## Comments

**Miguel Braun:** This paper attempts to shed light on the causes of the procyclical behavior of fiscal policy in Latin America. This empirical regularity was brought to the forefront of recent academic and policy discussions by Gavin and others and Gavin and Perotti, and it is now a widely accepted characterization of fiscal policy in the region.<sup>1</sup> The paper's contribution is twofold: it attempts a rigorous documentation of the procyclical nature of fiscal policy in Latin America, and it seeks to establish a causal link between limited creditworthiness—that is, the lack of access to credit during economic downturns—and procyclical fiscal policy.

The authors first compute the structural primary balance for nine countries in the region for the period 1981-2004: they use a Hodrick-Prescott filter to cyclically adjust revenues and then compute the structural primary balance as the difference between the cyclically adjusted revenues and actual expenditures. They find that the structural primary balance is negatively correlated with the output gap, implying procyclical fiscal policy. This result is not surprising, since it confirms the results found in the literature.<sup>2</sup> The authors claim that "the empirical approaches for rigorously testing and explaining the issue are scant, despite the conventional wisdom that fiscal policy is procyclical in Latin America." Their structural balance calculation, however, does not necessarily improve on the currently used methodologies. The literature to date shows that the key difference between developed and developing countries is in the behavior of government expenditures, not revenues, with procyclical spending in developing countries and countercyclical spending in developed ones. Since the authors' methodology cleans out the cyclical component of revenues but not of expenditures, their methodology is simply capturing the positive correlation between spending and the cyclical component of GDP, which is already well documented.

- 1. See Gavin and others (1996); Gavin and Perotti (1997).
- 2. See Gavin and others (1996); Gavin and Perotti (1997); Talvi and Végh (2005).

The paper's primary innovation is the attempt to find a causal relation between limited creditworthiness and procyclical fiscal policy. The authors claim that the markets' perception of the sustainability of Latin American economies worsens in economic downturns. This reduces access to credit for these countries, which forces a fiscal adjustment and thus leads to procyclical fiscal policy. To test this hypothesis, the authors construct a measure of fiscal sustainability at each point in time. They find that the structural primary balance improves when sustainability worsens. Since sustainability worsens in bad times, this would explain why Latin American governments adjust during recessions.

The authors define the current threshold balance (CTB) as the primary balance that renders the ratio of public debt to GDP stable. The ideal measure of this threshold is the primary balance at which the present value of future primary balances is sufficient to pay off the stock of net debt. Given data limitations, however, the authors estimate the current threshold balance as

$$CTB_{t} = \frac{\left(\rho_{t} - g_{t}\right)}{\left(1 + g_{t}\right)}D_{t-1},$$

where  $\rho$  is the ratio of interest payments to debt, g is the GDP growth rate, and *D* is the debt stock.

They find a positive correlation between changes in the estimated current threshold balance and their measure of the structural primary balance. This implies that governments adjust the discretionary component of fiscal policy when the perception of insolvency increases. Since this happens during downturns, discretionary fiscal policy is procyclical. One problem with this interpretation, however, is that it is not obvious that forward-looking agents would believe the debt position of a country to be less sustainable during a cyclical downturn. Moreover, the estimate of the current threshold balance automatically increases during downturns, so the methodology does not clearly identify a channel from perception of creditworthiness to fiscal adjustment.

Another issue is related to sample selection. If the hypothesis is that limited creditworthiness is key for procyclical fiscal policy, then it would be interesting to include countries with few financial problems in the sample. Data might also be a problem. The IMF's *Government Finance Statistics* database used in the paper does not include subnational spending, which is very relevant for federal countries such as Argentina, Brazil, Mexico, and Venezuela. Including subnational data probably would not alter the sign of the results, since the

available evidence indicates that subnational spending is also procyclical, but it could affect the magnitude of the estimated coefficients.<sup>3</sup>

In terms of policy discussions, the authors mention that the analysis begs the question of why countries don't self-insure by saving during good times. In a context of limited creditworthiness, forward-looking governments should run surpluses during expansions. To the extent that this is not possible, then spending cuts during recessions appear more of an inevitable policy response rather than a bad decision.

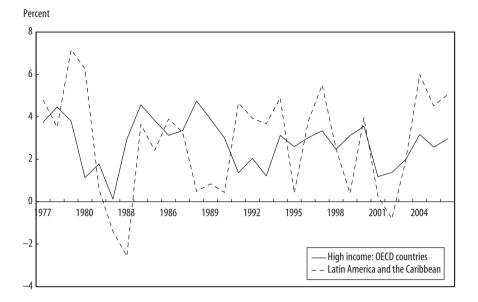
Finally, an interesting area for further study and discussion is why Latin American countries lack the automatic stabilizers for spending that are so common in developing countries. If they could be implemented without negatively affecting fiscal solvency, then they could contribute to reducing proyclicality.

**Tito Cordella:** The main difference between an emerging market and an advanced economy is probably in their ability to cope with external shocks through the use of countercyclical policies. The issues discussed by Enrique Alberola and José Manuel Montero are therefore critical for emerging market economies in general and for Latin American and Caribbean countries in particular. Eyeball econometrics provides a sense of the amount of output volatility these countries endure because of their inability to smooth consumption and investment over time (see figure 4). Eyeball econometrics, however, does not suffice to explain why Latin American and Caribbean countries do not or cannot pursue countercyclical fiscal policies. For this purpose, one needs the kind of rigorous econometric analysis that Alberola and Montero provide.

Gavin and Perotti were the first to point out that fiscal policies are often procyclical in Latin America.<sup>4</sup> Alberola and Montero contribute to the growing literature on fiscal behavior in Latin America and the Caribbean in several important directions: they provide new estimates of the structural fiscal balances of the nine main Latin American and Caribbean economies and offer evidence of fiscal policy procyclicality in most of them; they propose an index of debt sustainability on which to regress structural fiscal balances; and they argue that debt sustainability concerns are the ultimate cause for the lack of countercyclical fiscal policies in the region. Their results contribute significantly to the policy debate in the region. This said, I focus my comments on the few things that I found controversial or that the authors could have addressed more

<sup>3.</sup> Sturzenegger and Werneck (forthcoming) analyze Argentina and Brazil.

<sup>4.</sup> Gavin and Perotti (1997).



carefully in the paper. I conclude by examining fiscal policy procyclicality from a different angle and exploring some policy considerations.

The literature contains two main views of why fiscal policies could be procyclical. The first revolves around credit constraints: in emerging markets, the availability of external sources of credit is procyclical, and this drives the authorities' fiscal policy stance.<sup>5</sup> The second centers on political economy: fiscal policy procyclicality is either the consequence of a common pool problem (Tornell and Lane's voracity effect) or a policy agency problem that yields voters to "starve the Leviathan," as recently argued by Alesina and Tabellini.<sup>6</sup> While Alberola and Montero carefully discuss these alternative views in the paper's introduction, I have doubts as to whether the debt sustainability channel they champion is really different from the credit constraint channel. To clarify this issue, the paper should have more transparently specified how the debt sustainability channel works. Let me elaborate on this somewhat technical, but nonetheless important, point.

Alberola and Montero analyze how debt sustainability concerns affect the fiscal policy stance in equation 12, which estimates how a change in the current threshold balance is reflected in the structural primary balance. The result-

<sup>5.</sup> See Gavin and Perotti (1997); Kaminsky, Reinhart, and Végh (2005).

<sup>6.</sup> Tornell and Lane (1999); Alesina and Tabellini (2005).

ing positive coefficient allows them to maintain that sustainability concerns do affect a country's fiscal stance. Of course, the reaction of fiscal policy to the deterioration in sustainability conditions is not simply a response to changes in the current threshold balance but rather should be commensurate with the magnitude of the debt sustainability problem. To explore whether this is the case, Alberola and Montero introduce a pseudo error correction term (namely, the lagged difference between the primary balance and the current threshold balance), which enters with the expected negative sign. Since the introduction of this term increases the magnitude of the coefficient of the current threshold balance, the authors claim that fiscal policy becomes tighter when sustainability becomes a genuine concern. I find it difficult to follow such reasoning. An error correction term neither controls for the debt stock nor serves as a proxy for debt sustainability concerns.

A more straightforward method for analyzing whether the existence of a debt sustainability problem affects fiscal policy adjustments is to introduce the debt stock as a regressor and then interact it with changes in the current threshold balance. A positive coefficient for this interacted term would convey strong evidence that debt sustainability problems do affect fiscal policy adjustments. Another option is to run a spline specification that allows the sustainability concern coefficient to vary at different levels of indebtedness. The authors could also have performed threshold estimations à la Hansen.<sup>7</sup>

In addition to providing a more transparent analysis of how debt sustainability concerns affect fiscal policy, Alberola and Montero could also have shed some light on whether political economy considerations should be completely ruled out or whether they might be a contributing factor in fiscal policy procyclicality in Latin America and the Caribbean. One way to proceed would be to assess whether the degree of fiscal procyclicality is the same in periods of booms, when political economy considerations are more likely to play a role, and in periods of recession, when credit constraints are more likely to be binding. The paper might also have provided a clearer picture of the kind of budget rigidities that Latin American countries face, with a focus on whether revenue or expenditure behavior is the biggest cause of fiscal procyclicality. Finally, the paper does not address whether the degree of fiscal policy procyclicality is the same in mild recessions and financial crises. Such information would help clarify whether sudden stops are the driving force behind policy procyclicality or just one contributing factor.

7. Hansen (2000).

Despite these caveats, the paper makes a compelling argument that "the more sustained and decisive the fiscal discipline effort, the less debt sustainability concerns will play a role in determining fiscal policy." This view seems to be part of a so-called Madrid consensus. Indeed, in a recent press conference, the managing director of the IMF (and former minister of finance of Spain) stressed that "Latin America still is not in a position to use fiscal policy in a countercyclical way. Debt sustainability has improved but ... the room for maneuver ... has not been yet sufficient to use fiscal policy in a countercyclical way.... So, the continuation of a reduction of debt is key." While I do not disagree with this view, it is only one part of the story, as illustrated by the case of Brazil (see table 7). Brazil's public sector debt almost doubled from 1994 to 2003, from about 29 percent of GDP to about 57 percent. This does not necessarily reflect unsustainable fiscal policies, however, given that the government posted an average primary surplus of about 2 percent of GDP in the period. The reason Brazil's debt doubled-and the reason the country now faces debt sustainability problems that might impede the pursuit of countercyclical policies—is the high cost of external borrowing it faced in the past. This, in turn, implies that while the reduction of debt is key for many Latin American countries, it might not be sufficient. Some form of liquidity or interest rate insurance is critical for avoiding the self-fulfilling debt spirals of the past. Providing liquidity insurance to crisis-prone economies with sound fundamentals is an important precondition for Latin American and Caribbean countries to be able to pursue anticyclical policies.<sup>8</sup> This, of course, is a topic for future discussion and research.

8. See, for example, Cordella and Levy Yeyati (2006).

Indicator	1994	1995	9661	1997	1998	1999	2000	2001	2002	2003	2004	2005
Public sector debt (percent of GDP)	29.1	30.5	33.3	35.4	42.2	53.0	51.1	55.1	55.9	57.2	51.7	51.5
Primary surplus (percent of GDP)	0.5	0.3	-0.1 -1.0	-1.0	0.0	3.2	3.5	3.6	3.9	4.3	4.6	4.8
Spread (basis points)	816	1,127	695	449	824	1,036	727	887 1,380	1,380	837	536	394
Source: fiscal variables: World Bank's Development Data Platform (DDP) database; spreads: J. P. Morgan's EMBI spreads through 1998 and EMBI Glo	/orld Bank's Deve	lopment Data P	'latform (DDP) d	atabase; spread	ls: J. P. Morgan's	s EMBI spreads t	hrough 1998 an	d EMBI Global s	oreads thereafter			

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