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Patterns of Net Borrowing in Open Developing Economies

José Antonio Ocampo, Codrina Rada and Lance Taylor

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Chapter Five

Patterns of Net Borrowing in Open Developing Economies

This short and final empirical chapter looks at net lending flows – incomes minus expenditures – over time for the government, private, and rest of the world “institutional sectors”, normalized in all cases by GDP. Long debates and many policy recommendations have followed from the interpretation of how net lending by different sectors relate to each other. We therefore review the conceptual debate first. This also serves as an introduction to the short-term macroeconomic analysis of Chapter 7.

As an accounting identity, of course, total net borrowings must sum to zero:

$(\text{Private investment-Savings}) + (\text{Public spending-Taxes}) + (\text{Exports-Imports}) = 0$,
with a positive entry indicating that a sector is a net contributor to effective demand. An alternative way to present this identity is by expressing it in terms of deficits (with a positive magnitude indicating that there is a deficit and, therefore, a net borrowing requirement), with the external deficit (negative current account balance) placed at the right hand side of the identity:

$$\text{Private Sector Deficit} + \text{Fiscal Deficit} = \text{External Deficit}$$

Since the external deficit has to be financed, this identity can also be expressed as:

$$\text{Private Sector Deficit} + \text{Fiscal Deficit} = \text{Net External Financing}$$

A favorite topic in the macroeconomic literature has been to identify possible “twins”, that is parallel movements of the external deficit and domestic deficits on left hand side of the equation, as well as opposite movements of private and fiscal deficits (“crowding out”), to guarantee that overall net borrowings add up to zero.

In the orthodox literature on developing countries, the most commonly emphasized “twins” are the co-movements of fiscal and current account deficits. As we will see, this phenomenon has occurred sporadically at most, indicating that the widely accepted “twin deficits” view of macro adjustment does not seem to apply.

An alternative “twin”, private/foreign, is actually more common, implying that current account deficits largely reflect pro-cyclical swings in *private* spending which are financed by borrowing from the rest of the world. These twin private/external deficits are, of course, common during booms, when there is easy access to foreign capital, but are reduced or turned into surpluses during crises, when external financing dries out. This pattern indicates, furthermore, that there is no “consumption-smoothing” behavior – an important feature of mainstream “Ricardian equivalence” analysis.

Whereas the most commonly emphasized “twins” do not seem to provide a good description of how developing economies perform, macroeconomic flexibility may be crucial. Particularly, it is important that the macroeconomy be able to absorb strong fluctuations in external financing and associated private deficits/surpluses. Such fluctuations did not derail growth in the Tigers and

Southeast Asia in the 1980s. In turn, China, India, and some Tigers continued to grow through the turbulent late 1990s. But other countries and regions have been unable to manage such swings in capital flows. These ideas are developed further in Chapter 7.

Traditional Interpretations

There are at least four incompatible contemporary doctrines regarding how open macro-economies operate. As indicated above, twin fiscal/external deficits (TD) and Ricardian equivalence (RE) dogmata are widely spread in mainstream literature. In contrast, development and heterodox economists often favor structural gap (SG) and unstable external financing (UEF) explanations of macroeconomic balances in developing countries.

In development macroeconomics, the twin deficits hypothesis traces back at least to the IMF economist Jacques Polak's (1957) blueprint for the "financial programming" exercises, which to this day are the linchpin of the International Monetary Fund's stabilization packages. The recipe for action is to cut the fiscal deficit, which is supposed to improve the economy's external position. Polak was drawing on a long tradition of monetarist analysis of the balance of payments. In one variant, unless the private sector chooses to increase its saving – or, more precisely, reduce its net borrowing — a higher fiscal deficit must be paid for by domestic money creation.¹ Aggregate demand consequently goes up. Under tacit assumptions that all resources are fully employed and the domestic price

¹ In terms of Chapter 6, this assumption means that the IMF simply disregards the role of a domestic market for government bonds.

level is tied to foreign prices by arbitrage in foreign trade (purchasing power parity or PPP applies), the higher demand has to spill over into a larger external deficit.

Ricardian equivalence (Barro, 1974) emerges from dynamic optimal savings models postulating that all resources are fully employed and that households smooth their consumption (or, more generally, expenditure including residential investment) over time. It plays a far more central role in contemporary mainstream macroeconomics than Polak's somewhat dated monetarism. Along the lines of Say's Law, RE broadly asserts that a change in fiscal net borrowing will be offset by an equal shift in private net lending. In this context, traditional counter-cyclical fiscal policy cannot play any role, as it would be counterbalanced by an opposing response from the private sector. For example, as fiscal deficits increase, the private sector saves more in anticipation of the taxes that it will have to pay in the future to pay for the additional public sector debt. In an open economy context, any one country's external position will then be determined by inter-temporal trade-offs between consumption and saving with all countries in the world producing the same good (Obstfeld and Rogoff, 1997).²

TD and RE stories are not compatible because they assign different roles to private net borrowing and net external financing. Under TD, private borrowing is "neutral" in that it does not respond to shifts in the external or fiscal positions. Under RE, the current account (net external financing) is neutral with regard to fiscal shifts while private and government borrowing dance the trade-offs.

² In this view the bilateral trade deficit of the US with China would be "explained" by a higher rate of time preference in the former.

It must be emphasized that, even if the negative correlations predicted by the TD and RE frameworks hold, their assumptions about macroeconomic causality may not be valid. Causality can be interpreted as running the other way – from the external to the fiscal and/or private sector financial gap, or from private to public, respectively. Particularly, if, as discussed in Chapter 1, the economy is externally constrained, the external position may be “structural”, according to a SG framework, and will therefore persist in the face of plausible domestic policy changes. This means that, within “reasonable” ranges of real exchange rate values and the level of economic activity, the trade deficit – or surplus, say for China or Japan – will not change by very much. The economy can also be externally constrained during periods of scarce external financing, as the UEF hypothesis would predict, generating the same type of problems during cyclical downswings.

Similarly, causality may run counter to the assumptions of the RE hypothesis. In traditional Keynesian analysis, for example, swings in private deficits run the show, either through autonomous variations of investment (“animal spirits”) or in the propensity to consume. Counter-cyclical fiscal policy is called for to compensate the swings in the associated private sector balances. If private spending is weak, generating low investment or consumption (high private net lending), a fiscal deficit comes forth to absorb the private surplus (and a fiscal surplus if private net borrowing is exuberant). If high private lending is not offset by fiscal borrowing, a recession would ensue, reducing tax revenues that

would generate a fiscal deficit anyway. These reactions reproduce the offsetting private and fiscal deficits of the RE story, but with reverse causality.

Structuralist Interpretations

SG analysis resembles full employment RE in that a binding external gap imposes a supply constraint on the system. Particularly, in a developing country context, the question becomes: how does effective demand adjust to meet the supply constraints imposed by available imports? To hold demand stable, any shift in the private or public sector net borrowing position has to be reflected into an offsetting change in the other domestic gap. So, if fiscal policy is targeted to expand economic activity by increasing public sector spending, it would generate inflationary pressures. Inflation tax and forced saving mechanisms would then kick in, reducing real demand by the private sector –that is, a private sector surplus is forcefully generated to finance the fiscal deficit (Taylor, 2004). The process can also work in reverse. If we focus on variations in external financing, and private net borrowing is assumed to be neutral, then fiscal deficits will be determined by shifts in the external gap: TD with causality reversed.

This dynamic behavior has been highlighted in the UEF literature, although it focuses on domestic private rather than (or at least as much as) on fiscal balances (see, for example, Stiglitz et al, 2006, Part III; Ffrench-Davis, 2006, 2008; Ocampo, 2008). This literature emphasizes the fact that private capital flows to the developing world – more to the middle-income or “emerging economies” than to the poorest ones — are unstable. Three strong financing

cycles have been experienced since the 1970s: abundance in the second half of the 1970s, largely due to the recycling of oil surpluses, followed by extreme scarcity during the “lost decade” of the 1980s; abundance again beginning in the early 1990s, followed by renewed scarcity in the aftermath of the Asian and Russian crises of 1997 and 1998 respectively; and abundance again since 2004, followed by more moderate flows after the US sub-prime crisis of mid-2007 and a freeze in financing following the world financial meltdown of September 2008.

Domestic balances adjust to the availability of external financing, along similar lines to those emphasized in the SG literature. In the 1970s, many governments borrowed heavily, so fiscal deficits were the counterpart of abundant external financing. The pattern was a twin fiscal/external deficit, but with the causality reversed in relation to the Polak framework. For countries of the Southern Cone of Latin America, private rather than fiscal deficits were then the counterpart (or twin) of the “exuberance” in external financing. Both sorts of responses were led by liberalization of the domestic financial sector and the capital account, and eventually led to massive private bankruptcies and domestic financial crises (and associated public sector rescues) when capital stopped flowing in. Later on, crises driven from abroad became the pattern in the developing world. Referring to the Mexican “Tequila” crisis of 1994, IMF Managing Director Michel Camdessus called the associated meltdown “the first crisis of the twentieth-first century”. However, events of this type had been inaugurated in modern times by the Southern Cone countries (particularly Chile) in the early 1980s, and there were many precedents further in the past (recall the

1930s, for example). All these crises were not so much a “twenty-first” century pattern of fast reaction from the financial markets but rather a consequence of structural features of economies subject to strong cyclical swings in external financing.

What Does the Data Say?

It becomes interesting to see what patterns emerge from the data. Table 5.1 presents partial correlation coefficients among the three possible pairs of balances. The strongest message that emerges is that the private/external twin is much more common (nine out of the twelve regions) than the traditional Polak public/external twin. Only five regions show the statistically significant negative coefficient predicted by the TD story, but in three of them the alternative twin seems more powerful; in a fourth one, North Africa and the Middle East, the coefficient, although significant, is rather small. This makes the TD hypothesis of limited empirical relevance. Indeed, only the former USSR shows a dominant Polak twin, with causality subject to debate (see below). The centrality of shifts in external financing indicates that this variable is far from “neutral”, and thus the RE story is largely irrelevant.

Regions	Period	Government-Foreign	Private-Foreign	Private-Government
Tigers	1981-2006	-0.48*	-0.96**	0.21
Southeast Asia	1979-2006	0.25	-0.92**	-0.61**
China	1982-2006	0.47*	-0.96**	-0.71**
South Asia	1979-2006	-0.47*	-0.78**	-0.19
Semi-Industrialized countries	1980-2006	-0.07	-0.73**	-0.63**
Andean	1977-2006	0.09	-0.76**	-0.72**
Central America and the Caribbean	1977-2006	-0.54**	-0.69**	-0.24
Central and Eastern Europe	1990-2006	-0.12	-0.79**	-0.51*
Russia and Ukraine	1995-2006	-0.74**	-0.45	-0.26
Representative Africa	1980-2006	-0.20	-0.32	-0.87**
Other Africa	1980-2005	-0.26	-0.73**	-0.46*
Middle East and Northern Africa	1981-2006	-0.45*	-0.32	-0.70**

Table 5.1: Correlation Coefficients for Institutional Sectors Net Borrowing Flows

* Correlation is significant at 5%

** Correlation is significant at 1%

Source: United Nations Common Database.

The dominance of the private/external twin is evident in the three cases that are shown in detail in Figure 5.1. In the Tigers, the fiscal role was rather passive. The private and foreign co-movements were very large, with swings up and down exceeding 10% of GDP (Figure 5.1a). Maintaining very high per capita income growth over a 25-year period with the macro economy subject to such extreme fluctuations is a feat perhaps unprecedented historically. However, some of them stumbled during the Asian crisis, indicating that even the best performing countries can face difficulties managing external financial volatility.

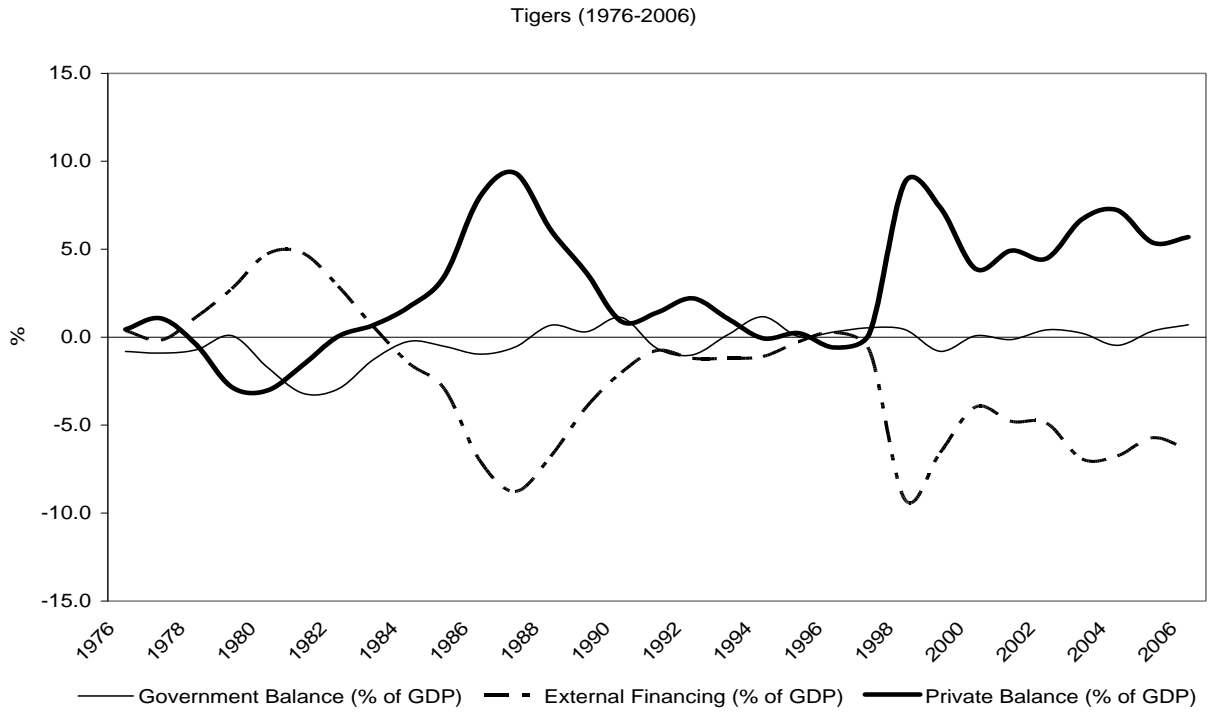


Figure 5.1a

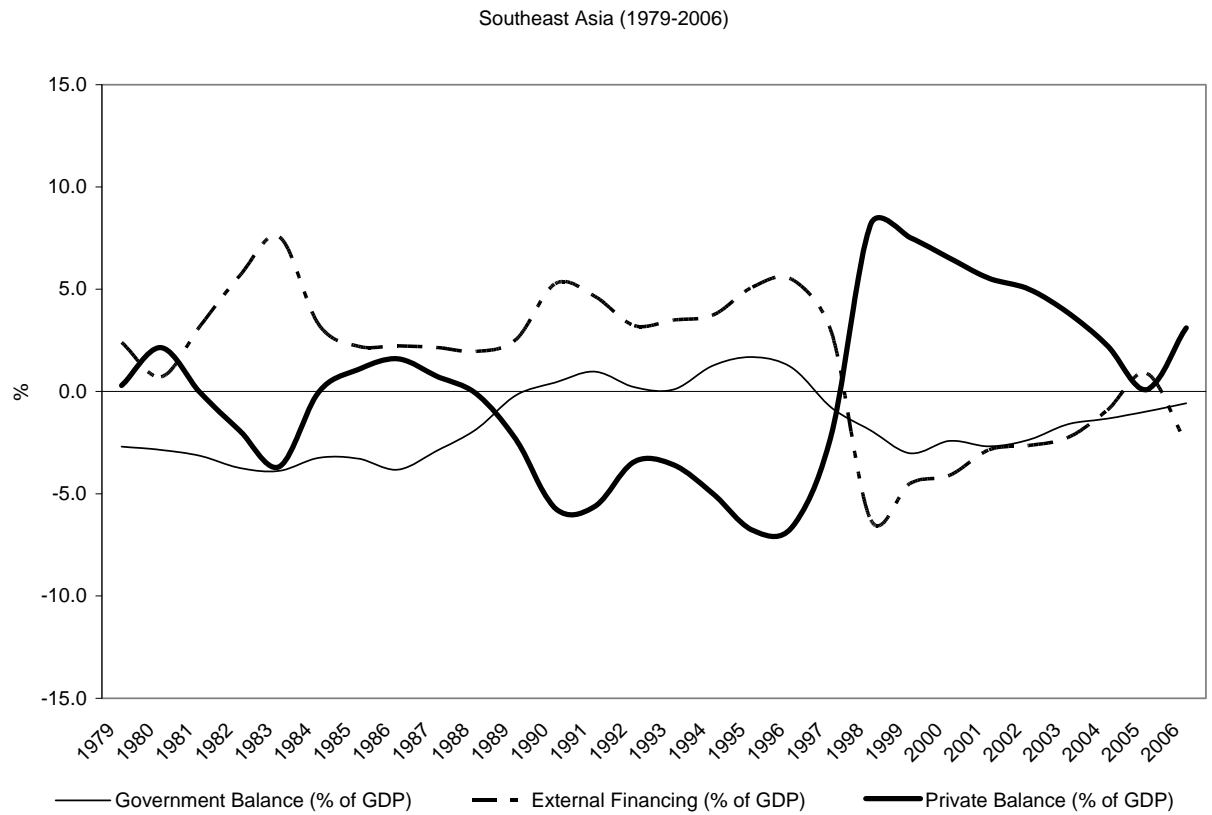


Figure 5.1b

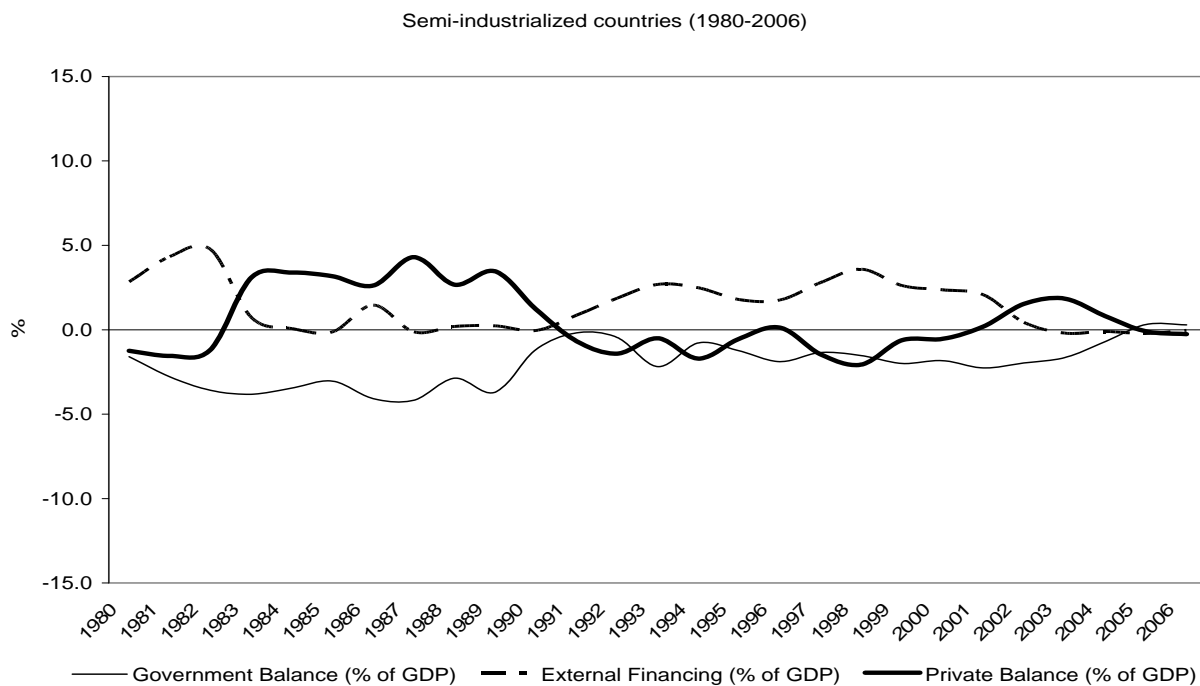


Figure 5.1c

Figure 5.1: Resource gaps by institutional sectors in Tigers, Southeast Asia and semi-industrialized Latin America.

Source: Source: United Nations Common Database.

In five out of the nine cases there was a mix between a dominant private/external twin and offsetting movements between private and fiscal deficits. In two cases, South-East Asia and China, these domestic movements clearly reflect counter-cyclical fiscal policy. As the swings in external financing led to parallel movements in private sector balances, public sector finances tried to compensate, a fact that is reflected in the positive correlation between the fiscal balance and external financing. Figure 5.1b illustrates the case of South-East Asia. In this case, again, the very strong private/external swing is accompanied by counter-cyclical movements of fiscal balances: deficits during the 1980s followed by small surpluses during the booming 1990-97 period and deficits again during the Asian crisis, gradually corrected thereafter.

The semi-industrialized countries show a case in which a dominant private/external twin is mixed with a negative correlation between private and fiscal deficits but there are no signs of counter-cyclical fiscal policy (the other two cases are the small Andean countries and other Africa). Except for the recessionary “lost decade” of the 1980s, this region appears to have a more or less structural external deficit. The wide offsetting swings in net government and private borrowing are associated with the “lost decade”, with the interpretation following SG or UEF lines, as the dominant constraint was clearly foreign exchange availability. Despite IMF programs, public sectors faced difficulties balancing the budget. Given foreign exchange constraints, the inflation tax and forced savings kicked in to generate the private sector surplus necessary to “finance” the budget deficit.

As indicated, there are only three regions for which the private/external twin is not dominant. One of them, the former USSR, is the only case in which the Polak twin dominates although, given the relatively short period for which the analysis was run, its empirical relevance remains dubious. The causality also seems to be the opposite to that assumed by the TD literature, as the improvement in the fiscal balance which underlies the story seems to be associated first with the strong fiscal adjustments that was forced upon Russia by the 1998 crisis, followed in the mid-2000s by the strong fiscal effects of booming oil revenues (Figure 5.2a).

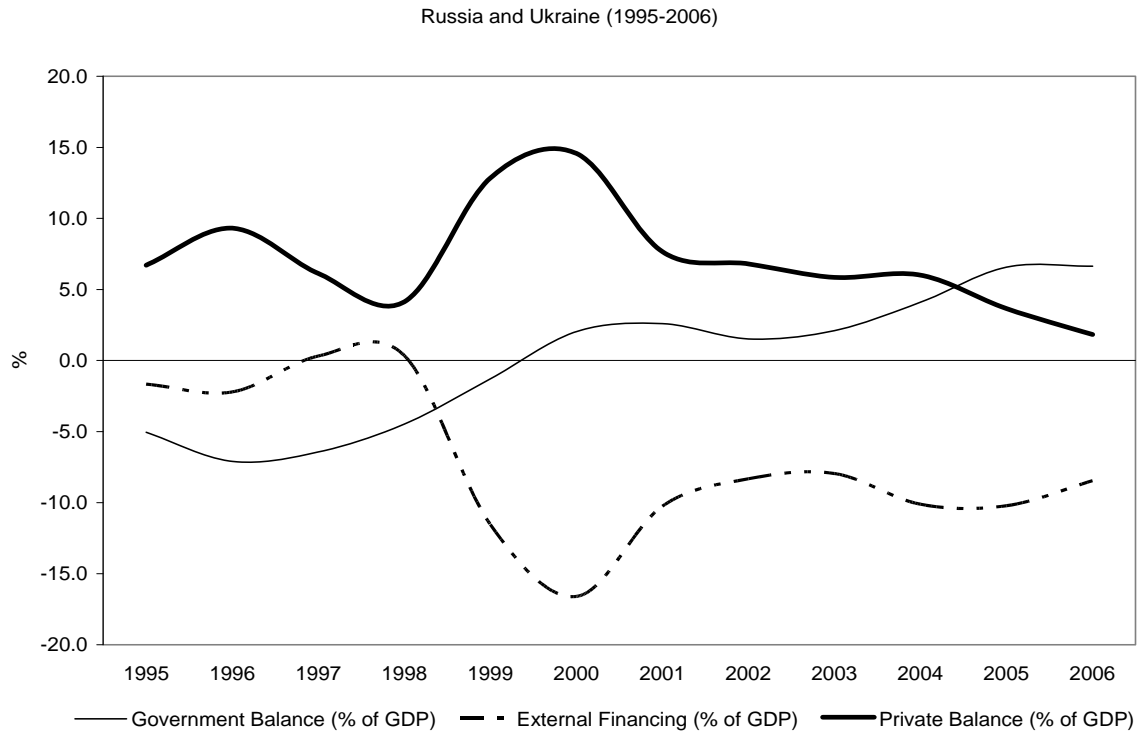


Figure 5.2a

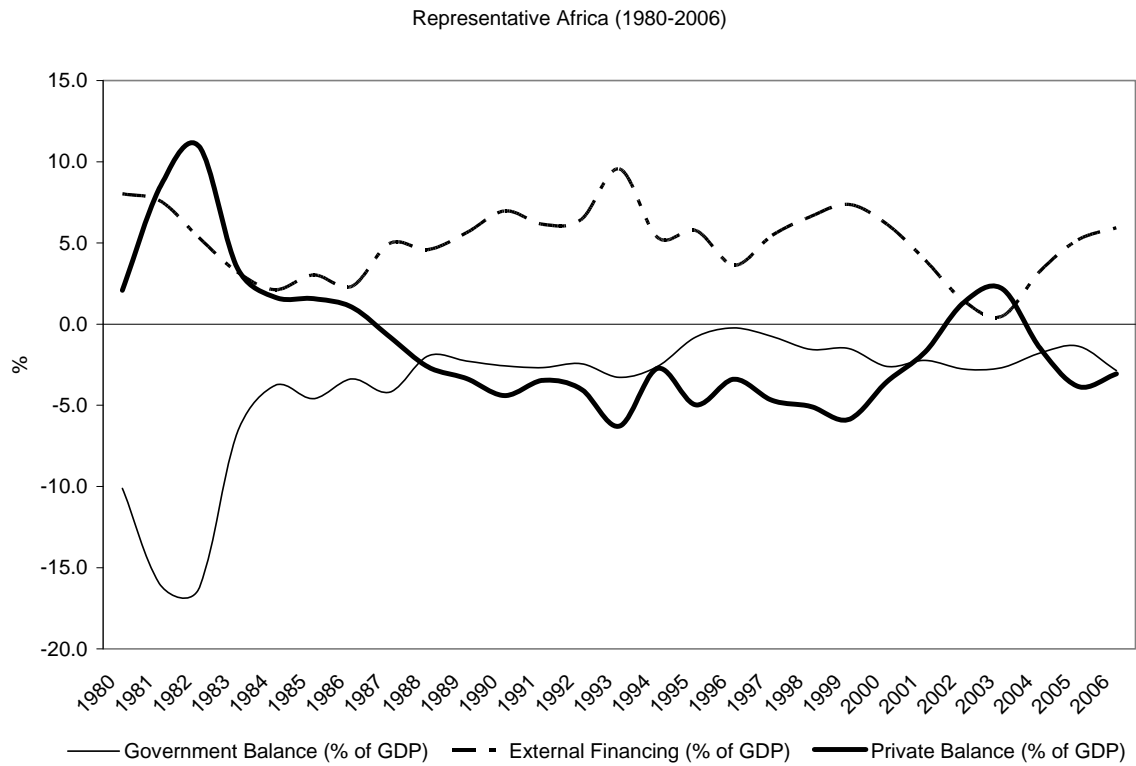


Figure 5.2b

Figure 5.2: Resource gaps by institutional sectors in Russia and Ukraine and Representative Africa

Source: United Nations Common Database.

Finally, Figure 5.2b shows the history of one of the two regions where a strong offsetting behavior of domestic balances was not associated with any externally-dominant twin, Representative Africa (the other is the Middle East and Northern Africa). The story seems again dominated by events during the “lost decade”, and thus by foreign exchange scarcity. Indeed, starting in the 1990s, this region looks much more like one dominated by a private/external twin with fiscal policy playing a rather passive role.