

José García Solanes (Catedrático de Fundamentos del Análisis Económico de la Facultad), juntamente con Fernando Torrejón Flores e Irene Ródenas Monedero, acaba de publicar el artículo “*Exchange rate and macroeconomic adjustment in southern eurozone countries*” en la revista internacional *Economic Systems*, número 41(2017), páginas 639 a 650, editada por Elsevier. La revista está situada en el segundo cuartil de la base de impacto JCR, con un índice de Impacto de 1,197 en 2017.

En ese artículo, los autores demuestran que los cuatro países objeto de análisis, Grecia, Italia, España y Portugal, han necesitado utilizar el tipo de cambio para reajustar sus respectivas economías, utilizando dos metodologías econométricas diferentes aplicadas a datos de panel del periodo 1970-2011. Por un lado, demuestran que, en el periodo anterior a la adopción del euro, las devaluaciones o depreciaciones que realizaron los respectivos gobiernos fueron un instrumento útil para reactivar sus economías y mejorar las correspondientes balanzas comerciales.

Por otro lado, los autores ponen de manifiesto que cada uno de los cuatro países incurrió en notables sobrevaloraciones de sus tipos de cambio reales durante los años del euro que, al no poderse eliminar con devaluaciones y/o depreciaciones de las monedas nacionales, han tenido que resolverse mediante costosas medidas de austeridad y devaluaciones internas. Los autores concluyen que para evitar nuevas sobrevaloraciones de los tipos de cambio reales y los sacrificios y ajustes que serían necesarios para eliminarlas (los cuales miden la necesidad no satisfecha de modificar los tipos de cambio nominales), los gobiernos de los países de la muestra todavía deben realizar cambios estructurales importantes que incrementen sustancialmente la productividad de sus respectivas economías.



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Full Length Article

## Exchange rate and macroeconomic adjustment in southern eurozone countries

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## ABSTRACT

In this paper, we estimate panel cointegration and VEC models to show that, during the pre-euro period, devaluation and/or depreciation of the domestic currency were a recurrent weapon for macroeconomic adjustment in Greece, Italy, Spain and Portugal. Moreover, we perform panel Penn-effect regressions using a sample of 114 countries to prove that during the period 1970–2011 the four countries incurred misalignments of remarkable size and variability in their real exchange rates. All in all, our results reveal that for several decades the four countries needed to use their nominal exchange rate as a tool of macroeconomic adjustment. Since variations of the nominal exchange rate within the EMU are no longer an option, the four southern eurozone countries should accomplish the necessary structural reforms to avoid new and painful internal devaluations in the coming years.

## 1. Introduction

Our main contention in this paper is that the four peripheral countries of the Eurozone, Greece, Italy, Spain and Portugal, for several decades needed to use their nominal exchange rates as a tool of macroeconomic adjustment.

To prove our key argument, we apply two types of empirical methodologies: on the one hand, we estimate panel cointegration and VEC models to unravel the extent to which depreciations and devaluations were used to solve macroeconomic imbalances in each of the four countries during the pre-euro period 1981–1999. On the other hand, we estimate the size and variability of real exchange rate (RER) misalignments over a long period, 1970–2011, marked by several exchange rate regimes including participation in the euro.<sup>1</sup> The rationale for this hypothesis is that if the size and variability of RER misalignments are high, countries arguably need exchange rate flexibility to correct them. Indeed, the easiest and least costly way to reduce or eliminate RER misalignments is through variations of the nominal exchange rate.

To implement the two approaches, we apply tests specifically designed to deal with cross-sectional dependence (CSD) between the components of the panel. The results derived from each of the routes complement each other and are mutually reinforcing. We find that: a) the four southern eurozone countries (SEC) used the nominal exchange rate as a policy tool during the period of our sample preceding the adoption of the euro, and b) they incurred large and variable RER misalignments, particularly RER overvaluations, throughout the whole period of our analysis, which require variations in the nominal exchange rate to restore RER equilibrium.

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