

Macroeconomics in developing countries *

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Macroeconomics was developed in, and for, the industrialized countries. Theory and policy were both concerned with how monetary and fiscal policies should be used in those economies and what might be expected of such policies in terms of attaining full employment, controlling inflation or stabilizing economic activity. This corpus of knowledge, with its competing schools of thought, is sought to be used in developing countries and without any significant modification. It is by no means clear that such application is either justified or appropriate.

The object of this essay is to analyse the differences between the economies of industrialized countries and developing countries, which have important implications for macroeconomics in terms of theory and policy. Such differences shape not only the descriptive but also the analytical and the prescriptive dimensions of macroeconomics in developing countries. And, even if the foundations of macroeconomics are the same, a recognition of these differences is essential for an understanding of reality in the context of developing countries.

The structure of the essay is as follows. Section 1 suggests that it is the institutional setting, rather than the analytical structure of models, which explains the determinants of causation in macroeconomics. Section 2 explores the differences in the structural characteristics of developing economies as compared with industrialized economies. Section 3 considers the differences in macroeconomic ob-

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jectives and examines why the range and reach of macroeconomic policies is different in the two sets of countries. Section 4 shows that the relative importance of trade-offs in macroeconomics depends on the institutional context, and analyses why the process of macroeconomic adjustment in developing countries, conditioned by their structural characteristics, might turn out to be very different from that in industrialized countries. Section 5 argues that the distinction between short-run macroeconomic models and long-term growth models is not quite appropriate in the context of developing countries where macroeconomic constraints on growth straddle time horizons. Section 6 concludes.

1. Institutional setting

It is widely recognized that developing economies are significantly different from industrialized economies. Yet, the macroeconomic models used, in terms of analytical constructs, typically follow a similar classification: classical, Keynesian and monetarist. The consensus among economists, much like fashion, has changed over time. The Keynesian consensus vanished, largely because the focus shifted from unemployment to inflation,¹ but the shift was attributable, in small part, to the difficulties in reconciling the Keynesian worldview with behavioural hypotheses about households and firms in standard microeconomic analysis. The increasing focus on inflation and growth also shifted focus from aggregate demand to aggregate supply. This led to the emergence of supply-side economics, which argued for reducing public investment in the hope of stimulating private investment through incentives such as tax-cuts. Thereafter, for some time, the monetarist tradition became the ruling orthodoxy in macroeconomics. It stressed the importance of monetary aggregates and justified a natural rate of unemployment. But in most quarters there is now a consensus that monetarism too failed.

Neo-classical and neo-Keynesian models each had their day in the sun. The former constructed macroeconomic theories based on

¹ It is plausible to argue, but difficult to establish, that this shift in focus from unemployment to inflation mirrored a change in the balance between contesting political ideologies.

standard neo-classical assumptions of methodological individualism. Hence, neo-classical analysis emphasized the role of rational expectations, using representative agent models. As a result, it ignored the fundamental Keynesian distinction between households as savers and firms as investors. Neo-classical theorizing was premised on the idea that markets always cleared. Thereby it assumed away the problem of unemployment. What is more, it ignored the theory and evidence on market imperfections, asymmetric information and economic irrationalities. Neo-Keynesian analysis attempted to redefine microeconomics so as to make it consistent with macroeconomic observations. These models sought to focus on wage-price rigidities, but such theoretical explanations for rigidities were little better than the *ad hoc* models that they were intended to replace.

The implicit theorizing in all of these models has obvious shortcomings in explaining fluctuations in the level of economic activity in industrialized countries. But these are even less satisfactory as macroeconomics in the context of developing countries, where agriculture creates a dualism, where the financial sector is underdeveloped, where the informal sector is large, where markets are not perfect, where prices are often flexible and where unemployment, often disguised as underemployment, is widespread.²

The macroeconomic aggregates are, of course, the same. So are the macroeconomic identities. For an understanding of macroeconomic systems, however, the accounting relations of aggregates need to be combined with an economic analysis of causal determinants, to describe the behaviour of households, firms and governments. It is here that differences arise. The nature of relationships (between variables) and the direction of causation (what determines what) are both a function of the setting or the context.

The starting point for any macroeconomic analysis is the distinction between exogenous and endogenous variables or that between autonomous and induced changes. Such a distinction is essential in macroeconomic theorizing which seeks to analyse policy implications. It is important to recognize that this distinction is derived not from the analytical structure but from the institutional setting of models.

² In fact, such widespread underemployment, or even open unemployment, in developing countries is often sustained only by the social structure of the family.

The most important example, perhaps, is the Keynesian idea that investment is an independent (exogenous) variable to which saving adjusts as a dependent (endogenous) variable. Investment is autonomous, determined by profit expectations of firms, while saving is induced, determined by income of households. The distinction rests on the institutional assumption that firms have access to credit from commercial banks and financial institutions depending on their credit worthiness and the expected profitability of their projects, irrespective of the level of savings by households in the economy. Thus, it is the institutional setting of what Hicks characterized as an 'overdraft economy' which allows investment to be financed in advance of, and independent of, the level of saving in the economy.³

A short digression is worthwhile. If credit is endogenously determined by demand, then the Keynesian perspective emerges in its sharpest focus. The independence of the investment function of firms determines effective demand (hence output), while the financial system merely plays an accommodating role without influencing the level of demand (hence output). On the other hand, if credit is assumed to be exogenously determined by the financial system, the monetarist perspective, or at least a perspective that seeks to focus more on finance, emerges as critical, in so far as banks have a role in influencing the investment decisions of firms by relaxing or tightening credit facilities extended to firms.⁴ Or, if firms have to rely mostly on their own capital to finance investment in a financial market without depth, then corporate profits, or savings, largely determine investment.⁵ In either case, investment can no longer be treated as exogenous.

The moral of the story is clear. The distinction between exogenous and endogenous variables, or that between the autonomous and

³ See Hicks (1937).

⁴ Monetary authorities can influence the willingness and ability of banks to provide credit. If there is credit rationing, it is not just interest rates but also the availability of credit that determine investment. And even if investment is determined by the interest rate, the interest rate is effectively determined by the monetary authorities either directly, or indirectly through money supply. For a discussion, see Greenwald and Stiglitz (2003).

⁵ The monetarist perspective is an attempt to incorporate finance, since it is credit that drives economic activity more than money. But money and credit are highly correlated. The control of central banks over money supply can be thought of as a surrogate for their control over credit supply. Monetarism failed in part because, at critical times, money supply and credit supply do not move in tandem.

induced changes, is essential in macroeconomic models, which seek to analyse events or prescribe policies. However this distinction does not derive from the analytical structure of a model but from the underlying institutional setting of the model. Much can change, especially in terms of policy prescriptions, when institutional settings, hence determinants of causation, change. And without some notion of causation, or the sequence of events in time, no policy prescription is possible. Therefore, even equilibrium relations require some causal interpretation, at least for policy analysis.

It follows that macroeconomics developed in the context of industrialized countries cannot simply be transplanted in developed countries. Starting from accounting identities, models can be built based on economic reasoning, but such models must respect institutional facts and recognize different contexts.

2. Structural differences

There are important differences in the structural characteristics of developing economies as compared with industrialized economies. In the world of macroeconomics, there are at least six that deserve to be highlighted. It is, of course, essential to remember that there are important differences among developing countries not only across regions but also within regions.

First, from a Keynesian perspective, in advanced capitalist economies, the main problem is the adequacy of effective demand. Such an economy possesses a productive capacity which matches the existing labour force but capital equipment remains under-utilized for lack of demand. It is not as if there are no supply constraints. There are. And recent advances in macroeconomics have emphasized how shocks to the economy can lead to shifts in the aggregate supply curve as well as the aggregate demand curve.⁶ But the expansion of output is primarily demand-constrained. The crucial problem of developing countries is different. Even if its productive capacity or capital equipment is fully utilized, it cannot absorb the existing labour force in gainful employment. The problem then is the deficiency of

⁶ See, for example, Greenwald and Stiglitz (2003).

productive capacity and not the anomaly of its underutilization.⁷ It is not as if there are no demand constraints. There are. In some sectors of an economy, output may be demand-constrained for some time.⁸ In some economies output may be demand-constrained for some time. And recent stabilization experiences suggest that a contraction in demand can, and does, induce a contraction in output. But the expansion of output is primarily supply-constrained. This structural difference is embedded in differences in stylized facts about the two sets of economies: limited labour and unlimited capital in industrialized countries, as compared with limited capital and unlimited labour in developing countries. This reality has, to some extent, changed over time. And the increasing openness of economies is also influencing this reality.

Second, there may be differences in the degree of price flexibility. In both industrialized economies and developing countries, these may vary across sectors and change over time. In the institutional context of industrialized countries, macroeconomics sought to focus on the implications of wage-rigidities. But in developing countries, where formal sector employment is a small proportion of employment in the economy as a whole, the rigidity of money wages, or real wages, is a less critical policy problem.⁹ In fact, the nature of price formation differs across sectors in these dualistic economies. In the agricultural sector, prices are determined largely by demand and supply through market-clearing. Indeed, government support prices for agriculture in many developing countries are attributable to this reality. In the non-agricultural sector, particularly manufacturing, prices are determined through mark-ups on a cost-plus basis.¹⁰ Moreover, in some developing countries wages in the organized sector are characterized by an indexation which imparts rigidity to real wages.

⁷ See Kalecki (1976a and also 1971).

⁸ Cf. Nayyar (1994). See also Bhaduri (1986).

⁹ It needs to be said that this generalization is not quite borne out by the Latin American experience, where the widespread adoption of contract indexation created strong real wage rigidities.

¹⁰ This characterization of price formation in developing countries was the essential assumption in Kalecki's writings on macroeconomics with reference to underdeveloped countries (see Kalecki 1976b). This assumption played a strategic role in the literature on structuralist economics that emerged in the 1970s and 1980s, mostly in the Latin American context but also in the Indian context (see, for example, Taylor 1983 and Rakshit 1989).

In such price-wage interaction, the role of trade unions is often significant but not quite recognized. Obviously, generalizations are difficult. Yet, it can be said that agricultural prices are more flexible than industrial prices, and agriculture is typically more important in developing countries. Historically, oligopolies, with their associated price-rigidities, were more important in industrialized countries than they are now, but such oligopolies remain important in the manufacturing sector in many developing countries. On balance, it is plausible to argue that wages and prices are more flexible in developing countries than in industrialized economies.¹¹ It is also reasonable to suggest that, insofar as there are wage-rigidities in both sets of countries, the underlying factors are different.¹²

Third, in the medium term, sources of output growth are different. In the industrialized economies, output growth is driven by productivity increase which, in turn, is a function of the level of investment and the pace of technical progress. In developing economies output growth is, or at least should be, driven by labour absorption through employment creation in the non-agricultural sector and, in some part, through a shifting of labour from low productivity employment to higher productivity employment in the manufacturing sector or the services sector. In this process, investment plays a critical role. Of course, in most successful developing countries, which eliminate disguised unemployment in the agricultural sector, approximate to full employment in the industrial sector, or close the technological gap between themselves and industrialized countries, productivity increase becomes the primary source of output growth.

¹¹ Some studies suggest that there is more volatility in wages in developing countries, perhaps because trade unions and employment protection are relatively weak. This suggests that there may be more flexibility of wages, but it could also be partly because developing countries are more vulnerable to shocks (see Easterly, Islam and Stiglitz 2001).

¹² The explanations for wage rigidities may also differ. In very poor countries, the subsistence wage may constitute a floor. Alternatively, the nutritional efficiency wage may be part of the explanation: employers do not want to pay a lower wage, because at a lower wage productivity is significantly lower because nutrition is insufficient. (The relationship between productivity and wages is the subject of a vast literature. See, for example, Stiglitz 1976.) In other countries, minimum wages may play an important role. In yet other countries, efficiency wage theories based on selection, incentive or morale effects may provide a more important part of the explanation for real wage rigidity. In this context, it is worth noting that the stylized facts from Latin America conform more closely to industrialized economies than to developing countries.

And, in the long run, growth in output per capita requires productivity gains regardless of labour market conditions. This is borne out by the experience of massive productivity growth in Japan, Korea and, now, China.

Fourth, there are pronounced differences in financial markets. In the industrialized countries, financial markets, institutions and instruments are far more developed than in the developing countries. And there are significant differences in the degree of monetization. Consequently, in developing countries, firms rely more on self-financing than their counterparts in industrialized economies, in part because equity markets are underdeveloped as a source of finance for new investments.¹³ Borrowing from informal money markets is common. And debt-equity ratios are, as a rule, higher. In industrialized countries, increasingly, there has been a move away from bank lending towards securitization. These differences are, in important part, attributable to the absence or presence of institutions, as also to the depth of financial markets.¹⁴ However, even the form and availability of financial instruments can make a difference.¹⁵ An important function of financial markets is to transfer and absorb risk. Underdeveloped financial markets in developing countries mean that they are less able to absorb shocks than industrialized economies.¹⁶

Fifth, governments in industrialized countries have little trouble in financing their deficits, whereas governments in developing countries typically face greater financial constraints. In fact, experience suggests that few developing countries can sustain a government deficit that is 5% of GDP, or more, for long. Of course, borrowing from

¹³ India is, perhaps, an exception to this rule, in so far as equity markets are a significant and increasingly important source of finance for firms. For a discussion on stock markets as a source of corporate financing in developing countries, see Singh (1997).

¹⁴ Rural credit markets provide a striking example of such specificities in developing countries. Moneylenders in the agricultural sector, who have access to the market for credit, transfer the risk entirely to the poor borrower through an undervaluation of collateral assets (see Bhaduri 1977).

¹⁵ In the United States, where most mortgages are fixed rate and do not have significant prepayment penalties, the lowering of interest rates leads to refinancing. In the United Kingdom, however, a more common form of mortgage is the variable rate mortgage with fixed payments, so that lowering interest rates would presumably have a much weaker effect.

¹⁶ Of course, even sophisticated capital markets are capable of generating huge messes, such as Enron and LTCM in the United States, or bad debt in Japan, but the much greater depth of financial markets makes it possible to contain such crises.

the central bank is an option. But it cannot be stretched beyond limits for that could be dangerous. Indeed, such excessive deficit financing was an important source of hyperinflation in several Latin American economies. Consequently, most governments in developing countries run pro-cyclical fiscal policies.¹⁷ The financial constraints facing governments exacerbate problems that arise in the private sector. In such a context, underdeveloped financial markets, or inadequately developed financial sectors, impede the ability of developing countries to absorb shocks.

Sixth, in comparison with industrialized countries developing countries are much smaller but more open economies. Of course, in this dimension, generalizations are difficult because there are marked differences between countries in the developing world as also between countries in the industrialized world. Yet, it is plausible to suggest that most developing countries are more open, insofar as exports constitute a larger proportion of GDP and foreign capital inflows finance a larger proportion of domestic investment. The combination of greater openness and smaller size means that economies of developing countries are not only more prone but also more vulnerable to external shocks. The analysis of macroeconomic fluctuations in the case of a small open economy illustrates many of the deficiencies of orthodox economics. For if the standard assumptions were true, an adjustment of the exchange rate would result in an infinite demand for a country's exports. In such a world, any problem of insufficiency of aggregate demand would be easy to solve, so that it would be logical to focus on aggregate supply. But it is simply not appropriate to borrow the small country assumption from orthodox trade theory for macroeconomic analysis in the context of developing countries. Developing countries have always been vulnerable to terms of trade changes associated with openness in trade. The openness to capital flows has accentuated this vulnerability. And, in a world of capital market liberalization, developing countries are far more exposed to, but much less able to cope with, exogenous shocks and financial crises.

¹⁷ For a discussion, see Ocampo (2003).

3. Objectives and policies

The differences are not only structural. Macroeconomic objectives in developing countries are, or should be, different from those in industrialized countries. In the industrialized economies, the traditional policy objectives were internal balance and external balance.¹⁸ Internal balance was defined as full employment combined with price stability. External balance was defined as equilibrium in the balance of payments, primarily with reference to the current account and, more precisely, in terms of the distinction between autonomous and accommodating transactions.¹⁹ The conception of internal balance, now, is confined to price stability. And full employment is no longer an integral part of the objective. Presumably, this is partly attributable to the belief that if the government achieves price stability, then the market will automatically achieve the objective of full employment. But there is little reason to believe that this is in fact the case, in industrialized or developing countries.

In a world of capital account liberalization, the meaning of external balance is less than clear. It extends much beyond the current account as most capital account transactions are autonomous rather than accommodating.²⁰

In the developing economies, the traditional concern was economic growth in the long term. The emphasis was on savings and in-

¹⁸ The distinction between internal balance and external balance was first made by Meade (1951). These were the policy objectives of the model. There were two sets of policy instruments: income adjustments (through fiscal and monetary policies) and price adjustments (through exchange rate variations or wage flexibility).

¹⁹ The distinction between autonomous and accommodating transactions in the balance of payments was also first made by Meade (1951). Autonomous transactions are undertaken for their own sake, for the profit or the satisfaction they yield. They do not depend on other transactions. Accommodating transactions, by contrast, are not undertaken for their own sake. They depend on other (autonomous) transactions. Hence, they are a residual that accommodates gaps. External balance is, then, defined as a situation where receipts and payments on account of autonomous transactions are equal so that accommodating transactions are zero.

²⁰ At the time that Meade made the distinction, as also for a long period thereafter, the current account, in which all transactions were autonomous, was the major component of the balance of payments. Thus, autonomous transactions in the capital account were modest, while accommodating transactions were shaped mostly by the current account balance. The significance of the capital account in the balance of payments has increased enormously with capital mobility. So has the importance of autonomous transactions in the capital account.

vestment. The focus shifted to macro-management in the short term, after many developing countries, particularly the so-called emerging economies in Latin America as also the transition economies in Eastern Europe, ran into debt crises or other forms of macroeconomic disequilibrium if not turbulence. Again, the reason often put forward was that, if the government succeeded in achieving price stability in the short run, all else, including growth, would follow. Even so, the essential objective in developing countries is to step up the rate of growth as much as possible. Faster growth will lead to higher incomes and more employment. Clearly, the growth has to be sustainable. There is a presumption that it will not be sustainable if inflation soars or if the balance of payments gets too far out of line. Thus, it is sometimes postulated that the objective of macroeconomic policy should be to maximize growth subject to two constraints: that inflation remains within limit of tolerance and the current account deficit in the balance of payment remains within manageable proportions. And, often, it is very difficult to anticipate which of these problems will arise or which of the constraints will become binding. Maximizing growth typically means maximizing current output and employment, if labour productivity growth is constant or exogenous.

Macroeconomic policies are the same. The traditional policy instruments, in both industrialized economies and developing economies, are fiscal policy and monetary policy. But the range and the reach of these policies differ in the two sets of countries.

Any consideration of fiscal policy should make a distinction between revenue and expenditure of the government. In developing countries, tax revenues are based less on direct taxes and more on indirect taxes as compared with industrialized economies. Moreover, in developing countries, almost without exception, the base for taxation is significantly narrower while tax compliance is significantly lower (which is attributable to tax avoidance and tax evasion). Thus, governments find it very difficult to increase their income through tax revenues.²¹ This is a problem because, as a rule, tax-GDP ratios in developing countries are much lower. In industrialized economies, where tax-GDP ratios are much higher, the debate is about tax-cuts. In the sphere of expenditure, developing countries are characterized

²¹ Indeed, governments find it exceedingly difficult to tax certain sectors, groups or classes. For this reason, the tax-GDP ratio in countries such as India and Mexico is much too low, even when compared with some developing countries.

by proportionately larger government sectors where degrees of freedom are circumscribed by political compulsions, possibly more than in industrialized economies. What is more, in developing countries, the proportion of investment expenditure in total public expenditure is higher than in industrialized economies because private investment in infrastructure is not always forthcoming. Yet, in difficult times, it is such investment expenditure that is axed because governments find it very difficult to cut consumption expenditure. This means that excessive fiscal stringency imposes a high cost in terms of lost growth. In industrialized economies, the proportion of public expenditure on social security and social sectors is significantly higher than in developing countries, even if the need for such expenditure is as strong in the latter. Because so many more individuals are near subsistence, even small cuts in these social expenditures can have large consequences. In industrialized countries, a cut in educational expenditures will lead to slightly larger class sizes and, arguably, a reduction in the quality of education. In developing countries, a cut in educational expenditures will mean that more children will not go to school. On the whole, it is clear that governments in industrialized economies have much more fiscal flexibility than their counterparts in developing countries.

Monetary policy clearly highlights the differences, which are much more pronounced, particularly in terms of reach, because money markets are often segmented, if not under-developed, in developing countries. Insofar as the effects of monetary policy are more narrowly directed, the economic costs of reliance on monetary policy may be greater and its effectiveness lower. Open market operations are obviously a limited option in thin markets. In the past, many developing countries sought to use interest rates as a strategic instrument for guiding the allocation of scarce investible resources in a market economy.²² In such a context, it is not surprising that, in developing countries, the volume of credit was always perceived as more effective than the price of credit as an instrument of monetary

²² The striking examples of such a strategic use of interest rates are the East Asian countries, particularly Japan and Korea (see Wade 1990 and Chang 1994). In this context, it is worth noting that the deregulation of domestic financial markets in developing countries is bound to limit the use of the structure of interest rates, say a differentiation between short-term rates and long-term rates, as a means of influencing the allocation of scarce resources.

policy. The practice has changed in the recent past since the deregulation of domestic financial sectors has led to the emergence of markets for financial assets. This should have made interest rates a more potent instrument. Ironically enough, it has not, because capital account convertibility has curbed flexibility in the use of interest rates. Industrialized economies are not immune from the fetters of international financial markets, but the reach of monetary policy is significantly greater than in developing countries.

It is also important to recognize the somewhat different macroeconomic implications of the interaction between fiscal and monetary policy in developing countries. For example, the monetary impact of fiscal policy is perhaps greater in developing countries because a much larger proportion of the fiscal deficit is financed by borrowing from the central bank. In a shallow capital market, the alternatives are few and far between. And, in developing countries, borrowing from the central bank is the principal source of reserve money which makes it the most important determinant of monetary expansion. This is no longer the case in most Latin American economies, but remains the reality in most other developing countries. Similarly, the fiscal impact of monetary policy is perhaps greater in developing countries, because, in situations where public debt is large as a proportion of GDP and interest payments on these debts are large as a proportion of government expenditure, even modest changes in interest rates exercise a strong influence on fiscal flexibility.

The orthodox belief system that higher interest rates would help reduce macroeconomic imbalances is not always borne out by the reality of experience with the use of monetary policy in developing countries.²³ Higher interest rates do not necessarily reduce government borrowing in situations where it is difficult to increase income or reduce expenditure of the government. But higher interest rates almost certainly make public debt less manageable.²⁴ Conceivably, higher interest rates also feed into inflation through cost-push mechanisms.

In a changed international context, it is also important to recognize that countries which are integrated into the world financial

²³ See Nayyar (2001).

²⁴ The most obvious examples of this syndrome are Argentina, Brazil and Turkey.

system are constrained in using an autonomous management of demand to maintain levels of output and employment. Expansionary fiscal and monetary policies – large government deficits to stimulate aggregate demand or low interest rates to encourage domestic investment – can no longer be used, as easily as in the past, because of an overwhelming fear that such measures could lead to speculative capital flight and a run on the national currency.²⁵ The problem exists everywhere. But it is far more acute in developing countries.

4. Trade-offs and adjustment

There are important trade-offs in macroeconomics, particularly in the sphere of macroeconomic policies, which must be recognized. However, the significance of such trade-offs depends on the context. The trade-off between inflation and unemployment is much more important in the industrialized economies than it is in the developing countries. The trade-off between short-term macro-management and long-term objectives is much more important in the developing countries than it is in the industrialized countries.

The conventional trade-off between inflation and unemployment is epitomized in the Phillips curve. But this construct is much too limited.²⁶ In the near-obsessive concern of governments with the control of inflation, driven more and more by international financial markets, it is often forgotten that the management of inflation is not an end in itself. And, beyond a point, reducing inflation is at the cost of not only employment but also growth. Of course, even in industrialized economies, the focus is on deflation now that the macroeconomic context has changed. In fact, debt-deflation has been a major issue in economies where asset price bubbles have burst or crashed. In developing countries, there is no well defined Phillips curve. Indeed, it is difficult to conceptualise a negative relationship between the rate of inflation and the rate of unemployment in economies where non-participation in the labour force, disguised unemployment in the subsistence agricultural sector, underemployment in the

²⁵ For a more detailed discussion on this issue, see Nayyar (2003).

²⁶ For a discussion, see Jung (1985). See also Bagchi (1994).

urban informal sector, wage employment in the formal (manufacturing and services) sector co-exist in a spectrum without clear lines of demarcation.

In developing countries, as also transition economies, in recent years, public policies have come to be pre-occupied with macro-management in the short term and re-structuring of economies in the medium term. The former is driven by quest for stabilization. The latter is prompted by the quest for efficiency. This is in conformity with the orthodoxy embodied in the Washington Consensus. There is, however, an important trade-off between short-term concerns and long-term objectives. For one, there are some long-term consequences of short-termism. Macroeconomic policies implemented with a short-term objective may have adverse consequences for the performance of the economy in the long term, through *hysteresis*, if the effects of short-term policies persist over time to influence outcomes in the long term.²⁷

It is possible to cite several examples which show that the pre-occupation with short-term management and medium-term restructuring may have damaging consequences in the long term.²⁸ Trade liberalization, which leads to the exit of domestic firms on a significant scale, ultimately affects the capacity of an economy to respond to changes in relative prices. The reason is simple. Exit is easy but re-entry is difficult. Similarly, financial liberalization, which leads to a persistent, if not mounting, overvaluation of the exchange rate, may force domestic firms to close down.²⁹ By the time the overvaluation is undone, *hysteresis* effects could be strong. This means that re-entry becomes difficult, for domestic firms must create new capacities to

²⁷ It might seem that the concept of trade-off, which refers to choices at a point in time, is diluted by the notion of hysteresis, which refers to effects that persist even long after the cause is removed. But it is not, because the trade-off between short-term concerns and long-term objectives is discernible only across time horizons.

²⁸ For an analysis of this issue, see Nayyar (1998).

²⁹ Such an overvaluation, with similar consequences, may be attributable to monetary contraction or fiscal expansion, as it was in the United States during the first half of the 1980s. And there was a literature that examined the hysteresis effects of the persistent overvaluation of the US dollar. The upshot of this literature was that overvaluation leads to an accumulation of adverse trade effects which ultimately need to be remedied through an overdepreciation. The reason is that, in the presence of hysteresis, a period of sustained undervaluation is needed to bring forth the required investment. For a discussion, see Dornbusch (1987). This parable conveys an important lesson about the significance of the long-term real exchange rate.

capture the opportunities created by the changed set of relative prices. But that is not all. The workers who are unemployed as a consequence of closures may lose their skills with the passage of time and become less productive when employment opportunities appear after a lag. It is also possible that their old skills, even if retained, are less relevant after a time.

Furthermore, a preoccupation with the short term often leads to a systematic neglect of long-term development objectives. There are two reasons for this. First, in the sphere of economics, such objectives cannot be defined in terms of oversimplified performance criteria set forth by the Bretton Woods institutions. Second, in the realm of politics, such objectives do not bring tangible gains which can be exploited by governments or administrations within their term of office. In a longer time horizon, the development of human resources and the acquisition of technological capabilities are examples of such objectives, the neglect of which could turn out to be most problematic.³⁰ Conventional macroeconomics simply does not recognize this trade-off. Orthodoxy believes that an adjustment of the mix of instruments, say, tighter fiscal policy coordinated with looser monetary policy, can be used to achieve whatever growth objective the government wants at the same time that the desired employment objective is achieved.

The process of adjustment in economies at a macro level differs not only over time but also across space. Single models cannot suffice. And generalizations are perilous. All the same, it should come as no surprise that, as in most of economic theory, a mechanism of adjustment or a process of change must work either through prices or through quantities or through some combination of both. Yet, the mode and speed of adjustment at a macro level in developing countries are different from those in industrialized economies.

Considerable evidence suggests that there is much greater economic volatility in developing countries than in industrialized countries. This is partly because the economies are smaller, less diversified, and exposed to greater shocks, which they are less equipped to absorb. Their adjustment processes work less well and more slowly. Markets that function well have the capacity to absorb shocks and dissipate them through the economy. In developing countries, as a

³⁰ See Nayar (1998).

rule, markets work less well. Hence, it should come as no surprise that such economies respond less well to shocks. The exact nature of the failure, however, is subject to some contention and may well differ across countries. In some cases, there may be greater price rigidities. In such situations, economies adjust at a macro level through changes in output rather than changes in prices. Moreover, the greater the rigidity in prices, the greater is the burden that is placed on quantity (income or output) adjustments.³¹

On the other hand, there is also some evidence that prices and wages are more volatile in developing countries, consistent with the hypothesis that they are more, not less, flexible. It is the imperfections of capital markets which shape differences in how shocks are absorbed, or amplified, in the economy. Equity markets are better at risk-sharing than debt markets, and developing countries rely more heavily on debt.³² Countries with very high debt-equity ratios (as was the case for many East Asian countries before the 1997 financial crises) become highly vulnerable to certain kinds of shocks, and the process of adjustment, which entails recapitalizing financial institutions, is much more complicated.³³

There is another significant difference between industrialized economies and developing economies which lies in the speed of adjustment. In general, the speed of adjustment in developing countries, particularly on the supply side, is slower than it is in industrialized countries. The reason is simple. Resources are not perfectly mobile across sectors or substitutable in uses, and prices, particularly of factors, are not completely flexible. These problems are accentuated in developing economies which are characterized by structural rigidities. The dynamics of demand are fast in expansion and in contraction. In contrast, the dynamics of supply are slow in expansion (which is partly attributable to the limitations in financial markets) even if somewhat faster in contraction.

³¹ See Stiglitz (1999).

³² Theories based on the economics of information (asymmetries in information) explain not only the limitations of equity markets but also why they play a much smaller role in developing countries as compared with industrialized economies.

³³ Of course, the social arrangements for saving, not to mention financial churning, also matter and differ across countries. In China and Russia, for example, where private saving is high, capital flight is a possible outcome. The high private saving in Japan, in contrast, leads to more direct foreign investment.

5. Constraints on growth

In the context of industrialized countries, there is a distinction between macroeconomic models, where the focus is on the short run, and growth models, where the time horizon is the long term. The interconnections are important. But these are not explored enough in such analysis. The dichotomy extends to theorizing about developing countries. This is obviously not appropriate, particularly because structural constraints, characteristic of these economies, have several different dimensions. Some of the dimensions of these constraints can be depicted in short-run macroeconomic models. Others must be built into long-term growth models. But there are some that can only be analysed through models that link short-run macroeconomic adjustments with long-term patterns of growth. Such models are few.

In the context of developing countries, there is a literature around the theme of macroeconomic constraints on growth.³⁴ But this literature remains in the domain of development economics. It is not an integral part of macroeconomics for development. Yet, arguably, it should be. This literature suggests that, at a macro level, economic growth in developing countries may be limited by a savings constraint, a foreign exchange constraint, a wage goods constraint or a fiscal constraint. Such models start from the premise that, given a capital-output ratio, the rate of investment determines the rate of growth in an economy. The focus, then, is on what constitutes, at the margin, the effective constraint on increasing investment. A saving constraint represents a situation where investment cannot be raised because consumption is at a minimum acceptable level. A foreign exchange constraint represents a situation where available savings cannot be transformed into investment because the requisite investment goods cannot be imported. A wage goods constraint represents a situation where the rate of growth of supply of necessities does not allow the level of investment to be raised any further.³⁵ A fiscal constraint represents a situation where limits on public investment mean that total investment cannot be increased

³⁴ There is an extensive literature on two-gap models. The earliest contributions were McKinnon (1964) and Chenery and Strout (1966).

³⁵ In analyzing macroeconomic constraints on growth in underdeveloped countries, Kalecki sought to focus on the wage goods constraint (see Kalecki 1970).

beyond a level because there is a complementarity between public investment and private investment. Of course, these models are simple analytical abstractions. The essential message is that the cost of alleviating the binding macroeconomic constraint on growth, at the margin, is high in developing countries.

There is a literature on 'gap models' that debates which of these constraints might be dominant and explores the macroeconomic implications or consequences of the interaction between these constraints.³⁶ Of course, in equilibrium, these constraints are always satisfied. Indeed, the constraints only exist *ex ante*, but cannot be there *ex post* because there can be no gaps in accounting identities. Embedded in the discussion of 'gap models' are certain assumptions about which variables are exogenous and which are endogenous, or which elements of economic behaviour can be altered by economic policy and which cannot. Such analytical constructs may not be important in themselves. But the moral of the story is important. They draw our attention to the variety of ways by which policy can affect macroeconomic equilibrium and the variety of interactions that need to be taken into account. Most important, perhaps, these models focus on the possible trade-offs that have to be faced in formulating macroeconomic policies.

Given such macroeconomic constraints, irrespective of which particular constraint is dominant, any attempt to step up the rate of growth in an economy spills over into an acceleration in the rate of inflation or a difficult balance of payments situation. The threshold of tolerance for inflation, determined by polity and society, may vary from as little as 5% per annum to as much as 100% per annum. The manageability of a difficult balance of payments situation depends on the willingness and ability of creditors in the outside world to lend, or to finance current account deficits; this willingness and ability varies significantly from country to country and that depends on the historical context. But that is not all. The essential point is that an understanding of macroeconomic constraints on growth, in the context of developing countries, is important because it highlights macroeconomic interactions between the short run and the long term.

³⁶ See Bacha (1990) and Taylor (1994).

6. Conclusion

The essential point to emerge from this essay is that the nature of relationships and the direction of causation in macroeconomics, which shape analysis, diagnosis and prescription, depend upon the institutional setting. This essay also demonstrates that there are systematic differences between industrialized economies and developing countries, just as there are significant differences among developing countries. And even if some laws of economics are universal, the functioning of economies can be markedly different. Therefore, good economic theory and good policy analysis should recognize, rather than ignore, such myriad differences.

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