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How effective is monetary transmission in low-income countries? A survey of the empirical evidence

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A B S T R A C T

This paper surveys the evidence on the effectiveness of monetary transmission in low-income countries. It is hard to come away from this review with much confidence in the strength of monetary transmission in such countries. We distinguish between the "facts on the ground" and "methodological deficiencies" interpretations of the absence of evidence for strong monetary transmission. We suspect that "facts on the ground" are an important part of the story. If this conjecture is correct, the stabilization challenge in developing countries is acute indeed, and identifying the means of enhancing the effectiveness of monetary policy in such countries is an important challenge.

1. Introduction

A large literature has emerged in recent years devoted to the empirical measurement of the effects of monetary policy on aggregate demand. Much of this literature has focused on the experience of the United States and other advanced countries, though there has also been substantial work on emerging economies. By contrast, though most of the world's central banks operate in low-income countries,

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research on the effectiveness of monetary transmission in such countries has been much more limited, and remains in its infancy.[1]

The literature on advanced and emerging economies has tended to confirm the effectiveness of monetary policy in influencing aggregate demand, with monetary policy shocks exerting strong and systematic effects on both output and prices. However, there are strong reasons not to simply assume that similar results would hold for low-income countries. In particular, the financial structure of such countries is fundamentally different from that of advanced and emerging economies. It is characterized by the absence of well-functioning markets for fixed-income securities, equities, and real estate. Banks are by far the dominant formal financial intermediaries in such countries, yet the formal financial system tends to be small relative to the size of the economy. In addition, low-income countries have very imperfect links with private international capital markets, and their central banks intervene heavily in foreign exchange markets.[2] This rather different institutional context suggests that the monetary transmission mechanism in low-income countries may differ substantially from that in advanced and emerging economies.

The predominance of banks in the formal financial sector suggests that the bank lending channel may be the main vehicle for monetary transmission in low-income countries. Yet conditions in such countries suggest that the effectiveness of this channel cannot be taken for granted. Not only is the formal financial sector small, but limited competition in the banking sector and a sharply rising marginal cost of lending may undermine the effectiveness of central bank policy actions in influencing commercial bank lending rates.[3] The upshot is that the monetary transmission mechanism may prove both weaker and less reliable in low-income countries than in advanced and emerging ones.

Assessing the empirical effectiveness of monetary policy in low-income countries is therefore an important topic for research, and there is now an emerging body of work on this topic. The methodology of choice for this purpose – as for industrial-country and emerging-market economies – has consisted of the derivation of impulse response functions (IRFs) from estimated vector autoregressions (VARs). In this paper we survey the VAR literature on the effectiveness of monetary transmission in low-income countries to assess what is currently known about the ability of central banks in such countries to influence aggregate demand.

The organization of the paper is as follows. In the next section, we present some brief background on the application of the VAR methodology to the study of monetary transmission, focusing specifically on the alternative identification strategies that have been employed in studies on low-income countries. The remainder of the paper reviews the evidence. Because the number of low-income countries is quite large and these countries are very heterogeneous, our survey requires an organizing principle.[4] As is well known, the channels of monetary transmission in a specific economy depend on the presence or absence of barriers to international capital movements and its exchange rate regime, as well as on its financial structure. Because countries in the same geographic region often exhibit similarities in their links to international financial markets and adopt similar exchange rate regimes, and because a country's financial structure is heavily influenced by its legal and institutional environments – both of which have strong regional commonalities – differences in the country characteristics that matter for monetary transmission are likely to be much more pronounced among countries in different geographic regions than among those in the same region. Accordingly, we classify low-income countries into five geographic regions, and examine the evidence region by region in Sections 3–8. Section 9 summarizes our findings and their implications.

[1] As of 2010, 134 of the IMF's 187 member countries were classified as low-income countries. This total refers to member countries that are not classified by the institution as either advanced or emerging economies.

[2] See the evidence in Mishra et al. (2012), which also contains a detailed analysis of the implications of these characteristics for monetary transmission.

[3] The marginal cost of lending is likely to rise sharply beyond a certain point in low-income countries because of the combination of a dualistic production structure and a poor institutional environment for financial intermediation, which results in high costs of loan evaluation, monitoring, and contract enforcement. Under these circumstances, the cost of lending is likely to rise rapidly when banks extend lending beyond the largest enterprises.

[4] For the purposes of this paper, the classification of countries into advanced, emerging and LICs follows Rogoff et al. (2004). Emerging market economies are those that are included in the Morgan Stanley Capital International (MSCI) index. With the exception of Israel, which is in the MSCI index, advanced economies are those that are classified as upper income economies by the World Bank. All other economies constitute low-income countries (LICs).