Reviving The Malaysian Economy In The Aftermath Of The Financial Market Crisis: A Theoretical Perspective

By

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Abstract

Malaysia has been one of the countries hard-hit by the region's financial crisis that began in July 1997. The immediate policy response of the Malaysian government was the pursuit of expenditure-reduction policies. However, the policy response exerted a severe deflationary pressure on the economy leading to its abandonment in September 1998 and a switch to reflationary policies. Interest rates were trimmed and some pump-priming was exercized by the government. This paper seeks to assess the long-term implications of the policy reversal in theoretical terms. For the purpose, a two-sector (namely tradable and nontradable sectors) model of a small open economy with a fixed exchange rate and no international capital mobility is formulated. Subject to assumptions made about the relevant parameters of the model, it seems that cutting interest rates and increasing fiscal spending may have favorable long-term implications for the country's output and external current account position. While weaknesses may exist in the analysis, its results however could at least caution us against indiscriminate high interest rate and low government spending fanaticism.

I.Overview

The July 2 de facto devaluation of the Thai Baht sent tremors to other financial markets in the region with dire economic consequences. The economies more adversely affected are Indonesia, Malaysia and the Philippines. The Indonesian rupiah, the Malaysian ringgit and the Philippines peso plunged dramatically against the greenback alongside the collapse of their stock markets. The financial market crisis faced by these countries is probably attributable to their premature liberalization of capital flows. Prior to the crisis, there were massive capital flows to these countries. This led to unwarranted appreciation of their currencies which in turn caused them to have higher imports relative to exports. Singapore with its massive international reserves, zero debt position and cash-rich state corporations has however not been spared from the crisis either. Its massive investment in the ASEAN region implies that the value of this investment and its prospective returns in terms of Singapore dollar has eroded in tandem with the other battered regional currencies. As much as 70% of Singapore's export trade is with the region and thus the depreciation of regional currencies would yield a negative impact on its export earnings. The heavy

credit exposure of Singaporean financial institutions to the troubled Indonesian economy also undermined their soundness.

The Malaysian government has initially responded to the crisis in the spirit of the International Monetary Fund (IMF) by undertaking fiscal expenditure retrenchments, raising interest rates and curbing private sector spending which in general are expenditure reduction policies. In theory, the objective of an expenditure-reduction policy is to reduce expenditures on consumption goods and on investment goods to overcome an external trade deficit while leaving GDP unchanged (Helmers,1988). Unfortunately, domestic expenditure-reduction policies have many undesirable side effects. They contribute to excess capacity and unemployment. Industries catering to the export market may be unable to absorb the freed resources immediately because adjustments involve time. Moreover, wage and price stickiness may thwart the expansion of export industries as this may imply no enhanced profitability. Mexico had to abandon its expenditure-reduction policies it adopted in response to a debt crisis in 1982. The Baker plan sponsored by the U.S. was instead put in place (Fishlow, 1988). The plan stresses growth through more capital lending from external official and private sources.

Hence, although some improvement may be witnessed in the balance of payments owing to reduced imports, recession may be a by-product to be reckoned with. Indeed, the deflationary pressure that entailed proved intolerable to Malaysia and this culminated in the institution of a national economic recovery plan (NERP) that amongst others marked the reversal of earlier policies. This is reminiscent of the Mexican experience in the first half of 1980s. Both monetary and fiscal policies turned expansionary and to ward off any seemingly unwarranted attack on the Malaysian ringgit and the stock market, selective exchange controls were imposed with the ringgit pegged to the U.S.$ at RM3.80. Capital controls could provide an effective buffer against disruptive speculative capital flows (Collins, 1988). The authorities justified these measures as providing them with the breathing space to prop up the economy. The imposition of exchange controls has understandably been viewed negatively as while it could slow down the drainage of foreign exchange reserves, it could also incur high welfare and efficiency costs for the country. There could be a proliferation of strong lobbies in competing for rents generated by the

protective measures (Krueger, 1974). Moreover, the move to fix the nominal exchange rate must be accompanied by restrictive macroeconomic policies in order for it to produce the desired effects on output and external competitiveness. The pursuit of restrictive macroeconomic policies is necessary to contain price and wage increases (Fischer, 1988).

The purpose of this paper is to consider theoretically the effect of maintaining a low interest rate environment and a high government expenditure on the real exchange rate, output and current account against the backdrop of capital controls and ringgit pegging by examining the comparative statics of a model formulated. The rest of the paper is configured as follows. Section II presents the model while its comparative static properties are discussed in Section III. Concluding remarks are made in the final section.

II. The Model

The model characterizes a small open economy with a fixed exchange rate policy without international capital mobility. The pegging of the ringgit to the U.S.$ represents a virtual switch to a fixed exchange rate regime given that the U.S.$ is the major currency for trade settlement of Malaysia. About 70% of Malaysia's external trade are conducted in U.S. dollars. Moreover, the one-year moratarium imposed on the withdrawal of foreign capital from the country and its subsequent replacement by an exit tax on the capital may render the assumption of no capital mobility less implausible.

Following Edwards (1989) amongst others, the exportable and importable sectors are aggregated as a tradable sector and the country is assumed to produce and consume two goods namely, tradables and nontradables. Interest rates are exogenously determined as there is regular intervention by the central bank. An implicit assumption of the model is that there is no resource constraint on the part of the government. This may not be too unrealistic given the relative ease of the government in securing financing from Japan and other multilateral agencies such as the World Bank. Moreover, the government is in considerable control over domestic sources of funding such as the EPF and other financial institutions. This however may involve another assumption that such official capital flows from abroad and funding from

domestic sources are rare incidents and do not materially affect money supply and the real exchange rate.

The model consists of the following equations

$$M^d = L(i,e) \quad (1)$$

$$e = P_T / P_N = EP_T^* / P_N \quad (2)$$

$$Q_T = Q_T(e) \quad (3)$$

$$Q_N = Q_N(e) \quad (4)$$

$$C_T = C_T(e,i) + \lambda G \quad (5)$$

$$C_N = C_N(e,i) + (1-\lambda)G \quad (6)$$

$$CA = Q_T(e) - C_T(e,i) - \lambda G \quad (7)$$

$$\dot{R} = CA \quad (8)$$

$$\dot{M} = \dot{R} \quad (9)$$

Equation (1) is the demand for money equation. An inverse relationship exists between money demand and the nominal interest rate which is exogenously determined (L_i <0). There is some relationship between money demand and the real exchange rate (e). The latter influences the former via its impact on national output. By virtue of equation (2), it also captures the effect of domestic price level developments on the demand for money. Equation (2) states that the real exchange rate is the price of tradables (P_T) relative to the price of nontradables (P_N). Given that the price of tradables is exogenously determined since the nominal exchange rate (E) is fixed and the foreign price of tradables (P_T^*) is externally determined, a surge in the price of nontradables would imply a real exchange rate appreciation. This could increase the demand for money as the appreciation in this context represents an increase in the price level. It is assumed here that national output will fall in tandem with e and that this positive effect of e on money demand outweighs its negative effect on money demand based on an increase in the domestic price level. Hence $L_e > 0$.

The total supply of tradable goods is assumed to be driven solely by real exchange rate considerations (Equation 3). It varies directly with the real exchange rate given that a depreciation would render the price of tradables more attractive to producers. Hence Q_{Te}>0. Equation (4) refers to the total supply of nontradable goods which is also only dictated by real exchange rate movements. It would vary inversely with the real exchange rate as its depreciation would render the production of nontradable goods unattractive. Thus Q_{Ne} < 0.

Demands for tradables and nontradables goods are depicted by equations (5) and (6) respectively. Each of these demands has a private sector component and an exogenous government component. The private sector demand for tradable goods would vary inversely with the real exchange as its depreciation would discourage the consumption of tradables (C_{Te} < 0). On the other hand, the depreciation would boost the consumption of nontradables by the private sector (C_{Ne}>0). Both equations also suggest the influence of interest rates on the private sector demand for these goods. An increase in the nominal interest rate can reasonably be expected to discourage demands (C_{Ti}<0 and C_{Ni}<0). The government is also assumed to allocate its expenditure to tradables (λG) and nontradables ((1-λ)G) in fixed proportions.

The country's current account performance can be assumed as being determined by the wedge between the supply of tradables and the total demand for tradables by both the private sector and the government (Equation 7). In the absence of capital flows, the evolution of domestic money supply ($\dot{M}$) is dictated by the evolution of foreign reserves ($\dot{R}$) which in turn hinges solely on the current account performance as portrayed by equations (8) and (9).

III. Comparative Statics

The real exchange rate must move to equilibriate the money market and the tradable and the non tradable sectors. Table I presents the comparative statics of changes in the nominal interest rate and the government expenditure on the real exchange rate, current account in particular money supply and output. Nominal interest rate and government expenditure changes can be perceived as monetary and fiscal policy

maneuvers respectively. The implied direction of changes in each of the impact variables rests crucially on whether the summation of the real exchange rate sensitivities of demand for and supply of tradables exceeds that of the real exchange rate sensitivities of demand for and supply of nontradables, i.e. whether the Jacobian determinant of the model is negative. The long term monetary and fiscal policy implications would partly depend on these parameters. In the succeeding analysis, it is assumed that the determinant is indeed negative i.e. $C_{Ne} - Q_{Ne} + C_{Te} - Q_{Te} < 0$. In this respect, an increase in the interest rate would precipitate an appreciation of the real exchange rate. The extent of the appreciation could be larger the greater is the responsiveness of the demand for nontradables and tradables to interest rate movements.

Current account movements are synonymous with money supply movements in this model. The model suggests that a deterioration in the current account can be expected as a consequence of an upward revision in the interest rate. This is particularly plausible if the real exchange rate sensitivity of money demand is positive as assumed. The deterioration of the current account would be more severe the greater are the interest rate responsiveness of money demand and the interest rate responsiveness of demands for tradables and nontradables.

An increase in the interest rate may influence the output mix of the economy in favor of nontradables against tradables. The decline in the output of tradables would be more significant the greater are the real exchange rate responsiveness of supply of tradables and the interest rate sensitivities of private sector demands for nontradables and tradables. Assuming that the real exchange rate responsiveness of supply of tradables exceeds that of the supply of nontradables in absolute terms i.e. $|Q_{Te}| > |Q_{Ne}|$, an aggregate output contraction may be expected.

The model suggests that subsequent to an increase in government expenditure, real exchange rates could depreciate with the extent of depreciation being an inverse function of the magnitude of the Jacobian determinant. The increase could result in a better showing of the current account with the degree of improvement varying directly with the real exchange rate responsiveness of money demand. Aggregate output could

expand by virtue of our initial assumption that $|Q_{Te}| > |Q_{Ne}|$. Hence, the output mix would switch in favor of the tradable goods sector.

Table II provides a summary of the direction of impact on the macroeconomic variables of interest. A number of interesting policy implications can be drawn. A tight monetary policy executed via raising of interest rates and a surplus fiscal policy exercized through scaling down of government expenditure could each in isolation lead to a real exchange rate appreciation. If output growth is an objective of the government, it can be accomplished either by a lowering of interest rates or an increase in government expenditure. A reduction in the interest rate or an increase in government expenditure would also favor the growth of the tradable goods sector. Moreover, either one could lead to an improvement in the current account. In the light of these, if economic recession and poor current account performance are problems to be contended with, interest rate reductions and increasing government expenditures may not really be inappropriate actions to take.

IV. Concluding Remarks

The objective of this paper has been to consider theoretically the long term implications of reducing interest rates and increasing fiscal spending for the real exchange rate, current account and aggregate output. Given that the challenge faced by Malaysia now is to resuscitate its economy to ward off the threat of deflation, the model formulated indicates that the policies pursued by Malaysia on its monetary and fiscal policy fronts may not be totally unwise in terms of their future implications for the economy. The aspirations to maintain output growth and improved current account performance may be met by currently pursued policies. However, the validity of this inference rests crucially on the assumptions that the real exchange rate responsiveness of tradables exceeds that of the supply of nontradables, the real exchange rate sensitivity of money demand is positive and that the demand for and supply of tradables collectively are more responsive to real exchange rate movements than the demand for and supply of nontradables taken together. While these findings may be questioned, nevertheless they could at least warn us against the danger of being dogmatic about the righteousness of maintaining high interest rates and reducing government expenditures.

TABLE I
Comparative Statics

$$\partial e / \partial i = -(C_{Ni} + C_{Ti}) / (C_{Ne} - Q_{Ne} + C_{Te} - Q_{Te})$$
$$\partial M / \partial i = -L_e (C_{Ni} + C_{Ti}) / (C_{Ne} - Q_{Ne} + C_{Te} - Q_{Te}) + L_i$$
$$\partial Q_T / \partial i = -Q_{Te} (C_{Ni} + C_{Ti}) / (C_{Ne} - Q_{Ne} + C_{Te} - Q_{Te})$$
$$\partial Q_N / \partial i = -Q_{Ne} (C_{Ni} + C_{Ti}) / (C_{Ne} - Q_{Ne} + C_{Te} - Q_{Te})$$
$$\partial e / \partial G = -1 / (C_{Ne} - Q_{Ne} + C_{Te} - Q_{Te})$$
$$\partial M / \partial G = -L_e / (C_{Ne} - Q_{Ne} + C_{Te} - Q_{Te})$$
$$\partial Q_T / \partial G = -Q_{Te} / (C_{Ne} - Q_{Ne} + C_{Te} - Q_{Te})$$
$$\partial Q_N / \partial G = -Q_{Ne} / (C_{Ne} - Q_{Ne} + C_{Te} - Q_{Te})$$

TABLE II
Direction of Influence

Impulse	**I**	**G**
Target		
e	**-**	**+**
CA	**-**	**+**
Q_T	**-**	**+**
Q_N	**+**	**-**
Q	**-**	**+**

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