TRADE EFFECTS OF CONTINENTAL AND INTERCONTINENTAL PREFERENTIAL TRADE AGREEMENTS

SALVADOR GIL-PAREJA
RAFAEL LLORCA-VIVERO
JOSÉ ANTONIO MARTÍNEZ-SERRAN

FUNDACIÓN DE LAS CAJAS DE AHORROS
DOCUMENTO DE TRABAJO
Nº 486/2009

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.

TRADE EFFECTS OF CONTINENTAL AND INTERCONTINENTAL PREFERENTIAL TRADE AGREEMENTS

Salvador Gil-Pareja*

Rafael Llorca-Vivero*

José Antonio Martínez-Serrano*

Abstract

The specialised literature calls preferential trade agreements (PTAs) that are drawn along continental lines *natural*, to distinguish them from intercontinental PTAs, which are called *unnatural*. The central statement of the hypothesis of "natural" trading partners is that to the extent that trade follows the natural lines dictated by proximity the formation of regional trading blocs is good. Such natural blocs are contrasted with unnatural blocs, PTAs between countries on different continents, which are less likely to be welfare improving through their impact on trade. The goal of this paper is to determine the effect on trade of continental and intercontinental PTAs. To this end, using the gravity equation we estimate trade creation and trade diversion effects of both kinds of PTAs on a sample of 182 countries over the period 1980-2007. The results indicate that trade creation forces prevail over trade diverting ones in continental PTAs whereas this is not the case for intercontinental preferential agreements.

Keywords: Natural and unnatural trading partners, Continents, Preferential trade agreements.

JEL Classification: F14.

Corresponding author: Salvador Gil Pareja. *Facultad de Economía, Departamento de Estructura Económica, Av. de los Naranjos s/n, C.P. 46022, Valencia, Spain. Email: Salvador.Gil-Pareja@uv.es;

* Facultad de Economía, Departamento de Estructura Económica, Av. de los Naranjos s/n, C.P. 46022, Valencia, Spain.

Acknowledgements: We gratefully acknowledge an anonymous referee for helpful comments and suggestions. We also thanks Marc Melitz for kindly help in the implementation of the econometric estimator. This study is part of a research project financed by *Ministerio de Ciencia y Tecnología* (project SEJ2006-07238/ECO and ECO2009-08181) and has been part-founded by the European Regional Development Fund (ERDF). We also thanks financial support from the Generalitat Valenciana (GVPROMETEO2009-098).

1. Introduction

During the last two decades there has been a dramatic rise in the number of preferential trade agreements (PTAs) all over the world.[1] In the "Americas", the Common Market of the South (MERCOSUR) and the North American Free Trade Association (NAFTA) were created in 1991 and 1994, respectively, and old PTAs like the Andean Pact and the Central American Common Market (CACM) started a process of renewal in the late 1980s and early 1990s.[2] Moreover, 34 American countries have been negotiating since 1994 a continental-wide free trade agreement (known as the Free Trade Area of the Americas) that would include all democracies in the Western Hemisphere.[3] The process of regionalism has also received a revived impulse in Africa by both the creation of new regional agreements (on the basis of old ones) and the broadening and deepening of existing agreements.[4] In Europe, the European Union (EU) has experimented successive enlargements (from 12 members until 1995 to 27 in 2007) and a deepening in the economic integration process.[5] Additionally, the European Economic Area, an agreement that entered into force in 1994, has created a Free Trade Agreement between remaining European Free Trade Association (EFTA) members (with the exception of Switzerland) and EU.[6] In Asia, the Association of the Southeast Asian Nations (ASEAN)[7] broadened from 6 to 10 countries in the 1990s, and nowadays the major countries in the region are rigorously pursuing preferential trade agreements, which may eventually lead to an Asian-wide trade bloc. Finally, Oceania has not been an exception. The Australia New Zealand Closer Economic Relations Trade Agreement (into force since 1983) has totally eliminated tariffs and quantitative restrictions

[1] In the period 1948-1994, the GATT received 124 notifications of preferential trade agreements (relating to trade in goods). Since the creation of the World Trade Organization (WTO) in 1995, near 300 agreements covering trade in goods and services have been notified to the WTO (as of December 2008).
[2] Baier, Bergstrand and Vidal (2007) examine trade effects of free trade agreements in the Americas.
[3] Talks about the Free Trade Area of the Americas began in Miami on December 1994. The last meeting was held in Mar del Plata, Argentina, in November 2005, but not agreement on FTA was reached.
[4] For example, in early 1990s the West African Economic and Monetary Union (WAEMU) was created out of the *Communaute Economique de l'Afrique Occidentale*; old integration agreements were revamped like the *Union Duanière et Economique de l'Afrique Centrale*. Moreover, others, like the Common Market of Eastern and Southern Africa (COMESA) revived and expanded the preferential trade area.
[5] Austria, Finland and Sweden joined the EU in the fourth enlargement in 1995. The fifth enlargement took place in May 2004 with the inclusion of 10 new members (Cyprus, Czech Republic, Estonia, Latvia, Lithuania, Hungary, Malta, Poland, Slovakia and Slovenia) and the sixth one in January 2007 with the adhesion of Bulgaria and Romania. Moreover, in 1993 the EU celebrated the completion of the Single Market and most of their member States formed a Monetary Union in 1999. In 2009, 16 EU member States participate in the single currency.
[6] An agreement on free trade in manufactures between the EU and EFTA was in effect since 1973.
[7] ASEAN comprises Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.

between the two countries in 1990 and business communities from both countries have proposed to extend the agreement to other Pacific Island nations.

An important feature of the aforementioned wave of regionalization is that many PTAs are continental trade blocs, *i.e.* trade blocs formed among countries on the same continent.[8] However, in recent years, there has been an increasing number of PTAs including countries located on different continents; in fact, nowadays the main trend in international economic integration is the proliferation of transcontinental trade agreements. In particular, about 30 per cent of the more than 200 PTAs existing over the sample period are of the intercontinental sort. The Aghadir agreement, the Great Arab Free Trade Area, the PTAs between Israel and the United States, Canada and Mexico, between Jordan and Morocco, New Zealand and Singapore or Mexico and the EU are examples of PTAs that cross different continents.

The economic geography literature calls PTAs that are drawn along continental lines *natural*, to distinguish them from intercontinental PTAs, which are called *unnatural*. According to the natural trading partner hypothesis (see, for example, Wonnacott and Lutz, 1989; Krugman, 1991a; Summers, 1991; and Frankel Stein and Wei, 1995 and 1996) trade blocs formed along continental lines offer more hope to be welfare-improving in terms of trade (in the sense that trade creation dominate trade diversion) than trade blocs that cross different countries.[9] Notwithstanding, trade creation may be lower than trade diversion in continental PTAs. The specialised literature refers to such continental agreements as "super-natural".[10]

The aim of this paper is to determine the effect on trade of both continental and intercontinental PTAs. We estimate trade creation and trade diversion effects for both kinds of PTAs. To this end, we use the gravity equation on a sample of 182 countries over the period 1980-2007. We attempt to answer two questions in this paper. First, are continental PTAs in the real world natural or super-natural blocs? Second, is the recent movement towards the formation of trading blocs across different continents good or bad?

[8] All the PTAs cited until now are of this kind.

[9] Trade creation refers to the increment on trade of goods that are more efficiently produced within the bloc. Trade diversion refers to substitution of imports previously produced efficiently from nonmember countries for imports sourced inefficiently by bloc members.

[10] 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 ones within them. In these papers, the term super-natural refers to a continental PTA that is welfare-reducing on net due to low intercontinental transportation costs.

In addition to the academic interest of these questions, they are especially important for policy reasons. If continental PTAs are welfare enhancing on net (because large intra-continental trade creation dominate the potential intercontinental trade diversion) this evidence would provide support to the implementation of this kind of agreements. However, if continental PTAs are super-natural, policymakers should avoid such PTAs. In a similar way, if we find that intercontinental PTAs (unnatural PTAs) are welfare decreasing (because the welfare loss from intra-continental trade diversion exceeds the welfare gain from intercontinental trade creation) these should be avoided.

Krishna (2003), using a general equilibrium model and US trade data for the period 1964-95, has analysed whether regional trading arrangements are "natural" finding no support for the natural trading partner hypothesis. Moreover, a great number of studies have investigated whether economic integration agreements create or divert trade.[11] However, to the best of our knowledge, no study has tried to investigate this issue empirically distinguishing between continental and intercontinental PTAs.

The remainder of the paper is organised as follows. Section 2 summarises the background. Section 3 presents the methodology. Section 4 describes the data. Section 5 discusses the estimation results. Finally, section 6 concludes the paper.

2. Background

Pioneered by Viner (1950), international economists have studied and debated intensely the question of PTAs over near sixty years. However, as is well known, the theoretical analysis of PTAs is ambiguous on their effects on trade, welfare, as well as multilateral trade liberalization making the empirical work on PTAs critical in evaluating their effects.[12] Moreover, this theoretical ambiguity has stimulated an active discussion about conditions to ensure positive welfare effects from PTAs. In this context, since the beginning of the 1990s, the economic geography literature has analyzed the theoretical welfare gains and losses from PTAs on the base of the existence of differences in trade costs between and within continents. Such differences are a

[11] See, for example, Adams *et al*. (2003), Dee and Gali (2003), Ghosh and Yamarik (2004a and 2004b), Lee, Park and Shin (2008), Holmes (2005), Medvedev (2006), Carrère (2006), Baier and Bergstrand (2007), DeRosa (2007), Baier, Bergstrand and Vidal (2007) or Gil, Llorca and Martinez-Serrano (2008a).
[12] For a survey about the theory of PTAs see Panagariya (2000).

central issue of the hypothesis of "natural" trading partners with clear welfare implications.[13]

Paul Krugman's works in the early 1990s considered the two extreme assumptions about intercontinental transport costs: zero and infinite. These assumptions lead to diametrically opposite conclusions. With zero intercontinental transport costs, continental PTAs decrease welfare (Krugman, 1991b). However, when intercontinental transport costs are infinite, such agreements increase welfare (Krugman, 1991a). The intuition is immediate: to the extent that trade follows the natural lines dictated by proximity, there is no intercontinental trade to divert, and the formation of regional trading blocs is good for welfare.

Frankel, Stein and Wei (1993, 1995 and 1996) have investigated the continuum between zero and prohibitive transport costs. According to these authors, for the intermediate realistic case, where intercontinental transportation costs are less than infinite but greater than zero (and greater than transportation costs within continents) the relationship between intercontinental and intra-continental transportation costs determines the net impact on welfare of PTAs. For high intercontinental transport costs, continental or natural PTAs are welfare-improving, because larger intra-continental trade creation would dominate small intercontinental trade diversion. However, as intercontinental transport costs fall, continental PTAs may become welfare-reducing on net. Such continental trading blocs that reduce welfare are called "super-natural".[14] On the other hand, for any level of intercontinental transport costs, PTAs between countries geographically distant or on separate continents, that is, unnatural PTAs, are welfare decreasing as the welfare loss from intra-continental trade diversion exceeds the welfare gain from intercontinental trade creation.

The Krugman and the Frankel, Stein and Wei theoretical results were derived in a model with the assumptions of identical economies, one factor, one industry and zero intra-continental transport costs. Moreover, the results rest on the assumptions about intercontinental transportation costs. Neither these authors nor others in the literature provide supportive evidence about the effects on trade of continental and

[13] 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).

[14] Despite Frankel *et al.* model allows for transport costs within continents, for simplicity they assume that these costs are zero. This is clearly an unrealistic assumption that is not innocuous. Nitsch (1996) finds that the phenomenon of super-natural trade blocs may disappear when intra-continental transport costs are allowed for. In fact, intra-continental distances are important. The average bilateral distances are 2,259 miles within Africa, 1,891 (America), 2,511 (Asia), 1,069 (Europe) and 2,083 (Oceania).

intercontinental PTAs. Our paper is concerned with providing evidence of trade creation and trade diversion for both kinds of PTAs in the real world.

3. Methodology

The international trade literature provides two approaches to analysing the effects of PTAs: *ex ante* studies and *ex post* studies. The *ex-ante* approach uses computable general equilibrium (CGE) models.[15] In contrast, *ex post* analyses of PTAs measure trade creation and trade diversion effects by means of regression techniques. In this paper, we study the *ex post* effects of both continental and intercontinental PTAs on intra and extra-bloc trade.

The gravity equation has emerged as the empirical workhorse in international trade for examining the *ex-post* effects of PTAs on bilateral trade flows. It relates bilateral trade flows to economic size (GDP), distance and other factors that affect trade barriers. In order to analyse the effects of PTAs on trade using panel data, a specification like gravity equation (1) bellow is normally estimated:

$$\ln Trade_{ijt} = \beta_0 + \beta_1 \ln GDP_{it} + \beta_2 \ln GDP_{jt} + \beta_3 \ln Dist_{ij} + \beta_4 PTAboth_{ijt} + \beta_5 PTAone_{ijt} + Othercontrols + \alpha_{ij} + \lambda_t + u_{ij} \quad (1)$$

where *i* and *j* denote trading partners, *t* is time and the variables are defined as: $Trade_{ijt}$ are the bilateral trade flows from *i* to *j*,[16] GDP_i and GDP_j are the Gross Domestic Products, $Dist_{ij}$ denotes the distance between *i* and *j*, $PTAone_{ij}$ and $PTAboth_{ij}$ denotes dummy variables for different kinds of multilateral and bilateral preferential trade agreements (the suffix "*both*" indicates that *i* and *j* belong to the same PTA and the suffix "*one*" denotes that either *i* or *j* (but not both) is a member of a particular PTA), *Othercontrols* are variables that are included to capture variation in various trade costs, such as binary variables for the presence of islands or landlocked countries in the pair, a common land border or a common language. α_{ij} represents country-pair individual effects, λ_t are time dummies, and u_{ijt} is the standard classical error term. In this set-up,

[15] These models take into account all relative price changes and not only the partial impact on two countries' trade (disregarding the feedback effects of other price changes). One advantage of these models is that they can be used to draw direct inferences about consumption, output and welfare. However, one major limitation of CGE models is that they use restrictive assumptions and very simple characterisations of real-world PTAs.

[16] Some authors treat the sum of two-way bilateral trade as the dependent variable (see, for example, Rose, 2004). However, all theories that underlie a gravity-like specification yield predictions on unidirectional trade rather than total trade. Hence, our specification is more closely grounded in theory.

the effect of PTAs on bilateral trade flows between member countries and between members and non-members is measured by the estimated coefficients of the dummy variables *PTAboth* and *PTAone*, respectively. If trade is created when both countries are members of a PTA, the estimated coefficient of the dummy variable *PTAboth* should be positive; if trade is diverted from non-members, then the estimated coefficient of *PTAone* should be negative.

However, equation (1), despite being a typical specification to estimate the effect of PTAs on trade flows, ignores the theoretical foundations for the gravity equation that have developed since 1979 (see, among others, Anderson, 1979; Bersgtrand, 1985; Deardoff, 1998; and Eaton and Kortum, 2002). As Anderson and van Wincoop (2003) emphasize gravity model theory implies that one must take into account the role of relative prices ("multilateral resistance", in Anderson and van Wincoop's terminology). The usual solution to the presence of such multilateral resistance is to include country fixed effects (for both the exporter and the importer) when estimating gravity equations.[17]

More recently, Helpman, Melitz and Rubinstein (2008) (henceforth HMR) have developed a theoretical model that generalizes the Anderson and van Wincoop's (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:

[17] 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).

$$\Pr ob(T_{ij} = 1 / observed \text{ var } iables) = \Phi(\chi_i, \lambda_j, X_{ij}, Z_{ij}, \varepsilon_{ij}) \quad (2)$$

where T_{ij} is an indicator variable equal to 1 when country *i* exports to *j* and zero when it does not, Φ is the cumulative distribution function of the standard normal distribution, χ_i and λ_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.[18] We include in X_{it} the log of bilateral distance between countries as well as 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 currency union. Finally, in order to estimate the effect of PTAs on trade we additionally include dummy variables for continental PTAs (those that are drawn along continental lines) and intercontiental PTAs (those including countries located on different continents). We refer to these dummy variables as *PTAcont* and *PTAintercont,* respectively.

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:

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

where $\hat{\mu}_{ij}^{*}$ is the inverse Mills ratio and $\hat{z}_{ij}^{*} = \Phi^{-1}(\hat{p}_{ij})$ in which $\hat{p}_{ij}$ are the estimates from the probit equation.[19] Since equation (3) is non-linear in δ, we estimate it following HMR (2008) using maximum likelihood.

4. Data

The trade data for the dependent variable (export flows from country *i* to country *j*) come from the "Direction of Trade" (DoT) dataset developed by the International

[18] 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.

[19] Since equation (3) is non-linear in δ, we estimate it following HMR (2008) using maximum likelihood.

Monetary Fund (IMF). The sample covers bilateral merchandise trade between 182 countries and territories (see Table A1) over the period 1980-2007.[20] The DoT data set provides FOB exports in US dollars. These series are converted into constant terms using the American GDP deflator taken from the Bureau of Economic Analysis (US Department of Commerce).

The independent variables come from different sources. For location (geographical coordinates) of countries, 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. In order to create the indicators of preferential trade agreements, we use 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. More specifically, the sample includes 202 preferential trade agreements (multilateral and bilateral), 142 at the intra-continental level and 60 including countries located on different continents.[21]

5. Empirical results

The traditional approach to addressing the effect of integration agreements on trade flows extends the basic gravity model by including dummy variables that capture the impact of such arrangements on intra-bloc trade. Therefore, we firstly estimate a version of the gravity equation that does not consider potential trade diversion effects.[22] 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. Before discussing the empirical results, it is worth noting that the estimation of equation (2) might be subject to the incidental parameter problem introducing a bias in the coefficients of the rest of variables (X_{ij} and Z_{ij}). However, as pointed out by Fernández-

[20] 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.

[21] The list of preferential trade agreements considered is available from the authors upon request. As noted before, the expression PTAs refers not only to preferential trade agreements but also to more profound economic integration agreements. In fact, most trade agreements considered in the sample are free trade agreements.

[22] 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 $\hat{p}_{ij}^{*} > 0.9999999$.

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 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, a common currency, colonial ties and being islands or part of the same country in the past increase the probability of trade. Finally, focusing on the variables of interest (*PTAContBoth* and *PTAInterconBoth*) we find that common membership in both continental and intercontinental PTAs increase the probability of trade.

Using the probit regression, as discussed earlier, we construct two variables for correcting sample selection bias and firm heterogeneity. 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 almost all determinants that affect the probability of bilateral exports also impact bilateral export volumes. Disregarding the PTAs dummies, the effect of a common currency is the only exception. It raises the probability of trading but does not affect the volume of trade. With respect to the variables of interest, at this stage, a difference emerges. We once again find a positive and significant coefficient for the *continental PTAs* dummy variable. In particular, the estimated coefficient is 0.293 which suggests that two countries members of a PTA located on the same continent trade approximately 34% more [exp(0.293)-1=0.340] than two identical countries that do not share common membership in an agreement of this type. However, for the intercontinental PTAs we do not find a statistically significant effect on the volume of trade.

The results of column 1 and 2 do not take into account the possible existence of trade diversion. In order to capture PTAs effects on trade between bloc members and non-members, in columns 3 and 4, we add the corresponding dummies (*PTAContOne* and *PTAIntercontOne*). As it is observed, both continental and intercontinental PTAs divert trade in a significant magnitude. That is to say, according to the natural trading partner hypothesis these estimations reveal that intercontinental PTAs are unnatural since they divert trade but do not create trade. With respect to continental PTAs not a clear conclusion emerges since we found both trade creation and trade diversion effects.

In the above analysis the coefficient of the dummy for continental PTAs has been constrained to be the same for every continent. In order to estimate the effect of the continental PTAs by continent, we have dissagregated the intra-bloc and extra-bloc continental PTAs dummies into five. Table 2 shows the results. According to column 2, intracontinental PTAs boost trade in all the continents but Oceania. Moreover, when we control for trade diversion effects (column 4), again for Europe, Asia and America continental PTAs increase trade significantly but in this case no impact is found not only for Oceania but also for Africa. Additionally, PTAs in Europe, Africa and Oceania divert trade in a significant way but this is not the case for Asia and America. In comparison to column 2, the estimated coefficient of the intra-bloc dummies for Europe and Africa decrease. This result is consistent with our estimates for extra-bloc dummies for these continents (which are negative and statistically significant at the 1 per cent level). When we exclude the possibility that PTAs stimulate or divert trade with non-members the comparison is between intra-bloc trade flows and the rest of trade flows, including in the rest of trade flows those between members and non-members of a same PTA. In summary, trade partners in Asia and America can unambiguously be considered as natural and trade partners in Africa and Oceania as supernatural. No clear conclusion is obtained for Europe.

On the other hand, intercontinental PTAs increase trade around 15% but, as before, also divert trade significantly. The existence of overlapings on the variables capturing trade diversion effects could explain this result.

6. Conclusions

One of the major international developments in the last two decades has been the dramatic rise in the number of preferential trade agreements. Many existing trade blocs are made up of countries located on the same continent. However, in recent years, there has been an increasing number of PTAs including countries located on different continents. The significant rise in the number of PTAs has led to an increase number of studies investigating whether PTAs are trade creating or diverting. This paper investigates the issue empirically distinguishing, for the first time, between continental and intercontinental PTAs.

The results suggest that for the cases of Asia and America trade partners that share membership in a continental PTAs can be considered as natural trading partners. On

other hand, trade partners of continental PTAs in Africa and Oceania seems to be supernatural. Finally, for Europe no clear conclusion is found.

According to our results the recent proliferation of intercontinental bilateral trade agreements has led to a moderate trade creation but also has diverted trade with non members. However, it is worth noting that since many of these intercontinental agreements have got into force very recently maybe is too soon to appropriately evaluate their impact on trade

References

Adams, R., Dee, P., Gali, J. and McGuire, G. (2003), *The trade and investment effects of preferential trading arrangements. Old and new evidence*, Productivity Commission Staff Working Paper, Camberra, May.

Anderson, J. E. (1979), 'A theoretical foundation to the gravity equation', *American Economic Review,* 69, 106-16.

Anderson, J. E. and van Wincoop, E. (2003), 'Gravity with gravitas: A solution to the border puzzle', *American Economic Review*, 93, 170-92.

Anderson, J. E. and van Wincoop, E. (2004), 'Trade Costs', *Journal of Economic Literature,* 42, 691-741.

Baier, S. L. and Bergstrand, J. H. (2004), 'Economic determinants of free trade agreements', *Journal of International Economics*, 64, 29-63.

Baier, S. L. and Bergstrand, J. H. (2007), 'Do free trade agreements actually increase members' international trade?', *Journal of International Economics*, 71, 72-95.

Baier, S. L., Bergstrand, J. H. and Vidal, E. (2007), 'Free Trade Agreements in the Americas: Are the Trade Effects Larger than Anticipated?', *The World Economy*, 30, 1347-1377.

Bergstrand, J. H. (1985), 'The gravity equation in international trade: some microeconomic foundations and empirical evidence', *Review of Economics and Statistics*, 67, 474-81.

Bergstrand, J. H. (1989), 'The generalised gravity equation, monopolistic competition, and the factor proportions theory in international trade', *Review of Economics and Statistics,* 71, 143-53.

Carrère, C. (2006), 'Revisiting the effects of regional trade agreements on trade flows with proper specification of the gravity model', *European Economic Review,* 50, 223-227.

Deardoff, A. V. (1998), 'Determinants of bilateral trade: does gravity work in a neoclassic world?', in J. Frankel (ed.) *The regionalization of the world economy,* Chicago: University of Chicago Press, 7-31.

Dee, P. and Gali, J. (2003), 'The trade and investment effects of preferential trading arrangements', National Bureau of Economic Research, Working Paper, 10160.

DeRosa, D. A. (2007): 'The trade effects of Preferential Arrangements: New Evidence from the Australia Productivity Commission', Peter G. Peterson Institute for International Economics, Working Paper 07-01.

Eaton, J. and Kortum, S. (2002), 'Technology, Geography and Trade' *Econometrica*, 70, 5, 1741-1791.

Egger, P. and Larch, M. (2008), 'Interdependent Preferential trade agreement memberships: An empirical analysis', *Journal of International Economics*, 76, 384-399.

Evenett, S. J. and Keller, W. (2002), 'On theories explaining the success of the gravity equation', *Journal of Political Economy*, 110, 281-316.

Feenstra, R. (2004), *Advanced Internacional Trade: Theory and Evidence,* Princeton, NJ: Princeton University Press.

Fernández-Val, I. (2007), 'Fixed effects estimation of structural parameters and marginal effects in panel probit models', mimeo, Depatment of Economics, Boston University

Frankel, J., Stein, E. and Wei, S. J. (1993), "Continental trading blocs: Are they natural, or super-natural", *NBER Working Paper* 4588.

Frankel, J., Stein, E. and Wei, S. J. (1995): "Trading blocs and the Americas: The natural, the unnatural, and the super-natural", *Journal of Development Economics*, 47, 64-95.

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

Gil, S., Llorca, R. and Martínez-Serrano, J. A. (2008a), 'Assessing the enlargement and deepening of the European Union', *The World Economy*, 31, 253-1272.

Gil, S., Llorca, R. and Martínez-Serrano, J. A. (2008b), 'Trade effects of monetary agreements: Evidence for OECD countries', *European Economic Review*, 52, 733-755.

Ghosh, S. and Yamarik, S. (2004a), 'Does trade creation measure up? A re-examination of the effects of regional trading arrangements', *Economic Letters,* 82, 213-219.

Ghosh, S. and Yamarik, S. (2004b), 'Are regional trading arrangements trade creating? An application of extreme bounds analysis', *Journal of International Economics,* 63, 369-395.

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

Holmes, T. (2005), 'What drives regional trade agreements that work?' HEI Working Paper, 07.

Klein, M. W. and Shambaugh, J. C. (2006), 'Fixed exchange rates and trade', *Journal of International Economics* 70, 359-383.

Krishna, P. (2003): "Are regional trading partners "natural"?, *Journal of Political Economy* 111, 202-226.

Krugman, P. (1991a): Is bilateralism bad?, in E. Helpman and A. Razin (Ed.), International Trade and Trade Policy, Cambridge, MA, MIT Press.

Krugman, P. (1991b): 'The move to free trade zones', in *Policy Implications of Trade and Currency Zones,* proceedings of a Symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hall, Wyoming, August:7-42.

Lee, J. W., Park, I. and Shin, K. (2008), 'Proliferating regional trade arrangements: Why and whither?', *The World Economy*, 31, 1525-1557.

Medvedev, D. (2006), 'Preferential trade agreements and their role in world trade', World Bank Policy Research WP 4038, October.

Melitz, M. (2003), 'The impact of trade on intra-industry reallocations and aggregate industry productivity', *Econometrica*, 71, 1695-1725.

Nitsch, V. (1996), 'Do Three trade blocs minimize world welfare?', *Review of International Economics* 4, 355-363.

Panagariya, A. (2000), 'Preferential trade liberalization: The traditional theory and new developments', *Journal of Economic Literature,* 38, 287-331.

Rose, A. (2004), 'Do we really know that the WTO increases trade?' *American Economic Review*, 94, 98-114.

Summers, L. (1991), 'Regionalism and the world trading system', in *Policy Implications of Trade and Currency Zones,* proceedings of a Federal Reserve Bank of Kansas City symposium, 295-301.

Viner (1950), The Customs Union Issue. Carnegie Endowment for International Peace, New York.

Wonnacott, P. and Lutz, M. (1989), 'Is there a case for free trade areas?', In Jeffrey Schott (Ed.) *Free Trade Areas and U.S Trade Policy*, Institute for International Economics, Washington, 59-84

Table 1. HMR two-stage estimation of continental and intercontinental PTAs. Sample period 1980-2007

	(1)		(2)	(3)		(4)
Variables	Probit coefficient	Marginal effect	ML	Probit coefficient	Marginal effect	ML
Ln $Dist_{ij}$	-0.665 (0.011)***	-0.230 (0.004)***	-0.661 (0.048)***	-0.663 (0.011)***	-0.229 (0.004)***	-0.658 (0.048)***
$Contiguity_{ij}$	0.141 (0.068)**	0.047 (0.022)**	0.609 (0.078)***	0.126 (0.068)*	0.042 (0.022)*	0.588 (0.078)***
$Island_{ij}$	0.475 (0.034)***	0.143 (0.008)***	0.772 (0.091)***	0.472 (0.034)***	0.142 (0.008)***	0.770 (0.090)***
$Landlocked_{ij}$	-0.596 (0.034)***	-0.216 (0.012)***	-1.418 (0.089)***	-0.586 (0.034)***	-0.212 (0.012)***	-1.412 (0.088)***
$Language_{ij}$	0.380 (0.018)***	0.121 (0.005)***		0.381 (0.018)***	0.122 (0.005)***	
$Colony_{ij}$	0.424 (0.102)***	0.128 (0.026)***	0.736 (0.098)***	0.426 (0.102)***	0.128 (0.026)***	0.740 (0.097)***
$ComCount_{ij}$	0.800 (0.121)***	0.206 (0.020)***	1.326 (0.159)***	0.786 (0.121)***	0.204 (0.020)***	1.303 (0.158)***
$PTAContBoth_{ijt}$	0.181 (0.033)***	0.060 (0.010)***	0.293 (0.046)***	0.143 (0.033)***	0.048 (0.010)***	0.257 (0.045)***
$PTAIntercontBoth_{ijt}$	0.225 (0.065)***	0.073 (0.020)***	0.068 (0.152)	0.250 (0.065)***	0.080 (0.019)***	0.036 (0.052)
$PTAContOne_{ijt}$				-0.125 (0.018)***	-0.042 (0.006)***	-0.196 (0.038)***
$PTAIntercontOne_{ijt}$				0.044 (0.012)***	0.015 (0.004***	-0.150 (0.018)***
$CurrencyUnion_{ijt}$	0.462 (0.099)***	0.137 (0.024)***	0.031 (0.111)	0.403 (0.100)***	0.123 (0.026)***	-0.015 (0.110)
δ			0.112 (0.077)			0.115 (0.079)
$\hat{\eta}_{ij}^{*}$			0.967 (0.080)***			0.963 (0.081)***
No observat.	623,927		367,615	623,927		367,615
Pseudo R^2	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 and intercontinental PTAs by continents. Sample period 1980-2007

	(1)		(2)	(3)		(4)
Variables	Probit coefficient	Marginal effect	ML	Probit coefficient	Marginal effect	ML
Ln $Dist_{ij}$	-0.654 (0.012)***	-0.228 (0.004)***	-0.680 (0.065)***	-0.622 (0.012)***	-0.217 (0.004)***	-0.696 (0.061)***
$Contiguity_{ij}$	0.192 (0.069)***	0.063 (0.021)***	0.536 (0.080)***	0.179 (0.068)***	0.059 (0.021)***	0.536 (0.079)***
$Island_{ij}$	0.447 (0.035)***	0.137 (0.009)***	0.761 (0.095)***	0.457 (0.034)***	0.140 (0.009)***	0.743 (0.093)***
$Landlocked_{ij}$	-0.597 (0.034)***	-0.218 (0.013)***	-1.452 (0.096)***	-0.527 (0.033)***	-0.191 (0.012)***	-1.372 (0.087)***
$Language_{ij}$	0.378 (0.018)***	0.122 (0.005)***		0.370 (0.018)***	0.120 (0.005)***	
$Colony_{ij}$	0.417 (0.100)***	0.128 (0.026)***	0.753 (0.104)***	0.430 (0.101)***	0.131 (0.026)***	0.819 (0.105)***
$ComCount_{ij}$	0.825 (0.121)***	0.213 (0.020)***	1.379 (0.168)***	0.884 (0.121)***	0.222 (0.018)***	1.383 (0.171)***
$PTAEUROPEBoth_{ijt}$	-0.727 (0.074)***	-0.280 (0.029)***	0.616 (0.081)***	-0.673 (0.074)***	-0.259 (0.029)***	0.334 (0.078)***
$PTAASIABoth_{ijt}$	-0.034 (0.111)	-0.012 (0.039)	0.525 (0.115)***	0.153 (0.113)	0.051 (0.036)	0.515 (0.115)***
$PTAAMERICABoth_{ijt}$	0.729 (0.076)***	0.197 (0.014)***	0.808 (0.127)***	0.587 (0.075)***	0.168 (0.016)***	0.916 (0.118)***
$PTAAFRICABoth_{ijt}$	0.143 (0.037)***	0.048 (0.012)***	0.361 (0.094)***	-0.006 (0.038)	-0.002 (0.013)	-0.103 (0.098)
$PTAOCEANIABoth_{ijt}$	1.307 (0.236)***	1.268 (0.018)***	0.380 (0.445)	1.015 (0.259)***	0.239 (0.032)***	-0.211 (0.433)
$PTAIntercontBoth_{ijt}$	0.221 (0.065)***	0.072 (0.020)***	0.067 (0.055)	0.246 (0.065)***	0.080 (0.019)***	0.136 (0.056)**
$PTAEUROPEOne_{ijt}$				0.106 (0.019)***	0.037 (0.007)***	-0.382 (0.039)***
$PTAASIAOne_{ijt}$				0.178 (0.019)***	0.060 (0.006)***	0.031 (0.035)
$PTAAMERICAOne_{ijt}$				-0.197 (0.021)***	-0.070 (0.007)***	-0.041 (0.043)
$PTAAFRICAOne_{ijt}$				-0.241 (0.019)***	-0.085 (0.007)***	-0.479 (0.054)***
$PTAOCEANIAOne_{ijt}$				-0.468 (0.050)***	-0.177 (0.020)***	-0.794 (0.167)***
$PTAIntercontOne_{ijt}$				0.034 (0.012)***	0.012 (0.004)***	-0.085 (0.019)***
$CurrencyUnion_{ijt}$	0.418 (0.098)***	0.128 (0.025)***	-0.016 (0.116)	0.318 (0.097)***	0.101 (0.027)***	-0.082 (0.114)
δ			0.933 (0.111)***			0.842 (0.112)***
$\hat{\pi}_{ij}^{*}$			0.220 (0.108)**			0.254 (0.107)***
No observat.	623,927		367,615	623,927		367,615
Pseudo R^2	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 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	Sta. Lucia
Belgium-Luxembourg	Gambia	Mexico	St. Tome and Principe
Benin	Georgia	Moldova	St. Vincent and The Grenadines.
Bermudas	Germany	Mongolia	Sudan
Bhutan	Ghana	Morocco	Suriname
Bolivia	Greece	Mozambique	Swaziland
Bosnia and Herzegovina	Grenada	Myanmar	Sweden
Botswana	Guatemala	Namibia	Switzerland
Brazil	Guinea	Nepal	Syria
Bulgaria	Guinea Bissau	Netherlands	Tajikistan
Burkina Faso	Guyana	Netherlands Antilles	Tanzania
Burundi	Haiti	New Caledonia	Thailand
Cambodia	Honduras	New Zealand	Togo
Cameroon	Hungary	Nicaragua	Tonga
Canada	Iceland	Niger	Trinidad and Tobago
Cape Verde	India	Nigeria	Tunisia
Central African Republic	Indonesia	Norway	Turkey
Chad	Iran	Oman	Turkmenistan
Chile	Iraq	Pakistan	Uganda
China - Mainland	Ireland	Panama	Ukraine
China – Hong Kong	Israel	Papua New Guinea	United Arab Emirates
China – Macao	Italy	Paraguay	United Kingdom
Colombia	Jamaica	Peru	United States of America
Comoros	Japan	Philippines	Uruguay
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	

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-Curbera

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 Públicas 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.
Llorenc 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 es 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. Mendez, 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 Fradejas 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 Maria Aldanondo-Ochoa y Carmen Almansa-Sáez

256/2006 Family tax credits versus family allowances when labour supply matters: Evidence for Spain.
José Felix 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 Perdiguero.

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 Kleinhanß, Carmen Murillo, Carlos San Juan y Stefan Sperlich

271/2006 Interest Groups, Incentives to Cooperation and Decision-Making Process in the European Union
A. Garcia-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 Tram-ways, 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 Rodriguez-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-Rodriguez

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 Ballestero, 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 Ñíguez 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-Saínz and Maria 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 Rodriguez 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 Garcia 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_2 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
Mª del Pópulo Pablo-Romero Gil-Delgado y Mª 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 Perdiguero

405/2008 Política fiscal en la uem: ¿basta con los estabilizadores automáticos?
Jorge Uxó González y Mª 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 innovatory 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 EEES 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 Acercando 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 Maria 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

441/2009 Determining operational capital at risk: an empirical application to the retail banking
Enrique José Jiménez-Rodríguez, José Manuel Feria-Domínguez & José Luis Martín-Marín

442/2009 Costes de mitigación y escenarios post-kyoto en España: un análisis de equilibro general para España
Mikel González Ruiz de Eguino

443/2009 Las revistas españolas de economía en las bibliotecas universitarias: ranking, valoración del indicador y del sistema
Valentín Edo Hernández

444/2009 Convergencia económica en España y coordinación de políticas económicas. un estudio basado en la estructura productiva de las CC.AA.
Ana Cristina Mingorance Arnáiz

445/2009 Instrumentos de mercado para reducir emisiones de co2: un análisis de equilibrio general para España
Mikel González Ruiz de Eguino

446/2009 El comercio intra e inter-regional del sector Turismo en España
Carlos Llano y Tamara de la Mata

447/2009 Efectos del incremento del precio del petróleo en la economía española: Análisis de cointegración y de la política monetaria mediante reglas de Taylor
Fernando Hernández Martínez

448/2009 Bologna Process and Expenditure on Higher Education: A Convergence Analysis of the EU-15
T. Agasisti, C. Pérez Esparrells, G. Catalano & S. Morales

449/2009 Global Economy Dynamics? Panel Data Approach to Spillover Effects
Gregory Daco, Fernando Hernández Martínez & Li-Wu Hsu

450/2009 Pricing levered warrants with dilution using observable variables
Isabel Abínzano & Javier F. Navas

451/2009 Information technologies and financial prformance: The effect of technology diffusion among competitors
Lucio Fuentelsaz, Jaime Gómez & Sergio Palomas

452/2009 A Detailed Comparison of Value at Risk in International Stock Exchanges
Pilar Abad & Sonia Benito

453/2009 Understanding offshoring: has Spain been an offshoring location in the nineties?
Belén González-Díaz & Rosario Gandoy

454/2009 Outsourcing decision, product innovation and the spatial dimension: Evidence from the Spanish footwear industry
José Antonio Belso-Martínez

455/2009 Does playing several competitions influence a team's league performance? Evidence from Spanish professional football
Andrés J. Picazo-Tadeo & Francisco González-Gómez

456/2009 Does accessibility affect retail prices and competition? An empirical application
Juan Luis Jiménez and Jordi Perdiguero

457/2009 Cash conversion cycle in smes
Sonia Baños-Caballero, Pedro J. García-Teruel and Pedro Martínez-Solano

458/2009 Un estudio sobre el perfil de hogares endeudados y sobreendeudados: el caso de los hogares vascos
Alazne Mujika Alberdi, Iñaki García Arrizabalaga y Juan José Gibaja Martíns

459/2009 Imposing monotonicity on outputs in parametric distance function estimations: with an application to the spanish educational production
Sergio Perelman and Daniel Santin

460/2009 Key issues when using tax data for concentration analysis: an application to the Spanish wealth tax
José Mª Durán-Cabré and Alejandro Esteller-Moré

461/2009 ¿Se está rompiendo el mercado español? Una aplicación del enfoque de feldstein –horioka
Saúl De Vicente Queijeiro, José Luis Pérez Rivero y María Rosalía Vicente Cuervo

462/2009 Financial condition, cost efficiency and the quality of local public services
Manuel A. Muñiz & José L. Zafra

463/2009 Including non-cognitive outputs in a multidimensional evaluation of education production: an international comparison
Marián García Valiñas & Manuel Antonio Muñiz Pérez

464/2009 A political look into budget deficits.The role of minority governments and oppositions
Albert Falcó-Gimeno & Ignacio Jurado

465/2009 La simulación del cuadro de mando integral. Una herramienta de aprendizaje en la materia de contabilidad de gestión
Elena Urquía Grande, Clara Isabel Muñoz Colomina y Elisa Isabel Cano Montero

466/2009 Análisis histórico de la importancia de la industria de la desalinización en España
Borja Montaño Sanz

467/2009 The dynamics of trade and innovation: a joint approach
Silviano Esteve-Pérez & Diego Rodríguez

468/2009 Measuring international reference-cycles
Sonia de Lucas Santos, Inmaculada Álvarez Ayuso & Mª Jesús Delgado Rodríguez

469/2009 Measuring quality of life in Spanish municipalities
Eduardo González Fidalgo, Ana Cárcaba García, Juan Ventura Victoria & Jesús García García

470/2009 ¿Cómo se valoran las acciones españolas: en el mercado de capitales doméstico o en el europeo?
Begoña Font Belaire y Alfredo Juan Grau Grau

471/2009 Patterns of e-commerce adoption and intensity. evidence for the european union-27
María Rosalía Vicente & Ana Jesús López

472/2009 On measuring the effect of demand uncertainty on costs: an application to port terminals
Ana Rodríguez-Álvarez, Beatriz Tovar & Alan Wall

473/2009 Order of market entry, market and technological evolution and firm competitive performance
Jaime Gomez, Gianvito Lanzolla & Juan Pablo Maicas

474/2009 La Unión Económica y Monetaria Europea en el proceso exportador de Castilla y León (1993-2007): un análisis de datos de panel
Almudena Martínez Campillo y Mª del Pilar Sierra Fernández

475/2009 Do process innovations boost SMEs productivity growth?
Juan A. Mañez, María E. Rochina Barrachina, Amparo Sanchis Llopis & Juan A. Sanchis Llopis

476/2009 Incertidumbre externa y elección del modo de entrada en el marco de la inversión directa en el exterior
Cristina López Duarte y Marta Mª Vidal Suárez

477/2009 Testing for structural breaks in factor loadings: an application to international business cycle
José Luis Cendejas Bueno, Sonia de Lucas Santos, Inmaculada Álvarez Ayuso & Mª Jesús Delgado Rodríguez

478/2009 ¿Esconde la rigidez de precios la existencia de colusión? El caso del mercado de carburantes en las Islas Canarias
Juan Luis Jiménez y Jordi Perdiguero

479/2009 The poni test with structural breaks
Antonio Aznar & María-Isabel Ayuda

480/2009 Accuracy and reliability of Spanish regional accounts (CRE-95)
Verónica Cañal Fernández

481/2009 Estimating regional variations of R&D effects on productivity growth by entropy econometrics
Esteban Fernández-Vázquez y Fernando Rubiera-Morollón

482/2009 Why do local governments privatize the provision of water services? Empirical evidence from Spain
Francisco González-Gómez, Andrés J. Picazo-Tadeo & Jorge Guardiola

483/2009 Assessing the regional digital divide across the European Union-27
María Rosalía Vicente & Ana Jesús López

484/2009 Measuring educational efficiency and its determinants in Spain with parametric distance functions
José Manuel Cordero Ferrera, Eva Crespo Cebada & Daniel Santín González

485/2009 Spatial analysis of public employment services in the Spanish provinces
Patricia Suárez Cano & Matías Mayor Fernández

486/2009 Trade effects of continental and intercontinental preferential trade agreements
Salvador Gil-Pareja, Rafael Llorca-Vivero & José Antonio Martínez-Serrano