Investigación Económica, vol. LXXVI, núm. 302, octubre-diciembre de 2017, pp. 103-129.

Industrial structure and transmission of monetary policy in Latin American countries

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Abstract

Based on data from the manufacturing industry and its subsectors, this article shows the impact of monetary policy according to the industrial structure in Brazil, Chile, Colombia, Mexico and Peru, the five Latin American countries adopting the system of inflation targeting for the longest time. Results show that the impact of monetary policy on industrial production is stronger in countries where the interest rate channel is more relevant, since the subsectors producing capital goods and durable consumer goods are more sensitive to monetary decisions. These results are closely linked to the role of price rigidities on the differential impact of monetary policy on industrial subsectors.

Keywords: monetary policy, industrial structure, Latin America, autoregressive distributed lag model.

JEL **Classification:** E52, E58, L6, O54.

Resumen

Este artículo emplea información de la industria manufacturera y los subsectores que la componen con el fin de determinar la incidencia de la estructura industrial en la transmisión de la política monetaria en Brasil, Chile, Colombia, México y Perú, los cinco países de América Latina donde más tiempo lleva operando el esquema de inflación objetivo. Los resultados obtenidos muestran que el impacto de la política monetaria sobre la producción industrial es mayor en los países donde el canal de tasa de interés es más relevante, al ser los sectores productores de bienes de capital y de consumo duradero los más sensibles a las decisiones monetarias. Estos resultados están muy relacionados con el papel de las rigideces de precios en las diferencias en el impacto de la política monetaria sobre los subsectores industriales.

Palabras claves: política monetaria, estructura industrial, América Latina, modelo autorregresivo de rezagos distribuidos.

Clasificación JEL**:** E52, E58, L6, O54.

Manuscript received on February 2nd, 2016; accepted on June 26th, 2017.

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Introduction

The study of monetary policy impacts on productive activity and its transmission channels has been a subject of great interest in recent decades, both in developed and emerging economies. In Latin America, only a few studies in a vast literature have dedicated attention to comparative analyses of countries. An exception is Quintero (2015), who estimated both the impact of monetary policy on economic activity and the incidence of the main transmission channels in the five countries adopting inflation targeting for the longest time (Brazil, Chile, Colombia, Mexico and Peru). Based on structural vector autoregressions (SVAR) for each country, but employing the same variables to make results comparable, the study found that Mexico and Peru are the countries where total production is more responsive to unexpected movements in interest rates set by monetary policy. This result is mainly explained by the high relevance of the interest rate channel in monetary transmission in these countries compared to Chile and Brazil. In Colombia, the interest rate channel is also important, but due to the weak operation of the exchange rate channel and those associated with views on credit, the impacts of monetary policy on production are weaker.

Another hypothesis from Quintero (2015) is that country differences in the importance of the interest rate channel, and the resulting ones in the impact of monetary policy on total production, derive from how economic structure mediates the effect of monetary policy on production. In principle some sectors should be more sensitive to monetary policy and changes in interest rate, due to the higher elasticity of demand for produced goods. This could explain why the interest rate channel works differently depending on the country.

Testing this hypothesis requires data on disaggregated production by sector or economic activity, and corresponding estimates of the effects of monetary policy shocks. Several studies were published on this topic at global level. Since Bernanke and Gertler (1995), interest in sectoral effects of monetary policy has grown and contributed to the identification of transmission channels of monetary policy. The underlying logic is that if two sectors respond differently to the same monetary policy, they must exhibit differences affecting the operation of channels. Therefore, the usual methodology applied in such studies is to identify monetary policy shocks, measure their impact on different sectors, and attribute differences to structural characteristics affecting the transmission channels.