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P.J. Obaseki

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OPTIMAL FINANCIAL AND FOREIGN EXCHANGE LIBERALIZATION OF LESS DEVELOPED ECONOMIES: BASANT K. KAPUR IN QUARTERLY JOURNAL OF ECONOMICS, VOL. XCVIII, FEBRUARY, 1983.

SUMMARY

The paper focussed on a highly-inflationary less-developed economy that is in dire need of an optimal mix of domestic financial instruments and appropriate levels of external sector variables to achieve balanced growth. Essentially, the analysis in the paper dwelt extensively on optimal combination of policy instruments to achieve both internal and external balance while ensuring non-inflationary growth in the context of financial and foreign exchange liberalisation.

The paper is divided into three main sections. After a brief introduction of the subject matter, the model was specified in the first section of the paper. The second section treated the optimal control problem while the third section identified various strategies for achieving the optimal solution.

Movement in monetary aggregates was identified as being determined by three policy variables viz the rate of monetary expansion, the rate of interest on bank deposits and the rate of depreciation of the real exchange rate. The optimal mix of policy instruments would require that inflation is brought down to the equilibrium rate without impeding the growth objective. Specifically, this would be achieved by maintaining high but declining levels of monetary expansion and the rate of interest on bank deposits while moderating the exchange rate to forestall disequilibrating capital flows.

In the introduction, the author stated that the liberalisation of a less-developed economy involves a complicated and dynamic interaction between several domestic financial and external sector variables. This was an improvement on Kapur (1976, 1982) who identified that in a closed economy, the manipulation of the domestic financial system is an avenue for achieving the target equilibrium position and Matheieson who introduced foreign exchange consideration into his dynamic model but assumed away short-term speculative flows during the liberalisation process. Although the author's work was an improvement on Mckinnon, he however agreed with Mckinnon who advanced the notion that the absence of adequate exchange rate flexibility during the transition process of economic liberalisation would undermine domestic monetary control and jeopardise the stabilisation programme. This is because of the different perception of the real deposit rate by domestic and foreign investors. While domestic investors relate the real deposit rate to the rate of price inflation, foreigners relate it to the rate of depreciation of the exchange rate. Policies which are geared towards domestic monetary stability may in fact provoke instability when the exchange rate is not adequate to stem speculative capital inflows. Thus, the author alluded to Mckinnon's prescription that to achieve external balance and eliminate short-term capital inflow, the exchange rate should depreciate in a predictable way after an initial surprise devaluation. However, he did not agree with Mckinnon that in real life short-term capital flows can be eliminated.

The model for the study which is based on two sets of reinforcing relationships, drew largely from the traditional

quantity theory of money. In explaining the re-inforcing relationship, the assertion was made that the evolution of actual velocity of circulation of money depends on the rates of inflation, real output growth and monetary expansion. In the same vein, the rate of output growth was assumed to impinge on the evolution of actual velocity and ultimately on the rate of inflation. It was thus concluded that the rate of growth of nominal bank lending, the rate of growth of input prices and the reaction of the banking system to monetary stimulus jointly determine the growth in output.

The author went further to identify the components of the model as the structure of production, the Monetary sector and the balance of payments. The structure of production was described using both the Harrod-Domar and Cobb Douglas production functions. Output is a function of fixed capital which is made up of a technologically fixed component and variable working capital which is made up of both foreign and domestic components. The money supply equation adopted from Cagan function is hinged on the premise that as a fall out from prolonged inflation, traders would raise their prices from time to time as a matter of routine but subject to the levels of excess demand for goods or excess supply of money. From the author's perspective, the ultimate determinant of the size of increase in the price level or rate of inflation is the level of disequilibrium in the domestic goods and money market. The balance of payments equation was formulated on the basis of foreign exchange reserves and net export receipts. Foreign exchange reserves holding was identified as being a function of the net of total value of exports and the value of working capital imports. Imports were restricted to working capital since aggregate imports were assumed to move in sympathy with changes in the demand for foreign intermediate inputs.

It was assumed that before the commencement of the stabilisation programme, the balance of payments was in deficit and the economy was highly inflationary. The stance of policy was to influence certain variables regarded as the control variables to turn around the balance of payments and reduce the rate of inflation. The optimal levels of the rate of interest on bank deposits, the rate of monetary expansion and the rate of depreciation of the real exchange rate consistent with the achievement of the above-stated objectives formed the basis of the next section of the paper. The necessary conditions for a steady-state equilibrium were stated as the non-negativity of the economy's basic balance, which should be identical to the trade balance since long-term capital flows are ruled out in the model. The assumptions that policy-makers would prefer high growth rates of real output and a quick convergence of the inflation rate to its final level given that the goals are not conflicting, also, featured in the construction of the model. However, the realisation of the objective function is dependent on an appropriate mix of the control variables. For instance, the nominal interest rate cannot fall below zero if large scale outflow of capital is to be averted. Also, if investors are to continue to borrow to finance working capital, the nominal loan rate which should be higher than the

rate on bank deposits should not exceed the nominal rate of profit. The rate of expansion of nominal bank lending is the major constraint on the rate of monetary expansion. The increase in real bank loans should not exceed a given fixed proportion of the real value of outstanding bank loans in view of the instantaneous absorption of bank loans by borrowing firms. To ensure that loans are productive, the real output growth should be positive throughout the liberalisation process. The rate of depreciation of the real exchange rate should be non-negative given that the real exchange rate was initially overvalued. The real exchange rate should not fall below zero and it should not exceed the difference between the rate of interest on bank deposits and the real value of short-term foreign interest rates so as to prevent short-term capital outflow. An additional issue raised was that since monetary expansion is a function of domestic fiduciary issue and foreign reserves, high values of domestic deposit rate would provoke huge inflows of capital and undermine monetary stability and control. In this case if the influence of huge capital inflows cannot be sterilised by reducing fiduciary currency issue, the real interest rate on bank deposits should be moderated.

An insight into the optimal solution may be achieved by identifying the individual role of various policy variables and examining the effect of their application either individually or cooperatively on the economy. When all things are equal and the economy is assumed to be in a steady state equilibrium, increase in demand for real money balances reduces the rate of inflation and the velocity of circulation of money. In addition a reduction in monetary expansion would induce an increase in velocity of circulation of money and subsequently reduce the rate of inflation from the induced excess demand for money balances.

The optimal solution requires an appropriate deflationary strategy since the economy is assumed to be highly inflationary. However, depending on the initial state of the economy, one of three alternative deflationary policies could be adopted.

(a) Strategy of High Deflation

The nominal rate of interest on deposits should be set at its upper bound while the rate of monetary expansion should initially be set at its lower bound to achieve a zero growth when initial values of inflation and velocity of circulation of money are excessively high vis-a-vis their target levels. At a later stage, the rate of monetary expansion has to be set at its upper bound in order to increase the rate of growth of real output and generate the required convergence to the target. The rate of depreciation of the exchange rate has to be set at a level where government deficits could be financed solely by fiduciary currency issue, thereby moderating the influence of capital inflow.

(b) Strategy of Moderate Deflation

With this strategy, the rate of monetary expansion and the nominal rate of interest on deposits should be set at their upper bounds while the rate of depreciation of the exchange rate is fixed at the intermediate level. This strategy is employed when the initial conditions are not excessively distant from target. A high rate of interest on deposits would be too deflationary and would need to be accompanied by an increase in the rate of monetary expansion to moderate its

effect and permit an increase in the growth rate. The actual value of monetary expansion tends to decline with increases in the inflation rate except when the depreciation of the real exchange rate increases. This strategy endorses the possibility of accommodating high values of inflation and monetary expansion in the initial stages of stabilisation programme especially for the less-developed countries.

(c) Strategy of Low Deflation

This is applicable if initial values of velocity of circulation of money and the rate of inflation are fairly close to the target. In this case, the rate of monetary expansion and the nominal rate of interest on money balances should be set at their upper bounds. The rate of depreciation of the exchange rate should also be set at the upper bound. This policy mix would either produce a convergence to the target or cause the economy to over-shoot the target value of inflation. In this regard, it is necessary to inflate the economy to achieve the expected rate of inflation, by reducing the rate of depreciation of the real exchange rate to zero and the rate of interest on bank deposits to the level which ensures that high-powered money expansion from reserve increases and government deficit financing results in the achievement of the required value of monetary expansion.

Assessment

The paper made a consistent attempt to identify policy variables and their optimal mix to achieve both internal and external balance in an inflationary setting more applicable to the less-developed economies. The assertions that less-developed countries may have to accommodate high values of inflation and monetary expansion in the initial stages of the stabilisation programme and that liberalisation programmes in these countries often perform dismally because of inappropriate mix of policies affecting the rate of monetary expansion, the rate of interest on bank deposits and the rate of depreciation of the real exchange rate appear to be the most profound conclusion of the author. However, the paper raised some issues which are subject to debate. The prescription of the author that after the initial surprise depreciation of the exchange rate subsequent depreciations should be programmed and as such predictable so as to eliminate short-term capital inflow and generate external balance may in fact encourage short-term capital outflow and destabilise the balance of payments. This is because programmed depreciations would give room for speculators to move out funds when they perceive that the return on such funds would be higher elsewhere based on arbitrage calculations, international interest rate differentials and the balance between the two. Although assumptions are usually abstractions meant to achieve a given set of objectives and arrive at a unique solution, some of the assumptions made by the author do not appear to be proper. For instance, the assertion that working capital is made up of both foreign and domestic components and that there is abundant supply of the domestic component makes substitution between the two unnecessary. The author indicated that substitution between the two is allowed but did not indicate whether the quality of both is the same. If they are not the same, then it may be difficult to substitute one for the other. When the author went further to suggest that if the foreign price of working capital is unity, the domestic price will be

equal to the nominal exchange rate, he assumed away tariffs and excise taxes. The assumption that exports from developing economies are constrained by supply rather than demand factors is not true. The growth of the export sector of these economies is dependent on both supply and demand factors. The demand factors appear to be more serious. The demand for the primary products of these economies has been on the decline. The prices of the products have also been declining and unstable. Discriminatory tariff restrictions on the products of the developing economies also affect their fortune in the international market. All the assumptions of a steady state equilibrium necessary for the attainment of the optimal solution may not hold except one. The assumption that the basic balance should be non-negative and that it should be identical with the trade balance on the assumption that long-term capital flows are ruled out may not hold as it may be impossible to eliminate capital flows whether long or short in an economy that is undergoing liberalisation. Also, the assumption of a quick convergence of the inflation rate to the final level may not be realistic. This is because predicted values of inflation level may be based on other variables like money supply, interest rate, the rate of depreciation, the level of government deficit, the rate of growth in output, the values of which may deviate from their predicted levels. The final value of inflation rate as predicted may not be exact as the other variables already mentioned may determine the actual level of the inflation rate.

Another contentious issue was the assertion that the rate of depreciation of the exchange rate should be non-negative during the liberalisation process since the real exchange rate was assumed to be overvalued initially. The fact that the real exchange rate was overvalued does not mean that the exchange rate should be depreciated continuously. Movement in other economic variables would suggest desired direction of movement of the real exchange rate. For instance, if the rate of growth of the economy, capital inflow, reserves and the real rate of interest increase and money supply declines correspondingly, the tendency is for the exchange rate to appreciate.

The desire to reduce short-term capital flows and the treatment of long-term capital inflows as destabilising may not be relevant for developing countries undertaking adjustment programmes. For most of these countries, large inflows of capital are required to successfully execute stabilisation and liberalisation programmes as domestic and earned foreign exchange resources may be inadequate. The cautious attitude towards capital inflow led the author to rely more on domestic monetary management as a more potent instrument of economic stabilisation. According to the author, when the monetary authorities cannot sterilise the effect of reserves accretion and other capital inflow, the issuing of fiduciary currency is either reduced or the real interest rate is reduced. The implied reduction in the rate of capital inflow is not conducive for the development of the economies of less-developed countries and it may not guarantee a healthy balance of payments position. It would be more appropriate to reduce the domestic component of high-powered money and retain the level of interest rate. A reduction in interest rate may even lead to an increase in money supply instead of reducing the inflow of capital. The high interest rate policy canvassed by the author to ensure a successful stabilisation

programme does not accord with the reduction in interest rate needed to offset an increase in the inflow of capital.

Under the strategy of high deflation for an inflationary economy, the setting of the rate of depreciation of the real exchange rate at a level enough to reduce fiduciary issue to the level of the budget deficit so as to reduce excessive monetary expansion from reserves and capital inflow may not be desirable for a developing economy. The strategy of high deflation, while reducing the rate of price inflation, may seriously constrain economic growth and reduce the overall effect of the adjustment and stabilisation policies.

The prescription by the author that the rate of inflation should be raised when the achieved rate is below the desired or predicted rate under the strategy of low deflation would be a bit uncomfortable for most developing countries where inflation is a major macro-economic problem notwithstanding the level of economic growth.

P. J. OBASEKI
External Sector Indicators Office,
External Sector Division.