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Determinants of bank credit in Pakistan: A supply side approach

Kashif Imran [a,*], Mohammed Nishat [b]

[a] Department of Economics, Institute of Business Management, Karachi, Pakistan
[b] Institute of Business Administration (IBA), Karachi, Pakistan

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ABSTRACT

This study empirically identifies the factors which explain the bank credit to the businesses in varying financial environments and emerging global challenges. With the major focus on supply side this study uses the ARDL econometric approach using annual data from the period 1971 to 2010 for Pakistan. The empirical results indicate that the foreign liabilities, domestic deposits, economic growth, exchange rate, and the monetary conditions are significantly associated with bank credit to the private sector in Pakistan, particularly in the long run. Whereas the inflation and money market rate does not affect the private credit. Moreover, in the short run the domestic deposit does not influence private credit. The results also infer that the financial health and liquidity of the banks play a significant and vital role in the determination of loan. Results also indicate that the long run relationship is stable and any disequilibrium formed in the short run will be temporary and get corrected over a period of time with a high speed of 53.5% per year. This study does not statistically distinguish the behavior of bank credit during non-financial (1971–1989) and financial reform periods (after 1990) in Pakistan.

1. Introduction

The finance is a backbone of every business, as business grows; it needs more capital to assist its various operational and non-operational activities. To finance such activities any organization has two main sources; internal and external. The loan from financial institutions like banks is a key source among the major external sources for a business. In order to fulfill their financial needs, businesses mostly don't build their capital structure entirely with their internal funds, especially small firms which have inadequate sources of raising capital (White and Cestone, 2003; Galor and Zeira, 1993). The existing literature shows that the availability of bank credit plays a crucial role to boost up the economic growth, especially in emerging markets. So to find the determinants of bank credit is a more important issue to discuss because of the growing trend of using bank loan in the world economies.

A strong financial system and developed economy interchangeably support to each other to grow. A well developed business and economic growth demanded more credit and cause to credit growth. The mild monetary conditions and a vigorous banking sector tend to enhance more credit. The underlying financial market imperfections create borrowing constraints, hence lower economic and credit growth. In the case of Pakistan the domestic credit by banking sector has declined from 51.1% of GDP in 1971 to 46.8% in 2010 (World Development Indicators, 2011). As shown in Fig. 1A (the trend line exhibits a declining pose). The various factors influence on banking decision to allocate the credit to business besides investors' own characteristics e.g. unstable political environment of the country, unstable government economic policies, and the legal risk. Fig. 1B shows that before the financial liberalization in Pakistan (before 1990) the credit by banks was increased (as trend line shows upward slope), however, in post liberalization period the credit ratio was declined (see Fig. 1C). So, it can be concluded that the financial liberalization/reforms have negative association with credit growth in the case of Pakistan.

In general, the bank credit can be viewed from two perspectives, the demand side (from firms or individual's perspective) and the supply side (from financial intermediaries' perspective). The present study identified the supply side factors which influenced in credit allocation to firms.

To assess the growing trend of bank credit before and after boom and bust cycles observed in most economies, it is crucial to identify the factors which determine the bank credit especially from the bank side. The available studies for Pakistan consider the demand side approach (Qayyum, 2002; Khawaja, 2007; Awan, 2009; Afzal and Mirza, 2010; Ali et al., 2011). Not a single study is available to consider the supply side variables of bank credit in the case of Pakistan. The main objective of the present study is to identify the determinants of bank credit from the supply side. The study also empirically identifies if the bank credit behavior is different during financial reform and non-reform periods. The rest of the paper is organized as; Section 2 presents a review of the existing literature, followed by data and methodology in Section 3. The, estimation and discussion of results are presented in

* Corresponding author.
E-mail addresses: kashif.imran@iobm.edu.pk (K. Imran), mnishat@iba.edu.pk (M. Nishat).

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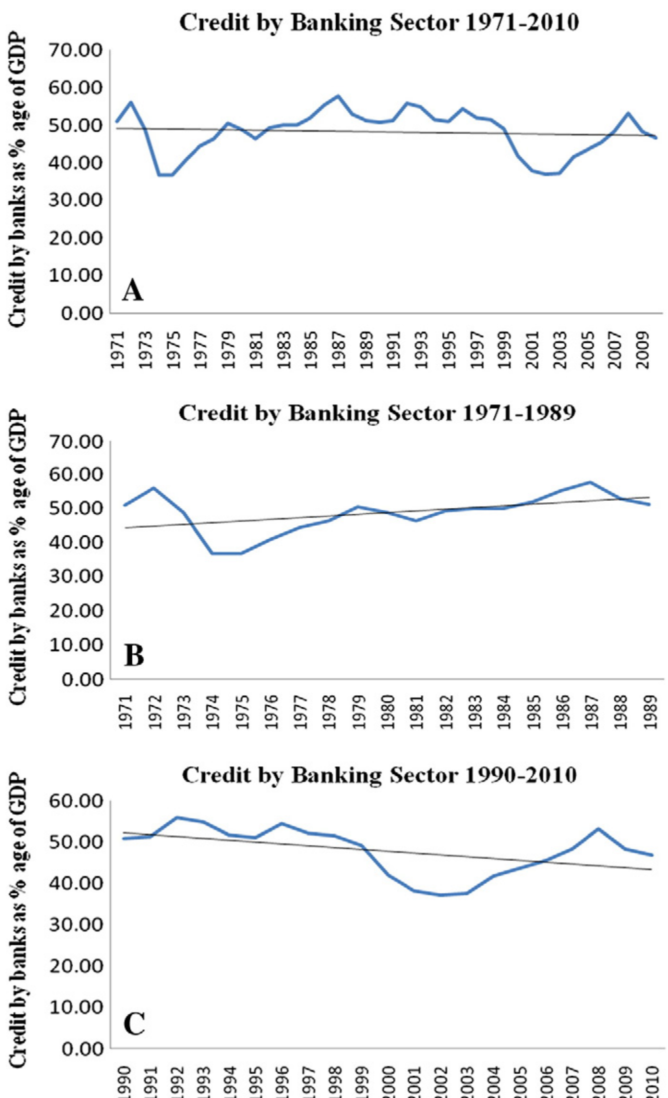

Fig. 1. A: Domestic credit provided by banking sector (% of GDP) from 1971 to 2010. B: Domestic credit provided by banking sector (% of GDP) from 1971 to 1989. C: Domestic credit provided by banking sector (% of GDP) from 1990 to 2010.

Section 4. The summary and concluding remarks are presented in Section 5.

2. Literature review

The domestic and foreign funding is positively associated with the credit growth. The stronger economic condition leads to higher credit growth, whereas higher inflation lessens the real credit growth in the economy. Monetary policy has also a significant impact on the credit growth, the soft country and global monetary conditions lead to more credit, stable exchange rate is needed to improve the ability of the banking sector to channel credit to the economy and finally the strong banking sector positively influences the credit growth (Shahbaz et al., 2010; Guo and Stepanyan, 2011; Owoeye and Ogunmakin, 2013). In the case of Russia Chernykh and Theodossiou (2011) concluded that the median banks assign only 0.5% of its total assets in terms of long-term loans to business and there is large cross-sectional disparity in this ratio among banks. They argued that the bank's capacity to expand long-term business loans depends on various factors including its capitalization, size and the availability of long-term liabilities, however, the ownership of banks does not matter. The study also concluded that the banks hesitated to issue business loans with more than three years maturity. Their results exhibit that banks with lower level of capital, banks having lower funding for long term loans and banks in most competitive areas are reluctant to supply long term loans. They considered weak creditor rights protection, enforcement and the low creditworthiness of risky borrowers as other hurdles in providing long-term loans.

Aisen and Franken (2010) found that prior to financial crisis the bank credit growth was larger as compared to post crisis period. Using a sample of over eighty countries they also concluded that the countercyclical monetary policy and liquidity position of the banks played a crucial role and lessened the bank credit reduction in the post crisis era. These findings advocate that the countries should follow the appropriate institutional and macroeconomic structure favorable to countercyclical monetary policies. They also found that the countries respond differently in various regions of the world due to diversity in countries' structural characteristics e.g. financial depth and integration.

Presenting the results from twenty-one emerging economies, Takats (2010) found that, during the financial crisis the cross-border bank lending declined sharply. The study also concluded that during the financial crises the demand and supply factors contributed to the fall in bank lending, but the impact of supply factors was dominated. However, both the factors appear to have more balanced effects in pre-crisis period. Furthermore, supply shock was the key determinant of slowdown in cross border lending to emerging economies. The credit growth before the crisis was vastly different across countries and regions.

During the post crisis period the emerging markets experienced a considerable slowdown in credit growth (Guo and Stepanyan, 2011) compared to the pre-crisis period. Pakistan also faces slowdown in post crises period (as shown in Fig. 2).

Theoretically there is a long term relationship between bank health and the foreign bank credit growth in emerging markets. The negative shocks to bank health created slowdowns in credit growth. Moreover, the financial crises badly hit the banks health which leads to a lower credit growth. Empirical studies indicated that the reduction in bank credit during financial crisis left a negative impact on the real side of those emerging economies, which relied heavily on bank financing (McGuire and Tarashev, 2008). Over the last two decades, most of the fastest growing economies of the developing nations have experienced lending booms and financial crises (Ranciere et al., 2003). Kamil and Rai (2010) found that the countries rely more on external finance suffered most during the crisis era. Bakker and Gulde (2010) considered external factors as key reasons for credit booms and busts in new European Union members. The pre-crisis boom and slowdown in partner economies were the fundamental determinants of credit growth during the crisis. It is argued that the banks which faced ultimate liquidity stress lost their ability to lend more (Aisen and Franken, 2010).

3. Data and estimation techniques

The present study investigates the factors that determine the bank credit in the case of an emerging economy like Pakistan. The annual data used for econometric analysis span the period of forty years;

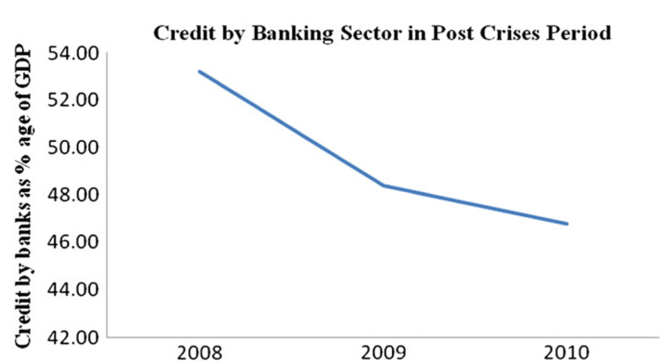

Fig. 2. Domestic credit provided by banking sector (% of GDP) in post crises period.