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# Competitive pressure and economic integration: an illustration for Spain, 1983–1996

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**Abstract**

This paper estimates sectoral mark-ups in the Spanish economy during the period 1983–1996. The data consists of a large firm level data set that encompasses all sectors of economic activity apart from financial institutions. The time period considered is well suited to assess the pro-competitive effect of economic integration, as Spain's economy became fully integrated in the EU, which was itself embarking on a massive liberalisation exercise. I find that sectors most exposed to international competition witnessed a significant drop in margins, while those more sheltered from competitive pressures did not. Finally, comparing estimated mark-ups to accounting margins indicates that the latter are a reasonable proxy for margins obtained econometrically.


*JEL classification:* L13; L4; L6

*Keywords:* Mark-ups; Economic integration; Instrumental variables; GMM

## 1. Introduction

An idea often put forward is that, compared to traditional Vinerian effects, the principal outcome stemming from the removal of trade barriers is to sharpen competitive pressure (see, among others, Baldwin et al., 1992; Allen et al., 1998).

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Under conditions of imperfect competition, reductions in trade barriers can sharply increase competitive pressures, which in turn have the potential to generate substantial welfare gains (Baldwin and Venables, 1995). As stressed by Levinsohn (1993), the theory of international trade—almost—unambiguously indicates that trade liberalisation increases competitiveness on the domestic market.

Spain's recent experience represents an interesting case of liberalisation triggered by economic integration. In the early 1980s, the country was still in the midst of its political transition to democracy, and the economy had not yet been freed from the corporatist and interventionist policies of the previous regime. Shortly after, in 1986, the country joined the European Union (EU). This led to the progressive opening of the Spanish economy. In parallel, EU membership triggered a wave of domestic liberalisation meant to bring the Spanish economy into the European mainstream. Moreover, entry into the EU coincided with the most important liberalisation exercise in Europe since the 1960s, namely the implementation of the Single Market Programme (SMP). From that perspective Spain's experience represents an interesting 'natural experiment' of policy induced changes in competitive conditions.

The identification and analysis of industry mark-ups has evolved over time. Starting with the cross-section focus of the structure-conduct-performance (SCP) paradigm, research in 'new empirical industrial organisation' has moved towards the time-series analysis of market power in single or closely related industries (Bresnahan, 1989). A third avenue to estimate mark-ups across industries has been pioneered by Hall (1986). By using the properties of the Solow residual under perfect competition, Hall derived an empirical specification that permits retrieval of industry-wide price to marginal cost ratios. His contribution gave birth to an extensive macro literature regarding the influence of market imperfections on macroeconomic fluctuations (see Jun, 1998 for a review). While most of the macro-oriented papers make use of two-digit industry level data, Domowitz et al. (1988) extend Hall's framework by including intermediate consumption, and their results are obtained at a much finer level of aggregation (four-digit industries). That paper has helped to bridge the gap between macro and micro studies of mark-ups.

Changes in competitive pressures stemming from the removal of tariff and non-tariff barriers (NTBs) have been extensively analysed (EU Commission, 1996; Baldwin and Venables, 1995). For instance, the ex-post study of the European single market programme of Allen et al. (1998) adopts a computable general equilibrium approach based on imperfect competition and increasing returns to scale. A more direct alternative consists in estimating industry mark-ups, and assessing whether the latter have been altered as a result of economic integration. Levinsohn (1993) develops an oligopoly model, and estimates it with firm level data to gauge the impact on mark-ups of Turkey's trade liberalisation programme implemented during the 1980s.