

International price volatility, exchange rate uncertainty and cereals exports: Empirical evidence from France

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Abstract

This paper investigates the impact of both exchange rate and futures price volatility on bilateral cereals exports from France. Using the Poisson pseudo-maximum likelihood (PPML) estimator developed by Santos Silva and Tenreyro (2006) to deal with the problem of zero trade flows when estimating a gravity equation, we show that the exchange rate uncertainty has a strong negative impact on french cereals trade. We find also that a higher futures price volatility is associated with an increase of french cereals exports. The PPML method also allows commodity specific estimation of the relationship. Results concerning price volatility support the idea that the positive effect is rather commodity-specific and not uniform across individual cereals commodities. We find that realized futures price volatility has a significant and positive impact on french exports of three commodities: barley, oats and maize.

Keywords: Exports, exchange rate, futures prices, volatility, Poisson pseudo-maximum likelihood (PPML)

JEL Classification: C23, F14

1. Introduction

The impact of exchange rate volatility on the export performance of a given economy has been widely studied in the literature. From a theoretical point of view, most papers show that the uncertainty resulting from this volatility has controversial effects on a country's level of exports. Indeed, while initial studies only consider the impact of the exchange rate instability on exports global volume and demonstrate a negative relationship (Hooper and Kohlhagen, 1978), more recent papers have attempted to consider the case of specific industries, including agriculture. However, despite the significant numbers of contributions in this area, the empirical results do not allow to conclude on the nature of relationship between these two variables (Ozturk, 2006).

These papers rely on hypothesis that producing countries can determine domestic prices of agricultural products, but have to face exchange rate volatility. However, these

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