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Financial development, foreign investment and economic growth in Malaysia ☆

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ABSTRACT

By making use of the bank-based theory of financial development, this paper develops a simultaneous equations model that allows one to empirically examine the interrelationship among economic growth, the stock of foreign investment and the stock of domestic capital in Malaysia. The empirical model is estimated by means of the Generalised Method of Moments. The empirical analysis, based on annual data for the period 1970–2007, reveals that the level of financial development has contributed to the growth of the domestic capital stock in Malaysia but its impact on economic growth is statistically insignificant. An increase in the stock of foreign investment in Malaysia has contributed to an increase in the stock of domestic capital and economic growth but the stock of foreign investment is affected significantly only by the level of openness of the economy and its real exchange rate.

1. Introduction

The endogenous growth literature [for example, the work of Romer (1986) and Lucas (1988,1993)] suggests that the level of financial development can affect long-run economic growth. It has been argued that financial development enhances economic growth directly as well as indirectly through its impact on domestic capital accumulation and total factor productivity. Financial development contributes to increased mobilisation of savings as well as a reduction in information asymmetries, which leads to better allocation of resources. Financial development also involves improved monitoring of managers and a higher level of corporate control which facilitates risk reduction (Roubini and Sala-i-Martin, 1992 and King and Levine, 1993). Financial sector reforms in developing countries have contributed to increased financial globalisation. It has been suggested that countries that are relatively more financially developed are better able to avoid or withstand currency crises (Federici and Carioli, 2009).[2]

Financial development can contribute to economic growth in a number of ways. For example, financial development in the form of increased confidence in the financial system encourages relatively less well-off households to save more, which increases the supply of funds that could be made available to large investors. In addition, financial development allows a relatively more efficient use of financial capital.[3] A large number of existing studies have utilised a single equation model

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[1] Tel: +61 7 5430 1222.
[2] See Beck and Levine (2004), Luntiel et al. (2008) and Kose et al. (2010) for an interesting discussion of the related issues.
[3] For excellent reviews of the literature on finance and economic growth, see Levine (2005) and Ang (2008b).

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where (i) economic growth depends on the level of financial development and other control variables (for example Cooray, 2009) or (ii) financial development is a function of economic development and other control variables (for example Ang and McKibbin, 2007). Control variables are used to lessen the effect of omitted variable bias (see Lütkepohl, 1982). The Vector Error Correction (VECM) and the Unrestricted Vector Autogresssion (UVAR) approaches are useful when the sample size is large which, in the case of economic growth studies, usually requires the use of quarterly data. However, in the case of most developing countries, quarterly data on all the relevant variables are not available and therefore VECM and UVAR approaches have often been used with a restricted number of variables in the model, which can cast doubt on the validity of the findings.

In addition, a large number of empirical studies have considered the relationship between economic growth and the stock of foreign investment, while others have considered the relationship between the stock of domestic capital and the stock of foreign investment.[4] In other words, in most cases, one has to look at separate studies to find out whether or not there is a significant relationship between the level of financial development and economic growth and whether or not there is a significant link between the stock of domestic capital and the stock of foreign investment in a country.

This paper focuses on Malaysia, a developing country that has experienced significant economic growth over the past few decades. The existing literature is mostly based on two approaches: single equation structural modelling (such as Liu and Hsu, 2006) and multiple equations VECM modelling (such as Ang and McKibbin, 2007). This paper utilises an intermediate approach: simultaneous equations based structural modelling. The model allows one to examine the interrelationship among three key variables: economic growth, the stock of foreign investment and the stock of domestic capital. Specifically, this paper utilises a three equation structural model that allows one to simultaneously examine the links between (a) the level of financial development and economic growth, (b) the stock of domestic capital and the level of financial development and (c) the stock of foreign investment and the stock of domestic capital.[5]

The rest of this paper is organized as follows. Section 2 contains a brief literature review that focuses on the link between the level of financial development and economic growth. This section also contains an overview of the Malaysian financial sector. Section 3 contains the model and a discussion of the empirical strategy. Section 4 contains the empirical analysis, while Section 5 contains some concluding remarks.

2. Literature review and financial sector reforms in Malaysia

The relationship between financial development and economic growth can be explained by means of bank-based, market-based, financial services based, and law & finance based theories. The bank-based theory suggests that banks can finance economic growth in the early stages of economic development because banks that are unhampered by regulatory restrictions can exploit economies of scale and scope in information gathering and processing (Levine, 2002; Beck and Levine, 2004). In contrast, the market-based theory highlights the advantages of well-functioning markets in promoting successful economic performance. According to this theory, big, liquid and well-functioning markets foster growth and profit incentives, enhance corporate governance, facilitate risk management and diversification as well as the customization of risk management devices (Levine, 2002). The financial-services theory, which is based on both the bank-based and the market-based views, stresses the importance of the key financial services provided by financial systems. This theory suggests that financial services facilitate industrial expansion and hence economic growth (Merton and Bodie, 1995). The law and finance theory emphasizes the role of the legal system in creating a growth-promoting financial sector (La-Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1998; Levine, 1999).

As indicated by Ang (2008b) in his survey article, theoretical studies, going back to the 1950s, have shown that financial development can contribute to economic development. However, the link between financial development and economic growth has been empirically investigated only starting from the seminal work of King and Levine (1993). This section focuses on some recent studies including some that have focused on Malaysia.

Ansari (2002) considered the impact of financial development, money supply and government spending on Malaysian national income. Ansari found the impact of both monetary and fiscal policies on Malaysian GDP to be insignificant. However, the impact of financial liberalisation on GDP was found to be significant. Ansari argued that financial liberalisation has contributed to economic growth in Malaysia because it took place after trade liberalisation.

Using the generalized method of moments (GMM) and principal component analysis, Liu and Hsu (2006) investigated the impact of financial development on economic growth in three Asian countries, namely, Taiwan, Korea, and Japan. They found that (i) high investment promotes economic growth in Japan while high investment does not lead to better economic growth if investment is not allocated efficiently as in both Taiwan and Korea; (ii) the finance aggregate has positive effects on Taiwan's economy, but has negative effects in the other two countries, (iii) stock market development has positive effects on Taiwan's economic growth but its economy suffered from the Asian financial crisis in the late 1990s; (iv) capital outflows have a negative impact on all three countries while the effect of capital inflows is negative. Braun and Raddatz (2007), using cross-country panel data involving 33 countries for the period 1970–2003, found that domestic financial development has a smaller effect on economic growth in countries that are open to trade and capital flows than among countries that are closed in both dimensions. Abu-Bader and Abu-Qarn (2008) employed four different measures of financial development to

[4] For example see Ramasamy (2003), Ang (2008a, 2009a), Anwar and Nguyen (2010) and references therein.

[5] Ahmad and Malik (2009) have used a similar setup.