

DPO1

# Monetary Economics And The Malaysian Financial System

10 MAY 1999

1. Time allowed : Three (3) hours
2. Total number of questions : Six (6) questions on 2 pages
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**.

**PART A****COMPULSORY QUESTION**

1. (a) Define the meaning of financial “intermediation”. Discuss briefly the advantages and costs of financial intermediation. [6]
  - (b) Explain briefly the roles of the capital market in the economic development. [6]
  - (c) Discuss any **two** banking measures implemented by Bank Negara Malaysia in 1997. [4]
  - (d) Discuss the major features of the new base lending rate (BLR) framework introduced by Bank Negara Malaysia in 1998. [4]
  - (e) Describe briefly the following:
    - (i) Financial deepening [2]
    - (ii) Excess reserve ratio [2]
    - (iii) Currency-deposit ratio [2]
  - (f) Discuss briefly the goals of asset and liability management of a commercial bank. [5]
  - (g) (i) Using a schematic diagram, show a simplified transmission of monetary policy on the economy. [5]
  - (ii) Briefly explain why changes in a central bank’s assets cause the money supply to change in the same direction. [4]
- (Total:40 marks)

**PART B****ANSWER THREE (3) QUESTIONS ONLY**

2. (a) Distinguish between a “bank panic” and a “bank failure”. [5]
  - (b) Explain why financial authorities are concerned with a bank failure. [5]
  - (c) Commercial banks face credit, liquidity and interest rate risks in their daily operations.  
Briefly highlight any **two** of these risks and explain the strategies adopted by commercial banks to mitigate these risks. [5]
  - (d) (i) List the components of liquid assets for financial institutions. [2]
  - (ii) State any **three** reasons for a central bank to impose liquid assets’ requirements for financial institutions. [3]
- (Total:20 marks)
3. (a) Briefly discuss the monetary stance of Bank Negara Malaysia in 1997. [8]
  - (b) Can a central bank control both the money supply and interest rate at the same time? Explain your answer. [8]
  - (c) Briefly discuss the impact of sterilisation of foreign exchange on money supply. [4]
- (Total:20 marks)
4. (a) Discuss **three** major factors that affect money supply in Malaysia. [7]

- (b) (i) Explain the terms “monetary base” and “money multiplier”. [2]
- (ii) Assume that the external reserves of Bank Negara Malaysia (BNM) increased by RM50billion, while the banking system recorded a decline in the net external reserves by RM20billion. If there are no changes to the other determinants of money supply, compute the net impact on money supply in the economy. [2]
- (iii) Explain the terms “narrow” and “broad” money. [3]
- (c) Compute the value of M1, M2 and M3 from the table given below:

Items	RMbillion
Demand deposits of private sector	20
Fixed and savings deposits of private sector placed with BNM and commercial banks	30
Currency in circulation	10
BNM certificates	10
Negotiable certificates of deposits	40
Fixed and savings deposits of private sector placed with BNM, commercial banks, finance companies, merchant banks and discount houses	80

[6]  
(Total:20 marks)

- 5. (a) Discuss briefly **five** monetary goals of a central bank. [5]
  - (b) Discuss how a central bank conducts monetary policy to achieve its monetary policy goals. [5]
  - (c) Briefly highlight the reasons in favour of reserve requirements as a monetary tool. [5]
  - (d) Highlight **two** factors that may hamper the effectiveness of a monetary policy. [5]
- (Total:20 marks)
- 6. (a) Briefly discuss the roles of any **one** of the following international agencies:
    - (i) World Bank [7]
    - (ii) International Monetary Fund [7]
  - (b) Explain briefly the following:
    - (i) European Monetary System [2]
    - (ii) Floating exchange rate regime [2]
    - (iii) Fixed exchange rate system [3]
  - (c) Explain any **two** of the following:
    - (i) The reasons for adopting capital control measures (you may use a Malaysian case as an example) [3]
    - (ii) Balance on the current account and capital account of the balance of payments [3]
    - (iii) Offshore currency trading [3]
- (Total:20 marks)

## OUTLINE ANSWERS

### PART A

#### Question 1

**Generally, most candidates scored marks of 20 and above for this question. Nonetheless, many of them showed a poor understanding of some of the concepts examined, e.g. financial deepening and Central Banks assets to money supply relationships.**

- (a) Financial intermediation is the process by which a financial intermediary plays the role of an ultimate borrower and an ultimate lender, serving each of their interests. All financial intermediaries issue their own liabilities to the public such as saving deposits, saving and loan shares. The funds will be used to purchase assets such as bonds and mortgages.

#### *Advantages*

Allows savers to purchase assets that are relatively safe and more liquid. These assets will earn interest. Financial intermediaries would take advantage of economies of scale by pooling funds depositors to reduce the costs of transactions. Thus, individuals are able to earn higher returns on their savings and borrowers can realise a lower cost of funds.

Financial intermediation offers savers a well-diversified portfolio rather than investing in a single asset. Indeed, a limited number of assets increases the risk of default and losing the entire asset portfolio. A financial intermediary such as a commercial bank can offer the small saver a reduction in risk through diversifications. This is conducted by pooling the excess funds of many savers in order to purchase a larger variety of assets from many borrowers.

#### *Costs*

Expenses of servicing deposits and loans return to capital, the intermediary business and reserve requirements that earn no interests.

- (b) The **capital market** is a market in which securities with a maturity of one year or more are exchanged. Capital market activities are primarily that of raising long-term funds in the primary capital market as well as trading the funds raised in the form of securities in the secondary markets. The stock market is included as part of the capital market. The share of stock is a long-term security since it has no maturity period. The instruments traded in the stock market are the shares issued by private companies or corporations. In addition, the other instruments include: mortgage market corporate bond and long-term government securities. The interest bearing debt instruments comprise commercial papers and bonds. The notes that are traded in the capital market are of maturities between one year and five years and are often referred to as 'medium-term notes'. It is often necessary for the issuing companies to obtain a credit rating from one of the commercial rating agencies when issuing debt instruments.

#### **Importance to Economic Development**

Since it mobilises long-term funds of more than a year, it provides the financing for long-term investments and capital expenditure in the public and private sectors. In other words, the capital market promotes private enterprises by providing intermediary services to raise funds for corporate investment and expansion. It also assists in the changing of ownership structure of companies.

- (c) (i) **Bond Information and Dissemination System (BIDS)**  
This was launched on 1 October 1997. The purpose was to provide comprehensive market information on domestic debt securities to market participants. The BIDS is a computerised system which centralises the collection and dissemination of information on Scripless Securities Trading system securities and private debt securities. The information provided includes the terms and conditions of issuance, details of deals done and relevant news on the debt securities market. The members of the BIDS are commercial banks, merchant banks, discount houses, Cagamas and rating agencies. The establishment of BIDS will provide ready access and transparency of information and improve liquidity and widen the type and

number of market participants. This will promote the development of primary and secondary markets.

(ii) **Classification of Non-Performing Loans**

With effect from financial year beginning 1 January 1998, the period in arrears for classifying a loan as non-performing by banking institutions was reduced from 6 months to 3 months. Banking institutions were also required to claw back and suspend the interest accrued but-not-received to day one of default on any loan which becomes non-performing. Similarly, the standard yardstick for loans of million RM1 and below to be classified as “sub-standard” had been reduced from a period in arrears of 6 months to 3 months; “doubtful” from 12 months to 6 months; and “bad” from 24 months to 12 months.

(d) The framework for the computation of the Base Lending Rate (BLR) was adjusted in November 1995. Under the new adjustment, commercial banks and finance companies are allowed to quote their BLR below the ceiling set for the industry. The purpose is to foster greater competition among the banking institutions. Moreover, this would allow greater flexibility for banks to pursue their own lending strategies. On 6 August 1998, the framework of the BLR was again adjusted which would lower the BLR for both commercial banks and finance companies. The revision for the BLR results in the computation is:

- **Commercial Banks** :  $\text{BNM intervention rate} * 80\% (1 - \text{SRR}) + 2.25\%$
- **Finance Companies** :  $\text{BNM intervention rate} (1 - \text{SRR}\%) + 2.25\%$

Moreover, the BNM intervention rate now refers to the current rate. Essentially, the higher BLR for finance companies (in this case, commercial banks), the computed value is reduced by 20% to reflect overall funding costs.

(e) (i) **“Financial Deepening”** refers to the evolution of the financial system from a simple structure to more sophisticated institutions. Thus, it involves the transformation of the financial system. For example, the Malaysian financial system has undergone radical transformation from a relatively simple structure since the 1950s to a more sophisticated industry with specialised institutions and products. Thus, today the Malaysian financial structure is much deeper, broader and more diverse. The transformation and innovations over the past three decades are called “financial deepening”.

(ii) **“Excess Reserve Ratio”** refers to reserves that financial institutions hold in excess. The principal decision to do so is the expected return from holding excess reserves. The opportunity cost of holding excess reserves is the market interest rate. Hence, a higher interest rate will tend to lower the holding of excess reserves. In other words, it is inversely related to market interest rates. An even more important reason for holding excess reserves is that they serve as a cushion against expected deposit outflows or significant variability in deposit outflow. The theory of portfolio allocation predicts that an increase in the expected level or variability of deposit outflows increases excess reserves and vice-versa.

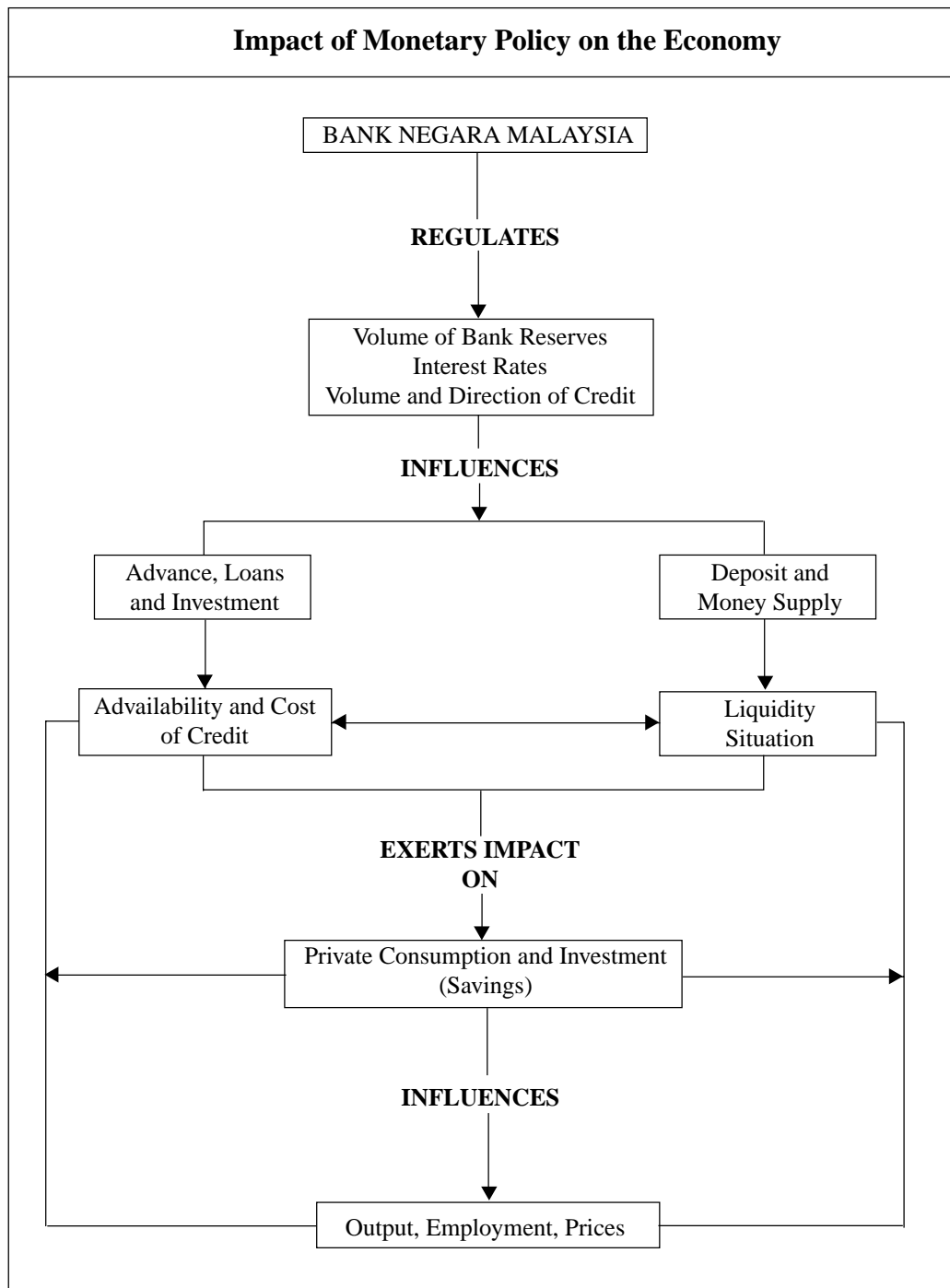
(iii) **“Currency Deposit Ratio”** refers to the decision made by non-bank public about how to allocate liquid assets between currency and deposits. Such decisions are collectively called the currency-deposit ratio. It is an important part of the money supply creation process. The portion of wealth held in terms of currency does not depend on the wealth of a person. In fact, the ratio declines with increases in income and wealth. When the economic growth increases, the ratio tends to decline. The expectation on the returns from holding assets also determines the amount of holding of currency. The other determinants include the liquidity of the asset, and the available information to assess the value of currency versus deposits. In conclusion, the ratio falls on account of increases in wealth, expected returns from deposits, riskiness of deposits, increase in liquidity of deposits, and increase in information or anonymity value of cash.

(f) The goals of asset management are to address exposure to liquidity risk by lending money to other banks through interbank market. The other option is to lend repurchase agreements for government securities, lending securities to business and other banks overnight. However, such longer maturity government securities involve some risks since interest rates will fluctuate. Overall, there will be a

trade-off between lower expected returns and default risks and the higher expected returns and the risk of interest rate fluctuations in government securities.

The goals of **liability management** are to manage liquidity since bank liabilities are usually of shorter term than their assets. Banks have to keep sufficient cash or assets on hand that is easily converted to cash to meet depositors withdrawals. However, this must be done without sacrificing too much operating income by holding cash instead of loans or securities. When banks have more loans than deposits, they may decide how to borrow additional funds to make loans. The options include certificates of deposits, REPOs, and so forth. These alternatives have different maturities and costs to the bank. Thus, relying on overnight loans is generally unwise.

- (g) (i) The Central Bank's conduct of monetary policy can affect production, employment and price level in the economy. Schematically, a simplified transmission of monetary policy on the economy is shown as follows:



- (ii) Changes in the Central Bank's assets cause the money supply to change in the same direction. When the Central Bank buys an asset from the public, the payment whether cash or cheque will directly enter the money supply. The increase in the Central Bank's liabilities associated with the asset purchase will cause money supply to expand. Likewise, money supply shrinks when the Central Bank sells an asset to public since the cash or cheque that the Central Bank receives in payment goes out in circulation. This will reduce the Central Bank's liabilities to the public. As such, changes in the level of Central Bank's asset holdings would cause money supply to change in the same direction since they require equal changes in the Central Bank's liabilities. In conclusion, any Central Bank purchase of assets results in an increase in the money supply, while any Central Bank's sale of assets automatically causes the money supply to decline.

## PART B

### Question 2

Generally, most candidates understood the concepts and principles examined in this question.

- (a) (i) **Bank Panic**  
All financial institutions have to honour their obligations to convert their demand and saving deposits into currency immediately. On the other hand, they do not hold enough cash or liquid securities to provide for the simultaneous conversion of all deposits into currency. Indeed, even with the sound loans and securities, financial institutions can get into trouble in the event that too many customers want their cash at the same time. In the event that everybody wants to cash their deposits at the same time, there is an occurrence of a "run on the bank". Sometimes, a bank responds by temporarily suspending the privilege of converting deposits into currency. When this happens simultaneously at many banks or financial institutions, then we say a "banking panic" has occurred. The hallmark of a banking panic is a sudden increase in the demand for currency. As a response, banks and other financial institutions tend to increase their demands for excess reserves and other liquid assets to meet their customers' possible demand for cash. Banking panic occurs even in economies with an established banking system. In response to a banking panic, the Central Bank as the lender of last resort could lend liberally to the affected financial institution at discounted rates, which would be set below market interest rates.
- (ii) **Bank Failure**  
"Bank failure" refers to an event whereby a bank is unable to pay its depositors in full. A bank fails when it is unable to meet its obligation to its depositors. Banks use depositors funds to make loans and to purchase other assets, but some of a bank's borrowers may find themselves unable to repay their loans, or the bank's assets may decline in value for some other reasons. In these circumstances, the bank may find it unable to pay off its deposits. A bank faced with the wholesale loss of deposits is likely to close its doors, even if the assets are sound. When the regulators deem that the net worth of the bank is too low, it may close the affected bank. Generally, a bank with higher holdings of reserves will be less likely to become financially distressed.
- (b) With the potential consequences of a banking collapse that are harmful to the economy, governments attempt to prevent bank failures through extensive regulation of their domestic banking system. The concerns are as follows:
- (i) Inflict harm on individual depositors;
- (ii) Harm the economy's macro economy stability;
- (iii) General loss of confidence in banks undermines the payments system of the economy; and
- (iv) Reduction in the ability of the banking system to finance investment and consumers on durable spending. This could lead to slower economic growth. There is evidence that the string of U.S. bank closings in the early 1930s helped to start and worsen the Great Depression.

- (c) (i) **Credit Risks**  
Banks face credit risks or the risk that borrowers might not repay their loan principal and interest rates. In the event that a borrower defaults, the bank would suffer a loss due to bad loans. Thus, banks have to deal with credit risks through various means, including gathering of information about the borrower, monitoring borrowers and also diversifying their loan portfolios. Banks do adopt credit rationing as a strategy to manage credit risks. This would also address the costs from adverse selection and moral hazard. Credit rationing refers to denying the borrower a loan at the prevailing market interest rate. Moreover, the bank may either grant a borrower's loan application but would limit the size of the loan. The bank may also deny a loan application of any amount at the prevailing market interest rate. Credit rationing may take place when the borrowers have little or no collateral to offer to banks. In the event that interest rates are raised to compensate for high-risk borrowers, then the low-risk borrowers would drop out. Hence, the bank would only have a pool of high-risk borrowers in its loan pool. Indeed, this is costly to the economy when the low-risk borrowers are denied access to credit for productive purposes.
- (ii) **Liquidity Risks**  
Banks face liquidity risk since bank loans are less liquid compared with bank liabilities. If this happens, banks are forced to liquidate their relatively illiquid loans and probably receive less than their full value. Thus, the bank's challenge is to reduce risk exposure without sacrificing too much profitability. Strategies to resolve this problem involve holding of reserves in the form of cash and or short-term marketable securities. Since this is not a simple approach and also not profitable, banks do use various techniques of asset and liability management to reduce liquidity risks.
- (d) (i) The components comprise:
- cash
  - clearing balances with the Central Bank
  - money at call
  - Treasury bills
  - government securities
  - government investment securities
  - Cagamas Bonds
  - bills discounted of purchases.
- (ii) The reasons for imposing liquidity asset requirements are:
- A high liquidity ratio will reduce the amount of deposits and loans for a given supply of reserves (contractionary);
  - The liquid assets do earn a return though not necessarily the highest in the market;
  - The liquidity ratio requirement would raise the effectiveness of credit restraint as it limits the scope for bank liquidation of Treasury bills and other short-dated liquid assets to support an expansion of loans;
  - As a prudential measure so that the banking institutions are liquid at all times to meet withdrawals of their customers; and
  - As a monetary requirement to influence liquidity situation in the banking system.

### Question 3

**Very few candidates attempted this question. Many of them failed to elaborate on the impact of sterilisation of foreign exchange on money supply.**

- (a) In the conduct of monetary policy in 1997, Bank Negara Malaysia (BNM) faced the difficult task of maintaining domestic and external stability in the context of the unprecedented turbulence in the region's financial markets. The contagion impact and prolonged regional uncertainties, which

accentuated the depression of the Ringgit, aggravated inflationary pressures and adversely affected confidence, thereby, increasing the complexity of monetary policy implementation.

While the implementation of monetary policy was complex in 1997, the objectives remained unchanged. Price stability remained as a primary goal of monetary policy. In the first half of 1997, monetary policy had focused on asset inflation. After July, monetary policy responses were directed at restoring stability to overcome the disruptions to economic activities caused by uncertainties in the foreign exchange and stock markets. However, towards year-end, monetary policy was directed to address the tight liquidity situation and inefficiencies in the intermediation process that had emerged in the banking system.

The focus of monetary policy, thus, was to dampen inflationary impulses. Thus, the objective was to slow down overall credit growth to levels that were more reflective of the moderation in GDP and to encourage available resources into productive uses. Moreover, further interest rates increases were also reinforced with further prudential measures in the form of credit ceilings. This was aimed to limit further exposure of the banking system to these sectors in order to minimise its vulnerability to any reversal in price movements in the asset markets. Interest rates were raised to support the Ringgit as it came under several bouts of speculative attacks.

- (b) The Central Bank can control either money supply or interest rates but not both at the same time. When the objective is to maintain the prevailing interest rate, the Central Bank will enter the open markets to buy or sell specific amount of securities needed to achieve the targeted interest rate. When the objective is to prevent interest rate from rising above its target, the Central Bank will buy securities and vice-versa when the goal is to prevent interest rates from declining. As such, the Central Bank's policy will reflect its interest rate policy and what it should do with money supply.
- (c) Central Banks do carry out equal foreign and domestic-asset transactions in opposite directions to nullify the impact of their foreign exchange on money supply. This is known as **sterilisation of foreign** exchange intervention. As an example: the Central Bank sells US\$10 million of its foreign assets and receives a cheque for the sales. Thus, its foreign assets as well as its liabilities will decline. This will lead to a decline in the domestic money supply. In order to negate this impact, the Central Bank will buy equal amount of domestic assets such as government bonds, which will increase the Central Bank's domestic assets and its liabilities by US\$10 million. This will completely offset the money supply effect of the original sale of US\$10 million. Any sterilised foreign-exchange sale will have no effect on the money supply.

#### Question 4

Many of the candidates who attempted this question did well.

- (a) The rate of growth in the money supply is an important indicator to the Central Bank due to its likely impact on its monetary policy. The credit creation process will determine the level of expansion of money supply in the economy. Whenever a loan is made by a financial institution, a deposit of an equal amount is being created in the financial system. A large portion of money supply comprises deposits of financial institutions and these in turn can affect the level of money supply in the economy.
- (i) **Bank Credit to Private Sector**  
Every loan will create a deposit and therefore, will 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 years, credit to the private sector has always been expansionary. This has even exceeded the growth of money supply (M3). A more restrictive monetary policy will slow down lending to the private sector.
- (ii) **Net Government Operations**  
The level of money supply will be influenced through financing a budget deficit through borrowings from the private sector, financial institutions, the Central Bank and even from abroad sources. Financing the government's overall deficits by the banking system will have the same effect on money supply as the banking system will have the same effect on

money supply as the banking sector's loan to the non-bank private sector. These two modes of operations are very alike since both work through bank reserves to inject liquidity into the private sector. The government operations are reflected by the average differences over time between the level of government deposits with the banking system and the holdings of government debts by the banking sector, mainly in government papers. 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.

(iii) **Balance of Payments Performance**

A surplus balance of payments position will result in an inflow of funds. This would increase money supply and vice-versa when there is a deficit in the balance of payments position. The movements of foreign assets between the Central Bank and the banking system will not affect money supply since there is no net impact on private sector deposits.

Most noteworthy is that the relative importance of these determinants will vary from time to time. Other factors may also influence the level of money supply in an economy, including revaluation losses or gains, increase in banks' non-deposit liabilities (increase in share capital and reserves) and privatisation. In the case of privatisation, the sale of private sector assets reduces the size of the budget deficit financing. With the reduction in government spending, this will reduce money supply in the economy.

(b) (i) **Monetary base**

Monetary base is also known as "base money or reserve money" and sometimes as high-powered money. It is called high-powered money because of its ability to create a multiple amount of money. The monetary base comprises all reserves that are held by the Central Banks and currency in circulation. While many factors affect the monetary base, the most significant determinant is the action of the Central Bank through open market operations. Basically, changes in the net foreign asset and stocks of domestic credit of the Central Bank will change the monetary base. A surplus balance of payments will increase the monetary base and in contrast deficit will shrink the monetary base. The linkage of the monetary base and money supply is through the size of the money multiplier.

Most noteworthy is that the Central Bank cannot have full control over the monetary base for these reasons:

- The Central Bank affects the monetary base by selling and buying securities and 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 and vice-versa, while an open market sales will reduce the monetary base. An open market purchase of securities from financial institutions will increase the Central bank's assets and its reserves. This will increase the monetary base; and
- The Central Bank can control the volume of open market operations. The Central Bank's control over discount lending is much less complete since banks will decide whether to borrow from the Central Bank. Both the decisions of the Central Bank and banks are required to determine the volume of discounted loans. Another factor is the balance of payments position which affects the net assets of the Central Bank and therefore, the monetary base.

**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. As an illustration, a multiplier of 2 and a monetary base of RM10billion will result in money supply of RM20billion. The Central Bank, non-bank public as well as banks determine the size of the money multiplier. There are other factors including reserves ratio, currency-deposit ratio and the excess ration relative to deposits.

(ii) RM20billion

- (iii) The stock of money (M0) is generally defined as the amount of financial liabilities issued by banking institutions. The narrowest definition of money is M1, which comprises currency in circulation, traveller's checks, demand deposits and other checkable deposits. The broader definition is M2 and comprises M1 and other short-term investments, including small denomination time deposits, saving deposits, money market deposit accounts and overnight REPOs. A broader definition is M3, which includes M2, and large denomination time deposits, institutional money market balances, term purchase agreement and even term Euro dollars (as in the case of the Federal Reserve Bank).
- (c) M1 = Demand deposits + Currency in circulation = RM30billion
- M2 = M1 + BNM certificates + NCD + Fixed and saving of private sector placed with BNM and commercial banks = RM110billion
- M3 = M2 less Fixed and savings deposits of private sector placed with BNM and commercial banks + Fixed and savings deposits of private sector placed with BNM, commercial banks, finance companies, merchant banks and discount houses = RM160billion

## Question 5

### Another well-answered question.

- (a) The six monetary goals of the Central Bank are:
- (i) price stability;
  - (ii) high employment;
  - (iii) economic growth;
  - (iv) financial markets and institution stability;
  - (v) interest rate stability; and
  - (vi) foreign exchange market stability.
- (i) **Price Stability**  
Inflation erodes the value of money as a medium of exchange and a unit of account. Thus, policy makers have emphasised price stability as a policy goal. In a market economy, where prices contain information about costs and demand, inflation would make prices less useful as signals for resource allocation. Overall, it would make decisions more difficult for households and firms. More importantly, the occurrence of hyperinflation would lead to a contraction of the economy as experienced by Germany in the 1920s. As such, price stability is a desirable monetary policy goal.
- (ii) **High Employment**  
The maintenance of a low rate of unemployment is an important monetary goal. Unemployment leads to excess productive capacity, financial stress and lower self-esteem for those who lost jobs. High employment does not mean a zero unemployment and this is neither practical nor in the economy's best interest. Variations in the high employment goal and substantial uncertainty about high unemployment means could lead to serious mistakes in monetary policy.
- (iii) **Economic Growth**  
One key macroeconomic objective of monetary policy is to promote the highest sustainable rate of output growth in the economy that is consistent with domestic prices and exchange rate stability. Steady economic growth and increases in the economy's output of goods and services would raise household incomes and hence, the revenue of the government. Economic growth policies could provide the incentives for increase in savings to ensure a large pool of investment funds and also direct incentives for business activities. Moreover, the stability of economic growth is crucial since this allows for accurate planning and promotes long-term investment in the economy.

(iv) **Financial market and institution stability**

This would ensure that funds would be channeled from savers to borrowers. Moreover, this would also involve growth in bank credit and money supply is adequate to accommodate and fuel real economic growth without causing inflationary pressures. The Central Bank would ensure that the economy has a sound and efficient banking and financial industry as monetary policy operates through the financial markets.

(v) **Interest rate stability**

Like fluctuations in price levels, fluctuations in interest rates make planning and investment decisions difficult for households and businesses. In some instances, the goal of interest rate stability could be motivated by political pressure and also a desire for a stable saving and investment environment.

(vi) **Foreign exchange market stability**

In the global economy, this is an important monetary goal of the Central Banks. A stable foreign exchange market would make planning easier for both commercial and business transactions. A fluctuation in the domestic exchange market would make domestic goods less competitive in the international market. Thus, economists have argued that policymakers should intervene in order to offset extreme fluctuations in the foreign exchange market.

- (b) The Central Bank has full control over the instruments used to achieve monetary goals. The instruments are targeted towards the financial institution's deposits as these comprise money supply, the control of which the success of monetary depends on. The monetary control is conducted either through the instruments that could either be directed towards limiting the supply side (curbing credit lending) or directed towards the demand side (discouraging borrowing by the financial institutions from the Central Bank). The monetary instruments available to the Central Bank could be classified as selective and general instruments. Selective instruments are used to influence credit to a particular sector or type of lending. Selective instruments are a set of complementary instruments rather than alternatives or substitutes for general instruments. The choice of selected instruments covers the following;

- (i) priority sector lending guidelines;
- (ii) hire-purchase guidelines on motor vehicles;
- (iii) guidelines on credit card operations;
- (iv) credit limit for purchase of stocks and shares and units of unit trusts; and
- (v) credit guideline ceilings for financing of certain types of properties.

General instruments for monetary policy would serve to influence the level of bank reserves or monetary base. Among the instruments available to the Central Bank are:

- (i) Variations to the statutory reserve requirements;
- (ii) Adjustments to liquid ratio; and
- (iii) Money market operations.

- (c) There are two arguments for reserve requirements, namely, the liquidity argument and the monetary argument. Under the liquidity, the reserve requirement would create a pool of liquid funds to assist illiquid but solvent banks during a banking crisis. For the monetary argument, the reason for the **reserve requirement** is that they increase the Central Bank's control over the money supply process. The percentage of deposits held as reserves is one of the determinants of the money multiplier and hence, the responsiveness of money supplies to a change in the monetary base. Thus, by controlling reserves-deposit ration through reserve requirements, this would make the money multiplier stable and thus, money supply more controllable.
- (d) There are two possible obstacles in using monetary policy tools to achieve its goals. The presence of information lags or the inability to note any changes in economic growth, inflation and other macroeconomic parameters instantaneously. This delay would lead to major policy errors. The second impediment is impact lag or the time required for monetary policy changes to affect economic growth, employment, or inflation. Indeed, any changes in the monetary base translate into changes in the money supply, and changes in the money supply affect the economy over time. This impact is not immediate but with a time lag. As such both information and impact lags make effective policy-making a rather difficult exercise.

## Question 6

The candidates who attempted this question generally had a good understanding of the concepts relating to exchange rate regime. However, many showed a poor understanding of the “offshore currency trading”, “capital control measures” and “balance of payments”.

(a) (i) **World Bank**

The World Bank was founded in 1994 together with the International Monetary Fund. The Bank’s mission is to help developing economies reduce poverty as well as sustain economic development. The Bank comprises two key organisations, namely, International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA). The Bank provides loans to build infrastructure and to aid economic development. The Bank also raises funds to lend by selling bonds in the international capital market.

(ii) **International Monetary Fund (IMF)**

The IMF performs three main functions as discussed below:

**Regulatory function** in laying down the ground rules for its members to abide by. This is essential in order to regulate trade and to eliminate any destructive trade practices among its members. The IMF is also involved in the financial regulation of national economies as part of the agreement to lend money. Borrowing members may be asked to make structural adjustments to their economies such as fiscal conservatism and the privatisation of state-run enterprises.

**Financial assistance** covers credits and loans extended by the IMF to member countries with any balance of payments problems. In the recent financial crisis in the Asian region the IMF had extended financial assistance to Korea, Thailand and Indonesia.

**Technical assistance** comprises expertise and aid provided by the IMF to its members in several broad areas, including the design and implementation of fiscal and monetary policies, institution-building (development of Central Banks) and the review and drafting of legislation.

(b) (i) **European Monetary System (EMS)**

The EMS was set up in 1979 with the objectives of overcoming international instability, establishing monetary stability in Europe, pulling together the monetary and economic policies of the EEC economies, promoting inter-community trade by stabilising exchange rates and to achieve in the long-run, the Economic Monetary Union through a common currency. Thus, the EMS has two key features:

- First, an exchange rate intervention system known as the Exchange Rate Mechanism, which attempts to preserve stability between different currencies.
- Second, each member country makes available 20% of its gold and dollar reserves to the European Monetary Cooperation Fund (ECMF) in return for European Currency Unit (ECU). The ECMF would extend credit facilities to member countries that have economic instability.

The EMS is not an institution in its own right. It, therefore, has no powers to force members to pursue some prescribed monetary and fiscal policies. Indeed, for its success there must be convergence of economic policies and performance of members. Thus, the strength of the EMS lies in its pragmatic flexibility, which allows for differences in economic performances, inflationary rates and balance of payments positions of members by explicitly allowing readjustments of currencies.

(ii) **Floating Exchange Rate Regime**

In this regime, the Central Bank allows the exchange rate to adjust to equate the supply and demand for foreign currencies. As an illustration, if the rate of Ringgit against the US\$ falls to RM2.5 per US\$ to RM3 per US\$, Malaysian exports would increase and this would increase the demand for Ringgit. The Central Bank would simply stand aside and allow the

exchange rate to adjust itself. However, in reality, under this regime, the exchange rate is not predetermined and also not left to fluctuate freely. As such, this regime has also been known as “dirty float” to distinguish it from a “clean float”, in the latter case, the Central Bank makes no attempts to influence the foreign exchange rates. Industrial economies operate a hybrid system of managed floating rates, whereby, the Central Bank may attempt to moderate exchange rate movements without keeping the exchange rate rigidly fixed.

(iii) **Fixed Exchange Rate System**

In contrast, under this regime the exchange rates are set at levels determined and maintained by the government. The government would attempt to maintain the exchange rate of their country at a fixed rate, or within a narrow margin of a predetermined value, against other currencies. Thus, the Central Bank would intervene in the foreign exchange market to buy or sell foreign currencies in order to maintain the exchange rate at a predetermined level. A Central Bank can maintain the exchange rate within the acceptable level as long as it is able and willing to buy and sell the amounts of its own currency necessary for exchange rate stabilisation. When the Central Bank buys its own currency, it sells dollars. Hence, there is an important asymmetry in Central Bank adjustments in response to market pressures on the exchange rate. Under this system, the Central Bank would need to have a sufficient amount of foreign reserves. The ability to buy its own currency (to raise its value relative to the dollar) is limited by the country’s stock of international reserves.

An example of a fixed exchange rate regime was the Bretton Woods Agreement’s adjustable peg system, which was in operation between 1945-72. Another recent example is the European Monetary Systems Currency.

The classical gold standard is an excellent example illustrating the successes and failures of a fixed exchange rate regime. Under the gold standard, currencies of participating countries are convertible into an agreed-upon amount of gold, exchange rate adjustment therefore, is ruled out. Thus, based on this promise the exchange rates between two countries are fixed by their relative gold weights.

(c) (i) **Capital controls** have been implemented based on these arguments:

- To **redress market failures** given the macroeconomic and financial risks arising from the free markets and flow of capital. Economies are not spared from pressures on their currencies and stock markets. It has been argued that while strong macroeconomic fundamentals are necessary, they are not sufficient for financial stability, the latter also needs sound financial sector policies. In times of crisis, it has been observed that markets do not behave rationally, resulting in overreactions to any market developments.
- To provide **some breathing space** for the economy and not substituting exchange control measures for appropriate macroeconomic policies. This would ensure that the on-going macroeconomic policies and structural adjustment measures could continue uninhibited by external developments. The capital control measures would preserve the gains that have been made such as the improvement of the balance of payments position and in terms of containing inflation. This would create a positive environment to support economic recovery. The capital control measures would also allow the economy to pursue more aggressive policies such as lowering interest rates, injecting greater liquidity into the banking system and enhancing the intermediation process to assist economic recovery.

(ii) **Current Account**

The balance of payments is the record of the transactions of residents of a country with the rest of the world. It is also a reflection of the health of the economy. The two key accounts in the balance of payments are the current account and the capital account. Closely related to the current account are the merchandise account and the services account.

Thus, the current account is expressed as:

- $\text{Current account balance} = \text{Merchandise account} + \text{Services Account} + \text{Net transfers.}$

Thus, by adding the merchandise balance and trade-in services and net transfers, we can derive the current account balance. We say that the current account is in surplus when the exports of goods and services plus transfers exceed imports of goods and services plus transfers. The merchandise account simply records trade-in goods (exports and imports). The services account records trade-in freight and insurance, profit, investment income and interest payment, travel and education payment, rent, royalty and consultancy and other transport charges. Transfers cover remittances, gifts and grants. In the Malaysian experience, the merchandise balance is usually in surplus while the service balance is persistently in deficit so that the overall current account balance is in deficit.

### Capital Account

The capital account records purchases and sales of assets such as shares, bonds and land. Thus, the capital account refers to the net international indebtedness of the private and public sectors in an economy.

The capital account is expressed as follows:

- Capital account = Official long-term capital flows ( borrowings of the public sector) + Private long-term (mainly foreign direct investment and borrowings) + short-term capital.

There is a capital account surplus or a net capital inflow when our receipts from the sale of shares, bonds, land, bank deposits and other assets exceed our payments for our own purchases of foreign assets. Likewise, there is a capital account deficit if those in the country buy more assets from foreigners than they sell to foreigners. The capital account distinguishes between short and long-term capital flows and is indicated on a net basis. The **long-term capital** component basically records net borrowing from project and market loans, commercial and suppliers credits, subscriptions to international and regional institutions and corporate investments. This entails an increase in future external debt servicing obligations. On the other hand, the private capital flows which appear in the long-term capital account essentially are equity-related flows such as corporate investment (FDI) or as loan capital which likewise would result in higher debt servicing obligations. In the **short-term capital account**, short-term capital flows are mainly from private short-term flows. The key component comprises net external assets and liabilities of the banking system, reflecting changes in the international indebtedness of domestic banking institutions.

### (iii) Offshore Currency Trading

One of the most pervasive features of the commercial banking system in the 1980s is that the banking system has become globalised as banks have branched out from their home countries into foreign financial centers. Offshore banking describes the business that banks' foreign offices conduct outside their home countries. This could be done through an agency office located abroad, a subsidiary or a foreign branch. The growth of offshore currency trading has gone hand-in-hand with that of offshore banking. An offshore deposit is simply a bank deposit nominated in a currency other than that of the country in which the bank resides, example yen deposits in a London bank. Offshore currency deposits are usually referred to as Euro Currencies. One motivation for the rapid growth of offshore currency trading has been the growth of international trade and increasing multinational nature of corporate activity.