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FACULTAD DE ECONOMIA

TITULO:

**EFFECTS OF THE GOVERNMENT POLICIES ON THE VARIATION OF
CAR IMPORTS IN ECUADOR**

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NOMBRE DEL ESTUDIANTE: WILSON EDUARDO AGUILAR

JARAMILLO

NOMBRE DEL TUTOR: ING. BILLY ANDRADE

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**EFFECTS OF THE GOVERNMENT POLICIES ON THE VARIATION OF
CAR IMPORTS IN ECUADOR**

Wilson E. Aguilar
Universidad de Especialidades Espíritu Santo (UEES)
Km. 2.5 Vía Puntilla Samborondón.
waguilar@uees.edu.ec

Billy R. Andrade, MSc
Universidad de Especialidades Espíritu Santo (UEES)
Km. 2.5 Vía Puntilla Samborondón.
bandradeg@uees.edu.ec

Abstract

The objective of this research is to analyze the impact of the quantitative quotas imposed by the current Government, and their effect on imports of vehicles in the country. As a first step, the Pearson correlation matrix was performed where some variables such as Gross Domestic Product, quarterly sales, average sale price and oil price were introduced. This was followed by a multiple regression model based on a Log- Log that allowed to observe the variation imports of cars have when the GDP and the quarterly sale of cars change. The results show that there is some impact on imports when the state inserts policies such as quantitative quotas generate a decrease in imports and consequently a fall in vehicle sales.

Key words: Car Imports, Gross Domestic Product (GDP), Ecuadorian Government, dummy variables, safeguards, restrictions.

Introduction

In Ecuador, imports have been very important throughout history because of the jobs they generate, it is part of the engine that boosts the economy.

According to Manuel Gonzales, on an ongoing analysis since 2007 shows that “the price of oil is increasingly related to the growth of the economy, and as one rises the other experiences the same effect. The vision that the economy didn’t depend on oil prices that prevailed in the past had been proved wrong, these variables are concatenated together” (Gonzales, 2015)

The amount of tax reforms that Ecuador has suffered in these 10 years of socialist government, has shown a strong impact on the economy. Tax collection represents the main income in the general budget. but, with every reform adds a long history end up reducing the revenue.

Imports have impact greatly due to the adjustment of many tariffs which have grown steadily, and also to a high protectionism of certain sectors through safeguards that have done nothing more than to make the life of Ecuadorians more expensive, and make their businesses less competitive. They are operating in our country and force others to close their doors because of their low profitability.

(Expreso, 2016)

The automotive industry in Ecuador is of vital importance as it is an important part of the generation of jobs and tax collection in the country. Taking into account these statements, the automotive sector generated more than 90 thousand jobs and taxes approximately 447, 1 million dollars only in 2014.

(Pacific Credit Rating, 2014)

The Ecuadorian automotive industry is made up of importers and national producers. The national production is based on the assembly of cars since the country is not considered manufacturer of parts, the assemblers in our country are Omnibus BB, GM-OBB, MARESA, AYMESA Y CIAUTO, which are producers of Chevrolet, Kia and Great Wall vehicles respectively, although MARESA closed their assembly line in 2015, and acquired a part of the marketer AUTOSHARECORP. The leading brands in the country are Chevrolet, Kia and Hyundai which are the best at selling light trucks. (Pacific Credit Rating, 2014)

In **Annex A1**, we can see the top 10 of the fully armed vehicle importing companies and assemblers in which the BB Bus is the leader, which is dedicated to assembling Chevrolet vehicles that are categorized as the bestselling brand in the country, followed by Neohyundai. It should be noted that the quantitative restrictions were allocated taking into account vehicle billing from companies in 2010. The established restrictions allowed 70% of the invoiced value or quantities sold per importer. In the case of the safeguards that were imposed they ranged from 5% to 45% according to the tariff subheading they had for the cylinders, use and other characteristics. **See Annex A3 and A4.**

Since 2009 in Ecuador, policies have been implemented under the WTO as protectionist, taking into account the deficit of the balance of payments. The first symptom was in January 2009 with the application of safeguards within which the automotive sector was contemplated, lasted a year and in January 2010 were withdrawn. In 2012, the government decided to apply other types of policies, defined as quantitative quotas motivated by the increasing emission of greenhouse gases, and protection of the environment. However, these measures were also

implemented to prevent capital flight, which caused the average prices of Cars and sales fall due to lack of supply. (COMEX, 2012)

This research is essential because it helps to analyze the current situation of international trade in the country; furthermore, it evaluates the effects of the different policies imposed by the current government to the car industry.

The specific objectives are to analyze the multicollinearity between Imports, GDP, and Quarterly car sales, by validating the variables to introduce them in the model. Secondly, to find a regression model to explain Imports in terms of significant independent variables. Finally, to explain the resulting coefficients effects on Car Imports.

Literature Review

Adam Smith in *The Wealth of Nations* published in (1776) conducted several important contributions to theories of international trade, with his Theory of Absolute Advantage Theory and division of labor where clearly indicated that nations are not rich for its resources, but because of the quality life style offered them increase their citizens. Within this theory, Smith observed in some countries the ability of its people and the quality of their products or resources, and realized that in certain places could produce fewer hours the same number of products and the same amount of resources, which he called absolute advantage, that means that each country can specialize in the production of those goods in which it has absolute advantage. (Smith, 1776, pág. 917)

On the other hand, the Smith's model received several criticisms due to the limitations presented in case that a country has absolute advantage over another in all their assets could not trade with each other. Therefore, the theory of David

Ricardo who says it is not necessary that a country has absolute advantage to export a good but simply to have a comparative advantage, which is a condition that it can be categorized as weaker. Ricardian model appointment appears that for a country to export a well is required to have comparative advantage in producing that good, a country exports the good that produces a relatively lower cost compared to other countries (Krugman & Obstfeld, 2006)

The theory of comparative advantage is a fundamental part of the theories of contemporary international trade, basically, following this guideline developed countries aimed to become exporters of intensive capital goods and technology, leaving aside the least developed countries dedicated themselves to only export labor and primary goods at a very low cost, because it was underqualified as well as natural resources among those non - renewable.

Given this discouraging scenario for the less developed countries, where trading conditions were very inequitable emerge new needs to create another negotiation where the nations that trade among themselves, they all perceive the benefits.

New Theories of International Trade

Paul Krugman a renowned economist and Nobel Prize in Economics public his theory based on a current basic concept economies of scale. Which explains clearly that the higher volume of lower production costs is the same, this benefits consumer as It helps supply the product, this same economist boosts the theory of new economic geography. (Krugman & Obstfeld, 2006)

The import substitution model

The model of import substitution has been driven since the 50s by ECLAC which due to market requirements in less developed countries decided to meet and negotiate with governments; This model defines basically replace imports and promote the industrialization of the least developed countries and the basic formula was through tariff barriers which protect the local market managed that imports replace more expensive products from other countries to grow consumption goods local.

Some people refer to as development model inward, take into account the limitations of this model which is that the least developed countries depended on machinery and technology from other countries and are influenced at the level of production by the countries that own the capital. (ECLAC, 1988)

Car Industry

The Ecuadorian automotive industry started the assembly of vehicles in 1973, with a tiny production of 144 units, after a decade its production increased exponentially reaching figures above 12000 units per year. Without a doubt, the technological growth experienced by this industry has contributed to a significant increase in its production, until 2009, 54% of vehicles were imported corresponding to (81,398 units) and 46% were vehicles for assembly in the national industry Which correspond to (56,395 units) of local consumption. (AEADE, 2012)

Starting in 2012, there was a 13% reduction compared to sales recorded the previous year, and then a significant drop in exports to Colombia and Peru

than in 2007 exceeded 26,000 units since 2012 when the averages were introduced. Exports plunged reaching 2015 with 3274 units due to quotas imposed by the central government. (AEADE, 2015)

“It should be noted that the industry Automotive industry has driven other Of the productive sector such as steel, Metallurgical, metalworking, mining, Oil, petrochemical, plastic, Glass, electricity, robotics and computers, Key industries for the development of The vehicles. In this way, the sector Automotive industry integrates different Both for autopartist firms Suppliers of parts and pieces; so As for assemblers who are The signatures that impose the standards Of the chain.” (PROECUADOR, 2017)

Gross Domestic Product

The growth of the gross domestic product in the equator is due in large part to the great oil boom from 2008 to 2015 where they managed to maintain average oil prices that exceeded \$ 100, by the end of 2016 Ecuador closes with a Decrease of -1.5% a historical figure since the country has the dollarized monetary system had not presented decrease in any previous period taking into account that the average prices in those years was around 25 dollars per barrel. (Banco Central del Ecuador, 2016)

Safeguards

“Safeguard measures are defined as “emergency” actions with respect to increased imports of particular products, where such imports have caused or threaten to cause serious injury to the importing Member's domestic industry (Article 2). Such measures, which in broad terms take the form of suspension of

concessions or obligations, can consist of quantitative import restrictions or of duty increases to higher than bound rates. They are one of three types of contingent trade protection measures, along with anti-dumping and countervailing measures, available to WTO Members" (World Trade Organization, 1994)

According to the publication of the newspaper El Universo from Ecuador, they were taxed surcharged 2800 SAFEGUARDS items imported products, for 15 months ranging from March 11, 2015 this as a measure to counter cited price of Ecuadorian crude. These surcharges ranging from 5% to 45% and are applied to meat, dairy, finishes for construction, tools, personal care items, school and office and vehicle accessories are also included. (Diario El Universo, 2015)

This protectionist measure urges the lives of Ecuadorians and plead for many businesses, forcing retrenchment in many companies engaged in import and marketing of these products.

The First Safeguard 2009

Ecuador was authorized by the Andean Community (CAN) to apply safeguards in 2009 with the condition of the tariff preferences that were members of that community, despite criticism after President Rafael Correa said that if not approved they would abandon the Andean Community, this measure was adopted by the national government as a result of falling oil prices to protect the trade balance, also since January of that year the measure restricting imports 627 was taken. (Univero, 2009)

Safeguards does not seem as effective to correct the trade deficit. On the contrary, in the first half of 2009, exports to Colombia in fob prices fell by 20.5%

when compared to the same period last year, while imports from that country fell by just 9.7%. (Vela, 2009)

Safeguards 2015

From Wednesday March 11, 2015, it is in force general safeguard tariff on imports of 2,800 products, for a period of 15 months, with the aim of protecting the balance of payments. In addition, the Ecuadorian Government ratified last Friday removal of the safeguards imposed on Colombia and Peru since the beginning of the year, taken to counteract the effect on the national economy of currency devaluations operated in those neighboring countries. (La Republica Ec, 2015)

Quota or Quantitative Limitation

An import quota is a quantitative limitation of a good imported. Usually these quotas are imposed by the current government and distributed to the companies that imported this type of good. The import quota always affects the price of the imported good. The reasons for the creation of these quantitative quotas or non-tariff measures are the same as for the imposition of safeguards, to protect the domestic industry from serious damage that is duly proven, another reason is to retain the jobs or in the case of the national car industry is to change the marketing structure and surpass the assembly figure on that of imported vehicles completely finished. (Krugman & Obstfeld, 2006)

The restriction on 2012

Between 2007 and 2011 increase the liquidity of the Ecuadorian economy almost 11 billion dollars due to the amount of public spending and rising oil prices, which caused an increase in imports. In June 2012 in the resolution of

COMEX No. 65 and No. 66, the government of Ecuador announced the restriction to import new tariffs and quotas. A total of 106 items with new subheadings with tariffs and quotas 16. (Peña, 2012)

This restriction imposed by the Ecuadorian government in the case of the automotive industry limited the entry of vehicles with a quota in dollars and in units, by which it forced the assemblers and marketers of vehicles to reduce the imports of parts and pieces (vehicles in CDK) or fully completed vehicles (CBU vehicles). The duration of the measure was defined until December 2014 (COMEX, 2012) , but due to the fall in the price of oil and the continued deficit in the balance of payments, it was decided to increase the Term until December 2015.

The quotas on 2016

In 2016 the rules were modified for importers of the automotive industry, according to the COMEX the quantitative restriction would increase for fully armed vehicles (CBU) 280 million or 23285 units, in the case of vehicles in parts and pieces to assemble (CDK) The quota would be 359 million or 58,800 units to assemble that would be distributed among the 4 assemblers of the country, that way it changes the structure of commercialization of vehicles in Ecuador surpassing the percentages of importation by the national assembly, which also underwent a reduction Over the previous year. (Diario El Comercio, 2016)

Methodology

This is a non-experimental and descriptive research, with a quantitative approach, and the method applied in this paper is correlational. In This case, the variables are numeric and in the last period this model enter dummy variables to

compare the relationship between car imports, real GDP and quarterly car sales, in the other hand imports and safeguards and restrictions.

The main source of data was Quarter from January 2009 to December 2016, in 32 observations. Information was used from the Central Bank of Ecuador, the National Secretariat of Customs(SENAE), and the Association of Automotive Companies of Ecuador(AEADE). In order to obtain the gross domestic product (GDP), which corresponds to disposable income and was taken with the base year 2007, the national central bank's statistical information section, National Accounts No. 97, was used to express data from year 2000 to 3rd quarter of 2016. The quarterly vehicle sales variable was obtained from the annual AEADE bulletins. Imports of FOB cars were obtained from disaggregated information from the National Customs Secretariat where it includes vehicles armed in CBU and parts and pieces for assembly CDK. In addition, the interest rate, the average selling price of the best-selling car in Ecuador, and the average quarterly price of oil were taken into account for the model.

Chart 1

Description of the variables

Variable Type	Variable Name	Description	Adopted values	scale
numeric	Car imports	is the total fob car imports, and this variable was obtained in SENAE	currency	scale
numeric	quarterly Car sales	Is the quarterly car sales since 2009 to 2016 and this variable was obtained in AEADE website	quantity	scale
numeric	Gross domestic Product	This is a Quarterly Real GDP, it was obtained in website Central bank of Ecuador	currency	scale
numeric	Restriction 2016	This is a dummy variable, a quantitative quota o restriction 2016 was obtained the period in COMEX website	1 or 0	nominal

In this way, car imports can be defined as the acquisition or purchase of cars totally armed or in pieces that will be selling in Ecuadorian market.

The statistical method to be applied is Pearson correlation analysis, if the correlation coefficient is significant (P-value < 5%) then it would be necessary to make a multiple regression analysis with car imports as dependent variable, quarterly car sales and gross domestic product as independent variables.

During the construction of the correlation matrix where different variables such as oil price, average sale price and additional interest rate of the variables that were left in the model were entered, Annex A2 shows that there are problems of multicollinearity by Which must leave those variables of the model.

The equation with logarithms will be used in the model to obtain measures of elasticity of each of its variables. Both dependent and independent, only in the case of the numerical variables of that form we will obtain a percentage relationship between variables. The method of estimation that will be used is Least Squares and tests will be performed to rule out problems of multicollinearity and autocorrelation. (Wooldridge, 2009)

Results and Analysis

Correlation Analysis

Figure 1

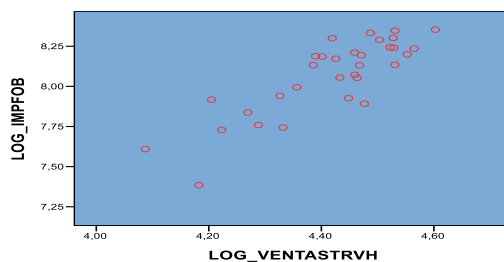


Chart 2

		LOG_VENTAS TRVH
LOG_IMPFOB	Pearson Correlation	,841
	Sig. (2-tailed)	,000
	N	32

Figure 1 shows that the relationship looks positive linear, according to the correlation coefficient = 0,841 is strong. Meaning that as greater of Quarterly Car Sales greater will be the Car FOB Imports.

According to the p-value= 0.000 (reject Ho) there is statistical evidence in favor of significance correlation between Quarterly Car Sales and Car Fob Imports.

Figure 2

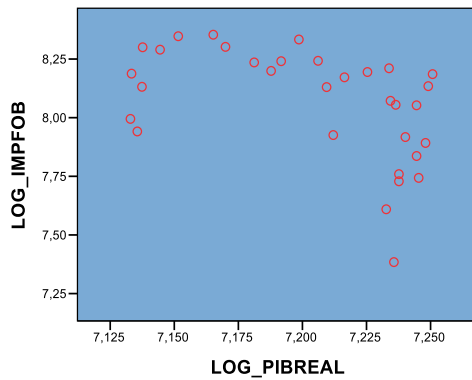


Chart 3

Correlations

	LOG_PIBREAL
LOG_IMPFOB	-,487
	Sig. (2-tailed)
	,005
	32

Figure 2 shows that the relationship looks negative linear between Car FOB Imports and Gross Domestic Product or Disposable Income. According to the correlation coefficient = -0,487 is moderated.

According to the p-value= 0,005 (Reject Ho) there is statistical evidence in favor of significance correlation between Gross Domestic Product and Car Fob Imports.

Chart 4

Correlation Matrix

Correlations

	LOG_IMPFOB	LOG_VENTAS TRVH	LOG_PIBREAL
LOG_IMPFOB	1	,841	-,487
LOG_VENTASTRVH	,841	1	-,290
LOG_PIBREAL	-,487	-,290	1

Multiple Regression Analysis

Chart 5

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,894 ^a	,800	,778	,11108

a. Predictors: (Constant), R2016, LOG_PIBREAL, LOG_VENTASTRVH

Chart 4 shows that the 77,8% of the Car Fob Imports variability is explained by Gross Domestic Product, Quarterly Car Sales and measured 2016. (22,2% of the variability is explained by other variables).

Chart 6

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12,697	3,896		3,259	,003
	LOG_VENTASTRVH	1,173	,225	,613	5,212	,000
	LOG_PIBREAL	-1,359	,507	-,240	-2,682	,012
	R2016	-,162	,083	-,231	-1,955	,061

a. Dependent Variable: LOG_IMPFOB

$$\text{TOTAL CAR FOB Imports} = 12697 + 1,173(\text{Log_ventasTrvh}) - 1,359(\text{Log PIBreal}) - 0,162(R_{2016})$$

WHERE:

Y: Log_IMPFOB: Is a numerical dependent variable that was taken per quarterly from January 2009 to December 2016 and represent the total car fob imports.

Log_VENTASTRVH: is a numerical variable that was taken per quarterly from January 2009 to December 2016.

Log_PIBREAL: Is a numerical variable that was taken per quarterly from January 2009 to December 2016 and represent the disposable income

R2016: is a dummy variable that takes the value of 1 from January 2015 to the present, and zero in all other periods.

The goodness of fit for this model is 77,8%, which is good because the variables of this model can describe the 22,2% (almost total) of the variability of total Car FOB Imports.

The results of the model show that when the quarterly sales of vehicles increase by 1%, FOB imports of vehicles in the country also increased by 1.17%. When real GDP increases by 1%, auto imports have a fall of 1.35%. And when a quantitative restriction on imports is introduced, as was the case in 2016, vehicle imports decrease by 1.62%

Multicollinearity Test

A test of nested models was performed and the GDP was obtained Does not have multicollinearity with the quarterly sale of vehicles. The value p is less than 5% so that none of the variables should be eliminated. (Montgomery, Peck, & Vinning, 2012)

Chart 7

Correlations

	LOG_IMPFOB	LOG_VENTAS TRVH	LOG_PIBREA L
LOG_IMPFOB	1	,841	-,487
LOG_VENTASTRVH	,841	1	-,290
LOG_PIBREAL	-,487	-,290	1

Chart 8

ANOVA ^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,379	3	,460	37,245	,000 ^b
	Residual	,345	28	,012		
	Total	1,724	31			

a. Dependent Variable: LOG_IMPFOB

b. Predictors: (Constant), R2016, LOG_PIBREAL, LOG_VENTASTRVH

Autocorrelation Test

The Durbin-Watson test is used to measure autocorrelation. The results of this test indicate that there was no autocorrelation because values between 1.5 and 2.5 are assumed to be completely independent variables. (Montgomery, Peck, & Vinning, 2012)

Chart 9

Model Summary ^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,894 ^a	,800	,778	,11108	2,144

a. Predictors: (Constant), R2016, LOG_PIBREAL, LOG_VENTASTRVH

b. Dependent Variable: LOG_IMPFOB

Chart 10

Test Normality of residuals

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Unstandardized Residual	,131	32	,175	,954	32	,191

a. Lilliefors Significance Correction

Ho: Residuals Are Normal

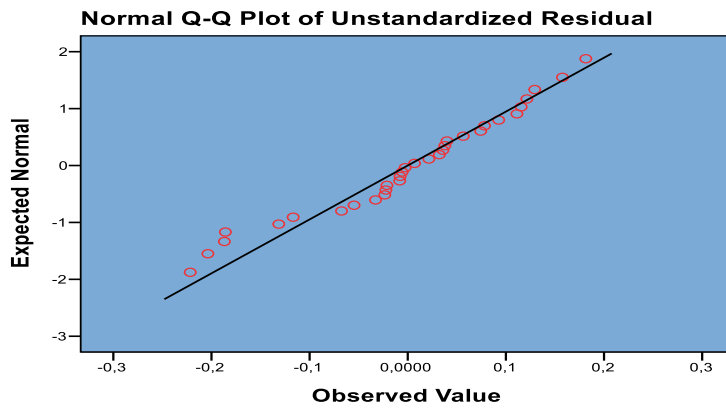
H1: Residuals are not normal

Rule

$P > 10\%$ infer the residual follow a normal distribution.

According to the p-value in Kolmogorov-Smirnov test 17,5% and Shapiro-Wilk test 19,1% then, there is evidence to infer residuals follow a normal distribution.

Figure 4



Conclusion

Since 2012, the structure of the automotive industry has changed, obtaining larger quantities of vehicles assembled in the country than those imported, but this generated a drop-in export, and a considerable loss in sales of the sector that decreased by more than 40 % Ending 2016.

A recovery in sales for the year 2017 is expected to eliminate quantitative quotas and progressively dismantle safeguards, which generates expectations in the sector. Although the measures taken by the government of the citizens' revolution were based on environmental issues, the result of the quantitative quotas with respect to the environment has not been followed up.

This study shows that the statistically significant variables (real GDP) and (quarterly sales of cars) and the results show that despite a growth in the GDP the import of cars has been reduced and that the sale of cars has a positive relation with the increase of imports. In addition, it proves that establishing restrictive policies or tariff barriers such as quantitative quotas represents a decrease in imports.

References

- AEADE. (2012, DICIEMBRE). *ASOCIACION DE EMPRESAS AUTOMOTRICES DEL ECUADOR*. Retrieved from ANUARIO 2012: <http://aeade.net/wp-content/uploads/2016/11/ANUARIO-2012.pdf>
- AEADE. (2015, Diciembre). *Asociación de Empresas Automotrices del Ecuador (AEADE)*. Retrieved from ANUARIO 2015: <http://aeade.net/wp-content/uploads/2016/11/ANUARIO-2015.pdf>
- Banco Central del Ecuador. (2016, 12 31). *Banco Central del Ecuador*. Retrieved from Cuentas Nacionales Trimestrales: www.bce.gob.ec
- COMEX. (2012, 03 26). RESOLUCION No.65.
- COMEX. (2015, Diciembre). RESOLUCION No 51. Quito.
- Diario El Comercio. (2016, 01 8). *Así están las reglas para importar autos al Ecuador en el 2016*. Retrieved from <http://www.elcomercio.com/actualidad/ecuador-reglas-importacion-autos-aduana.html>
- Diario El Universo. (2015, March 11). *DIARIO EL UNIVERSO*. Retrieved from <http://www.eluniverso.com/noticias/2015/03/11/nota/4648221/lista-2800-partidas-productos-importados-gravados-sobretasa>
- ECLAC. (1988, December). *Cepal*. Retrieved from http://repositorio.cepal.org/bitstream/handle/11362/10268/361792031_en.pdf?sequence=1&isAllowed=y
- Expreso, D. E. (2016, February 02). *Expreso.ec*. Retrieved from http://expreso.ec/economia/han-cerrado-40-empresas-grandes-IYGR_8856922
- Gonzales, M. (2015, October 8). *Economía en Jeep*. Retrieved from <http://economiaenjeep.blogspot.com/2015/10/correlacion-entre-el-precio-del.html>
- Krugman, P., & Obstfeld, M. (2006). *Economía Internacional Teoría y Política*. Madrid: Pearson Educacion S.A. Retrieved from http://webdelprofesor.ula.ve/economia/oscarded/materias/E_E_Mundial/Economia_Internacional_Krugman_Obstfeld.pdf
- La Republica Ec. (2015, March 11). *La Republica*. Retrieved from <http://www.larepublica.ec/blog/economia/2015/03/11/ecuador-tiene-nueva-salvaguardia-arancelaria-desde-hoy/>
- Peña, E. (2012, July). *CAMARA DE COMERCIO DE GUAYAQUIL*. Retrieved from <http://www.lacamara.org/website/images/boletines/2012%20julio%20be%20ccg%20inicio%20del%20comercio%20regulado.pdf>
- PROECUADOR. (2017, FEBRERO 28). *ANALISIS SECTORIAL AUTOMOTRIZ 2017*. Retrieved from PROECUADOR: <http://www.proecuador.gob.ec/wp-content/uploads/2017/02/PERFIL-AUTOMOTRIZ-FINAL.pdf>

SENAE. (2016, DICIEMBRE 31). *SECRETARIA NACIONAL DE ADUANAS*. Retrieved from
SENAE ESTADISTICAS DE IMPORTACIONES: www.senae.gob.ec

Smith, A. (1776). *Investigacion Sobre la Naturaleza y Causas de la Riqueza de las Naciones*. Mexico: Fondo de Cultura Economica.

Universo, D. E. (2009, March 28). CAN aprobó salvaguardia de Ecuador, pese a quejas.

Vela, M. D. (2009). SALVAGUARDIA artificio que limita el comercio. *Revista Gestion*, 14-21.

Wooldridge, J. M. (2009). Transformaciones logaritmicas. In J. M. Wooldridge, *Introducción a la Econometría. Un enfoque moderno, 4ta Edicion* (pp. 765-770). Michigan: South-Western.

World trade Organization. (1994). *World trade Organization*. Retrieved from
https://www.wto.org/english/tratop_e/safeg_e/safeg_info_e.htm#top

Annex

Annex A1

TOP 10 EMPRESAS

Nombre	FOB	Q	%
OMNIBUS BB TRANSPORTES .	1.975.450.067	277.086	26,63%
NEGOCIOS AUTOMOTRICES N.	962.843.975	105.512	12,98%
AYMESA S.A..	828.218.285	111.950	11,17%
AUTOMOTORES Y ANEXOS S..	767.546.809	76.234	10,35%
GENERAL MOTORS DEL ECUA.	381.341.074	44.358	5,14%
AEKIA S.A..	357.453.278	41.412	4,82%
QUITO MOTORS S.A. COMER.	325.433.822	17.923	4,39%
TOYOTA DEL ECUADOR S.A..	246.210.056	15.521	3,32%
MANUFACTURAS ARMADURIAS.	180.211.854	12.844	2,43%
FISUM S.A..	143.675.145	14.308	1,94%
LOS DEMAS.	1.248.539.671	94.442	16,83%
Totales	7.416.924.055	811.590	100%

(SENAE, 2016)

Annex A2

Correlations

	LOG_IMPFOB	LOG_VENTAS TRVH	LOG_PRECIO PETR	LOG_PRECIO VEH	LOG_PIBREA L	LOG_PIB\$
LOG_IMPFOB	1	,841 **	,655 **	-,674 **	-,487 **	-,487 **
LOG_VENTASTRVH	,841 **	1	,837 **	-,606 **	-,290	-,290
LOG_PRECIOPETR	,655 **	,837 **	1	-,538 **	-,155	-,155
LOG_PRECIOVEH	-,674 **	-,606 **	-,538 **	1	,854 **	,854 **
LOG_PIBREAL	-,487 **	-,290	-,155	,854 **	1	1,000 **
LOG_PIB\$	-,487 **	-,290	-,155	,854 **	1,000 **	1

** Correlation is significant at the 0.01 level (2-tailed).

Boletín de Comercio Exterior

N° 362
Febrero 2016

aquellos países con los que Ecuador mantiene acuerdos comerciales.

La medida impuesta tendrá vigencia hasta el 31 de diciembre de 2016.

Fuente: Registro Oficial 677 de enero 26 de 2016

SE ESTABLECE CUOTA GLOBAL PARA IMPORTACIÓN DE VEHÍCULOS

Con Resolución 050-2015 de diciembre 30 de 2015, el Comité de Comercio Exterior (Comex), entre otras disposiciones, estableció una cuota global para la importación de vehículos equivalente a \$655'680.927,37 en valor FOB, que no podrá superar el total de 84.555 unidades físicas, distribuidas en:

- a) \$280'680.927,37 en valor FOB correspondiente a 23.285 unidades comerciales para la importación de vehículos completamente armados (CBU) clasificados en las subpartidas: 8703210099, 8703221090, 8703229090, 8703231090, 8703239090, 8703241090, 8703249090, 8703319099, 8703321090, 8703329090, 8703331090, 8703339090, 8703900029, 8703900099, 8704211099, 8704311099, 8704900029 y 8704900099, lo que suceda primero.
- b) \$359'138.973,45 en valor FOB correspondiente a 58.867 unidades para la importación de vehículos por ensamblar (CKD) clasificados en las subpartidas: 8703210080, 8703221080, 8703229080, 8703231080, 8703239080, 8703241080, 8703249080, 8703311080, 8703319080, 8703321080, 8703329080, 8703331080, 8703339080, 8703900021, 8703900091, 8704211080, 8704311080, 8704900021, 8704900091 y 8706009180, lo que suceda primero.
- c) \$15'861.026,55 en valor FOB correspondiente a 2.403 unidades para la importación de CKD de chasis de vehículos clasificados en las subpartidas: 8706001080 y 8706002180, lo que suceda primero.

Por tratarse de una restricción amparada en las normas excepcionales del Acuerdo General sobre Aranceles Aduaneros y Comercio de la OMC (GATT), de la Comunidad Andina y del Tratado de Montevideo de 1980, invocadas en los considerandos de esta resolución, todas las importaciones de las mercancías señaladas, provenientes de cualquier país, deberán cumplir con la cuota global impuesta; incluidas las provenientes de aquellos países con los que Ecuador mantiene acuerdos comerciales.

Annex A4

RUC	Consignatario	Partida Arancelaria	Cuota anual en dólares (FOB)	Cupo anual en unidades
0190341992001	SURAMERICANA DE MOTORES MOTSUR CIA. LTDA.	8703210080	402.561,00	361
1790023931001	AYMESA S.A.	8703229080	14.194.766,34	2.700
1790023931001	AYMESA S.A.	8703239080	30.964.045,96	3.852
1790233979001	OMNIBUS BB TRANSPORTES S.A.	8703229080	48.609.035,89	10.914
1790233979001	OMNIBUS BB TRANSPORTES S.A.	8703231080	32.310.536,10	3.229
1790233979001	OMNIBUS BB TRANSPORTES S.A.	8703239080	164.212.515,92	21.001
1790233979001	OMNIBUS BB TRANSPORTES S.A.	8704211080	61.885.438,88	9.062
1790233979001	OMNIBUS BB TRANSPORTES S.A.	8704311080	25.988.041,55	5.846
1790279901001	MANUFACTURAS ARMADURIAS Y REPUESTOS ECUATORIANOS S.A. MARESA	8704211080	18.130.497,11	3.240
1790279901001	MANUFACTURAS ARMADURIAS Y REPUESTOS ECUATORIANOS S.A. MARESA	8704311080	51.131.312,36	15.392
1792014166001	UNNOMOTORS CIA. LTDA.	8703210080	338.323,50	510

Annex A5

% de Producto Ecuatoriano Incorporado	Arancel a pagar Ad valorem	Observaciones
<5	35,00%	
5	17,50%	
6	16,63%	
7	15,75%	
8	14,88%	
9	14,00%	
10	13,13%	
11	12,25%	
12	11,38%	
13	10,50%	
14	9,63%	
15	8,75%	
16	7,88%	
17	7,00%	
18	6,13%	
19	5,25%	
20	4,38%	Arancel mínimo a pagar

Annex A7

SUBPARTIDAS 8704311080, 8704211080, 8703229080, 8703210080, 8703900080, 8703331080, 8703329080, 8703900092, 8703339080, 8703221080, 8704900092, 8703311080, 8706009180, 8703319080, 8703321080.		
% de Producto Ecuatoriano Incorporado	Arancel a pagar Ad valorem	Observaciones
<5	40%	
5	20%	
6	19%	
7	18%	
8	17%	
9	16%	
10	15%	
11	14%	
12	13%	
13	12%	
14	11%	
15	10%	
16	9%	
17	8%	
18	7%	
19	6%	
20	5%	Arancel mínimo a pagar