CHAPTER 1

INTRODUCTION

1.1 Introduction

The transmission mechanism of monetary policy deals with the complete path from the initial disturbances to the monetary policy up to the ultimate effect on the aggregate economic activity. Researches have confined that, at least in the short run monetary policy can significantly influence the real course of the economy. Economists have come up with various channels, explaining how the monetary policy actions by the Fed could influence the economy. Among others, the channels include the traditional interest rate channel and the exchange rate channel.

The bank lending channel or the credit-lending channel is one of the subset to the transmission mechanism of the monetary policy. It is relatively a new explanation on how the monetary policy exerts its influences on the economy compared to the traditional interest rate channel. According to Bernanke and Gentler (1993), the conventional wisdom of the interest rate channel, although it is readily available, is insufficient in explaining the transmission mechanism. They put it as *"..... story is incomplete in several important ways."* They further argued that there are some puzzling facts on the effect of monetary policy that has led a number of economists to explore this new explanation of the working of monetary policy. This group of economists has looked into the possibility of the imperfect information and other frictions in credit market in helping to explain the potency of monetary policy. Collectively, these mechanisms are known as the credit channel of monetary policy transmission.

However this so called credit-lending channel does not offer an alternative to the traditional money view. Instead, it is a complementary explanation to the money view. In other words, it is not a freestanding alternative to the traditional monetary transmission mechanism, but rather it is a set of factors that propagate the traditional interest rate effects. *"It is an enhancement mechanism, not a truly independent or parallel channel,"* (Bernanke and Gentler, 1993).

Generally, monetary policy works mainly through interest rates. When policy is tightened through a decrease in reserve provision, interest rates rise. This then will lead to a reduction in spending by interest-sensitive sectors of the economy, such as housing and consumer durable goods. Banks play a part in this interest rate mechanism since a reduction in money supply, which consists mainly of deposit liabilities of banks, is one of the main factors pushing up interest rates. In this traditional view, there is nothing outstanding role played by bank lending.

The lending view advocates complement the process by adding that an additional policy channel works through bank credit. Restrictive monetary policy directly constrains the ability of banks to make new loans, making credit less available to borrowers who are dependent on bank financing. Thus, according to the lending view, apart from raising interest rates, restrictive monetary policy also restrict bank credit. Accordingly, it has motivated many researches to assess the relative importance of the credit channel. Nevertheless, according to Ramey (1993), in her research, "*How Important is Credit-Lending Channel?*", "*the aggregate empirical results on the importance of the credit channel are mixed, with evidence that is more consistent with the traditional money view*".

This view that bank lending plays a special role in monetary policy has been part of policy debates for over 40 years, (Morris and Sellon,

1995). They cited one example: during 1950s, proponents of the availability doctrine argued that a bank credit channel provided the Federal Reserve with additional leverage in conducting monetary policy.

1.2 Monetary Policy in the Malaysian Economy

Basically, according to Bank Negara Malaysia (BNM), (1994), monetary policy in the Malaysian economy works as follows: Bank Negara Malaysia affects either reserves or interest rates and volume and direction of credit. As the financial institutions respond to changes in the availability of reserve funds or the variations in interest rates by adjusting their lending and investment portfolios, the monetary measures will also exert an impact on the supply of currency and deposits, the availability of credit as well as the cost of money and credit in the various markets. These in turn will influence the economic decisions of consumers and businesses to spend and save, which eventually will be reflected in the level of economic activity, employment and price level.

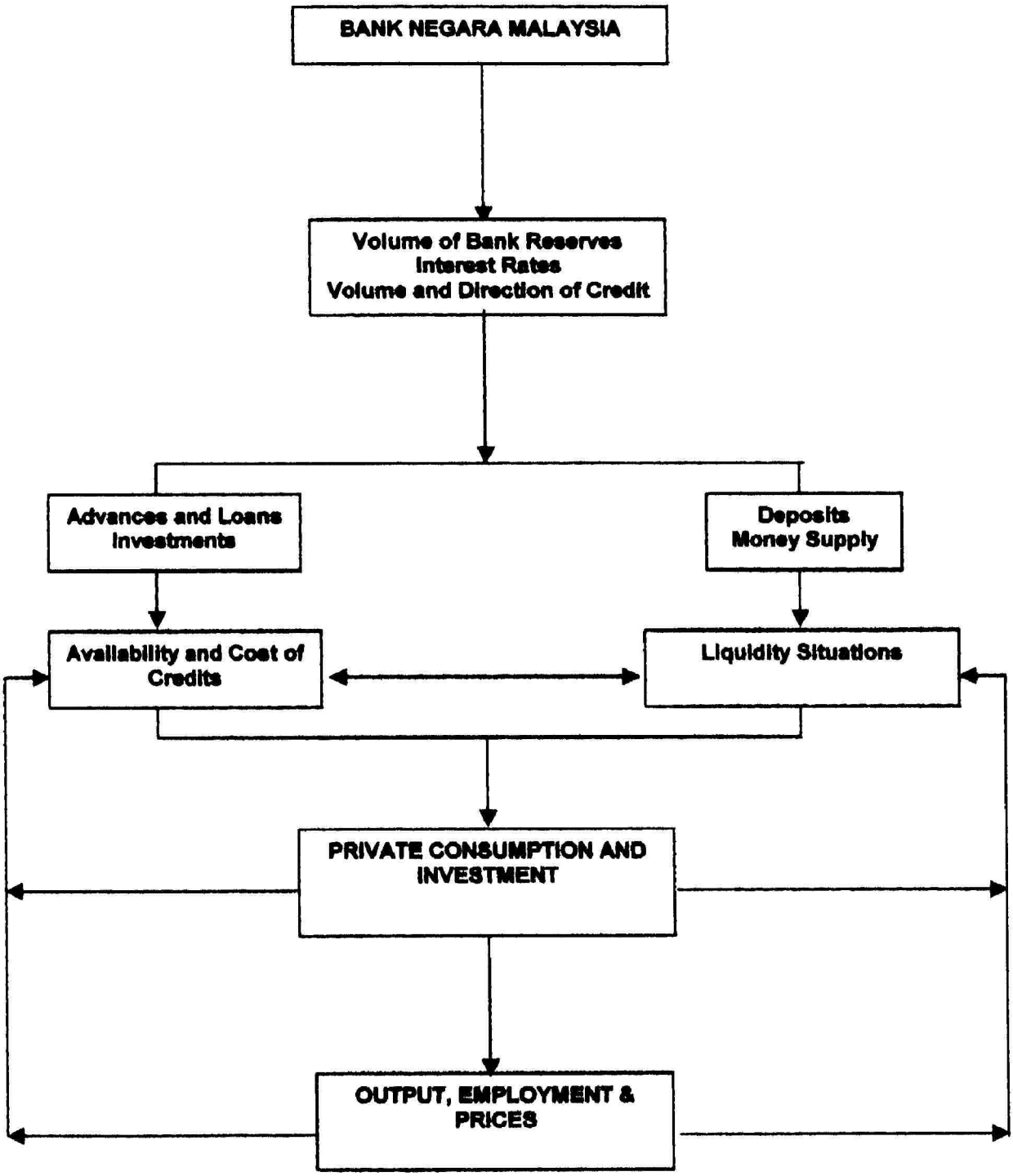
However, the ultimate impacts occur only after some lags. The Malaysian experience suggests that changes in monetary policy take about three to six months before it begins affecting economic activity. Nevertheless, with the liberalization of the interest rates, the lag has been shorter. By freeing the base-lending rate in 1991, the lag is approximately 2-3 months. When the base-lending rate was linked to 3-month BNM

intervention rate in 1998, the transmission lag was reduced further to only within one week. The following figure, (see Figure 1.1), depicts a simplified graphic presentation of the impact of monetary policy on output, employment and the price level.

In the Malaysian economy, bank credit has been one of the monetary policy tools. In fact, during 1990s, when the economy was booming and the authority was conducting tight monetary policy in its effort to curb excessive inflation, credit control was one of the measures implemented. Again, during the recent financial crisis, initially credit was restricted as one of the measures in implementing tight monetary policy, and in the period of easing monetary policy after September 1998 to revive the economy, the restrictions on credit was relaxed.

As widely acknowledged, Malaysian economy has been characterized by excessive loan growth during the period of economic boom in mid 1990s. According to Domac (2000), this phenomenon is particularly acute during 1995 to 1997. However, this period coincides with the implementation of a tight monetary policy. In other words, the tight monetary policy did not constraint bank lending, as it should be if the credit-lending channel is at work.

Figure 1.1 Impact of Monetary Policy on Malaysian Economy



Developments in the Malaysian financial market too seem to weaken the credit-lending channel. In the nineties, the development has been rapid. The corporate bond market has grown since the establishment of a credit rating agency in 1990. The equity markets has closely tracked the impressive growth in mid nineties. Even, the market capitalization relative to gross domestic product (GDP) is the highest among Singapore, Thailand and Indonesia, (Dekle and Pradhan, 1997). This implies the relative importance of banks financing is declining; especially for the large and stable firms thus the impact of declining in bank loans is expected to be negligible.

Nevertheless, there is conflicting evidence during the recent financial crisis. Many observers put the blame of the slowing down of the economy on the restrictive policy that was implemented partly by exerting constraint on bank lending. Putting it differently, they claimed that the credit-lending channel is responsible in amplifying and propagating the effect of the tight monetary policy into the real sector. Researches done by Domac (2000) and Gan (1999) demonstrate that there is enough evidence to support the existence of credit crunch during the financial crisis. Following Wash (1998), the existence of credit crunch is sufficient to reflect the existence of credit-lending channel.

This observation provides an interesting ground to conducting a study in order to determine whether credit-lending channel is operative in monetary policy transmission mechanism in the Malaysian economy. Moreover, as evidenced by previous researches, different economies experienced different structure of monetary transmission mechanism. There is no one unique way of how monetary policy was transmitted into the economy. It depends heavily on other factors and structure of each economy. In this case, it is interesting to find out whether the Malaysian economy follows closely the Korean economy where credit-lending channel is the most important mechanism or it is more like Netherlands, where there is no evidence found to suggest the existence of a distinctive credit-lending channel.

More important is the fact that the period under study is characterized by two distinct economic conditions: the earlier part is during the prolonged growth period while towards the end, the economy was under recession due to the regional financial crisis. The two periods share one similar characteristic: there are times when monetary tightening was implemented in both periods although the state of the economy is different. Thus, it is interesting to see whether the response of banks loans is different between the two periods and whether the operations of credit-lending channel too depends on the state of the economy.

1.3 Research Objectives and Methodology

This research attempts to assess through empirical evidence, firstly whether credit-lending channel is operative in the Malaysian economy. If there is adequate evidence suggesting the conditions for the existence of the credit channel hold in the economy, another test will be carried out to ascertain the relative importance of the credit channel in the Malaysian economy.

In achieving the objective, this research will start off with a descriptive analysis to get the overall view of the impact of monetary policy on bank lending activities. First, a series of monetary restriction periods, under the period of study will be identified using the narrative approach. Then, the study will focus on finding evidence on the ability of the Central Bank to constraint bank lending activity when tight monetary policy is implemented. This is to ascertain that the necessary condition for the existence of credit-lending channel holds. The analysis will be done using the policy window to give a better view of the evolution of each variable that is examined.

Then, empirical test will be conducted to see whether there is a decline in bank loans and monetary aggregates following a tightening of monetary policy, in identifying the existence of a distinctive credit-lending channel in the Malaysian economy. The test involved is the narrative

approach, using a sequence of focal episodes of restrictive monetary policy as a means of identifying monetary shocks, following Romer and Romer (1990).

Next, this research will investigate the differential effects of money and bank loans on output, to compare the impact of both money and loans on output. If the bank lending has played an important role in amplifying the real effects of tightened monetary policy, then the impact of bank lending on output might be larger than those of money in the focal episodes. These differential effects will be captured using an econometric methodology. The methodology will be elaborated further in the relevant chapters.

1.4 Data Description

The data used in this research is secondary data, collected from the Monthly Quarterly Bulletin (MQB), published by Bank Negara Malaysia. All data are monthly data, covering the period of January 1987 to September 2000. The period before 1987 has been excluded because the monthly data on M3 is not available. The motivation to use the monthly data is to minimize any effects of time aggregation.

Among the data used in this research is data on financial aggregates: M1, M2 and M3, various interest rates: namely the overnight,

1-month and 3-month interbank rates, base lending rates and average lending rates, total bank loans, commercial banks' security holdings, and measure of economic activity, index of industrial production (IIP). Due to data availability, the IIP is chosen as a measure of output rather than gross domestic product, (GDP), a much broader measure. However, this measure has been used in earlier works by Romer and Romer (1990), Bernanke and Blinder (1992) and Ramey (1993).

M1, M2 and M3 are chosen because they are the widely used measures of money. Although according to Bank Negara Malaysia, M3 is currently a better measure of money in the Malaysian economy due to the expansion of the banking and financial sector in Malaysia, nevertheless M1 and M2 will also be taken into account in this research. Total bank loans are used instead of only commercial and industrial loans because according to Ramey (1993), "*the wider concept is most appropriate*". The following table (Table 1.1) further summarizes the data definitions used in this research.

1.5 Research Organization

This research is organized as follows: Chapter 1 deals with the introduction of the research, discussing briefly the research objective, research methodology and data description. It will also document the brief outline of the research organization.

Table 1.1 Data Definitions

Data	Definition
M1	Currency in Circulation + Demand Deposits Currency in circulation refers to the notes and coins issued by Bank Negara Malaysia less by the amount held at the commercial banks. Demand deposits refer to the current accounts, including the SPTF current accounts of the non-bank private sector placed with the commercial banks.
M2	M1 + Narrow Quasi-Money Narrow Quasi-Money = Savings Deposits + Fixed Deposits + Negotiable Instruments Deposits + Repos + Foreign Currency Deposits. Narrow quasi-money refers to the sum of deposits or interest bearing instruments including Islamic Banking Scheme's instruments, placed by the non-bank private sector with the commercial banks (excluding interplacements among commercial banks). Foreign currency deposits refers to the deposits of foreign currencies held by non-bank Malaysian residents with the commercial banks.
M3	M2 + Deposits Placed with Other Banking Institutions Deposits Placed with Other Banking Institutions refer to the amount of savings deposits and fixed deposits, including those of the Islamic Banking Scheme, NIDs, repos and foreign currency deposits placed by the non-bank private sector with the finance companies, merchant banks, discount houses and Bank Islam, excluding interplacements among these institutions.
Loans	Outstanding loans and advances extended by commercial banks.
Total loans	Outstanding loans and advances extended by commercial banks, finance companies and merchant banks.
Real loans	Total loans in the economy deflated by CPI.
Real deposits	Total deposits in the commercial banks deflated by CPI.
Commercial banks' security holdings	Holdings of debt-securities issued by the Federal Government. The features include original maturity of more than one year and interest payable periodically, usually semi-annually.
Base lending rates	Average of the base lending rates that commercial banks quote to their best customers.
Average lending rates	Weighted average lending rates on loans extended by the commercial banks, finance companies and merchant banks.

Notes: Source: Monthly Economic Bulletin, Bank Negara Malaysia (May 2000).

Chapter 2 will summarize the findings from literature survey on the related works concerning credit-lending channel. It will describe the theoretical underpinnings of the credit-lending channel, conditions that

must hold to support a distinctive credit-lending channel and the empirical findings from the related works so far, to see to what extent does the credit-lending channel stands out with its supportive evidence.

In chapter 3, a descriptive analysis on the impact of monetary tightening on bank loans' supply in the Malaysian economy is captured using the policy window approach. Before proceeding with the analysis, firstly the focal episodes or the times under which the economy is subject to tight monetary policy will be identified. This is done to have a preliminary view, leading to the formulation of earlier hypothesis, or the result that is expected to find through the empirical investigation.

Chapter 4 will describe the methodology used to examine the behaviour of monetary aggregates, loans and interest rates to detect whether there is a decline in monetary aggregates and bank loans following a tight monetary policy, followed by the results and its interpretation.

Chapter 5 will compare the relative importance of the traditional money channel and the credit channel. The main aim is to compare the relative strength and timing of both channels in the Malaysian economy and the results will be presented accordingly.

Then as usual, chapter 6 will accommodate the conclusions and relevant policy recommendations, learnt from the results of the research.

1.6 Conclusions

As stated earlier, the ultimate objective of this research paper is to find through narrative approach, the evidence on the importance of the credit-lending channel in the Malaysian economy. This research finds that the empirical evidence does not support the existence of a credit-lending channel. Thus, credit-lending channel does not have a distinctive role in transmission mechanism, in the Malaysian economy.