# Analysis of Chuquisaca's participation in the evolution of the trade balance

# Análisis de la participación de Chuquisaca en la evolución de la balanza comercial

ROLLANO, Emma\*†

Universidad Mayor Real y Pontificia de San Francisco Xavier de Chuquisaca – Unidad de Producción Científica y Tecnológica. Calle Junín esquina Estudiantes. Bolivia.

ID 1st Author: Emma, Rollano

**DOI**: 10.35429/JPE.2022.11.6.24.31

Received July 25, 2022; Accepted December 30, 2022

#### **Abstract**

# Analysis of the current situation from the economic approach, the department of Chuquisaca serves as showing the scope of work projected on a macroeconomic analysis to establish quantifiable parameters from the analysis of participation in the trade balance: appending points sequentially as foreign trade in goods and services, market access, its impact on exports and imports, trade opportunities incidence in the last five years.

# Trade balance, Imports, Exports, Market, Economic analysis

## Resumen

Análisis de la situación actual desde el enfoque económico, el departamento de Chuquisaca sirve como muestra del alcance del trabajo proyectado sobre un análisis macroeconómico para establecer parámetros cuantificables a partir del análisis de la participación en la balanza comercial: anexando secuencialmente puntos como comercio exterior de bienes y servicios, acceso a mercados, su incidencia en las exportaciones e importaciones, incidencia de oportunidades comerciales en los últimos cinco años.

Balanza comercial, Importaciones, Exportaciones, Mercado, Análisis económic

**Citation:** ROLLANO, Emma. Analysis of Chuquisaca's participation in the evolution of the trade balance. Journal-Public Economy. 2022. 6-11:24-31.

<sup>\*</sup> Correspondence to Author (E-mail: emmily\_llanos@gmail.com)

 $<sup>\</sup>dagger$  Researcher contributing as first author.

Introduction

This article shows an evolutionary analysis of the participation of Chuquisaca in the trade balance, the economic changes will help to focus strategies from the current situation to project new transcendental changes, their importance and their impact on economic growth.

The main objective of this work is to analyse the economic behaviour of the balance of trade during the period 2008-2013, identifying the changes that occurred before and after in the CB (Balance of Trade) in the period 2008-2013; sectors of the economy to which it is oriented and what are the challenges for the Department to generate growth and capture income.

The first part of the analysis is based on statistical data provided by the INE (Instituto Nacional de Estadística), its development based on the department's economic data.

Finally, it is summarised in 4 moments that denote the present analysis.

# **Economic and economic situation**

Chuquisaca's economy is based mainly on the external sales of hydrocarbons, but also on agriculture, livestock and tourism.

Tourist attractions include: the old town of Sucre, with buildings dating back to the 16th century, the Cretaceous Park, and museums.

The economy of Chuquisaca is developing gradually. In 2013, for example, Chuquisaca's trade balance showed a downward trend, so that regional exports fell by 56.98% compared to 2012, a year when the trade surplus almost doubled thanks to the dizzying growth of the hydrocarbons sector.

According to an assessment by the Economic Analysis Unit of the Federation of Private Businessmen of Chuquisaca (FEPCH), the export sector at the departmental level showed a considerable decrease, although it does not explain the reasons. In 2012, regional exports amounted to \$451.65 million, while in 2013 they fell to \$194.30 million.

Chuquisaca's share at the national level represented just 1.61% of the total volume exported by the country in 2013.In 2012, the region contributed 3.89% of total exports.

At the import level, likewise, the sector presented a decrease of 41.30% during 2013 with respect to 2012, when the imported value reached \$41.73 million. The figures for regional imports are also of little significance in the national context. They approximated 0.28% during 2013, which is lower than the figure recorded in 2012, when there was an intervention of 0.44%.

# Theoretical framework

The trade balance

Understood as the difference of what is exported minus what is imported. The trade balance is the record of a country's imports and exports during a period.

The balance of trade is the difference between exports and imports. It is the difference between the goods a country sells abroad and the goods it buys from other countries.

There are two types: negative, which is when the value of exports is lower than the value of imports, a situation that typically occurs in developing countries, and positive, which is when the value of exports is higher than the value of imports. Typical scenario for industrialised countries among others.

Imports are purchases by a country's citizens, businesses or government of goods and services that are produced in other countries and brought from those other countries into the country.

Exports are goods or services produced in the country, which are sold and then shipped to customers in other countries and counties.

The trade balance is defined as the difference between total exports minus total imports into the country.

This difference, depending on what the imports and exports are at a given time, could be positive (which is called trade surplus) or negative (which is called trade deficit).

Mining, especially gold, grew four times more than in 2011. In relative terms, it increased by 321%, reflecting the fact that gold sales abroad were not only higher, but also compensated for the fall in the rest of the

exported sectors.

By country of destination, in 2012 exports from Chuquisaca to the United States represented 64.59%, Brazil 22.85% and Mexico 0.38% of total exports.

In recent years, Bolivian exports have increased sharply, so much so that in 2011 the total was slightly more than US\$ 9 billion. Exports of minerals and hydrocarbons, i.e. traditional products, grew by 43.4 per cent and 37.6 per cent respectively. However, non-traditional products decreased in value by 1.5 per cent.

	Adm. Publica	Electricidad Gas y Agua	Id Manufactureras		Serv Financieros	Restaurant
0,00+		1				
1,00						
2,00						2,60
3,00					3,00	2.60
4,00			4,20	4,20	2 60	
5,00		5,40				
6,00		E 40				
7,00						
8,00						
9,00	9,30					
10,00 —						

Graphic 1 Growth of economic activities

# **Imports**

In 2012, the value of imports by customs of the department of Chuquisaca reached US\$ 46 million, which represented 0.5% of the total value of imports of Bolivia and registered an increase of 38.9% compared to the 2011 period. According to the Classification by Major Economic Categories

Economic Categories, imports of Capital Goods by customs of the Department of Chuquisaca, recorded a positive variation of 234.4%, Industrial Supplies 59.2% and Consumer Goods 5.5%. On the contrary, the rest of the categories showed a negative variation; Transport Equipment -41.8% and Food and Beverages with -3%.

Imports by border entry routes were through Iquique - Pisiga, showing a positive variation of 688.4% and a 69.6% share in total imports. Spain was the country of origin with a 31% share of total imports in 2012.

A deficit is said to exist when one quantity is less than another with which it is compared. We can therefore say that a trade deficit exists when the quantity of goods and services a country exports is less than the quantity of goods it imports. Conversely, a trade surplus implies that the amount of goods and services a country exports is greater than the amount of goods it imports. If net exports are zero, its exports and imports are exactly equal, the country is said to have balanced trade.

Deficit	Surplus	Balanced trade
Quantity is less	Quantity of goods	Equal quantities
than		
other	imported	

Table 1 Growth

According to (GARCIA, 2011), Bolivia's economic activity is the exploitation of hydrocarbons (gas and oil) and has turned Bolivia into an exporter of gas to Brazil and Argentina.

It should be noted that the largest flows of foreign investment in Bolivia in recent years have been in this sector, with Spain and Brazil being the largest investors. Brazil is an important mining producer. Bolivia is the world's fourth largest tin producer and has one of the largest lithium reserves in the world. It also has large reserves of gold, silver, antimony, copper, zinc, lead, sulphur, potassium, lithium, borates and semi-precious stones.

Economic movement of Chuquisaca exports and imports

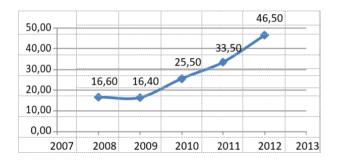
# **Exports**

In 2012, exports from the department of Chuquisaca reached US\$ 452 million (4% contribution to the national total).

million (4% contribution to the national total) growing by 85% compared to 2011, due to mining and natural gas sales which represent 65.3% and 33.4%, respectively of the exports made by this department and the rest (1.4%) comprises Cocoa, Wood and Leather. Nontraditional exports include sales of cocoa (\$US 33,000) and timber (\$US 20,000).

During 2012, imports by customs of the Department of Chuquisaca by road transport represented 97.1%, registering a positive variation of 122.5% compared to 2011, and imports by air showed an increase of 23.8%.

In the first quarter of 2013, the USA was the main destination of exports from Chuquisaca (47 million dollars, in purchases of minerals and hats). Argentina (31 million) and Brazil (12 million) - buyers of natural gas - followed in importance. Chuquisaca imported 403 products during the first quarter of 2013, with purchases of industrial supplies standing out. The 10 main imported products accounted for 77% of the total, with road tractors being the main purchases (29% of the total) (INE, 2012). (INE, 2012).



**Graphic 2** Evolution of Imports by management (In million dollars)

Foreign trade of goods and services

# Foreign Trade of Chuquisaca

The Department of Chuquisaca exported 1,174 million US dollars during the period 2008-2012, while its imports amounted to 137 million, leaving a positive balance of 1,037 million.

In 2012, Chuquisaca had a 4% share of the country's total exports. In the first quarter of 2013, Chuquisaca exported only six products to the world, the main sales being gold waste (US\$47 million), while sales of natural gas (US\$37 million) were second. Crude petroleum oils (6 million), hat shells (1 million), oregano (230,000), and zinc ore (202,000) were also exported.

Chuquisaca: 10 main imported products. First quarter of 2013 (In US dollars)

Products \$US Road tractors for semitrailers 1.813.566. Balls and similar articles for mills 896,898. Machines for mixing ore with asphalt 428,700-Boils for combing wool or fine hair 417.342.Electric accumulators 248,800.Parts 322,173.Multi-ply bags machines and apparatus for classifying. screening, separating, earth, stone and other solid mineral matter 215. 964. Carpets and other floor coverings 165.048. Bricks, plates, tiles and building similar ceramic blocks 141.594.Mechanical shovels, excavators and loaders 139.730. Other products (393 products) 1.435.151.

### Market access

The domestic market in Chuquisaca is sustainable as there is a relatively acceptable economic movement, however, it is demonstrated that in terms of exports and imports in the last five years there have been certain implications.

In terms of trade surplus, new companies are born, gas exportation, credits that exceed and relatively the economic policies of the department are being sought to improve.



Figure 1 Incentive strategies in the competitive market

# Impact on exports and imports

Chuquisaca's main driver is the public sector, which is responsible for promoting policies that balance the distribution of wealth, the regulation and provision of public services, the formulation of policies and programmes for local and regional economic development, but there are also other actors that interrelate with each other in order to promote this impact.

The private sector

It is one of these actors that intervenes in this process, through active participation in the proposal of policies and concerted strategies that make possible the dynamisation and promotion of the local economy, constituting one of the main engines to achieve the objectives of sustainable and inclusive growth, within what corresponds to the departmental economic development.

# Commercial opportunities

The challenges of the competitive marketplace contain major responses that emerge from the needs. Agribusiness, cooperative tourism, reengineering processes, growth.

Quality and excellence in their products and services, social responsibility, respect for the environment, generation of employment and generation of added value were also taken into account.

The award aims to identify and reward departmental companies that, having achieved success, have an ambitious growth plan ahead of them and are able to generate employment.

### Materials and methods

Statistical analysis of trade balance

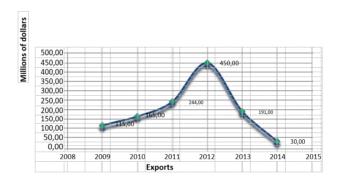
Factors that could influence exports, imports depend on:

- Consumers' tastes for domestic goods and for foreign goods.
- The prices of goods at home and abroad.
- The exchange rates at which individuals can use domestic currency to buy foreign currencies.
- The incomes of domestic and foreign consumers.
- The cost of transporting goods from one country to another.
- Government policy with respect to international trade
- The Balance of Trade is very important especially because nowadays,

ISSN 2524-2016 RINOE® All rights reserved countries are open economies, i.e. they trade and provide services abroad. In this exchange there are imports and exports. This is what the balance of trade is, "knowing how to balance imports and exports". It is important because it governs the development of a country, its GDP.

# **Exports**

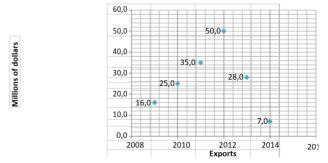
The department of Chuquisaca until 2012 reached 451.65 million dollars. The main exported products were: Scrap and Amalgam of precious metal 290.81 million dollars, Natural Gas 150.51 million dollars and Felt Hats 5.38 million dollars.



Graphic 3 Chuquisaca: Trade Balance. Period 2009-2013 and progress to March 2014

### *Imports*

The department of Chuquisaca in the period 2012, reached 46.48 million dollars. The entry of products through the Department's border routes with Chile presented the highest value of imports with 40.15 million dollars and Pisiga was the main entry route with 32.35 million dollars, followed by Tambo Quemado with 7.80 million dollars. (Molina, R Sandoval, 2007).



Graphic 4 Exports from Chuquisaca decreased by 56.98% in 2013 Economic Activity

The economy of the Department of Chuquisaca is mainly based on the external sales of hydrocarbons; however, agriculture, cattle raising and tourism are also important.

ROLLANO. Emma. Analysis of Chuquisaca's participation in the evolution of the trade balance. Journal-Public Economy. 2022

The main tourist attractions are: the old part of the city of Sucre, with buildings dating back to the 16th century in perfect condition, as well as the Cretaceous Park, a palaeontological exhibition with more than 5000 dinosaur footprints and life-size replicas of extinct reptiles. (R, 2014).

General data G	eneral data
PIB	USD 2049
GDP per capita	8,7%
GDP growth	3,41 M
Inflation	1033 thousand barrels
Oil Production	46523 million cubic
	cubic feet
ZIC productionZIC production	

Table 2 General data

Gross Domestic Product (GDP)

On the other hand, the composition of the departmental GDP for 2012, as 2013 is not available, showed the weight of the agricultural sector (agriculture, livestock and forestry) in the regional economic activity, which represents 18% of the total, followed by Manufacturing Industries with 17% and Public Administration Services and Mining and Quarrying, both with 14%, among the most representative.

The sectors that experienced significant growth, such as Mining and Quarrying, registered the highest increase (66.20%), followed by Financial Establishments, Insurance and Real Estate (11.63%) and Construction (8.02%), among the most important.

Composition of Departmental GDP					
Agricultural sector	18%				
Manufacturing	17%				
Services					
from	14%				
Administration					
Public Administration and Mining					
and Quarrying					
Quarrying					

Table 3 GDP

On the contrary, the sector that presented a negative trend in its activity was transport, storage and communications, which registered a decrease of 2.23%.

The sectors that show the lowest contribution to the departmental GDP are represented by communal, personal and domestic services; construction; restaurants and hotels; electricity, gas and water, which together represent only 10% of the total value. Regarding GDP per capita, for 2012 it amounted to Bs 12,773 (\$ 1,835), higher than the figure recorded in 2011, which was Bs 10,928 (\$ 1,563).

#### Business base

Chuquisaca is looking for markets to become competitive and bet on new ventures, as the government also helps with financing for investment projects that favour the public and private sector in the department.

In 2013, the legally established business base in Chuquisaca registered a total of 5,120 companies, an increase of 106.95% over the previous year. At the national level, Chuquisaca's share only represents 4.16%, ranking seventh in the national business base.

#### Public investment

Public investment doubled from 47 million dollars annually between 200-2005 to 98 million dollars between 2006-2011.

With public investment, works are carried out to benefit the population with schools, health posts, bridges, roads and others (finances, 2013).

Chuquisaca's participation in the national context, the public investment budget for 2013 represents only 5.63%, being one of the lowest at the national level, however, in 2013 the public investment budget for Chuquisaca increased by 76.55%, so that from Bs 1,170 million recorded in 2012, the figure rose to more than Bs 2,066 million in 2013. As for budget execution, in 2013 only 65.73% of the investment programmed for that management was executed.

# **Results**

The implication of the evolution of Chuquisaca's participation in the trade balance in recent years has been relatively positive, as previous studies and reports have shown structural changes in Chuquisaca's economy.



Figure 3 Analysis changes implication effect

Doing this analysis implies referring to substantial facts that managed to demonstrate that there was an evolution in the changes of the Balance of Trade in Chuquisaca; which leads to face new dynamic policies in motion.

### **Conclusions**

- The relevance of information from the analysis facilitates the changes that can be generated in the macroeconomic policy of the department.
- The identification of variables will contribute to the management and monitoring of action plans in a systematic way to public and private actors in decision making.
- The dynamics in the economic sector generates and implies the adaptation of sustainable strategies to face all kinds of changes.
- The quantitative and qualitative analysis of the trade balance makes it possible to evaluate the effects and their adaptation to the economic conjunctural realities.

# References

Aduana Nacional de Bolivia

Aguilar Gómez, A., Rodríguez, Z., Freedman, A., López, R., Raich, J., Ewel, J., ... & Fundación para la Capacitación e Investigación Aplicada a la Reforma Agraria, Quito (Ecuador)>... (1991). Informe de consultoría: inventario de proyectos de desarrollo alternativo: modelo de desarrollo alternativo orientado al sector exportador. Boletin Bibliográfico-Centro Nacional para el Desarrollo de la Mujer y Fanilia (Costa Rica), (2).

Banco Central de Bolivia

Cámara de Exportadores de Santa Cruz

Cámara Nacional de Comercio de Bolivia

Cámara Nacional de Exportadores de Bolivia

Centro de Promoción Bolivia (CEPROBOL)

114

Conti, V. E. (2003). Estrategias mercantiles, redes y migraciones de comerciantes durante el período rosista. Cuadernos de la Facultad de Humanidades y Ciencias Sociales. Universidad Nacional de Jujuy, (21), 59-73.

Coronado, P., & Aguayo, E. (2002). Inversión pública e inversión Privada en Bolivia. Población, 8, 137-000.

DE CIRCULAR, T. I. P. O., DE ORIGENINCOTERMS, A. I. N., DE ORIGEN, C. E. R. T. I. F. I. C. A. C. I. O. N. E. S., DE MINERALES, C. O. T. I. Z. A. C. I. Ó. N., MONETARIA, C., LEY, A.,

... & DUCTOS, E. P. DISPOSICIONES ADUANERAS POR TIPOS LISTADO DE TIPOS DE CIRCULARES.

De circular, t. i. p. o., de origen-incoterms, a. i. n., de origen, c. e. r. t. i. f. i. c. a. c. i. o. n. e. s., de minerales, c. o. t. i. z. a. c. i. ó. n., monetaria, c., ley, a., ... & ductos, e. p. disposiciones aduaneras por tipos listado de tipos de circulares.

De origen-incoterms, a. i. n., de origen, c. e. r. t. i. f. i. c. a. c. i. o. n. e. s., de minerales, c. o. t. i. z. a. c. i. ó. n., monetaria, c., ley, a., biministerial, r., ... & ductos, e. p. disposiciones aduaneras por tipos listado de tipos de circulares.

De Querejazu, L. E. (1985). Producción y comercio en el espacio Sur Andino en el siglo XVII·

Cuzco-Potosí, 1650-1700 (Vol. 1). Embajada de España en Bolivia.

Ernst, D. M., & Bowles, A. G. (1999). INVERSIÓN Y PRODUCTIVIDAD EN EL SECTOR AGRÍCOLA-AGROINDUSTRIAL BOLIVIANO: CASO DE LA AGRICULTURA COMERCIAL PERÍODO.

Experiencias, N. Sucre, Patrimonio Cultural de la Humanidad. Perspectivas y desafíos en su conservación, los negocios y el desarrollo local. Revista de la Red de Expertos Iberoamericanos en Turismo, 15.

ROLLANO, Emma. Analysis of Chuquisaca's participation in the evolution of the trade balance. Journal-Public Economy. 2022

Gover Barja, D. (2006). Inserción Internacional en Bolivia: Estrategias, Resultados y Perspectivas.

Molina, R., Sandoval, L., Enrich, N., Marambio, J. L., Moraes, P. D., Larios, J. F., ... & Pachano, A. (1989). Estudios sobre comercialización de la papa cultivada en el área del proyecto norte de Chuquisaca. Informes de Coyuntura.

Molina, R., Sandoval, L., Enrich, N., Marambio, J. L., Moraes, P. D., Larios, J. F., ... & Pachano, A. (1989). Estudios sobre comercialización de la papa cultivada en el área del proyecto norte de Chuquisaca. Informes de Coyuntura.

Molineaux, P. E., Rozo, C., Romero, A., Urriola, E., Hernández, C., Machado, A., ... & IICA, Port-au-Prince (Haití). (1979). Formas associativas de produção agropecuâria de seis paises da América Latina, observações de viagem. 1. Taller Seminario Nacional Microempresa Rural de Alimentos (MERA). Cauca (Colombia). 12-13 Jun 1990.

Salinas Maldonado, M. Á. (2012). La insostenibilidad de las exportaciones no tradicionales en la actividad económica de Bolivia. Período 2000-2009.

Salinas Maldonado, M. Á. (2012). La insostenibilidad de las exportaciones no tradicionales en la actividad económica de Bolivia. Período 2000-2009.

XI, T. La Crisis Mercantil. La lucha contra el monopolio comercial español en los orígenes de la Revolución de Independencia. El caso de Buenos Aires en el siglo XVIII..