MONETARY ASPECTS OF ECONOMIC GROWTH*
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One of the paradoxical features of the economics of development is that despite the immense proliferation of literature on the subject, the monetary and financial aspects of the growth process and the role of money in development and planning are among its most neglected branches. Apart from the contributions of Gurley and Shaw1, it is difficult to think of any recent systematic treatment of these aspects. Curiously, after the classic elaboration by Schumpeter of the theme that credit creation is the monetary counterpart of innovation, there has been no follow up. It is not surprising therefore that economic practitioners should likewise, following their theoretical brethren, relegate money and monetary policy to the second ‘order of smalls’, a good example of which is the treatment of money and finance in the numerous Economic Survey Mission Reports of the World Bank or in the blue prints of planned development in emergent States.

The neglect of the monetary and financial aspects of development is attributable to a variety of influences. First, it is due to the planner’s assumption that money is not a limiting factor in economic development, a standpoint rendered plausible by the tendency of

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* This is the text of one of the two lectures delivered by the author in the Department of Economics, Sardar Vallabhbhai Vidyapeeth during the year 1963-64.

economic theory to regard money as a passive variable since it does not absorb real resources, is infinitely elastic in supply and can be always adopted to the requirements of the real variables of the economic system. It is a by-product of the ‘physicalist’ or ‘scientist’ approach to economic planning which would virtually abolish the distinction between the ‘economic’ and the ‘technical’ and interpret economic quantities as physical balances. This approach is understandable, even if not wholly justifiable, in a centrally planned economy where savings and investment are centralised in one authority. Consequently the role of money in a collectivist society is reduced basically to that of a ‘numeraire’ i.e. unit of account and a medium of exchange; the demand for money takes the form exclusively of ‘transactions balances’ since there is no need for cash balances to satisfy the precautionary and speculative motives which do not operate in an economy where individual units (firms and households) cease to be autonomous decision-makers. Thus the Keynesian liquidity function in a centrally planned economy would shed the precautionary-motive part of $M_1$ (transactions-and precautionary motives) and the whole of $M_2$ (the speculative-motive). It would be more realistic to disaggregate the Keynesian $M_1$ so that the transactions-motive is differentiated from the precautionary motive which is more akin to $M_2$ (the speculative motive). This would mean that $M_1 =$ transactions and $M_2 =$ precautionary and speculative motive. Then $M_2$ would be the component of cash to meet risk and uncertainty for the holder, i.e. the genuine ‘monetary’ cash balance. In proportion as the magnitude of $M_2$, as we have redefined it, becomes smaller or is equal to zero, as in a centrally planned economy, the more nearly does money become a passive variable and hence of no relevance to economic planning. A fully planned economy therefore represents a very good approximation to Say’s Law. The real fallacy of Say’s Law after all lay not in the assertion of the savings-investment identity as in the denial of the influence of money on economic behaviour. A collectivist economy analytically has a great similarity to a ‘barter’ economy defined as one where money balances (i.e. non-numeraire balances) are zero and which, therefore, implies the absence of a real-balance effect^{2a}. But this is far from being the case in a

partially planned economy as any mixed economy is, where the
demand for money is determined by its use not only as a medium
of exchange but as a store of value for precautionary and speculative
purposes. This gives rise to a monetary problem, i. e. liquidity
preference for reasons other than mediation of transactions. In fact
one of the important dividing lines between a centrally planned and
an individualist or a mixed economy is the absence of liquidity
preference proper (the Keynesian $M_1$) in the former and hence of
a monetary problem in the strict sense. This accounts for the fact
that monetary policy is supplanted by fiscal policy in collectivist
economies as an instrument for regulation of disposable incomes in
relation to the current flow of goods and services. This is well
exemplified by the use of the Turnover Tax in Soviet Russia and
East European countries. It is, therefore, not surprising if economists
now associated with planning in collectivist economies should
propagate the view even in the Indian context that "the problem of
avoiding inflationary pressures in economic development is not
'monetary'. It is solved by assuring, by a variety of methods, a
correct structure of national expenditure." 2b. But in any mixed economy
like India where there are autonomous spending and saving units,
the liquidity-preference of the private sector does affect the saving-
investment process and variations in it are an important datum for
policy, which has to seek to regulate it appropriately.

Secondly, there are some analytical grounds advanced for the
neglect of money as an operative influence in growth models.
Thus it has been argued that, "apart from the notorious intricacy of
theory about it, the chief obstacle to insinuating money into secular
growth models is that to do so one must make a dynamic assumption
about the way it develops as an institution". A different justification
may be that, as Pigou once observed, the role of money is important
only in the short run. But then even short period models of growth
abstract from monetary factors whether for heuristic or other reasons.
There is no reason why if the entire growth process can be subjected

2b. M. Kalecki: "Financial problems of the Third Plan," the Economic Weekly,
July 9, 1960, p. 1122.
to a schematic treatment, e.g. the Rostowian model, the same
procedures cannot be adopted to accommodate money and finance.
Even if money is regarded as a short period influence it cannot be
disregarded as a causal factor in so far as the long run is a summation
of a series of short runs. The ultimate equilibrium may well be
determined by the ‘path’ which in its turn is also conditioned by
money, among other factors.

Thirdly, and perhaps more plausibly, the real reasons for the
neglect of money in the growth process may be attributable to the
lack of uniformity or stability, both in monetary relationships like
velocity of circulation as well as in that of money to other variables.
There is thus no direct invariant relationship between money supply
and the amount of money spent on goods and services during a given
period of time. Nor is there any systematic relationship in the ratio of
money supply to gross national product4 or national wealth5. But it could
equally well be maintained that the very absence of stability or
uniformity in the statistical relationship of money to other variables
creates the case for a purposive and vigilant monetary policy.

But the fact that the ultimate determinants of economic develop-
ment are ‘real’ does not, however, prove that monetary factors cease
to be important or relevant for the growth process. Although money
is not a constraint on development in the same sense as food, foreign
exchange, technical skill and know-how, this is more valid in the

4. "...the ratio of the money supply (currency plus deposits money) to the
gross national product varied in the latest available year (1957 or 1956)
from 54% in Switzerland, 46% in Belgium, 38% in Brazil and 36% in France
to 30% in the U.S.A., 27.5% in the U.K., 18% in Germany and 13%
Mexico. In the period since 1951 this ratio fell in some countries, and rose
in others, but there was no systematic connection between these movements
and the rate of increase in the money value of the GNP or that and the initial
magnitude of this ratio”. N. Kaldor, Memorandum to Ralcliffe Committee,
Vol. 3, p. 146.

The average ratio of money supply with the public to net national income
in India during the period 1949-62 has been 19.5 per cent. See A. G.
Chandavarkar “Liquidity in the Indian Economy 1949-62,” Reserve Bank of

5. See J. G. Gurley and E. S. Shaw “The Growth of Debt and Money in the
aggregative sense for the economy as a whole than for sectors within the economy. Analytically there is a three-fold relationship of money to growth; namely (a) money as a necessary and sufficient condition, (b) as a necessary but not sufficient condition, and (c) money as a completely passive variable. The first and the last are more in the nature of 'limiting' cases; the second is perhaps the most realistic formulation and yet it has been less influential than the last one. Somehow the view that money is a more 'numeraire' persists even if it is not always clearly articulated. The adequacy of the total quantity of money for overall growth does not necessarily ensure its availability to particular sectors.

The role of monetary and financial policy in a developing economy is broadly: (a) to provide for the optimum supply of money in consonance with the requirements of economic growth, (b) to ensure that finance is available at reasonable cost to essential and strategic sectors in the economy and (c) to create and maintain an adequate institutional framework to fulfil these objectives. A developing economy means rising output over time and this in turn necessitates expansion in money supply, firstly, because as national income increases the demand for money (transactions balances) increases; secondly, the monetisation of the subsistence sector in the economy also requires additional money; and thirdly, as per capita real income rises, the demand for precautionary and speculative cash balances also tends to increase, although not necessarily in proportion.

The relative significance of these aspects of money and finance in the developmental process may now be examined in somewhat greater detail. To begin with, it would be pertinent to examine the bearing of the non-monetised sector (barter and subsistence) on the demand for money and on economic development generally. Its

6. Cf. J. Exter, in his Report on the Establishment of a Central Bank for Ceylon (Government Printer, Colombo, 1949) says “Perhaps no single factor can do more to influence the welfare and growth of a country than the flow of money” (p. 1) which is, of course, an overstatement.
precise size is always difficult to determine, but available estimates put it at a little over a third of the economy in India and between 60 to 82 per cent in Tropical Africa. But whatever the rate of monetisation, one would expect the non-monetised sector to shrivel under the impulse of planned economic development. Since monetisation is a finite process the conversion of non-monetary savings into monetary savings is in the nature of a once-for-all contribution which would not be available with the complete (maximum) monetisation of the economy. Its pace would also, among other things, be determined by the availability of incentive goods from the exchange to the subsistence sector. The extension of the money economy requires an addition to the stock of money, largely to meet the transactions demand of the new units of production since their other cash balances would be negligible. The addition to the total demand for money arising from monetisation would obviously be less than from the increase in the volume of transactions in the existing exchange economy, because the average productivity of the subsistence sector being generally low, the magnitude of its contribution to the rise in national income would also be comparatively small. But as long as the process lasts the growth of money supply has to allow for the ‘monetisation’ component of the demand for money.'

7 According to the National Sample Survey [Fourth Round; April-September 1952, No. 18, p. 13, 1959] the proportion of imputed values of consumption in kind to value of total consumption of households in India is placed at 36.8 per cent for rural and urban areas. The proportions for rural and urban areas separately are estimated at 44.3 per cent respectively. The estimates for Africa are derived from K. C. Abercrombie "Transition From Subsistence to Market Agriculture", Monthly Bulletin of Agricultural Statistics, F. A. O., February 1961.
Monetisation is often regarded as a process which must be accelerated to achieve a higher rate of economic growth. The consequent commercialisation of agriculture would, it is claimed, facilitate the working of the price and profit mechanism and thereby promote higher output and better allocation of resources. This has, however, to be suitably qualified to take into account the well-known limitations of the price mechanism in agriculture, notably the rigidity of inputs (agriculture in underdeveloped areas is more a way of life than a business) and the operation of 'cobweb' type of economic fluctuations. The Peasant's non-commercial morality may even be a safeguard against capital consumption in agriculture under a strict operation of the economic calculus and business ethos. Moreover, for many an underdeveloped economy the existence of a substantial non-monetised sector acts as a hedge against the ravages of inflation. Generally the subsistence sector acts as a sheltered hinterland to the exchange economy which explains the economic miracle of countries with acute inflation and monetary chaos managing to survive without any untoward effects. The supply of food from the subsistence sector is an insurance against erosion of the purchasing power of money. The non-monetised sector partly accounts for the 'low-level equilibrium

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8 "The structure of agricultural costs must become monetised because without a monetisation of the inputs it is difficult to expect the normal profit mechanism to work. Monetary input in a great many areas of Latin America does not reach 36 per cent of the total selling value. Labour is not, in the main, paid in money but in kind. Thus price does not regulate production because in the extreme case, that of share-cropping, the receipts of the landlord represents a surplus. Even the use of the pricing system to deflect people from one crop to another under these conditions is extraordinarily difficult. The traditional adherence to certain cropping patterns will be very much higher because there is only a positive incentive for changing production but no negative incentive through creation of losses. Positive incentives will work much less forcefully when there is no risk of losses. Unless there are marginal monetary inputs such as you have in industry, the price mechanism cannot function with flexibility." T. Balogh, *Some Aspects of Economic Growth of Under-Developed Areas* (National Council of Applied Economic Research, New Delhi, April 1961, pp. 30-31.

trap’ regarded as characteristic of underdeveloped economies\textsuperscript{10}. All this is only to emphasise that monetisation of an underdeveloped economy is not necessarily an unmixed blessing.

While the Monetary Authority of an under-developed economy need not concern itself with the desirability of monetisation per se it has to allow for its inevitability and therefore for accretion to the money supply on this account. But what is more relevant to the Authority is the distribution of this addition to the stock of money as between currency and bank deposits. The higher the proportion of deposits the greater is the scope for monetary policy in as much as accretions to the deposit component of money supply help to enlarge the credit base of the banking system which the central bank is in a position to regulate more effectively than if the increase were wholly or largely in the form of currency. However, since monetisation takes place on the fringes of the economy, it would express itself more through a rise in the currency component, although with the spread of institutional banking the proportion of bank deposits may rise subsequently.

It is evident that within the monetary sector itself as population and national income increase the demand for money for transactions will have to rise so as to support the higher level of economic activity. It is also important to appreciate the implications of a change in the composition of money, as distinct from a rise in its magnitude, under certain condition for economic development. For instance, to the extent that coins and currency backed by foreign assets (both absorb real resources) are replaced by a fiduciary currency and bank money a corresponding amount of real savings is available to the economy

\textsuperscript{10} C. P. Kindleberger (\textit{Economic Development} p. 189) cites the example of Iran in a non-inflationary context. “When oil royalty and tax payments by the Anglo-Iranian Oil Company to the Iranian Government ceased, the Western World waited breathless for the ensuing collapse. Nothing happened. The impact of the throughput of oil, foreign exchange and imported consumer goods had affected only a small layer of the economy. Their collapse, when payments were cut off, went virtually unnoticed as the modernised sector retured to the ways of its forebears and contemporaries in the subsistence economy.”
for investment but this accretion of savings is in the nature of a once-for-all addition. Although this is of course not of much significance in the Indian situation in view of the predominance of the fiduciary issue in the legal tender currency and the statutory provisions regarding the minimum foreign assets cover (gold and convertible currencies) for the currency, it is a material factor in economies where the currency is wholly or largely backed by foreign assets, e.g. under the Currency Board system in certain British colonies.

There would also be an increase in the demand for precautionary and speculative cash balances, alongside the transactions balances, consequent upon a growth in per capita incomes, and with the gradual financial sophistication a process of asset-differentiation, analogous to product-differentiation in the goods market, also sets in, leading to a growth of quasi-money and other financial assets. In a sense asset-differentiation is implicit in the growth process, because once the limits of self-finance are reached, the (net) investing units have to raise funds through sale of financial instruments (debt and equity) to the (net) saving units. But from the point of view of the efficacy of monetary and debt policy, what is relevant is not only the diversification of the financial asset structure but also the extent to which the ownership of these assets is diffused. Liquidity is as much a pattern as quantity and its ownership is a major datum of financial analysis, an aspect which is perhaps overlooked in the Gurley-Shaw analysis. The wider the dispersion of such assets the greater is the scope for monetary policy, since thereby the changes in capital values (interest rates) affect the portfolios of a larger section of the community than if the same volume of assets were to be held in more concentrated groups. The significance of the Pigou effect or the 'real balance' effect depends in a considerable measure on the distribution of cash balances among and between different income and economic groups.

Alongside the diversification of assets, appropriate financial institutions, also emerge or else have to be created as a matter of public policy. This dual process can be viewed from two angles.

11 The analysis of Gurley and Shaw.
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First, in so far as there is a multiplicity of financial assets and savings media it helps to increase net saving, although beyond a point this may merely divert savings from one form to another. Second, the development of adequate and efficient financial institutions including a widely ramified banking system is an integral part of investment in social overhead capital since the financial system is more akin to a public utility. The economic rationale of a public sector in the financial sphere in an under-developed economy can be argued on the basis of its external economies and its effectiveness as an instrument of mobilisation of savings.

Although ‘finance’ is not a constraint on overall growth, it can be a bottleneck to individual units and sectors, and it is therefore a major objective of financial monetary policy to ensure adequate capital and credit at reasonable cost for essential purposes, while regulating the overall supply of money to hold the price line. Since the size and flow of the agricultural surplus is a major determinant of economic development, and bank finance plays an important part in inventory fluctuations, the relevance of credit policy in this context is evident.

In conclusion, we may say that the role of money and finance and of an effective and purposive financial policy is a necessary but not a sufficient condition of growth in a developing economy. This is admittedly not a very positive statement but then it only reflects the general position of growth economics wherein it is easier to categorise the ‘necessary’ but not the sufficient conditions of growth. This means that perhaps the ultimate determinants of growth cannot be built into even the most ambitious theoretical models.
સહે છે. આ જગતી માટ-માટ કેળી આધ્યાત્મક અયોજનાઓએ અર્થક્ષેત્ર માટે થાય છે શરૂ કરી નેલા અર્થક્ષેત્રમાં નાખવાની માટે મેક દિશાપત્રો અમે કર ગામવામાં આવી છે. આ અર્થક્ષેત્રમાં કેટલી આ સેવાની ધારકતના જ્મીન કર હોયાં આમ કરતા નથી. માટ અમે સાહસના હોય માટ કર રહ્યા રાજક્રિયા તરીકે પણ છે. સામૂહિક આધારિત અર્થ-
ક્ષેત્ર સૃષ્ટિ શીખવાની હેઠળ રહેછે છે.

પરંતુ ભારત ને માટે અર્થક્ષેત્રમાં 'પાલ' કરવારનો અને જનાતનું કરવારનો સૌખ્ય લેવા છે અને તેમની ભાસી વિભાગી સાથે સ્થાનગ્રિત જાળવ અને સુરક્ષાકૃતિ રાજકોટમાં ભાગી કે અયો પહોંચવાડે છે.

માટની સહયોગ તેમ હુમલા સંઘયત વહેલ, અલ્ધું શરૂ કરી છે કે વિકાસ માટે રોજગાર વીજાવાના ક્રમાંક સુધી નાખવાની માટ આ વિભાગી શીખવાની હેઠળ રહેછે.

દીક્ષા, અમે અવાજગ શરૂ કરી કે માટના વિષયના વેક્સીને કેની દોસ્તીંની પ્રકરણમાં કેડકે અંગે અયોજના અયો ભરતર નથી. તેવી રીતે નાખવાની સુરક્ષાકૃતિ અને શિક્ષણ કારણ ઘણા માટ સરળ હોય નથી.

પરંતુ વિકાસની પ્રકૃતિમાં નાખવાં અંદાજે અયોજના ભાવવાનો છે. આયુક્ત વિકાસ રીતે નાખવા શીખવાની મોટાં સંચાળન અભિવેક્તા છે: (અ) નાખવા દર્શાવે અંદાજે આયુક્ત શરૂ કરી રીતે (બ) તે અંદાજે આપવા શરૂ કરી પરંતુ તે અયોજના આવસ્થા શરૂ રામી જે રીતે અને (ક) નાખવા માટે ખાસ રીતે શરૂ કરી રીતે.

વિકાસસામાં અર્થક્ષેત્રમાં રોજગાર તાલીમની અલ્ભ (અ) વિકાસની વિકાસની જરૂરિયતે અયોજના નાખવાની થી પ્રદર્શન પુછ પાડવાનું, (બ) અર્થક્ષેત્ર સહયોગ અયોજના નાખવાની હેઠળ માટ આયુક્ત શરૂ કરી રીતે (ક) પ્રદર્શન આયુક્ત વેકાલા શરૂ કરી રામી હોય છે.

વિકાસસામાં અર્થક્ષેત્રમાં વાતાભરા ગણી કલપ માટે, અયોજના અયોજના વિકાસની ભાવના માટ અને આપવા વચના આયુક્ત માટ અને અયોજના અયોજના માટ નાખવાની પરીક્ષણમાં અયોજના તરીકે હોય છે. અર્થક્ષેત્રમાં વૃદ્ધજીવન માટ રીતે દેખી પૃથવી કલપના સામર્થ્ય અયો શરૂ કરી રહે શરૂ કરી પરંતુ તેમાં ઇલાગણી અસરે વાપસ આવી. આયુક્ત વિકાસની વેકાલા અર્થક્ષેત્રમાં શીખવાની માટે વિકાસની અયોજના નાખવાની સામૂહિક આયુક્ત શરૂ કરી રહે છે.

સહયોગી વિકાસની વાતા રીતે નાખવાની અયોજના ચાલાવવાની સામૂહિક વિકાસની વાતા નાખવાની તરીકે હેઠળ રહેછે. તે વિકાસની વિકાસની અયોજના નાખવાની
અર્થાન્યાસ અને વૈજ્ઞાનિક વર્ણન પ્રાપ્ત થયા છે કે માત્ર નાલ્યુંય અર્થાન્યાસ રેવેલિશનની સ્થાનીય અંત્ર્જાતિ હેઠળ પ્રાચીન સમાજમાં હતી. અંતિમ લેખામાં રેમ નીમ પ્રતિધા અર્થાન્યાસ અર્થ કચા ખબર સેમ તેમ નાલ્યું ઘટનાઓની વધારે દશણ હતી.

નાલ્યુંય અર્થાન્યાસ અને વૈજ્ઞાનિક સાથે તેમની વયસ્તાજ્યું રેમ વ્યાપક હતા તે નાલ્યુંય નીતિની અર્થાન્યાસ વિવિધતાનું સરળ અંતર્થી કાલ્પનિક રેમ વયાપક કરતા આભૂષણી નાલ્યુંય નીતિ ( રેમ કે આભૂષણના તૈયારી વધારોની એસર સમાગમ વચ્ચે રેખા ઉપર પડશે).

નાલ્યુંય અર્થાન્યાસ અને વૈજ્ઞાનિક સાથે પૈસાને લંબી વિવિધતા સંદર્ભમાં ડલર પણું વિકાસ માટે પડે છે.

અસાધારણ આભૂષણ વિભાગની કેન્દ્રીય ંયુંય નાલ્યુંય "નાલ્યુંય" વચનવાદ માટે લંબી ઓઝર્ઢ સમાગમ અંતર્હિત વિવિધતા માટે લંબી વિભાગની જેવી ટ્રાંસફોર્મ કરીને આવતો છે. અંતર્થી હેઠળ નાલ્યુંય નીતિ વિકાસ માટે આવરું છે. અંતર્થી, હેઠળ નાલ્યુંય નીતિ વિકાસ માટે આભૂષણ અર્થાન્યાસ નથી.