

**CONTINENTAL BIAS IN TRADE**

**SALVADOR GIL-PAREJA  
RAFAEL LLORCA-VIVERO  
JOSÉ ANTONIO MARTÍNEZ SERRANO**

**FUNDACIÓN DE LAS CAJAS DE AHORROS  
DOCUMENTO DE TRABAJO  
Nº 440/2009**

De conformidad con la base quinta de la convocatoria del Programa de Estímulo a la Investigación, este trabajo ha sido sometido a evaluación externa anónima de especialistas cualificados a fin de contrastar su nivel técnico.

ISSN: 1988-8767

La serie **DOCUMENTOS DE TRABAJO** incluye avances y resultados de investigaciones dentro de los programas de la Fundación de las Cajas de Ahorros.  
Las opiniones son responsabilidad de los autores.

## CONTINENTAL BIAS IN TRADE

Salvador Gil-Pareja  
Rafael Llorca-Vivero\*  
José Antonio Martínez Serrano

### **Abstract:**

This paper investigates the potential existence of a *continental bias* in world trade flows. Using the Helpman, Melitz and Rubinstein two-stage estimation procedure on a sample of 182 countries over the period 1990-2006, we find evidence of an economically significant *continental bias*. A continent-by-continent analysis reveals that countries located in Asia, Oceania, America and Europe can be considered natural trading partners, whereas this is not the case for Africa. For the latter, results suggest that the relationship between inter and intra-continental trade costs is relatively low, although this fact seems to revert over the last years.

*Key words:* Continental bias, gravity equation, intercontinental and intra-continental trade costs.

*JEL classification:* F14.

\* University of Valencia, rafael.llorca@uv.es

## 1. Introduction

Since the path-breaking paper by McCallum (1995), there has been a notable academic interest in researching the so-called *border effect*, that is, the negative impact of national borders on trade flows. Using the gravity equation, McCallum found that trade among Canadian provinces exceeded province's trade with US states by more than a factor of 20. Subsequent studies have investigated the size of the *home bias* across space and time, documenting that international borders strongly diminish trade. Among the likely causes of the *border effect* are national trade barriers (tariffs, quotas, exchange rate variability, regulatory differences, etc.), as they generate additional transaction costs for inter- versus intra-national shipments.<sup>1</sup>

The goal of this paper is to investigate the possible existence of a *continental bias* in trade, in a similar fashion to the *home bias*, based on differences in trade costs between and within continents. These differences have been considered by the economic geography literature in the context of the theoretical welfare analysis of preferential trade agreements (PTAs). In particular, the relationship between intra-continental and intercontinental trade costs is a central element of the hypothesis of "natural" trading partners with clear welfare implications.<sup>2</sup> With zero intercontinental transport costs, continental PTAs decrease welfare (Krugman, 1991a). With prohibitive intercontinental transport costs, such agreements increase welfare (Krugman, 1991b). However, in the intermediate realistic case where intercontinental transportation costs are neither zero nor prohibitive (but greater than transportation costs within continents) the relationship between intercontinental and intra-continental transportation costs determines the net impact of PTAs on welfare (Frankel, Stein and Wei, 1993, 1995 and 1996). If there is a positive *continental bias* in trade, countries located on the same continent can be considered "natural" trading partners and therefore preferential trade

---

<sup>1</sup> Despite technological progress in transport and communications and negotiated reductions in trade barriers, market segmentation continues to exist and political boundaries shape the geographical pattern of trade. See, among others, Helliwell (1996, 1997, 1998), Wei (1996), Anderson and Smith (1999a, 1999b), Nitsch (2000), Head and Mayer (2000), Helliwell and Verdier (2000), Hillberry (2002), Anderson and van Wincoop (2003), Evans (2003), Okubo (2003), and Chen (2004), Gil *et al* (2005), Gil, Llorca and Martínez-Serrano (2006).

<sup>2</sup> The literature on the economic determinants of the formation of PTAs also explicitly considers intercontinental and intra-continental transportation costs among multiple countries on multiple continents (see, for example, Baier and Bergstrand, 2004 and Egger and Larch, 2008).

agreements among them are more likely to be welfare-improving.<sup>3</sup> On the contrary, the evidence of a negative *continental bias* in trade would suggest that continental preferential agreements may be welfare decreasing. Continental trading blocs that reduce welfare are called "super-natural".<sup>4</sup>

In particular, this paper aims at answering two main questions. First, all other things equal, countries on the same continent trade more with each other than countries located on different continents? That is, is there *a continental bias* in trade? Second, are there differences in the size and sign of the *continental bias* across continents? To the best of our knowledge, there is no study in the literature that has tried to investigate the possible existence of a *continental bias* in trade.<sup>5</sup>

In order to explore *continental bias* in trade we estimate gravity equations following the two-stage estimation procedure recently proposed by Helpman, Melitz and Rubinstein (2008). This framework allows us to correct for selection bias and to account for exporter heterogeneity. The sample covers 182 countries over the period 1990-2006.

To preview our results, we find a positive *continental bias* for Asia, Oceania, America and Europe. Africa is a peculiar case. The results for the African continent reveal a negative continental bias suggesting that intra-continental trade costs are not relatively lower than intercontinental ones. However, some changes are observed over time if the analysis is carried out by sub-periods.

The paper is structured as follows. Section 2 presents the methodology. Section 3 describes the data. Section 4 discusses the estimation results. Finally, section 5 concludes the paper.

---

<sup>3</sup> The term natural trading partner goes beyond pure distance arguments and, therefore, by transport costs we refer to any kind of trade costs.

<sup>4</sup> Frankel Stein and Wei (1993, 1995 and 1996) set up a trade theory model of many countries that are grouped into continents with high trade costs across continents and low costs within them. According to these authors the term "super-natural" refers to a continental PTA that is welfare-reducing on net due to relatively low intercontinental transportation costs.

<sup>5</sup> Frankel, Stein and Wei (1993) also draw the boundaries at continental bloc level, but they do not consider all the countries in each continent. In their paper the continents are The Americas (including only 13 countries), the European Community (11 countries) and East Asia (10 countries).

## 2. Methodology

The gravity equation of trade is considered to be one of the most successful empirical frameworks in international economics. It relates bilateral trade flows to economic size (GDP), distance and other factors that affect trade barriers.<sup>6</sup> In particular, the literature on the *border effect* has made use of the gravity equation to estimate the size of the *home bias* in trade. In this paper, we also use that methodology to assess the existence and magnitude of the *continental bias*.

The typical gravity equation estimated in the *border effect* literature can be written as follows:<sup>7</sup>

$$\ln Trade_{ij} = \beta_0 + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln Dist_{ij} + \beta_4 Home_{ij} + Othercontrols + u_{ij} \quad (1)$$

where  $Trade_{ij}$  is the bilateral trade flow from  $i$  to  $j$ ,  $GDP_i$  and  $GDP_j$  are the gross domestic products,  $Dist_{ij}$  denotes the distance between  $i$  and  $j$ ,  $Home_{ij}$  is a dummy variable that takes the value of one for trade flows within countries and zero otherwise, and  $Othercontrols$  are a set of variables that are included to capture variation in various trade costs, such as binary variables for the presence of a land border, a common language or being a member of the same trade agreement. In this set-up, the *border effect* is measured by the estimated coefficient of the dummy variable  $Home$ .

Despite being used in many studies on the *border effect*, equation (1) is likely to be mis-specified owing to ignoring theoretical foundations for the gravity equation. As Anderson and van Wincoop (2003) emphasize (in the context of the *border effect* literature) the gravity model theory implies that one must take into account the role of relative prices ("multilateral resistance", in Anderson and van Wincoop terminology).<sup>8</sup> The usual solution to the presence of such multilateral resistance is to include country

---

<sup>6</sup> Initially the gravity model lacked theoretical foundation. However, since the end of the 1970's the situation has changed and nowadays the gravity model is backed up by sound theory. See, among others, Anderson (1979), Bergstrand (1985 and 1989), Deardoff (1998), Evenett and Keller (2002), and Anderson and van Wincoop (2003).

<sup>7</sup> In the equations we have omitted the subscript "t" referring to time for simplicity.

<sup>8</sup> While the methodological contribution of Anderson and van Wincoop (2003) is made trying to provide a "solution" to the border puzzle, it is indeed important for the proper estimation of gravity equations in other applications of the international trade literature.

fixed effects (for both the exporter and the importer countries) when estimating gravity equations.<sup>9</sup>

More recently, Helpman, Melitz and Rubinstein (2008) (henceforth HMR) have developed a theoretical model that generalizes the Anderson and van Wincoop (2003) framework in two ways. Firstly, they account for non-observable firm heterogeneity and fixed trade costs in line with the so-called new-new trade theory (Melitz, 2003). Secondly, they account for asymmetries in the volume of bilateral exports between countries depending on the direction of export flows (from  $i$  to  $j$  versus from  $j$  to  $i$ ). Moreover, they also develop the empirical framework for estimating the gravity equation derived in their model.

In this paper we use the two-stage estimation procedure proposed by HMR (2008). In the first stage we estimate a probit equation that specifies the probability that country  $i$  exports to  $j$  conditional on the observable variables. In the second stage, predicted components of this equation are used to estimate the gravity equation. This procedure simultaneously corrects for two types of potential biases: a Heckman selection bias and a bias from potential asymmetries in the trade flows between pairs of countries.

More formally, in a first stage we estimate a probit equation of the type:

$$\text{Prob}(T_{ij} = 1 / \text{observed variables}) = \Phi(\chi_i, \lambda_j, X_{ij}, Z_{ij}, \varepsilon_{ij}) \quad (2)$$

where  $T_{ij}$  is an indicator variable equal to 1 when country  $i$  exports to  $j$  and zero when it does not,  $\Phi$  is the cumulative distribution function of the standard normal distribution,  $\chi_i$  and  $\lambda_j$  are exporter and importer fixed effects,  $X_{ij}$  are variables which affect both the probability and the volume of trade, and  $Z_{ij}$  represents variables that are used for the exclusion restriction, that is, those that affect the probability of observing a positive volume of trade but do not impact the volume of trade if this were to be positive.<sup>10</sup> We include in  $X_{ij}$  the log of bilateral distance between countries as well as

<sup>9</sup> Following Anderson and van Wincoop (2003 and 2004) and Feenstra (2004), many recent studies include country fixed effects in the estimation of gravity equations for international trade flows. See, among others, Klein and Shambaugh (2006), Baier and Bergstrand (2007) and Gil, Llorca and Martinez-Serrano (2008a, 2008b).

<sup>10</sup> In this set-up, parameter identification requires the existence of a variable that affects the probability of observing a non-zero flow between two countries but not the volume. Alternatively, a variable which affects both decisions in opposite directions would also work.

dummy variables used as controls in the standard gravity equation, such as the presence of a land border, of islands in the pair, of a landlocked country in the pair, of a common language, of colonial ties, of a previously common country and common membership in a preferential trade agreement. Finally, in order to estimate the *continental bias* we additionally include a dummy variable (*SameCont*) that takes the value of one for trade flows between countries located on the same continent and zero otherwise. If the fact that two countries belong to the same continent increases the probability of trade between them, the estimated coefficient should be positive and statistically significant.

Using the probit regression, we construct two variables that are included as regressors in the second stage estimation. One is the inverse of Mills ratio and the other is an expression that controls for firm size heterogeneity. In particular, the second stage consists in the estimation for a given year of the following non-linear equation for all country-pairs with positive trade flows:

$$\ln Trade_{ij} = \beta_0 + \lambda_j + \chi_i - \gamma X_{ij} + \theta \bar{\eta}_{ij}^* + \ln \left\{ \exp \left[ \delta (\hat{z}_{ij}^* + \bar{\eta}_{ij}^*) \right] - 1 \right\} + \varepsilon_{ij} \quad (3)$$

where  $\bar{\eta}_{ij}^*$  is the inverse Mills ratio and  $\hat{z}_{ij}^* = \Phi^{-1}(\bar{\rho}_{ij})$  in which  $\bar{\rho}_{ij}$  are the estimates from the probit equation.<sup>11</sup> If the trading relations between countries on the same continent are stronger than those between countries located on different continents, then the estimated coefficient of *SameCont* would be positive and statistically significant.

### 3. Data

The trade data for the dependent variable (export flows from country  $i$  to country  $j$ ) come from the “Direction of Trade” (DoT) dataset built up by the International Monetary Fund (IMF). The data comprise bilateral merchandise trade between 182 countries and territories (see Table A1) over the period 1990-2006.<sup>12</sup> The DoT dataset provides FOB exports in US dollars. These series are converted into constant terms

---

<sup>11</sup> Since equation (3) is non-linear in  $\delta$ , following HMR (2008) we estimate it using maximum likelihood.

<sup>12</sup> It is noteworthy that not all the areas considered are countries in the conventional sense of the word. We also include some dependencies, territories and overseas departments in the data.

using the American GDP deflator taken from the Bureau of Economic Analysis (US Department of Commerce).

The independent variables come from different sources. GDP data in constant US dollars are taken from the World Development Indicators (World Bank). When data were unavailable from this source, the Penn World Table (University of Pennsylvania) and International Financial Statistics (IMF) were used. For location of countries (geographical coordinates), used to calculate Great Circle Distances, and the construction of the dummy variables for physically contiguous neighbours, island and landlocked status, common language, colonial ties and common country background data are taken from the CIA's World Factbook. The indicators of preferential trade agreements, have been built using data from the World Trade Organization, Preferential Trade Agreements Database (The Faculty of Law at McGill University) and the web site [http://ec.europa.eu/trade/issues/bilateral/index\\_en.htm](http://ec.europa.eu/trade/issues/bilateral/index_en.htm). More specifically, the sample includes 202 preferential trade agreements (multilateral and bilateral).<sup>13</sup>

#### 4. Empirical results

We begin by estimating the *continental bias* in trade without taking into account the existence of preferential trade agreements. The estimated equations include exporter and importer fixed effects as well as year dummies. The results for the probit regression are presented in column 1 of Table 1.<sup>14</sup> Before discussing the empirical results, it is worth noting that the estimation of equation (2) might be subject to the incidental parameter problem and introduce a bias in the coefficients of the rest of variables ( $X_{ij}$  and  $Z_{ij}$ ). However, as pointed out by Fernández-Val (2007), this bias does not affect the estimated marginal effects and, therefore, the predicted values obtained for the dependent variable. The estimated marginal effects are, in general, economically and statistically significant with sensible interpretations. More distant countries are less

---

<sup>13</sup> The list of preferential trade agreements considered is available from the authors upon request. The expression PTAs in this paper refers also to other agreements involving a higher degree of economic integration. In fact, most economic integration agreements considered in the sample are free trade agreements.

<sup>14</sup> Following HMR (2008) we also have country pairs whose characteristics are such that their probability of trade is indistinguishable from 1. Therefore, we assign the same  $\hat{z}_{ij}^*$  to those country pairs with an estimated  $\hat{p}_{ij}^* > 0.9999999$ .

likely to trade. In a similar way, the existence of a landlocked country in the pair reduces the probability of a trade link. On the contrary, we find that sharing a common border, a common language, colonial ties and being islands or part of the same country in the past increase the probability of trade.

In the gravity equation framework, if there was nothing to the notion of *continental bias*, then a dummy variable capturing whether two countries are both located on the same continent ought not to be statistically significant. However, as we show in this paper, this is not the case. In column 1, the estimated coefficient of the variable of interest is positive and statistically significant suggesting that being on the same continent raises the probability of bilateral trade.

Using the probit regression, as explained before, we construct two variables for correcting sample selection bias and firm heterogeneity. Both the non-linear coefficient  $\delta$  and the linear coefficient for  $\eta_{ij}^*$  are precisely estimated. The results for the second stage can be seen in column (2) of Table 1. The variable *language* has been excluded from the estimation for identification reasons (see the methodological section). The estimated coefficients show that the same determinants that affect the probability of bilateral exports also impact bilateral export volumes. At this stage, we once again find a positive and significant coefficient for the *continental bias* dummy variable. In particular, the estimated coefficient is 0.293 which suggests that two countries located on the same continent trade approximately 34% more than two identical countries located on different continents.

As an important feature of the recent wave of economic integration among countries has been the proliferation of preferential trade agreements along continental lines, trade policy may contribute to the existence of a *border effect* at the continental level. Therefore, in columns (3) and (4) we control for the existence of PTAs around the world. Somewhat surprisingly, despite the estimated coefficient of PTAs being positive and statistically significant, the inclusion of this variable has little effect on the magnitude of the coefficient of interest. Therefore, other factors different from preferential trade agreements are behind the *continental bias*.

In order to analyze the evolution of the *continental bias* across time we have split the sample period into two sub-periods 1990-98 and 1999-2006. Results are reported in Table 2. From this analysis, some differences emerge with respect to the estimated coefficients of the variable of interest in both stages. Being part of the same

continent affects much more the probability of trading for the sub-period 1990-1998 than in the early 2000s. On the contrary, once countries trade the estimated coefficient for *continental bias* for the sub-period 1999-2006 doubles that for the first sub-period, suggesting a deepening in the process of regionalization.

We now turn to the analysis of *continental bias* by continent. To do so, the *SameCont* dummy variable is replaced by continent-specific dummies so that five coefficients (one for each continent) are estimated. The results are reported in Table 3. Column (1) and (2) present the results for the full sample period (1990-2006). On the one hand, the first stage estimation reveals that for Africa, America and Oceania the probability of trade between a pair of countries within these continents is positive, whereas this is not the case for Asia and Europe. For Asia the coefficient is negative although it is not statistically significant at conventional levels. For Europe the estimated coefficient is negative and statistically significant at the 1 per cent level. The result for Europe suggests that countries in this continent are relatively more open to the rest of the world than countries in the other continents.

On the other hand, the second stage results indicate that with the exception of Africa, every continent presents positive and statistically significant coefficients at the 1 per cent level except for Oceania (at the 10 per cent level). In particular, the point estimate of 0.658 for Asia (column 2) implies that when two countries of a pair belong to that continent, they trade 93 per cent as much [ $\exp(0.658)-1=0.931$ ] as would two other similar countries. The estimates for The Americas show that when two countries are both in the Western Hemisphere, their bilateral trade is 51 per cent [ $\exp(0.414)-1=0.513$ ] higher than it would be otherwise. A similar result is found for Oceania [ $\exp(0.430)-1=0.537$ ]. Finally, Europe shows the smaller *continental bias* [ $\exp(0.244)-1=0.276$ ]. Thus, in these four continents, the relationship between intra-continental trade costs versus intercontinental trade costs favours trade along continental lines. This suggests that countries in these continents can be considered natural trading partners. However, for Africa the coefficient for *continental bias* is -0.112 and is statistically significant at the 10 per cent level. In this case, the result suggests that intra-continental transportation costs are relatively high if we compare with the rest of the continents. This evidence may be explained by several factors, such as, little complementarities and high trading costs among African economies, unfavourable geographical conditions, inappropriate transport policies or poor transport facilities (Yang and Gupta, 2005).

Taking together the results of the two stages of the estimation procedure, we find that countries in the Old Continent have a greater probability of engaging in trade with countries in other continents than countries in Africa, America and Oceania. However, once trade takes place within European countries they also show a *continental bias* in trade as do countries in Asia, America and Oceania. In other words, these four continents display a positive *continental bias* in trade. However, Africa is clearly a peculiar case, being the estimated coefficient of the variable of interest negative.

When we split the whole sample period into two sub-periods (1990-98 and 1999-2006), the most relevant change relates to Africa. The corresponding coefficient is negative and significant (at the 1 per cent level) in the period 1990-98. However, for the period 1999-2006, the coefficient is not statistically significant at conventional levels. This result suggests a slight process of regionalization in international trade in this continent. Behind it there could be improvements in infrastructure and trade facilitation in recent years.

## 5. Conclusions

The recent literature about the welfare implications of PTAs clearly shows the relevance of the relationship between inter and intra-continental transportation costs. In this literature, natural trading partners are those located in the same continent whereas unnatural partners are those located on different continents. Moreover, to the extent that intercontinental costs were sufficiently low, natural partners may become "super-natural" making the corresponding PTAs welfare decreasing.

In this paper, we account for recent developments in the theoretical foundations of the gravity equation to estimate for the first time the possible existence of *continental bias* in trade. Using a two-stage estimation procedure on a sample of 182 countries over the period 1990-2006 we find a positive *continental bias* for the cases of Asia, Oceania, America and Europe. Thus, countries on these continents can be considered natural trading partners. Africa is a peculiar case. This continent shows a negative *continental bias* over the full sample period considered. This is probably a consequence of the high intra-continental trade costs in this continent that may be an obstacle to mutually beneficial intra-continental trade flows. However, some differences are observed if the analysis is carried out by sub-periods. In the 1990s, the results reveal the existence of a highly negative *continental bias* in Africa. Notwithstanding, it seems that changes in

this respect have occurred over the first few years of the 21<sup>st</sup> century, where there is no evidence of continental bias in Africa.

## References

- Anderson JE. A theoretical foundation to the gravity equation. *American Economic Review* 1979;69; 106-16.
- Anderson MA, Smith S. Do national borders really matter? Canada-US regional trade reconsidered. *Review of International Economics* 1999a;7; 219-27.
- Anderson MA, Smith S. Canadian provinces in world trade: engagement and detachment. *Canadian Journal of Economics* 1999b;32; 22-38.
- Anderson JE, van Wincoop E. Gravity with gravitas: A solution to the border puzzle. *American Economic Review* 2003;93; 170-92.
- Anderson JE, van Wincoop E. Trade Costs. *Journal of Economic Literature* 2004;42; 691-741.
- Baier SL, Bergstrand JH. Economic determinants of free trade agreements. *Journal of International Economics* 2004;64; 29-63.
- Baier SL, Bergstrand JH. Do free trade agreements actually increase members' international trade? *Journal of International Economics* 2007;71; 72-95.
- Bergstrand JH. The gravity equation in international trade: some microeconomic foundations and empirical evidence. *Review of Economics and Statistics* 1985;67; 474-81.
- Bergstrand, JH. The generalised gravity equation, monopolistic competition, and the factor proportions theory in international trade. *Review of Economics and Statistics* 1989; 71; 143-53.
- Chen N. Intra-national versus international trade in the European Union: Why do national borders matter? *Journal of International Economics* 2004; 63; 93-118.
- Deardoff AV 1998. Determinants of bilateral trade: does gravity work in a neoclassic world? In: Frankel J (Ed) *The Regionalization of the World Economy*, Chicago: University of Chicago Press; 1998.
- Egger P, Larch M. Interdependent Preferential trade agreement memberships: An empirical analysis. *Journal of International Economics* forthcoming..
- Evans CL. The economic significance of national border effects. *American Economic Review* 2003;93;1291-312.
- Evenett SJ, Keller W. On theories explaining the success of the gravity equation. *Journal of Political Economy* 2002;110;281-316.

Feenstra R. Advanced International Trade: Theory and Evidence. Princeton: Princeton University Press; 2004.

Fernández-Val I.. Fixed effects estimation of structural parameters and marginal effects in panel probit models. Department of Economics: Boston University; 2007.

Frankel J, Stein E, Wei SJ. Continental trading blocs: Are they natural, or super-natural. National Bureau of Economic Research Working Paper 4588; 1993.

Frankel J, Stein E, Wei SJ. Trading blocs and the Americas: The natural, the unnatural, and the super-natural. Journal of Development Economics 1995;47; 61-95.

Frankel J, Stein E, Wei S. J. Regional trading arrangements: Natural or super-natural. American Economic Review Paper and Proceedings 1996;86; 52-56.

Gil-Pareja S, Llorca-Vivero R, Martínez-Serrano JA, Oliver-Alonso J. The border effect in Spain. The World Economy 2005;28; 1627-631.

Gil-Pareja S, Llorca-Vivero R, Martínez-Serrano JA. The border effect in Spain: The Basque Country case. Regional Studies 2006;40; 335-345.

Gil-Pareja S, Llorca-Vivero R, Martínez-Serrano JA. Trade effects of monetary agreements: Evidence for OECD countries. European Economic Review 2008a;52; 733-755.

Gil-Pareja S, Llorca-Vivero R, Martínez-Serrano JA. Assessing the enlargement and deepening of the European Union. The World Economy 2008b;31; 1253-1272.

Head K, Mayer T. Non-Europe: The magnitude and causes of market fragmentation in the EU. Weltwirtschaftliches Archiv 2000; 136; 284-314.

Helliwell JF. Do national borders matter for Quebec's trade. Canadian Journal of Economics;29; 507-22.

Helliwell, JF. National borders, trade and migration. Pacific Economic Review 1997;1; 165-85.

Helliwell, JF. How much do national borders matter? Washington D.C: Brookings Institution Press; 1998.

Helliwell JF, Verdier G. Measuring internal trade distances: A new method applied to estimate provincial border effects in Canada. Canadian Journal of Economics 2001;34; 1024-41.

Helpman E, Melitz M, Rubinstein Y. Estimating trade flows: trade partners and trade volumes. Quarterly Journal of Economics 2008; 123; 441-487.

- Hillberry RH. Aggregation bias, compositional change, and the border effect. Canadian Journal of Economics 2002, 35(3): 517-30.
- Klein, MW, Shambaugh J. C. Fixed exchange rates and trade. Journal of International Economics 2006;70; 359-383.
- Krugman, P 1991a. Is bilateralism bad? In: Helpman E, Razin A (Eds), International Trade and Trade Policy, Cambridge, MA: MIT Press; 1991.
- Krugman, P 1991b. The Move Toward Free Trade Zones. In: Policy Implications of Trade and Currency Zones. Symposium sponsored by the Federal Reserve Bank of Kansas City: Jackson Hall, WY; 1991. p. 7-42.
- McCallum J. National borders matter: Canadian-U.S. regional trade patterns. American Economic Review1995;85; 615-23.
- Melitz, MJ. The impact of trade on intra-industry reallocations and aggregate industry productivity. Econometrica 2003;71; 1695-1725.
- Nitsch V. National borders and international trade: Evidence from the European Union. Canadian Journal of Economics 2000;33; 1091-105.
- Okubo, T. The border effect in the Japanese market: A gravity model analysis. Journal of the Japanese and International Economies 2004;18; 1-11.
- Wei S. Intra-national versus international trade: How stubborn are nations in global integration? National Bureau of Economic Research Working Paper 5531; 1996.
- Yang Y, Gupta, S.. Regional trade arrangements in Africa: Past performance and the way forward. African Development Review 2008;19; 399-431.

Table A1: Sample of countries.

Albania	Dominica	Lebanon	Senegal
Algeria	Dominican Republic	Lesotho	Serbia and Montenegro
Angola	Ecuador	Liberia	Seychelles
Antigua and Barbuda	Egypt	Libya	Sierra Leone
Argentina	El Salvador	Lithuania	Singapore
Armenia	Equatorial Guinea	Macedonia	Slovak Republic
Australia	Eritrea	Madagascar	Slovenia
Austria	Estonia	Malawi	Solomon Islands
Azerbaijan	Ethiopia	Malaysia	Somalia
Bahamas	Fiji	Maldives	South Africa
Bahrain	Finland	Mali	Spain
Bangladesh	France	Malta	Sri Lanka
Barbados	French Polynesia	Mauritania	St. Kitts and Nevis
Belarus	Gabon	Mauritius	St. Lucia
Belgium-Luxembourg	Gambia	Mexico	St. Tome and Principe
			St. Vincent and The Grenadines.
Benin	Georgia	Moldova	Sudan
Bermudas	Germany	Mongolia	Suriname
Bhutan	Ghana	Morocco	Swaziland
Bolivia	Greece	Mozambique	Sweden
Bosnia and Herzegovina	Grenada	Myanmar	Switzerland
Botswana	Guatemala	Namibia	Syria
Brazil	Guinea	Nepal	Tajikistan
Bulgaria	Guinea Bissau	Netherlands	Tanzania
Burkina Faso	Guyana	Netherlands Antilles	Thailand
Burundi	Haiti	New Caledonia	Togo
Cambodia	Honduras	New Zealand	Tonga
Cameroon	Hungary	Nicaragua	Trinidad and Tobago
Canada	Iceland	Niger	Tunisia
Cape Verde	India	Nigeria	Turkey
Central African Republic	Indonesia	Norway	Turkmenistan
Chad	Iran	Oman	Uganda
Chile	Iraq	Pakistan	Ukraine
China - Mainland	Ireland	Panama	United Arab Emirates
China – Hong Kong	Israel	Papua New Guinea	United Kingdom
China – Macao	Italy	Paraguay	United States of America
Colombia	Jamaica	Peru	Uruguay
Comoros	Japan	Philippines	
Congo, Democratic Republic	Jordan	Poland	Uzbekistan
Congo, Republic of	Kazakhstan	Portugal	Vanuatu
Costa Rica	Kenya	Qatar	Venezuela
Croatia	Kiribati	Reunion	Vietnam
Cyprus	Korea	Romania	Yemen
Czech Republic	Kuwait	Russia	Zambia
Côte d'Ivoire	Kyrgyz Republic	Rwanda	Zimbabwe
Denmark	Laos	Samoa	
Djibouti	Latvia	Saudi Arabia	

Table 1. HMR two-stage estimation of *continental bias*. Sample period 1990-2006

	(1)		(2)	(3)		(4)
Variables	Probit coefficient	Marginal effect	ML	Probit coefficient	Marginal effect	ML
Ln Dist <sub>ij</sub>	-0.656 (0.014) <sup>***</sup>	-0.214 (0.005) <sup>***</sup>	-0.630 (0.046) <sup>***</sup>	-0.629 (0.015) <sup>***</sup>	-0.205 (0.005) <sup>***</sup>	-0.612 (0.043) <sup>***</sup>
Contiguity <sub>ij</sub>	0.253 (0.077) <sup>***</sup>	0.076 (0.021) <sup>***</sup>	0.767 (0.080) <sup>***</sup>	0.202 (0.077) <sup>***</sup>	0.062 (0.022) <sup>***</sup>	0.742 (0.079) <sup>***</sup>
Island <sub>ij</sub>	0.443 (0.035) <sup>***</sup>	0.124 (0.008) <sup>***</sup>	0.790 (0.088) <sup>***</sup>	0.442 (0.035) <sup>***</sup>	0.124 (0.008) <sup>***</sup>	0.786 (0.087) <sup>***</sup>
Landlocked <sub>ij</sub>	-0.591 (0.035) <sup>***</sup>	-0.203 (0.012) <sup>***</sup>	-1.276 (0.081) <sup>***</sup>	-0.587 (0.034) <sup>***</sup>	-0.201 (0.012) <sup>***</sup>	-1.292 (0.080) <sup>***</sup>
Language <sub>ij</sub>	0.407 (0.020) <sup>***</sup>	0.120 (0.005) <sup>***</sup>		0.399 (0.020) <sup>***</sup>	0.117 (0.005) <sup>***</sup>	
Colony <sub>ij</sub>	0.231 (0.113) <sup>**</sup>	0.069 (0.031) <sup>**</sup>	0.842 (0.092) <sup>***</sup>	0.243 (0.114) <sup>**</sup>	0.073 (0.031) <sup>**</sup>	0.868 (0.092) <sup>***</sup>
ComCount <sub>ij</sub>	0.967 (0.119) <sup>***</sup>	0.209 (0.013) <sup>***</sup>	1.415 (0.159) <sup>***</sup>	0.891 (0.119) <sup>***</sup>	0.199 (0.015) <sup>***</sup>	1.328 (0.156) <sup>***</sup>
PTAS <sub>ijt</sub>				0.190 (0.031) <sup>***</sup>	0.062 (0.010) <sup>***</sup>	0.185 (0.037) <sup>***</sup>
SameCont <sub>ij</sub>	0.070 (0.020) <sup>***</sup>	0.023 (0.006) <sup>***</sup>	0.293 (0.039) <sup>***</sup>	0.064 (0.020) <sup>***</sup>	0.020 (0.006) <sup>***</sup>	0.267 (0.039) <sup>***</sup>
$\delta$			1.009 (0.073) <sup>***</sup>			0.967 (0.071) <sup>***</sup>
$\eta_{ij}^*$			0.334 (0.072) <sup>***</sup>			0.318 (0.069) <sup>***</sup>
No observat.	419,749		255,212	419,749		255,212
Pseudo R <sup>2</sup>	0.43			0.43		

Notes:

The regressions include exporter, importer and year fixed effects.

Robust standard errors (clustering by country pair) are in parentheses.

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

Table 2. HMR two-stage estimation of *continental bias*. Sample periods 1990-1998 and 1999-2006

	1990-1998			1999-2006		
	(1)	(2)		(3)	(4)	
Variables	Probit coefficient	Marginal effect	ML	Probit coefficient	Marginal effect	ML
Ln Dist <sub>ij</sub>	-0.654 (0.017) <sup>***</sup>	-0.232 (0.006) <sup>***</sup>	-0.640 (0.043) <sup>***</sup>	-0.640 (0.017) <sup>***</sup>	-0.183 (0.005) <sup>***</sup>	-0.600 (0.046) <sup>***</sup>
Contiguity <sub>ij</sub>	0.217 (0.083) <sup>***</sup>	0.072 (0.026) <sup>***</sup>	0.682 (0.086) <sup>***</sup>	0.145 (0.092)	0.039 (0.023)*	0.832 (0.082) <sup>***</sup>
Island <sub>ij</sub>	0.532 (0.042) <sup>***</sup>	0.162 (0.010) <sup>***</sup>	0.891 (0.097) <sup>***</sup>	0.390 (0.038) <sup>***</sup>	0.095 (0.008) <sup>***</sup>	0.708 (0.088) <sup>***</sup>
Landlocked <sub>ij</sub>	-0.668 (0.043) <sup>***</sup>	-0.246 (0.016) <sup>***</sup>	-1.401 (0.091) <sup>***</sup>	-0.551 (0.038) <sup>***</sup>	-0.168 (0.012) <sup>***</sup>	-1.223 (0.079) <sup>***</sup>
Language <sub>ij</sub>	0.454 (0.023) <sup>***</sup>	0.147 (0.007) <sup>***</sup>		0.371 (0.023) <sup>***</sup>	0.094 (0.005) <sup>***</sup>	
Colony <sub>ij</sub>	0.498 (0.135) <sup>***</sup>	0.151 (0.033) <sup>***</sup>	0.708 (0.098) <sup>***</sup>	0.061 (0.121)	0.017 (0.033)	0.969 (0.095) <sup>***</sup>
ComCount <sub>ij</sub>	0.997 (0.122) <sup>***</sup>	0.245 (0.016) <sup>***</sup>	1.578 (0.170) <sup>***</sup>	0.877 (0.151) <sup>***</sup>	0.163 (0.015) <sup>***</sup>	1.184 (0.161) <sup>***</sup>
PTAS <sub>ijt</sub>	0.273 (0.040) <sup>***</sup>	0.033 (0.008) <sup>***</sup>	0.252 (0.050) <sup>***</sup>	0.154 (0.038) <sup>***</sup>	0.044 (0.011) <sup>***</sup>	0.166 (0.038) <sup>***</sup>
SameCont <sub>ij</sub>	0.096 (0.024) <sup>***</sup>	0.097 (0.014) <sup>***</sup>	0.174 (0.045) <sup>***</sup>	0.043 (0.023)*	0.012 (0.007)*	0.360 (0.039) <sup>***</sup>
$\delta$			0.909 (0.064) <sup>***</sup>			0.974 (0.075) <sup>***</sup>
$\eta_{ij}^*$			0.369 (0.062) <sup>***</sup>			0.374 (0.078) <sup>***</sup>
No observat.	209,639		119,431	210,087		135,781
Pseudo R <sup>2</sup>	0.47			0.42		

Notes:

The regressions include exporter, importer and year fixed effects.

Robust standard errors (clustering by country pair) are in parentheses.

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

Table 3. HMR two-stage estimation of *continental bias* by continent. Sample period 1990-2006

	1990-2006		1990-1998		1999-2006				
	(1)	(2)	(3)	(4)	(5)	(6)			
Variables	Probit coefficient	Marginal effect	ML	Probit coefficient	Marginal effect	ML	Probit coefficient	Marginal effect	ML
Ln Dist <sub>ij</sub>	-0.548 (0.017) ***	-0.179 (0.005) ***	-0.582 (0.044) ***	-0.572 (0.020) ***	-0.203 (0.007) ***	-0.606 (0.044) ***	-0.555 (0.020) ***	-0.160 (0.006) ***	-0.570 (0.047) ***
Contiguity <sub>ij</sub>	0.320 (0.077) ***	0.094 (0.020) ***	0.732 (0.080) ***	0.335 (0.084) ***	0.109 (0.024) ***	0.666 (0.087) ***	0.266 (0.091) ***	0.068 (0.021) ***	0.832 (0.083) ***
Island <sub>ij</sub>	0.413 (0.036) ***	0.118 (0.009) ***	0.718 (0.090) ***	0.497 (0.043) ***	0.154 (0.011) ***	0.832 (0.099) ***	0.366 (0.039) ***	0.091 (0.008) ***	0.628 (0.089) ***
Landlocked <sub>ij</sub>	-0.596 (0.034) ***	-0.205 (0.012) ***	-1.236 (0.081) ***	-0.672 (0.043) ***	-0.248 (0.016) ***	-1.331 (0.091) ***	-0.562 (0.037) ***	-0.173 (0.012) ***	-1.178 (0.080) ***
Language <sub>ij</sub>	0.397 (0.020) ***	0.118 (0.005) ***		0.457 (0.023) ***	0.148 (0.007) ***		0.369 (0.023) ***	0.094 (0.005) ***	
Colony <sub>ij</sub>	0.238 (0.112) **	0.072 (0.031) **	0.822 (0.091) ***	0.488 (0.176) ***	0.150 (0.044) ***	0.633 (0.097) ***	0.064 (0.121)	0.018 (0.033)	0.940 (0.093) ***
ComCount <sub>ij</sub>	0.932 (0.116) ***	0.206 (0.014) ***	1.255 (0.161) ***	1.034 (0.120) ***	0.252 (0.016) ***	1.468 (0.176) ***	0.908 (0.145) ***	0.167 (0.014) ***	1.126 (0.165) ***
PTAS <sub>jt</sub>	0.218 (0.032) ***	0.071 (0.010) ***	0.226 (0.039) ***	0.320 (0.042) ***	0.114 (0.015) ***	0.347 (0.052) ***	0.174 (0.038) ***	0.050 (0.011) ***	0.189 (0.040) ***
Africa <sub>ij</sub>	0.105 (0.028) ***	0.033 (0.009) ***	-0.112 (0.065)*	0.085 (0.035) ***	0.029 (0.012) ***	-0.261 (0.079) ***	0.120 (0.032) ***	0.033 (0.008) ***	0.013 (0.065)
America <sub>ij</sub>	0.503 (0.045) ***	0.138 (0.010) ***	0.414 (0.087) ***	0.537 (0.053) ***	0.164 (0.013) ***	0.384 (0.095) ***	0.501 (0.054) ***	0.117 (0.010) ***	0.460 (0.092) ***
Asia <sub>ij</sub>	-0.040 (0.041)	-0.013 (0.014)	0.658 (0.072) ***	0.072 (0.047)	0.025 (0.016)	0.679 (0.080) ***	-0.148 (0.047) ***	-0.045 (0.015) ***	0.669 (0.074) ***
Europe <sub>ij</sub>	-0.187 (0.043) ***	-0.064 (0.016) ***	0.244 (0.055) ***	-0.205 (0.057) ***	-0.076 (0.022) ***	-0.021 (0.064)	-0.136 (0.052) ***	-0.041 (0.016) ***	0.427 (0.057) ***
Oceania <sub>ij</sub>	1.082 (0.124) ***	0.222 (0.012) ***	0.430 (0.259)*	1.131 (0.134) ***	0.267 (0.014) ***	0.170 (0.261)	1.050 (0.154) ***	0.179 (0.011) ***	0.729 (0.277)**
$\delta$			1.040 (0.078) ***			1.001 (0.070) ***			1.031 (0.082) ***
$\eta_{ij}^*$			0.320 (0.077) ***			0.395 (0.069) ***			0.353 (0.085) ***
No observat.	419,749	255,212		209,639		119,431		210,087	135,781
Pseudo R <sup>2</sup>	0.44			0.47				0.43	

Notes: The regressions include exporter, importer and year fixed effects. Robust standard errors (clustering by country pair) are in parentheses.\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

# FUNDACIÓN DE LAS CAJAS DE AHORROS

---

## DOCUMENTOS DE TRABAJO

### Últimos números publicados

- 159/2000 Participación privada en la construcción y explotación de carreteras de peaje  
Ginés de Rus, Manuel Romero y Lourdes Trujillo
- 160/2000 Errores y posibles soluciones en la aplicación del *Value at Risk*  
Mariano González Sánchez
- 161/2000 Tax neutrality on saving assets. The spahish case before and after the tax reform  
Cristina Ruza y de Paz-Curbra
- 162/2000 Private rates of return to human capital in Spain: new evidence  
F. Barceinas, J. Oliver-Alonso, J.L. Raymond y J.L. Roig-Sabaté
- 163/2000 El control interno del riesgo. Una propuesta de sistema de límites  
riesgo neutral  
Mariano González Sánchez
- 164/2001 La evolución de las políticas de gasto de las Administraciones Pùblicas en los años 90  
Alfonso Utrilla de la Hoz y Carmen Pérez Esparrells
- 165/2001 Bank cost efficiency and output specification  
Emili Tortosa-Ausina
- 166/2001 Recent trends in Spanish income distribution: A robust picture of falling income inequality  
Josep Oliver-Alonso, Xavier Ramos y José Luis Raymond-Bara
- 167/2001 Efectos redistributivos y sobre el bienestar social del tratamiento de las cargas familiares en  
el nuevo IRPF  
Nuria Badenes Plá, Julio López Laborda, Jorge Onrubia Fernández
- 168/2001 The Effects of Bank Debt on Financial Structure of Small and Medium Firms in some European Countries  
Mónica Melle-Hernández
- 169/2001 La política de cohesión de la UE ampliada: la perspectiva de España  
Ismael Sanz Labrador
- 170/2002 Riesgo de liquidez de Mercado  
Mariano González Sánchez
- 171/2002 Los costes de administración para el afiliado en los sistemas de pensiones basados en cuentas  
de capitalización individual: medida y comparación internacional.  
José Enrique Devesa Carpio, Rosa Rodríguez Barrera, Carlos Vidal Meliá
- 172/2002 La encuesta continua de presupuestos familiares (1985-1996): descripción, representatividad  
y propuestas de metodología para la explotación de la información de los ingresos y el gasto.  
Llorenç Pou, Joaquín Alegre
- 173/2002 Modelos paramétricos y no paramétricos en problemas de concesión de tarjetas de credito.  
Rosa Puertas, María Bonilla, Ignacio Olmeda

- 174/2002 Mercado único, comercio intra-industrial y costes de ajuste en las manufacturas españolas.  
José Vicente Blanes Cristóbal
- 175/2003 La Administración tributaria en España. Un análisis de la gestión a través de los ingresos y de los gastos.  
Juan de Dios Jiménez Aguilera, Pedro Enrique Barrilao González
- 176/2003 The Falling Share of Cash Payments in Spain.  
Santiago Carbó Valverde, Rafael López del Paso, David B. Humphrey  
Publicado en "Moneda y Crédito" nº 217, pags. 167-189.
- 177/2003 Effects of ATMs and Electronic Payments on Banking Costs: The Spanish Case.  
Santiago Carbó Valverde, Rafael López del Paso, David B. Humphrey
- 178/2003 Factors explaining the interest margin in the banking sectors of the European Union.  
Joaquín Maudos y Juan Fernández Guevara
- 179/2003 Los planes de stock options para directivos y consejeros y su valoración por el mercado de valores en España.  
Mónica Melle Hernández
- 180/2003 Ownership and Performance in Europe and US Banking – A comparison of Commercial, Co-operative & Savings Banks.  
Yener Altunbas, Santiago Carbó y Phil Molyneux
- 181/2003 The Euro effect on the integration of the European stock markets.  
Mónica Melle Hernández
- 182/2004 In search of complementarity in the innovation strategy: international R&D and external knowledge acquisition.  
Bruno Cassiman, Reinhilde Veugelers
- 183/2004 Fijación de precios en el sector público: una aplicación para el servicio municipal de suministro de agua.  
Mª Ángeles García Valiñas
- 184/2004 Estimación de la economía sumergida en España: un modelo estructural de variables latentes.  
Ángel Alañón Pardo, Miguel Gómez de Antonio
- 185/2004 Causas políticas y consecuencias sociales de la corrupción.  
Joan Oriol Prats Cabrera
- 186/2004 Loan bankers' decisions and sensitivity to the audit report using the belief revision model.  
Andrés Guiral Contreras and José A. Gonzalo Angulo
- 187/2004 El modelo de Black, Derman y Toy en la práctica. Aplicación al mercado español.  
Marta Tolentino García-Abadillo y Antonio Díaz Pérez
- 188/2004 Does market competition make banks perform well?.  
Mónica Melle
- 189/2004 Efficiency differences among banks: external, technical, internal, and managerial  
Santiago Carbó Valverde, David B. Humphrey y Rafael López del Paso

- 190/2004 Una aproximación al análisis de los costes de la esquizofrenia en España: los modelos jerárquicos bayesianos  
F. J. Vázquez-Polo, M. A. Negrín, J. M. Cavasés, E. Sánchez y grupo RIRAG
- 191/2004 Environmental proactivity and business performance: an empirical analysis  
Javier González-Benito y Óscar González-Benito
- 192/2004 Economic risk to beneficiaries in notional defined contribution accounts (NDCs)  
Carlos Vidal-Meliá, Inmaculada Domínguez-Fabian y José Enrique Devesa-Carpio
- 193/2004 Sources of efficiency gains in port reform: non parametric malmquist decomposition tfp index for Mexico  
Antonio Estache, Beatriz Tovar de la Fé y Lourdes Trujillo
- 194/2004 Persistencia de resultados en los fondos de inversión españoles  
Alfredo Ciriaco Fernández y Rafael Santamaría Aquilué
- 195/2005 El modelo de revisión de creencias como aproximación psicológica a la formación del juicio del auditor sobre la gestión continuada  
Andrés Guiral Contreras y Francisco Esteso Sánchez
- 196/2005 La nueva financiación sanitaria en España: descentralización y prospectiva  
David Cantarero Prieto
- 197/2005 A cointegration analysis of the Long-Run supply response of Spanish agriculture to the common agricultural policy  
José A. Méndez, Ricardo Mora y Carlos San Juan
- 198/2005 ¿Refleja la estructura temporal de los tipos de interés del mercado español preferencia por la liquidez?  
Magdalena Massot Perelló y Juan M. Nave
- 199/2005 Análisis de impacto de los Fondos Estructurales Europeos recibidos por una economía regional: Un enfoque a través de Matrices de Contabilidad Social  
M. Carmen Lima y M. Alejandro Cardenete
- 200/2005 Does the development of non-cash payments affect monetary policy transmission?  
Santiago Carbó Valverde y Rafael López del Paso
- 201/2005 Firm and time varying technical and allocative efficiency: an application for port cargo handling firms  
Ana Rodríguez-Álvarez, Beatriz Tovar de la Fe y Lourdes Trujillo
- 202/2005 Contractual complexity in strategic alliances  
Jeffrey J. Reuer y Africa Ariño
- 203/2005 Factores determinantes de la evolución del empleo en las empresas adquiridas por opa  
Nuria Alcalde Frajedas y Inés Pérez-Soba Aguilar
- 204/2005 Nonlinear Forecasting in Economics: a comparison between Comprehension Approach versus Learning Approach. An Application to Spanish Time Series  
Elena Olmedo, Juan M. Valderas, Ricardo Gimeno and Lorenzo Escot

- 205/2005 Precio de la tierra con presión urbana: un modelo para España  
Esther Decimavilla, Carlos San Juan y Stefan Sperlich
- 206/2005 Interregional migration in Spain: a semiparametric analysis  
Adolfo Maza y José Villaverde
- 207/2005 Productivity growth in European banking  
Carmen Murillo-Melchor, José Manuel Pastor y Emili Tortosa-Ausina
- 208/2005 Explaining Bank Cost Efficiency in Europe: Environmental and Productivity Influences.  
Santiago Carbó Valverde, David B. Humphrey y Rafael López del Paso
- 209/2005 La elasticidad de sustitución intertemporal con preferencias no separables intratemporalmente: los casos de Alemania, España y Francia.  
Elena Márquez de la Cruz, Ana R. Martínez Cañete y Inés Pérez-Soba Aguilar
- 210/2005 Contribución de los efectos tamaño, book-to-market y momentum a la valoración de activos: el caso español.  
Begoña Font-Belaire y Alfredo Juan Grau-Grau
- 211/2005 Permanent income, convergence and inequality among countries  
José M. Pastor and Lorenzo Serrano
- 212/2005 The Latin Model of Welfare: Do 'Insertion Contracts' Reduce Long-Term Dependence?  
Luis Ayala and Magdalena Rodríguez
- 213/2005 The effect of geographic expansion on the productivity of Spanish savings banks  
Manuel Illueca, José M. Pastor and Emili Tortosa-Ausina
- 214/2005 Dynamic network interconnection under consumer switching costs  
Ángel Luis López Rodríguez
- 215/2005 La influencia del entorno socioeconómico en la realización de estudios universitarios: una aproximación al caso español en la década de los noventa  
Marta Rahona López
- 216/2005 The valuation of spanish ipos: efficiency analysis  
Susana Álvarez Otero
- 217/2005 On the generation of a regular multi-input multi-output technology using parametric output distance functions  
Sergio Perelman and Daniel Santin
- 218/2005 La gobernanza de los procesos parlamentarios: la organización industrial del congreso de los diputados en España  
Gonzalo Caballero Miguez
- 219/2005 Determinants of bank market structure: Efficiency and political economy variables  
Francisco González
- 220/2005 Agresividad de las órdenes introducidas en el mercado español: estrategias, determinantes y medidas de performance  
David Abad Díaz

- 221/2005 Tendencia post-anuncio de resultados contables: evidencia para el mercado español  
Carlos Forner Rodríguez, Joaquín Marhuenda Fructuoso y Sonia Sanabria García
- 222/2005 Human capital accumulation and geography: empirical evidence in the European Union  
Jesús López-Rodríguez, J. Andrés Faíña y Jose Lopez Rodríguez
- 223/2005 Auditors' Forecasting in Going Concern Decisions: Framing, Confidence and Information Processing  
Waymond Rodgers and Andrés Guiral
- 224/2005 The effect of Structural Fund spending on the Galician region: an assessment of the 1994-1999 and 2000-2006 Galician CSFs  
José Ramón Cancelo de la Torre, J. Andrés Faíña and Jesús López-Rodríguez
- 225/2005 The effects of ownership structure and board composition on the audit committee activity: Spanish evidence  
Carlos Fernández Méndez and Rubén Arrondo García
- 226/2005 Cross-country determinants of bank income smoothing by managing loan loss provisions  
Ana Rosa Fonseca and Francisco González
- 227/2005 Incumplimiento fiscal en el irpf (1993-2000): un análisis de sus factores determinantes  
Alejandro Estellér Moré
- 228/2005 Region versus Industry effects: volatility transmission  
Pilar Soriano Felipe and Francisco J. Climent Diranzo
- 229/2005 Concurrent Engineering: The Moderating Effect Of Uncertainty On New Product Development Success  
Daniel Vázquez-Bustelo and Sandra Valle
- 230/2005 On zero lower bound traps: a framework for the analysis of monetary policy in the 'age' of central banks  
Alfonso Palacio-Vera
- 231/2005 Reconciling Sustainability and Discounting in Cost Benefit Analysis: a methodological proposal  
M. Carmen Almansa Sáez and Javier Calatrava Requena
- 232/2005 Can The Excess Of Liquidity Affect The Effectiveness Of The European Monetary Policy?  
Santiago Carbó Valverde and Rafael López del Paso
- 233/2005 Inheritance Taxes In The Eu Fiscal Systems: The Present Situation And Future Perspectives.  
Miguel Angel Barberán Lahuerta
- 234/2006 Bank Ownership And Informativeness Of Earnings.  
Víctor M. González
- 235/2006 Developing A Predictive Method: A Comparative Study Of The Partial Least Squares Vs Maximum Likelihood Techniques.  
Waymond Rodgers, Paul Pavlou and Andres Guiral.
- 236/2006 Using Compromise Programming for Macroeconomic Policy Making in a General Equilibrium Framework: Theory and Application to the Spanish Economy.  
Francisco J. André, M. Alejandro Cardenete y Carlos Romero.

- 237/2006 Bank Market Power And Sme Financing Constraints.  
Santiago Carbó-Valverde, Francisco Rodríguez-Fernández y Gregory F. Udell.
- 238/2006 Trade Effects Of Monetary Agreements: Evidence For Oecd Countries.  
Salvador Gil-Pareja, Rafael Llorca-Vivero y José Antonio Martínez-Serrano.
- 239/2006 The Quality Of Institutions: A Genetic Programming Approach.  
Marcos Álvarez-Díaz y Gonzalo Caballero Miguez.
- 240/2006 La interacción entre el éxito competitivo y las condiciones del mercado doméstico como determinantes de la decisión de exportación en las Pymes.  
Francisco García Pérez.
- 241/2006 Una estimación de la depreciación del capital humano por sectores, por ocupación y en el tiempo.  
Inés P. Murillo.
- 242/2006 Consumption And Leisure Externalities, Economic Growth And Equilibrium Efficiency.  
Manuel A. Gómez.
- 243/2006 Measuring efficiency in education: an analysis of different approaches for incorporating non-discretionary inputs.  
Jose Manuel Cordero-Ferrera, Francisco Pedraja-Chaparro y Javier Salinas-Jiménez
- 244/2006 Did The European Exchange-Rate Mechanism Contribute To The Integration Of Peripheral Countries?.  
Salvador Gil-Pareja, Rafael Llorca-Vivero y José Antonio Martínez-Serrano
- 245/2006 Intergenerational Health Mobility: An Empirical Approach Based On The Echp.  
Marta Pascual and David Cantarero
- 246/2006 Measurement and analysis of the Spanish Stock Exchange using the Lyapunov exponent with digital technology.  
Salvador Rojí Ferrari and Ana Gonzalez Marcos
- 247/2006 Testing For Structural Breaks In Variance Withadditive Outliers And Measurement Errors.  
Paulo M.M. Rodrigues and Antonio Rubia
- 248/2006 The Cost Of Market Power In Banking: Social Welfare Loss Vs. Cost Inefficiency.  
Joaquín Maudos and Juan Fernández de Guevara
- 249/2006 Elasticidades de largo plazo de la demanda de vivienda: evidencia para España (1885-2000).  
Desiderio Romero Jordán, José Félix Sanz Sanz y César Pérez López
- 250/2006 Regional Income Disparities in Europe: What role for location?.  
Jesús López-Rodríguez and J. Andrés Faíña
- 251/2006 Funciones abreviadas de bienestar social: Una forma sencilla de simultanear la medición de la eficiencia y la equidad de las políticas de gasto público.  
Nuria Badenes Plá y Daniel Santín González
- 252/2006 “The momentum effect in the Spanish stock market: Omitted risk factors or investor behaviour?”.  
Luis Muga and Rafael Santamaría
- 253/2006 Dinámica de precios en el mercado español de gasolina: un equilibrio de colusión tácita.  
Jordi Perdiguero García

- 254/2006 Desigualdad regional en España: renta permanente versus renta corriente.  
José M.Pastor, Empar Pons y Lorenzo Serrano
- 255/2006 Environmental implications of organic food preferences: an application of the impure public goods model.  
Ana María Aldanondo-Ochoa y Carmen Almansa-Sáez
- 256/2006 Family tax credits versus family allowances when labour supply matters: Evidence for Spain.  
José Félix Sanz-Sanz, Desiderio Romero-Jordán y Santiago Álvarez-García
- 257/2006 La internacionalización de la empresa manufacturera española: efectos del capital humano genérico y específico.  
José López Rodríguez
- 258/2006 Evaluación de las migraciones interregionales en España, 1996-2004.  
María Martínez Torres
- 259/2006 Efficiency and market power in Spanish banking.  
Rolf Färe, Shawna Grosskopf y Emili Tortosa-Ausina.
- 260/2006 Asimetrías en volatilidad, beta y contagios entre las empresas grandes y pequeñas cotizadas en la bolsa española.  
Helena Chuliá y Hipòlit Torró.
- 261/2006 Birth Replacement Ratios: New Measures of Period Population Replacement.  
José Antonio Ortega.
- 262/2006 Accidentes de tráfico, víctimas mortales y consumo de alcohol.  
José Mª Arranz y Ana I. Gil.
- 263/2006 Análisis de la Presencia de la Mujer en los Consejos de Administración de las Mil Mayores Empresas Españolas.  
Ruth Mateos de Cabo, Lorenzo Escot Mangas y Ricardo Gimeno Nogués.
- 264/2006 Crisis y Reforma del Pacto de Estabilidad y Crecimiento. Las Limitaciones de la Política Económica en Europa.  
Ignacio Álvarez Peralta.
- 265/2006 Have Child Tax Allowances Affected Family Size? A Microdata Study For Spain (1996-2000).  
Jaime Vallés-Giménez y Anabel Zárate-Marco.
- 266/2006 Health Human Capital And The Shift From Foraging To Farming.  
Paolo Rungo.
- 267/2006 Financiación Autonómica y Política de la Competencia: El Mercado de Gasolina en Canarias.  
Juan Luis Jiménez y Jordi Perdigueró.
- 268/2006 El cumplimiento del Protocolo de Kyoto para los hogares españoles: el papel de la imposición sobre la energía.  
Desiderio Romero-Jordán y José Félix Sanz-Sanz.
- 269/2006 Banking competition, financial dependence and economic growth  
Joaquín Maudos y Juan Fernández de Guevara
- 270/2006 Efficiency, subsidies and environmental adaptation of animal farming under CAP  
Werner Kleinhans, Carmen Murillo, Carlos San Juan y Stefan Sperlich

- 271/2006 Interest Groups, Incentives to Cooperation and Decision-Making Process in the European Union  
A. García-Lorenzo y Jesús López-Rodríguez
- 272/2006 Riesgo asimétrico y estrategias de momentum en el mercado de valores español  
Luis Muga y Rafael Santamaría
- 273/2006 Valoración de capital riesgo en proyectos de base tecnológica e innovadora a través de la teoría de opciones reales  
Gracia Rubio Martín
- 274/2006 Capital stock and unemployment: searching for the missing link  
Ana Rosa Martínez-Cañete, Elena Márquez de la Cruz, Alfonso Palacio-Vera and Inés Pérez-Soba Aguilar
- 275/2006 Study of the influence of the voters' political culture on vote decision through the simulation of a political competition problem in Spain  
Sagrario Lantarón, Isabel Lillo, Mª Dolores López and Javier Rodrigo
- 276/2006 Investment and growth in Europe during the Golden Age  
Antonio Cubel and Mª Teresa Sanchis
- 277/2006 Efectos de vincular la pensión pública a la inversión en cantidad y calidad de hijos en un modelo de equilibrio general  
Robert Meneu Gaya
- 278/2006 El consumo y la valoración de activos  
Elena Márquez y Belén Nieto
- 279/2006 Economic growth and currency crisis: A real exchange rate entropic approach  
David Matesanz Gómez y Guillermo J. Ortega
- 280/2006 Three measures of returns to education: An illustration for the case of Spain  
María Arrazola y José de Hevia
- 281/2006 Composition of Firms versus Composition of Jobs  
Antoni Cunyat
- 282/2006 La vocación internacional de un holding tranviario belga: la Compagnie Mutuelle de Tramways, 1895-1918  
Alberte Martínez López
- 283/2006 Una visión panorámica de las entidades de crédito en España en la última década.  
Constantino García Ramos
- 284/2006 Foreign Capital and Business Strategies: a comparative analysis of urban transport in Madrid and Barcelona, 1871-1925  
Alberte Martínez López
- 285/2006 Los intereses belgas en la red ferroviaria catalana, 1890-1936  
Alberte Martínez López
- 286/2006 The Governance of Quality: The Case of the Agrifood Brand Names  
Marta Fernández Barcala, Manuel González-Díaz y Emmanuel Raynaud
- 287/2006 Modelling the role of health status in the transition out of malthusian equilibrium  
Paolo Rungo, Luis Currais and Berta Rivera
- 288/2006 Industrial Effects of Climate Change Policies through the EU Emissions Trading Scheme  
Xavier Labandeira and Miguel Rodríguez

- 289/2006 Globalisation and the Composition of Government Spending: An analysis for OECD countries  
Norman Gemmell, Richard Kneller and Ismael Sanz
- 290/2006 La producción de energía eléctrica en España: Análisis económico de la actividad tras la liberalización del Sector Eléctrico  
Fernando Hernández Martínez
- 291/2006 Further considerations on the link between adjustment costs and the productivity of R&D investment: evidence for Spain  
Desiderio Romero-Jordán, José Félix Sanz-Sanz and Inmaculada Álvarez-Ayuso
- 292/2006 Una teoría sobre la contribución de la función de compras al rendimiento empresarial  
Javier González Benito
- 293/2006 Agility drivers, enablers and outcomes: empirical test of an integrated agile manufacturing model  
Daniel Vázquez-Bustelo, Lucía Avella and Esteban Fernández
- 294/2006 Testing the parametric vs the semiparametric generalized mixed effects models  
María José Lombardía and Stefan Sperlich
- 295/2006 Nonlinear dynamics in energy futures  
Mariano Matilla-García
- 296/2006 Estimating Spatial Models By Generalized Maximum Entropy Or How To Get Rid Of W  
Esteban Fernández Vázquez, Matías Mayor Fernández and Jorge Rodríguez-Valez
- 297/2006 Optimización fiscal en las transmisiones lucrativas: análisis metodológico  
Félix Domínguez Barrero
- 298/2006 La situación actual de la banca online en España  
Francisco José Climent Diranzo y Alexandre Momparler Pechuán
- 299/2006 Estrategia competitiva y rendimiento del negocio: el papel mediador de la estrategia y las capacidades productivas  
Javier González Benito y Isabel Suárez González
- 300/2006 A Parametric Model to Estimate Risk in a Fixed Income Portfolio  
Pilar Abad and Sonia Benito
- 301/2007 Análisis Empírico de las Preferencias Sociales Respecto del Gasto en Obra Social de las Cajas de Ahorros  
Alejandro Esteller-Moré, Jonathan Jorba Jiménez y Albert Solé-Ollé
- 302/2007 Assessing the enlargement and deepening of regional trading blocs: The European Union case  
Salvador Gil-Pareja, Rafael Llorca-Vivero y José Antonio Martínez-Serrano
- 303/2007 ¿Es la Franquicia un Medio de Financiación?: Evidencia para el Caso Español  
Vanesa Solís Rodríguez y Manuel González Díaz
- 304/2007 On the Finite-Sample Biases in Nonparametric Testing for Variance Constancy  
Paulo M.M. Rodrigues and Antonio Rubia
- 305/2007 Spain is Different: Relative Wages 1989-98  
José Antonio Carrasco Gallego

- 306/2007 Poverty reduction and SAM multipliers: An evaluation of public policies in a regional framework  
Francisco Javier De Miguel-Vélez y Jesús Pérez-Mayo
- 307/2007 La Eficiencia en la Gestión del Riesgo de Crédito en las Cajas de Ahorro  
Marcelino Martínez Cabrera
- 308/2007 Optimal environmental policy in transport: unintended effects on consumers' generalized price  
M. Pilar Socorro and Ofelia Betancor
- 309/2007 Agricultural Productivity in the European Regions: Trends and Explanatory Factors  
Roberto Ezcurra, Belen Iráizoz, Pedro Pascual and Manuel Rapún
- 310/2007 Long-run Regional Population Divergence and Modern Economic Growth in Europe: a Case Study of Spain  
María Isabel Ayuda, Fernando Collantes and Vicente Pinilla
- 311/2007 Financial Information effects on the measurement of Commercial Banks' Efficiency  
Borja Amor, María T. Tascón and José L. Fanjul
- 312/2007 Neutralidad e incentivos de las inversiones financieras en el nuevo IRPF  
Félix Domínguez Barrero
- 313/2007 The Effects of Corporate Social Responsibility Perceptions on The Valuation of Common Stock  
Waymond Rodgers , Helen Choy and Andres Guiral-Contreras
- 314/2007 Country Creditor Rights, Information Sharing and Commercial Banks' Profitability Persistence across the world  
Borja Amor, María T. Tascón and José L. Fanjul
- 315/2007 ¿Es Relevante el Déficit Corriente en una Unión Monetaria? El Caso Español  
Javier Blanco González y Ignacio del Rosal Fernández
- 316/2007 The Impact of Credit Rating Announcements on Spanish Corporate Fixed Income Performance: Returns, Yields and Liquidity  
Pilar Abad, Antonio Díaz and M. Dolores Robles
- 317/2007 Indicadores de Lealtad al Establecimiento y Formato Comercial Basados en la Distribución del Presupuesto  
Cesar Augusto Bustos Reyes y Óscar González Benito
- 318/2007 Migrants and Market Potential in Spain over The XXth Century: A Test Of The New Economic Geography  
Daniel A. Tirado, Jordi Pons, Elisenda Paluzie and Javier Silvestre
- 319/2007 El Impacto del Coste de Oportunidad de la Actividad Emprendedora en la Intención de los Ciudadanos Europeos de Crear Empresas  
Luis Miguel Zapico Aldeano
- 320/2007 Los belgas y los ferrocarriles de vía estrecha en España, 1887-1936  
Alberte Martínez López
- 321/2007 Competición política bipartidista. Estudio geométrico del equilibrio en un caso ponderado  
Isabel Lillo, Mª Dolores López y Javier Rodrigo
- 322/2007 Human resource management and environment management systems: an empirical study  
Mª Concepción López Fernández, Ana Mª Serrano Bedia and Gema García Piqueres

- 323/2007 Wood and industrialization. evidence and hypotheses from the case of Spain, 1860-1935.  
Iñaki Iriarte-Goñi and María Isabel Ayuda Bosque
- 324/2007 New evidence on long-run monetary neutrality.  
J. Cunado, L.A. Gil-Alana and F. Perez de Gracia
- 325/2007 Monetary policy and structural changes in the volatility of us interest rates.  
Juncal Cuñado, Javier Gomez Biscarri and Fernando Perez de Gracia
- 326/2007 The productivity effects of intrafirm diffusion.  
Lucio Fuentelsaz, Jaime Gómez and Sergio Palomas
- 327/2007 Unemployment duration, layoffs and competing risks.  
J.M. Arranz, C. García-Serrano and L. Toharia
- 328/2007 El grado de cobertura del gasto público en España respecto a la UE-15  
Nuria Rueda, Begoña Barruso, Carmen Calderón y Mª del Mar Herrador
- 329/2007 The Impact of Direct Subsidies in Spain before and after the CAP'92 Reform  
Carmen Murillo, Carlos San Juan and Stefan Sperlich
- 330/2007 Determinants of post-privatisation performance of Spanish divested firms  
Laura Cabeza García and Silvia Gómez Ansón
- 331/2007 ¿Por qué deciden diversificar las empresas españolas? Razones oportunistas versus razones económicas  
Almudena Martínez Campillo
- 332/2007 Dynamical Hierarchical Tree in Currency Markets  
Juan Gabriel Brida, David Matesanz Gómez and Wiston Adrián Risso
- 333/2007 Los determinantes sociodemográficos del gasto sanitario. Análisis con microdatos individuales  
Ana María Angulo, Ramón Barberán, Pilar Egea y Jesús Mur
- 334/2007 Why do companies go private? The Spanish case  
Inés Pérez-Soba Aguilar
- 335/2007 The use of gis to study transport for disabled people  
Verónica Cañal Fernández
- 336/2007 The long run consequences of M&A: An empirical application  
Cristina Bernad, Lucio Fuentelsaz and Jaime Gómez
- 337/2007 Las clasificaciones de materias en economía: principios para el desarrollo de una nueva clasificación  
Valentín Edo Hernández
- 338/2007 Reforming Taxes and Improving Health: A Revenue-Neutral Tax Reform to Eliminate Medical and Pharmaceutical VAT  
Santiago Álvarez-García, Carlos Pestana Barros y Juan Prieto-Rodríguez
- 339/2007 Impacts of an iron and steel plant on residential property values  
Celia Bilbao-Terol
- 340/2007 Firm size and capital structure: Evidence using dynamic panel data  
Víctor M. González and Francisco González

- 341/2007 ¿Cómo organizar una cadena hotelera? La elección de la forma de gobierno  
Marta Fernández Barcala y Manuel González Díaz
- 342/2007 Análisis de los efectos de la decisión de diversificar: un contraste del marco teórico “Agencia-Stewardship”  
Almudena Martínez Campillo y Roberto Fernández Gago
- 343/2007 Selecting portfolios given multiple eurostoxx-based uncertainty scenarios: a stochastic goal programming approach from fuzzy betas  
Enrique Ballesteros, Blanca Pérez-Gladish, Mar Arenas-Parra and Amelia Bilbao-Terol
- 344/2007 “El bienestar de los inmigrantes y los factores implicados en la decisión de emigrar”  
Anastasia Hernández Alemán y Carmelo J. León
- 345/2007 Governance Decisions in the R&D Process: An Integrative Framework Based on TCT and Knowledge View of The Firm.  
Andrea Martínez-Noya and Esteban García-Canal
- 346/2007 Diferencias salariales entre empresas públicas y privadas. El caso español  
Begoña Cueto y Nuria Sánchez- Sánchez
- 347/2007 Effects of Fiscal Treatments of Second Home Ownership on Renting Supply  
Celia Bilbao Terol and Juan Prieto Rodríguez
- 348/2007 Auditors’ ethical dilemmas in the going concern evaluation  
Andres Guiral, Waymond Rodgers, Emiliano Ruiz and Jose A. Gonzalo
- 349/2007 Convergencia en capital humano en España. Un análisis regional para el periodo 1970-2004  
Susana Morales Sequera y Carmen Pérez Esparrells
- 350/2007 Socially responsible investment: mutual funds portfolio selection using fuzzy multiobjective programming  
Blanca Mª Pérez-Gladish, Mar Arenas-Parra , Amelia Bilbao-Terol and Mª Victoria Rodríguez-Uría
- 351/2007 Persistencia del resultado contable y sus componentes: implicaciones de la medida de ajustes por devengo  
Raúl Iñiguez Sánchez y Francisco Poveda Fuentes
- 352/2007 Wage Inequality and Globalisation: What can we Learn from the Past? A General Equilibrium Approach  
Concha Betrán, Javier Ferri and Maria A. Pons
- 353/2007 Eficacia de los incentivos fiscales a la inversión en I+D en España en los años noventa  
Desiderio Romero Jordán y José Félix Sanz Sanz
- 354/2007 Convergencia regional en renta y bienestar en España  
Robert Meneu Gaya
- 355/2007 Tributación ambiental: Estado de la Cuestión y Experiencia en España  
Ana Carrera Poncela
- 356/2007 Salient features of dependence in daily us stock market indices  
Luis A. Gil-Alana, Juncal Cuñado and Fernando Pérez de Gracia
- 357/2007 La educación superior: ¿un gasto o una inversión rentable para el sector público?  
Inés P. Murillo y Francisco Pedraja

- 358/2007 Effects of a reduction of working hours on a model with job creation and job destruction  
Emilio Domínguez, Miren Ullibarri y Idoya Zabaleta
- 359/2007 Stock split size, signaling and earnings management: Evidence from the Spanish market  
José Yagüe, J. Carlos Gómez-Sala and Francisco Poveda-Fuentes
- 360/2007 Modelización de las expectativas y estrategias de inversión en mercados de derivados  
Begoña Font-Belaire
- 361/2008 Trade in capital goods during the golden age, 1953-1973  
Mª Teresa Sanchis and Antonio Cubel
- 362/2008 El capital económico por riesgo operacional: una aplicación del modelo de distribución de pérdidas  
Enrique José Jiménez Rodríguez y José Manuel Feria Domínguez
- 363/2008 The drivers of effectiveness in competition policy  
Joan-Ramon Borrell and Juan-Luis Jiménez
- 364/2008 Corporate governance structure and board of directors remuneration policies:  
evidence from Spain  
Carlos Fernández Méndez, Rubén Arrondo García and Enrique Fernández Rodríguez
- 365/2008 Beyond the disciplinary role of governance: how boards and donors add value to Spanish foundations  
Pablo De Andrés Alonso, Valentín Azofra Palenzuela y M. Elena Romero Merino
- 366/2008 Complejidad y perfeccionamiento contractual para la contención del oportunismo en los acuerdos de franquicia  
Vanesa Solís Rodríguez y Manuel González Díaz
- 367/2008 Inestabilidad y convergencia entre las regiones europeas  
Jesús Mur, Fernando López y Ana Angulo
- 368/2008 Análisis espacial del cierre de explotaciones agrarias  
Ana Aldanondo Ochoa, Carmen Almansa Sáez y Valero Casanovas Oliva
- 369/2008 Cross-Country Efficiency Comparison between Italian and Spanish Public Universities in the period 2000-2005  
Tommaso Agasisti and Carmen Pérez Esparrells
- 370/2008 El desarrollo de la sociedad de la información en España: un análisis por comunidades autónomas  
María Concepción García Jiménez y José Luis Gómez Barroso
- 371/2008 El medioambiente y los objetivos de fabricación: un análisis de los modelos estratégicos para su consecución  
Lucía Avella Camarero, Esteban Fernández Sánchez y Daniel Vázquez-Bustelo
- 372/2008 Influence of bank concentration and institutions on capital structure: New international evidence  
Víctor M. González and Francisco González
- 373/2008 Generalización del concepto de equilibrio en juegos de competición política  
Mª Dolores López González y Javier Rodrigo Hitos
- 374/2008 Smooth Transition from Fixed Effects to Mixed Effects Models in Multi-level regression Models  
María José Lombardía and Stefan Sperlich

- 375/2008 A Revenue-Neutral Tax Reform to Increase Demand for Public Transport Services  
Carlos Pestana Barros and Juan Prieto-Rodriguez
- 376/2008 Measurement of intra-distribution dynamics: An application of different approaches to the European regions  
Adolfo Maza, María Hierro and José Villaverde
- 377/2008 Migración interna de extranjeros y ¿nueva fase en la convergencia?  
María Hierro y Adolfo Maza
- 378/2008 Efectos de la Reforma del Sector Eléctrico: Modelización Teórica y Experiencia Internacional  
Ciro Eduardo Bazán Navarro
- 379/2008 A Non-Parametric Independence Test Using Permutation Entropy  
Mariano Matilla-García and Manuel Ruiz Marín
- 380/2008 Testing for the General Fractional Unit Root Hypothesis in the Time Domain  
Uwe Hassler, Paulo M.M. Rodrigues and Antonio Rubia
- 381/2008 Multivariate gram-charlier densities  
Esther B. Del Brio, Trino-Manuel Níguez and Javier Perote
- 382/2008 Analyzing Semiparametrically the Trends in the Gender Pay Gap - The Example of Spain  
Ignacio Moral-Arce, Stefan Sperlich, Ana I. Fernández-Sáinz and María J. Roca
- 383/2008 A Cost-Benefit Analysis of a Two-Sided Card Market  
Santiago Carbó Valverde, David B. Humphrey, José Manuel Liñares Zegarra and Francisco Rodríguez Fernandez
- 384/2008 A Fuzzy Bicriteria Approach for Journal Deselection in a Hospital Library  
M. L. López-Avello, M. V. Rodríguez-Uría, B. Pérez-Gladish, A. Bilbao-Terol, M. Arenas-Parra
- 385/2008 Valoración de las grandes corporaciones farmaceúticas, a través del análisis de sus principales intangibles, con el método de opciones reales  
Gracia Rubio Martín y Prosper Lamothe Fernández
- 386/2008 El marketing interno como impulsor de las habilidades comerciales de las pyme españolas: efectos en los resultados empresariales  
Mª Leticia Santos Vijande, Mª José Sanzo Pérez, Nuria García Rodríguez y Juan A. Trespalacios Gutiérrez
- 387/2008 Understanding Warrants Pricing: A case study of the financial market in Spain  
David Abad y Belén Nieto
- 388/2008 Aglomeración espacial, Potencial de Mercado y Geografía Económica: Una revisión de la literatura  
Jesús López-Rodríguez y J. Andrés Faíña
- 389/2008 An empirical assessment of the impact of switching costs and first mover advantages on firm performance  
Jaime Gómez, Juan Pablo Maícas
- 390/2008 Tender offers in Spain: testing the wave  
Ana R. Martínez-Cañete y Inés Pérez-Soba Aguilar

- 391/2008 La integración del mercado español a finales del siglo XIX: los precios del trigo entre 1891 y 1905  
Mariano Matilla García, Pedro Pérez Pascual y Basilio Sanz Carnero
- 392/2008 Cuando el tamaño importa: estudio sobre la influencia de los sujetos políticos en la balanza de bienes y servicios  
Alfonso Echazarra de Gregorio
- 393/2008 Una visión cooperativa de las medidas ante el posible daño ambiental de la desalación  
Borja Montaño Sanz
- 394/2008 Efectos externos del endeudamiento sobre la calificación crediticia de las Comunidades Autónomas  
Andrés Leal Marcos y Julio López Laborda
- 395/2008 Technical efficiency and productivity changes in Spanish airports: A parametric distance functions approach  
Beatriz Tovar & Roberto Rendeiro Martín-Cejas
- 396/2008 Network analysis of exchange data: Interdependence drives crisis contagion  
David Matesanz Gómez & Guillermo J. Ortega
- 397/2008 Explaining the performance of Spanish privatised firms: a panel data approach  
Laura Cabeza García and Silvia Gomez Anson
- 398/2008 Technological capabilities and the decision to outsource R&D services  
Andrea Martínez-Noya and Esteban García-Canal
- 399/2008 Hybrid Risk Adjustment for Pharmaceutical Benefits  
Manuel García-Goñi, Pere Ibern & José María Inoriza
- 400/2008 The Team Consensus–Performance Relationship and the Moderating Role of Team Diversity  
José Henrique Dieguez, Javier González-Benito and Jesús Galende
- 401/2008 The institutional determinants of CO<sub>2</sub> emissions: A computational modelling approach using Artificial Neural Networks and Genetic Programming  
Marcos Álvarez-Díaz , Gonzalo Caballero Miguez and Mario Soliño
- 402/2008 Alternative Approaches to Include Exogenous Variables in DEA Measures: A Comparison Using Monte Carlo  
José Manuel Cordero-Ferrera, Francisco Pedraja-Chaparro and Daniel Santín-González
- 403/2008 Efecto diferencial del capital humano en el crecimiento económico andaluz entre 1985 y 2004: comparación con el resto de España  
M<sup>a</sup> del Pópulo Pablo-Romero Gil-Delgado y M<sup>a</sup> de la Palma Gómez-Calero Valdés
- 404/2008 Análisis de fusiones, variaciones conjeturales y la falacia del estimador en diferencias  
Juan Luis Jiménez y Jordi Perdiguer
- 405/2008 Política fiscal en la uem: ¿basta con los estabilizadores automáticos?  
Jorge Uxó González y M<sup>a</sup> Jesús Arroyo Fernández
- 406/2008 Papel de la orientación emprendedora y la orientación al mercado en el éxito de las empresas  
Óscar González-Benito, Javier González-Benito y Pablo A. Muñoz-Gallego
- 407/2008 La presión fiscal por impuesto sobre sociedades en la unión europea  
Elena Fernández Rodríguez, Antonio Martínez Arias y Santiago Álvarez García

- 408/2008 The environment as a determinant factor of the purchasing and supply strategy: an empirical analysis  
Dr. Javier González-Benito y MS Duilio Reis da Rocha
- 409/2008 Cooperation for innovation: the impact on innovative effort  
Gloria Sánchez González and Liliana Herrera
- 410/2008 Spanish post-earnings announcement drift and behavioral finance models  
Carlos Forner and Sonia Sanabria
- 411/2008 Decision taking with external pressure: evidence on football manager dismissals in argentina and their consequences  
Ramón Flores, David Forrest and Juan de Dios Tena
- 412/2008 Comercio agrario latinoamericano, 1963-2000: aplicación de la ecuación gravitacional para flujos desagregados de comercio  
Raúl Serrano y Vicente Pinilla
- 413/2008 Voter heuristics in Spain: a descriptive approach elector decision  
José Luís Sáez Lozano and Antonio M. Jaime Castillo
- 414/2008 Análisis del efecto área de salud de residencia sobre la utilización y acceso a los servicios sanitarios en la Comunidad Autónoma Canaria  
Ignacio Abásolo Alessón, Lidia García Pérez, Raquel Aguiar Ibáñez y Asier Amador Robayna
- 415/2008 Impact on competitive balance from allowing foreign players in a sports league: an analytical model and an empirical test  
Ramón Flores, David Forrest & Juan de Dios Tena
- 416/2008 Organizational innovation and productivity growth: Assessing the impact of outsourcing on firm performance  
Alberto López
- 417/2008 Value Efficiency Analysis of Health Systems  
Eduardo González, Ana Cárcaba & Juan Ventura
- 418/2008 Equidad en la utilización de servicios sanitarios públicos por comunidades autónomas en España: un análisis multinivel  
Ignacio Abásolo, Jaime Pinilla, Miguel Negrín, Raquel Aguiar y Lidia García
- 419/2008 Piedras en el camino hacia Bolonia: efectos de la implantación del EEEES sobre los resultados académicos  
Carmen Florido, Juan Luis Jiménez e Isabel Santana
- 420/2008 The welfare effects of the allocation of airlines to different terminals  
M. Pilar Socorro and Ofelia Betancor
- 421/2008 How bank capital buffers vary across countries. The influence of cost of deposits, market power and bank regulation  
Ana Rosa Fonseca and Francisco González
- 422/2008 Analysing health limitations in spain: an empirical approach based on the european community household panel  
Marta Pascual and David Cantarero

- 423/2008 Regional productivity variation and the impact of public capital stock: an analysis with spatial interaction, with reference to Spain  
Miguel Gómez-Antonio and Bernard Fingleton
- 424/2008 Average effect of training programs on the time needed to find a job. The case of the training schools program in the south of Spain (Seville, 1997-1999).  
José Manuel Cansino Muñoz-Repiso and Antonio Sánchez Braza
- 425/2008 Medición de la eficiencia y cambio en la productividad de las empresas distribuidoras de electricidad en Perú después de las reformas  
Raúl Pérez-Reyes y Beatriz Tovar
- 426/2008 Acercaando posturas sobre el descuento ambiental: sondeo Delphi a expertos en el ámbito internacional  
Carmen Almansa Sáez y José Miguel Martínez Paz
- 427/2008 Determinants of abnormal liquidity after rating actions in the Corporate Debt Market  
Pilar Abad, Antonio Díaz and M. Dolores Robles
- 428/2008 Export led-growth and balance of payments constrained. New formalization applied to Cuban commercial regimes since 1960  
David Matesanz Gómez, Guadalupe Fugarolas Álvarez-Ude and Isis Mañalich Gálvez
- 429/2008 La deuda implícita y el desequilibrio financiero-actuarial de un sistema de pensiones. El caso del régimen general de la seguridad social en España  
José Enrique Devesa Carpio y Mar Devesa Carpio
- 430/2008 Efectos de la descentralización fiscal sobre el precio de los carburantes en España  
Desiderio Romero Jordán, Marta Jorge García-Inés y Santiago Álvarez García
- 431/2008 Euro, firm size and export behavior  
Silviano Esteve-Pérez, Salvador Gil-Pareja, Rafael Llorca-Vivero and José Antonio Martínez-Serrano
- 432/2008 Does social spending increase support for free trade in advanced democracies?  
Ismael Sanz, Ferran Martínez i Coma and Federico Steinberg
- 433/2008 Potencial de Mercado y Estructura Espacial de Salarios: El Caso de Colombia  
Jesús López-Rodríguez y María Cecilia Acevedo
- 434/2008 Persistence in Some Energy Futures Markets  
Juncal Cunado, Luis A. Gil-Alana and Fernando Pérez de Gracia
- 435/2008 La inserción financiera externa de la economía francesa: inversores institucionales y nueva gestión empresarial  
Ignacio Álvarez Peralta
- 436/2008 ¿Flexibilidad o rigidez salarial en España?: un análisis a escala regional  
Ignacio Moral Arce y Adolfo Maza Fernández
- 437/2009 Intangible relationship-specific investments and the performance of r&d outsourcing agreements  
Andrea Martínez-Noya, Esteban García-Canal & Mauro F. Guillén
- 438/2009 Friendly or Controlling Boards?  
Pablo de Andrés Alonso & Juan Antonio Rodríguez Sanz

- 439/2009 La sociedad Trenor y Cía. (1838-1926): un modelo de negocio industrial en la España del siglo XIX  
Amparo Ruiz Llopis
- 440/2009 Continental bias in trade  
Salvador Gil-Pareja, Rafael Llorca-Vivero & José Antonio Martínez Serrano