

# GLOBALISATION, GROWTH AND FISCAL POLICY: LESSONS FOR EAST ASIA

## I. INTRODUCTION

Prior to the East-Asian crisis in mid-1997, fiscal policy was viewed as playing a benign role for growth in the region, namely to provide a stable macro environment for investment. In the changed environment of liquidity constraints on external borrowing of and slowdown in output growth, the role and contribution fiscal policy to revived growth in the region has received new attention. However, there is considerable debate on this issue; as noted by Garnaut (1998, p. 19) in a recent review of the Asian crisis, “the main unresolved questions of macroeconomic policy relate to adjustments of the fiscal settings”.

This paper discusses the lessons for growth-promoting fiscal policy for East Asia and, more broadly for developing market economies that are pursuing strategies of trade and financial integration. At the risk of a premature disclosure of the plot, three broad principles emerge from the analysis. First, an emphasis on single-period rather than intertemporal effects of fiscal policy on current account balances is misplaced. Second, both external and public stocks and flows of debt require monitoring even in countries with low measured debt. Third, the potential role for growth-promoting fiscal policy centres upon the overall fiscal composition of the fiscal policy package rather than the budget thrust. If the above three principles are followed, the growth promoting role of fiscal policy in the new environment faced by East Asia is enhanced. However, the quantitative contribution of fiscal policy to growth remains small relative to that of capital accumulation and productivity.

Consider a developing country that is fully integrated in the global economy and borrows from the world capital market to finance its growth by running a current account deficit. It wishes to pursue a set of fiscal policies that are growth promoting and also consistent with macrostabilisation objectives. What set of policy prescriptions are suggested in the literature and policy debate?

A recent review of literature on fiscal policy and growth by Tanzi and Zee (1997) attempts to provide a comprehensive answer to this question. Their analysis examines systematically the various ways that the main fiscal instruments (tax policy, public expenditure policy, budget

policy) influence economic growth through their effect on the determinants of growth; productivity (including technical change and more efficient use of existing resources) and resource accumulation. The broad conclusion reached is a positive one; a well-designed set of fiscal policies that exploits all the above channels has a fundamental role to play in influencing permanent output growth, especially when viewed from the perspective of endogenous growth theory.

Three qualifications to their analysis give pause for thought. First, as recognised in their paper, the empirical evidence in support of each fiscal channel is not robust. Second, the analysis assumes implicitly either a closed economy or one without liquidity constraints as well as unrestricted access to technology. The analysis does not consider the implications of trade and financial liberalisation for the conduct and effectiveness of fiscal policy; for example, additional constraints placed upon fiscal instruments such as trade taxes and capital taxes as well as the removal of financing constraints that enable consumption-smoothing in the face of temporary output or fiscal shocks. Third, the analysis assumes well-developed market institutions that underpin fiscal, structural and financial policies.

A more pessimistic analysis of the role of macro policy in promoting growth is given in de Long and Summers (1992). The authors note that the productivity slowdown experienced by industrial countries in the 1970s and 1980s cannot be attributed plausibly to inferior macro policies in the 1980s. Within its circumscribed growth role, macro policy operates in two ways; through management of aggregate demand and intertemporal allocation of output between consumption and investment. Excluding extreme situations of hyperinflation and financial collapse, macrostabilisation is a necessary but not sufficient condition for growth; its precise impact being dependant on additional channels such as policy credibility and central bank independence that link stabilisation of output levels to economic growth. In regard to intertemporal resource allocation, the required high social net (of private) returns to investment also limit the quantitative contribution of macro policy to growth. The sole fiscal policy prescription argued by the authors is tax incentives to public investment in machinery and equipment on the grounds of its high net social returns. However, other writers (see Dowrick, 1995) have questioned the robustness of this finding, arguing that the observed high returns may be the outcome of rapid economic growth rather than the reverse causation.

In terms of the East-Asian growth experience and role of fiscal policy, a striking feature is their high investment and national savings ratios. While the issue of causation is subject to debate, high growth, savings and investment ratios tend to be self-reinforcing. Unlike other developing economies, the current account deficit reflects the gaps between these high ratios rather than public sector dissaving. This feature, combined with access to global capital markets is the main rationale for the prevalent view that fiscal policy was neither a cause of the crisis nor were current account deficits necessarily a cause for policy concern. This interpretation is also supported by “new” open-economy macroeconomics that builds upon rational, optimising micro behaviour to derive the current account as the outcome of intertemporal optimising savings and investment decisions.

The economic situation and global environment has altered for East Asia. The growth slowdown has weakened the self-reinforcing mechanisms of growth, high savings and investment rates. The altered macro environment of output slowdown and exchange rate depreciation has widened budget deficits, reversing the earlier trend. Restricted access to global capital markets, reduced output growth and exchange depreciation have forced a switch from current account deficits to surpluses. Finally, debt build-up, primarily of private sector external debt but accompanied by growing public debt places a solvency constraint on continued primary budget deficits and trade deficits.

The debate on appropriate post-crisis fiscal policy reflects an uneasy mix of old and new views on the scope, role and effectiveness of fiscal policy in integrated economies. The “old” view focuses attention on the macrostabilisation role of the budget policy instrument as highlighted within a static Mundell-Fleming framework. This aspect of fiscal policy is demonstrated in the earlier emphasis by both governments and the IMF on the need for restrictive fiscal policy through budget surpluses for macrostabilisation and external adjustment. An alternative view, still encased within a static framework, is to argue for a fiscal stimulus by allowing the automatic stabilisers to operate and is reflected in the subsequent switch to more flexible fiscal policies and accompanying budget deficit. The “new” view, as formulated in an intertemporal savings-investment approach is reflected in attempts to reconcile the ex-post unsustainability of current account deficits with an interpretation of these imbalances as optimal consumption-smoothing behaviour together with the question of appropriate fiscal response in the presence of liquid constraints. Finally, attempts to offset budget-financing of structural reforms with cuts to infrastructure outlays

highlights the overall inconsistencies of fiscal policy that straddle a growing emphasis on fiscal composition with earlier focus on the overall budget balance.

The remainder of the paper develops more fully the above issues. Section II discusses the fiscal debate in the context of pre- and post-crisis fiscal policy settings in East Asian economies. Section III examines the issue of static versus dynamic modelling of the current account and role for fiscal policy in highly integrated open economies. Section IV discusses the issue of fiscal and external solvency. Section V examines the question of fiscal composition from the perspective of endogenous growth theory. Finally, the last section draws together the main conclusions and lessons for fiscal policy in East Asia.

## **II. FISCAL POLICY SETTING**

Fiscal policy was neither a cause of the crisis nor a critical determinant of economic growth. Nevertheless, its role in both the pre- and post-crisis period has been seen as crucial, primarily in terms of its contribution to macrostability.

### **Pre-crisis**

Measured overall budget balances in terms of GDP reflect surpluses or near-balance in the period 1990-95 (Table 1). The raw data on fiscal balances support the general perception of fiscal discipline and prudent or conservative fiscal policy, especially compared to other developing economies. As noted by Nellor (1998), the existence of a budget balance or surplus does not make fiscal policy appropriate from the perspective of macrostabilisation nor growth. A number of factors suggest that the underlying fiscal balances were less tight than measured or headline balances. These factors include: (a) high economic growth combined with revenue elasticities exceeding unity<sup>1</sup>; (b) failure to include quasi-fiscal costs such as implicit subsidies of directed bank lending and (c) exclusion of government contingent liabilities in the form of explicit and implicit government guarantees to banks. More fundamentally, post-crisis structural shifts in the composition of both the tax and expenditure bases, in part necessitated by the crisis also suggest that the underlying fiscal positions could

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<sup>1</sup> Revenue elasticities calculated for the period 1986-1996 show implicit elasticities in the region of 1.2 and to 1.3 for Indonesia, Korea and Thailand (Nellor, 1998, p. 255).

not have been maintained. (The shifts include increased expenditure outlays on the social safety net and financial restructuring).

Viewed from the perspective of contemporary debate in the pre-crisis decade, policy concerns focussed on the issue of overheating and neither fiscal nor external sustainability. Monetary not fiscal policy was the direct source of overheating through excessive growth in private credit and hence bore the main burden of policy adjustment through (unsuccessful) attempts to sterilise capital inflows. The impact of overheating on current account deficits was also not seen as a cause for fiscal policy concern given that the deficit reflected a gap between high private investment and saving rates with financing from private capital flows rather than from foreign reserves. Apart from economic growth and current account imbalances (Tables 2 and 3), the main indicator of macro performance ... annual inflation ... shows low rates, albeit above that of trading partners.

**Table 1: Asian Economies: General Government budget balance (in percent of GDP)**

	1975- 82	1983- 89	1990	1991	1992	1993	1994	1995	1996	1997
Indonesia	...	-1.3	1.3	-	-1.2	-0.7	-	0.8	1.4	2.0
Malaysia	...	-4.0	-2.2	0.1	-3.5	-2.6	2.5	3.8	4.2	1.7
Korea	-2.7	-0.3	-0.6	-1.6	-2.6	-1.0	1.0	-	-	-
Thailand	-5.8	-3.0	4.4	4.2	2.6	2.1	2.0	2.6	1.6	-0.4
China	-1.0	-1.7	-2.0	-2.2	-2.3	-2.0	-1.6	-1.7	-1.5	-1.5
Taiwan	-	1.3	0.8	0.5	0.3	0.6	0.2	0.4	0.2	0.2
Hong Kong										
Singapore	0.6	4.8	11.4	10.3	11.3	14.3	13.7	12.0	8.4	8.3
Philippines	-2.0	-2.8	-3.5	-2.1	-2-1.2	-1.6	-1.6	-1.4	-0.4	-0.9
India	-10.2	-14.9	-13.8	-10.6	-9.8	-10.5	-9.9	-9.2	-9.2	-9.1
Japan	-4.0	-0.4	2.9	2.9	1.5	-1.6	-2.3	-3.7	-2.9	-2.9

Source: IMF (1997) *World Economic Outlook*, Table A1, pp. 49-51.

**Table 2: Asian Economies: Macroeconomic Performance (annual percent change)**

	GDP growth				Inflation (CPI)			
	1983- 89	1990-95	1996	1997	1983-89	1990-95	1996	1997
Indonesia	5.5	8.0	8.0	5.0	8.1	8.7	7.9	8.3
Malaysia	5.4	8.7	8.6	7.0	2.0	4.1	3.5	3.7
Korea	9.6	7.5	7.1	6.0	3.8	6.6	4.9	4.3
Thailand	8.1	8.4	6.4	0.6	3.1	4.9	5.9	6.0
China	10.7	12.32	9.6	8.8	9.0	11.4	6.1	1.5
Taiwan	9.2	6.6	5.7	6.7	1.2	4.0	3.1	2.0
Hong Kong	7.2	5.5	4.9	5.3	6.7	9.5	6.0	6.5
Singapore	6.9	8.5	7.6	7.2	1.0	2.6	1.4	2.1
Philippines	1.1	2.3	5.7	4.3	15.4	11.1	8.4	5.2
India	6.0	4.4	6.9	5.8	8.4	10.2	7.3	5.9
Japan	4.1	1.3	3.9	1.0	1.4	1.7	0.1	1.7

Source: IMF (1997) *World Economic Outlook*, Table A1, pp. 49-51.

**Table 3: Asian Economies: External Indicators (in percent of GDP)**

	Current account					External debt		
	1983-89	1990-95	1996	1997	1998	1990-95 (end)	1996 (end)	1997 (end)
Indonesia	-3.5	-2.4	-3.4	-1.8	2.5	47.7	49.0	125.0
Malaysia	-0.7	-5.9	-4.9	-4.8	6.5	32.0	38.0	...
Korea	2.5	-1.2	-4.8	-1.8	12.9	10.0	23.0	65.0
Thailand	-3.2	-6.8	-7.9	-2.0	10.7	22.1	59.0	50.0
China	-1.0	1.2	0.9	3.9	3.4	14.4	16.0	50
Taiwan	12.9	4.1	3.8	2.7	2.0	0.3	0.1	0.1
Hong Kong	8.3	3.4	-2.5	-3.2	0.0	...	21.0	...
Singapore	1.8	12.2	15.0	15.4	20.6	...	11.0	...
Philippines	-0.3	--3.8	-4.7	-5.2	-1.5	53.6	59.0	n.a.
India	-2.4	-1.6	-1.0	-1.6	-1.8	29.4	-	22.7
Japan	3.0	2.4	1.4	2.2	3.6	-	-	-

Source: IMF (1997 October; 1998 October) *World Economic Outlook*, (Table A1, pp. 49-51; Table 2.12. p. 64); Garnaut (1998, Table 1.5. p. 24); Goldstein and Hawkins (1998, Table 10, p. 24).

### Post-crisis

The role of monetary policy in the post-crisis period has emerged as fairly clear-cut, namely a tightened monetary stance directed towards exchange rate stability. In contrast, a debate has arisen concerning the appropriate fiscal response. At a narrow level, this debate has centred upon the issue of the extent to which macrostabilisation objectives under conditions of current account deficits and recession provides a rationale for allowing the automatic stabilisers to operate as against a prescription for restrictive budget deficits to achieve external adjustment and inflation reduction. At a broader level, the debate is about the appropriate fiscal policy for countries that are moving from financial autarky to full global integration and thereby revives aspects of an earlier debate on fiscal policy in European transition economies (see Horne, 1997). That debate centred upon the intertemporal conflicts that arise in attempting to balance macrostabilisation deficit targets against the need for budget support for structural reforms to accelerate a speedy transition to a market economy and sustainable economic growth. The two fiscal objectives ... macrostabilisation and growth ... are not necessarily conflicting and reinforce each other in the long run. But in the

short run, higher budget deficits that reflect structural reform costs in transition economies without access to private domestic or global capital markets mean an intertemporal tradeoff between present higher inflation and higher long-run growth.

Post-crisis Asian economies are already market-based but share a common element with former CPEs insofar as crucial institutions, namely financial are inadequately developed to meet the demands of high growth and globalisation, especially financial integration. East Asia also shares three further common elements with transition economies; an emerging external debt problem that constrains budget and current account financing as discussed in Section IV; increased budget pressures arising from social safety net outlays and longer-term adverse demographic trends (see International Monetary Fund, 1998).

Budget lessons learnt from the Eastern European experience, namely the need to switch from a narrow focus on tight budget deficits towards more flexible and widened deficits to finance structural reforms and growth appear to have been ignored initially in East Asia. As shown in Table 4, targets set initially in IMF programs were budget surpluses of 1 percent (Indonesia, Korea) and a balanced budget (Thailand). These targets were revised subsequently, reflecting primarily a larger-than-expected worsening of the macro environment from slow output growth and exchange rate depreciation as well as larger-than-anticipated fiscal outlays for financial restructuring and the social safety net.

The first factor (macro environment) is estimated to have contributed 11.1 percentage points to the worsening of the budget deficit in Indonesia by 9.2 percent of GDP from 1997/98 to 1998/99 (Table 4). Corresponding endogenous effects on changes in the budget balance are estimated to be 1.5 percentage points in Korea, accounting for about 60 percent of the change in the budget deficit in 1998 and 3.1 percentage points in Thailand, contributing to almost all of the worsened budget deficit balance in 1997/98.

**Table 4: Budget Balances (in percent of GDP)**

	Indonesia		Korea		Thailand	
	1997/98	1998/99	1997	1998	1996/97	1997/98
Budget balance	-0.9	-10.1	-	-4.0	-1.6	-5.1
Change in budget balance	-2.2	-9.2	...	-4.0	-4.0	-3.5
<b>Change due to economic environment</b>	<b>-4.2</b>	<b>-11.1</b>	<b>...</b>	<b>-1.5</b>	<b>-0.3</b>	<b>-3.1</b>
Exchange rate	-3.5	-6.4	...	-0.9	-0.2	-2.0
GDP growth	-0.5	-4.0	...	-0.6	-0.1	-0.9
Oil price	-0.2	-0.7	...	-	-	-
<b>Policy changes</b>	<b>2.7</b>	<b>1.7</b>	<b>...</b>	<b>-2.5</b>	<b>-2.6</b>	<b>-0.6</b>
Outlays	2.7	3.8	...	-0.8	-1.9	2.6
Safety net	-	-1.0	...	-2.1	-	-0.6
Bank restructuring	-	-1.6	...	-1.4	-0.7	-2.0
Statutory revenue change	-	0.5	...	1.8	-	-0.7
Residual	0.7	0.2	...	-	-1.1	0.1
<b>Memorandum IMF targets (1998)</b>						
Real GDP growth		3.5		3.0		2.5
Inflation		5.0		9.0		5.0
Budget balance (% GDP)		1.0		1.0		0

Source: International Monetary fund (1998, October), p. 51; Goldstein and Hawkins (1998), p. 16.

Subsequent shifts in fiscal policy targets from small surpluses to deficits allowed for operation of automatic stabilisers. At the same time, fiscal policy makers attempted to offset projected increases in budget outlays from financial restructuring and social safety net outlays by cuts in other outlays, especially infrastructure projects and revenue-raising measures. In the event, additional budget costs were more than fully offset only in Indonesia, leaving a net widening of the budget deficit of 10.1 percent of GDP, well above the targeted deficit of 1.5 percent of GDP. The above pattern of fiscal balances support the interpretation (see Garnaut 1998, p. 360) that the subsequent shift in fiscal stance towards automatic stabilisers was forced rather than a voluntary initial policy response.

Two further aspects of the fiscal debate also deserve comment. First, the seeming conflict between so-called “good policy”, namely a widening of the budget deficit through the automatic stabilisers and observed adverse market response of exchange rate depreciation to budget deficit widening. Further examination reveals that, at least in Indonesia, the adverse market response reflected more the government’s failure to adjust the deficit targets in light of the altered economic environment. This suggests a forward-looking rather than irrational response by market agents. Second, in all three countries, the main burden of adjustment of cuts in outlays were borne by cancellation or postponement of infrastructure projects. As discussed in Section V, this response is inconsistent with growth objectives. Furthermore, negative longer-term growth effects on the budget mean that an even stronger fiscal adjustment will be required in the future.

### **III. STATIC AND DYNAMIC MACRO MODELLING**

Debate on appropriate fiscal settings in post-crisis East Asia has centred upon the issue of permitting the automatic budget stabilisers to provide a fiscal stimulus to the economy versus budget tightening to assist external adjustment. This debate has been conducted within a static analytical framework. As argued in this section, a static approach to fiscal policy in an environment of high financial integration gives misleading policy inferences because it ignores the dynamic welfare gains from intertemporal trade.

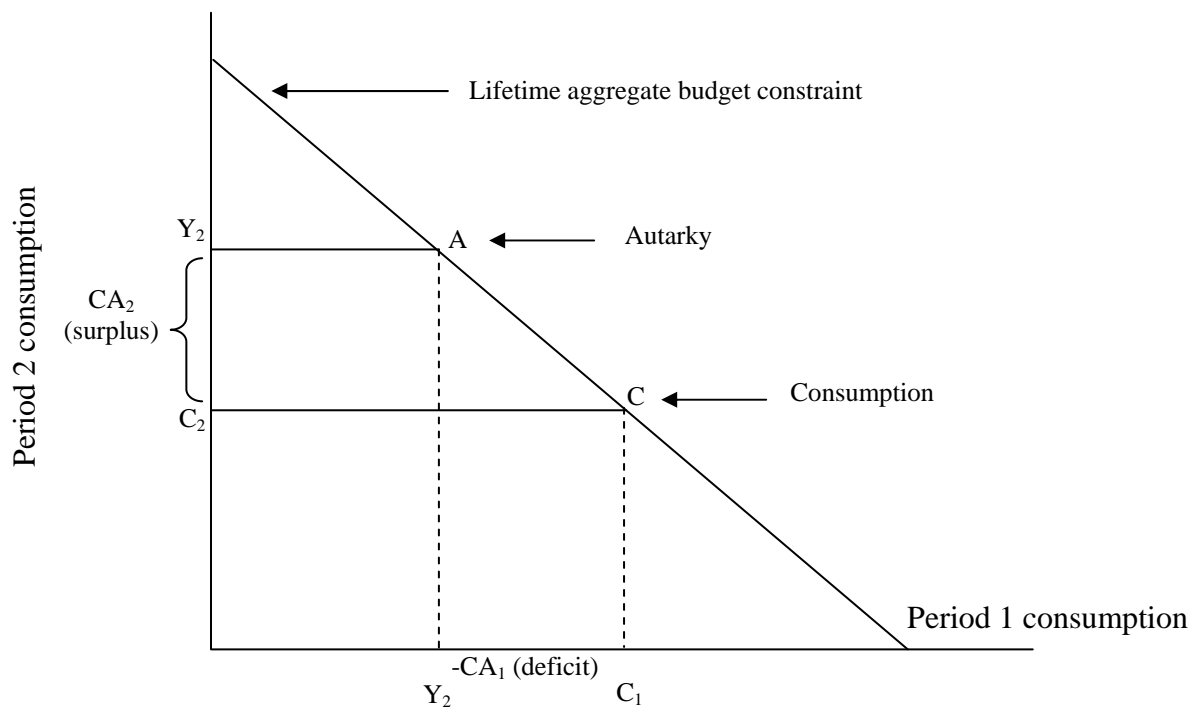
The standard analytical tool for macro policy prescription is the static Mundell-Fleming model. The key premise that underpins this model is a focus on the role of monetary and fiscal policy as short-run stabilisation instruments for aggregate demand management. Prolonged deviations from internal and external stabilisation targets require policy response; the specific policy mix being conditional upon the degree of capital mobility, given the exchange rate regime. A key and well-recognised policy prescription is that under conditions of high capital mobility and flexible exchange rates, an expansionary bond-financed budget deficit provides a very weak stimulus to the economy.<sup>2</sup> The initial fiscal stimulus is offset by the open-economy multiplier and resulting current account deficit reinforced by nominal (and real) exchange rate appreciation in response to a higher interest rate differential. Conversely,

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<sup>2</sup> The assumption of fixed nominal wage and prices is critical to the clear-cut predictions on optimal policy mix in the Mundell-Fleming model. Other assumptions, including a small country, static

a fiscal stimulus to output under conditions of low capital mobility (and the relatively greater impact of monetary tightening on external imbalance) provides apparent theoretical support to the present macro policy-mix in East Asian programs.

A major shortcoming of the above approach is that it ignores the role of the current account as a means of optimally allocating resources over time. This function is highlighted in intertemporal savings-investment models in which the current account reflects the outcome of aggregate, dynamic behaviour of individuals who seek to maximise their lifetime utility. A country that moves from financial autarky to full financial integration with the world capital market derives a dynamic gain from intertemporal trade as shown in Figure 1 below.



**Figure 1: Intertemporal trade**

In figure 1, the economy's autarkic position is at A. At A, the autarkic real interest rate, the autarkic price of future consumption in terms of present consumption, is above the world interest rate. The resulting optimal intertemporal trade pattern is a current account deficit in period 1 ( $-CA_1$ ) that allows the country to exploit the pretrade interest rate differential

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expectations and financing of budgets as well as specification of capital flows may be relaxed without

through “imports” of present consumption from abroad in period 1 by borrowing externally and repaying its debt in the second period through a current account surplus ( $CA_2$ ).

The above diagram is a stylised picture of a core component of East Asian trade patterns viewed from a financial integration perspective instead of the usual static trade framework that focus upon exploiting the differential between autarkic and world terms-of-trade under trade liberalisation. The role of fiscal policy alters in three main respects. First, in the absence of liquidity constraints and assuming optimising, rational behaviour, observed current account deficits are not of policy concern. In the event of temporary real shocks such as negative output shocks or a balanced budget expansionary fiscal shock, the induced current account deficit enables individuals to smooth consumption without altering permanently expenditure patterns.<sup>3</sup>

Second, the linkage between changes in budget balances and the current account depends upon whether Ricardian debt neutrality holds.<sup>4</sup> Empirical evidence is mixed; the existence of a partial private savings offset to debt accumulation weakens support for a fiscal stimulus to the economy through induced wealth effects (or alternatively, the argument that competition of public with private debt drives out private investment and lowers long-term growth).<sup>5</sup> Third, the role of fiscal policy shifts from an emphasis on stabilisation to its medium-term role in ensuring solvency or sustainability, that is, the requirement that the present value of the debt stock at some future date is zero (see Section III).

It may be argued that the above conditions and especially absence of liquidity constraints are no longer valid for Asian economies. In the presence of liquidity constraints, the economy is constrained to point A in Figure 1. Under flexible exchange rates, this implies the economy runs a balanced current account. In this situation, no fiscal response is needed since the liquidity constraint forces import compression with a resulting dynamic welfare loss. In

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<sup>3</sup> major damage to the qualitative predictions (see Frenkel and Razin, 1987). An early analysis of the role of temporary and permanent fiscal shocks within an intertemporal framework is given in Sachs (1982).

<sup>4</sup> Ricardian equivalence holds in the representative-agent version of the intertemporal macro model since consumption choices are affected only by the present-value of government spending. The overlapping generations model breaks the link between the horizon of the government and individuals and through the timing of tax policy, the government may shift the tax burden between generations.

<sup>5</sup> A recent survey by Seater (1993), however, argues that Ricardian equivalence is a good approximation to reality.

contrast, under fixed exchange rates, a current account deficit has to be financed from foreign reserves. If the source of the current account deficit is an expansionary budget deficit, the appropriate response is fiscal tightening as in the static model in order to avoid the problem of vulnerability to a speculative attack in the presence of forward-looking agents and finite reserves. In any event, whether or not the fiscal stimulus is growth-promoting cannot be ascertained from the first-period output effects. It will depend upon the means whereby the budget expansion is achieved as discussed in Section V.

Even if an intertemporal framework is preferable on theoretical grounds for analysing fiscal policy, the question nevertheless arises as to the apparent inconsistency with an interpretation of the current account deficit as optimal and the speculative currency attacks in crisis-affected Asian economies. One (among many) plausible explanations is argued in McLeod (1998); namely that borrowing by Asian economies was undertaken in an environment of risk underestimation that progressively rose as the quality of investments fell.<sup>6</sup> The first-best solution is not to tighten fiscal policy nor to introduce capital controls but to strengthen institutions and information transparency as is being currently undertaken in the reform process.

#### **IV. STOCKS AND FLOWS**

Fiscal policy settings are usually formulated in terms of budget flows rather than debt stocks and flows. East Asian economies are no exception.<sup>7</sup> Prior to the crisis, East Asian economies were not viewed as “debt problem” economies with total external debt in terms of GDP at 22.1 percent for the entire Asian region at end-1997 compared to the corresponding ratio of 64.9 percent for Africa.<sup>8</sup> Past budget surpluses were also reflected in very low levels of public indebtedness. The situation has now altered. Is there a debt problem? What is the

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<sup>6</sup> Another explanation is that pre-crisis exchange rate regimes were predominantly fixed exchange rates that require consistency of both monetary and fiscal policy with the nominal level of the exchange rate. The intertemporal model assumes money neutrality.

<sup>7</sup> The exceptions are countries that have an identified debt problem such as countries that qualify under the 1996 Heavily-Indebted-Poor-Country initiative and members of the European Union that have adopted fiscal consolidation programs to meet the Maastricht criteria.

<sup>8</sup> Ratios for NIEs and Sub-Saharan Africa at end-1997 were 14.3 and 10.7 percent, respectively (International Monetary Fund (1998)).

appropriate fiscal policy formulation that monitors both flows and stocks and ensures consistency of macrostabilisation targets with longer-term fiscal and external solvency?

A useful but by no means sufficient starting point for answering the above question are the data on outstanding debt. Despite the shift to large current account surpluses in 1997, external debt ratios have risen sharply, reflecting the cumulated impact on debt dynamics of inflation, interest rates, exchange rate depreciation and economic growth. At end-1996, external debt ratios are estimated to be 49.0, 23.0 and 59.0 percent of GDP in Indonesia, Korea and Thailand, respectively (Table 3). By end-1997, the combined impact of the above set of factors are estimated to have increased the debt ratios to 125, 65 and 50 percent of GDP (see International Monetary Fund, 1998). Corresponding public debt ratios are much lower; at end-1997, debt ratios are to be estimated 50, 12 and 25 percent of GDP for the three countries (Table 5). The lower level of public indebtedness which is mainly external reflects the dominance of private sector domestic and external debt.<sup>9</sup> Notwithstanding its low base level, the trend of public debt is on an upward path, reflecting the post-crisis switch to budget deficits and interaction with debt-dynamics parameters.

Assuming the public debt-to-GDP ratio rises progressively over the medium term with continued overall budget deficits and primary budget deficits, is there a problem of fiscal insolvency? Fiscal solvency requires that the discounted present-value of primary budget surpluses (in terms of GDP) equal the outstanding public debt ratio. Assuming the economy is dynamically efficient (that is the long-run real interest rate lies above output growth), this requires a switch at some future point to primary budget surpluses of sufficient magnitude to stabilise the outstanding debt ratio. From a growth perspective, what matters is a perceived inconsistency between the path of present and projected budget policies and the debt-stabilising primary surplus. A widening gap signals a future switch in either tax and/or expenditure policy or recourse to monetary financing and thereby undermines policy credibility. Both options have negative growth effects; the first through increased uncertainty of regime switch on investment and the second through efficiency distortions arising from the inflation tax.

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<sup>9</sup> Total debt in Indonesia at end-1997 is estimated at 190 percent of GDP (International Monetary Fund, 1998, p. 103).

It may be argued that, given the much higher external debt ratio and reliance of growth from private capital flows, the threat to growth prospects comes from external rather than fiscal solvency. External solvency requires that the discounted present-value of trade surpluses (in terms of GDP) equal the outstanding external debt ratio. The savings investment identity in an open economy means that an increase in public sector saving is in general a necessary and sufficient condition to improve the current account (assuming incomplete debt neutrality).

### **Application to East Asia**

An assessment of consistency of fiscal policy settings and projected trade balances with the requirements of fiscal and external solvency is given in Table 5 . Solvency indicators are measured as the gaps between the projected paths of primary fiscal and current account balances and those calculated as stabilising the respective outstanding debt ratios, with assumed discount rates within the range of 5-8 percent per annum (Table 5).

As shown in Table 5, in order to stabilise end-1997 public debt ratios, the three countries need to generate primary budget surpluses within the range of: 2.5 - 4 percent of GDP (Indonesia), 0.6 to 1.0 percent of GDP (Korea) and 1.4 to 2.2 percent of GDP (Thailand), as compared to their (1998) primary deficits. Of the three countries, a continuation of the present expansionary fiscal policy in Indonesia presents the only major inconsistency between stabilisation policy, fiscal and external solvency.<sup>10</sup> The immediate threat to external solvency is temporarily obscured by the large current account surpluses presently being run. However, these surpluses represent mainly a forced adjustment to liquidity constraints. Once access to global capital market reopens, an emerging gap between national investment and investment is likely again to be met by borrowing abroad. Given its high stock of outstanding external debt, a higher trade surplus of 6.7 to 10.5 percent of GDP in Indonesia will be needed in the future in order to prevent further external debt accumulation in terms of GDP.

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<sup>10</sup> The indications are “model-free” and assume independence of policies, growth and interest rates. This gap may be underestimated as it fails to take into account the longer-term adverse growth effect of cancellation or postponement of infrastructure projects in the budget. The qualifications to and usefulness of fiscal indicators are discussed in Horne (1991).

**Table 5: Solvency Indicators (in percent of GDP)**

	<b>Indonesia</b>	<b>Korea</b>	<b>Thailand</b>
<b>Fiscal solvency</b>			
Public debt to GDP ratio (end-1997)	50.0	12.0	27.0
Discount rate (% p.a.)	5 – 8	5 – 8	5 – 8
Debt-stabilising primary budget surplus	2.5 – 4.0	0.6 – 1.0	1.4 – 2.2
Projected primary budget balance <sup>1</sup>	-7 – (-)8	-2 – (-)3	-1.5 – (-)2.5
Solvency gap <sup>2</sup>	9.5 – 12.0	2.6 – 4.0	2.9 – 4.7
<b>External solvency</b>			
External debt to GDP ratio (end-1997)	125.0	65.0	50.0
Discount rate (% p.a.)	5 – 8	5 – 8	5 – 8
Debt-stabilising primary current account surplus	6.2 – 10.0	3.2 – 5.2	5.0 – 8.0
Projected primary current account balance <sup>1</sup>	-0.5	11.4	9.7
Solvency gap <sup>2</sup>	6.7–10.5	...	...–

Sources: Table 3 (debt data) and author's estimates.

<sup>1</sup> Estimated, based upon 1998 data.

<sup>2</sup> Difference between projected primary balance and debt-stabilising balance.

## V. FISCAL COMPOSITION

This section examines the question of the appropriate composition of the fiscal package in terms of the level and structure of growth-promoting tax and public expenditure instruments. It also asks what are the constraints on fiscal policy that arise under open capital regimes.

## Tax policy

In terms of static allocative efficiency, there is a clear-cut negative relationship between the level of taxes and that of output, arising from tax-induced distortions in economic behaviour. But what of the growth impact? The answer necessarily comes from endogenous growth theory since long-run growth in the neoclassical model is policy-invariant. The general message from endogenous growth literature is to emphasise the significance of the stock of human capital as determining the rate of economic growth. The growth impact of the tax burden on different factors of production will be sensitive to the specification of production technology. The impact of changes in tax rates on savings incentives levied on physical capital will depend upon its degree of substitutability or complementarity with human capital in the production process. For example, a cut in the tax rate on physical capital will not necessarily promote capital accumulation if offset by shifts away from human capital

In regard to the structure of taxation, a prevalent view is that the incentives to high technology in East Asia have been beneficial to growth. In particular, since future growth in the region lies more in raising productivity than in resource accumulation a continuation of this tax policy appears attractive.<sup>11</sup> In principle, policies that promote free trade in knowledge are growth promoting by increasing the available stock of human knowledge. However, specific policy prescriptions such as subsidies to R and D are model-specific, dependent on the specification of technology and source of market failure. For example, in the Romer (1990) endogenous growth model, a clear-cut directive for subsidies to encourage research (and superiority to a subsidy to physical capital) derives from the dual assumptions that research has positive externalities that cannot be fully appropriated and from monopolistic pricing of the research used as input in intermediate production of differentiated capital goods. A blanket prescription for targeted tax incentives to encourage high technology even in the presence of market failure needs to be balanced against political economy costs of rent-seeking and formation of special interest groups.<sup>12</sup>

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<sup>11</sup> See for example, the discussion on the sources of growth in East Asia in International Monetary Fund (1998) and Dowrick (1995).

<sup>12</sup> Tanzi and Zee (1997) note that the observed positive relationship between tax incentives to technology and growth in East Asia may reflect more low political economy costs rather than the incentives.

## Public expenditure

Static efficiency losses derive from crowding out of private sector investment of most public expenditure activities (an exception being infrastructure). But what of the growth effects of public expenditure policy? Endogenous growth theory highlights the significance of possible spillovers to private investment productivity from certain types of public sector spending, especially infrastructure and primary education. The role of both types of public spending in enhancing past growth performance in the Asian region is emphasised in World Bank (1993). On these grounds, the cancellation or postponement of infrastructure projects in present fiscal settings to achieve stabilisation targets appears counter-productive.<sup>13</sup>

## Globalisation

Globalization imposes constraints on fiscal policy on both the revenue and expenditure sides of the budget.<sup>14</sup> In particular, capital mobility limits the independent use of taxes on capital through tax competition. For example, a country that lowers its tax rates on capital income below that of trading partners may gain temporary revenue as well as static efficiency gains but creates incentives for beggar-thy-neighbour retaliation.<sup>15</sup> In general, the fiscal instruments that offer most flexibility under globalisation are those that may be altered easily, for example, VAT rates and excises on goods with inelastic demand.<sup>16</sup>

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<sup>13</sup> The relationship between overall government spending (in terms of GDP) and growth tends to be non-linear (see Dowrick, 1995). Given the degree of complementarity and substitutability between private and public expenditure, the relationship between public expenditure and growth becomes negative after a threshold level that is country-specific. However, as noted in Dowrick (1995), an observed negative relationship between the two variables may reflect the outcome of market failures rather than be causative.

<sup>14</sup> These issues are discussed in Heller (1997).

<sup>15</sup> Given the likelihood of a full return to access to global capital markets, this suggests that there is considerable scope for fiscal coordination among East Asian economies through tax harmonisation. Coordination enables countries to maximise global welfare in the presence of interdependencies that create policy spillovers. However, apart from practical obstacles to policy coordination, there is little incentive for individual countries since these gains are unequally distributed.

<sup>16</sup> On the expenditure side, constraints also arise if there are significant cross-country differences in pensions, unemployment benefits and health under high labour mobility.

#### IV. CONCLUDING COMMENTS AND LESSONS

This section draws together the main conclusions of the paper and lessons for growth-promoting fiscal policy in East-Asian economies. These lessons are grouped under three broad principles; the need for emphasis on intertemporal rather than single-period effects of fiscal policy; the need to monitor both stocks and flows of public and external debt and the need to shift the focus from the overall budget balance to the composition of the fiscal package.

The first principle concerns a misplaced emphasis on the first-period impact effect of fiscal policy on current account balances and output levels as reflected in the initial policy prescriptions of fiscal tightening to reduce current account deficits and support anti-inflationary monetary policy. This prescription reflects a static, analytical framework in which the primary role of macro policy is viewed as stabilisation with an implicit assumed positive linkage between macrostability and economic growth. Under conditions of global financial integration, this framework is misplaced. It ignores the critical function of current account imbalances in optimally allocating intertemporal resources with resulting dynamic welfare gains from intertemporal trade. Even under altered conditions of liquidity constraints in East Asia, fiscal tightening is not necessary under flexible exchange rates; the required balanced current account being achieved through forced private expenditure reduction and import compression with a consequent dynamic welfare loss to the economy. The subsequent shift in recommended policy stance to a widened budget deficit through allowing the operation of automatic stabilisers also remains embedded within a static policy framework. Whether or not the resulting fiscal stimulus exercises any permanent growth effects will depend primarily upon the means whereby it is achieved (the third principle).

The second principle is the need to monitor stocks of public and external debt as well as flows. This principle underpins the requirement of medium-term consistency between macrostabilisation targets and fiscal and external solvency. The altered debt situation in many East Asian economies is reflected in an external debt build-up from output slowdown, exchange rate depreciation and past current account deficits. There is also a low but rising level of public indebtedness arising from the recent switch from budget surpluses to deficits. Rising debt ratios need not necessarily indicate fiscal or external insolvency. An illustrative application of indicators of fiscal and external solvency applied to Indonesia, Korea, Thailand

suggests a widening gap in Indonesia between present and projected primary budget deficits and that required to stabilise the outstanding public debt-to-GDP ratio.

The third principle is the need to shift the focus from the budget stance to the composition of the fiscal package that takes into account the differential growth impact of tax and public expenditure instruments under globalisation. Inconsistencies in the post-crisis fiscal settings in East Asian program countries are apparent in attempts to offset increased budget outlays on financial restructuring and the social safety net by cancellation or postponement of infrastructure projects. The scope and impact of fiscal policy instruments on resource accumulation and savings incentives will be increasingly constrained, assuming an eventual return of East Asian economies to full financial integration with the global economy. Nevertheless, fiscal policy has a potentially significant growth-promoting role in reducing the productivity gap between East Asia and industrialised economies by increasing incentives to adopt technology, dependent on the specific source of market failures and magnitude of political economy costs. This role will be further enhanced by structural reforms of corporate and public sector governance presently underway.

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