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Private Investment and Financial Sector Policies in India and Malaysia

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Summary. — This paper examines the role of financial sector policies in determining private investment in the economies of India and Malaysia. The results suggest that significant directed credit programs favoring certain priority sectors tend to discourage private capital formation in both countries. Interest rate controls appear to have a positive impact on private investment, with the effect being more pronounced in Malaysia. While high reserve and liquidity requirements exert a negative influence on private investment in India, the effect is found to be positive in Malaysia.

Key words — private investment, financial sector policies, India, Malaysia

1. INTRODUCTION

Although it is widely accepted that expansion of private investment is the main catalyst for generating long-run growth in developing countries, the response of private investment to various financial sector policies has received little attention in the analysis of investment behavior. An understanding of the way financial sector policies impact on private investment is important given that a number of developing countries have undergone significant financial sector reforms over the last few decades, leading to a widely observed increase in the degree of financial globalization. Drawing on the financial liberalization thesis of McKinnon (1973) and Shaw (1973), this study addresses the question of how government intervention in the financial system (including directed credit programs, interest rate controls, and reserve and liquidity requirements) affects the evolution of private investment in two rapidly growing developing economies – India and Malaysia. Understanding how each type of financial sector policy affects private investment provides some insight into the costs and benefits associated with each component of financial reform.

This study is related to several strands of literature. One has explored the determinants of private investment for developing countries (e.g., Greene & Villanueva, 1991; Guimaraes & Unteroberdoerster, 2006; Jongwanich & Kohpaiboon, 2008; Kinkyo, 2007; Serven, 2003). Another strand has attempted to examine the impact of financial sector reform on macroeconomic variables such as saving, investment, or financial deepening in developing economies (e.g., Ang, 2008, 2009; Ang & McKibbin, 2007; Bandiera, Caprio, Honohan, & Schiantarelli, 2000; Hermes & Lensink, 2005). Our work is also similar in some respects to that of Emran, Shilpi, and Alam (2007), who assess the effects of financial liberalization on the price responsiveness of private investment in India. Their results indicate that private investment has become more sensitive to changes in the cost of capital after liberalization. However, our focus, unlike theirs, is on the role of financial sector policies in determining private investment activity.

This paper aims to complement the above studies, and to enrich the literature by providing further evidence on how financial sector policies affect the evolution of private investment, drawing on the experience of two leading developing economies that have undergone significant financial sector reforms. We focus on just two economies instead of a larger sample given that the effects of financial sector policies may be heterogeneous across countries at different stages of economic development. Case studies are particularly useful in disentangling the complexity of the financial environments and economic histories of each country. By analyzing case studies, the econometric findings of this project can be related to the prevailing institutional structure, thus informing both academic and policy debate.

Several interesting features emerge from a comparative analysis of India and Malaysia. Firstly, both are high growth developing economies with British common law origins. Secondly, Malaysia was one of several economies severely impacted by the 1997–98 Asian financial crisis while India was largely unaffected by this episode of financial turbulence. In Malaysia's case there has been a sharp decline in gross domestic investment following the 1997–98 crisis. This emanated predominantly from the private sector whereas public investment has been boosted significantly as part of the crisis management program. However, it is not clear whether such government's pump-priming efforts will be sustainable in the long run. Consequently, this disappointing trend in private investment has become a major focus of economic policy debate in the crisis-affected Asian countries (see, e.g., Guimaraes & Unteroberdoerster, 2006; Kinkyo, 2007).

In the case of financial sector reforms, Malaysia initiated a series of financial liberalization programs in 1978 whereas India launched its reforms much later, in 1991. Surprisingly, the financial liberalization paths pursued in each country are remarkably similar despite their different starting points. Both countries have followed the conventional recommendations of a gradual reform approach for interest rate liberalization and reductions in reserve and liquidity requirements. However, quite apart from these measures, significant directed credit controls favoring certain priority sectors in the economies have remained in force in both countries. Notwithstanding their financial systems remaining partially restricted, India and Malaysia have achieved significant improvements in their

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financial sector development. In India, the ratio of private credit to GDP has increased from just 9% in 1960 to 45% in 2005. During the same period, this indicator increased significantly from just 7% to 117% in Malaysia (IMF, 2007). Finally, both India and Malaysia have relatively good databases by the standards of developing countries, providing an added incentive for this research.

The remainder of the paper is structured as follows. The next section describes the financial repression and liberalization experience of India and Malaysia. Section 3 discusses the private investment function derived from the neoclassical framework. This conventional framework is then modified to provide an alternative specification by incorporating the role of financial sector policies into the private investment equation. Section 4 sets out the empirical model and explains the construction of variables. A cost minimization approach is adopted in Section 5 to introduce dynamics into the model. This dynamic private investment function is then estimated using the appropriate time series techniques in order to provide an analysis of the short-run dynamics as well as the long-run relationship between private investment and its determinants. Section 6 presents and analyzes the econometric estimates of the private investment function covering the period 1950–2005 for India, and 1959–2005 for Malaysia. Finally, we summarize the main findings and conclude.

2. FINANCIAL SECTOR REFORMS IN INDIA AND MALAYSIA

There was little financial repression in the financial system of India during the 1950s and 1960s. However, the government gradually imposed more controls by raising reserve and liquidity requirements in the 1970s and 1980s. Revenue from financial repression was estimated to be 22.4% of total central government revenue during the period 1980–85 (see Giovannini & De Melo, 1993). Furthermore, several interest rate controls were implemented in the late 1980s. A series of comprehensive financial reform policies were undertaken in 1991 as part of broader economic reform. This strategy was aimed at changing the entire orientation of India's financial development from a financially repressed system to a more open, market-type one. Since then, interest rates were gradually liberalized and reserve and liquidity requirements significantly reduced enabling the market to play a greater role in price determination and resource allocation.

However, despite the liberalization programs launched in the early 1990s, the Indian financial system has continued to operate within the context of repressionist policies. In particular, significant directed credit programs favoring certain priority sectors still prevail in the banking system. Moreover, although the government divested part of its equity position in some public banks in the 1990s, the banking sector has remained predominantly state-owned due to the bank nationalization program in 1969, which has enabled the Reserve Bank of India to effectively implement its credit allocation policy. As such, it appears that repressionist measures coexist with a set of liberalization policies aimed at promoting freer allocation of resources.

In the case of Malaysia, the Central Bank has actively pursued interest rate liberalization, with the objective of developing a more market-driven financial system. The Bank followed a gradual approach with interest rate reform, beginning by cautiously liberalizing them in the 1970s. The major phase of liberalization occurred in 1978 when commercial banks were allowed to set deposit and lending rates freely. The liberalization policies adopted seem to have worked well at the early stage of development as significant financial deepening took place. In the 1980s, the Malaysian financial sector underwent a radical transformation along with expansion in the economy. The upshot of this was the emergence of a broader, deeper, more organized, and better structured financial system.

However, Malaysia has never completely and consistently liberalized its financial sector. The reform programs appear to have been narrow in scope, with much of the effort focused on eliminating interest controls. Quite apart from the liberalization policies pursued, a series of directed credit programs were implemented in 1975. During this year, at least 50% of total lending made by banks had to be advanced to the native Malay community. The requirement was reduced to 20% in the following year, but then adjusted to 30% in 1996. These financial sector policies, liberalization or repression, and the development that followed may have had a significant impact on the evolution of private investment activities in Malaysia.

3. ANALYTICAL FRAMEWORK

(a) *The neoclassical investment model*

The neoclassical investment model of Jorgenson (1963) postulates that the desired capital stock depends on the level of output and on the user cost of capital. Lags in delivery and decision making create a gap between current and desired capital stocks, giving rise to an investment equation in the form of:

$$I_t = \lambda \sum_{j=0}^{n} b_j \Delta(GDP_{t-j}/COC_{t-j}) + dK_{t-1}, \tag{1}$$

where gross investment (I_t) is represented by the sum of a distributed lag on the past changes in desired capital stock and replacement investment, and d is the rate of depreciation of capital stock (K_t), which is usually assumed to be constant. Hence, this simple neoclassical framework assumes that output levels (GDP_t) and the user cost of capital (COC_t) are the two key determinants of private investment.[1]

(b) *Modifications and extensions*

(i) *Public investment*

Several authors have argued that public investment may be complementary to, rather than competing with, private investment in developing countries. Public investment may facilitate and stimulate private investment through the provision of infrastructural support (Blejer & Khan, 1984; Sundararajan & Thakur, 1980). This could raise the productivity of capital and expand the overall resource availability by increasing output. On the other hand, public investment may also crowd out private investment. This occurs when additional public investment requires raising future tax and domestic interest rates, or if the public sector produces investment goods that directly compete with private goods. In addition, the utilization of additional physical and financial resources, which would otherwise be available to the private sector, may also depress private investment (Aschauer, 1989; Blejer & Khan, 1984). Therefore, the impact of public investment on private investment is theoretically indeterminate.

(ii) *Financial sector policies*

The Jorgenson investment model assumes a perfect financial market, where the firm faces an unlimited supply of capital. It is not difficult to see that under this framework, the user cost