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How did Japanese exports evolve from 1995 to 2014? A spatial econometric perspective[☆]

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ABSTRACT

Spatial econometric techniques can eliminate the bias when spatial effects are neglected. However, so far there is no research on investigating the spatial configuration of Japanese exports and determinants of its exports to sustain its exports competitiveness.

Empirical evidence shows that the spatial configuration of Japan's exports evolved over the past two decades. It exported to countries with higher political stability, higher degree of economic integration with Japan and to countries which have larger outward foreign direct investment from Japan. Also, its exports have positive and significant relationship with countries which have large imports to Japan. Its exports have the negative relationship with the GDP per capita of its export partner countries. These signify that it increased and expanded exports greatly to East-Asia countries, European Union and North America. These findings have great relevance to policymaking for both corporations and governments where trade or regional economic integration are concerned.

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1. Introduction

The total amount of Japanese merchandise exports continuously ranked 4th after Germany, USA and the mainland China in the past decades. It has constantly maintained and accumulated 2nd largest foreign reserves. Hence, it caused serious trade frictions with several countries, especially its major exporting trade country: USA.

Many studies (including: Yamawaki, 1991; O'Loughlin and Anselin, 1996; Blonigen, 2001) discussed how Japan can sustain its export advantages successfully in the USA though various measures adopted by the USA government to counter and reduce Japanese exports. Meanwhile, Japan expanded its exports from the USA further to the Europe due to externalities of the US government trade policies deterring Japanese exports to the USA

(Bown and Crowley, 2006). In light of recent literature: Tagliioni and Baldwin (2014) provided empirical evidence that intermediate goods in the global trade is increasingly important. Using the gravity model to investigate Japan's changing exports patterns, Thorbecke (2015) found that significant increases of Japanese exports of the intermediate goods to China and ASEAN (Association of Southeast Asian Nations). These confirms previous studies conducted on exports from Japan to the East Asian countries. More specifically, Ando, (2006) analyzed the sharp increases of machinery parts and components from Japan to the East Asia since 1990s and further pointed out the trade patterns: vertical intra-industry trade and horizontal intra-industry trade. Kimura (2006) provided empirical evidence of international production and distribution networks built by exporting new products and technology from Japan to East Asian countries. In addition, Jaussaud and Rey (2012) studied that China's market became Japanese main export destination from 1971 to 2007. These indicate that the growing importance of Japan's exports in intermediate goods over the past decades.

Overall, Japan has been broadening and deepening its export linkages with extra-regional partners globally. However, so far there is clearly a lack of research on investigating the spatial

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