One Hundred Years of Fiscal Procyclicality in Uruguay

By Carlos A. Végh

Chief Economist for Latin America and the Caribbean at the World Bank and Fred H. Sanderson Professor of International Economics at Johns Hopkins University

It has been a pleasure to read this chapter on the monetary and fiscal history of Uruguay over the last sixty years. It is highly informative and clearly written, and does an excellent job in linking fiscal deficits to monetary instability, a trait that has clearly dominated the fiscal-monetary landscape of Uruguay in the last sixty years.

The missing link in the fiscal story

Rather than marginally adding to this well-known link, let me address the issue of how fiscal policy has been conducted over the business cycle in Uruguay. For some reason, the chapter completely abstracts from this phenomenon, which, in my view, is as critical to understanding fiscal policy in Uruguay as is the link between fiscal deficits and monetary instability. Specifically, the issue is whether fiscal policy has been procyclical, acyclical, or countercyclical. By definition, procyclical fiscal policy (i.e., expansionary fiscal policy in good times and contractionary fiscal policy in bad times) reinforces the business cycle. If anything, standard Keynesian prescriptions would call for exactly the opposite policies (i.e., countercyclical fiscal policy to stimulate the economy in bad times and cool it down in good times), and neoclassical fiscal policy prescriptions (à la Lucas and Stokey 1983) would, under separable preferences, imply acyclical fiscal policy.

1 Written version of comments delivered on September 25, 2018, at the Inter-American Development Bank (IDB) on “The Monetary and Fiscal History of Uruguay, 1960–2017” by Gabriel Oddone and Joaquín Marandino. These comments draw heavily on the author’s joint work with various coauthors (see references), particularly José A. Camarena, Jeffrey Frankel, and Guillermo Vuletin. The views expressed in this note are the author’s own and do not necessarily represent those of the World Bank, its staff, or its executive board.
Since a picture is worth a thousand words, let me illustrate this critical issue with figure 1.

**Figure 1. Correlation between government spending and GDP, 1960–2017**

![Graph showing correlation between government spending and GDP](image)

*Source: Kaminsky, Reinhart, and Végh (2005, updated).*

*Note: Total expenditure consists of total expense and new acquisition of nonfinancial assets.*

Each bar represents one of 123 countries: 22 industrial (black bars), 77 emerging markets (yellow bars), and 24 non-emerging Latin American and Caribbean (LAC) countries (red bars). The bars (which vary between −1 and 1) indicate the correlation between the cyclical components of real GDP and government spending. As indicated in the figure, a positive correlation implies procyclical public spending since public spending increases (falls) in good (bad) times. The opposite is true in the case of countercyclical policy. The sample period covers 1960–2017. Several key observations follow from this plot:

- 73 percent of industrial countries have been countercyclical, with an average correlation of −0.08 (and significant at the 5 percent level).
- 77 percent of non-LAC emerging markets have been procyclical, with an average correlation of 0.24 (and significant at the 1 percent level).

---

2 Even though we are implicitly assuming that fiscal policy reacts to GDP, correlation does not, of course, imply causation. Ilzetzki and Végh (2008), however, use instrumental variables to show that there is indeed causality from GDP to fiscal policy.
• All but one LAC countries have been procyclical, with an average correlation of 0.28 (significant at the 1 percent level). The red arrow indicates Uruguay, which has been procyclical throughout this period.³

### Breaking the sample: before and after 1999

Figure 2 breaks the sample into two (before and after 1999) for LAC countries.⁴ Interestingly enough, as a whole, LAC has become less procyclical: the number of countercyclical countries has increased from 8 percent during 1960–1999 to 33 percent after the year 2000. The other side of the coin is that the average correlation has fallen from 0.29 to 0.14. A big exception to this otherwise good news is Uruguay, which has become more procyclical both in absolute terms (with the correlation increasing from 0.26 to 0.58) and in relative terms (from twelfth most procyclical country in LAC to fourth most procyclical). At the other extreme, Chile is the best-behaved country in LAC. As illustrated in figure 2, in the post-2000 period, Chile has become the most countercyclical country in LAC (with a correlation of −0.68).

![Figure 2. Correlation between government spending and GDP before and after 2000](image-url)

³ Uruguay has also been procyclical on the tax side, tending to increase tax rates in bad times and lower them in good times. In fact, Végh and Vuletin (2015) report a correlation of −0.38 for a tax index comprising corporate income, personal income, and value-added taxes that covers the period 1969–2013.

⁴ See Frankel, Végh, and Vuletin (2013) and Végh, Lederman, and Bennett (2017) for detailed analyses of fiscal policy graduation in developing countries (i.e., the switch from procyclical to countercyclical fiscal policy).
What may lie behind different degrees of cyclicality? Figure 3 points to institutional quality (which includes the quality of fiscal institutions) as a key determinant, by comparing Chile and Uruguay. The plot shows a twenty-year rolling window for an index of institutional quality and the correlation between the cyclical components of government spending and real GDP. In the case of Chile, the large improvement in the quality of institutions and the beneficial effects of the structural balance budget rule introduced in the year 2000 are readily apparent, as fiscal policy has become clearly countercyclical over the last two decades. In sharp contrast, Uruguay has become more and more procyclical over time, reaching a correlation of 0.77 in 2017.

Figure 3. Cyclicality of government spending and institutional quality

![Chile institutional quality vs Corr(G, GDP)](image1)

![Uruguay institutional quality vs Corr(G, GDP)](image2)

Source: Frankel, Végh, and Vuletin (2013, updated).

One hundred years of fiscal policy cyclicality

Finally, we take a really long-run view and compute fiscal cyclicality based on one hundred years of data for both Chile and Uruguay (figures 4 and 5). The plot illustrates ten-year rolling windows of the correlation between the cyclical components of government spending and GDP. Further, we use the PELT algorithm (pruned exact linear time) to look for multiple change points in the fiscal cyclicality regime. In the case of Chile, we observe that the algorithm detects four different regimes, which become progressively more countercyclical.

---

5 Based on Camarena et al. (in progress).
over time, ending with an extremely countercyclical policy (partly reflecting the sharply countercyclical reaction to the global financial crisis of 2008–2009). The case of Uruguay is the opposite. After alternating regimes, Uruguay has been consistently procyclical for almost four decades. The contrast with Chile could not be starker.

Figure 4. Chile: one hundred years of cyclicality of government spending
Why?

Why would a country follow procyclical fiscal policy? This is the key public policy question. More and more, countries in LAC are escaping the fiscal procyclicality trap thanks to better fiscal institutions, including fiscal rules and fiscal councils (such as those in Chile, Peru, and Colombia). But most continue to reinforce the business cycle in a suboptimal way. The two most plausible explanations found in the literature are (1) frictions in (or incomplete) capital markets and (2) political-economy pressures to spend in good times. In my view, these are complementary explanations, since the first one is more likely to apply in bad times, while the second would come to the fore primarily in good times. The urge to spend in good times is legendary in emerging markets, whether to solidify power or buy constituencies’ favors (including future votes), or as the result of viewing temporary shocks as permanent. In bad times, international creditors (with the possible exception of official multilateral organizations) are typically reluctant to lend, given the long history of defaults in emerging markets.

Uruguay has not been able to escape these forces and, hence, the procyclical trap. The fiscal authorities either seem unaware of the simple idea of saving in sunny days for rainy days or, much more likely, conveniently choose to ignore such an elementary dictum to reap the political benefits of spending temporary
windfalls. In fact, this misguided fiscal behavior has taken place irrespective of the political party in power, which suggests that the roots go deeper. But, eventually, common sense and good economics will hopefully prevail, and Uruguay will follow the sensible cyclical path of industrial countries and an increasing number of LAC countries.

References


