# MACROECONOMIC STABILITY AND ECONOMIC RESILIENCE IN SMALL STATES: THE ROLE OF MACROECONOMIC POLICIES

#### Lawrence Schembri

**Abstract.** This chapter examines the role of macroeconomic stability in building economic resilience and considers which public policies are best suited towards this end, especially in small states. The paper argues that small states have difficulty achieving stable economic growth principally because they are highly exposed to external shocks. In this regard, economic resilience is an important and useful concept as it relates to the capacity of small states to respond to such shocks. The main argument put forward in this chapter is that fiscal deficits must be prudently managed to ensure that the path for public debt is sustainable; otherwise other macroeconomic policies will be undermined.

## 1. Introduction and Overview

The economic goal of a nation state is to achieve stable and sustained growth by efficiently employing available resources. Economic growth contributes to a higher quality of life and reduces poverty. Small states¹ have difficulty achieving stable economic growth because they are "economically vulnerable": the existence of economies of scale in a wide range of economic activities in conjunction with their small size increases their dependence on external markets and leaves them open to external shocks.² In addition, although a number of small states have benefited from globalisation, as increased international trade as well as higher capital flows have expanded their opportunities for consumption and their economy's productive capacity, deeper economic integration has also left these small states more vulnerable to external shocks. As a consequence of the forces of globalisation, chiefly technological change, liberalisation and international competition, small states have become more specialised in production and more dependent on external trade and finance.

 $<sup>^{\</sup>hat{1}}$  Small states are normally defined as those with populations of 1.5 million or less. The sample of small states covered in this study includes Jamaica and Singapore, with populations exceeding 1.5 million. These two states are often included in studies on small states.

<sup>&</sup>lt;sup>2</sup>See Briguglio (1995) for an in-depth analysis of economic vulnerability.

To manage effectively the economic vulnerabilities that confront these small states, especially those associated with this ongoing and largely beneficial trend towards deeper economic integration, small states must adopt policies that increase the resilience of their economies to exogenous shocks. Economic resilience is defined as the economy's ability to avoid, withstand and quickly recover from these external shocks.<sup>3</sup> Achieving macroeconomic stability through the adoption of appropriate fiscal, monetary, exchange rate and financial policies is a critical element in a broader set of public policy objectives, which also include microeconomic market efficiency, good governance and social development (Briguglio et al., 2006). The overarching goal of public policies designed to achieve these intermediate objectives is to strengthen or "nurture" economic resilience in small states and thereby improve their prospects for stable economic growth.

The purpose of this chapter is two-fold: to examine the role of macroeconomic stability in building economic resilience, and more importantly, to consider which public policies are best suited to achieve macroeconomic stability, especially in small states.

Macroeconomic stability can be conceptually decomposed into internal and external balance. These elements of macroeconomic stability are related and mutually reinforcing.4 Internal balance implies low and stable (and thus predictable) price inflation, aggregate output at the full employment level, and steady economic growth. External balance, on the other hand, is consistent with a balance of payments position that can be sustained with the existing level of capital flows, and thus, without significant exchange rate movements. Generally speaking, countries that attain internal and external balance have been better able to achieve and maintain high and stable rates of economic growth and steadily improving living standards. In particular, the reduced variability of economic outcomes observed for many countries since the early 1990s is partly attributed to improved macroeconomic policies.5 This reduced variability, which has come to be known as the "Great Moderation", has occurred despite several events of significant economic disruption, including the Latin American and East Asian financial crises, which have taken place over this period. Hence, better macroeconomic policies have increased macroeconomic stability and have contributed to economic resilience at the global level.

<sup>&</sup>lt;sup>3</sup> Briguglio, Cordina, Farrugia and Vella (2006) provide this definition of economic resilience. The authors also argue that a state's "risk of being harmed" from external shocks increases with its economic vulnerability and falls with its economic resilience.

 $<sup>^4</sup>$  Dornbusch (1980) provides an insightful analysis of the concepts of internal and external balance.

<sup>&</sup>lt;sup>5</sup>See Longworth (2002) for an insightful analysis.

The concepts of internal and external balance are useful for understanding the goals of macroeconomic policy and for identifying a coherent set of policies designed for achieving these goals. For example, although a country can choose either a fixed or flexible exchange rate regime, depending on its economic circumstances, it is crucial that fiscal, monetary, and financial policies be conducted in a manner that is consistent with the sustainability of the exchange rate regime. A coherent macroeconomic policy framework is also important because it increases a country's chances of avoiding external shocks. If macroeconomic policies are consistent, then the domestic economy will be less vulnerable to contagion from financial crises that occur elsewhere. Furthermore, a coherent macroeconomic policy framework should facilitate sufficient real exchange rate flexibility, through adjustments in the nominal exchange rate and/or domestic prices and wages, to allow this important relative price to play a "shock absorber role" in response to external shocks. In particular, real exchange rate flexibility helps insulate the domestic economy from external shocks, and permits the economic adjustment necessary to ensure a rapid recovery from the impact of these shocks on the domestic economy.

Briguglio, Cordina, Farrugia and Vella (2006) (hereafter BCFV) construct an index of economic resilience for over eighty countries that includes the intermediate policy objectives of macroeconomic stability, microeconomic market efficiency, good governance and social development. In this index, macroeconomic stability is measured by (i) the fiscal deficit to GDP ratio (ii) the sum of the unemployment and inflation rates and (iii) the external debt to GDP ratio.

These variables were chosen by BCFV as measures of macroeconomic stability, in part, because data on them are available for a large number of countries. Our purpose here is not to question the choice of these variables, but to provide a conceptual framework for understanding the usefulness of these measures of macroeconomic stability.

Strictly speaking, only variable (ii), the sum of the unemployment and inflation rates, is a measure of macroeconomic stability. Variables (i) and (iii), although potentially related to the macroeconomic stability in the extreme cases when the fiscal and current account deficits may not be sustainable, can be more usefully thought of as measures of the effective stewardship of public and externally provided resources, including the flexibility of economic policy in responding to exogenous shocks. For example, in the early stages of their economic development, it may be appropriate for countries to increase their external debt to GDP ratios in order to take advantage of foreign savings to raise the level of capital per worker and increase economic growth. The important

issue for macroeconomic stability is not that the debt ratio has gone up, but that the funds borrowed from abroad are well invested.

To be consistent with these measures of macroeconomic stability used in the BCFV resilience index, we will broaden the scope of this chapter to discuss the effective stewardship of public and externally provided resources in addition to our narrower definition of macroeconomic stability based on the concepts of internal and external stability, which we described earlier. Thus, the key hypotheses of the chapter are:

- 1. macroeconomic stability (including the effective stewardship of public and externally provided resources) "nurtures" or contributes to economic resilience; and
- 2. macroeconomic stability (including the effective stewardship of public and externally provided resources) can be enhanced by the appropriate macroeconomic (exchange rate, monetary and fiscal) and financial policies.

The chapter is organised around these two hypotheses as shown in Figure 1. In particular, Figure 1 provides an overview of the conceptual framework to be used in the chapter. In the next section, the contribution of macroeconomic stability to economic resilience is considered. The third section examines the macroeconomic policies that can be adopted by small states to enhance macroeconomic stability and the fourth section briefly analyses the macroeconomic experience of a sample of small states in order to draw useful policy lessons. The final section provides some concluding remarks, including a brief reference to the IMF's role in conducting surveillance to help countries adopt policies that achieve macroeconomic stability and thereby increase economic resilience.

Figure 1 Macroeconomic Stability and Economic Resilience A Conceptual Framework

Macroeconomic and Financial Policies

Hypothesis 2 📗

Macroeconomic Stability & Effective Stewardship of Public & Externally Provided Resources

Hypothesis 1



Economic Resilience



Stable Economic Growth

The purpose of this section is to investigate the contribution of macroeconomic stability, defined broadly to include the effective stewardship of public and externally provided resources as per BCFV, to economic resilience. Based on this definition, we can decompose the goal of macroeconomic stability into four elements namely internal balance, external balance, effective stewardship of public resources and effective stewardship of external resources.

Each of these elements, or intermediate targets, fosters economic resilience and stable growth. Internal balance is normally defined as occurring when domestic output, or GDP, is at the level consistent with full employment<sup>6</sup> of domestic productive resources (that is, at potential output) and the rate of inflation (normally specified in terms of consumer prices) is low, stable and predictable. Full employment of resources is desirable not only because it implies that workers can find employment and that there are no idle resources in the economy, but because when output is at the potential level, there is no pressure on inflation to increase or decrease. When the economy is in internal balance, it should grow at a rate roughly equal to the sum of the rate of increase in the supply of productive factors plus the rate of technological growth.<sup>7</sup> Maintaining stable inflation at a low level is important because it allows the price mechanism to work efficiently; that is, relative price movements provide clear signals as to how resources should be efficiently allocated within the economy. In addition, inflation that is low, stable and predictable allows firms and individuals to make longer-term investment decisions for physical and human capital and for financial investments with greater certainty about their expected returns.8

External balance implies a current account position that can be maintained at the existing level of capital flows. If the current account position cannot be sustained by ongoing capital flows, a significant real exchange rate movement may be required. That is, an unsustainable current account deficit would typically require a real depreciation and vice versa for a current account surplus. Small states face unique challenges in achieving external and internal balance. Because of a lack of economic size and the need to specialise to obtain economies of scale and scope, small states normally produce a more limited range of goods and services. Therefore,

<sup>&</sup>lt;sup>6</sup> Full employment is generally interpreted as that level consistent with the non-accelerating inflation rate of unemployment (NAIRU), which implies that some workers may be unemployed because they are searching for new work (frictional unemployment) and other structural reasons (for example, a lack of labour mobility).

<sup>&</sup>lt;sup>7</sup> Technological growth is defined as the rate of total factor productivity growth.

<sup>&</sup>lt;sup>8</sup> For a comprehensive analysis of the benefits of low and stable inflation, see O'Reilly (1998).

they are dependent on trade to obtain critical imports in exchange for a narrow set of exports. Also, small states often rely heavily on foreign investment to obtain the capital and technology needed to achieve these scale economies and the ability to export. This openness, in terms of both trade and capital flows, renders small states vulnerable to adverse external shocks, thus hindering their ability to maintain external balance. These shocks may also disturb internal balance as adjustment to external imbalances often requires shifts in domestic aggregate demand.

An economy in internal and external balance can more easily withstand and recover from external shocks. To achieve internal and external balance, policies must be in place to enhance domestic relative price (real exchange rate) flexibility and anchor inflation expectations. In these circumstances, internal balance can be maintained in the face of external shocks because domestic relative prices adjust to these disturbances, and although inflation may deviate temporarily from its desired or targeted level, it will be expected to return to this low level. Similarly, countries that avoid significant exchange rate movements caused by current account imbalances generally have flexible relative domestic prices that adjust smoothly to any imbalance, either by having a flexible nominal exchange rate or a fixed nominal exchange rate and flexible domestic prices and wages.

In well-functioning economies, governments must provide public goods (and services), including physical infrastructure (e.g., roads), education and health services, and a judicial system to support the economic activities of the private sector. Since public resources are scarce, these expenditures on public goods and services should be allocated to maximise social returns and be delivered efficiently by making use of the private sector where possible. The cost of providing these public goods must ultimately be paid for through the collection of taxes. The effective stewardship of public resources requires that tax rates be low, broadly based and stable in order to preserve the incentives to work, save and invest, and that they be collected in a cost-efficient manner. The fact that government expenditures are more popular politically than the imposition of taxes needed to pay for them creates strong incentives for governments to run fiscal deficits. The debt issued to pay for these deficits should be carefully managed for three reasons.

Firstly, public debt levels and debt service costs must remain at a manageable level (that is, not growing at a faster rate than the overall economy). Otherwise, expectations of default or monetisation will

<sup>&</sup>lt;sup>9</sup> For public services, such as university education, whose benefit largely accrues to the individual or firm, user fees should be charged.

increase, thus raising borrowing costs through higher risk premia and potentially creating a vicious cycle of more borrowing to pay for higher interest rate payments.

Secondly, governments, especially in smaller developing states, often find it difficult to issue debt to the private sector and often resort to the central bank or to domestic commercial bank financing. Expanding the domestic money supply or domestic credit to finance fiscal deficits in this way runs the serious risk of generating inflation. High inflation undermines the goals of monetary and exchange rate policy, reduces the credibility of the central bank, and in extreme cases may cause an exchange rate crisis, capital flight or the widespread domestic use of foreign currencies.<sup>10</sup>

Thirdly, public debt issued by governments in developing states to the domestic private sector or to foreign lenders is often denominated in foreign currency, thus increasing exchange rate risk due to the currency mismatch between government revenue in local currency and foreign debt payments in foreign currency.<sup>11</sup> In this situation, governments need access to foreign currency generated by net exports or capital inflows, either by purchasing it from the private sector in the foreign exchange market or by drawing down official reserves.

Effective management of public resources serves to increase economic resilience by avoiding or reducing contagion from external financial crises. This is because countries that are not heavily indebted are generally spared the most severe forms of capital reversals caused, in part, by a reduction in confidence. It also engenders the fiscal flexibility or "fiscal space" that enable a country to respond to adverse external demand shocks by increasing government spending or cutting taxes. Such response may in turn enable the economy to withstand and quickly recover from such shocks by maintaining internal balance. This is especially relevant for small states given that these tend to be vulnerable to exogenous shocks. Consequently fiscal policy may have to be used more actively for stabilisation purposes. In addition, the effective management of public resources is also conducive to the establishment of a well-functioning public infrastructure to cope with natural disasters.

Small states often have a deficit of private savings relative to domestic investment opportunities. This gap is typically partially filled by borrowing from abroad. It is important that these externally provided

<sup>&</sup>lt;sup>10</sup> Krugman (1979) develops a model of currency crises caused by money-financed fiscal deficits. Osakwe and Schembri (1998) provide a useful survey of this literature.

<sup>&</sup>lt;sup>11</sup> State-owned enterprises also often borrow in foreign currency and their loans are guaranteed by the government.

resources in the form of capital inflows be managed properly so that the external debt burden is neither excessive nor in the form of investments that could create excessive volatility. Since most of the external debt in small states is either directly issued by the government or is government-authorised (e.g., via state-owned enterprises), the same concerns expressed earlier about excess public debt apply to excess external debt. In particular, the external debt level should not become excessive so that it cannot easily be serviced by returns from the domestic investment of these capital inflows.<sup>12</sup>

It is also important that foreign capital flows to the domestic private sector not be distorted by government policy. In particular, in the absence of government distortions and assuming reasonably well-developed financial markets, capital flows would generally be balanced in terms of composition: foreign direct investment (FDI), equity, debt, and bank loans. This balance is helpful because FDI and equity are generally more stable and less prone to reversals during periods of financial stress.

Governments should strive to maintain access to global capital markets in order to allow external borrowing and lending to smooth external shocks and to permit efficient portfolio diversification by domestic residents to reduce risk. Access can be sustained by keeping public debt levels low, by refraining from imposing any impediments to this access (e.g., capital controls) and by adopting a policy of equal and fair treatment of domestic and foreign investors. These policies will sustain the confidence of foreign investors by maintaining their expected investment returns and limiting their risk exposures.

Effective stewardship of externally provided resources can significantly increase economic resilience. By maintaining a positive investment environment and low external debt levels, contagion effects from other financial crises can be avoided or reduced. Moreover, these measures will also maintain access to global capital markets, thus allowing the domestic government and residents to diversify risk and to insure partially against adverse external shocks by being able to borrow (or lend) to smooth the impact of these shocks on domestic consumption levels. Lastly, the vulnerability of the domestic economy to external shocks can be reduced by ensuring that foreign capital is efficiently invested to produce sufficient returns to service the debt.

The four elements or objectives of macroeconomic stability discussed in this section: internal and external balance and the effective management

 $<sup>^{12}</sup>$  In countries with heavily managed or fixed exchange rates, net export receipts or the availability of official foreign reserves may also pose an additional constraint to external borrowing.

of public and externally provided resources can all make large contributions to the economic resilience of small states, but it is important to stress that the impact of these elements on economic resilience is much larger in combination than in isolation. In other words, because these policy objectives are intrinsically related (e.g., low public debt levels make it easier for monetary policy to maintain a credible inflation target), there are large synergies or positive spillovers among them. Therefore, the goal of public policy should be to establish a macroeconomic policy framework that can attain these macroeconomic stability objectives simultaneously. Achieving all of these objectives at the same time poses a substantial challenge, especially for less developed small states, because the necessary resources (in particular, government revenue and human capital) may not be available. In most cases, these objectives are dealt with sequentially (e.g., the inflation rate cannot be lowered until fiscal deficits are reduced). Nonetheless, even in these situations, it is helpful for the government to work towards the establishment of a coherent, forward-looking policy framework to help shape the expectations of domestic residents and foreign investors by demonstrating to them that the government has a sensible, and therefore credible, plan to attain macroeconomic stability and thereby increase economic resilience.

# 3. Macroeconomic Policies: Achieving Macroeconomic Stability

In the previous section, we argued that macroeconomic stability can have a large positive impact on the economic resilience of a small state. The purpose of this section is to examine which policies can be implemented to achieve macroeconomic stability. Although the focus is on fiscal, monetary and exchange rate policies, financial sector and labour market policies are discussed as well because they can also contribute significantly to macroeconomic stability. A key conclusion of this section is that macroeconomic policies must work in concert, within a coherent overall framework, to achieve macroeconomic stability. Policies that are inconsistent are doomed to fail.

The most important policy for attaining macroeconomic stability is fiscal policy. If government revenue and expenditures are not managed properly resulting in chronic budget deficits, the effectiveness of other macroeconomic policies will be undermined. Indeed, because inappropriate fiscal policy and unsustainably high public debt levels

<sup>&</sup>lt;sup>13</sup> In the BCFV index for economic resilience, financial sector and labour market policies are included under the heading of microeconomic market efficiency. This classification is sensible, although it is important to keep in mind that these policies can also influence macroeconomic stability.

are inconsistent with monetary and exchange rate policies aimed at some form of nominal stability (price level or exchange rate), these fiscal problems are often at the heart of many financial crises (currency, debt or banking crises). Prudence in fiscal policy is therefore critical for macroeconomic stability because it provides the foundation for credible and effective monetary, exchange rate and financial sector policies.

To ensure that the fiscal policy is sustainable, governments should commit to a path or long-run target for the public debt/GDP ratio. <sup>14</sup> A path or long-run target for the public debt to GDP ratio that is accepted by the private sector will create a virtuous cycle by enhancing the government's ability to commit credibly to taxes and inflation that are both low and stable. Such an outcome should, in turn, reduce uncertainty, stimulate economic activity and growth, and generate more tax revenue.

To determine this path and credibly commit to it, governments must strike a balance between the marginal social return on public expenditures on public goods and services on the one hand and the marginal dead-weight cost of raising taxes to pay for these expenditures on the other. Although it is beyond the scope of this chapter to explore in detail how this balance can be determined, it is clear that governments must identify public goods and services that cannot be readily provided by the private sector and rank them by their expected social return. 15 In addition, governments should avoid subsidizing economic activities unless there is clear evidence of a market failure. Too often subsidies are used to gain political support, but at the cost of distorting economic behaviour. Governments must also establish a tax system that can efficiently raise revenue across a broad base to limit distorting incentives to work, save and invest, and the resulting dead-weight losses. Small states often rely heavily on consumption and import taxes to collect revenue. Although these taxes can be collected at relatively low cost and have the advantage of reducing the incentive to consume, they are often applied at very high rates. Consequently, the marginal dead-weight losses and the incentives to avoid paying these taxes are high. Therefore, it may be desirable to broaden the tax base to include other forms of taxation, including wealth (property) and income taxes.

Although fiscal policy can be used for stabilisation purposes in order to obtain internal balance, its effectiveness as a discretionary instrument of stabilisation policy is limited. In theory, fiscal policy should be countercyclical to stabilise aggregate demand around the level of

 $^{15}$  Boadway and Wildasin (1984), examine public expenditure and tax policy in greater detail.

<sup>&</sup>lt;sup>14</sup> See Macklem (1994) for a discussion of the macroeconomic implications of fiscal sustainability.

potential output. That is, fiscal policy should be expansionary (increased expenditures or lower taxes) during economic slowdowns and contractionary during economic upswings so that over the business cycle the average or trend fiscal position is small and sustainable.

To be effective in stabilising aggregate demand, countercyclical fiscal policy should be automatic rather than discretionary because fiscal policy actions need to be well-timed to coincide with the peaks and troughs of the business cycle. Discretionary fiscal policy (e.g. a legislated tax cut) takes time to implement because it requires government and parliamentary approval before being adopted. In contrast, automatic fiscal stabilisers, such as unemployment insurance and progressive taxation, come into force, as needed, without formal approval, once the program has been established.

As discussed, a sustainable fiscal policy greatly assists monetary and exchange rate policies in achieving their goal of nominal macroeconomic stability: low and stable inflation in conjunction with a relatively stable exchange rate. Monetary and exchange rate policies should, however, be discussed together because they jointly form the "monetary rule" for the economy. 16 In particular, the choice of the exchange rate regime has direct implications for the choice of domestic monetary policy, especially if capital controls are absent.<sup>17</sup> To examine this argument, it is useful to consider a number of examples of exchange rate regimes, from permanently fixed to flexible or market determined. A common currency is the most extreme example of a permanently fixed exchange rate regime. If a small state were to adopt a common currency with a larger trading partner with no capital controls in place, it would effectively have no autonomous domestic monetary policy. In other words, in such a situation, the local authorities would have no control over the domestic money supply as it would be completely endogenous, solely determined by the domestic demand for money. Thus, the local monetary authorities would have limited influence on inflation; it would largely depend on foreign monetary policy and the foreign inflation rate, and the state of domestic aggregate demand relative to supply. This outcome would be essentially the same for a currency board arrangement where the exchange rate is permanently fixed and the supply of domestic currency is fully backed by foreign currency reserves.

<sup>16</sup> See Laidler (1999) for a more detailed discussion of the "monetary rule".

<sup>&</sup>lt;sup>17</sup> This statement is an implication of the "Impossible Trinity" of open economy financial policy; that is, it is impossible to have a flexible exchange rate, an independent domestic monetary policy and capital mobility (i.e., no capital controls). See Rose (1996) for more details. The imposition of controls on capital flows gives the domestic authorities some limited control over the domestic money supply, but controls also create large incentives for avoidance and so their effectiveness typically diminishes over time.

In the case of a fixed or heavily managed (crawling) exchange rate regime, monetary policy must be aimed at maintaining the exchange rate peg. Once again, in the absence of capital controls, the domestic monetary authorities would have limited scope to influence domestic inflation. In these circumstances, some modest short-run control over domestic inflation could be obtained by shifting aggregate demand via fiscal policy.

If the exchange rate is flexible or determined by the market, then the central bank has independent control over domestic monetary policy, but the central bank must choose a nominal target for monetary policy in order to operationalise monetary policy and anchor private sector expectations. The most frequently used nominal targets for monetary policy under a flexible exchange rate are some form of inflation targeting or money-supply targeting, with inflation targeting dominating in recent years. <sup>18</sup>

A small state must choose a monetary rule from these different options that is best suited to help it achieve macroeconomic stability in terms of internal and external balance. The key objectives for the monetary rule are: achieving low and stable inflation, maintaining a relatively stable nominal exchange rate and permitting the real exchange rate to adjust to insulate the domestic economy from external shocks. Having some form of permanently fixed exchange rate to a major trading partner that has relatively stable macroeconomic policies provides a means of importing stability from abroad. A fixed exchange rate also means that the exchange rate itself is not a source of instability. A fixed exchange rate, however, places greater pressure on domestic prices and wages to adjust in response to shocks to the external demand for domestic goods and services and to fluctuations in capital flows.

In contrast, a floating exchange serves as a shock absorber by facilitating the adjustment to these shocks by allowing the real exchange rate to adjust more smoothly. For example, a fall in external demand will be met with a depreciating nominal and real exchange rate that will tend to offset the impact of the shock on domestic demand. With a floating rate, the onus is on the domestic authorities to use their independent monetary policy to achieve low inflation. Although the choice of an optimal monetary rule or exchange rate regime is beyond the scope of this chapter, other important considerations include transactions costs and the extent of trade integration and the flexibility of the domestic labour market.<sup>19</sup>

 $<sup>^{18}</sup>$  See Paulin (2006) for a recent review of the inflation targeting experience.

<sup>&</sup>lt;sup>19</sup>See Krugman and Obstfeld (2006) for a useful introduction to the subject of the exchange rate regime choice.

Financial sector policies not only have large implications for the efficiency of domestic financial markets and institutions at the microeconomic level, but also have significant ramifications for macroeconomic stability. It is well known that a poorly regulated and supervised banking sector can lead to bank failures and possibly a banking crisis which would cause a drastic reduction in financial intermediation, a credit collapse and a substantial decline in aggregate economic activity. Financial disruptions also have implications for fiscal policy, as governments may be forced to compensate depositors or lenders, and for monetary and exchange rate policies, as central banks may have to act as a lender of last resort for institutions they feel are solvent, but illiquid. By injecting liquidity into the system, the central bank would be trying to offset tighter credit conditions, but in so doing it may undermine its commitment to maintain a fixed exchange rate. That is, a banking crisis may cause foreign creditors to exit which, in the absence of capital controls, will generate severe speculative pressure on the currency. If the central bank does not respond to this pressure by raising interest rates, which it would be reluctant to do given the state of the banking system, an exchange rate crisis could ensue. In general, financial sector policies aimed at creating a stable and well-functioning banking system and liquid and efficient capital markets promote the efficacy of monetary and fiscal policies.

Like financial sector policies, labour market policies have implications that extend to the aggregate economy because labour is a key productive factor. In particular, labour market policies that are not conducive to flexibility may lead to sticky wages, a lack of labour mobility across sectors of the economy and higher unemployment. Consequently, when the economy in a small state is faced with a shock to the external demand for one of its outputs, for example, it will be very difficult for the economy to respond to the shock by either reducing wages and prices or re-allocating labour. In these circumstances, unemployment will increase and fiscal, monetary and possibly exchange rate policies will be forced to respond to limit the impact of the shock. Once again, labour market policies aimed at creating a flexible labour market enhances the ability of macroeconomic policies to achieve internal and external balance.

In summary, fiscal, monetary and exchange rate policies, as well as financial sector and labour market policies, can be used effectively to achieve macroeconomic stability and thereby increase the economic resilience of small states. The key lessons from past experience are that having a sustainable path for public finances is critical to achieving macroeconomic stability and that these policies must be implemented within a coherent and forward-looking policy framework in order to be most successful.

## Challenges Facing Small States

Small states often face significant challenges in implementing the appropriate policies to achieve macroeconomic stability. In particular, governments in these countries are often expected to play a large role in protecting domestic residents from external shocks. Because these shocks are often relatively large and domestic residents have limited access to global capital markets to insure against these shocks, there is substantial political pressure for governments to act as an economy-wide insurer. Hence the demand for government expenditures and transfers tends to be large.

This factor, coupled with difficulties in constructing an effective system of tax collection, due to a lack of economies of scale, often generates a situation of persistent fiscal deficits, which are difficult to finance and therefore sustain, and a tax system that relies too heavily on sales and import taxes with the potential to create severe distortions. Consequently, the authorities often rely on debt issuance to the central bank or commercial banking sector to finance chronic deficits. As noted, such a policy generates inflationary pressure and can undermine the achievement of inflation and exchange rate stability as well as central bank credibility.

Regarding exchange rate and monetary policies, it is difficult for a small state to conduct an independent monetary policy with a flexible exchange rate and maintain open access to global capital markets. Because of underdeveloped financial markets and institutions, relatively weak demand for domestic currency (especially if foreign currencies are in widespread use) and fiscal problems, central banks in small states often lack the independence and, more importantly, the credibility necessary to implement monetary policy effectively. Consequently, small states often import monetary stability from abroad by adopting a fixed or heavily managed exchange rate regime, such as a common currency, currency board, or a fixed or crawling peg. With the loss of the flexible exchange rate as an adjustment mechanism, the economy must rely on flexible prices and wages as well as factor mobility to absorb the shock.

This loss of exchange rate flexibility is significant because small states are often highly specialised in the production of a limited number of export goods and services (including commodities, light manufacturing and tourism) so that when the demand for these goods or services varies it would be useful for the exchange rate to adjust to the shock because domestic wages and prices are often inflexible; thus, wide swings in economic activity may occur. A similar impact would occur as a consequence of variations in capital flows.

# 4. Macroeconomic Stability and Policies in Small States

The purpose of this section is to provide a brief overview of the recent experience of a representative sample of small states in achieving macroeconomic stability. Tables 1 and 2 and Figures 2-9 provide information on The Bahamas, Bermuda, Fiji, Malta, Jamaica, Mauritius and Singapore.

Table 1 gives the basic population and economic data for these countries as well as some information on their exchange rate regime and monetary policy framework. Singapore, although relatively small in population, has a per-capita income approaching that of the most developed countries and therefore has relatively easy access to global capital markets. Thus, it does not face all of the policy challenges that other less developed small states would normally confront. Nonetheless, it is useful to include Singapore in our sample to provide a benchmark for comparison.

Table 1
Statistics on a Sample of Small States (Year 2006)

Country	Population		GDP PPP Per Cap.US	Exchange Rate Regime
***************************************		<del></del>		
Bahamas	303 <i>,77</i> 0	\$6.48	\$21,300	Fixed peg to USD
				Exchange rate anchor
Barbados	279,912	\$5.11	\$18,200	Fixed peg to USD
				Exchange rate anchor
Fiji	905,949	\$5.50	\$6,100	Fixed peg against a basket
				Exchange rate anchor
Malta	400,214	\$8.12	\$20,300	Fixed peg to Euro
				Exchange rate anchor
Jamaica	2,758,124	\$12.71	\$4,600	Float
				Base money target
Mauritius	1,240,827	\$16.72	\$13,500	Float
				Inflation targeting
Singapore	492,150	\$138.60	\$30,900	Managed float
0 1				Exchange rate anchor
				against USD, Euro and JPY

Source: IMF International Financial Statistics

Up to 2007 (when this chapter was written) the Bahamas, Bermuda, Fiji, and Malta were classified as fixed exchange rate regime countries and Jamaica, Mauritius and Singapore as floating exchange rate regime countries. This difference also serves as a basis for comparison. The differences across these exchange rate regimes can be seen in Figure 2 where the nominal exchange rates for each country are plotted against

800 8000 700 7000 6000 600 5000 500 400 4000 300 3000 200 2000 100 1000 n 1970 1974 1978 1982 1986 1990 1994 1998 2002 2006 - Barbados (LHS) - - - · Malta (LHS) --- Singapore (LHS) - Mauritius (LHS) - Fiji (LHS) - The Bahamas (LHS) - Jamaica (RHS)

Figure 2 Nominal Exchange Rate: Local Currency per USD (Index, 1970 = 100)

Source: IMF International Financial Statistics

the US dollar.

The floating exchanges of Jamaica and Mauritius show the most movement, whereas the exchange rates of Barbados and the Bahamas are constant because they are fixed in terms of US dollars. The other currencies fall somewhere in between because they are fixed or adjust slowly to other currencies or currency baskets that have moved relative to the US dollar.

Table 2 provides a measure of the variability of output growth for this set of small states since 1973 and Figures 3 and 4 display output growth rates. The sample is also divided in two with a 1990 breakpoint.

Table 2
Coefficient of Variation for Output Growth

Country	1973 - 2004	1973 - 1989	1990 - 2004		
	Fixed Rate Sample				
Bahamas	2.80	2.65	1.88		
Barbados	2.08	1.73	2.78		
Fiji	1.56	2.21	1.05		
Malta	0.83	0.73	0.71		
	Float	ing Rate Sampl	e		
Jamaica	5.79	-23.54	1.13		
Mauritius	1.30	1.14	0.19		
Singapore	0.53	0.44	0.64		

Source: IMF International Financial Statistics

Figure 3
Output Growth: Fixed Exchange Rate Sample

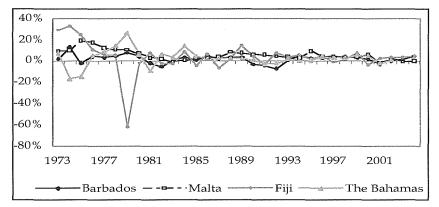
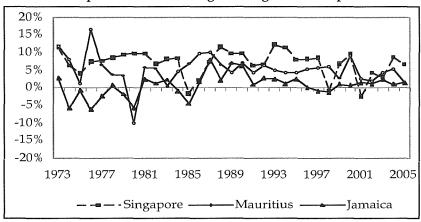


Figure 4
Output Growth: Floating Exchange Rate Sample



Both the figures and the table demonstrate that for most countries in the sample, output growth volatility has declined significantly since 1990. This finding of increasingly stable growth is consistent with the evidence for many other countries and this phenomenon is come to be known as the "Great Moderation". It is noteworthy that this reduction in output volatility has taken place despite the occurrence of many significant global shocks including the financial crises in Europe, Latin America, East Asia, the United States and Russia and the rising volatility in commodity prices, especially since 2002. Recent research shows that this period of macroeconomic stability in the face of sizable shocks is in part attributable to more stable fiscal and monetary policies. The only exceptions in our sample to this moderation were Barbados, whose

output volatility went up substantially, for reasons we will explore further below, and Malta and Singapore, which are relatively stable economies and whose output variance only changed modestly over the two sub-sample periods – Malta's went slightly down and Singapore's has marginally increased. The other noteworthy finding is that, apart from Singapore, the other two floating exchange rate economies, namely Jamaica and Mauritius, had the largest fall in output volatility.

Figures 5 to 8 display the variables used to measure macroeconomic stability in the BCFV resilience index: the misery index—the sum of the inflation and unemployment rates in percent—and the fiscal deficit and external debt, both measured as a percentage of GDP. These figures provide further evidence of the moderation in the volatility of macroeconomic variables and some explanation as to why it has occurred.

Figure 5
Misery Index: Fixed Exchange Rate Sample

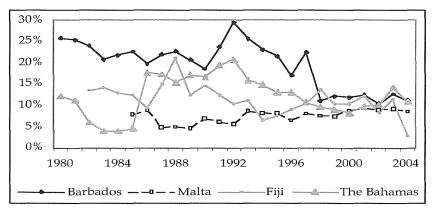
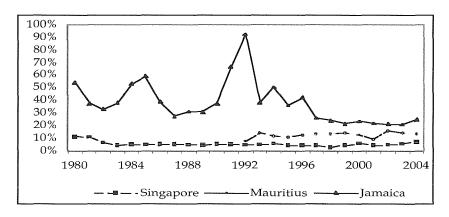


Figure 6
Misery Index: Floating Exchange Rate Sample



Figures 5 and 6 show the misery index—the sum of the inflation and unemployment rates for the two samples of countries. Except for Singapore and Malta, there has been a decline in the index over the sample period. For Malta and Singapore, the index has remained at a low level for the entire sample.

Explanations for the increased macroeconomic stability can be seen in Figures 7 and 8 which show, almost without exception, that the fiscal deficit positions of all of the small countries in the sample have improved significantly. As noted earlier, prudent stewardship of public finances is a critical necessary condition for achieving macroeconomic stability. In addition, the falling misery index shows that inflation and

Figure 7
Fiscal Deficit as a Percentage of GDP: Fixed Exchange Rate Sample

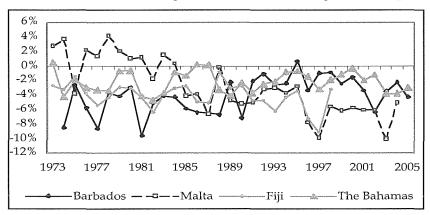
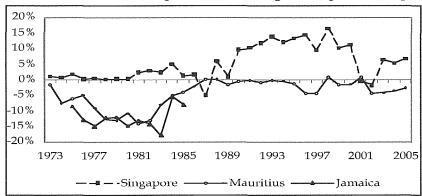


Figure 8
Fiscal Deficit as a Percentage of GDP: Floating Exchange Rate Sample



unemployment rates have fallen simultaneously partly because monetary policy has been much more credible as a result of the declining fiscal deficits. Evidence of the relationship between fiscal deficits and inflation can most clearly be seen for Jamaica, which had fiscal deficits exceeding 15 percent for most of the period from 1975-85 and then had a misery index in the mid-1980s that peaked at almost 100 percent.

Figure 9 displays the external debt positions of five of the seven countries in the sample (two countries were omitted because the data are not available). Except for Barbados, the external debt positions of the other countries have declined, in part, reflecting the reduced borrowing needs of the public sectors. For Barbados, the external debt position has increased to more than 25 percent of GDP reflecting increased private capital inflows. These inflows were likely partly responsible for the relatively higher and more volatile growth rates discussed earlier.

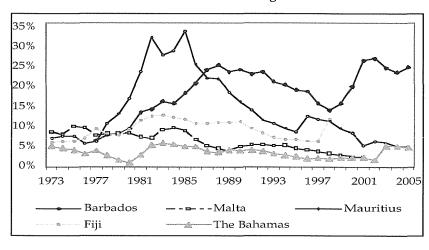


Figure 9
External Debt as a Percentage of GDP

The main finding of this section is that macroeconomic stability for most of the small states considered in our sample has increased, as output growth volatility and inflation rates have declined.

Although this finding is true for many other countries as increased macroeconomic stability is a global phenomenon, it seems clear that reduced fiscal imbalances have played an important role in helping these countries achieve greater stability by reducing uncertainty about future tax and monetary policies.

Also worth noting is that low and stable inflation can be achieved with either a fixed or flexible exchange rate. This result supports the argument that small states need not adopt the same policy framework to achieve macroeconomic stability, but one that consists of a coherent set of macroeconomic policies.

# 5. Concluding Remarks

Economic resilience is an important and useful concept for examining the capacity of small states to respond to adverse external shocks and thereby maintain stable economic growth. Macroeconomic stability and the effective stewardship of public and external resources are critical to achieving economic resilience.

Well-managed fiscal, monetary and exchange policies can create a stable macroeconomic environment in which expectations are anchored on the future paths of output, prices, taxes, fiscal deficits and other variables that are crucial for economic decisions. Moreover, these macroeconomic policies should promote prices and wages that are sufficiently flexible to facilitate smooth adjustment to external shocks.

In particular, fiscal deficits must be prudently managed to ensure that the path for public debt is sustainable; otherwise other macroeconomic policies will be undermined. Hence, it is crucial that the macroeconomic policy framework be coherent and forward-looking. Fiscal, monetary and exchange rate policies must be mutually reinforcing and these policies must work in concert with financial sector and labour market policies to promote internal and external balance and thus overall macroeconomic stability. Small states face considerable challenges in attaining macroeconomic stability because they are vulnerable to external shocks and often lack the resources or economies of scale necessary to put in place the optimal macroeconomic policy framework.

The IMF, World Bank and other international organisations can, however, play several important roles in assisting small states achieve macroeconomic stability and economic resilience. They can provide technical assistance concerning macroeconomic, financial and labour policies. In addition, they can, through their surveillance activities, help ensure that the major states adopt policies to maintain global macroeconomic stability and thereby reduce the frequency and magnitude of systemic economic shocks. Finally, for small states with limited access to global capital markets, these organisations should consider providing disaster insurance or precautionary lines of credit that can be used to counteract the effects of adverse shocks.

## References

- Boadway R. and Wildasin, D. (1984). *Public Sector Economics*. Boston: Little Brown.
- Briguglio, L. (1995). "Small Island Developing States and their Economic Vulnerabilities," *World Development*. Vol. 23 (9): 1615-1632.
- Briguglio, L., Cordina, G., Farrugia, N. and Vella, S. (2006). "Conceptualising and Measuring Economic Resilience." In Briguglio, L., Cordina, G. and Kisanga, E. (eds) *Building the Economic Resilience of Small States*. Malta: Islands and Small States Institute ion collaboration with the Commonwealth Secretariat: 265-288.
- Dornbusch, R. (1980). Open Economy Macroeconomics. New York: Basic.
- Krugman, P. (1979). "A Model of Balance-of-Payment Crises," *Journal of Money, Credit and Banking*, Vol. 11(3): 311-325.
- Krugman, P. and Obstfeld, M. (2006). *International Economics: Theory and Policy*. New York: Addison-Wesley.
- Laidler, D. (1999). "The Exchange Rate Regime and Canada's Monetary Order." Bank of Canada Working Paper.
- Longworth, D. (2002). "Inflation and the Macroeconomy: Changes from the 1980s to the 1990s," *Bank of Canada Review*, Spring: 3-18.
- Macklem, T. (1994). "Some Macroeconomic Implications of Rising Debt Levels," *Bank of Canada Review*, Winter: 41-60.
- O'Reilly, B. (1998). "The Benefits of Low Inflation: Taking Stock." Bank of Canada Technical Report, No. 83.
- Osakwe, P. and Schembri, L. (1998). "Currency Crises and Fixed Exchange Rates in the 1990s: A Review," Bank of Canada Review, Autumn: 23-38.
- Paulin, G. (2006). "Credibility with Flexibility: The Evolution of Inflation-Targeting Regimes, 1990–2006," *Bank of Canada Review*, Summer: 5-18.
- Rose, A.K. (1996). "Explaining Exchange Rate Volatility: An Empirical Analysis of 'the Holy Trinity' of Monetary Independence, Fixed Exchange Rates, and Capital Mobility," *Journal of International Money and Finance*, Vol. 15(6): 925-945.