

ANALISIS JILID 3, BIL. 1 DAN 2.

## **A COMPARATIVE STUDY OF THE MALAYSIAN FINANCIAL AND ECONOMIC POLICIES IN ISLAMIC PERSPECTIVES, 1970-85**

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### **I. INTRODUCTION**

The estimated equations of Islamic general economic equilibrium for the Malaysian economy, for the period 1970-85, will now be examined in view of the actual changes that have taken place in Malaysia for the stated period. We shall then study the related policy issues and the potential for policy development in Islamic perspectives.

The general forms of the estimated equations were found to reinforce the theoretical structure of the Islamic macro-economic system developed in an earlier work. By the same token the Keynesian element of the Islamic macroeconomic system were found to hold in our estimated model system. However, a critical examination on the stability of the IIS and ILM curves showed low levels of reliability on the estimated slopes of these curves expressed in the log-linear forms. The unstable nature of the slopes of IIS-equation was also reflected in the variable interrelationships within the expenditure sector equation; that is, as shown among income, investment and profit rate variables in their log-linear forms. Likewise, in the case of ILM-equation, the monetary sector equilibrium was found to be unstable. While such cases of instability, shown by the possible ambiguity of the slopes of IIS-ILM-equations, are consistent both with the Keynesian general equilibrium system and the Islamic macro-economic general equilibrium, they must be interpreted now in relation to the actual economic changes in the Malaysian economy for the period 1970-85.

**II. A COMPARATIVE REVIEW OF MONETARY SECTOR MODELS OF MALAYSIAN ECONOMY**

Macro-economic models of the monetary sector for Malaysia undertaken so far show a spurious effect of interest rate fluctuations on the supply of money. For instance, take the estimated form of the Jofar-model for real cash holding by Malaysia commercial banks (denoted by  $\frac{C_1}{P_1}$ ):<sup>1</sup>

$$\frac{C_1}{P_1} = 39.679 - 0.2855i + 0.0029y + 0.219 \frac{C_1}{P_1}_{-1} \dots\dots\dots (1)$$

(2.3202) (-0.4776) (1.7630) (0.7928)

$R^2 = 0.6146$ ;  $SSE = 6.6242$

time period, 1962-74

Here,  $\frac{C_1}{P_1}$  denotes real cash holding of commercial banks,  
*i* denotes the real rate of interest,  
*y* denotes the real gross national product.

Since an increase in the real cash holding increases the stock of money with the Central Bank, this would increase the supply of money or at least raise the possibility for an increased supply of money in the economy. Treating  $\frac{C_1}{P_1}$  as a proxy for the supply of money in M1 form, it is seen from equation (1) that there is a reverse relationship between this proxy variable for money supply and the rate of interest. The relationship between these two variables is also unstable, as is indicated by a high level of significance for the t-statistic for the coefficient of the interest-variable ( $t < -t, 10, 12$ ).

A similar kind of reverse relationship between money supply and interest rate variables is found in the case of Seng's model:<sup>2</sup>

$$\log ER = -0.3014 - 0.2919 \log IBR - 23567 \log LR + (\text{list of terms in statutory reserve, deposit liability and other variables}) \dots\dots\dots(2)$$

where, ER denotes excess reserve,  
 IBR denotes interbank loan rate,  
 LR denotes loan rate.

Equation (2) gives a relationship between the excess reserve for Bank Negara and various type of rates of interest. The increase in excess reserve, because it positively adds to the monetary stock of Bank Negara, can result in an increased supply of money. There would however, be a lag of time between the excess reserve accumulation and the actual conversion of this into money supply.

In equation (2) the relationship between excess reserve as a lagged proxy for money supply and the interest rates (IBR and LR) is not of the usual type shown by an LM-equation in a Keynesian monetary sector equilibrium. The above two models customarily treat the financial institutions in Malaysia to be profit maximazing ones. They are expected therefore, to increase the supply of loans and advances under the impact of high loan interest rates. This is not the case indicated by equation (2) in relation with the ER-proxy for money supply. What equation (2) indicates is a behaviour of holding money with increase in interest rates. That is, as interest rates increase the demand for money falls. This in turn builds up the reserves with Bank Negara. Thus equation (2) does not explain a money supply in terms or rates of interest and does not bring in the demand for money variable into the equation to explain the effect of the money demand equation on the excess reserve formation through the interest rate variables.

In either of the equation (1) and (2) the monetary sector relations do not well-specify the relationship of movements in the rates of interest on the proxy variables for money supply. The relationships as shown are more sensitive to the demand side of holding cash balances. But even in such a case, the absence of treating the money demand relationship along with money supply relationship, leaves the LM-relationship indeterminate. This indeterminacy of the LM-curve causes the instability of the Malaysian monetary sector equilibrium in the Keynesian sense.

Next, we turn to some macro-economic results pertaining to the Malaysian expenditure sector. Notably, the Economic Planning Unit model estimated the investment and consumption functions in terms of value added and disposable income. Interest rate variable has been left out of these relationships<sup>3</sup>.

The EPU-investment model is

$$I_c = 96.7916 + 2.6122V_c ; R^1 = 0.98 \quad (3)$$

$$I_{MC} = 54.2962 + 0.1767V_c + 0.3890V_{MC, t-1}, R^2 = 0.83 \quad (4)$$

where,  $I_c$  denotes investment in building and construction,

$I_{MC}$  denotes investment in machinery and construction,

$V_c$  denotes value added in construction,

$V_{MC, t-1}$  denotes a one-year lagged value added in manufacturing and construction.

The EPU-private consumption model is

$$C_p = 130.389 + 0.101 Y_d + 0.9141 C_{p, t-1}; R^2 + 0.99 \quad (5)$$

where,  $Y_d$  denotes disposable income,

$C_p$  denotes private consumption,

$C_{p, t-1}$  denotes a one-year lagged private consumption

The absence of interest rates as explanatory variables in the above equations can be explained by the fact that it has had low sensitivity in the investment and consumption relations in Malaysia. The interest rate was pegged until the late seventies, and the Malaysian financial sector adopted a policy of encouraging deposits and minimum lending rates at the commercial banks. Thus, on the basis of the EPU-type investment and consumption models and the insensitivity of interest rates on these for a period of time, a strictly Keynesian type IS-relation cannot be developed.

The best estimate of a single-equation IS-type equation is given by the monthly econometric model displayed by Seng. This equation is,

$$\log Y = -0.2290 + 0.47531 \log X_1 + 0.29061 \log X_2 - 0.7729 \log X_3 + 1.1780 \log X_4$$

(-0.47)
(3.10)
(3.79)
(-4.30)
(4.54)

$$R^2 = 0.968; DW = 0.72; SSE = 0.0944$$

Here, although there is a stable negative relationship between the interest rate variable,  $\log X_3$ , and the income variable,  $\log Y$ , the IS-equation itself is not derived from a structural form, and the income variable,  $Y$ , denotes the total amount of cheque clearings with commercial banks. The other variables of equation (6) are as follows:

$X_1$  denotes industrial production plus agricultural production,

- X<sub>2</sub> denotes total value of exports,
- X<sub>3</sub> denotes consumer price index
- X<sub>4</sub> denotes the period of time (1971-1980) by months

A cursory look at the above macro-models for Malaysian monetary and expenditure sectors shows, that Keynesian type models could not be fully complied with in determining general equilibrium. Consequently, the relations in these sectors in terms of the rate of interest as an explanatory variable, remain unstable, and this causes instability in the IS-ILM relationships. The situation in the monetary and expenditures sector in the Islamic macro-economy applied to the case of Malaysia for the period, 1970-1985, is found to be similar in our model system as well.

The kind of instability in the monetary and expenditure sectors equilibrium indicated in the above macro-models and in our Islamic model perspectives of the macro-economy, is seen here to conform with the structure of the Malaysian financial sector during the seventies and eighties. The critical points relating to the Malaysia financial sector are now summarized.<sup>4</sup>

### III. SOCIAL POLICY ASPECTS OF MONETARY SECTOR POLICY IN MALAYSIA

The principal types of policies found to be effective in the Malaysian monetary sector were: liberalizing of reserve ratio by Bank Negara at a time of expenditure needs by the private sector and national development plans. The commercial banks were allowed to set their own prime lending rates, thus generating keen competition among these profit-maximizing financial institutions. The effort of this competition resulted in low commercial bank lending rates. Then came a shift in the monetary policies during the eighties. In the face of imported inflation, Bank Negara adopted a tight money supply policy. Yet, it was the reserve ratio rather than either the discount rate or the loan rate, that were critical instruments of monetary policy. The use of interest rate instrument was not popular because of the absence of sufficiently developed secondary capital markets in Malaysia. Also, the financial policy had to be linked with the Malaysian Government's social policy, known as the New Economic Policy. Under this policy, the economic condition of the Malay (known as Bumiputera) had to be substantially improved. It is targeted to achieve by the year 1990, a 30 percent ownership of the nation's productive wealth and corporate assets by the Bumiputeras. Toward achieving this goal, the financial institutions would be required to offer low lending rates to the enterprising Bumiputeras and small scale enterprises.<sup>5</sup>

The New Economic Policy (NEP) being a social policy with strong economic links, invokes goals of attaining distributive equity and economic efficiency in Malaysian society. In the neo-classical economic framework these two goals are considered as contending ones, and what results is not a balance between the two, but rather an equity-efficiency trade-off. In the Keynesian economic system the two goals are in a balance, because stimulative aggregate demand measures aim at the restoring full-employment equilibrium, and there are no anticipatory price movements following the increase in the aggregate demand that would generate prolonged inflation. The Malaysian experience with NEP should be viewed on both of these framework of economic analysis and then in the context of the Islamic model perspectives that we have developed in this work.

During the economic recession of the eighties, that hit hard the Malaysian agricultural sector, where most of the underprivileged Bumiputeras live and carry out their livelihood, an excess supply of liquidity under soft loans in the agricultural sector did not yield the high yields expected. There was an excess supply of liquidity generated by easy loans and advances under the NEP objectives, but not sufficient turnover of this financial capital into productive investments in the agricultural sector. This led to a conflict between the monetary policy and the expenditure policy in the Keynesian framework. A liberal supply of liquidity in the form of easy loans and advances is seen to be followed by under-investment and both low financial yields as well as low marginal efficiency of capital. Such a situation in the investment sector supports a result in our model system that the Malaysian economy, during the period 1970-1985, performed at below full-employment level. This created slacks in the labour market and the product market. Hence, the excess production capacity gave rise to an absorption capacity for capacity investment with rising marginal efficiency of capital.

In the Malaysian agricultural sector GDP increased by an average annual rate of 3.29 percent (market prices), between 1980 and 1985. This compares poorly with an increase in manufacturing GDP by an average annual rate of 7.91 percent and of 7.17 percent annually for the total GDP, between 1980 and 1985. In spite of the Malaysian Government's emphasis on NEP through appropriate financial policies, one finds from the classification of loans and advance made by commercial banks to various sectors, a steady-decline in the percentage share of loans and advances to the agricultural sector — from 7.84 percent in 1980 to 6.00 percent in 1985. On the other hand, the manufacturing sector continued to get the second highest share after the "General" sector. Although in manufacturing too there was a decline in percentage share of total loans and advances — from 22.32 percent to 1980 to 17.52 percent in 1985.

These trends in financial activities point an adverse picture on the goals of NEP, because the agricultural sector has been given focus in the 1980s due to its close link with the goals of NEP in alleviating poverty levels and furthering economic betterment of the under-privileged Bumiputeras.

The magnitude of economic deprecation of the Bumiputeras during the 1970s can be seen through statistics. In Peninsular Malaysia, some 66 percent of the agricultural workforce were Bumiputeras. In Sabah and Sarawak, this figures was at 80-90 percent. In spite of this, the small holder agricultural sector, where the Bumiputeras workforce abounds, poverty remains very high, labour productivity continues to be low, due both to out-dated skills and modes of production and to falling demand for agricultural produce in world markets. Between 1970 and 1979, for which years data are available, the Bumiputeras in the agricultural sector experienced poor increases in incomes compared to other groups of small land holding farmers. The following are some statistics for that period:

**TABLE 1**  
**A Comparative Look At Peninsular Malay Monthly**  
**Income For Lower Four Decline In Farming Sector (Ringgit)**

Years	Total	Malay	Chinese	Indians
1970	75.90	56.76	135.93	112.48
1976	142.19	101.95	247.27	197.21
1979	186.19	140.35	280.11	263.43

Source : Z.H. Mustapha. "The Agricultural Sector", in the *Political Economy of Malaysia*, (eds.)

Returning now to a neo-classical view of the efficiency-equity trade-off in the context of NEP, we find that such a trade-off might well be there in the Malaysian socio-economic structure. It is indicated by the continued existence of excess slack in productive transformation in spite of the liberal financial policy under NEP to aid the under-privileged Bumiputeras. Even the government's own expenditure in the agricultural sector has been directed towards infrastructure building.

The continuance of the equity-efficiency imbalance causes dynamic disequilibrium in the investment series. The creation of liquidity through loans and advances to the agricultural sector, followed by inadequate investment

demand and by low productivity, causes leakages in the economy that reduces the income multiplier. The consequence of all this is recessionary trend and under-employment of factors of production.

In the perspectives of economic changes mentioned above, it appears that neither the Keynesian nor the neo-classical framework of economics gives the appropriate picture on the much required balance between distributive equity and economic efficiency. The operations and goals of NEP or similar type of social policies cannot be expected to perform themselves under the institutional systems invoked by the two economic arrangements. The root cause of the imbalance in these economic arrangements arises out of the prevalent institutions that cannot simultaneously realize productive transformation while bearing an opportunity cost in a programme of distributive equity. This opportunity cost is the difference between the rate of interest and the yield on investment.

#### **IV. THE SOCIAL BASIS OF ISLAMIC MACRO-ECONOMIC MODEL APPLIED TO MALAYSIA**

In the previous work we have established the model system for the alternative form of economic arrangement. This is the Islamic economy in which institutional changes are drastic in nature and are based on the complete replacement of the functions of interest in money capital by the functions of profit-and-loss sharing. For the case of the Malaysian agricultural sector, where the aim of social policy are more directly felt, the institution of "Mudarabah" (profit sharing) together with the proper use of 'Zakat' (Islamic wealth tax need to be examined) now.

The principal goal of the Islamic profit-sharing institution, "Mudarabah", and of the institution of "zakat" in regards to NEP would be distributive equity through productive transformation of both skills and capital in the economy. This is jointly possible, if each member of the target group is made to participate in the production process consciously and be made to be responsible for the output of production.

In the first place, "Mudarabah" being a profit-sharing system, necessitates individual and group co-operative participation in joint ventures. It also gives the participants the proportionate control of management. The system makes the participants responsible, because they earn what they produce, with wages being determined under average productivity condition. Such a condition can be satisfied, if the production system is of an increasing returns to scale, and which can be realized by a substantial degree of X-efficiency associated with co-operative type incentive system.



In the second place, the institution of "Zakat", being complementary to investment, must satisfy its important function towards productive transformation of skills in the needy target groups of labour force. If instead, much of the "Zakat" fund is disbursed in current consumption expenditure, its specified target is not realized and there is no effective complementarity between the functions of "Zakat" and investment, including human capital investment. The specific target of "Zakat" expenditure in generating productive transformation among needy group of the labour force can then be reinforced by complementary government expenditure, non-interest loans and advances based on "Mudarabah" and "Musharakah" type co-operative ventures between the recipients and the donor agencies.

Complementarity between the institutions of "Mudarabah" and "Zakat" in meeting the goal of productive transformation in the economy, is the kind of institutional change prescribed by the Islamic alternative to socio-economic development among the under-privileged Bumiputeras in the large and representative agricultural sector in Malaysia. Together with these institutions must come about the gradual and complete replacement of interest rate system by the profit-sharing system, and of choice of technology that go with a basic needs approach to development. This last category of institutional requirement in an Islamic economic system was covered in an earlier work under the Islamic condition of avoidance of "Israf" (wanton consumption and production).

The Islamic model system that we have established for Malaysia in an earlier work has shown a general consistency of the estimates with the theoretical formalisation of the Islamic macro-economy. However, the nature of statistical instability in some of the critical relations in the monetary and expenditure sectors had raised issues of concerns.

In the case of "Zakat" expenditure, we have noted in our estimated equations, that the strong positive relationship of "Zakat" to GDP is principally due to the use of these funds in consumption expenditure. "Zakat" expenditure was not channelled or at least made effective in a process of productive transformation. Such is a case contrary to Islamic expectations, and explains a situation where the "Zakat" disbursement in current consumption expenditure could have worked only in favour of a goal of distributive equity and not economic efficiency.

The equity-efficiency balance can be realized in a situation of "Mudarabah" - type institution jointly supported by the productive use of "Zakat" expenditure. The arguments were presented earlier. Under these circumstances, there appears to be rational directions for the Government of

Malaysia to promote "Mudarabah" – type institutional transformation along with productive use of "Zakat" expenditure in human capital formation of the needy Bumiputeras in the Malaysian agricultural sector.

The profitability of "Mudarabah" – type financial transactions is well indicated in the case of some Islamic institutions established in Pakistan and Iran. The experience in these areas of Islamic economic institutions is of a recent origin. The IMF study in this area quotes the following comparisons of Islamic investment yields, termed as Profit-and-Loss-Sharing Deposits (PLS Deposits) with interest based returns:

**TABLE 2**  
**PAKISTAN: Comparisons of Interest Rates and Rates of Return Under Profit-and-Loss Sharing (PLS) Deposits**

	Notice 7 days		Deposits 30 days		Savings Deposits		Six-Month Deposits		One-Year Deposits		Two-Year Deposits		Three-Year Deposits		Four-Year Deposits		Five-Year and Longer- Term Deposits	
	Non- PLS	PLS	Non- PLS	PLS	Non- PLS	PLS	Non- PLS	PLS	Non- PLS	PLS	PLS	PLS	PLS	PLS	PLS	PLS	PLS	PLS
1981																		
Jun	5.3	—	—	—	7.6	8.6	9.4	10.9	10.4	12.2	10.5	12.7	11.2	12.0	14.2	12.0	14.7	
Decem	6.0	—	—	—	7.6	8.7	10.4	11.2	10.2	12.5	10.6	13.0	11.3	13.9	12.2	14.4	12.2	14.9
1982																		
Jun	5.8	—	—	—	7.6	8.6	9.8	10.8	10.3	12.0	11.1	12.7	12.0	13.6	12.3	14.1	12.4	14.6
Decem	6.3	—	—	—	7.6	8.2	9.9	10.5	10.6	11.5	11.0	12.1	12.0	13.1	12.2	14.0	12.5	14.3
1983																		
Jun	6.3	—	—	—	7.6	8.3	9.9	10.5	10.5	11.6	10.8	12.2	11.8	13.0	12.4	13.6	12.4	14.1
Decem	6.3	—	—	—	7.6	7.7	9.9	10.5	10.8	10.7	11.5	11.7	12.3	12.4	12.8	12.4	13.3	
1984																		
Jun	5.5	—	6.5	—	7.6	7.5	9.9	9.5	10.5	10.5	11.1	11.0	11.8	11.8	12.5	12.5	12.5	13.5
Decem	5.5	5.9	6.5	6.9	7.5	8.0	9.5	10.1	10.5	11.2	11.0	11.8	11.8	12.5	12.3	13.1	12.8	13.6
1985																		
Jun	—	5.4	—	6.2	—	8.3	—	—	11.1	—	12.2	—	13.2	—	14.2	—	15.2	

Rates of return offered by the nationalized banks, which constitute about 95 percent of the banking sector.

Data : Pakistan authorities; State Bank of Pakistan,  
Monthly Bulletin, May 1985.

IMF Survey (Washington. D.C. March 9, 1987).

On the same lines, Bank Islam Malaysia, inspite of having a share experience in "Mudarabah" - "Musharakah" - type financial transactions, has turned up a fair level of profitability in its PLS account. Bank Islam Malaysia was founded in 1984. Between the years, 1984 and 1985, a comparison of its profit statement with those of other Malaysia banks shows a healthy sign. While these comparisons are indicative only, they do point to the fact, that during the bads days of economic recession in Malaysia, the period 1983-85, Bank Islam Malaysia had capitalised all its sunken capital investment of 1.38 billion Ringgit, and had earned a handsome profit. Furthermore, the figure of M\$424,816 in "Zakat" fund of Bank Islam Malaysia indicates that the liquidity of this bank (i.e. accumulated assets in cash form) was in the tune of M\$16,592,640. More is a comparison of the profit levels of some major financial institutions in Malaysia.

**TABLE 3**  
**Profit Levels Of Major Banks in Malaysia**

	B. Bumiputra		B. Pertanian		M. Development		B. Islamic	
	1983	1984	1982	1983	1983	1984	1984	1985
Gross Profit (Billions of Malaysian dollars	969.332	105.2						
Race of Change)	-88.14	1.71	2.363	6.406	14.355	7.149	-1.287	4.3
			-48.32	440				

Sources : See detailed financial statements of these banks in the statistical appendix

Inspite of potential promises of Islamic financial arrangements, there are initial difficulties that these institutions have to cope with. Some of these difficulties are associated with the adjustment process during the period of transition to a fully fledged Islamic financial system. Others are associated with external factors from the conventional interest-bearing financial system that act adversely on the Islamic financial institutions.

On the side of adjustment problems of the Islamic financial institutions are problems of inadequate training of bank staff on lines of Islamic financial transaction, on ideas of Islamic micro-and-macro-economy, on project indentification, project appraisal and evaluation. Besides, long term Islamic investments have been sparingly undertaken by the Islamic banks. Most of their transactions to date have been limited to short term certificates of PLS deposits. The Islamic banks have been operating on the basis of the following three principles:

- (1) interest-free lending, on which the Islamic bank charges a service free lending, on which the Islamic bank charges a service fee on loans;
- (2) trade-related financing, on which there is a mark-up pricing of tradables;
- (3) investment financing, with profit-sharing ratios determined by the Central Bank.

The Islamic Banks do encourage and deal with personal saving, but pay returns on these in the form of bonuses and preferences, such as lump sum payment at the end of the year, exemptions from bank commissions, preferred lending and accessibility to prime stocks and shares.

The principles on which Islamic banks operate, although necessary are not sufficient for the complete transformation into an Islamic financial system. Naqvi remarks on this process of transformation from an interest-bearing financial system to a total Islamic financial system in following terms:<sup>6</sup> The abolition of interest on capital and the institution of "Mudarabah" cannot be sufficient conditions for a complete Islamization of the economy, because if this was so, the Islamic transformation could have been similar to a Socialistic transformation, that too necessitates elimination of the rate of interest and formation of worker co-operatives. The transition state to an Islamic economy is a gradual process, in which the presence of the rate of interest is gradually eliminated and replaced by the profit-sharing rate. In this gradual process of Islamic transformation, training, research and learning-by-doing play the key role.

The process of Islamic transformation must be necessarily severed from a neo-classical economic framework, for in this latter system a transition from a capitalistic economy to an Islamic economy would be characterised as follows. In the neo-classical economic framework, the production function explaining economic growth is linear homogenous in aggregate capital and labour and is of the long run type. What does such a production function imply in a steady state regime of economic growth? The answer to this question is aptly covered by Joan Robinson. In a steady state equilibrium the rate of growth of output equals the rate of profit that was expected to prevail at that point of time, and when once determined it becomes the only unique rate prevailing for the entire planning period. Therefore, in a steady state of equilibrium the rate of profit equals the supply price of capital, which in turn is simply the rate of interest interpreted under the consumption theory of interest.

Joan Robinson continues in her argument, that in a steady state economic growth, there is not a priori reason for the supply price of 'waiting in time' to be positive. For example, spendthrifts may impute a negative value to this supply price, whereas the prudent would impute a positive value to it. Since, there is no prior reason for the rate of profit to be positive, therefore there is no reason for the rate of profit to be positive either. This shows a contradiction between the existence of positive rate of interest and a negative supply price of capital in a steady state transitional path of growth in a neo-classical world. A negative supply price of capital would in fact thwart the possibility of ever reaching a steady state equilibrium. In order to circumvent this problem, the neo-classical economists imputed to a long run rate of profit, a value equal to what it would be at an initial point of time. Thus, the futures of neo-classical world of economic transition are riskless. In this, there can be no uncertainty and disturbance to the long run smooth constancy of capital/output ratio, capital/labour ratio, saving rate, profit rate, etc. If any of these did occur on the contrary, the possibility of ever reaching a long run steady state of equilibrium will be thwarted.

Finally, once a long run neo-classical economic equilibrium is attained, there is no possibility of transition any more. The economic system becomes structurally static, dynamic only with respect to time. The uncritical acceptance of the assumptions, preferences and institutions of the neo-classical economic system cannot explain the transitional phase of the economy.

On the same issue of economic transaction we turn now to the short run equilibrium analysis. A long run menu of economic growth can then be considered as an aggregation of a series of short run menus, as in a linear input-output model or in a linear aggregation model of heterogeneous capital goods and processes over time. Such an approach is adopted by policy planners as a more realistic tool of development planning, enabling the process of structural change in society from one stage of economic development to another. The force of economic policies happens to be realized more fully in this type of an approach.

This brings us to an examination of the Keynesian approach in the study of economic transition and adjustment. In the Keynesian system it is the short run and the aggregation of short run planning menus as a long run menu, that are given preference over the neo-classical long run analysis. The practicality of the short run equilibrium of the short run and to change existing plans and programmes through newer policies. For example, any change in the capital/labour ratio would involve a reorganization of the methods of production and requires a change in the specification of the good to be

produced. Policies needed to alter the specification of the production function will depend upon the existing type of the production function being used, that is whether it explains the long run or the short run growth, whether it is of the neo-classical type or others. The policies developed and applied must accordingly suit the environment of the economic world that the production function describes.

The potential of the Keynesian type economic models to take account of progressive structural changes during the process of economic transition, speaks in favour of our choice of a Keynesian type Islamic economic model system. In the Malaysian economic system, where great questions of social and economic policies abound, and in which a transition to an Islamic economic and financial system has been shown and offer a brighter alternative, the Keynesian type Islamic economic system is thus, seen to be consistent with the proper type of model of economic transition and adjustment.

The IMF study we have referred to has found in the case of Pakistan and Iran, that the introduction of Islamic banks has not reduced the effectiveness of monetary policy and, given the transitional adjustment, the full operation of the Islamic banking system can generate a more efficient allocation of resources.<sup>8</sup> The other aspect of the Islamic financial system is attainment of distributive equity, consistent with economic efficiency in resource allocation. This we have seen in the case of Malaysia, to be the goal of productive transformation through an equitable use of resources under the New Economic Policy and similarly targeted social policies.

The problems of alleviation of poverty under NEP and other social policies can be studied in the context of a basic needs approach to productive transformation. Such a basic needs approach is also the foundation of the Islamic institution of "Zakat" in conjunction with the constraint of 'La Israf' i.e. avoidance of wasteful consumption and production. We now turn to a brief coverage of this topic in the context of productive transformation as a mandatory goal of "Zakat" expenditure and structural development menu of change.

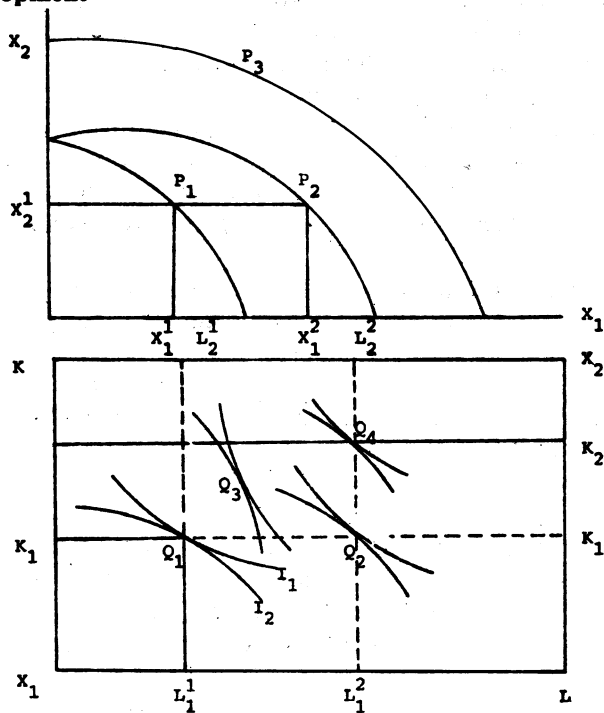
Let us here examine the basic needs approach to an employment programme. The stage of specialization on basic needs is treated here only as a first step toward higher stages of development. Therefore, this process of evolution must yield the technology that is congruent with the productive transformation of skills. The period of development under a basic needs regime must therefore, be treated as one of training of available skills toward higher levels of labour productivity, for subsequently manning the more advanced

technologies. Now wages and earnings will rise, but in a non-inflationary way because of productivity gains, thus generating more equitable distribution of income as growth proceeds. The purchasing power in the economy in general, and the rural sector in particular, increases, and is in turn converted into investment demand through mobilization of savings. Now the multiplier relation generates higher changes in output. The cycle of relationship from output to incomes and through investment to output continues over time. From basic needs to economic growth with appropriate technology and income distributiveness, this is the essence of self-reliant development. Thus, the simultaneous (balanced) attainment of efficiency and equity in resource allocation is inherent in the above explanation of collective self-reliance.

**V. BASIC NEEDS IMPLICATIONS IN THE ISLAMIC DEVELOPMENT MODEL**

The two inter-related processes - one of economic evolution from basic needs to higher stages of development, and the other of productive transformation of manpower, are explained with the help of the following diagram-(Figure I).

**Figure I : Productive Transformation of Labour Across Stag of Economic Development**



Let,  $X_1$  denotes output of basic needs (Labour intensive)

$X_2$  denotes output of capital intensive good.

Points,  $P_1, P_2$  on their own production transformation curves have increased output of basic needs, keeping the production of capital intensive goods fixed. Thus,  $X_1^{(2)} > X_1^{(1)}$  with  $X_2^1$  fixed.

$I_1, I_2$  are the (K/L) isoquants in the production of  $X_1, X_2$  respectively.

Corresponding to the point,  $P_1$ , in the production transformation curve, is the point  $Q_1$  in the resource allocation box, where resources (capital, labour) are shown to be allocation box, where resources (capital, labour) are shown to be allocated between  $X_1$  and  $X_2$ . Thus, as the point  $P_1$  moves up to  $P_2$ , the allocation increases in favour of labour to the point  $Q_2$ . Now, capital allocation remains as before, at  $K_1$  and  $K_2$  for the output of  $X_1$  and  $X_2$ , respectively. Labour allocation now increases for  $X_1$  from  $L_1^{(1)}$  to  $L_1^{(2)}$ , but decreases for  $X_2$ , from  $L_2^{(1)}$  to  $L_2^{(2)}$ . This is understandable because of the deliberate policy of governments in promotion basic needs industries (labour intensive).

Finally, with productive transformation of skills to a higher stage of development, we have a point,  $P_3$ , on the new production transformation curve. Now, a balance of labour intensive and capital intensive industries is promoted. The output,  $Q_3$ , corresponds to the point  $P_3$ . Now a switch toward the production of  $X_2$  increases allocation to capital, but not at the expense of labour. Whereas, the production menu for  $X_1$  has become labour saving compared to  $P_2$ , but not necessarily capital intensive. Labour released from  $X_1$  is productive and is absorbed in the production of  $X_2$ .

The tangents to the isoquants at the point,  $Q_3$ , is steeper than those at the points  $Q_1, Q_2$ , suggesting thereby, that the marginal productivity of labour has increased in the industry specializing in  $X_1$ , after productive transformation. Now, through the derived demand for capital, the productivity of capital also increases in the industry specializing in  $X_2$ . Thus, every cycle of production at higher stages of development ensues an overall gain in total productivity.

The theorem is thus proven — beginning from production specialization in basic needs, evolution to higher stages of development brings about simultaneous gains in equity (through income distribution resulting from labour intensity, higher both marginal productivity of labour and capital). The



appropriate goal of "Zakat" in an environment of "Mudarabah" institution and condition of La-Israf is precisely served under such a basic needs approach to development.

A final note must be made in regards to the question of transitional adjustment during the process of Islamic financial transformation. This is the issue of establishing consistency between monetary policy and fiscal policy in the case of a liberal expenditure policy. Such is also the case with the Keynesian type Islamic system we have considered in this work. In the Islamic economic system, endowed with its peculiar consumption - investment menu with an accentuated reinvestment propensity over time and its goal of establishing the equity-efficiency balance, it is obvious, that there will be a greater slack than in the Keynesian system toward establishing the full-employment level of income. This is simply due to a higher level of real full-employment national income in the Islamic economy. Thus, this points to a positive relationship between investment and profit rate until full-employment is attained. Beyond the full-employment level of income, the usual Keynesian type negative relationship between investment and the marginal efficiency of capital will hold. A situation of this type raises problems of instability in the IS-LM methodology. Our estimated Keynesian type Islamic models, although responding to the expected theoretical constructs and results, did show signs of instability in the estimated IIS and ILM equations. For the case of Malaysian economy, these show existence of significant slack in the labour market, accentuated as it is seen by the unemployment and poverty deprecation of the Malaysian agricultural sector.

## **VI. OPEN ECONOMY EXTENSIONS OF THE ISLAMIC MACRO-MODEL APPLIED TO MALAYSIAN: AN INSTITUTIONAL APPROACH**

In the Islamic model system that we have estimated for the Malaysian macroeconomy, we had deliberately stayed away from an open economy analysis. This is of course necessary for an intrinsically open economy like Malaysian. Our objective in this paper was to intensify the Islamic economic analysis to the closed economy case. At this point we can start building in some acts of the external sector into our conceptual model system.

The Malaysian economy is a pronouncedly open one. The external sector plays a significant role in the financial system as well. For instance, in Semudram's model, the money supply function bears the external sector variables - changes in trade balance and net foreign reserve of the Central Bank. These variables are treated exogenously. Besides, the GDP on the agricultural sector is significantly explained by changes in the external sector. In an

exploratory model developed by Alias, the capacity utilisation function in the agricultural sector is a function of foreign demand and domestic demand for the product of the agriculture sector.

In the Islamic economic model in economy wide perspective, the institution of "Mudarabah" i.e. foreign trade financing is a central variety of the "Mudarabah" type functions. Chapra explains the idea of "Murabaha" quite clearly:<sup>9</sup> "Murabaha" is a supply of goods by the seller to the buyer at a specified profit margin mutually agreed upon by the two. The terms of payment under this contract could be either immediately in cash or a deferred payment. In the context of the banking systems, the bank itself can be the go-between in the sale of the good and can also bear the deferment of payment by the buyer. The bank as a trading mediator can set a market determined mark-up at the time sale, or compute an accumulated market determined mark-up on the deferred payment of the sale.

In the case of Malaysian agriculture, an Islamic bank can exercise the "Murabaha" option to the small land holder and assist in increasing exports of agricultural goods, in both domestic as well as foreign markets. The Islamic bank would then levy a "mark-up" on these trading goods as a payment for its service in facilitating trade and marketing. In this way, the agricultural production and revenue are encouraged; and the terms of trade of the tradables are sustained at the desired level, agreed upon between the Islamic bank and the agricultural producer.

On the other hand, the same principles of "Murabaha" can be applied for the financing of agricultural inputs and equipments on a deferred payment basis. In this way, four modes of financing agricultural development in Malaysia can be made available to the small land owner;

(1) The "Murabaha" type financing being the principal one, would be based on a profit-sharing and equity-investment system between the Islamic bank and the small scale land owner;

(2) The "Murabaha" type financing will be based on a mark-up or deferred payments system of co-operative financing of tradables and input requirements of the agricultural sector;

(3) The "Zakat" expenditure would augment the productive skill development needs in the agricultural sector for the needy Bumiputeras;

(4) The Government system of soft loans and advances set up under the New Economic Policy will continue to supplement the needed resources

in the agricultural sector. In this last case, although the period of transitional adjustment to an economy-wide Islamic transformation may necessitate a temporary continuance of low pegged rate of interest, this must gradually be done away with as the "Mudarabah" – "Murabaha" system gains wide applicability.

In an open economy context, let us formalize the working of foreign trade financing through the Islamic Bank in the following way. The Islamic Bank acts as a mediator between the small land holder and the potential buyer of agricultural commodities, both in domestic and world markets.

- Let,  $P_1$  denotes the price at which the Islamic Bank buys the agricultural goods from the small land holder;
- $P_2$  denotes the price at which the Islamic Bank sells the goods with a "Mark-up";
- $m$  denotes the "Mark-up". The nature of the mark-up is such that,  
(a) it is not excessive, so as to make the commodities too expensive to the buyer and thus reduce the demand for them;  
(b) price  $p$  as at least a minimal attractive one to the small land holder in order to give him incentive in production.

$$\text{Clearly, } P_2 = (1 + m) P_1$$

On top of this, there is a "Mudarabah" contract between the small land holder and the Islamic bank, in which capital and resource of the two are pooled for production resulting in profit-sharing. This profit-making in menu of optimal efficiency-equity balance, implies that labour requirements in agricultural production must be optimized through the joint resources of the agents in "Mudarabah". We formalize it as follows:

Let,  $L_1$  denotes the resource contribution by the small land holder;

$L_2$  denotes the resource contribution by the Islamic bank.

$$\text{Then, } L = L_1 + L_2$$

Let,  $r_1$  denotes the wage rate for paid labour in the "Mudarabah" venture;

$r_2$  denotes the price of capital;

$x_1$  denotes quantity of paid labour in production;

$x_2$  denotes quantity of capital in production;

Then,  $L = r_1 x_1 + r_2 x_2$

Furthermore,  $x_1$  and  $x_2$  have their derived relations, given by;

$f_1(p_1, p_2)$  for total quantity of wage-labour in production;

$f_2(p_1, p_2)$  for total quantity of capital in production.

A further disaggregate of  $f$  and  $f$  is made with respect to the component derived demand functions of labour and capital owing to the resources outlayed and profit shares earned by the small scale landowner and the Islamic bank. Let these be represented by,

$f_1^{(1)}$ , denoting derived for labour on resources outlayed and profits (shares) earned by the small scale land-owner;

$f_1^{(2)}$ , denoting derived demand for capital on resources outlayed and profit (shares) earned by the small scale land owner;

$f_2^{(1)}$ , denoting derived demand for labour on resources outlayed and profits (shares) earned by the Islamic bank;

$f_2^{(2)}$ , denoting derived demand for capital resources outlayed and profits (shares) earned by the Islamic bank.

Under the objective of optimal efficiency-equity balance, both labour and capital inputs must be simultaneously increased (capital-widening) and improved (equally-capital-and labour-augmenting production menu). Now, objectives of profit maximization and output maximization being congruent to each other, and in our case also consistent with the goal of optimal equity-efficiency balance, the above formalization would mean, that maximization of  $f_1$  and  $f_2$  must yield simultaneous maxima for  $f_1^{(1)}$  and  $f_1^{(2)}$ ;  $f_2^{(1)}$  and  $f_2^{(2)}$ , respectively. One way this can work out, is for the Islamic bank to outlay infrastructure capital, equipments and inputs in the small scale land holdings, and for the small scale land owners to pay wages and provide land, for the "Mudarabah" enterprise.

It is also seen in the above formalisation, that the component derived demand functions for the factors of production are positively related to the commodity price levels,  $p_1$ , and  $P_2$ . Since  $p_1$  is set at a level above the

perfectly competitive price level in the short run, therefore  $p_2$  is above the market equilibrium price level as well.

In the short run, such price levels will set profit levels above the normal profit levels in the short run. At the same time, these short run price levels do not occur due to any monopolistic practises, for output is still being maximized in this "Mudarabah" – "Murabaha" system. Thus, in short run, the derived demands for factor inputs in this system are expected to be higher than in the case of the perfectly competitive system. The benefit of the margin of higher prices is thereby, gains in distributive equity. With this, therefore, no diminution in consumer welfare will come about, as the consumer utility function in the Islamic economy gets formulated interms of interdependent utilities of members of society. In the long run, the profit levels will finally adjust to the normal profit level, but by that time the economic adjustment pricess to the mutual benefit of the "Mudarabah" – "Murabaha" partners has already taken place.

**TABLE A**  
**BANK BUMIPUTERA MALAYSIA BERHAD:**  
**Profit and Loss Account (\$000 Million)**

Note	1980	1981	1982	1983	1984
Profit <sup>(a)</sup>	50,814	63,910	80,071	969,332	105,432
Profit after taxation	25,314	39,910	40,071	973,587	108,234
Extra ordinary item	—	—	—	—	588,807
Profit after taxation and extra ordinary item	25,314	36,910	40,071	973,587	480,573
Minority interest	—	—	—	—	—
Profit attributable to members of BBMB	25,314	36,910	40,071		
Balance brought forward	3,593	279	5,683	15,254	958,333
Retained profits	5,683,5,593	12254	958,333	477,760	
Carried forward <sup>(b)</sup>					

Source : Annual Report 80-84

- Note : (a) after providing for dimution in value of assets, contingencies and after allocation to inner reserves but before providing for taxation.  
(b) less transfer to reserve fund and proposed dividend.  
(c) loss or accumulated loss.

In the context of a basic needs approach to development, it is shown in Figure I, that with labour demand increasing from  $I_1$  to  $I_2$ , capital requirements also increase from  $K_1$  to  $K_2$ , and the optimal factor demands are now met at the point,  $Q_1$ . The point  $Q_1$  corresponds with the output point on the higher production possibility curve characterized by an equally labour and capital augmenting production technology (shown by the parallel shift of the production technology curve).

**TABLE B**  
**Bank Pertanian Malaysia**

Note	1980	1981	1982	1983
Balance <sup>(a)</sup>	939,778		7,460,233	9,033,777
Add	(2,538)			
Write-off penalty on loans	942,316			
Deduct	469,266			
Excess of Income over expenses	473,050	7,933,283		
Add: Excess of Income over expenses			2,362,606	6,406,601
Balance <sup>(b)</sup>			9,033,777	<sup>(c)</sup> 15,440,378
Balance <sup>(b)</sup>				

Source : BPM: Annual Reports

Note :

- (a) Balance at 1st Jan. each year.
- (b) Balance at 31st Dec. each year
- (c) Less: adjustment of interest on Giro Overdraft for the year 1979 until 1981.

TABLE C

**Development Bank Of Malaysia  
Consolidated Profit and Loss Account**

Note	1980	1981	1982	1983	1984
Gross Income <sup>(b)</sup>	9,715,020	17,102,571	27,143,145	64,934,853	109,917,468
Net Profit (i) before taxation	2,045,922	3,806,143	6,685,629	14,355,359	7,418,919
(ii) after taxation	1,375,922	3,291,386	6,685,629 <sup>(a)</sup>	5,718,685	1,147,627
Less: Minority share holders' interests	-	-	-	-	-
Net Profit attributable to the group	-	-	-	-	-
Add: Unappropriated profits brought forward	1,729,092	3,105,014	6,396,400		
Less: Share of profit short credited to minority share holder					
Unappropriated profit carried forward	3,105,014	6,396,400	13,082,029	6,985,944	4,819,953

Source : Annual Report - BPMB

Note : (a) deferred taxation

(b) for 1984, 1983, gross income = operating income

**TABLE D**  
**Islamic Bank Of Malaysia<sup>(a)</sup>**

Note	1984	1985
Profit/Loss	(1,286,821)	4,374,925
After Charging/Crediting		
Directors' fees	36,000	37,000
Directors' other	140,000	148,000
Emoluments		
Syariah Supervisory	35,000	35,200
Council Members' fees		
Depreciation	399,196	234,286
Amatisation of intangible	217,132	364,714
Assets		
Auditors' remuneration:		
Annual audit	30,000	30,700
Six month audit	—	23,000
Office rental	1,084,125	1,378,129
Lease rental	—	1,192,780
(Profit)/loss on disposal of fixed assets	547	(183,458)
Zakat	(483,547)	(414,816)
Taxation	—	(1,400,000)
Transfer to reserve fund	—	(641,000)
Accumulated loss brought forward	—	(1,770,368)
Retained profit/(accumulated losses)	(1,770,368)	148,741
Carried forward		

Source : Bank Islam Malaysia Berhad: Annual Report

Note : (a) for the year ended 30th June each Year



**File: GDP SAS A1 VM/SP REL. 3.1 EXPRESS PIT8401 + SLU303**  
**TABLE GDP BY SECTORS IN 1978 CONSTANT PRICES (\$ MILLION) –**

<b>PURPOSE</b>	<b>1980</b>	<b>1981</b>	<b>1982</b>	<b>1983</b>	<b>1984</b>	<b>1985</b>
Agriculture, Livestock, Forestry, and Fishing	10189	10684	11375	11302	11623	11867
Mining and Quarrying	4487	4289	4617	5337	6046	5944
Manufacturing	8932	9343	9694	10488	11703	12464
Construction	2066	2367	2598	2867	2988	157
Electricity	640	689	721	798	890	990
Gas and water						
Transport, Storage and Communication	2542	2847	2984	3138	3464	3800
Wholesale and Retail Trade, Hotels and Restaurants	5383	5694	6104	6583	7107	7668
Financing, Insurance, Real Estate, and Business Services	3687	3953	4231	4570	4892	5230
Gov. Services	4563	5649	6027	6328	6817	7331
Other Services	1021	1065	1141	1193	1249	1306
<b>GDP at Market Prices</b>	<b>44702</b>	<b>47790</b>	<b>50456</b>	<b>53636</b>	<b>57706</b>	<b>60729</b>

Source : Economic Report 1985/86

Note : 1. Estimate by Ministry of Finance

**File: EMPLOY SAS A1 VM/SP REL. 3.1 EXPRESS PUT8401 + SLU303**  
**TABLE : EMPLOYMENT BY SECTORS (THOUSAND) –**

<b>PURPOSE</b>	<b>1980</b>	<b>1981</b>	<b>1982</b>	<b>1983</b>	<b>1984</b>	<b>1985</b>
Agriculture, Forestry, and Fishing	1910.9	1933.8	1929.3	1924.7	1932.4	1938.2
Mining and Quarrying	80.1	75.8	69.3	65.8	66.8	66.5
Manufacturing	755.1	786.8	799.4	814.6	843.9	861.6
Finance, Insurance and Commerce	78.3	84.5	89.6	94.8	98.2	101.6
Transport, Storage and Communication	209.5	226.5	234.0	239.9	254.1	268.0
Gov. Services	658.2	722.6	765.1	785.8	803.2	819.5
Other Services	854.6	890.6	937.5	984.9	1034.3	1085.6
<b>Total</b>	<b>4816.9</b>	<b>5019.7</b>	<b>5142.5</b>	<b>5250.4</b>	<b>5382.0</b>	<b>5503.7</b>

Source : Economic Report 1985/86 Ministry of Finance

Note : 1. Estimate by Economic Planning Unit

2. Distributive Trades Such as Hotels, Cinema, Shipping Services etc.

**File: LOANS SAS A1 VM/SP REL. 3.1 EXPRESS PUT8401 + SLU303**  
**TABLE : COMMERCIAL BANKS: CLASSIFICATION OF LOANS AND ADVANCES (\$ MILLION) –**

<b>PURPOSE</b>	<b>1980</b>	<b>1981</b>	<b>1982</b>	<b>1983</b>	<b>1984</b>	<b>1985</b>
Agriculture	1648.4	1910.2	2134.4	2389.5	2664.0	2936.3
Mining and Quarrying	210.0	276.5	494.5	626.3	486.2	492.4
Manufacturing	4693.8	5947.1	6190.0	7298.8	7895.4	8583.9
Electricity	278.9	169.6	143.7	96.3	38.6	126.9
General Commerce	4644.2	5594.3	6137.9	7270.9	8167.6	8752.0
Building and Construction	1406.6	1643.2	1859.7	2493.5	3248.2	3697.0
Real Estate	1719.2	2755.2	3660.0	4666.6	6032.2	6992.4
Housing	2232.4	2811.4	3497.8	4157.7	5129.5	6306.1
Transport, Storage and Communication	400.1	623.7	715.2	750.1	771.6	773.2
Financing, Insurance, and Business Services	1297.3	2198.1	2739.9	4074.9	5217.1	5809.2
Miscellaneous	2508.7	1592.1	2092.5	2857.2	3853.9	4512.3
<b>Total Loan and Advances</b>	<b>21031.1</b>	<b>25521.4</b>	<b>29665.6</b>	<b>36781.8</b>	<b>43504.3</b>	<b>48981.7</b>

Source : BNM – QEB

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