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Monetary union and forest products trade – The case of the euro

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ABSTRACT

The objective of this study was to determine if the establishment of a monetary union in European countries had affected the international trade of forest products between the euro-using countries. A differential gravity model of bilateral trade flows was developed and estimated with panel data for the bilateral trade between 12 euro countries from 1988 to 2013, for commodity groups HS44 (wood and articles of wood), HS47 (pulp of wood, fibrous cellulosic material, waste, etc.), HS48 (paper and paperboard), and their sum. The parameters were estimated by ordinary least squares and fixed-effects methods. The results showed a positive or neutral effect of the euro on trade, for all products and countries, with both estimation methods. According to the most general result, the introduction of the euro had increased the average annual rate of growth of the bilateral trade of forest products by 6.5 ± 1.3% from 2002 to 2013.

Introduction

According to the theory proposed by Nobel laureate Robert Mundell (1961), the benefits of establishing a common currency such as the euro within the European Union arise from decreases in the cost

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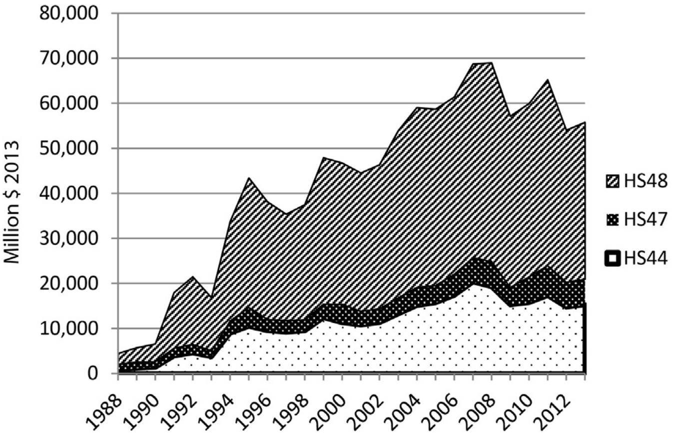

Fig. 1. Value of exports from 1988 to 2013 originating from 12 euro countries (Austria, Belgium, Finland, France, Germany, Italy, Luxembourg, Netherlands, Portugal, Ireland, Spain, Greece), in constant US$ of 2013, by commodity group: HS44 = Wood and articles of wood, wood charcoal. HS47 = Pulp of wood, fibrous cellulosic material, waste, etc., HS48 = Paper & paperboard, articles of pulp, paper and board.

of trade, stemming for example from the elimination of the cost of dealing with currency conversion, and greater predictability of prices due to the absence of exchange rate variations. Possible disadvantages may arise from the loss of independence in setting economic policies within the countries of the monetary union.

Among studies of the economic effects monetary unions on international trade Rose's (2000) pioneering work suggests that monetary unions have large effects on the trade between small countries, as much as 200%. But, the effects of the euro on the trade between European countries tends to be much smaller (10–15% according to Frankel, 2008), and Berger and Nitsch (2008) even find that after controlling for a general positive trend in trade, "the euro's impact on trade disappears".

Concerning the forest sector, there are few studies of the effect of monetary unions on the trade of wood and wood products. An exception is Baldwin et al. (2005), which report results for the effect of the introduction of the euro on the bilateral trade of commodities in the standard international trade classification (SITC) groups 20 and 21–22. For SITC 20 (wood and products of wood and cork) they estimate that the 95% confidence interval of the euro effect on bilateral trade is 9–230% and 3–148% for SITC 21–22, with large differences depending on model specification. One purpose of the present study was to try to reduce this range of uncertainty.

Fig. 1 shows that the total exports of the forest products considered here originating from the Euro-12 countries increased more than 15 times, from US$ 4468×10^6 to US$ $68{,}732 \times 10^6$ between 1988 and 2008. But they then declined by nearly 20% to reach US$ $55{,}752 \times 10^6$ in 2013, due to the post 2008 general economic recession. The paper and paperboard commodities (HS48) held the largest share of exports throughout the period, and the share increased from 55% in 1998 to 62% in 2013. Contemporaneously, the share of wood and articles of wood (HS 44) increased only slightly, from 20% to 27%, while the share of pulp (HS 47) decreased by 5 percentage points.

The objective of this paper was to determine how much of these changes, if any, could be attributed to the introduction of the euro. The paper is organized as follows. The following section presents the theoretical model (a differential gravity equation), the estimation methods (OLS, and fixed effects), and the panel data used in the analysis (12 countries, three product categories, and 26 years). This is followed by the results in terms of the effects of the euro on the bilateral trade between countries of each commodity group, as well as the effects on individual country exports. The conclusion argues that the evidence did support the hypothesis of a positive effect of the euro on the trade of forest products.