

DP01

Monetary Economics and the Malaysian Financial System

8 OCTOBER 2001

1. Time allowed : Three (3) hours
2. Total number of questions : Six (6) questions
3. Number of questions to be answered : Four (4) questions
Part A : Compulsory question [40 marks]
Part B : Three (3) questions [20 marks each]
4. Candidates must obtain a minimum of 20 marks in Part A as well as pass the paper as a whole.
5. Begin each answer to a new question on a fresh page.
6. Answer **all** questions in **English**.
7. A blank page is provided at the end of the question paper for rough work.

PART A

COMPULSORY QUESTION

1. (a) (i) Explain briefly **three** key services provided by the financial system in the economy. [6]
(ii) Highlight the main sources of funds in the financial system in Malaysia. [5]
- (b) (i) Explain briefly the roles of the capital market in economic development. [5]
(ii) Discuss **two** issues faced by the Private Debt Securities Market in Malaysia. [4]
- (c) Explain briefly all of the following:
 - (i) Money multiplier [2]
 - (ii) Moral suasion [2]
 - (iii) Statutory reserve requirements [2]
- (d) (i) Highlight the thrust of monetary policy in Malaysia during 1998 to 1999. [4]
(ii) Explain briefly **four** future challenges of the banking sector in Malaysia. [5]
- (e) Using a schematic diagram, explain briefly the process of monetary policy transmission channel in Malaysia. [5]
(Total:40 marks)

PART B

ANSWER THREE (3) QUESTIONS ONLY

2. (a) (i) As financial intermediaries, what services do commercial banks provide to savers and borrowers? [3]
(ii) How do commercial banks manage liquidity risks? [3]
 - (b) (i) What are the differences between the sources of funds by a commercial bank and a finance company? [3]
(ii) Highlight **two** banking measures implemented in 1999 to improve efficiency of the banking operations in Malaysia. [4]
 - (c) Explain **two** types of off-balance-sheet lending activities that banks engage in. [4]
 - (d) What is the meaning of a bank's net worth? [3]
(Total:20 marks)
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3. (a) Define the terms "narrow" and "broad" money. [3]
 - (b) Explain briefly **three** key determinants of money supply in the economy. [6]
 - (c) (i) Why is the money multiplier for M2 larger than M1? [2]
(ii) Why does an increase in reserve requirements cause the money supply to fall? [2]
(iii) Why does an increase in non-bank borrowed reserves cause the money supply to rise? [2]
(iv) Why does an increase in currency-deposit ratio cause the money supply to fall? [2]

- (d) What is the difference between the currency in circulation and the currency outstanding? [3]
(Total:20 marks)
4. (a) Highlight **three** policy measures implemented by a central bank during an economic recession. [6]
- (b) Explain how a central bank's actions can affect the monetary base. [6]
- (c) Explain briefly why a central bank cannot target both the money supply and interest rates simultaneously. [3]
- (d) Explain the roles of a central bank as the lender of last resort. [5]
(Total:20 marks)
5. (a) Explain the differences between:
- (i) "General" and "selective" instruments of monetary policy [6]
- (ii) "Intermediate" and "operating" targets of monetary policy [5]
- (b) Describe briefly the advantages of the following Bank Negara Malaysia's monetary instruments:
- (i) Selective credit and administrative measures [3]
- (ii) Direct borrowing or lending [3]
- (iii) Reserve requirements [3]
(Total:20 marks)
6. (a) What are the purposes of the International Monetary Fund and the World Bank? [5]
- (b) (i) Describe briefly **one** recent development in Islamic banking in Malaysia. [3]
- (ii) State **three** objectives of establishing Labuan as an International Offshore Financial Centre. [3]
- (c) When does a country need to revalue and devalue its official currency, under a fixed exchange rate regime? [5]
- (d) A German firm donates RM2million worth of art to a Malaysian art centre. How is this transaction recorded in the balance of payments for Malaysia? [4]
(Total:20 marks)

- END OF QUESTION PAPER -

OUTLINE ANSWER

PART A

Question 1

Candidates have poor understanding of the issues faced by Private Debt Securities Market in this question on the Malaysian financial system.

1. (a) (i) **Risk Sharing**
The financial system provides risk sharing by allowing savers to hold many assets. Indeed, by splitting wealth into many assets, the overall returns would tend to average out. This would reduce the risk of severe fluctuations of the portfolio of assets of the savers. The ability of the financial system to provide risk sharing makes savers more willing to buy borrowers IOUs. This would in turn increases borrowers' ability to raise funds in the financial system.
- Liquidity**
This refers to the ease in which an asset can be exchanged for other assets or for goods and services. Indeed, savers care about liquidity of financial assets. The more liquid an asset, the easier it is to exchange the asset for something else. By holding financial claims such as stocks and bonds on a factory, individual investors have more liquid savings than they would if they owned the machines in the factory.
- Information**
The first information role is to gather information. The second information role the financial system plays involves communication of information. Savers and borrowers receive the benefits of information from the financial system by looking at asset returns. As long as financial market participants are informed, the information works its way into asset returns and prices.
- (ii) Sources of funds of the financial system in Malaysia are as follows:
- Capital, reserves and profit
 - Currency
 - Demand Deposits
 - Other Deposits
 - Public Sector
 - Other Financial Institutions
 - Private Sector
 - Foreign
 - Borrowings
 - Funds from other financial institutions
 - Domestic
 - Foreign
 - Insurance, provident and pension funds
 - Other liabilities
- (b) (i) The roles of the capital market in economic development are as follows:
- It promotes private enterprise by providing intermediary services to raise funds for corporate investment and expansion.
 - The presence of the capital market will mobilize medium as well as long-term funds from a wide-spectrum of the population to finance public development programs as well as private investments.

(ii) Two issues faced by the Private Debt Securities Market are as follows:

- **Underdeveloped Primary and Secondary Market**

This issue has been tackled by putting in place policy measures; creating and strengthening the regulatory framework; creating market institutions; developing market infrastructure, broadening investors' base.

- **Risk Diversification in the Financial System**

There is a need to diversify the avenues of risks. There is a need to accelerate development of the bond market and the National Bond Market Commission has been established.

(c) (i) **Money multiplier**

In simple terms, the money multiplier is the number of times the money supply will change in response to a given change of the monetary base. Given a monetary aggregate (M), the money multiplier (k) is the direct link between the monetary aggregate and the supply of reserve money. As an example, a multiplier of 2 and a monetary base of RM20billion will generate money supply of RM40billion.

The money multiplier is also influenced by the currency-deposit ratio and the ratio of a bank's excess reserves to deposits. An increase in any of these factors reduces the potential for deposit expansion and the size of the money multiplier.

(ii) **Moral Suasion**

It is a traditional approach of the central bank to induce voluntary response from financial institutions to its policy initiatives. The philosophy underlying moral suasion rests on the premise that the implementation of policies could be more effective if financial institutions take the necessary action on their own accord to fulfil the roles required of them.

Moral suasion has been used to complement the existing measures imposed on the banking institutions. The experience over several decades show that moral suasion has on occasions been relied to influence the direction of activities of the banking industry.

(iii) **Statutory Reserve Requirements (SRR)**

The SRR is one of the oldest monetary instruments deployed by the central bank to control liquidity situation in the banking system. Banking institutions are required to maintain a certain percentage of their reserves with the central bank. The SRR is defined in terms of a bank's eligible liabilities (EL). The EL base comprises deposits and net interbank borrowings. The SRR affects the level of deposits and loans that a bank can support given the size of its reserves.

Increasing the SRR ratio will lower the level of reserves of the banks and as the impact of contracting loans and deposits and vice-versa. Unfortunately, the reserves earn no interest rates. As such, the costs are usually passed on to customers through higher rates of lending. Overall, the SRR serves as a safety net for the protection of depositors.

(d) (i) The thrust of monetary policy in Malaysia during 1998 to 1999:

- Banking institutions were allowed to continue to provide bridging finance to housing developers to start new projects for residential properties to start new projects for residential properties costing RM150,000 and below.
- To ensure that there were sufficient funds to finance the economic recovery process, banking institutions with the capacity to lend were encouraged to achieve a minimum annual loan growth of 8%.
- Selective exchange controls were introduced on 1 September 1998 to insulate the Malaysian economy from the prospects of further deterioration in the world economic and financial environment and to regain monetary independence. On 2

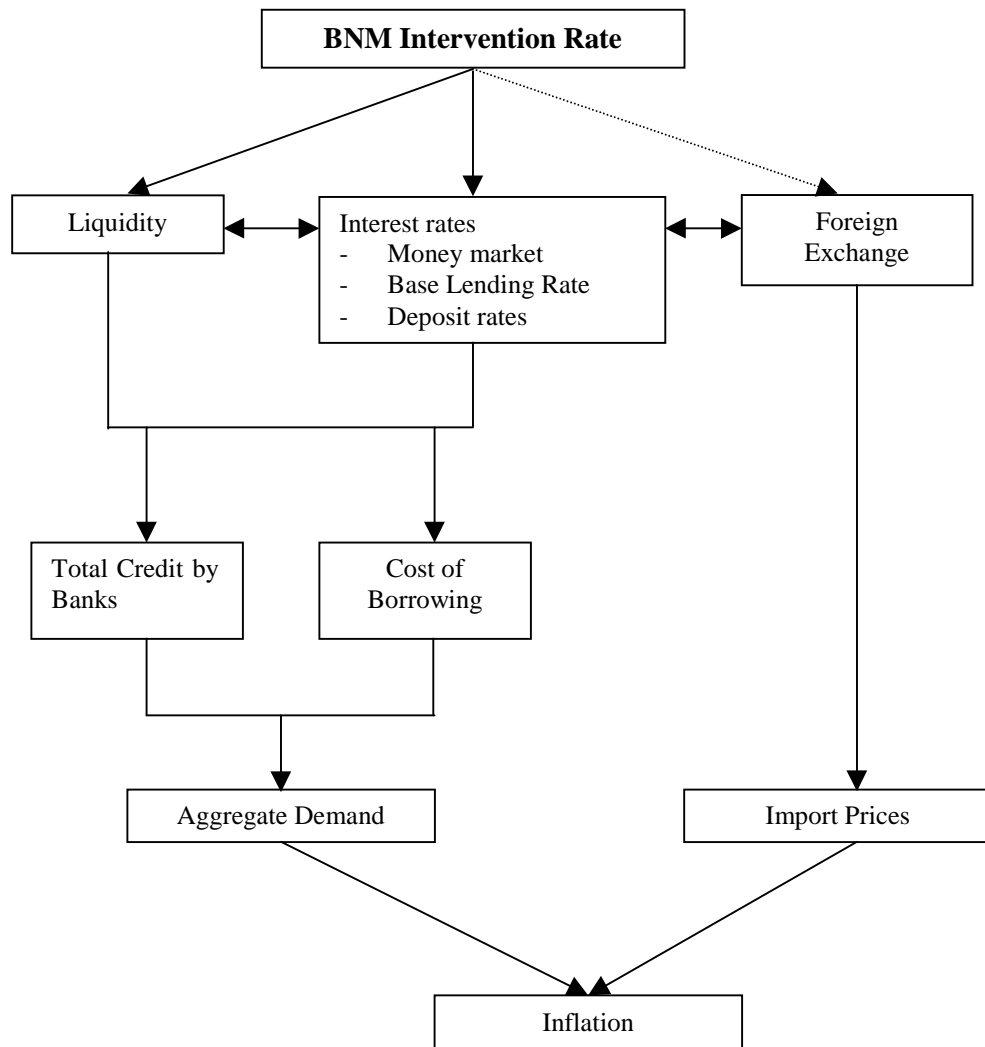
September 1998, the exchange rate for the ringgit was fixed at RM3.8 against the US dollar.

- Accommodative monetary policy – low interest rate to support growth. Prudent to maintain a stable price environment, i.e. managing excess liquidity.

(ii) The challenges to build a resilient, competitive and dynamic banking sector that is able to meet the changing needs of the domestic economy are:

- The ability of domestic banking institutions to contribute effectively in a more liberalised and competitive domestic environment;
- Banking institutions would require large amount of capital investments to remain competitive and be able to assume higher risks;
- New challenges for the supervisory and regulatory framework with the widespread use of Internet banking in the global markets;
- Challenge for bank supervisors to understand the banking institutions risk management process and control; and
- Challenge for human resource management in the light of greater and more sophisticated types of exposure/risks assumed by the banking institutions.

(e) Process of monetary transmission in Malaysia



PART B

Question 2

This question tested candidates on financial institutions and their regulatory framework. Candidates have poor understanding of off-balance sheet lending, banking measures, and net worth.

2. (a) (i) Banking is a business. Banks fill a market need for a service and earn a profit by charging customers for that service. A bank's primary profit – making activities entail acquiring funds as a cost from savers and lending those funds to borrowers. They add value by providing risk sharing, liquidity, and information services. Their balance sheets reflect their role as intermediaries and they raise funds from deposit and non-deposit sources. These would be invested in loans, securities, and deposits at other banks and cash assets and reserves.

(ii) Managing liquidity risks
Banks face liquidity risk since bank loan assets are less liquid compared with bank liabilities. When banks are forced to liquidate their relatively illiquid loans, they are forced to receive less than their full value. Thus, banks must reduce the risk exposure without sacrificing too much profitability. Among the strategies adopted are the following:

- Holding of reserves in the form of cash and or short-term marketable securities; and
- Use various techniques of asset and liability management to reduce liquidity risks

(b) (i) Sources of funds

Commercial Banks

Capital and reserves, Deposits (demand, fixed, savings), Negotiable Instrument of Deposits (NIDs) issued, Amount due to Financial Institutions (FIs) in Malaysia and abroad, bankers acceptances and other liabilities.

Finance Companies

Capital and reserves, Deposits (fixed and savings), Amount due to Financial Institutions (FIs) and other liabilities.

(ii) Two banking measures implemented in 1999 to improve the efficiency of the banking operations were:

- The two-tier regulatory systems for banking institutions were abolished on 10 April 1999. Thus, the incentives that were available previously to tier-1 banking institutions were made available to all institutions. The blanket approval previously granted to all tier-1 domestic banks to open branch offices was withdrawn.
- The transition period for the banking institutions to cross over to the new liquidity framework was extended by another year to 31 December 2000.

(c) Off-balance sheet lending activities encompass bank lending which the bank does not necessarily hold as assets the loans it makes. The important innovations by the financial institutions are explained below:

Standby Letters of Credit

Banks routinely sell to commercial papers borrowers a standby letter of credit by which the bank promise to pay off its maturing commercial paper if necessary. Borrowers pay banks for this service by maintaining a compensating balance. It is a significant development since banks can provide the actual funding more cheaply. Unlike commercial loans, it does not appear on the bank's balance sheet.

Loan Commitment

A bank agrees to provide a borrower with a stated amount of funds during a specified period. Borrowers will have the option of deciding when or if they want to take the loan. The bank will earn a fee.

- (d) A bank's net worth is the difference between the bank's assets and liabilities. Net worth is the capital contributed by the bank's shareholders plus accumulated retained profits. The net worth indicates the bank's remaining value after all its liabilities have been met. Hence, the bank's net worth will change when there are changes to its assets and liabilities. A bank with high net worth will be appealing to investors and depositors since the net worth provides a buffer against the risk of losses.

Question 3

Most candidates understood the concepts of money supply well. However, weakness was shown in answering the concept of currency outstanding and currency in circulation.

3. (a) Narrow and broad money are defined as follows:

Narrow money or M1 refers to the total supply of money available for the public to spend. The supply of money is basically for payment purposes. M1 comprises currency holdings and demand deposits held by the private sector.

Broad money refers to M2 (private sector liquidity) and comprises M1 and private sector holdings of fixed and savings deposits with the commercial banks and the central bank. **Very broad money or M3** comprises M2 and all private sector deposits including repurchase agreements (REPOs) placed with finance companies, merchant banks, discount houses and Bank Islam or M2 plus broad quasi money.

- (b) The three main determinants of money supply are as follows:

Bank Credit to Private Sector

Loans by the banking system to the private sector are major source of liquidity. Every loan will create a deposit and therefore, expand money supply. The limit to which banks may extend credit will depend on the size of the statutory reserves at the central bank. In the Malaysian economy over the past years, credit to private sector has always been expansionary and has even exceeded that of money supply (M3). On the other hand, a restrictive monetary policy will slowdown lending to the private sector.

External Sector

Any excess of foreign exchange receipts over payments will raise money supply and vice-versa. In the event, of a large flow of external funds into the domestic economy than outflows, the central bank and the banking system will be receiving foreign currency. This will increase domestic deposits and therefore, money supply in the economy. In other words, a surplus balance of payments position will result in an inflow of fund and vice-versa when there is a deficit.

Net Government Operations

Financing a budget deficit through borrowings from the private sector, financial institutions, central bank and even sources from abroad is another determinant of money supply. The government operations are reflected by the average differences over time between the level of government's debt by the banking sector, mainly in government's paper. A higher government's deposits with the banking system compared with holdings of government's debt by the banking system will have a contractionary impact on the level of money supply and vice-versa.

- (c) (i) M2 is a broad definition of money. The computation includes non-transaction accounts (savings and small-time deposits) and money market accounts (money market deposits) in the numerator of the formula.

- (ii) Increase in reserve requirements causes money supply to fall because fewer reserves can be lent out. Therefore, the money multiplier falls.
 - (iii) Increase in non-bank borrowed reserves causes money supply to increase because the monetary base rises. More reserves are available for credit expansion.
 - (iv) An increase in the currency-deposit ratio will cause money supply to fall because it lowers the money multiplier, thus reducing deposit expansion.
- (d) Currency in circulation comprises currency outstanding minus vault cash. Currency in circulation is part of the monetary base.

Question 4

Generally, the roles of Bank Negara Malaysia were well understood. Candidates should focus on the roles of central bank in economic management.

4. (a) During a recession, a central bank implements, among others, the following policy measures:
- The central bank in influencing the credit situation, ensures that the supply of money and the volume of credit are sufficiently elastic to demands in the domestic economy, without creating undue pressure on resources. In the financial sector, loans were reclassified as non-performing which had been in arrears for three months;
 - Reducing interest rates and the SRR to reinforce expansionary fiscal policy and revive the economy;
 - Accommodative monetary policy stance to strengthen economic recovery while maintaining monetary and financial stability. This would ensure that credit continued to be channeled for productive purposes in the domestic economy; and
 - Establish a number of funds and expand the existing funds expanded. This would ensure that the banking institutions could provide credit to priority sectors at reasonable rates.
- (b) The central bank does not have direct control over the factors that affect the monetary base. As part of monetary management, the central bank affects the level of monetary to keep it consistent with the policy objectives for growth.

The central bank's action will offset influences on monetary base that originates from private and public sector decisions that affects these determinants:

- Central bank's international reserves;
- Central bank's net lending to government;
- Central bank's net lending to private non-bank sector; and
- Other factors.

The central bank affects the monetary base by manipulating its balance sheet. This can be achieved by selling and buying securities and also making discounted loans to banks. The most direct route that the central bank can use to change the monetary base is through open market operations. An open market purchase will raise the monetary base while an open market sales will reduce the monetary base.

The central bank can also increase monetary base by placement of some of its government deposits with commercial banks. This recycling of government deposits coupled with coordination of government receipt-expenditure flows, is another means by which the amount of reserve money in the financial system can be influenced.

Acquisition of gold and SDR certificates will expand the monetary base just as open market operations.

- (c) A central Bank cannot target both the money supply and interest rates at the same time because:
- When the central bank targets money, then interest rates become volatile; and
 - When the central bank targets interest rates, then money supply becomes volatile.
- (d) The central bank plays the following roles as the lender of last resort:
- The key forms of assistance include rediscounting of eligible bills and borrowing from the central bank against collateral;
 - When the financial institution is short of fund, the central bank stands ready to extend credit to temporarily tide the institution over its temporarily difficulty;
 - Assistance could also be in the form of placing short-term deposits with the institutions on a roll-over basis; and
 - When the institutions are unable to meet the required working capital, the following measures are adopted:
 - Grant loans against the security of shares.
 - Purchase any shares for the purpose of controlling the business of the ailing financial institution.
 - Inject capital into the financial institution in the event that shareholders are not in a position to do so.

Question 5

Candidates have good understanding of instruments of monetary policy except for “intermediate” and “operating” targets.

5. (a) (i) **General instruments** of monetary policy are those that operate to influence the level of bank reserves or high-powered money. General instruments are summarised as follows:
- Variations in the statutory reserve requirements (SRR).
 - Money market instruments.
- Selective instruments** are used to influence credit to a particular sub-sector or type of lending. Selective instruments are considered more of a set of complementary instruments rather than as alternatives or substitutes for specific instruments.
- Priority sector lending guidelines.
 - Hire-purchase guidelines on motor vehicles.
 - Guidelines on credit card operations.
 - Credit limit for purchase of stocks and shares and units of unit trust funds.
 - Credit limit for financing specific.
 - Moral suasion.
- (ii) The **intermediate targets** are the objectives for financial variables. This includes money supply and short-term interest rates and these targets are required to help the central bank to achieve its monetary goals.
- Operating targets** can be controlled directly by the central bank. These targets are closely associated with the intermediate targets. Examples of operating targets are non-borrowed reserves and Federal Funds, as in the case of the Federal Reserve in the United States of America.
- (b) (i) **Selective Credit and Administrative Measures**
- Direct impact on lending activities of banks.
 - Will not affect overall liquidity and interest rates.

- (ii) **Direct borrowing/lending**
 - Useful in circumstances where open market operations are constrained by the lack of papers.
 - Can enhance announcement effect of policy rate through regular tender process.
- (iii) **Reserves Requirements**
 - More useful in one-off sterilisation of excess liquidity.
 - Act as buffer to reduce volatility in the short-term interest rates caused by external shocks.

Question 6

The concepts of international financial system and Islamic banking were well understood, with the exception of “revaluation” and “devaluation” of currency. Candidates need to revise on the concept of balance payments.

6. (a) Both the World Bank and the IMF are in a sense owned and directed by the governments of member nations. Both institutions concern themselves with economic issues and concentrate their efforts on broadening and strengthening the economies of their member nations.

The World Bank is primarily a development institution. The IMF is a cooperative institution that seeks to maintain an orderly system of payments and receipts between nations. The IMF also plays a role to resolve the balance of payments problems of member countries.

The World Bank’s central purpose is to promote economic and social progress in developing countries in order to raise productivity. The IMF was set up in the midst of unresolved financial problems that was instrumental in initiating and protracting the Great Depression of the 1930s. While it is not primarily a lending institution, it is an overseer of the members monetary and exchange rate policies and a guardian of the “code of conduct”.

The World Bank is an investment bank that intermediates between investors and recipients. The funding comes mainly from market borrowing through the issue of bonds to individuals and private institutions in more than 100 countries.

The IMF is not a bank and does not intermediate between investors and recipients. The funding comes mainly from quota subscriptions or membership fees paid by the 182 members. The IMF is like a credit union whose members have access to a common pool of resources.

- (b) (i) Setting-up of the second Islamic bank in Malaysia. This is the Bank Muamalat Malaysia Berhad. The establishment arose from the merger between Bank Bumiputra Malaysia and Bank Commerce (M) Berhad.
- (ii) The main objectives of the Labuan IOFC are as follows (select any 3):
 - To enhance the attractiveness of Malaysia as an investment center;
 - To supplement the present onshore financial system centered in Kuala Lumpur by tapping the increasing demand for customised financial and related services;
 - To facilitate the contribution of the financial sector to the progress of diversified economic development; and
 - To form part of the broad national strategy to spread out and diversify the growth opportunities of the nation, focusing attention on the further development of East Malaysia in terms of industrial and services (including tourism) development.
- (c) Revaluing the domestic currency involves raising the official value of currency relative to other currencies, thereby resetting the exchange rate. This is necessary when the domestic currency is undervalued relative to the other currencies.

Devaluing takes place when the price of foreign currencies under the fixed rate regime is raised due to official intervention. Hence, the domestic currency will be cheaper compared with foreign currencies. A foreigner will pay less for the devalued currency while the residents of the affected country will pay more for foreign currencies. Countries will devalue their domestic currency as a policy instrument to improve a deteriorating balance of payments position. The impact is the increase in prices tradable and thus, raise the prices and profitability of tradable relative to non-tradable. The government devalues the domestic currency in order to improve aggregate demand in the economy. The adverse impact is reflected by the increase in inflationary pressures in the economy.

- (d) Merchandise imports = -RM2million.
Net unilateral transfers equal = RM2million.
There is no change in the current account balance.