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**ANDRADA-FÉLIX, Julián; SOSVILLA-RIVERO, Simón
and FERNÁNDEZ RODRÍGUEZ, Fernando**

Predicting the Dollar/Euro Exchange Rate: A Non-linear Approach

Abstract: This paper assesses the empirical relevance for foreign exchange markets of a type of non-linear predictors known as nearest neighbour forecasts. In this exercise, the predictive accuracy of these tools was reviewed based on daily data for the dollar/euro exchange rate during 2001. Nearest neighbour forecasts were observed to perform marginally better than their linear counterparts such as ARIMA or the random walk model, and at the same time to contain useful information that is not found in random walk prediction. Moreover, nearest neighbour forecasts were clearly more effective than the linear models in forecasting the direction of exchange rate movements.

Key words: international financial markets, exchange rates, economic forecasts, volatility.

JEL Classification: C53, F31, G15.

ARTAL, Andrés; FERNÁNDEZ, J. Ismael and DOMINGO, Teresa

Differences between European and US FDI Strategic Options in Argentina in the Nineties

Abstract: The analysis of the motivations behind foreign direct investment (FDI) shows that, depending on the horizontal or vertical nature of the strategies associated with transnational enterprise, the impact of FDI on trade flows may vary. In this regard, the purpose of the present paper is to attempt to identify the internal differences between the FDI processes prevailing in the two chief sources of foreign investment on the Argentine market, the EU and the USA, through a study of their impact on trade. The estimate was made with industry-wide data for the nineties, applying a fixed effects panel model. The results of the survey reveal that the transnational firms in the two areas followed different strategies, with FDI from the EU apparently corresponding to a horizontal model, compared to the vertical approach that characterised US foreign investment.

Key words: foreign investments, direct investments, multinational companies, Argentina, EU, USA.

JEL Classification: F14, F21, F23.

BAUMOL, William J.

Technology Dissemination and Adaptation: Growth via Imitative Innovation

Abstract: Relatively widespread growth is fuelled by imitation of innovations, enormously facilitated by the voluntary transfer of technology by its proprietors. Moreover, imitation itself is characteristically more than mere copying, but is rather often an innovative step.

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Indeed, viewed from the opposite perspective, almost all invention entails a substantial amount of imitation. The primary argument sustained in this paper is that the plans of countries with growth ambitions must assign some priority to imitation of foreign technology, generally giving it greater attention and more resources than they devote to «fully-original invention».

Key words: economic growth, technological innovation, technology transfer, productivity, industrial property, copyright.

JEL Classification: O32, O40.

BAIXAULI SOLER, J. Samuel

Insider Dealing in Inter-company Share Purchases

Abstract: The financial literature contains many reviews purporting to contrast the use of price-sensitive information in connection with the announcement of financial decisions. These reviews have focused on the analysis of operations performed by company executives or major shareholders. And yet, on the Spanish securities market there may also be short-term inter-company purchase operations that may involve the use of such information. Given the importance of detecting the existence of insider dealing from the legal standpoint, this paper identifies short-term purchase transactions reported to the CNMV (Spanish securities exchange commission) with a view to ascertaining whether they may involve the use of price-sensitive information. It also attempts to identify the factors that characterise operations most likely to be using such information.

Key words: financial markets, information, financial investments.

JEL Classification: G34.

BLANES CRISTÓBAL, José Vicente

The Immigration - Trade Nexus in Spain

Abstract: The possible impact of immigration on bilateral trade is analysed in this paper, and an attempt is made to determine some of the mechanisms contributing to the establishment of this nexus. The figures on the Spanish economy and the economies of the 42 main countries of origin of immigrants in Spain were used to estimate the various specifications of a gravity function, to which a variable that measures the immigrant stock was incorporated, along with a suite of variables that monitor other country characteristics that may impact trade.

Key words: international trade, immigration, Spain.

JEL Classification: F10, F14, F22.

CALO BLANCO, Aitor and MÉNDEZ NAYA, José

Economic Integration, Non-tariff Barriers and Social Welfare

Abstract: The purpose of this paper is to analyse to what extent preferential trade agreements may lead to substituting other kinds of obstacles for tariff barriers, and the effects on welfare deriving from the deployment of such obstacles. @CON2 = The chief finding is that, in general, the use of this type of deterrents jeopardises aggregate welfare and the process of economic integration only leads to an increase in non-tariff barriers where countries are particularly keen on protecting national producers.

Key words: economic integration, commercial policy, exchange restrictions, non-tariff barriers.

JEL Classification: F12, F13, F14.

CAMARERO OLIVAS, Mariam and ORDÓÑEZ MONFORT, Javier

Productivity and Non-linear Adjustment of the Real Euro-Dollar Exchange Rate

Abstract: The dynamics of the real euro-dollar exchange rate are analysed in this paper in terms of the differences in productivity between the Euro Zone and the United States. When an ESTAR smoothing model was applied to the data for the period 1970-2002, it was found that the exchange rate adjusted non-linearly to one of its fundamentals, namely the productivity differential. Nonetheless, both the existence of the adjustment itself and the pace at which it took place depended crucially on the size of the deviation of the real exchange rate from its long-term equilibrium rate. When the deviation is small, the rate shows no tendency to adjust, giving the false impression that it does not accommodate the fundamental. On the contrary, as the value of the deviation grows, the exchange rate adapts to its fundamentals.

Key words: exchange rate, productivity, euro, dollar.

JEL Classification: C22, F31.

CAMPOY MIÑARRO, Juan Cristóbal and NEGRETE MEDIAVILLA, Juan Carlos

**Central Bank Design in Open Economies:
The Advantages of the Legislative Approach**

Abstract: This article analyses different mechanisms for delegating monetary policy to independent central banks. The study was performed in a model in which each country's monetary policy was assumed to affect welfare in the rest of the world. The findings show that, unlike monetary institutions based on contract design or the establishment of inflation

targets, the organisations generated by applying a legislative approach do not depend on economy-destabilising disturbance. This implies that the latter approach is more viable in practice, since it entails lower information and verification costs. It therefore constitutes a better compromise technology to solve the so-called «prisoner's dilemma» that arises when countries try to co-ordinate their monetary policies.

Key words: central bank, financial and credit institutions, monetary coordination.

JEL Classification: E58, F41.

CASARES POLO, Miguel

The Business Cycle in the Euro Area. A Neo-Keynesian Analysis

Abstract: The neo-Keynesian model described in this paper is characterised by the optimising behaviour of the economic agents in monopolistically competitive markets with both price and wage rigidities. The model also incorporates the consumer habit formation, the role of money as a medium of exchange that reduces transaction costs, a function for endogenous investment subject to time restrictions, an indexing rule for suboptimal prices and wages and, finally, a Taylor's rule for monetary policy. A model was formulated for the Euro Zone and used to analyse the business cycle in the area via impulse-response functions and variance decomposition calculations.

Key words: business cycles, monetary union, euro.

JEL Classification: F41.

CRESPO GALÁN, Jorge and VELÁZQUEZ ANGONA, Francisco J.

Technology Dissemination and Foreign Direct Investment: The Case of the OECD

Abstract: This paper analyses the role played by foreign direct investment as a mechanism for technology flows between countries. In this regard, a brief review of the existing literature showed that aggregate studies produced no evidence of the existence of technological spillovers. Nonetheless, these findings which would appear to be due to a problem of overlapping between the explanatory variables used. Consequently, a survey on the existence of such spillovers in the context of the OECD was re-run after adjusting for this problem. The results show the enormous importance of technology dissemination in improving the performance of the economies analysed.

Key words: technology transfer, foreign direct investment, economic growth, OECD.

JEL Classification: F2, O3, O4.

DÍAZ ROLDÁN, Carmen and MONTERO SOLER, Alberto

Central Bank Independence and Unemployment: Some Empirical Evidence

Abstract: One of the most widely debated issues in the context of economic analysis of central bank independence is the argument that sustains that the greater the independence of the central bank the more effectively it reduces the economy's inflationary bias without affecting the most important real economic variables. This hypothesis was contrasted in the present survey, which found a negative relationship between independence and inflation, but for certain periods only; unemployment rates, in turn, appeared to be utterly unaffected by independence.

Key words: central bank, inflation, unemployment.

JEL Classification: E31, E58, J51.

EZCURRA ORAYEN, Roberto; GIL CANALETA, Carlos; PASCUAL ARZOZ, Pedro and RAPÚN GÁRATE, Manuel

Regional Divergence in the European Union: An Analysis from the Perspective of Inequality

Abstract: Is inter-regional income imbalance permanent or temporary? The purpose of the study reported in this paper was to analyse regional per capita income inequality trends in the European Union over the period 1977-1999. Unlike the methodology described in traditional convergence literature, the working method employed was based on the calculation of a series of measurements used in the study of the distribution of personal income. Since the unit of reference was the region, not the individual, however, the population dimension was also included in the analysis and the indicators calculated were statistics weighted by the relative population. Moreover, these measurements were obtained for various levels of time-wise and geographic disaggregation, in order to detect possible variations in behaviour patterns at different times and in different areas.

Key words: economic inequality, per capita income, regions, EU.

JEL Classification: D3, R12, R58.

FERNÁNDEZ OTHEO, Carlos Manuel

Foreign Direct Investment Statistics in Spain: A Revision

Abstract: The present article discusses the advisability of revising the statistics on foreign direct investment hosted by Spain, in light of the changes in foreign investment legislation and the taxation of returns on foreign investment enacted in the late nineteen nineties. These changes essentially affected the manner in which information

is compiled —by the Foreign Investment Registry— and the investment formulas considered, while introducing a more precise delimitation of content (gross registered investment, gross effective investment and net investment). The new statistical information formulated after the 1999 amendments (covering the period 1993-2002) was compared to the data previously available (in this case, for the period spanning 1988-1997) to evaluate the aspects that are no longer considered and the possibilities of matching the new series to the older ones, at least back to 1988. Moreover, in view of the mass institution in Spain of operations involving foreign securities holding company tax regime arrangements beginning in the late nineteen nineties, which used the country as a «through-route» to other productive systems, the investment actually hosted by Spain must be clearly delimited.

Key words: foreign direct investment, statistics, Spain.

JEL Classification: F21, H87.

**FERRI CARRERES, Javier; GÓMEZ-PLANA, Antonio G.
and MARTÍN-MONTANER, Joan**

International Immigration and Inter-industry Mobility: An Exploration of Alternative Scenarios for Spain

Abstract: In this study, a computable general equilibrium model was built to explore the economic effects of international immigration in Spain. One of the aspects on which the study focuses is the effect of the degree of inter-industry mobility of foreign workers, in which two alternative scenarios are described: one with perfect mobility and another in which such workers are only able to find employment in three specific industries. A second issue taken into account when designing the simulations was the degree of wage discrimination between immigrants and native workers. The findings suggest that the selection of strategic industries to absorb immigrants would enhance the economic effects of immigration. Wage issues are also an important parameter to be borne in mind when explaining the short- and long-term impact of this phenomenon.

Key words: immigration, general equilibrium model, Spain.

JEL Classification: D58, F22.

GARCÍA DE LA VEGA, María Luz

Technology Diversification and Innovation

Abstract: This article analyses the possible causes that prompt companies to diversify their base technology and the effects this has on company innovation. The harsher competition resulting from more open trade is an incentive for firms to increase the variety

of their technological projects and to intensify their internationalisation. Diversification of their base technology may, in certain circumstances, reduce the risk associated with innovation. Consequently, such incentives should drive innovation.

Key words: production diversification, technological innovation, international trade, R&D.

JEL Classification: F11.

MARÍA-DOLORES PEDRERO, Ramón and SANCHO PORTERO, Israel

Analysis of the Effects of the Business Cycle on Convergence Rates: The Case of Spain

Abstract: The stochastic convergence hypothesis is contrasted in this paper, specifically for the case of Spain, with an analysis of whether the economic cycle has impacted the Spanish economy's convergence or catching-up rate. Using semi-annual data for the period 1963-2000, Spanish convergence on Europe was found to depend on the phase of the economic cycle, with convergence progressing much faster during periods of economic expansion than during recession. Two alternative approaches, linear and non-linear, were deployed in the analysis.

Key words: convergence, business cycles, time series, Spain, 1963-2000.

JEL Classification: F41.

MARÍN MARTÍNEZ, Carmen

Current Account, Savings and Real Foreign Exchange Imbalances in a Growth Economy

Abstract: Given the empirical observation that relates real currency revaluation to increases in real income, the author explores how existing theoretical explanations could benefit from considering the dynamic aspects of growth. A simple exogenous growth model was developed for this purpose, in which one of the requisites was compliance with the internal and external equilibrium conditions of standard macroeconomic models. In this context, the inclusion of time-varying growth restrictions was found to lead, under certain circumstances, to a positive theoretical relationship between an economy's saving ratio and the real appreciation of the national currency, a factor not taken into account in prior approaches.

Key words: economic growth, external debt, macroeconomics, propensity to save, per capita income, exchange rate.

JEL Classification: F31, F41.

MARTÍN GONZÁLEZ, Carmela and TURRIÓN SÁNCHEZ, Jaime

Factors Determining Foreign Direct Investment in the EU and the CEECs

Abstract: The purpose of this paper is to review the changes that took place in the patterns and geographic structure of direct investment in the present and future EU partners in the nineteen nineties and attempt to explain the determining factors behind such investment. The gravitational model used for this purpose incorporated ideas recently developed in economic geography. Given the liberalisation of investment flows between the fifteen members and the candidate countries—in the framework of the Association Agreements—in the years studied, the explanation for what has occurred to date may well provide key information for anticipating the adjustments that may be expected in the years to come, when candidates become full-fledged members of the Union.

Key words: European integration, direct foreign investment, CEECs.

JEL Classification: F02, F2, F21.

MARTÍNEZ-ZARZOSO, Inmaculada and HORSEWOOD, Nicholas J.

Relative Spanish and UK Exports to OECD Countries: Prices, Tastes and Qualities

Abstract: This paper studies the determining factors behind Spanish exports of ten different products to 16 OECD countries in the period 1970-1996. The theoretical model shows that the relative demand for exports depends on relative prices, relative quality of exported goods and consumer preference. An empirical application of the dynamic version of the model is presented for Spanish as compared to British exports. The study is based on finely disaggregated data to determine the role played by quality, differences in tastes, and prices as determining factors in exports. The findings reveal the importance of factors other than price in determining export activity, as well as the existence of differences in price elasticity for various products.

Key words: demand, exports, industrial quality.

JEL Classification: F14.

MAZA FERNÁNDEZ, Adolfo and SÁNCHEZ ROBLES, Blanca

EMU and Macroeconomic Disturbance: An Analysis for Spanish Regions

Abstract: Optimal monetary theory sustains that one of the chief costs entailed in EMU is the loss of economic policy tools to deal with possible disturbance. This cost, according to the theory, is particularly damaging if the likelihood of asymmetrical disturbance in EMU members is high. In this regard, the present paper analyses the situation prevailing in Spanish regions in 1955-1997 via specification of a space state model. The chief

conclusions are: 1) most of the shocks were symmetrical; 2) the effects of such shocks were essentially transient; 3) disturbances in supply predominated, albeit only slightly, over those in demand.

Key words: economic integration, economic policy, monetary union.

JEL Classification: E5, R11.

NAVARRO AZORÍN, José Miguel

A Reaction Function for the Changes in the European Central Bank's Intervention Rate

Abstract: The reaction function specified in this paper for the European Central Bank's intervention rate explicitly addresses the discrete and rather infrequent nature of the changes it has undergone. The explanatory variables for the dynamic ordered probit specification chosen are inflation rate and product gap. The empirical findings show: first, that the discrete nature of the changes in the intervention rate constitute an additional source of inertia in central bank action; and second, that the intervention rate has proven to be only scantily sensitive to inflation.

Key words: monetary policy, reaction function, exchange rate, ECB.

JEL Classification: C25, E52, E58.

RODRÍGUEZ LÓPEZ, Jesús and RODRÍGUEZ MENDIZÁBAL, Hugo

Foreign Exchange Regime Credibility, the Fear of Flotation and Optimal Width of the Exchange Rate Band

Abstract: This paper studies the connection between the width of a target band, the credibility of the resulting foreign exchange regime and the volatility of the exchange rate. These three parameters should be closely related since the width of the band generates an inter-relationship between credibility and volatility. Narrower bands provide for less margin for exchange rate fluctuations, but the perception, by economic agents, of a greater likelihood of devaluation increases exchange rate volatility. This idea underlies the development of a model that furnishes theoretical grounds on which to interpret and understand the lesser volatility recorded for most of the European Monetary System (EMS) currencies after the widening of fluctuation bands in August 1993. As a natural corollary to that premise, the model also rationalises the existence, suggested by several authors, of unofficial or implicit exchange rate bands.

Key words: monetary policy, exchange rate, rational expectations, volatility.

JEL Classification: E52, E58, F31, F33.

RODRÍGUEZ SÁNCHEZ, José Antonio and RODRÍGUEZ PARADA, Sonia Margarita

Protection for Bank Customers: Reality or Utopia?

Abstract: Transparency and protection for those approaching banking markets governed by free competition as customers must be legally guaranteed. The major modification introduced by the Act on reform of the financial system are analysed from the standpoint of this premise, comparing the coverage afforded by the new provisions to protection under the previous legislation. The paper

Key words: banking system, consumer protection, Spain, 1995-2001.

JEL Classification: G21.

SANTANA-JIMÉNEZ, Yolanda and PÉREZ-RODRÍGUEZ, Jorge V.

Foreign Exchange Risk and the Euro Effect on Exchange Rates for Cash

Abstract: Peseta/dollar (euro/dollar from 1 January 1999) foreign exchange risk is discussed in this paper, in terms of the relationship between excess return on foreign exchange and conditional volatility. A GARCH-M model, whose parameters were estimated by maximum verisimilitude techniques, was used for this purpose. The period sampled ran from 1 January 1996 to 12 January 2001. Moreover, a recursive estimate of the models proposed was performed to define risk price coefficient (CRRV) trends. The results indicate that whereas CCRV tended to decline while the EMS was in place, it was positive and significant and followed an upward trend after the onset of the euro.

Key words: international financial markets, exchange rate, volatility.

JEL Classification: C53, F31, G15.