuity, and by using most efficaciously the peculiar powers bestowed by nature, it distributes labor most effectively and most economically (RICARDO, 2006, p. 93).

Ricardo discussed the comparative cost of production in different countries in regard to their capacity to produce items at a low cost. In other words, it is the concept of opportunity cost. "The opportunity cost of some items is what we give up to get that item (MANKIW 2009, p. 54)". It is used to compare two producers. "The producer who gives up less of other goods to produce Good X has the smaller opportunity cost of producing Good X is said to have a comparative advantage in producing it (MANKIW, 2009, p. 55)".

Nowadays, there are some different perspectives

to analyze Free Trade Agreement. On one hand, there are some successful examples of regional FTA, such as NAFTA (North America Free Trade Agreement) and MERCOSUR (Mercado Comun der Sur). On the other hand, there are some examples of bilateral FTAs, such as Korea-Chile, and Korea-US (United States) (not passed in the national assembly).

According to Franko (2007, p. 278), "the theoretical underpinning of free trade is the theory of comparative advantage, which states that countries should trade those goods that they can most efficiently produce to maximize global output ". Each country should produce a kind of products in which it has more productivity. In a certain sense, it means that each country needs to find its vocation for production to become a partner in an agreement of free trade.

The history of Trade Agreement is short. It began in 1950s after the World War II. At that time, "trade negotiations led by the advanced industrial countries under the auspices of GATT, the General Agreement on Tariffs and Trade, greatly reduced tariffs on manufactured goods and created the foundations of the modern trade regime. The GATT (General Agreement on Tariffs and Trade) system was built on the principle of nondiscrimination: countries would not discriminate against other members of GATT (STIGLITZ, 2006, p. 75)".

The Uruguay round in 1986 ended with an agreement signed in Marrakesh on April 15th, 1994. "Under this agreement, GATT, which had 128 countries, was replaced by the World Trade Organization (WTO), which today has 149 countries (STIGLITZ, 2006, p. 75)". Nowadays, WTO is the worldwide organization which has the responsibility to manage, control and judge cases from claiming countries.

According to Franko (2007, p. 242), "trade liberalization without an appropriate exchange rate is dangerous. If a currency is or becomes overvalued and trade barriers are low, the country will face an explosion of imports, and exporters will find it difficult to sell goods internationally. Trade liberalization may also need to be accompanied by short-term incentives from the state for export promotion". This is the case of regional FTA because it means that some tax advantages or different tariffs will be conceded to the foreign companies in the region.

According to Stiglitz (2006, p. 61), NAFTA is a good example of successful regional FTA. "The pact opened up the world's richest country, US, to Mexico." But, it is important to mention that there are a lot of exports from Mexico to the United States based on a system called *maquiladoras*. Maquiladoras is a model established through the agreement between the United States and Mexico in 1965 to give jobs to Mexican people who were laid off from farms in the US when the Bracero Program ended. Maquiladoras is a kind of project that consists of a system of foreign companies, mostly from the United States, which produce manufacture goods to sell in the United States to take advantage from tax incentives and cheap labor. According to Franko (2007), the average wage in Mexico went down in the *maquiladora* region, compared with the wage before the start of this project.

Still, according to Stiglitz (2006), the bilateral strategy has largely failed, and "bilateral trade agreements should be strongly discouraged (STIGLITZ, 2006, p. 97)". A free trade agreement can work to open protected markets, creating new sales opportunities, and have proliferated around the world, counting for 84 percent of trade agreements. Among the 170 trade agreements worldwide, 39 countries involved are from the Western Hemisphere as of 2005. "Chile provides an interesting example of trade liberalization. From an average tariff level of 105 percent at the time of the military coup in 1973, Chile unilaterally implemented a 10 percent tariff rate within four years of the start of the Pinochet government" (FRANKO, 2007, p. 245).

Chile carried it out in five stages from 1974 to 1991 at which the last stage started. From 1991, "Chile began its turn to preferential trading agreements to complement its unilateral liberalization" (FRANKO, 2007, p. 246). In 2008, the goal of Chilean government was to make 60 bilateral FTAs. In September 2008, this number was 54. This record number of bilateral FTAs shows that this strategy is in a correct way, otherwise the government would not put so much efforts on its consecution. One of the consequences is that the Chilean wine is selling almost worldwide. "In this context, Asia Pacific gradually became a relevant focus of interest. To Chilean traditional ties as a supplier of copper and other natural resources, the decade (1990s) brought the consolidation of East Asia as a dynamic pole of the global economy, as an influential force in the adoption of trade and investment regimes in the Pacific economic forum, and an opportunity to cope with post Cold War economic turbulence (GUTIERREZ, 2005, p. 82)"

On the other hand, South Korea has changed its trade policy from 1950 to 1990, as shown on table 2. "Agreements to promote trade were pursued, special economic and trade missions were dispatched to settle various pending economic issues and promote trade, and bilateral trade meetings were encouraged (KIM, 2005, p. 168)".

Globalization in 1990s brought some new challenges to the Korean trade policy and the liberalization process took place. Thus, "as a trade-oriented country and a member of WTO, Korea has become a strong supporter of multilateral trade liberalization (SOHN, 2001, p. 1)"

The Korea-Chile FTA has a long history. From the Korean side, it began in December 1998 when the Korean government formed a special task force which consisted of five specific technical groups covering: market access, trade rules, services, intellectual property and legal procedures. In April of 1999, the first meeting of the high level working groups of both governments was held for FTA negotiations. The second was held in the same year in June. "After two successful high level negotiating meetings, two heads of the states declared the official launch of Korea-Chile FTA negotiations at the APEC (Asia-Pacific Economic Cooperation) summit meeting in September 1999 (SOHN, 2001, p. 8)".

"Three years of negotiations for a Korea-Chile free trade agreement (FTA) was finally completed in October 2002, and the agreement was signed in February 2003 by the two governments after technical wording consultations on its text (KIM, 2003, p. 2)" According to Kim (2003), Chile was an experienced FTA negotiator with nine such agreements concluded at that time with its major trade partners. On the contrary, for Korea, it was the first experience in this kind of deal, but it was very important for Korea to secure the Latin American market, especially considering the huge market in Brazil, Argentina, Mexico, etc, because "the external sector of the Korean economy increasingly depended on the Latin American markets" (KIM, 2003, p. 8).

In the section 7, the results of this agreement for both countries will be discussed.

Table 2 - Evolution of Korea Trade Policy's (1950-90)

	Principle	Direction	Strategy
1950s	Attraction of Foreign Capital	- Strengthening of economic basis through the introduction of foreign capital - import in order to export - secure financial assistance	- Promote the exportation of resources to secure foreign capital - Little interest in multilateral cooperation
1960-1970s	Expansion of Trade	- Mercantilist policy - trade policy based on international competition - export subsidy-import restriction policy	- Stimulate economic growth through exports-import restriction - protection of domestic industry - passive participation in multilateral negotiation
1980s	Market Opening and Liberalization	- Trade liberalization based on multilateral framework-worsening of trade disputes - passive trade opening policy	- Deep interest in trade expansion - acknowledge positive aspects of imports - Focus on the settlement of trade disputes - expansion of market opening - Participate in regional cooperation body (APEC) - focus on bilateral trade negotiation
1990s	Globalization	- Positive-sum strategy based on mutual benefit - active opening and liberalization policy - need for coordination of international trade policy	- Parallel approach of regionalism and multilateralism - overcome crisis through the stimulation of exports and investments - promote FDI and bilateral industrial cooperation - strengthen regional cooperation by adopting FTA policy

Source: Sohn (2001, p. 2)

7 THE EFFECTS OF KOREA-CHILE FTA IN TERMS OF THE AMOUNT OF TRADE TRANSACTION AND PRICES

According to Sohn (2001), the greatest welfare increase (1.73 per cent) is expected in case of comprehensive liberalization. "The real income is also expected to increase in all three cases, though, in case of the exclusion of agriculture, the growth rate will be only half that for comprehensive liberalization.

As seen on the table 3, the expectation in 2003 was very positive on trade balance and on the GDP impact, considering that Chile is not the biggest market in Latin America.

Table 3 – An Expected Economic Effect on the Korea Economy (USD Billion)

	Overall Tariff Liberalization	50% Tariff Reduction in Agriculture	With Agriculture Excluded
Welfare	0.96	0.96	0.95
GDP (%)	0.01	0.01	0.01
Exports1)	0.66	0.66	0.66
Imports1)	0.26	0.25	0.24
Trade Balance	0.4	0.41	0.42

Source: Sohn (2001, p. 9)

On the fourth anniversary of the Korea-Chile FTA, the Chilean Embassy to Korea published a document which illustrates result of this deal from 2003 to 2007. From the year 2000 to 2002, total volume of Chilean export to Korea was decreasing from USD 806.4 million in 2000 to USD 710.5 million in 2002. But, from 2003 (USD 1,033.4 million) to 2007 (USD 3,874.9 million), the total value increased significantly.

In the same direction, exports from Korea to Chile increased from USD 438.4 million in 2002 to USD 3,113.5 million in 2007. This result shows that the Korea-Chile FTA was the decisive factor to increase trade between two countries.

Other important point shown on the table 4 is a tendency of increase in the trade for both sides. Comparing January 2007 with January 2008, exports from Chile to Korea increased a little, and exports from Korea to Chile increased as well.

Table 4 – Korea's share in the Chile's foreign trade

	2000-2007								2007 (Jan)	2008 (Jan)
	2000	2001	2002	2003	2004	2005	2006	2007		
Total Chilean exports	18,456.1	17,606.5	18,355.6	21,158.4	32,024.9	40,573.9	58,116.4	68,295.8	5,879.3	6,045.5
Exports to Korea	806.4	554.3	710.5	1,033.4	1,824.3	2,300.3	3,564.5	3,874.9	450.6	457.9
% share	4.37	3.15	3.87	4.88	5.70	5.67	6.13	5.67	7.66	7.57
Place as export destination	8	10	7	4	4	5	5	5	4	4
(FOB value in million of US$ and percentage)										
Total Chilean imports	18,089.4	17,180.8	17,168.5	19,435.1	24,871.2	32,636.6	38,409.1	46,966.3	2,852.0	4,199.1
Imports from Korea	535.3	540.0	438.4	540.1	698.6	1,076.3	1,640.8	3,113.5	128.1	336.9
% share	2.96	3.14	2.55	2.78	2.81	3.30	4.27	6.63	4.49	8.02
Place as import origin	8	8	9	8	7	8	5	5	5	5
(CIF in million of US$ and percentage)										

Source: Chilean Embassy in South Korea (2009, p. 1)

Another point of view looking into the trade is to know what kinds of products are being sold from one to another. As shown on the table 5, Korea exports to Chile only value added products.

Table 5 - Composition of export from Korea to Chile (USD million)

	2006		2007	
	Value	%	Value	%
Consumer goods (cellular phones, electronics, cars, TV set)	379.0	23.1	675.7	21.7
Intermediate goods (chemicals, polyethylene, iron products)	877.8	53.5	2,195.0	70.5
Capital goods (machinery and equipment)	384.0	23.4	242.8	7.8
TOTAL	1.640.8	100.0	3.113.5	100.0

Source: The Chilean Embassy in Korea Report (2009, p. 2)

On the other hand, Chile exports to Korea raw materials mostly, as shown on the table 6. In 2006, 79% of Chilean exportation to Korea was mining products, especially copper, and in 2007 it grew to 80%, clearly showing a tendency of certain dependency in raw material exportation. In Korea, it is also very easy to find Chilean wine, particularly, after the FTA. It is one good example of Chilean industry exportation.

In the table 7, it is noticeable that the total amount of Chilean wine exported to Korea increased from USD 2,990 million in 2003 to USD 25,496 million in 2007. It was possible only because of the free trade agreement that decreases the importation tax for Chilean wine in Korea.

Table 6 - Composition of Chile exports to Korea (USD million) (continue)

			%	
	2006	**2007**	**2006**	**2007**
I. Agriculture, Fruits, Cattle, Forestry and Fishing	**35.3**	**50.0**	**1.0**	**1.3**
Agriculture, Fruits, Cattle	**31.9**	**47.3**	**0.9**	**1.2**
Agriculture	0.4	0.5	0.0	0.0
Fruits	31.5	46.6	0.9	1.2
Cattle	0.0	0.1	0.0	0.0
Forestry	**0.6**	**2.2**	**0.0**	**0.1**
Fishing	**2.8**	**0.5**	**0.1**	**0.0**
II. Mining	**2,806.5**	**3,077.7**	**79.1**	**80.2**
Copper	2,666.0	2,850.7	75.2	74.3
Others	140.5	227.0	4.0	5.9
III. Industry	**704.3**	**710.0**	**19.9**	**18.5**
Foodstuff, juices, liquors and tobacco Industry	**172.9**	**224.6**	**4.9**	**5.9**
Foodstuff and fodder	156.6	197.5	4.4	5.1
Juices, alcohols and tobacco	16.2	27.1	0.5	0.7
Textile, garment and leather industry	**0.1**	**0.1**	**0.0**	**0.0**
Textiles and garments	0.1	0.1	0.0	0.0
Forestry and wooden furniture	**16.5**	**19.2**	**0.5**	**0.5**
Wood pulp, paper	**118.4**	**204.0**	**3.3**	**5.3**
Basic Chemical products and preparations	**303.5**	**175.5**	**8.6**	**4.6**

(conclusion)

			%	
	2006	2007	2006	2007
Basic iron and steel industry	92.2	86.6	2.6	2.3
Metal products, machinery equipments	0.7	0.1	0.0	0.0
IV. Others	0.1	0.0	0.0	0.0
V. Total Exports	3,546.2	3,837.8	100.0	100.0

Source: The Chilean Embassy in Korea report (2009, p. 2 – 3)

Table 7 - Chile's wine exports to Korea (USD million)

	2003	2004	2005	2006	2007	2008 (Jan)
Total wine imports	45,783	57,979	67,655	88,607	150,364	19,995
Chile	2,990	8,008	11,884	15,376	25,496	3,600
% of market	6.53	13.81	17.57	17.35	16.96	18.00
2nd provider	22,684	26,350	24,967	32,705	59,141	10,025

Source: The Chilean Embassy in Korea report (2009, p. 3)

From the viewpoint of Chilean consumers, there has been an important change in their opportunity to buy high-tech products with tax incentives, considering the context of the table 5. At the same time, Korean companies have the opportunity to purchase raw materials at the competitive price for their production of value added products.

8 RELEVANT POINTS TO IMPROVE THE KOREA-CHILE FTA

First of all, it is necessary to declare that Chile is a surprising country in terms of innovation among the developing countries. Chile possesses a well-delineated development strategy and a very solid National System of Innovation. It is true that Chile has spent much less budget than needed in S, T & I. In 2007, the total amount spent for S, T & I was 0.7% of GDP, compared with South Korea, which spent around 3% of GDP in the same year. But, at the same time, the Chilean government established a new goal for 2010 to raise the budget to 1.1% of GDP in S, T & I.

There are some important points for Chile that could be used to improve Korea-Chile FTA, as below:

a) The position of government in the definition and the implementation of the special strategy for five main areas are already established, three of them as the initial focus. The Chilean development strategy is clear and mining is in the first three;

b) Considering that the development strategy is focusing on mining, the Chilean government has to establish a special strategy to add value for copper;

c) A big investment in education is running under the development strategy. The literacy is approximately 95.3% and there are several programs for master's and doctor's degrees;

d) Chilean companies should strengthen themselves to be prepared for a higher level of partnerships with foreign companies, in this case with Korea companies;

e) A financing program for companies already exists which are operating in the strategic areas of S, T & I.

f) A financing policy is already defined and a special interest rate is applied to the companies which follow the government strategy;

g) Definition of counterparts that the companies should offer to receive the special financing, especially in case of the Korea-Chile joint venture for transforming copper in Chile, should be clarified;

h) In case of Korea-Chile joint venture, the Chilean side must pay special attention to the technology transfer and innovation;

i) There exists already in Chile a National System of Innovation, with full integration among the agents: enterprises, universities, research

institutes and government;

j) Incentives to Chilean companies to make joint venture with foreign companies for technology transfer are desirable;

k) The technology transfer regulatory framework is already posted;

l) Chile already has a government agency, called Pro-Chile, to promote the international trade of Chilean products and it can be fundamental to promote new products that derivates from copper.

9 FINAL CONSIDERATIONS: WHAT KIND OF CHANGE OR REFORM CAN BE MADE ON KOREA-CHILE FTA TO IMPROVE THE ECONOMIC OUTCOME?

It is important to declare that the Korea-Chile FTA is a successful as the figures show. The bilateral trade increased significantly from 2003 to 2007 and the numbers of January 2008 pointed out the tendency of continuous growth.

Thus, there is no suggestion that can be indicated inside the Korea-Chile FTA. But, concerning the Chilean side, it is important to observe that all natural resources are finite. And for Chilean copper, there is no exception. Copper will be finished someday in the future. So, the suggestion that can be made on the current situation is to secure the opportunity of this close partnership with Korea and to promote a big investment in Chile, in a form of joint-venture, to transform copper into a value added product. Because, when a country exports raw material only, jobs are also being exported. It means that the result in the well-being of people of this nation could be better if value added products are exported.

But, at the same time, it is a well-known fact that going over to this new position is not so easy for a developing country. To become a player in the field of value added products exportation is a big task for governments of developing countries. There are some good examples in the world and South Korea is one of them.

Chile already has developed a well oriented National System of Innovation, and it can be a very special advantage to offer South Korea in case of an agreement of investment because it is important for Chilean side to add value to its natural resources, especially copper. And to develop its own technology to transform copper into value added products will be a key issue for their own future.

A big number of bilateral FTA that Chile has signed (54 until September 2008) around the world shows that the Chilean government's development strategy is focused on trade, and the main product that Chile offer to sell is copper as a raw material.

On the other hand, in a personal interview with Chilean Ambassador to Korea, Mr. Adolfo Carafi, he explained that Chilean government has already done a big research in order to know how many companies worldwide are in the business of transforming copper into conductor or semiconductors products. In the result of that research, a number of companies in China, Japan, South Korea and the US are strong competitors in this market.

Even though, for the Chilean government's development strategy, it is very important to remember that in the near future copper will end, and to improve its own technology will be fundamental for the nation's development. A good solution is to make a joint-venture with Korea in order to achieve a superior step on the Korea-Chile FTA, which means to establish a copper conductor company in Chile with Korean investment. Korea has technology and Chile has copper mineral and a well-designed National System of Innovation to offer. Chile can offer human resources, research centers and high level of integration among all agents.

Concerning the market for selling these products, Chile itself is a small market, but it is necessary to consider the huge market in the US and Latin America, which can be reached from Chile by the Korean company investing in Chile.

This essay is an attempt to analyze the Korea-Chile FTA, and to have a look forward in a sense of the improvement that can be posted on it. From the Chilean point of view, it is desirable to add value on copper exportation and, from the Korean side, it can be attractive to invest in Chile to industrialize copper products in Chile where Korea can obtain a good opportunity for the Latin American market. It is important to mention, however, that this subject must be studied deeply to have a big picture of the issue.

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