5 Macroeconomics and Small Developing Economies: A Policy-Maker's Perspective

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1 INTRODUCTION

This chapter draws inferences from the recent literature on open-economy macroeconomics about policies to achieve sustainable economic growth with stable external account balances and low inflation in small developing countries. The policies to be examined include nominal exchange rate adjustment, monetary intervention, fiscal policy, trade policy and incomes policies. This chapter suggests how they might be combined under varying circumstances.

The economies we have in mind are in the middle-income range, with systems of financial intermediation that are quite well developed. Savings are largely channelled through a banking system to which most people have access, capital is highly mobile between the domestic economy and the rest of the world, informal credit markets are small, and systems of international trade are highly developed. We need not be concerned with informal credit markets, but the possibility of capital flight is a critical consideration.

This chapter is organized around the following topics: exchange rates, policy constraints, policies to promote growth, external debt and the importance of monetary unions for small countries. The exchange rate is singled out for special consideration because it has been an especially controversial element of the policy package in many countries, and a wealth of economic analysis has been devoted to its causes and effects. The crucial issue in open-economy macro-economics is the way policy choices are limited by the economy's exposure to external influences. With a few notable exceptions, growth has been

elusive for most developing countries in the past decade, so the need to identify those policies which will promote growth has risen to the top of the agenda. External debt burdens have become a major roadblock in the way of economic expansion for many countries. For small economies the possibility of integration among themselves or with larger neighbours has been of ongoing interest; moves towards European integration have stimulated a recent outpouring of research, particularly on the issue of monetary union.

2 EXCHANGE RATE CAUSES AND EFFECTS

The effects which economic theory predicts from exchange-rate changes relate to the real exchange rate, which for small economies is best defined as the ratio of the price of tradables to the price of non-tradables. The small economy is a price taker for tradable goods but not for non-tradables, which, even in the most open of economies, will account for more than half of the national product. Major non-tradable sectors include government services, personal services other than tourism, public utilities and real estate. There is no straightforward relationship between nominal and real exchange rates in open economies; the effect of the nominal on the real rate depends on the dynamics of wage–price interaction, the elasticities of supply and demand in the non-tradable sector, the extent of factor substitutability between tradables and non-tradables, the effects of fiscal policy on credit markets, and a variety of such factors.

It is useful to think of exchange-rate policy as being targeted on an equilibrium exchange rate (Edwards, 1989; Aghevli, Khan and Montiel, 1991; also Williamson, 1983) which reflects the fundamental economic parameters that determine comparative advantage. Comparative advantage depends on the country's endowment of labour, skills and knowledge, the development of public utilities and infrastructure, the natural resource endowment, and the social, political and business climate, all in relation to competing countries.[1] The equilibrium rate changes over time as these factors change at home and abroad, as well as with changes in tastes and technology. In practice the equilibrium rate is proxied by the small subset of these factors which is measurable.[2] For policy-makers operating in the real world where 'non-quantifiable' does not mean 'unimportant', the results of such exercises must be used with judgement and discretion.

The immediate impact of a real exchange-rate change is not a good

indicator of its long-term effect, either in direction or magnitude. A bewildering variety of scenarios for the evolution of the exchange rate is possible, depending on such parameters of the economic system as the degree of international mobility of capital and labour, the characteristics of the production functions for tradables and non-tradables, the structure of imports, the savings propensities of different income groups and the applicable rates of time preference.[3] The pattern of evolution of the exchange rate may also be influenced by monetary and fiscal policy. Exchange-rate policy is country-specific, and the policy-maker must choose the scenario which most closely represents the circumstances of his or her country.

The analysis of reputation and credibility as important factors in the reaction of forward-looking agents has contributed to improved exchange-rate management. Models have been developed to show how the exchange rate may evolve over time under varying assumptions about economic structure and expectations formation (Calvo and Végh, 1993; Lai and Chang, 1990; Frydman and Goldberg, 1993). One needs to specify the initial conditions, including the government's history of anti-inflation policy, the extent of external disequilibrium, levels of inflation and output, and employment conditions. For example, a government with a strong reputation for anti-inflation policy may ensure a real exchange-rate depreciation by devaluing the nominal rate, but a government without such a reputation may provoke an appreciation of the real rate by the same devaluation, because the capital markets anticipate an increase in the money supply.

The conditions for devaluation to engender growth in output become more demanding in the presence of credibility factors, uncertain expectations and exchange-rate dynamics. The substitution effects, which stimulate output, depend not only on the long-run elasticities of response to the real exchange rate, but also on the dynamics of the evolution of the real exchange rate. The real balance effects, which depress output, depend on the credibility of monetary and fiscal policy, on the income distribution and on saving propensities.[4] Close examination of markets further complicates the issue, when firms 'price to market' so that some of the expected market incentive is absorbed by shifts in the supply curve, a topic examined in greater depth in Donnenfeld and Zilcha (1991) and Metcalfe and Steedman (1981).

In view of the variety of possibilities scepticism is growing about changes in nominal exchange rates as a policy tool for small open economies, whether industrial or developing (IMF, 1990; Argy and

De Grauwe, 1990). It is usually more effective to change the real exchange rate by using fiscal and monetary policy and to use the nominal exchange rate as an anchor for expectations. There is no convergence of view on how to adjust if the nominal exchange rate is not credible; the field is still divided between those who favour shock treatment (deliberate overshooting) and those for gradualism through some form of phased adjustment.

3 POLICY CONSTRAINTS IN THE OPEN ECONOMY

The constraints on domestic policy which are imposed by external influences are a principal focus of the literature on the open economy. Because policies affect transactions with the rest of the world as well as local markets, the choice of strategy must be guided by the parameters that define the openness of the economy, as well as by domestic economic circumstances. The mix of fiscal and monetary policies depends on the choice of exchange-rate strategy. That matrix of choices is in turn largely determined by the degree of factor mobility. The outcomes depend on the degree of product mobility, and governments have attempted to create additional policy leverage by means of trade and commercial policy, affecting the movements of goods. In many circumstances the range of choice for orthodox policies seems too narrow, and countries have had to resort to unorthodox policies such as wage and price interventions. In this section we look at the combination of orthodox policies, the importance of factor mobility, the use of commercial policy and the use of heterodox policies.

3.1 Co-ordination of Orthodox Policies

The Mundell–Fleming (MF) conclusions about the interaction of monetary policy, fiscal policy and the exchange rate have proven to be robust in models which incorporate expectations and portfolio shifts. With a variable exchange rate regime, monetary policy is relatively more effective, whereas fiscal policy is more powerful with a fixed exchange rate regime.

Changes in the nominal exchange rate are usually viewed as the most effective way to respond to real external shocks, while monetary and fiscal policies are targeted on domestic and monetary shocks. If there is a fundamental change in the terms of trade, for example,

the old exchange rate will not be credible, and a devaluation is needed to sustain the adjustment to the new external environment.

This conventional story proves much less robust when the model is adjusted to take account of realities such as imperfect information and moral hazard. In a small open economy the exchange rate is the principal anti-inflation policy, and a devaluation is inflationary. If market agents are able to anticipate devaluation portfolio shifts will create unintended real balance effects. If devaluation is unexpected the credibility of policy-makers will probably be undermined. Moreover, even when devaluation may reasonably be anticipated it is difficult to conceive of circumstances in the real world where there will be a sufficient concurrence on the target level of the new rate to ensure stability.

The implication, which economists and policy-makers have been slow to accept, is that exchange-rate policy is not particularly useful in small open economies, even when fundamentals of the external economic environment have changed. That implies that a fixed exchange-rate regime is best for such economies, and that there will be limited scope for monetary policy. The burden of adjustment, whatever the source of the external shock, falls on fiscal policy.

Exclusive reliance on fiscal policy makes macroeconomists nervous because we subscribe to the notion of a match between instruments and targets. However, the difficulty is purely semantic, since there are so many levers for adjustment subsumed within the fiscal indicators in macroeconomic models (ECLAC, 1992). For example, one may change the real exchange rate, and therefore the relative prices of tradables and non-tradables while leaving aggregate demand unchanged by choosing an appropriate reconfiguration of taxes, government spending and the size and financing of the fiscal deficit. In cases where fiscal policy proves inadequate, small open economies should resort to heterodox policies.

Our practice of reducing fiscal policy to a single indicator has encouraged a considerable literature on Ricardian equivalence.[5] The notion of crowding out, which is the issue at stake, itself becomes elusive when one admits the variety of taxation, spending and financing options available to government, an issue elegantly treated by Buiter (1985). This literature reminds us that the outcome of policy depends on how that policy is interpreted by those affected by it, but it seems to offer little else of value to the policy-maker.

3.2 Factor Mobility

Policy-makers often operate with too little guidance on the degree of factor mobility. The MF results are durable because finance proves to be highly mobile, even in the presence of capital controls. But capital is not perfectly mobile, and there may be asymmetries in the direction of flows. In practice this always leaves useful possibilities for monetary policy, even in a fixed-rate regime, but the policy measures will often not have symmetric effects. For example, if capital movements are not such as to ensure that interest rates are fully arbitraged there is scope to dampen domestic demand by a modest increase in domestic interest rates. However, too drastic an increase may provoke capital inflows to augment the domestic money supply and frustrate the contractionary policy.

A range of theoretical tools is available to address these issues, including portfolio balance models; Peter Spencer's chapter in this volume (Chapter 4) is relevant, along with the large literature on currency substitution and the circumstances that provoke it.[6] Factor mobility and policy credibility interact to determine the scope and outcome of policy (Lane and Rojas-Suarez, 1992). The interest rate increase described above could produce an unexpectedly large contraction in domestic demand if it were taken as a signal that government expected high levels of inflation and was taking steps to ensure positive long-term interest rates. In this case capital would be exported to a low inflation haven, depressing the money supply and aggravating the real balance effects of the increase in interest rates.

International capital movements are somewhat inhibited by the information costs which are now recognized as an important factor in market behaviour in the financial system. Because of problems of adverse selection, domestic firms and households are not able to borrow abroad with the same facility as they may lend abroad, a factor which accounts for much of the asymmetry in capital flows. Moreover, there may be sluggishness and lags in the responses of capital flows to interest rate differentials, because banks and their customers are reluctant to incur the switching costs involved in responding to the interest differentials. To return to the interest rate example, no capital movement would take place if bankers and their clients thought that the interest rate increase would be temporary, but the capital export would be irreversible if the interest rate increase were believed to be permanent, even if, in fact, the increase were subsequently reversed. The implications of these factors for monetary management

in the small open economy have not been worked through in any theoretical model of which I am aware.

Capital mobility may also constrain tax policy, and there has been keen interest in the effects of differential taxes on capital on the flow of investment across national borders. The results are complex and country-specific, because of the detailed specifications of the tax system which determine the final incidence of any tax. The actual incidence is usually quite different from the nominal rate, and there is no straightforward relationship between them.

The mobility of human capital has received attention in the literature, principally as it affects tax policy. Inferences from studies of the effect of tax incidence on labour mobility in industrial countries by, for example Bovenberg, Kremers and Masson (1990), may offer helpful ideas for the design of tax policy in small open economies. Bhagwati (1985), on the other hand, has shown how suggestions for tax policy to combat the brain drain have had little impact on the design of tax systems.

Skilled and knowledgeable workers are more highly mobile than others, and their mobility may constrain all policies affecting income distribution. The extent of tax progressivity may be limited, depending on the structure and eligibility criteria for social services. Exchange-rate policy should be assessed for its effects on income distribution, and interest-rate policy may also have an effect on the distribution of income between the more- and less-skilled segments of the labour force. In practice, human capital mobility appears not to be an issue for incremental policy changes, but there is strong casual evidence of their crucial importance in circumstances of severe shocks. The theoretical apparatus for examining these issues is not so well developed as for movements of finance.

3.3 Trade and Commercial Policy

Both theory and recent experience reinforce economists' aversion to non-tariff trade barriers which encourage rent-seeking behaviour and distort market signals. However, the case for trade intervention remains strong because the requirements for a perfect market are unattainable. There is a strong theoretical case for nurturing infant industries, for subsidizing external costs, for the provision of social goods, for interventions to temper the exploitation of monopolies and to take care of environmental concerns (Falvey and Kim, 1992). These concerns assume special importance for growth prospects, an issue to which we shall return later in this chapter.

Economists are rather agnostic in their recommendations about trade policy. Most studies, including Newbery and Stern (1987); Gillis (1988); Ahmad and Stern (1991) and Khalilzadeh and Shah (1991) have shied away from suggestions on the interventions that would address the issues in the last paragraph, and recommendations on tariff reform tend to conclude that the preferred strategy – one that takes account of elasticities of demand, for example – is too problematic, and that countries should adopt a tariff that is as close to uniform as possible. That may well be the best that we can do, but it is far from satisfactory.

3.4 Price and Incomes Policy

The theory of price and incomes policy remains in a rather nebulous state. In the open economy only the prices of non-tradables are within the control of the domestic authorities. Of these, only a few – such as the prices of utilities and other monopolies – are suitable for direct intervention. Other domestic prices must be determined by using fiscal, monetary and exchange-rate mechanisms for controlling aggregate demand.

Once the structure of the economy is specified, one may determine a path of wage movement to ensure stability of prices and the balance of payments. If, for example, the tradable sector is relatively labour-intensive, the wage good is tradable and there is no money illusion, the wage rate that is required for stability is directly related to the exchange rate. Depending on the nature of the wage formation process, the labour market may not converge towards the required wage trajectory. Backward-looking labour contracts may continue to inflate wages even after stiff anti-inflation policies have been put in place. A similar outcome results from a lack of credibility of the anti-inflation policy, where there are forward-looking contracts. This problem commonly arises because the government has a history of failed anti-inflation policies. The proclamation of wage guidelines under these circumstances is the most common form that incomes policies take in current economic strategy in many countries (Kiguel and Liviatan, 1992).

There is probably a useful role for incomes policies, framed on the above lines, in restoring the credibility of government policy, particularly in countries with a history of high inflation. However, the policy is likely to remain effective only in the short run and its impact will depend on such labour market characteristics as the length of contracts, the size of the government workforce, the bargaining strengths

of employers and labour, the extent of unemployment and the factor intensities in tradables and non-tradables. In the longer term the incomes policy is unlikely to be useful; if it serves to restore the credibility of official policy it becomes superfluous, and if it does not it will be overcome by economic instability.

3.5 General Observations on Policy Co-ordination

The nature of the policy mix is largely determined by the country's starting point. Countries with chronic disequilibria have fewer options than countries where only mild policy adjustment is indicated. In the latter case, the government's credibility is usually unimpaired, and fiscal and monetary policies have fairly predictable outcomes. Where chronic disequilibria have undermined policy credibility, orthodox tools must often be supplemented by heterodox measures.

There are too many variables for generalization about the suite of policies that small open economies should use to address any contingency. One must take account of the nature of shocks, the extent of factor mobility, the strength of the information base, the cost of information, the fiscal structure, the competitiveness of the labour market, the formation of expectations, and other factors noted in this section. We do, however, have a better understanding of how policies are interrelated in dynamic models. There is one strategy that may be recommended in circumstances where it is available: to anchor the nominal exchange rate as a commitment to a stable money supply, and to absorb shocks through fiscal policy, However, this option is not always accessible, particularly when fiscal policy and the exchange rate are not credible to begin with.

Crucial questions in the design of policy go beyond the scope of this chapter, most importantly the distributional impact of the policy mix, and the social and political constraints on the range of options. In view of the number of adjustment programmes in the 1980s which were threatened or derailed by social and political upheaval, economists can no longer be oblivious to these factors, a topic discussed fully in Nelson (ed.) (1989).

4 GROWTH-ORIENTED POLICIES

In the development literature there has been a strong focus on saving as the engine of growth, and this has resulted in a large literature on

financial intermediation and interest rates. The policy agenda for developing countries has been dominated by considerations of financial liberalization, following on the early work of McKinnon (1973) and Shaw (1973), developed and elaborated by Fry (1988). The removal of financial controls such as credit and interest-rate ceilings is considered a crucial growth-enhancing measure, reducing the fragmentation of financial markets, encouraging the more rapid accumulation of financial assets and rationing credit more efficiently.

While the removal of many financial controls may be recommended on the grounds that they encourage rent-seeking and spawn the growth of an unregulated quasi-financial sector, we are now not at all certain that financial liberalization is growth-promoting. For one thing, as Zephirin (1990) shows, once we take account of information costs, entry costs, economies of scale and scope, and strategic behaviour in the financial market, a theoretical case for intervention to improve on market outcomes emerges. The real question is to determine the nature and scope of intervention. For example, Fry suggests that a minimum savings rate ought to be stipulated for small financial markets which are characterized by a banking oligopoly. Intervention may be needed to reduce interest rates so as to break an inflation spiral, where high interest rates are read by the market as a signal of high expected inflation. The untoward consequences of financial liberalization in Chile and elsewhere have led to an intensive search for regulatory guidelines for the operation of the financial system (World Bank, 1989).

More to the point of this chapter is the growing scepticism about the effects of the accumulation of financial savings on real growth. The widespread phenomenon of capital flight is the most compelling reason for such scepticism. In the absence of stability and credibility of macroeconomic policy, financial savings are exported to such an extent that net domestic saving becomes negative *ex post*.

The savings–financial approach to growth-oriented policy uses the assumptions of a closed economy, so it should not be surprising that it failed to anticipate the outcome of liberalization policies. It is the determinants of investment that are the deciding factors for growth and, in open economies, savings and investment are not congruent (Malinvaud, 1992). Investment in competitive production in open economies is never constrained by domestic saving, thanks to the international mobility of capital.[7]

The literature on growth theory, which has a different lineage from that on financial development and saving, gives a more helpful insight

because it focuses on the determinants of investment. Theories of endogenous growth point the way to growth-oriented policy, in contrast to models where growth depends on exogenous factors such as natural resource endowment. The point of departure in recent studies is the observation that technical change appears to be the main engine of growth in most countries.[8] For small open economies the principal channel of technical change is the international diffusion of techniques, processes and new products.

The factors which determine the rate of technical change include research and development, the development of human capital, the specificity of knowledge and its rate of diffusion. Many economists have analyzed this issue, including Siebert (1991); Helpman (1992); and Grossman and Helpman (1991). Increasing returns are characteristic of the knowledge-producing industry. If knowledge is rapidly diffused internationally, small developing countries acquire new techniques to improve their international competitiveness and accelerate their growth.

The policies which stimulate growth are those that increase the incentives for research and development, for the adaptation and adoption of new technology, for the spread of new knowledge, and for human capital development. They include trade policy, tax policy, government expenditure policy, policy on competition, the protection of intellectual property rights, and policies to ensure macroeconomic stability.

4.1 Trade Policy

Trade liberalization is a possible stimulus to growth, providing the economies of scale of the international market as an incentive for investment in new technology. In both theory and practice the relationship is complex: the profitability of innovation depends on how trade liberalization has an impact on ease of entry and exit, shifts in product demand, and the processes of innovation themselves.

Tybout (1992) points out that the complexity of factors and circumstances precludes generalization, other than the importance of credibility in the trade liberalization strategy. Among the theoretically unresolved issues is the extent of trade liberalization that is desirable for a particular country's circumstances. Free trade is optimal when capital markets are competitive, and knowledge is not country- or firm-specific (Helpman, 1992); if knowledge is firm-specific there is no diffusion to the developing country and no gain in investment and growth.

The interaction of free trade and competitiveness is an unresolved issue. Trade liberalization by a small country may make for more or less competition in domestic production. Greater competition is not always associated with higher investment or faster diffusion of technology; it depends on the objective functions of firms, their strategic behaviour, their market expectations and the presence of external economies. Trade liberalization may slow down the growth of an integration area where the availability of new labour supply in one partner country, for example, Mexico, reduces the returns to investment in research in the other, the USA, thereby reducing the rate of technological development and the growth rate for the region as a whole.

Time-honoured arguments for subsidization and protection of infant industries retain their validity, because of information costs, communications costs and other diseconomies which diminish the returns to the firm of investment in new technology. Temporary subsidies are theoretically preferred to compensate for these market failures, but tariffs are usually better in practice because of fiscal constraints and for strategic reasons.[9]

4.2 Tax Policies

Tax policies may accelerate growth through favourable effects on investment flows and migration, especially of skilled labour. Double taxation treaties may be recommended as a means of avoiding excessive tax liability, and free trade zones are an effective way around the administrative difficulties in setting up flexible and efficient machinery for investment promotion. Tax holidays in theory offer little benefit, unless foreign investors fail to repatriate net earnings, but they seem to be of psychological importance for investors.

It is not necessary that there be uniformity of tax burdens on corporations, or that small countries should try to compete for investment by offering lower rates than those offered by larger countries. Among the corpus of factors that affect foreign investment, differences in the corporate tax rate play a minor role. The issue has been explored at length in the context of European unification, by a number of authors including Tanzi and Bovenberg (1990); and de la Fuente and Gardner (1990). The details of tax administration are so complex that it is difficult to estimate the real incidence of taxation between countries, and even, as King and Fullerton (1984) show, between different sectors in the same country. Moreover, the tax incidence may be affected by legal considerations such as the definition of income for tax

purposes. For all these reasons investment does not migrate readily in response to differentials in the rate of tax on corporations.

There is no strong constraint on taxation of personal incomes from the migration of skills. There is in theory some relationship between the rate of personal taxation, the degree of tax progressivity and the rate of migration of different categories of labour. However, the relationship is affected by the extent to which the government provides free social services and infrastructure. The impact of tax changes *per se* has never proved to be significant; one may expect accelerated migration only when tax changes are taken as evidence of underlying misdirection in government policy. It is the credibility and consistency of government policy, rather than the tax rate, that affects migration.

4.3 Government Expenditure

Government expenditure policies may have a significant impact on economic growth. The importance of infrastructure as a basis for investment is well recognized, and government investment in this area will be productive (Blejer and Khan, 1984). There is an increasing focus on the human resource requirements for growth; the quality of the human resource base determines the capacity for absorbing new technology. Government expenditure on education, improving the health of the workforce and providing adequate sanitation and housing are considered productive expenditures (World Bank, 1991). An environment in which these services are well-developed is attractive to investors. Improvements in the quality of the human resource, as Siebert (1991) suggests, may provide the basis for future comparative advantage, which affords the worker a higher standard of living.[10]

4.4 Property Rights

Patent laws and institutional arrangements which allow firms to reap the benefits of their investment in new technology should encourage stronger investment in the technology sector and more rapid growth (Rivera-Batiz and Xie, 1992). Small countries may have to subscribe to international conventions on property rights to qualify for investment flows that permit technological diffusion. However, restrictive patents may inhibit diffusion. Efforts at generalizing on this issue are complicated by the fact that some knowledge cannot be patented, so the returns can never be fully internalized.

4.5 Competition

Economists differ in their views on the relationship of competition and growth (Cheng and Dinopoulos, 1992; Scott, 1992). Monopoly may foster growth by encouraging more investment in research and development because returns from such investment may be internalized by the monopolist. But competition may foster growth by increasing the rate of diffusion. Since diffusion is the principal channel of innovation in small economies, they should encourage competition. However, as was noted earlier, the markets of small economies are easily dominated by large international firms, and anti-monopoly legislation is likely to be even more sterile than it is in industrialized countries.

4.6 Macroeconomic Stability

Economic output expands in a stable macroeconomic environment with credible government policy. The strongest investment incentive is a stable environment of prices, interest rates and exchange rates, because fixed investment is irreversible and the stream of future returns is uncertain. Economic instability increases uncertainty to the point where it is profitable for firms to wait rather than to invest (Pindyck, 1991). Economic stability is a necessary, though not a sufficient condition for economic growth.

5 EXTERNAL DEBT

Issues of major concern in the macroeconomic literature on external debt are the optimal level of debt and the risk of debt repudiation. The optimum rate of debt accumulation is determined by the growth rate and the real interest rate. The faster the growth rate of a competitive economy the greater is its capacity to service external debt. The more rapidly an economy grows the more external debt it may support, for any level of the interest rate.

In the open economy the real interest rate is exogenous, determined on the international capital market. The rate of debt accumulation therefore depends on the growth rate. If the growth rate is exogenous, as it is in many models of debt accumulation, there is a maximum sustainable rate of debt accumulation. Models where growth depends on savings encourage the notion of an external debt constraint on growth, because an increase in interest rates reduces the optimal rate of ex-

ternal debt accumulation and therefore the resources available for growth. However, this implies that the increase in domestic finance in response to the increase in real interest rates is not sufficient to compensate for the reduction in external borrowing.

In models of endogenous growth it becomes clear that external debt accumulation is not the constraint, though real interest rates may be. The rate of growth depends on investment-promoting policies such as macroeconomic stability, trade policy, tax policy and the provision of public goods. For any rate of growth the real interest rate determines the ratio of external to domestic finance. If there is an external constraint on growth it is the real interest rate, which may reduce the level of investment, *ceteris paribus*.

One may assess the risk of default on external debt by comparing the cost of economic adjustment to provide surpluses for debt servicing with the costs of debt repudiation (Ghatak and Levine, 1991). These models are helpful in understanding the evolution and treatment of debt in the recent past, but they are less useful in determining future strategy because the results depend critically on parameters such as the rate of time preference of borrowers and the degree of risk aversion of lenders, which can only be guessed at.

6 MONETARY UNION

6.1 Optimum Currency Areas

The initiatives for European unification have revived interest in the theory of optimum currency areas. The benefits for a small country in joining a large currency area include a reduction in transaction costs; less trade uncertainty because the proportion of transactions in foreign currency, or currencies not linked in value to the domestic currency, is smaller; and improved credibility of anti-inflationary policy because domestic inflation must be kept in line with inflation elsewhere in the region by use of domestic policy. The cost is the loss of the exchange rate instrument as a potential shock absorber.

The benefits are likely to outweigh the cost where intra-regional trade is considerable and there is significant factor mobility among members of the monetary union (Mundell, 1961; McKinnon, 1963; Frenkel, 1975). Moreover, monetary union is an especially attractive option for small economies because the costs of surrendering the exchange-rate instrument are small and the benefits of enhanced policy

credibility considerable. This follows from our earlier discussion on page 102 where we saw that the preferred policy for small, open economies was to use fiscal policy to sustain a fixed nominal exchange rate and stabilize expectations.[11]

6.2 Fiscal Implications of Monetary Union

Quite powerful fiscal transfer mechanisms are required to avoid widening inequities between members of a monetary union (Eichengreen, 1990; and Sala-i-Martin and Sachs, 1991) because factor mobility is never perfect or instantaneous. A particular shock will have a different impact on different members of the union because of such factors as resource endowments, production structures and labour market conditions. These differentials will not be eliminated by factor movements: labour mobility is slow and limited because households are bound to their current location by legal, social and familial ties; and capital mobility, though much greater than for labour, is slowed by the fact that most capital is linked in some way to the location of households. Most obviously, much of the capital stock in most countries is in housing. In practice, monetary unions currently under development seem to have paid insufficient attention to this factor.

Tax uniformity within the monetary union is not essential and may not be desirable. Research into the effects of tax differentials on the mobility of capital and labour within the USA and Europe suggests that any potential effects are swamped by legal, social and institutional frictions. There will be some shifts, mainly among populations who live on the borders, but other effects are indistinguishable. Moreover, these influences are constantly changing so that tax uniformity would require firm and agreed views on expectations.

Tax harmonization rather than uniformity should be the goal of a monetary union. This may involve uniformity of selected taxes whose incidence is the same throughout the region, but for the most part, as is made clear in Worrell (1991) it involves tailoring individual country tax policy to achieve common targets for the region.

6.3 Monetary Policy

There is limited scope for individual countries to undertake monetary policy within the union, provided countries retain their own currencies. Capital is never fully mobile, and even within countries there are variations in interest rates and credit conditions (Hester and Sdogati, 1989).

However, the range within which it will be possible to exercise such discretion is circumscribed. The possibility of individual country monetary policy does not completely disappear with the introduction of a single currency. As long as there are communications costs, other information costs and frictions in credit markets it will be possible for national governments to engage in mild monetary inflation and deflation, though the effects would soon spill over to the rest of the union.

7 AN ASSESSMENT: GUIDANCE FOR POLICY-MAKERS

The policies needed to stabilize the small economy and stimulate growth vary with the country's initial circumstances, the reputation of the authorities, the nature of the shocks to which the country is subject, its infrastructure, its endowments of human and physical capital, the degree of factor mobility, the rate of technological diffusion and other factors discussed in this chapter. Policies are also constrained by social and political factors, which lie beyond the realm of macroeconomics. There is as yet no comprehensive macroeconomic framework which adequately covers all the issues, but the literature provides us with a wide selection of tools with which to analyze the implications of most of the relevant factors on a *ceteris paribus* basis. Clearly, strategies must be tailored to each country's circumstances.

Fiscal policy emerges as the cornerstone of the economic strategy for the small economy. Its effects are the most powerful, both for stabilization and for investment; non-inflationary fiscal policy builds a government's reputation and makes investors more confident of future stability; the provision of public goods strengthens the investment incentive and establishes the country's dynamic comparative advantage. Conversely, governments which fail to establish their reputation for anti-inflation budgeting have great difficulty in securing credibility for any other policy.

For the small economy, a nominal exchange rate fixed at a credible, sustainable level is easiest to manage. It yields significant benefits by stabilizing expectations and reducing transactions costs, and it involves no avoidable costs. We have no dependable recommendation for achieving exchange rate stability from an initial situation where the official rate is badly overvalued and the government does not have a reputation for being willing to combat inflation. We have proponents of shock treatment, overkill, gradualism and heterodox policies

as devices to build reputation – or compensate for the lack thereof.

Apart from the importance of macroeconomic stability we remain unsure about policies to stimulate growth. We have learned to be sceptical of financial liberalization as a growth stimulus, whatever the merits may be of reducing distortions. Additionally, trade liberalization is not usually the policy that secures optimum growth, though non-tariff trade interventions are distortionary and should be avoided. The focus on technological change and the determinants of investment is an important correction of the emphasis on saving, but we need a better understanding of the effects of competition, property rights, the processes of diffusion and the role of public goods. Although we now have the apparatus for projections of optimal rates of debt accumulation, in practice the information requirements are so demanding that policy-makers effectively still depend on 'rule of thumb'. We cannot do better because of the uncertainty of future interest rates and the imponderable nature of such variables as the rate of time preference. We do have the means for a more informed ongoing assessment of the implications of debt accumulation, however.

Monetary unions seem an attractive option for small countries, notwithstanding the danger of polarization within the union. The union imposes a degree of fiscal discipline and adds to the credibility of domestic policy, with little real sacrifice of effective policy options.

Notes

1. Strategic behaviour by dominant firms may also determine the evolution of comparative advantage (Caves, 1984), as may non-price strategies for increasing competitiveness (Fagerberg, 1988). Although Steinherr (1981) and van Wijnbergen (1986) do not explicitly seek to determine an equilibrium exchange rate, we may infer from their discussion of the structural factors determining the outcome of exchange rate changes the following as additional influences on the evolution of the equilibrium exchange rate: wage and price rigidities, the composition of wealth, and the objectives of demand policy (Steinherr) and imported raw materials, wage indexation, imported wage goods and credit availability (van Wijnbergen).
2. Edwards lists fundamentals affecting the real exchange rate as the external terms of trade, the level and composition of government consumption, the extent of trade and capital controls, the rate of technical progress and the investment to GDP ratio.
3. Dornbusch (1976) is the seminal article on exchange rate dynamics. Dornbusch and Helmers (1988) illustrate some patterns of exchange rate

evolution. Also see Ahmad (1984) on the implications of purchasing power parity, and Blejer (1979) on inflation, devaluation and the real exchange rate.

4. See Lizondo and Montiel (1989). Gylfason and Schmidt (1983) discuss some of these issues in a static framework. Barbone and Rivera-Batiz (1987) introduce an additional element – the repatriation of profits by foreign-owned subsidiaries.
5. Interest in Ricardian equivalence was renewed by Barro (1974). The debate continues inconclusively; two recent examples are Haug (1990) and Kotlikoff, Razin and Rosenthal (1990). A survey may be found in Barro (1989).
6. The article by Calvo and Rodriguez (1977) awakened widespread interest in currency substitution and its effects on exchange rate management. Their results are enlarged upon in Liviatan (1981) and Engel (1989). Among recent contributions to this literature Rogers (1990) argues that currency substitution reduces the effectiveness of monetary policy in a flexible exchange-rate regime; Canonzeri and Diba (1992) find that currency substitution is an unreliable source of inflation discipline; Koustas and Ng (1991) discuss how currency substitution may affect the stability of the exchange rate; and Agénor and Khan (1992) show the effects of parallel market exchange rates on currency substitution.
7. By definition, one cannot 'overborrow' to invest in internationally competitive ventures: their competitiveness ensures that the returns are sufficient to meet future debt service charges.
8. There is some evidence that the extent of technological determination may be overestimated (Adams, Behrman and Boldin, 1989).
9. Even small countries may attract unwanted attention and sanctions for subsidies to exportables. Moreover, if other countries maintain a tariff it may not be optimal for the small country to engage in free trade in all circumstances.
10. Siebert makes the point that future comparative advantage may be determined by the provision of public goods; the other inferences are my own.
11. Against this reasoning it is sometimes objected that the exchange rate might otherwise be used to insulate the small economy against policy errors emanating from larger neighbours. In fact, capital mobility deprives the small country of that option. If, for example, the small country devalues to counter excessive contraction from abroad, capital exports depress the money supply and nullify the exchange-rate effects.

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