BANK LENDING AND THE TRANSMISSION OF MONETARY POLICY IN MALAYSIA

BY

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A dissertation submitted in partial fulfilment of the requirement for the degree of Doctor of Philosophy in Economics

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ABSTRACT

This study investigates the importance of bank lending in the monetary transmission process in Malaysia over the period of September 1998 to December 2003. The main motivation for the study stems from the importance of bank lending in financing the Malaysian economy. The study involves three major steps: first, searching for the monetary policy indicator (involving the period from January 1997 to December 2003); second, analysing the impact of monetary policy shocks on selected objective variables which include bank balance sheet items and macroeconomic variables; and third, providing further extensions by analysing different aspects of bank lending such as lending to major economic sectors and lending extended by different banking institutions. In analysing the importance of bank lending in the monetary transmission process, the study uses a battery of tests including the cointegration test, impulse response functions, variance decomposition analysis and multivariate causality analysis based on the VECM and the Toda-Yamamoto method. The study finds that the Overnight rate is the best policy indicator for Malaysia in the post-crisis period. On the importance of bank lending in the monetary transmission process, the study finds conclusive empirical evidence that bank lending is important in the monetary transmission process in Malaysia. Further extensions to the study find that different characteristics of borrowers and lenders show varied responses to monetary policy shocks. Since the study uses recent data and analyses the situation in a recent economic and financial setting, this study provides up-to-date findings and contributes positively in the monetary policy formulation and implementation in Malaysia. Based on these findings, the study highlights some of the major issues that policymakers could consider to ensure relevant and effective monetary policy formulation and implementation in line with the dynamic nature of the economy.
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DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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IN MALAYSIA

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To
My husband (Mohd Nazli),
my parents (Haji Kassim & Hajjah Jariah)
and my children (Shafiq Danial, Safia Nafisa & Shamil Naim)
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CHAPTER 1
INTRODUCTION

1.1 BACKGROUND
While it is widely accepted that monetary policy affects macroeconomic behaviour, a central point of debate among the policy-making circle is on the mechanism that transmits the impact of monetary policy action to the real economic activity. The debate arises from the importance of identifying such a link since it will determine the effective instruments and the reliable intermediate targets for monetary policy implementation. In view of this, identifying the relevant channels through which the impact of monetary policy measures is transmitted to the real economy has been one of the most challenging and crucial tasks in the conduct of monetary policy. A clear understanding of the monetary transmission channel helps in ensuring an effective and successful implementation of a monetary policy.

Monetary policy affects the real economy via several channels, but the main two that are often mentioned in the literature are the “money channel” and the “lending channel”. The money channel, which emphasises the role of money in the monetary transmission process, has secured a strong footing in the economic literature (see, for example, Brunner and Meltzer, 1972, 1988, 1990; McCallum, 1990, 1999, 2001, 2004; McCallum and Nelson, 2005; Feldstein and Stock, 1993; Hess and Porter, 1993; Dotsey and Otrok, 1994; Meltzer, 1969, 1970, 2001; Christiano and Rostagno, 2001; Nelson, 2003a, 2003b). According to this view, an expansionary monetary policy causes money supply to expand and real interest rate to decline. The lower interest rate environment induces investment spending by businesses, and at the same time, encourages consumption spending. The result is higher aggregate demand and
ultimately, a higher total output in the economy. Since this view emphasises the role of interest rate in the monetary transmission process, it is also known as the interest rate channel.

However, it is often shown that the macroeconomic responses to policy-induced interest rate changes are larger than that implied by the money view. This gives rise to the lending channel, which suggests that bank lending provides an additional channel for the monetary authority to affect the real economy. A classic study by Bernanke (1983) finds that the output decline in the US during the 1930-1933 Great Depression cannot be fully explained by monetary disturbances as described by the money view. There was considerable evidence that during the period, shifts in loan supply following disturbances in the banking sector caused significant fluctuations in the economic activity. The unexplained portion of the output fluctuations during the period was largely resolved by recognising the role of bank lending. Until now, the reduction in loan supply has often been quoted as one of the reasons for the depth and persistence of the US’ Great Depression.

While the role of bank lending in the monetary transmission process remains a subject of intense debate, an accumulating amount of research continues to provide evidence on the importance and relevance of bank lending in the monetary transmission process (see, for example, Bernanke and Blinder, 1988 & 1992; Hubbard, 1994; Kashyap and Stein, 1994, 1995, 1997a, 1997b; Garretson and Swank, 1997; Kakes, 1998; Hallsten, 1999; Driscoll, 2004; Ehrman et al., 2001; Kuppers, 2002; Mateut, Bougheas and Mizen, 2003; Jansen and Chang, 2005). These studies provide empirical evidence that bank loan is important in transmitting monetary policy effects to the real economy.
For Malaysia, despite some efforts to understand the role of bank lending in the monetary transmission mechanism (for example, Ibrahim, 2001, 2002 and 2005; Azali, 2003; Tang, 2000, 2002; Vaithilingam et al., 2003), this topic has remained largely unexplored. In general, these studies support the important role played by bank loans in the monetary transmission process. Despite this, these studies focus on the aggregate bank lending as opposed to analysing the various aspects of bank lending. A more focused effort and in-depth investigation on the role of bank lending as a channel for monetary transmission in the Malaysian case would go a long way in contributing towards a more effective and strategic monetary policy implementation for the economy.

The need to investigate the importance of bank lending as a channel for monetary transmission is imminent even pressing. Bank lending accounted for 125% of the country’s total gross domestic product (GDP) at end-2003 (Bank Negara Malaysia, 2003) and it is expected to increase further due to the robust economic performance. Bank lending is the major source of financing for the Malaysian economy. As at end-2003, 70% of total financing in the economy were in the form of bank loans, while only 30% were in the form of debt financing. Indeed, the important role played by bank lending in achieving the overall economic objectives is clearly acknowledged by Bank Negara Malaysia (Bank Negara Malaysia, 1994: 91): “As the nation’s monetary authority, the Central Bank is responsible to the Government for promoting monetary stability and a sound financial structure, and for influencing the credit situation to help achieve the nation’s overall economic objectives.”
1.2 PROBLEM STATEMENT

Determining the variables that are relevant in the monetary transmission process is the hallmark to an effective monetary policy implementation. A clear knowledge of the monetary transmission channels helps in the accurate selection of intermediate target variables (such as monetary aggregates and interest rates). It also improves our understanding of the link between the financial sector and the real economic sector, thus enabling timely policy implementation.

Based on this premise, this study intends to investigate the importance of bank lending in linking monetary policy to the real economy in the Malaysian case. The motivation to focus on bank lending as a channel for monetary policy transmission stems from the importance of bank lending in financing the country’s economic development. As mentioned, bank lending accounts for a significant portion of Malaysia’s total GDP. The ratio of bank lending to Malaysia’s total GDP increased steadily from about 80% in the 1980s to about 100% in the 1990s and about 125% in 2003. The ratio reached its peak at 153% in 1997 (Bank Negara Malaysia. *Monthly Statistical Bulletin*, various issues). In comparison, this ratio is significantly higher than those of developed countries such as the United States at 52% in 2002 (International Monetary Fund. *International Financial Statistics: Yearly Book*, 2003). In view of its importance, bank lending is a likely candidate for a major monetary transmission channel in Malaysia.

The instrumental role played by bank lending in the Malaysian economy is also attributed to the relatively less developed capital market. Despite the rapid growth of financing using Private Debt Securities (PDS), the amount of PDS is still significantly small compared to total bank lending in Malaysia. In 2003, of total
financing in the economy, the share of PDS market was about 30%, while the share of bank lending was about 70%. In absolute terms, of total financing in the economy amounting to RM822 billion in 2003, total loans outstanding of the banking system amounted to RM563 billion, while total PDS outstanding was merely RM259 billion. (Bank Negara Malaysia. Annual Report, 2003). In other words, the rapid growth of PDS is largely due to the small base effect.

Several other factors warrant a rigorous and in-depth study on the importance of bank lending in transmitting monetary policy effects in the Malaysian economy. Malaysia is committed to further develop its financial market as outlined in the Bank Negara Malaysia’s Financial Sector Masterplan 2003. The Masterplan outlines the strategies to enable the domestic financial sector to cope with the rapid pace of economic development and transformation that creates new demands and opportunities. The objective of the Masterplan which is “….to develop a more resilient, competitive and dynamic financial system with best practices, that supports and contributes positively to the growth of the economy throughout the economic cycle…” (Bank Negara Malaysia, 2003: 11) is a clear manifestation of the importance of bank lending in the economy. By having this objective, Bank Negara Malaysia is clearly emphasising on ensuring a healthy and stable financial system that can provide continuous financing to the economy. The objective could well be implied to financing in the form of bank loans since 70% of total financing in the Malaysian economy comes from bank lending. The Masterplan also emphasises the changing requirements of the economy on its financing needs. Amid the country’s rapidly changing financial landscape, this study hopes to reiterate and show further evidence on the relevance and importance of bank loans in financing the economy as well as in transmitting the monetary policy effects to the real economy. In short, the
transformation of the country’s financial sector and the development of the capital market would result in a wider range of financing alternatives for the private sector. The transformation of the country’s financial sector would obviously require a dynamic monetary policy formulation to factor-in the changing role of the banking sector in Malaysia.

It is important to highlight that the existence of a bank lending channel in the economy has several important economic implications. Suppose that bank lending is an important channel for monetary policy transmission, it is critical to ensure the stability of the banking sector due to its great repercussions on the economy as a whole. In such circumstances, ensuring the stability of the banking system is a crucial pre-condition towards economic stability. At the same time, it is also important to assess the distributional consequences of monetary policy on various economic sectors of the economy. Some economic sectors are more sensitive to changes in monetary policy variables (interest-sensitive sectors), while others are quite resilient to interest rate changes. Similarly, some economic agents are more sensitive to changes in monetary policy compared to others. For example, several studies have shown that changes in monetary policy have greater impact on smaller firms compared to bigger ones (see for example, Gertler and Gilchrist, 1994; Gelos and Werner, 2002; Domac, 1999).

1.3 OBJECTIVES OF STUDY

This study aims to analyse the relevance and importance of bank lending as a channel for monetary policy transmission in the Malaysian economy. It also plans to undertake an in-depth investigation on the role of bank lending in the process of monetary transmission mechanism by analysing various aspects of lending. Based on
latest data and rigorous investigation techniques, the study aims to highlight major issues for consideration to ensure strategic and relevant monetary policy implementation. Ultimately, this study hopes to contribute towards more effective monetary policy formulation and implementation so that the ultimate goal of monetary policy, which is to attain a sustainable long-term economic growth of the Malaysian economy, can be achieved.

The specific objectives of this study are as follows:

(i) To determine the most relevant monetary policy indicator using the Malaysian data;

(ii) To determine if bank lending plays an important role in the transmission process of monetary policy in the Malaysian case;

(iii) To analyse the impact of monetary policy on different aspects of bank lending: First, loans extended by different banking institutions, namely, commercial banks, finance companies and merchant banks; and second, loans extended to major economic sectors, namely, agriculture, mining and quarrying, manufacturing, construction and services sectors, and

(iv) To highlight relevant policy implications that could contribute towards an effective monetary policy implementation in Malaysia.

1.4 SIGNIFICANCE OF THE STUDY

This study will contribute to the economic literature, particularly in the field of monetary economics in a number of ways. First, the study hopes to enrich the literature by presenting the specific case of Malaysia. A survey of literature shows that in-depth studies on the bank lending channel of monetary policy transmission
have mostly focused on the developed economies, in particular the US and Euro area. Furthermore, the findings of the study will provide fresh evidence on the subject as it will analyse the latest data and discuss the results in the most contemporary economic situation. In view of the dynamic nature of the Malaysian economy, the study hopes to be able to capture any updates and changes as part of the continuous efforts to ensure effective monetary policy implementation. By employing rigorous investigation techniques, the study aims to produce consistent results and conclusive evidence on the importance of bank lending in the monetary transmission process.

Second, the findings of this study will emphasise the importance of ensuring the health and stability of the banking sector in Malaysia. If it is proven that bank lending plays a crucial role in the transmission process of monetary policy, it is important to remain vigilant and continuously take pre-emptive measures to safeguard the health and stability of the banking sector. A lesson well-learned from the Asian crisis 1997/1998 showed that the banking sector is prone to systemic risks that can easily be transmitted to the real economy. The efforts to ensure long-term health and stability of the banking system through the establishment of the Financial Sector Masterplan is a manifestation of the importance of ensuring the stability of the banking system in the economy and indeed, is a move in the right direction.

Third, since different aspects of bank lending will be considered, the study hopes to provide an in-depth investigation on the role of bank lending in the monetary transmission process. An area of interest will be on the distributional impact of monetary policy. If it can be shown that the bank lending channel is operative and the distributional impact of monetary policy is uneven across sectors, this has significant implication on the strategy of implementing monetary policy.
Fourth, the findings of the study will highlight the urgency for the authority to further diversify the sources of financing in the economy. As mentioned, it is crucial to ensure the health and stability of the banking system if the economy critically depends on bank lending for financing. Amid the increased risks of financial contagion in the global economy due to economic integration, it is beneficial for the economy to reduce its dependency on bank lending. This can be done by increased innovation in the financial market and further development of the capital market.

1.5 ORGANISATION OF THE STUDY

Having discussed the background of the topic, the problem statement, the objectives of the study, the significance and expected contributions of the study, the rest of the study is organised as follows:

Chapter 2 presents an overview of the Malaysian economy, its financial structure and its monetary policy since independence until the most recent period. The main emphasis of this chapter is on the development of the country’s financial sector and the operation of monetary policy. This would include a discussion on the major banking institutions, the significant developments in the banking sector, and the monetary policy strategy, targets, instruments and management since independence.

Chapter 3 reviews the literature on monetary transmission mechanism and the role of bank lending in the transmission process of monetary policy. This chapter consists of two main sections: The first section surveys the theoretical literature on monetary transmission mechanism and explains various monetary transmission channels. The second section focuses on the empirical literature review of the studies focusing on the role of bank loans in the monetary transmission process. This
includes the various investigation techniques used and relating the experiences of several countries pertaining to this topic.

Chapter 4 presents a detailed discussion on methodology, hypothesis building and data analysis. Various methods of investigation and tests to determine the importance of bank lending in the monetary transmission process are discussed. In terms of the estimation techniques, a battery of tests are used to ensure consistent and convincing results.

Chapter 5 presents the results of the various tests and estimations, and provides interpretations for the findings. Several extensions are made in efforts to further enrich the study such as considering the impact of monetary policy on loans extended by heterogeneous lenders and loans extended to various economic sectors.

Finally, Chapter 6 summarises the findings of the study, highlights the overall view and draws policy implications and recommendations. This chapter also suggests a few directions for further research.