



ACEI working paper series

**CULTURAL AND CREATIVE INDUSTRIES AS  
DETERMINING QUALIFIED INTERNATIONAL FLOW  
TRADE IN LATIN AMERICA, 2001-2011**

Jenny Cardenas-Ayala

Leandro Valiati

AWP-05-2014

Date: November 2014

**CULTURAL AND CREATIVE INDUSTRIES AS DETERMINING QUALIFIED  
INTERNATIONAL FLOW TRADE IN LATIN AMERICA, 2001-2011.**

**Jenny Cárdenas Ayala<sup>1</sup>**

*Universidad Federal Rio Grande do Sul, Brasil*  
[Jenny.cardenasayala@gmail.com](mailto:Jenny.cardenasayala@gmail.com)

**Leandro Valiati<sup>2</sup>**

*Universidad Federal Rio Grande do Sul, Brasil*  
[Leandro.Valiati@gmail.com](mailto:Leandro.Valiati@gmail.com)

**ABSTRACT:**

*The growing internationalization process and the desire to be competitive in a globalized world, has recently sparked interest in the symbolic dimension, cultural identity, creative development, communications and knowledge as a source of economic development. This research aims to analyze how cultural and creative industries have a positive impact on international trade flows of the countries of South America. It is used the panel data methodology for the period 2002-2011 and it is considered that trade flows are determined by the inclusion of cultural indicators, technological innovation factors and socioeconomic characteristics.*

**Keywords:** *creative industries, cultural industries, qualified international trade flows, dados de panel.*

*Clasificación JEL: C33, F14, O31, O54, Z1*

---

<sup>1</sup>Economist Universidad Industrial de Santander, master's student in applied economics at the Universidade Federal Rio Grande do Sul. Researcher in creative economy, culture and public policy research group, Federal University of Rio Grande do Sul. E-mail: [jenny.cardenasayala@gmail.com](mailto:jenny.cardenasayala@gmail.com).

<sup>2</sup> Economist, Master in urban planning with emphasis on cultural economics, PhD in development economics. Universidade Federal Rio Grande do Sul. Professor, Department of Economics and International Relations of the Universidade Federal Rio Grande do Sul and Researcher at the University of Valencia. E-mail: [leandro.valiati@gmail.com](mailto:leandro.valiati@gmail.com).

## **1 INTRODUCTION**

In recent times it has highlighted the importance of creativity for its ability to promote phenomena of development and economic growth; however it is a field of study that has gained importance recently. Palma & Aguado indicate that in the sixteenth and seventeenth centuries, economic theorists believed artistic and cultural activities, as a deviation of capital from productive labor to unproductive activities, considered as luxury of the upper class. It was only in the 60s, an approach to art and culture was initiated as an object of study of economics, so much so that at the beginning of the XXI century it has become popular the concept of creative economy (Sostenuto, 2013), given its importance not only as an economic engine, but as a driver of knowledge and technological innovation.

This research aims to analyze what is the impact of the creative industries in international trade flows of the countries of South America, taken this as a variable of economic growth measuring. It is used the panel data methodology on a sample of 9 countries in South America during the period 2002-2011. As determinants of trade flows are considered factors of creativity and socio-economic characteristics of each region.

The document is divided into five sections. The first is a theoretical review of the Schumpeterian production function, in order to show how the innovation process explains the connection between the creative industries and economic development. The second section studies the empirical background and examines the factors that influence the determination of international flows. Right after, the behavior of the flow of international trade during the period 2002- 2011 in South America is analyzed. Further on, it is developed the econometric methodology, explaining the estimation method and a brief statistical summary of the variables. The paper ends with an analysis of the results and conclusions.

## **2 THEORETICAL CONSIDERATIONS**

This section gives a brief review of the introduction of innovation and intangible factor in the Schumpeterian production function, because is the scientific, technological and social innovation, the starting point of the process of creativity.

The interest in the symbolic dimension, cultural identity, creative development, communications and knowledge as a source of economic development has been formalized in recent times through the perception of cultural and creative industries, which had its first expressions with the analysis of arts, and expanding the inclusion of innovation as an essential part of creativity and extension of knowledge.

The economy of culture and creative has recently gained importance, as it was indicated by Palma & Aguado (2010, 137): in ancient times the economic theorists applied their assumptions to the industry especially, and consequently it was considered artistic and cultural activities, as a deviation of capital from productive labor to unproductive activities, considered as a luxury of the upper class. However, currently it has been highlighted the importance of creativity for its ability to promote phenomena of development and economic growth (Sostenuto, 2012, Sacco & Segre, 2009; Florida, M Mellander & Stolarick 2008; Hervas, Boix & De Miguel, 2011), through the generation of added value.

For his part, Sostenuto states (2012, 21) that creativity is the source of innovation, defined as the successful exploitation of new ideas, expressions, forms and as a process of developing new products, new services and new business models or ways to respond to social needs. So that, Ruiz and Martinez (2010, 3) argue that Culture and creativity emerge as strategic resources capable of stimulate innovation and create competitive advantage and regional development. Thus, innovation is the starting point to explain the link between the creative industries and economic development. According with this, it is important to briefly review the Schumpeterian process of creative destruction.

### **2.1 The process of Schumpeterian creative destruction**

Schumpeter introduces the concept of innovation within the production function of the firm, pointing it out as an important variable in the process of economic development. So that, the production process is characterized as the union of productive forces, this may consist of any

type of objects and forces which may be tangible or intangible. Within this function are considered as the original factors the land and labor, having the idea that from these two, the other goods are detached.

In turn, individual companies are considered as places of production and the evolutionary process of them depend on capital (Barletta, Yoguel & Pereira, 2013). This is how capital or how Schumpeter calls it, the produced means of production (Montoya, 2010), is a fundamental part of the production function. According to the use of production factors, in each economic period the means of production are transformed into product, which will be consumed in the subsequent period and the same will happen in the other stages, maintaining continuity in the economic system which Schumpeter termed as circular current flow.

Under these conditions the economy remains unchanging, individuals become accustomed to certain circumstances, and according to the acquired experience, the pattern of choices becomes similar. Schumpeter (1934) states, production and consumption goods of the same class and the same amount would be consumed. So, even the produced amount and the value of goods in past periods, somehow define the quantity and value of the product in subsequent periods, therefore conditions remain constant in each successive period. However, this does not imply that the same thing happens one year after another; it is just about reaching with certain market conditions the equilibrium level, which is not necessarily the same in all periods.

Thus, all the changes or economic transformations that can be found in different periods, constitute the external form of the circular current and do not represent the cycle alteration. Thus those internal or endogenous changes can only be understood as economic development, because as it was indicated by Schumpeter (1934), these spontaneous and discontinuous variations in the channels of the circular flow, and these disturbances of the center of equilibrium materialize in the sphere of industrial and commercial life and not on the needs of consumers of finished products. These changes can be understood as spontaneous revolutions, which are the result of new combinations of productive means and these are only possible through innovation.

Consistently, Schumpeter introduced into the production function the innovation, and refers to this destabilization of the economic cycle as a process of creative destruction. Then, technological innovations are the axis of the process of economic development, as only these contribute to the expansion and development scenarios.

So innovation is the fundamental key to economic development and only through this can be generated creative processes, thus leading to the consolidation of the creative industries.

### **3 EMPIRICAL CONSIDERATIONS**

This research seeks to analyze the degree of determination that the creative industries have on international trade flows. However, there is a limited literature dedicated to analyzing this causality. Nevertheless, recently it has been found that the creative and cultural industries have a positive correlation with economic growth, being important to examine this relationship.

In correspondence to the influence of the creative industries as determinants of economic growth is a broad debate that has been generated, since they can define different types of causality. Authors such as Potts and Cunningham (2010) suggest certain models in which they affirm that the creative industries generate new ideas and innovations, which can be copied by other industries; that is that it would not necessarily be a significant industry, but does generate development in other sectors. On the contrary, it has been argued that the importance of this sector detaches from the development of ideas and technologies, being technological advances generated by industry proportional to the evolution in the economic system (Rausell, Marco & Sanchis, 2011). In this context is found empirical evidence in order to address these causalities.

Rausell, Marco & Sanchis (2011) developed a study to determine the causality of the cultural and creative industries in generating employment and wealth. Using a panel data model is considered a sample of 19 Spanish regions over the period 2000-2008. First, taking as dependent variable the GDP (PIB in Spain) per capita of the regions and cultural and creative industries, where was obtained as a result that the intensity of employment in cultural and creative industries have a highly significant influence on regional wealth. Followed by another model taking as dependent variable the relative specialization of a region in the occupation of the cultural sectors, obtaining as a result that is caused by variables related to GDP per capita. However, the relationship is negative, that is, the rest of the economic activity detracts the occupied in the cultural and creative industries.

On the other hand, Zhang & Kloudova (2011) analyze the factors that influence the growth of creative industries in China, where 13 regions from this country were included in a cross-sectional model made in 2007. As dependent variable the value added is used from creative

industries as a percentage of GDP. As a result it was found that the number of institutions of higher education and GDP per capita are negative and not significant in explaining the growth of these industries. The inverse relationship with GDP per capita can be attributed because China is a country dedicated mainly to unskilled industry. Conversely, the number of patents is a highly significant variable.

De-Miguel Molina, Boix & Oliver (2011), examine the relationship of the existence of agglomeration of creative services with wealth in 250 European regions. It is concluded that the percentage of workers in the creative services have a highly significant and positive impact in the outcomes of these regions. On the other hand, the proportion of workers in uncreative high-tech services does not have a differential effect on GDP per capita, in contrast to industries that are knowledge intensive.

Otherwise, Jimenez and Narbonne (2010) attempt to explain through a panel data model for 51 countries in the period 1996-2004, to what extent the cultural and institutional factors are determinants of international trade, obtaining as result that variables which measure institutional quality of countries, proximity in the culture of the trading partners as sharing the same language, religion; among others, have a positive and significant impact on trade flows.

### **3.1 Determinants of international trade flows**

Some empirical studies have tried to show certain factors that explain international trade flows (Jiménez and Narbonne, 2010; WTO, 2013). However, due to recent interest in the creative industries, there is limited empirical evidence that consider these as explanatory factors of foreign trade flow, understanding this as a measuring variable of economic growth.

The creative economy seeks to promote the development, social inclusion, to increase the employment of skilled labor and is considered as the engine of economic growth (Rausell, Marco & Sanchis (2011); Casani Rodriguez & Sánchez, 2012). It also argues Sostenuto (2012), creative cultural activities are able to activate, energize, modify and transform the basis of socio-economic competitiveness of certain territory.

Based on the above, it is expected that creative factors have a positive and significant relationship as the flow of international trade, understanding this as a measure of economic growth. As explanatory variables, are considered in the empirical analysis the exports from

sectors of design, media, publishing, graphic arts and visual arts. Under suspicion of highly correlated this variable is lagged one period in time.

The exchange rate is included in the model as a control and adjustment variable. Also, due to the presence of correlation between publishing industry with media, is considered publishing variable as the difference of export value of one year to another.

Additionally the influence of certain socio-economic factors is analyzed: It is expected that GDP per capita has positive correlation with the flow of foreign trade. Total employed labor force, promotes increased levels of production of goods and services, positively influencing trade flows.

The employed labor force in the agricultural sector has an ambiguous effect depending on the case study. Considering that Latin American countries compete mainly with raw materials it would expect this relationship be positive. On the other hand, when the agricultural goods are low added value, intensive employment in this sector could generate a negative correlation with the flow of international trade.

Likewise, the population density can have an ambiguous impact. A large population size can accentuate conditions of inequality and poverty; therefore, low levels of competitiveness and large scale production but with little differentiation might be expected. But rises or falls in the population size, accompanied by effective public policies in the formation of human capital and social inclusion, would tend to participate more actively in international trade.

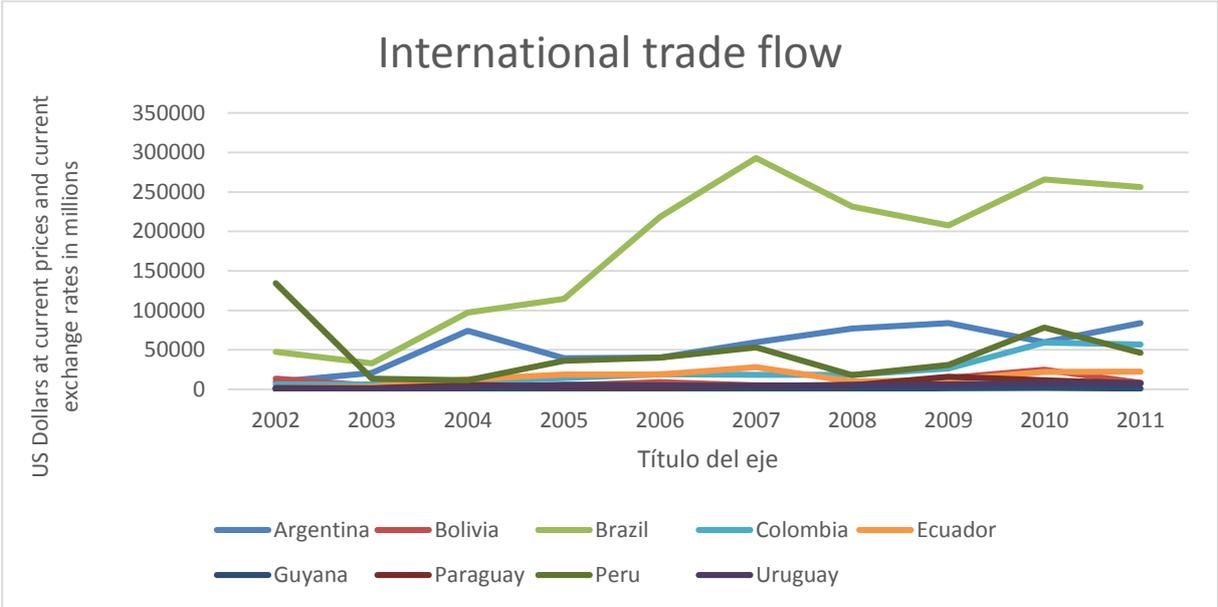
It is expected that international support has a positive correlation with international trade flows due to increases in the level of spending that are intended to increase the competitiveness of certain economic sectors.

#### **4. EVOLUTION AND BEHAVIOR OF INTERNATIONAL TRADE FLOW IN SOUTH AMERICA.**

The international trade flow in South America presented a drop in 2007, reaching its lowest in the 2008 crisis. Despite of this, this region has showing a growing trend in the period 2002-

2011, presenting an apparent recovery from the year 2009, as can be seen in Graph 1. It highlights the performance of Brazil, which presented a flow of international trade for a much higher value than other countries in the region. Ecuador and Argentina showed the highest rate of average annual growth of 54,8% and 47,8% respectively. Meanwhile, Guyana, Bolivia and Peru experienced the lowest growth of the sample with 26.6%, 21.1% and 29.5%.

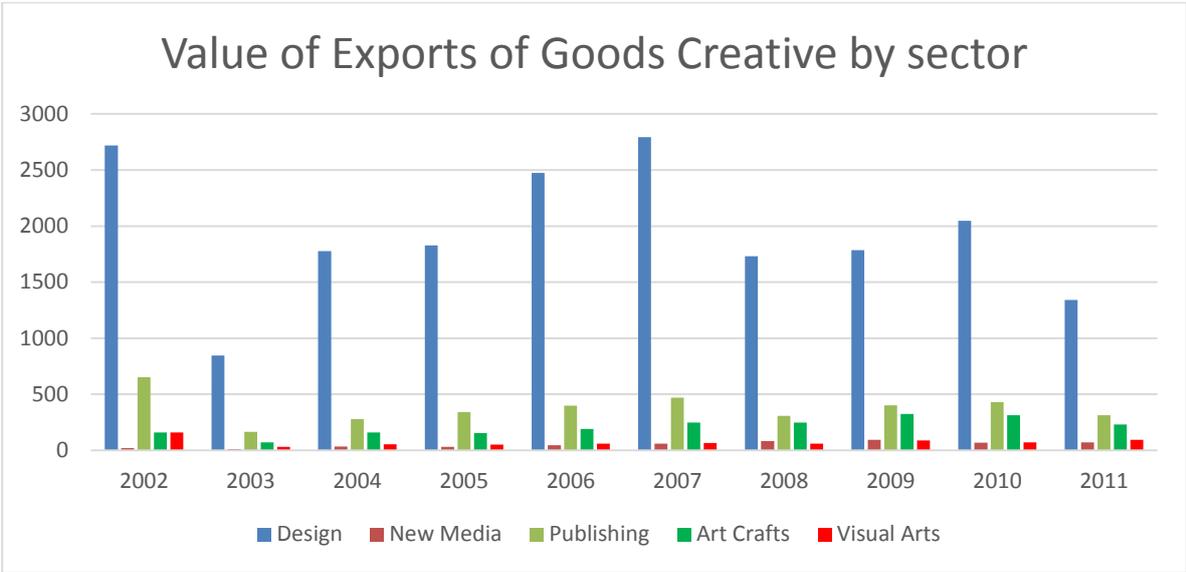
Figure 1: International Trade Flow



Source: Data from UNCTAD, in millions of American dollars at constant prices.

Meanwhile, total exports of creative goods presented a decrease in 2011. However, during the study period reflects an average annual growth of 3.8%. Graph 2 shows that in south american countries the sector with greater participation in international trade of creative goods is the design, which has a much higher value of exports compared to the other ones, notwithstanding on the last year diminish 34.4%. The media sector registered the highest annual average increase of 26.6%, despite being the sector with the lowest share in this region with only 3.36%, followed by the visual arts, representing 4.54% of total exports of creative goods in 2011. South America represents 0.3% of exports of visual arts the world, when compared to industries such as the United States and China representing 24% and 23% respectively of total exports in this sector, it becomes evident that the development of this sector is still incipient.

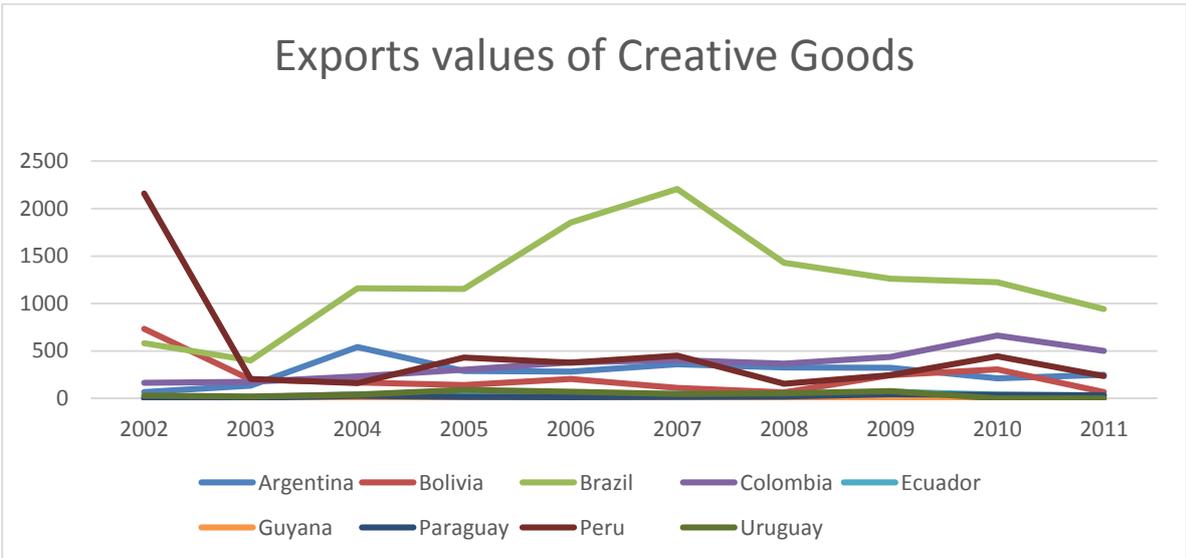
Figure 2: Exports value of creative goods by sectors



Source: Data from UNCTAD, in millions of American dollars at constant prices.

Brazil, registers a higher value of exports compared to the other countries in the sample, accounting in 2011 for 45.9% of total exports of creative goods in this region, with an average share of 45.7% in the period, showing that almost half of the qualified trade on the area is from this country. Guyana and Paraguay, showed the lowest level of exports of creative goods in 2011 with a weight of 0.2% and 1.5%. This behavior is represented in Figure 3..

Figure 3: Exports value of creative goods



Source: Data from UNCTAD, in millions of American dollars at constant prices.

## 5. METHODOLOGY

This paper seeks to show how the creative industries determine international trade, understanding this as a variable of economic growth. For this, an empirical analysis is performed using a panel data model. These models combine temporal data with cross section, ie containing observations of individual units associated to a particular moment in time.

The panel data models have certain advantages over the cross-section and time series, as it takes into account unobserved heterogeneity, provide more data, generating an increase in the degrees of freedom and reduces multicollinearity in independent variables.

So a panel data model includes a sample of individuals (countries), for determining the time (years) period. This can be specified as:

$$y_{it} = \alpha_i + x'_{it}\beta + \varepsilon_{it}$$

$i$  represents each country un South America ( $i = 1, 2, \dots, 9$ ) and  $t$  every year ( $t = 2002, 2003, \dots, 2011$ ).  $y_{it}$ , is the trade flow of country  $i$ , in the year  $t$ .  $\alpha_i$ , is unobserved heterogeneity and  $\varepsilon_{it}$  is known as the idiosyncratic error for each country  $i$ , in year  $t$ .

### 5.1 Estimation Method

As the dependent variable is taken as the international trade flow in South America during the years 2002-2011. Are considered as explanatory variables, socio-economic and creativity factors.

Within the creative factors, the value of exports of creative industries lagged one period in time was used. The value of exports in the sector design (Design), media (m\_comunication), publishing (publishing), graphic arts (a\_graphic) and visual arts (a\_visuals) is used. Because of the correlation, is considered the difference of the exports value between periods of the publishing industry (publishing). Additionally the exchange rate (exchange\_rate) is included as a control variable.

As socio-economic factors are incorporated per capita GDP of each country (gdp\_pc), the logarithm of the CPI (ln (CPI)), total labor force of the economy (labor\_force), total labor force in industry agricultural (Agriculture), number of people (population) and the logarithm of

international aid provided by developed countries to developing ones (ln (international\_aid)).  
 chart 1 contains a description of these variables.

Chart 1: Variables description

Variable	Source	Description
Country		It refers to the name of the local country
Internationa trade flow	UNCTAD	Securities and shares of exports and imports of goods. At constant prices and exchange rates in effect in US million dollars.
Design	UNCTAD	Exports of design sector. At constant 2011 prices based and current exchange rates in US millions dollars.
Media	UNCTAD	Exports of media sector. At constant 2011 prices based and current exchange rates in US millions dollars.
Publishing	UNCTAD	It is the difference between a period and other of the Publishing industry exports. At constant 2011 prices based and current exchange rates in US millions dollars.
Graphic arts	UNCTAD	Exports of Graphic arts sector. At constant 2011 prices based and current exchange rates in US millions dollars.
Visual arts	UNCTAD	Exports of visual arts sector. At constant 2011 prices based and current exchange rates in US millions dollars.
Exchange rate	UNCTAD	Real effective exchange rate (CPI based), annual.
per capita GDP	UNCTAD	GDP per capita in thousands of US dollars based 2011
ln(CPI)	UNCTAD	Logarithm of the average annual rate of CPI
Labor force	UNCTAD	People employed in thousands
Agriculture labor	UNCTAD	People employed in the agriculture sector in thousands
Population	UNCTAD	Total population in thousands
ln(international_aid)	UNCTAD	Logarithm of international aid measure in USD based 2011 and current exchange rates in millions

Source: own elaboration.

Chart 2 presents a brief statistical summary of the variables included in the estimates of both creative and socio-economic factors in the period 2002-2011. The source data comes from United Nations Conference on Trade and Development -UNCTAD-.

Chart 2: Statistical summary of the variables

Variable	Source	Obs.	Media	Std.dev.	Min	Max
International trade flow	UNCTAD	110	47318.24	75636.35	274.5156	524754.8
Design	UNCTAD	89	235.0393	394.0917	0.3414382	1948.593
Media	UNCTAD	89	9.55243	29.9597	0,0002	271.8252
Publishing	UNCTAD	67	2.66683	64.87264	-70.67824	486.0647
Graphic arts	UNCTAD	89	22.75581	34.04351	0.0077016	145.4422
Visual arts	UNCTAD	89	7.98693	17.71719	0.0116074	145.5662
Exchange rate	UNCTAD	90	98.11136	29.29944	40.59013	157.8579
GDP	UNCTAD	110	7028.899	10175.06	672.176	95749.79
ln(CPI)	UNCTAD	110	1.737573	0.8555461	-1.644366	3.4481
Labor force	UNCTAD	110	16641.57	26017.38	283.4797	103221.7
Agriculture labor	UNCTAD	110	2397.536	3253.366	49	13028
Population	UNCTAD	110	34372.8	50944.6	750.629	196935.1
ln(international_aid)	UNCTAD	86	5.911027	1.659677	-1.660731	9.09933

Source: own elaboration.

## 6 ANALYSIS AND RESULTS

The following panel data model takes the flow of international trade as the dependent variable to a sample of 9 countries in South America for the period 2002-2011. Three estimates are made, the first focuses on the influence of creative industries as determinants of trade flows, the following reviews the causality of socio-economic factors in international trade, and finally the overall results are analyzed.

### Creative Factors

$$Trade\_Flow_{it}: \alpha_i + \beta_1 Design + \beta_2 Media + \beta_3 Advertising + \beta_4 Graphics_{Arts} + \beta_5 Visual_{Arts} + \beta_6 Exchange\_rate + \varepsilon_{it}$$

### Socio-economic Factors

$$Trade\_Flow_{it}: \alpha_i + \beta_1 GDP_{pc} + \beta_2 \ln(CPI) + \beta_3 Labor\_Force + \beta_4 Agriculture + \beta_5 Population + \beta_6 \ln(International\_Aid) + \varepsilon_{it}$$

### General Model

$$Trade\_Flow_{it}: \alpha_i + \delta_1 Creative\_factors + \delta_2 Socioeconomic\_Factors + \varepsilon_{it}$$

The estimation results are observed in Table 3. Within the creative factors we obtain that, with all other variables constant, the design sector is significant and positive, so that an increase of \$ 1 dollar in design exports of the previous year increases the flow of foreign trade at \$ 108.11. The media have a positive and significant relationship: an increase of \$ 1 dollar keeping constant the other variables, could generate an increase of \$ 1321,30 in the flow of international trade, suggesting that a greater volume of exports of this sector upsurges the value of the trade balance.

It is noteworthy that the publishing sector has a negative and significant relationship with the flow of international trade. An increase *ceteris paribus* of 1 dollar in a unit of the variation in publishing sector exports is linked to the decrease of \$ 720.99 in trade flows. This result, contrary to expectations, could be attributed to the fact that the sector is not yet fully developed in the region, so this fact suggests the importance of developing policies for qualifying labor in order to make the sector more competitive.

Meanwhile, the graphic arts have a positive and significant effect. A one-dollar rise in exports of the preceding year is linked to an increase of \$ 1528,41 of international trade flows. Rather surprisingly, the visual arts sector, despite having a positive influence on the flow of foreign trade is not significant. In this sense, the evidence suggests that the growth in total exports of creative industries in the previous period, could be generating an increment in trade flows of the countries of South America.

Chart 3: Determinants of international trade flows

Determinants of international trade flows			
Creative Factors	(1)	(2)	(3)
<b>Constant</b>	-31465.28*** (12040.84)	-6711.843 (15849.01)	-39027.15** (19758.88)
<i>design</i>	108.2186*** (21.23456)		77.59447 *** (18.23378)
<i>m_comunication</i>	1321.302*** (336.6577)		646.0699* (381.0466)
<i>publishing</i>	-720.9918*** (181.4401)		-216.8295*** (53.3475)
<i>a_graphics</i>	-27.36245 (203.0657)		
<i>a_visuals</i>	1528.471** (695.2829)		
<i>Exchange_rate</i>			

	286.1843*** (106.4914)		
<b>Socio-economic Factors</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
GDPpc		3.363586*** (0,8840517)	5.029245** (2.055065)
ln(CPI)		-2308.224 (7349.372)	
agriculture		-23.98763* (13.52941)	
population		2.397518*** (0.816929)	0.3587543*** (0.1300094)
ln(international_aid)		1531.171 (15849.01)	
<b>R<sup>2</sup></b>	0.9830	0.9443	0.9835
Note: significance * p< 0.1, ** p< 0.05, ***p<0.01. Cluster robust standard errors in parenthesis			

Source: own elaboration.

In terms of social-economic factors, is important that due evidence of correlation with other variables, the total employed population is removed from population estimates. As a result we obtain that, considering the other variables constant, the CPI did not significantly explain the value of international trade flows. By contrast, per capita GDP is positively and significantly related, indicating that an increase in per capita GDP by a dollar leads to a growth in the flow of foreign trade of \$ 3,36. International aid has a positive but not significant effect in the value of international trade flows.

The labor force in agriculture has a negative and significant relationship with the flow of international trade, indicating that an addition of one occupied population unit in agriculture is linked to a decrease of US\$ 23.98 in trade flows. In this regard, it can be argued that the low added value at this sector can negatively influence trade flows, indicating the importance of public policies to increase the skilled workforce in order to achieve a higher international trade value.

The population density negatively affects the flow of foreign trade of the cities. An increase in one unit of the population decreases the value of the flow of international trade at US\$ 2,39. This result suggests that a population rise inversely influence on the flow of international trade, this may be an indication that in the countries of South America, much of what is produced is

dedicated for domestic consumption. Likewise, it is conceivable that the production has little value added.

By jointly analyzing the influence of creative and socio-economic factors within the flow of foreign trade, it appears that creative factors inside the design industry has a strongly significant and positive impact. A rise of \$ 1 in exports in the sector will produce an increase of US\$ 77,59 in trade flows. Meanwhile, exports of media prior period have a positive and significant impact, so that keeping the rest constant, an addition of one dollar in exports in the media sector increases the value of trade flows in US\$ 646,06 dollars.

Meanwhile, contrary to expectations the publishing industry negatively and significantly affect international trade flows. A one-unit increase in the variation in exports of this sector will produce a reduction in the value of foreign trade flow at US\$ 216,82 Among the socioeconomic factors, it shows that the per capita GDP affects positively and significantly, indicating that an increase of one dollar generates a rise in the flow of foreign trade of US\$ 5,02. The population density has a significant and positive impact on international trade flows. So an increment of residents, generates an addition of US\$ 0,35 in the flow of foreign trade.

## 7 CONCLUSIONS

In this research the influence of creative industries as determinants of international trade flows in 9 countries in South America are mainly analyzed. Due to the availability of data during the study, the period evaluated was 2002-2012. Using the panel data model sought to evaluate the effect on trade flows the creative and socio-economic factors. Thus, three estimates are made, the first two associated with each of the factors and the latter to a general model.

As a result of the empirical analysis for the different factors, we emphasize that except for the publishing sector, the signs of the coefficients have the expected outcome. From the estimation of the creative **factors** is concluded that exports lagged one period of the design sector, media and graphic arts have a positive and significant impact in the flow of international trade. Rather surprisingly, the publishing sector shows a negative and significant relationship. Also, it is noteworthy that the visual arts sector is not significant in explaining trade flows.

Into the **socio-economic factors**, per capita GDP generates a positive and significant impact. Opposite to the population occupied in the sector of agriculture and people density, which are significant but have a negative effect on trade flows.

In the pooled analysis it is evident that inside creative factors, exports lagged one period of the design and media sectors have a positive and significant impact, result contrary to the publishing sector. In the meantime, per capita GDP and population density was only significant and positive when considering creative and sociodemographic factors simultaneously.

In future studies, it would be important to consider in the analysis, variables that reference the level of innovation in the industry and the number of patents. Also, incorporate variables that indicate the production of cultural goods and services, in order to examine the impact on the economic development.

Finally, it is important to note that in recent times has been found the importance of the cultural and creative industries in the economic growth and development, the data reflect the low level of progress of this sector in South America. Thus, based on the results obtained here and past empirical evidence, it is of great importance to generate public policies to increase the quality and competitiveness of this sector for achieving greater improvement, accompanied by inclusion and economic development.

## **8 BIBLIOGRAPHY**

- Aguado, L. Palma, L (2010). *Economía de la cultura. Una nueva área de especialización de la economía*. España: Revista de economía institucional (12) 129-165.
- Barletta, F., Pereira, M., & Yoguel, G,. (2013). *De Schumpeter a los postschumpeterianos: viejas y nuevas dimensiones analíticas*. *Problemas del Desarrollo* 174 (44), 35-59.
- César, L. Prieto, H. (2002). *La economía de la cultura en españa : una disciplina incipiente*. *Revista Asturiana de Economía*, 23(1), 147–175.

- Florida, R., Mellander, C., Stolarick, K., (2008), *Inside the black box of regional development—human capital, the creative class and tolerance*. Journal of Economic Geography, 8(5), 615-649).
- Fonseca, A.C. (2008). *Economía Creativa como estrategia de desarrollo: una visión de los países de desarrollo*. Itaú Cultural, 1-277.
- Mateus, A. (2013). *A cultura e a criatividade na internacionalização da economia portuguesa*. Secretaria de Estado Da Cultura de Portugal.
- Miguel, B. De, Boix, R., Hervàs, J. (2011). *Creative services agglomerations and the wealth of European regions*. 51th ERSO Congress, Barcelona, 1–18.
- Palma, L., & Aguado, L. (2010). *Economía de la cultura. Una nueva área de especialización de la economía*. Revista de Economía Institucional, 12, 129–165.
- Rausell-Köster, P. (2004). *Economía y Cultura. Una pareja de hecho*. In *El consumo de teatro y danza en la ciudad de Valencia*. Promolibro.
- Rausell-Köster, P, F. Carrasco-Arroyo, Salvador.(2003) “*Algunos Apuntes Sobre la Economía de la Comunicación y La Cultura*”. En J.M Jordan, Antuñano, Política Económica: Fundamentos, Objetivos e Instrumentos. Edit Tirant Lo Blanch. Valencia.
- Rausell-Köster, P., Marco, F. P., & Abeledo, R., S. (2011). *Sector cultural y creativo y riqueza de las regiones: en busca de causalidades*. Ekonomiaz, 78 (3). 67-89.
- Ruiz, J. N., & Martínez, S. N., (2010). La tecnología y la innovación como base de creatividad de las empresas culturales. Revista Europea de Dirección y Economía de la Empresa, 2 (19). 99-110.
- Schumpeter, J.A., [1934] (2008). *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle*. Cambridge: Harvard University Press. 1- 320.
- Sostenuto. (2012). *La cultura como factor de innovación económica y social*. Unidad de Investigación en Economía de la Cultura y Turismo, Instituto Universitario de Desarrollo Local & Universidad de Valencia, 1(1), 1-215.
- Sacco, L., & Giovanna, S., (2009) *Creativity, Cultural Investment and Local Development: A New Theoretical Framework for Endogenous Growth*. Growth and Innovation of Competitive Regions Advances in Spatial Science, 281-294.
- Valenzuela, I. (2003). *Cultura y Economía: la encrucijada de los valores en el desarrollo*. Revista de Ciencias Sociales (CI), II(2), 49–64.

- Zallo, R. (2011). *La economía de la cultura (y de la comunicación) como objeto de estudio*. Revista de Estudios de Comunicación, 215–234.
- Zhang, J., & Kloudiva, J. (20XX). *Creative and Knowledge Society*. Internacional Scientific Journal. 5-19.