

The History of Uruguay

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Major fiscal and monetary events, 1960–2017

1965 Banking crisis	1991 Brady Plan
1967 Creation of Central Bank of Uruguay as an “autonomous state entity”	Stabilization plan with crawling peg
1968 Stabilization plan with mandatory price fixing	1995 Central Bank Act limits assistance to public sector
1974 Financial liberalization	Social security reform
1978 Stabilization plan with crawling peg (<i>tablita</i>)	2002 Balance of payments crisis and devaluation
1982 Balance of payments crisis and devaluation	Banking crisis and default
1983 Banking crisis and default	2003 Public debt restructuring
	2005 Inflation targeting
	2008 New Central Bank Act sets restrictions to bailout operations

Introduction

During the last half of the twentieth century, Uruguay opened commercially and financially to the international economy, became progressively more stable, and abandoned the interventionist policies that had prevailed since the 1930s. However, during this period, the country suffered three banking crises (two of which became public debt crises), recorded double-digit chronic inflation for more than three decades, and was unable to reverse its long economic decline.¹

The inflationary financing of deficits in the late 1950s explains the origin of the nominal instability (i.e., high inflation) that lasted until the end of the twentieth century. This chronic inflation affected the credibility of macroeconomic policy, which contributed to demonetizing the economy. As a result, macroeconomic instability consolidated,

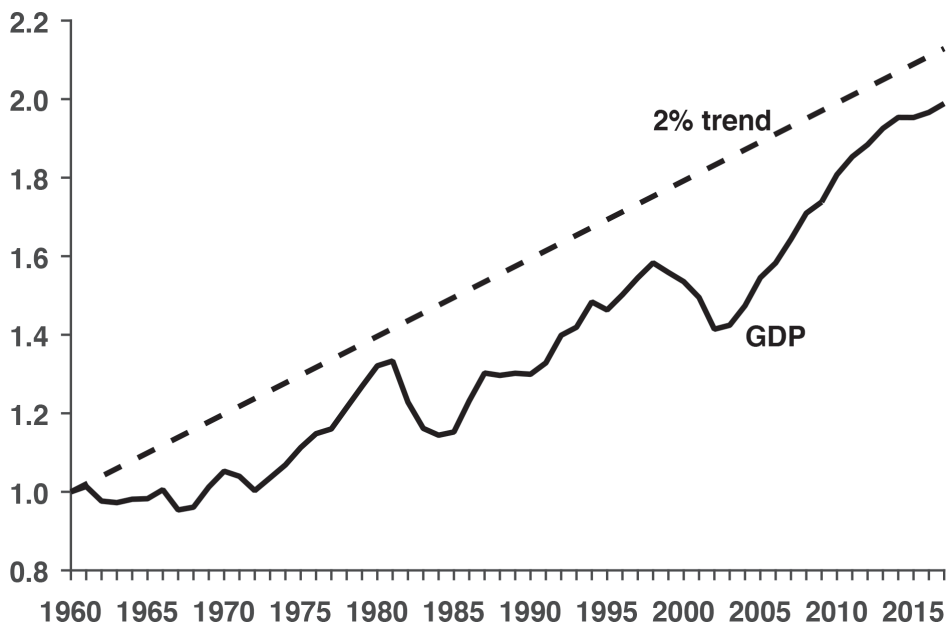


Figure 1. Log of per capita real GDP (1960 = 1)

Sources: Bonino, Román, and Willebald (2012); Central Bank of Uruguay

making agents more impatient for their expected returns and affecting investment and thus growth (Oddone 2008).

Between 1960 and 1973, the economy stagnated (Figure 1) with high and volatile inflation (Figure 2) and persistent fiscal deficits (Figure 3).

In 1974, GDP started to converge slowly to the 2 percent annual growth trend, while inflation and the fiscal deficit began to fall. This process went on until 1982, when the second major crisis—in banking, balance of payments, and public debt—hit.²

Between 1983 and 1990, the economy stagnated again, inflation increased to three-digit rates, and the fiscal deficit remained high because of large interest payments.

In 1991, after several measures and reforms, GDP growth started to converge to its trend, and the inflation rate began to decline. In addition, since the beginning of the 1990s, the fiscal deficit remained significantly lower than in the previous decades.³

In 2002, a third banking crisis took place. Compared with the 1982 crisis, the drop in GDP was similar, but the recovery was faster. Likewise, the fiscal effect of the crisis was smaller, and the impact on inflation was substantially lower and less persistent.

In summary, Uruguay made a significant macroeconomic change in 1974 by opening the economy through the liberalization of the current and capital accounts of the balance of payments. From there, successive governments reduced the monetary financing of fiscal deficits, as had been the norm up to that point. Nonetheless, during the transition, the country had to endure two major crises: the first in 1982 and the second in 2002. The significantly lower fiscal and inflation effects of the second crisis suggest that governments have slowly understood the importance of fiscal constraints to guarantee nominal

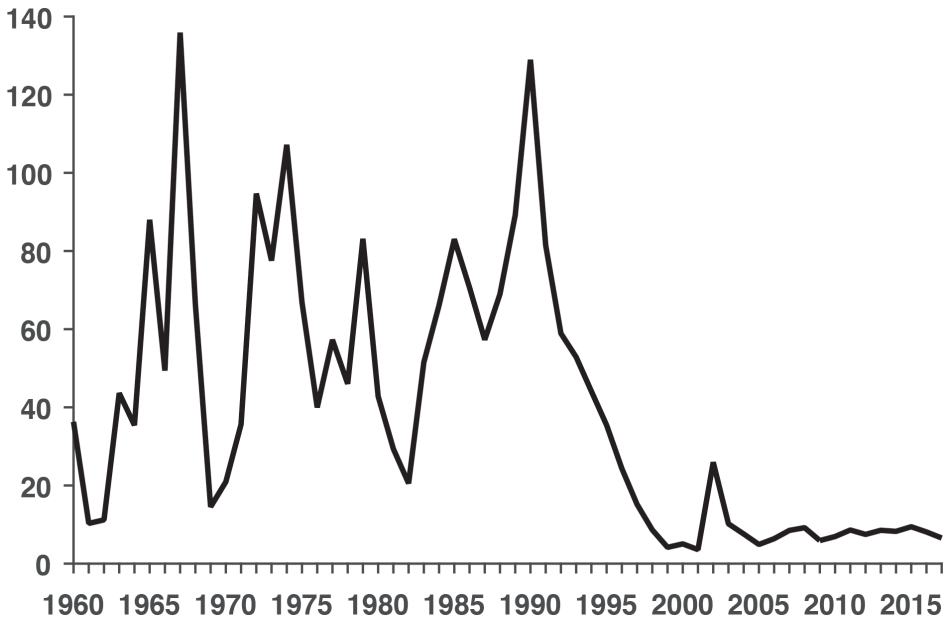


Figure 2. Consumer price index (CPI) inflation

Source: Instituto Nacional de Estadística (INE)

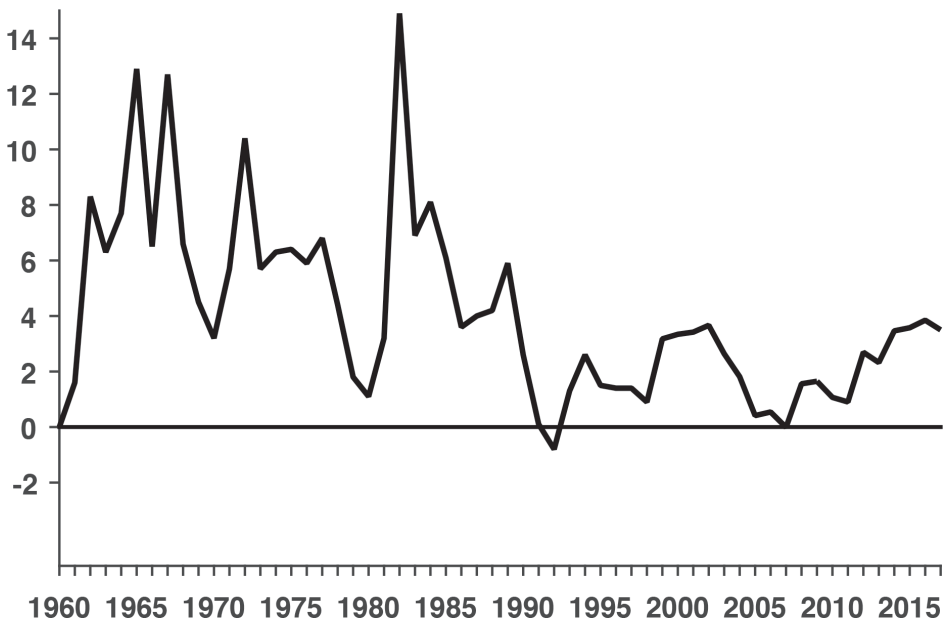


Figure 3. Overall deficit of the public sector as percentage of GDP

Sources: Banda and Onandi (1992); Borchardt, Rial, and Sarmiento (2000); Licandro and Vicente (2006); Ministerio de Economía y Finanzas (MEF)

instability. Institutional changes and economic reforms also helped improve the overall macroeconomic discipline. As a result, Uruguay has experienced fifteen years of uninterrupted growth and macroeconomic stability since 2003.

This chapter is organized into an introduction, two main sections, and a conclusion. The first main section shows the results of the budget constraint analysis for Uruguay for the 1960–2017 period based on the framework of “A Framework for Studying the Monetary and Fiscal History of Latin America.” The second contrasts the stylized facts of the monetary and fiscal history of Uruguay during the same period with the main conclusions from the budget constraint analysis. In addition, some theoretical models were used to achieve a better understanding of critical episodes, such as the crises of 1965, 1982, and 2002. Finally, the chapter presents conclusions and final remarks.

The Budget Constraint: Framework and Overall Results

This section describes the results of the budget constraint framework for the case of Uruguay.⁴ Table 1 shows the main results for the 1960–2017 period.⁵ Three subperiods were considered in analyzing these results. The first one (1960–73) comprises the stagflation years. The second (1974–90) includes the phase of the first trade opening (i.e., regional integration), financial liberalization, and the severe consequences of the banking and balance of payments crisis of 1982. The last subperiod (1991–2017) includes the second trade opening, the price stabilization plan (1991–2002), the 2002 banking crisis, and the years of strong growth and macroeconomic stability (2003–17).

The results in Table 1 show that the financing of Uruguay’s public sector in 1960–2017 was mostly inflationary: two-thirds of the sources came from an inflation tax and one-third from the public debt. Nevertheless, the monetization and the inflationary financing of fiscal deficits (monetary issuance plus inflation tax) fell throughout the whole period.

Between 1960 and 1973, the main source of financing fiscal deficits was the inflation tax, as public debt issuing was limited because of financial repression (real interest rates in pesos were negative) and lack of access to external financing. The financial liberalization in Uruguay since 1974 and the greater access to external financing from emerging markets in the early 1970s increased the weight of public debt as a source, although the inflation tax remained significant. Since the 1990s, inflationary financing was discarded because of greater access to public debt, lower obligations, and macroeconomic reforms. Since 2004, further improvements in public debt management kept the need for inflationary financing relatively low.

On the obligations side, the primary fiscal deficit decreased continuously in every subperiod (Table 1). After the second half of the 1980s, the deficit remained relatively low, reflecting greater government commitment to macroeconomic stability. However, primary deficits in the late 1990s and since 2012 suggest that this commitment is still weak (Figure 4).

In 1982 and 2002, the end of the price stabilization plans based on exchange rate anchors provoked strong currency devaluations. As shown later in section 3, these

Table 1. Consolidated budget constraint of the public sector, 1960–2017 (% GDP)

	1960–73	1974–90	1991–2017	1960–2017
Sources				
Local currency public debt (var.)	–1.1%	0.4%	0.2%	0.0%
Foreign currency public debt (var.)	0.9%	4.4%	–0.8%	1.1%
Inflation-indexed public debt (var.)			0.8%	0.4%
Wage-indexed public debt (var.)	0.1%	0.1%	–0.1%	0.0%
Monetary base (var.)	–0.2%	–0.4%	0.0%	–0.2%
Inflation tax	4.7%	3.6%	0.8%	2.6%
Total	4.4%	8.0%	1.0%	3.9%
Obligations				
Public-sector primary deficit	5.9%	1.8%	–1.1%	1.4%
Local currency return			0.0%	0.0%
Foreign currency return	–0.1%	2.8%	0.9%	1.2%
Inflation-indexed return			–0.1%	0.0%
Transfers	–1.4%	3.5%	1.3%	1.3%
Total	4.4%	8.0%	1.0%	3.9%

Note: Transfers are estimated as a residual.

devaluations severely weakened public finances (Figure 5) given the highly dollarized public debt and the central bank’s contingent liabilities (dollarized bank deposits). This is why the returns on that type of debt were large in the 1974–90 subperiod (Table 1).

Transfers (t_t) are, by definition, the residual of the budget constraint. They capture data limitations (estimation errors) as well as missing sources or obligations (“A Framework for Studying the Monetary and Fiscal History of Latin America”). The residual shows an erratic path throughout the entire period, although a negative sign prevails in the 1960s and the 1990s and a positive one in the 1970s, the 1980s, and the last decade (Figure 6). When there is a negative sign, there are missing *sources* in the budget constraint. Conversely, when the sign is positive, there are missing *obligations*.

An *adjusted residual* was estimated to interpret the budget constraint residual (transfers). Factors likely to be included in the budget constraint residual were identified and then extracted from the original residual. The result, the adjusted residual, allows analysis to the extent that the residual can be explained by such factors.

Three main terms were identified that are omitted from the budget constraint identity and thus end up in the residual: (1) international reserves, (2) reserve requirements, and

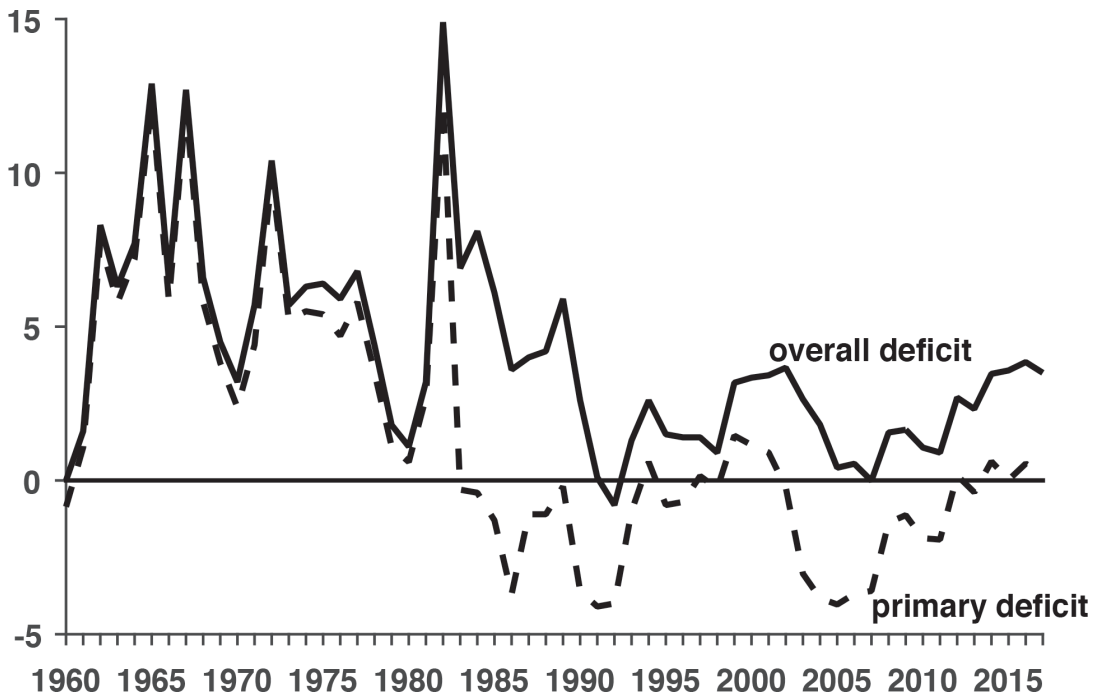


Figure 4. Overall and primary deficit of the public sector as percentage of GDP
 Sources: Banda and Onandi (1992); Borchardt, Rial, and Sarmiento (2000); Licandro and Vicente (2006); MEF



Figure 5. Gross public debt by currency (% GDP)
 Sources: Azar et al. (2009), Central Bank of Uruguay

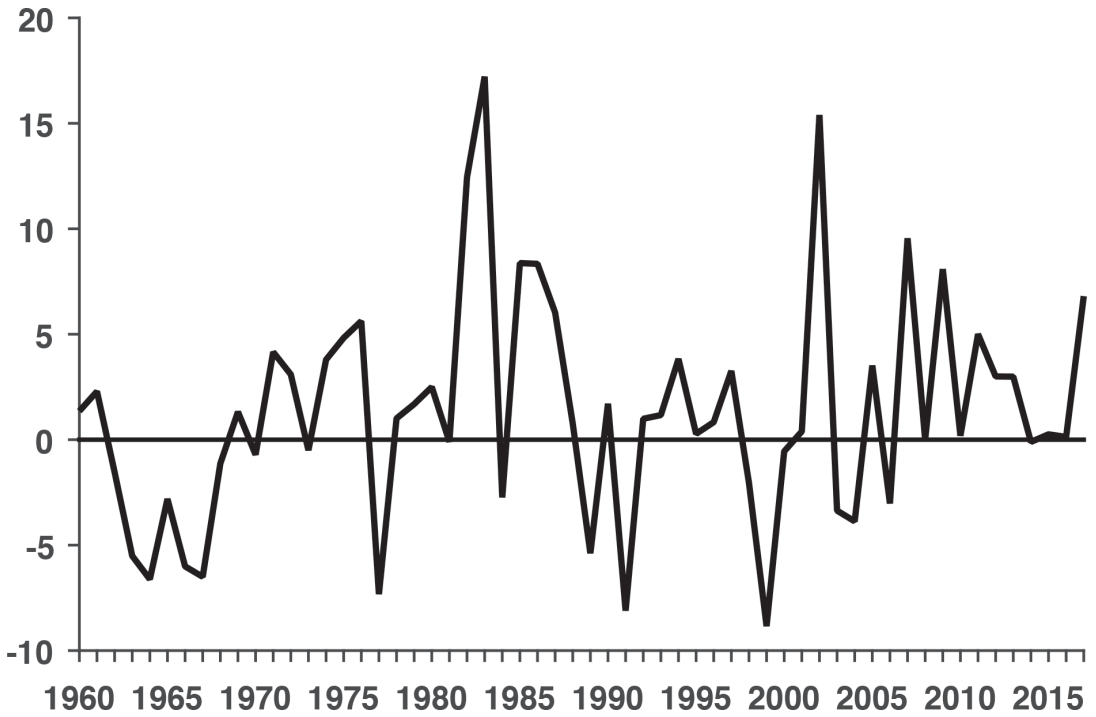


Figure 6. Residual, percent of GDP

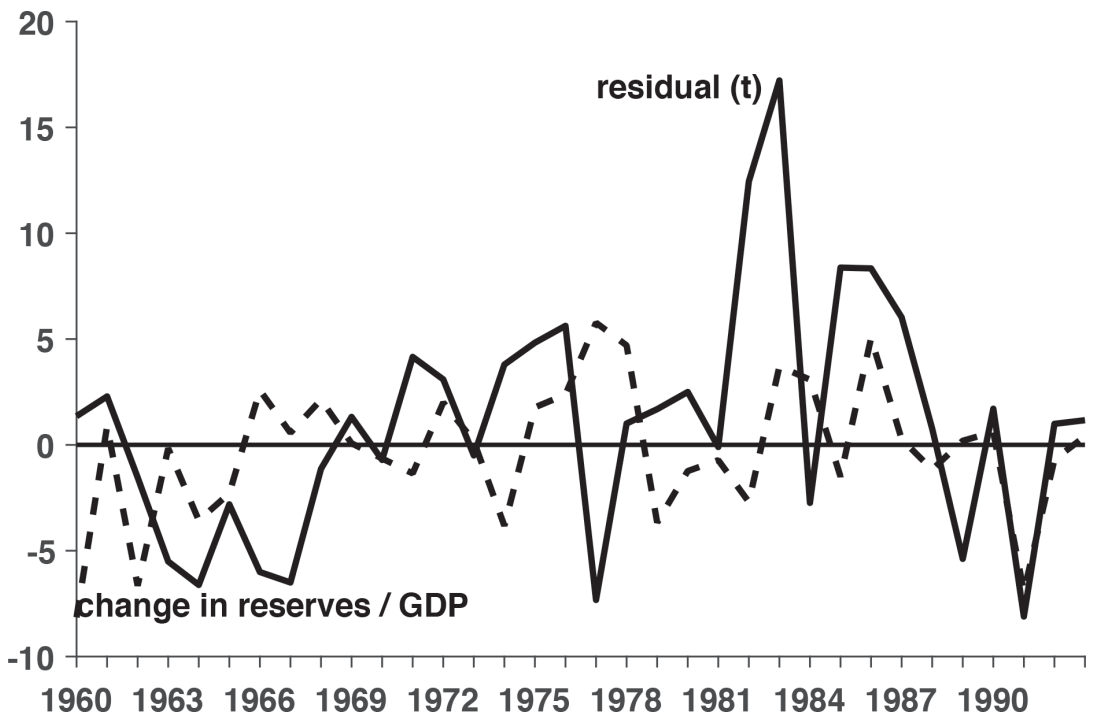


Figure 7. Residual and international reserves (1960–93)

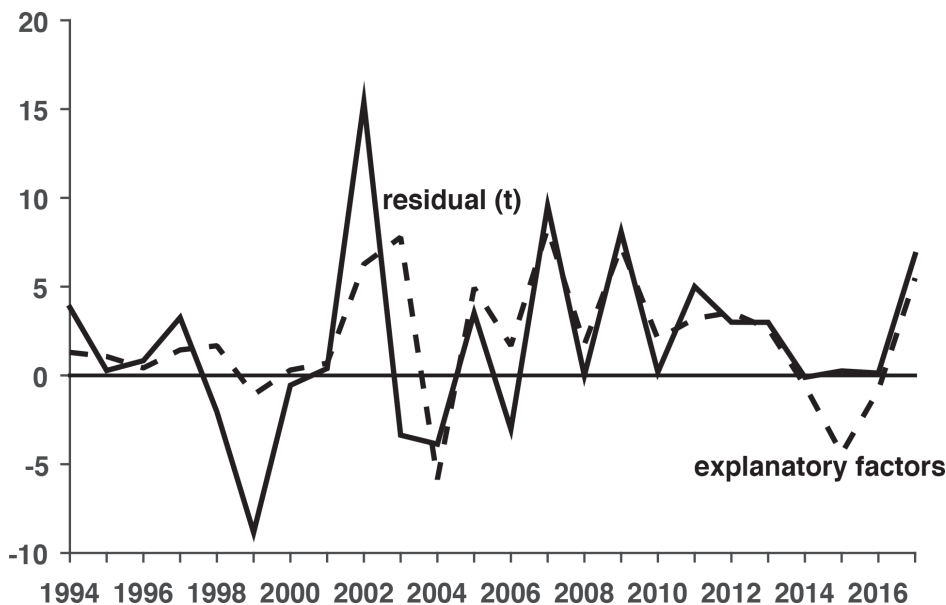


Figure 8. Residual and explanatory factors (1994–2017)

Source: Central Bank of Uruguay

Note: Between 1994 and 2017, the “explanatory factors” include net-of-credit deposits, financial assets, and other extraordinary transfers.

(3) transfers. Then, data were collected on these variables and subtracted from the original residual.⁶ The results in Table 2 show that, on average, the absolute value of the adjusted residual is lower than the absolute value of the budget constraint residual. This suggests that the residual can be partially explained by international reserves, reserve requirements, and extraordinary transfers. However, it remains relatively large in the 1960s, in 1977, around the 1982 crisis, in 1999, and around the 2002 crisis (Figure 9).

Following are some explanations for the remaining residual. First, the way the implicit interest rate is constructed for the period 1960–93 (interest payments in $t + 1$ over the stock of debt in t) may not be precise. That means estimation errors end up in the adjusted residual. Second, when estimating the implicit interest rate in 1960–2002, all public debt is assumed to be denominated in foreign currency. As a consequence, foreign currency returns may be inaccurate, and the ones denominated in other currencies are missing. The net effect of these errors is also contained in the adjusted residual. Third, some transfers associated with the 1982 and 2002 debt crises remain out of the budget constraint. For instance, transfers from the central bank to Banco Hipotecario during the 1982 crisis are not included in the deficit.⁷ Fourth, residuals may also arise from appending different data sets. For example, the adjusted residual is significantly large in 1999, the year when estimates and official data on public debt are joined.

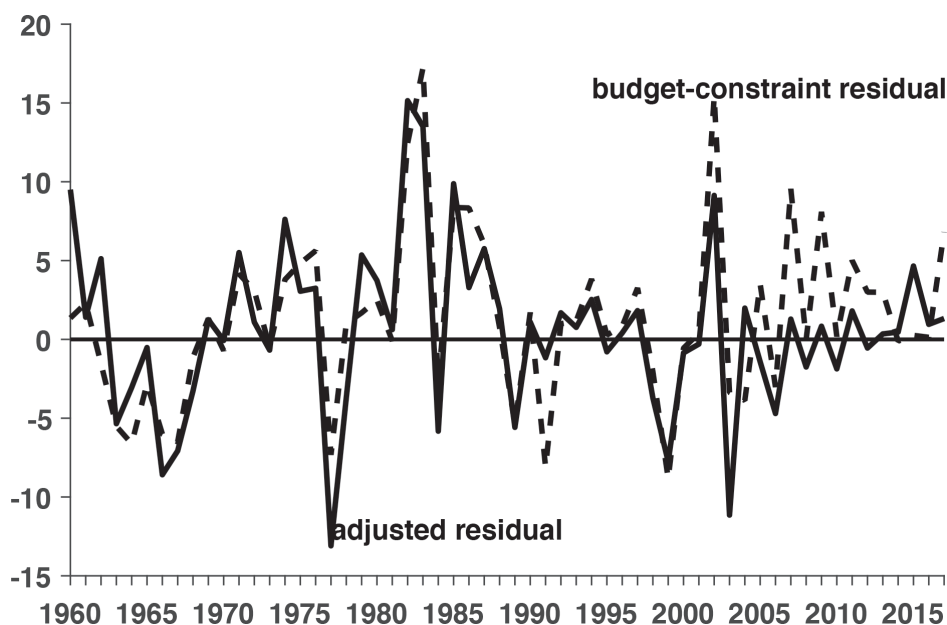


Figure 9. Adjusted and original residuals (% GDP)

Note: “Adjusted residual” is defined as the budget constraint residual minus the explanatory factors.

Table 2. Original and adjusted average residual by subperiod, percent of GDP

	1960–73	1974–90	1991–2017
Original residual	-1.4%	3.5%	1.3%
Adjusted residual	-0.3%	2.7%	-0.2%

Stylized Facts and the Budget Constraint

The economic history of Uruguay between 1960 and 2017 includes first a brief stage where interventionism and import-substitution policies predominated (1960–73). After 1974, and especially since 1991, more market-oriented policies stimulated the opening of the economy.

To contrast the stylized facts with the budget constraint results for Uruguay, the 1960–2017 period has been divided into three subperiods: (1) stagflation (1960–73); (2) opening, liberalization, and balance of payments crisis (1974–90); and (3) boost, halt,⁸ and the golden years (1991–2017). Each of the following parts is devoted to analyzing these subperiods using the conceptual framework described above.

STAGFLATION (1960–73)

The 1960s was the end of a growth period as the economy stagnated and inflation remained high in historical comparison. The magnitude of the economic failure led to a social and

political crisis in 1973 that ended the long democratic stability of the country. GDP per capita grew 2.2 percent on average in the 1950s and only 0.5 percent between 1960 and 1973. Annual inflation reached 51.7 percent on average in 1960–73 (it was 6.4 percent in the 1940s and 13.0 percent in the 1950s; Figure 2).

The economic decay of the late 1950s had political consequences. In 1958, the Colorado Party lost the presidential election for the first time in the twentieth century at the hands of its secular opponent, the National Party.

In 1959, the new government approved the Monetary and Foreign Exchange Reform law, which was the first attempt to liberalize the economy since 1929. The aim was to restore the internal and external balances of the economy. The reform simplified and reunified the various types of exchange rates, dismantled trade controls, and put an end to the tendency toward bilateral trade agreements. It also imposed drawdowns on exports and surcharges on imports. The reform restricted the expansion of payment methods by establishing an issuance regime based on gold and the rediscounting of private documents, thus eliminating other issuance props such as the assets of the state-owned commercial bank (Banco República).⁹ Under the reform, in 1960 Uruguay signed the first agreement with the International Monetary Fund (IMF). Even though most of the initiatives included in the reform were abandoned in the 1960s, some of them started to be implemented after 1974.

Between 1960 and 1973, under the low-growth situation, primary fiscal deficits were sustained (5.9 percent of GDP on average) as expenses grew more rapidly than revenues. This was because the public expenditure structure was very rigid, while revenues stopped growing because of stagnation (Figure 10).¹⁰

The debt-to-GDP ratio remained stable in this period, since the increase in dollar-denominated debt was offset by a fall in peso-denominated debt (Table 1; Figure 5). The latter began in the 1950s when negative real interest rates made peso-denominated debt unattractive for the private sector.¹¹ The government began to issue dollar-denominated Treasury bonds, but it was not enough to finance the large fiscal deficits. A solution was to increase the debt held by the public sector, particularly by social security institutions. Nevertheless, this financing source wore out as social security institutions weakened in the 1960s because of the economic stagnation and the negative real return on public debt.

Therefore, the financing of obligations in this period was inflationary.¹² The results of the budget constraint showed that deficits were financed with the inflation tax (4.7 percent of GDP on average) and other sources captured in the residual as negative obligations (1.4 percent of GDP on average; Figure 3). The following explanation is offered for this negative residual. Since no data are available on peso interest rates for the 1960s, debt obligations in pesos end up in the residual. Real interest rates were negative in this period, so debt obligations in pesos were likely to be negative. Thus our conjecture is that the residual is negative (that is, a missing source) because it contains transfers from debt holders to the public sector due to inflating away public debt in pesos. In other words, if data on interest rates in pesos were available, debt obligations in pesos would more likely be negative, increasing the sources and reducing the negative residual.



Figure 10. Central government: Revenue and expenses 1960–73 (% GDP)

Source: Instituto de Economía (IECON)

In 1965, a banking crisis occurred, which contributed to nominal instability (Vaz 1999). In December 1964, a bank run on the Transatlantic Bank of Uruguay began and spread to the other private banks. In April 1965, Banco República decided to rescue the bank, for which a significant monetary expansion was necessary.¹³ This fueled the speculation against the peso: the official exchange rate depreciated 25 percent in March and the gap with the parallel exchange rate still remained above 40 percent (Vaz 1999).¹⁴ The shortage of international reserves increased at the beginning of 1965 to the point that in April a commitment to Chase Manhattan was breached. In addition, the private sector's peso-denominated time deposits fell by 36 percent in real terms between 1964 and 1965 (Vaz 1999).

Amid this large bank run, the government created an explicit insurance scheme on peso-denominated bank deposits, converting them into contingent public debt. Also, there existed an implicit insurance on dollar-denominated deposits, so the total contingent liabilities for the monetary authority depended on the exchange rate as well.¹⁵ So once bank runs intensified in 1965, the monetary authority had to monetize the deposits. And although deposits were falling, the frequent devaluations of the peso implied an increase in the number of pesos to be monetized.

Moreover, the banks' weak position impeded the restriction of secondary money creation, which could have been done by increasing reserve requirements or eliminating the inflation tax subsidy in rediscounts.¹⁶ Therefore, the monetization of bank deposits and the decision not to restrict money creation contributed to the growth of monetary issuing, and thus nominal instability, by the mid-1960s.

Monetary issuing promoted currency devaluations and pushed inflation even further, provoking a vicious circle. In addition, the reserves-to-GDP ratio fell constantly in the first half of the 1960s and remained low until the first part of the 1970s (Figure 11). This was due to large capital outflows, the defense of the exchange rate, and the scarce issuing of dollar-denominated public debt. Therefore, the monetary authority was forced to devalue the peso several times, creating further inflationary pressures through higher import prices (Figure 12).

Therefore, the first half of the 1960s was marked by chronic inflation, scarce international reserves, the aftermath of the 1965 banking crisis, and the inflation-devaluation spiral. This scenario encouraged a political consensus to create a specialized institution to oversee monetary policy and the banking system’s regulation and supervision. In 1967, the Central Bank of Uruguay was created.¹⁷

Nevertheless, erratic monetary policy and nominal instability remained in 1967 and 1968. For instance, the monetary base continued growing at three-digit figures at the beginning of 1968, and annual inflation reached 183 percent by midyear (Banda, De Brun, and Oddone 2017). In this situation, the social and political unrest became the main concern for the government, which led to implementing a price stabilization plan based on mandatory price fixing.

The plan chose wages as the nominal anchor, given that other instruments were unavailable under the prevailing macroeconomic policy conditions. First, interest rates were set by law, so they could not be used as a monetary target. Second, commitments on the exchange rate and monetary aggregates were not credible, given the large primary

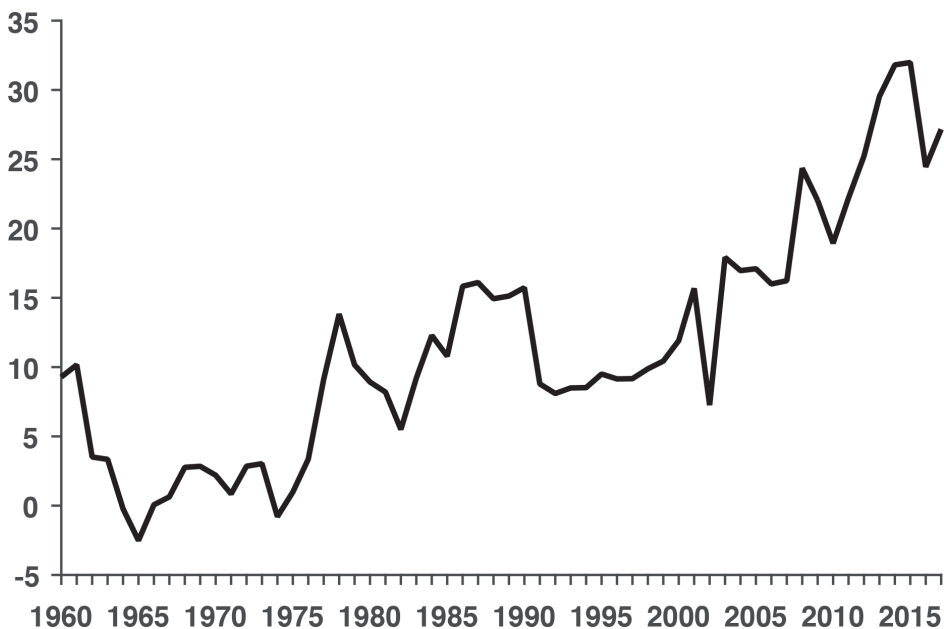


Figure 11. International reserves (% GDP)

Sources: Central Bank of Uruguay, IECON

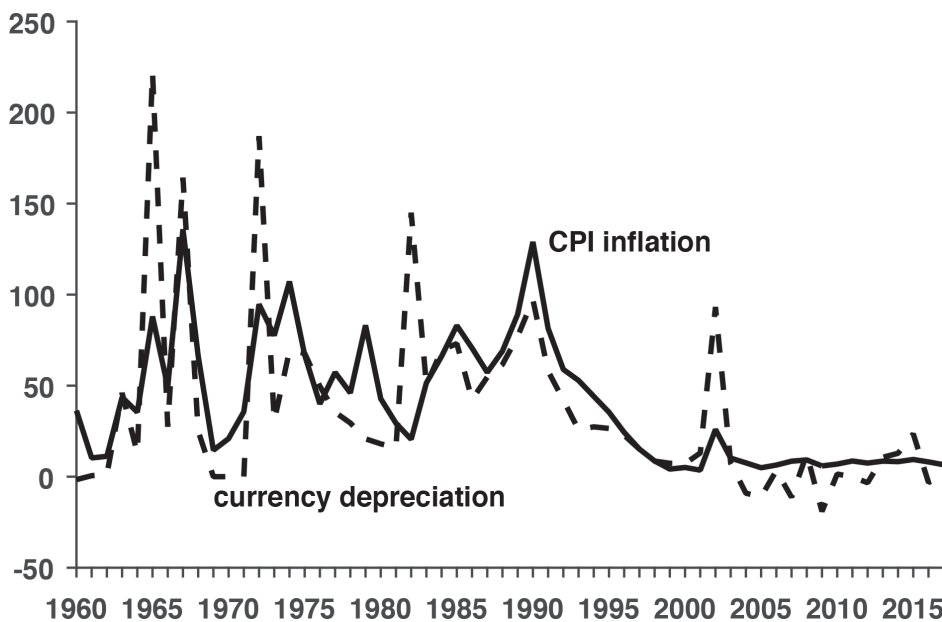


Figure 12. Currency depreciation and CPI inflation

Sources: IECON, INE

fiscal deficit (12.2 percent of GDP in 1967) and scarce international reserves (0.6 percent of GDP in 1967).

The plan also included a significant fiscal adjustment. The primary fiscal deficit shrank continuously to 2.4 percent of GDP between 1967 and 1970. Consequently, the need for inflationary financing was reduced (Figure 3), consistent with a fall in annual inflation (Figure 12). The stagnation period ended in 1968–70 as GDP grew 4.1 percent on average, in contrast to just 0.1 percent in 1958–67.

In 1970, Argentina abandoned the price stabilization plan that started in 1966. As a result, Uruguay received an external shock, which caused a GDP contraction in 1971 and 1972. The central government primary deficit started growing as revenues decreased (Figure 10), creating incentives for inflationary financing (Figure 3). A larger deficit (9.9 percent in 1972) in a context of a fixed exchange rate with a negative external shock put an end to the stabilization plan that began in 1968. Annual inflation rose back to three-digit figures by the end of 1972.

OPENING, LIBERALIZATION, AND BALANCE OF PAYMENTS CRISIS (1974–90)

In 1973, amid growing political and social tensions that had persisted for almost a decade, the constitutional government fell, and a de facto government was instituted, which remained until 1985.

The economic policy of this period had three stages. The first one in 1974–78 focused on stabilizing the external sector and starting to dismantle the closed-economy model.

Some of the initiatives were, as mentioned before, included in the Monetary and Foreign Exchange Reform law of 1959. Among these changes were greater integration with Argentina and Brazil, export promotion, and financial liberalization. During these years, sustained fiscal deficits remained, reaching on average 5 percent of GDP. Average annual inflation was 62.7 percent, and most of the deficit was financed with the inflation tax (3.9 percent of GDP on average).

During the second stage in 1979–82, the government implemented an anti-inflationary plan based on a preannounced crawling peg. The plan managed to reduce annual inflation from 83 percent in December 1979 to 11 percent in November 1982 (Figure 2) amid real currency appreciation (Figure 13) and strong GDP growth.

Nonetheless, in a context of a crawling peg and positive shocks from Argentina and Brazil, two of Uruguay’s main trading partners, the fiscal contraction was not enough to offset private demand. This caused a significant deterioration of the current account balance, which reached –10.7 percent of GDP in 1982.

The expansion of the aggregate demand was boosted by an increase in private spending, especially real estate investment and consumption of durable goods. This was stimulated by a significant growth in private debt because of the financial liberalization initiated in 1974. By the end of 1981, 53 percent of the foreign currency debt was held by the private sector, something unprecedented in the history of Uruguay (Antía 1986).

Between 1978 and 1982, the primary deficit followed a U-shaped path. In the first three years, the overall deficit-to-GDP ratio fell from 4.4 percent to 1.1 percent amid a strong economic expansion. The debt-to-GDP ratio shrank while a significant amount

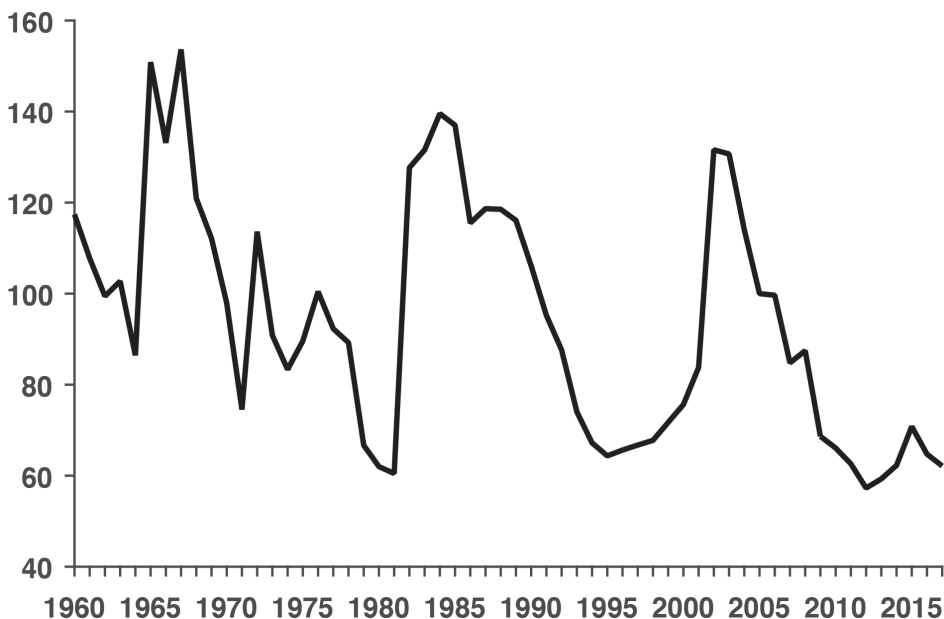


Figure 13. Real exchange rate, Uruguay–United States

Sources: Authors’ elaboration based on data from Federal Reserve Economic Data (FRED), Federal Reserve Bank of St. Louis; INE

of inflation tax was still collected (annual inflation was 59 percent on average) and used to increase the stock of international reserves (Vaz 1999). However, in 1981 real GDP growth slowed after Argentina abandoned its price stabilization plan and contracted 9.4 percent in 1982. As a result, government revenue was affected, and the overall fiscal deficit of the public sector increased by 2.1 percent of GDP between 1980 and 1981 (Figure 4).

The simple version of Krugman's balance of payments crisis model (Krugman 1979) allows for a more precise interpretation of these events. Krugman's argument is that sustained fiscal deficits within a context of restrictions to external financing force the central bank to increase domestic credit. Under a fixed exchange rate, the increase of domestic credit leads to a loss of international reserves, which may cause a balance of payments crisis, currency devaluation, and an increase in inflation.

In 1982 Uruguay suffered a balance of payments crisis. The year before, external financing became more restrictive (Figure 14), so given a current account deficit of 5 percent of GDP, international reserves began to fall. In addition, net domestic credit started to increase to finance the fiscal deficit, which led to a further decline in international reserves (Figure 15). In November 1982, the stabilization plan was abandoned, and the peso was devalued by 149 percent against the U.S. dollar. Annual inflation climbed from 20.5 percent in 1982 up to 51.5 percent in 1983 (Figure 12). The large stock of dollar-denominated debt of the private sector quickly caused serious solvency problems for debtors, which triggered a banking crisis.

The banking crisis became a public debt crisis, since an implicit deposit insurance scheme existed. In other words, the banking system's liabilities were, at the end of the day, the central bank's liabilities. The adapted-for-Uruguay "Calvo ratio,"¹⁸ which relates these liabilities to the government's capacity to comply with them, grew slowly between 1978 and 1980 and more rapidly in 1981 and 1982 once international reserves began to fall (Figure 16). After the currency devaluation, the central bank had to bail out commercial banks, as a large portion of debtors defaulted on their commercial credits. Therefore, the liberalization of the financial sector in Uruguay since 1974 led to a significant increase in contingent public debt and, soon after, a public debt crisis.

The third stage of the period began with the end of the stabilization plan in November 1982 and lasted until 1985. During these years, the public debt-to-GDP ratio rose from 20 percent in 1981 to 122 percent in 1985 (Figure 5) for three reasons. The first is the private debt restructuring after the crisis. The central bank purchased nonperforming assets from four failed banks and exchanged dollar-denominated public debt for nonperforming assets with Citibank and Bank of America.¹⁹

The second reason was the need for the central bank to recompose its stock of international reserves (Figure 11). Therefore, the reserves-to-GDP ratio grew from 5.5 percent in 1982 to 12.3 percent in 1984. This may partly explain the size of the budget constraint residual in 1982 and 1983 (12.4 percent and 17.2 percent of GDP, respectively).

The third reason was the effect of the currency devaluation on public debt, as it was mostly denominated in U.S. dollars (Figure 17).²⁰

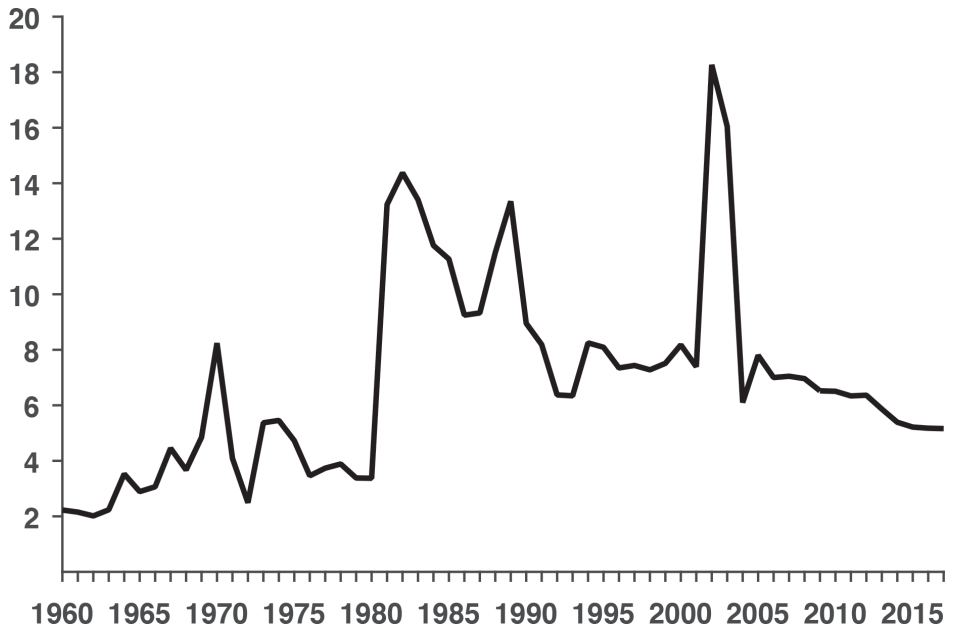


Figure 14. Interest rate of public debt in foreign currency (%)

Sources: Authors' elaboration based on data from IECON; Central Bank of Uruguay; MEF; República Administradora de Fondos de Ahorro Previsional (RAFAP); Borchardt, Rial, and Sarmiento (2000)

Note: 1960–93: implicit interest rate = interest payments in $t + 1$ / stock of debt in t ; 1994–2003: estimated using the Uruguay Bond Index (RAFAP); 2004–14: dollar interest rate from the Debt Management Unit—MEF.

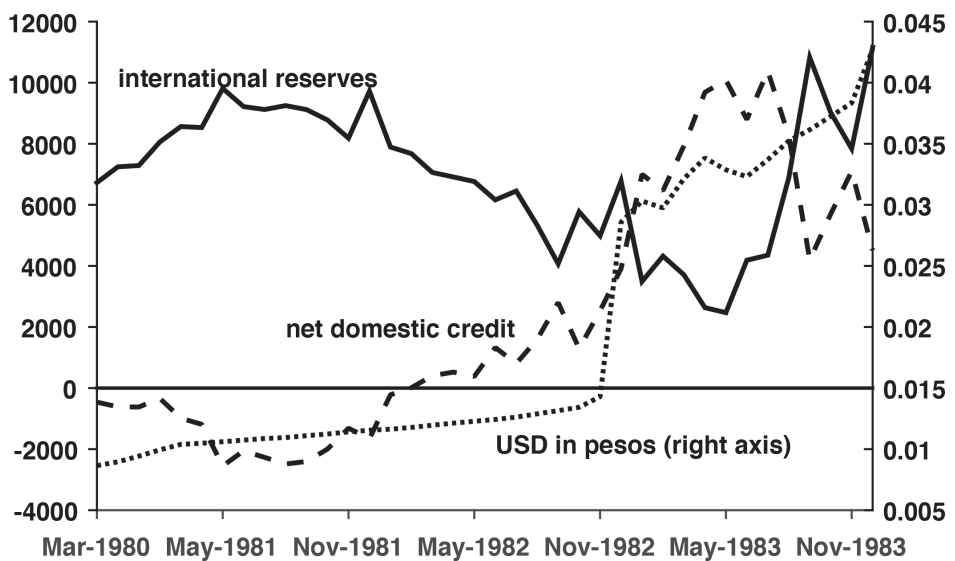


Figure 15. 1982 balance of payments crisis

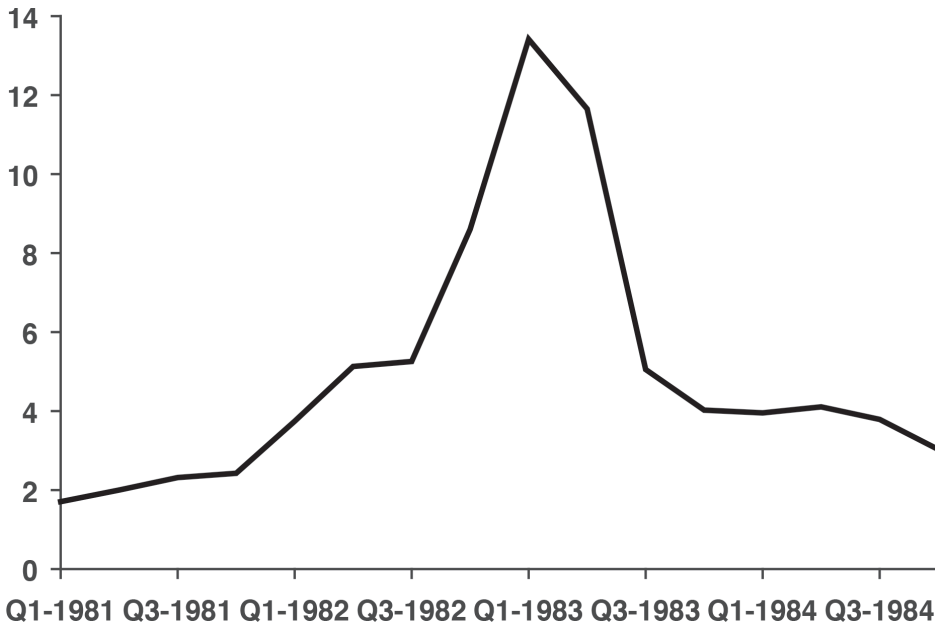


Figure 16. Adapted Calvo ratio

Note: Foreign currency bank deposits of the nonfinancial private sector / international reserves.

Source: Central Bank of Uruguay

Therefore, after the 1982 crisis, the public sector's budget constraint was dominated by public debt service and international reserve accumulation (Table 1). Public debt returns, especially in foreign currency, became the main obligation, reaching 11.6 percent of GDP in 1982–85. The large residuals may reflect the recovery of international reserves (Figure 6). At the same time, primary expenses were reduced. Regarding the sources in the budget constraint, even though public debt issuing was the main one, the rising inflation after the end of the stabilization plan allowed collecting an inflation tax of 3.3 percent of GDP in 1983–85.

In 1986, after the end of the *de facto* government, the economy began to recover. Real GDP expanded 8.9 percent and 7.9 percent in 1986 and 1987, respectively, due to a sequence of positive external shocks: a fall in oil prices, lower dollar interest rates, and strong demand from Argentina and Brazil because of price stabilization plans. In addition, there was a positive net wealth effect on debtors, given the fall in the real value of dollar-denominated loans.²¹

During these years, the public sector achieved a primary surplus, consistent with a heavy public debt service. This, together with strong GDP growth, allowed a reduction of the public debt-to-GDP ratio and the need for inflationary financing. As a result, twelve-month inflation dropped from 84 percent in January 1986 to 54 percent in March 1988.

Nonetheless, as of 1988 Argentina's performance was no longer favorable, and Uruguay's GDP stagnated. Argentina contracted 10 percent between 1987 and 1990, while

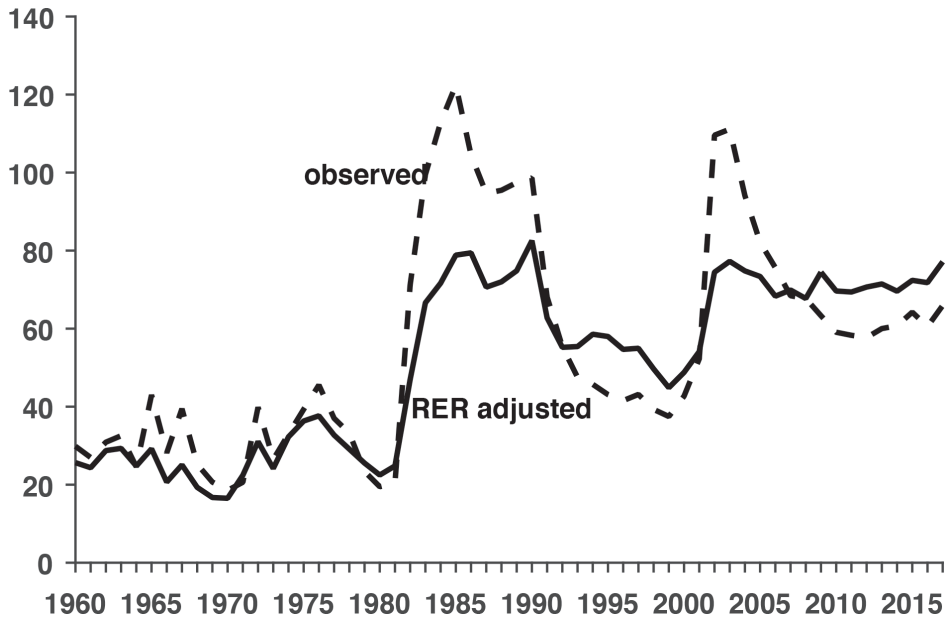


Figure 17. Real exchange rate (RER)–adjusted gross public debt (% GDP; based year = 2008)

Sources: Authors’ elaboration using data from Central Bank of Uruguay, FRED, IECON, INE

Uruguay grew only 0.5 percent on average in 1988–90. The overall deficit stood at 5.9 percent of GDP in 1989, which consisted mostly of debt service (real returns on public debt reached 9.7 percent of GDP between 1988 and 1990). As a result, inflation rose back to almost 90 percent by the end of 1989.

BOOST, HALT, AND THE GOLDEN YEARS (1991–2017)

In the 1990s, governments carried out an array of measures and reforms geared to making public finances sustainable and guaranteeing nominal stability.²² These measures were the Brady Plan in 1991, the price stabilization plan in 1990–2002, the first central bank act in 1995, and social security reform in 1996.

The large overall deficit, mostly due to a heavy public debt service, explains the persistence of nominal instability in the second half of the 1980s. Debt service exceeded primary surpluses, giving rise to inflationary financing. In addition, weak public finances limited access to external financing, forcing the government to issue money to purchase U.S. dollars and thus comply with debt payments. After a long negotiation period, in January 1991 Uruguay reached an agreement on its external debt in the context of the Brady Plan. This agreement reduced the debt stock by 5 percent of GDP (Rial and Vicente 2003) and reprogrammed short-term debt.²³

In the last quarter of 1990, the government began another price stabilization plan. The plan consisted of a deep fiscal adjustment (around 6 percent of GDP in 1990–91) and

a preannounced crawling peg. The exchange rate anchor was maintained for the whole decade, and the primary fiscal deficit remained balanced until 1999 (Figure 4). The latter reduced the need for an inflation tax as well as access to external financing (Figure 3). As a result, in 1998 inflation reached a one-digit figure for the first time in thirty years: it went from 133.7 percent in January 1991 to 9.9 percent in October 1998 (Figure 2).

In 1995, the Parliament approved a new central bank act that strengthened the commitment to avoid inflationary financing.²⁴ This new act set a limit on the assistance the central bank could offer to the rest of the public sector. First, it limited the stock of public debt the central bank could hold to 10 percent of the primary budget of the previous year. Also, it allowed the central bank to grant loans (“temporary transfers”) for an amount not greater than 10 percent of the primary budget of the previous year. The former remains in force, and the latter was derogated by law in 1997.

The social security system weakened persistently before the 1990s for administrative, demographic, and structural reasons (Laens and Noya 2000). In addition, in 1989 a referendum determined that social security pensions be indexed to the Average Wage Index. In the context of disinflation, this indexation led to significant real growth of pensions and an increase in the deficit of the social security system from 2.2 percent of GDP in 1989 to 5.7 percent of GDP in 1997. In 1995, the government carried out a reform to ensure the long-term sustainability of the pension system and public finances.^{25,26} As discussed in the last part of this section, the sufficiency of benefits and the sustainability of the pension system are still part of Uruguay’s political debate.

In terms of the budget constraint, there is relative stability between 1990 and 1998. The public sector’s obligations decreased after both the fiscal adjustment and the Brady Plan. On average, the primary surplus stood at 1.5 percent of GDP, and the real returns on foreign currency debt were 0.2 percent of GDP during these years. Regarding the sources, public debt decreased by 2.7 percentage points every year, while the inflation tax fell from 3.4 percent to 0.6 percent of GDP. These results suggest that lower obligations and greater access to public debt reduced the need for inflationary financing.

The real currency appreciation favored the consolidation of a public debt profile in foreign currency (91.3 percent of total public debt in 1998).²⁷ By the end of the decade, features of the economy were an exchange rate commitment, a high share of public debt in foreign currency, and an implicit deposit insurance scheme (Figure 18).^{28,29} Thus international reserves were the key to guarantee the exchange rate commitment; ultimately, public debt service; and implicitly, bank deposits.

Between 1999 and 2001, the economy received an array of external shocks amid gradual restriction to external financing. At the beginning of 2002, the end of the convertibility in Argentina led to a run on bank deposits, especially from nonresidents, which caused a loss of international reserves (Figure 19). Lower international reserves threatened the credibility of the exchange rate commitment and thus public debt service.

This scenario led to abandonment the exchange rate commitment in July 2002. On the one hand, the devaluation had slowly favored the growth of exports since the end of 2002. On the other, given the high share of dollar-denominated public debt, the currency

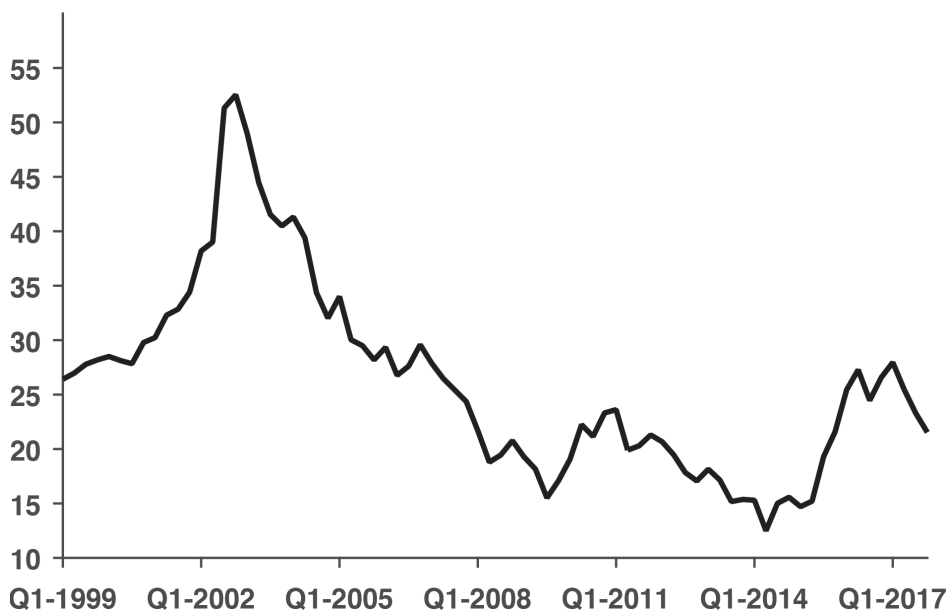


Figure 18. (M3—international reserves)/GDP

Source: Data from Central Bank of Uruguay

devaluation severely increased the vulnerability of public finances (Figure 5) and placed public debt on an unsustainable path (Rial and Vicente 2003).

The government’s strategy to overcome the crisis was organized into three phases: stop the bank run, stabilize the exchange rate, and restructure public debt (Banda, De Brun, and Oddone 2017). The resolution of the banking crisis was the central bank’s priority. For this crisis, on the one hand, measures were taken to maintain the continuity and liquidity of the payment chain.³⁰ On the other hand, the central bank proceeded to liquidate the three suspended banks and created a *new bank* based on the assets of the liquidated banks.^{31,32} The second priority was to stabilize the exchange rate: the central bank defined a policy based on a target for the monetary base and a fixed quarterly pre-announcement rule with annual horizons.

The third phase was the restructuring of public debt. After the devaluation, the debt service due in 2003 was US\$471 million, equivalent to 4.4 percent of GDP in 2002 (De Brun and Licandro 2005; Figure 20). Thus the market and the IMF expected a default on public debt. In other words, the fiscal adjustment necessary to comply with debt service obligations and make public debt sustainable was too large to be reachable without provoking a strong recession (Calvo 1998). Given the debt service due in 2003 and the primary surplus in 2002 (0.2 percent of GDP), it was necessary to make a fiscal adjustment of at least 4 percent of GDP.

In May 2003, the government conducted a restructuring, which reprogrammed the maturity of 50 percent of the total public debt.³³ The swap obtained 93 percent of the proposed amount, while the 7 percent that did not adhere received the payments under the conditions originally agreed upon (De Brun and Della Mea 2003).³⁴

As in the 1970s, the *boost* of the 1990s ended with a sudden *halt*. However, as opposed to 1982, the 2002 crisis originate not in a balance of payments crisis but in a bank run (Figure 19). Notwithstanding the severity of the 2002 crisis that had significant economic, social, and political consequences, many changes made before 2002 laid the foundation for a stronger economy. This explains part of the recovery as of 2003.

In the second half of 2003, Uruguay left the crisis behind and began the longest growth period since the 1940s. In the period 2004–14, the GDP compound annual growth rate was 5.4 percent, three times the growth in the second half of the twentieth century. This growth originated in the supercycle of commodity prices, strong external demand, and extraordinary financial conditions for emerging markets, especially after the 2008 international crisis. In addition, structural policies and reforms helped create a favorable business climate.

The economic policy implemented since 2003 attempted, in the first place, to reduce those macroeconomic fragilities that amplified external shocks in 1982 and 2002. The pillars of the strategy were to consolidate exchange rate flexibility, reduce the financial vulnerability of the public sector, and strengthen the prudential regulation of the financial system. For this, the macroeconomic policy scheme adopted was based on inflation targets (since 2005), the consolidation of a primary fiscal surplus (Figure 4), and stronger management of the public sector's assets and liabilities, especially public debt (Table 3).

In parallel, the central bank was granted greater independence.³⁵ As a result, it strengthened banking regulations to manage the risks of currency mismatch and liquidity, improving capital requirements and reducing exposure to nonresident operations. The

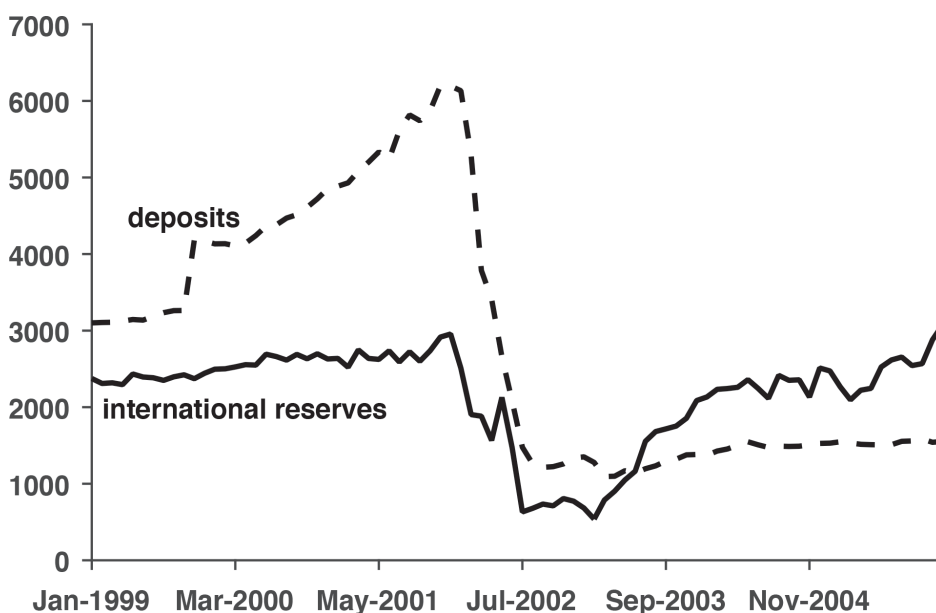


Figure 19. International reserves and nonresident nonfinancial private sector deposits in foreign currency (US\$ millions)

Sources: IECON, Central Bank of Uruguay

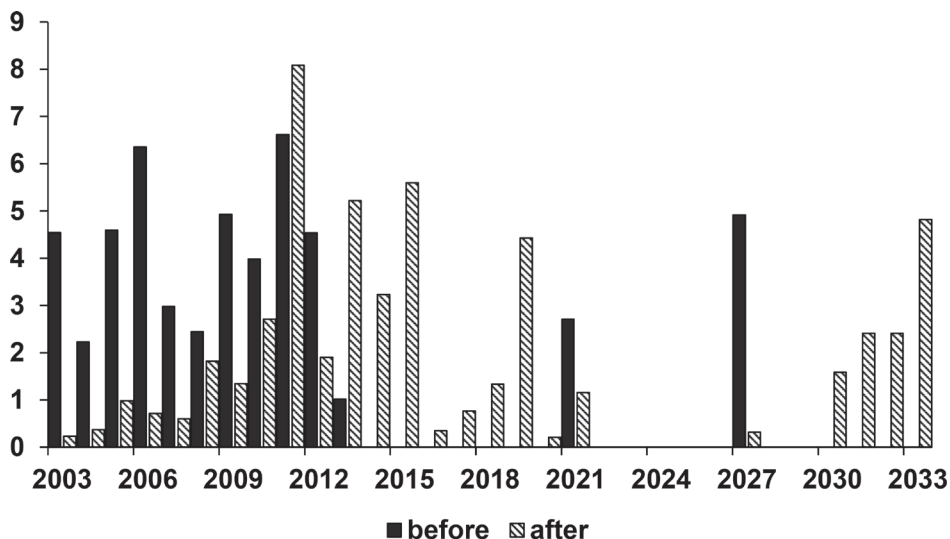


Figure 20. Public debt service restructured in 2003 (% GDP)

Source: Central Bank of Uruguay

Note: Estimated using GDP of 2002 and peso-dollar exchange rate of May 2003.

Table 3. Public debt profile, 2001 vs. 2017

	Share of public debt (%)	
	2001	2017
Debt with maturity < 1 year	13	19
Foreign currency public debt	82	42
Fixed-rate public debt	43	88

Source: Central Bank of Uruguay.

Note: Public debt includes reserve requirements on bank deposits.

combination of a favorable external environment with a risk-oriented macroeconomic management policy returned the investment grade to Uruguay’s public debt in 2012.

Regarding budget constraint results, relatively low obligations and access to external credit markets guaranteed a relative nominal stability. Primary surpluses during the first few years allowed compliance with the 2002 crisis debt service and accumulation of international reserves. Since 2004, foreign currency public debt was partly substituted by peso-denominated and CPI-indexed public debt (Table 1; Figure 5). This was stimulated by relatively low inflation, real currency appreciation, and debt de-dollarization policies. As a result, the financial vulnerability of the public sector decreased.

Nonetheless, since 2008, and especially after 2011, the primary surplus dropped (Figure 4) in a context of strong GDP growth (5.1 percent in 2008–14). That is, fiscal policy was not tight during the expansive phase of the cycle, while the wage policy attempted

higher nominal rigidity in a context of full employment.³⁶ All this contributed to the end of the golden years in 2014 with the consolidation of two imbalances: primary fiscal deficit and inflation above the central bank's target range. The primary deficit averaged 0.3 percent of GDP in 2015–17, and inflation remained above the target range between September 2011 and February 2017. In addition, the RER-adjusted public debt shows that the debt-to-GDP ratio is higher than the unadjusted one (Figure 17), which implies that the effort to comply with public debt obligations could be larger than the observed one.

Regarding the social security system in Uruguay, the current structure may be a threat to fiscal sustainability. Although only a few studies quantify the potential effects of contingent liabilities (associated with the sufficiency of contributions and the sustainability of the pension system) on public finances, there are reasons to believe that the pension system should be reformed.

First, the increase in life expectancy and the decrease in the birth rate are putting pressure on the sustainability of the system. In a recent work, Camacho (2016) shows that the financial deficit of the pay-as-you-go system has two long-term trends: it will fall to 0.2 percent of GDP by 2030 but then will rise to 2.2 percent of GDP by 2050 because of the aging population. This suggests a reform is needed to reduce disbursements, increase future revenues, or both.³⁷

Second, many reforms, such as the reduction in the minimum number of years of contribution from thirty-five to thirty, the doubling of the minimum amounts of retirements under the mixed regime, and changes in the distribution of contributions between systems of distribution and capitalization, could affect the sustainability of the system.

Lastly, in 2017 the Parliament approved a change to the system that would allow a nonnegligible group of system assets to abandon the mixed regime. This would cost between 7 percent and 10 percent of GDP (at 2017 prices) over a forty-year horizon.³⁸

Conclusions and Final Remarks

The budget constraint analysis shows that from 1960 to 2017, the financing of Uruguay's public sector was mostly inflationary. On average, two-thirds of the total sources came from the inflation tax and one-third from public debt.

Between the 1960s and the late 1980s, chronic inflation was associated with large fiscal deficits. This caused nominal instability, which ended up triggering nominal rigidities (prices/wage indexation) and dollarization of financial assets. Both increased the financial vulnerability of the public sector and limited the ability of macroeconomic policies to stabilize the economy. Nonetheless, since the 1970s, but especially after 1991, the opening of the economy, financial liberalization, greater access to external financing, stabilization plans, and the more restrictive institutional framework of the central bank decreased the inflationary financing of fiscal deficits. Moreover, after the 2002 crisis, the lower share of foreign currency public debt reduced the vulnerability of the public sector.

During this transition, Uruguay had to endure two major crises: one in 1982 and the second in 2002. The former was very costly in fiscal terms and brought back the

monetization of deficits, while the latter had significantly lower effects on the deficit and inflation. This suggests that governments have slowly understood the importance of fiscal constraints to guarantee nominal stability.

Uruguay's trade and financial integration with Argentina influenced the development and outcome of these two crises. First, the devaluation of the Argentine peso in September 1981 worsened the balance of payments problems that ended with the devaluation of the Uruguayan peso in November 1982. Second, the bank run in 2002 began with a massive exit of Argentine depositors after the risk of contagion increased. Once again, the situation in Argentina precipitated the currency devaluation of 2002.

This chapter offers some lessons that can be learned from the case of Uruguay and may be helpful in explaining the performance of other Latin American economies. Stabilization plans based on exchange rate anchors with insufficient fiscal adjustments could induce, under certain circumstances, balance of payments crises, currency devaluations, banking crises, and increases in the central bank's liabilities, which, eventually, can lead to public debt crises and cyclical volatility. In addition, implicit insurance on bank deposits, public and private debt dollarization, and commitments on the exchange rate require a strong and consistent fiscal policy. This seems to be common to Argentina (1981, 2001), Chile (1983), and Uruguay (1982, 2002).

Notes

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- 1 Uruguay's per capita GDP fell from a level similar to that of the United States at the end of the nineteenth century to almost one-third of U.S. GDP in the second decade of the twenty-first century.
- 2 The first banking crisis occurred in 1965 and had no significant consequences on public debt (see section 3).
- 3 On average, the deficit of the public sector was 5.9 percent of GDP in 1960–90 and 1.9 percent of GDP in 1991–2017.
- 4 See “A Framework for Studying the Monetary and Fiscal History of Latin America” in this book for a complete description of the conceptual framework.
- 5 The “consolidated budget constraint” includes the general government, state-owned

enterprises, and the financial public sector. See appendix 2 in the online appendix, available at <http://manifold.bfi.uchicago.edu/>, for a complete description.

- 6 See appendix 4 (online at <http://manifold.bfi.uchicago.edu/>) for a detailed explanation of this estimation.
- 7 See the next section for further explanation.
- 8 “Boost and halt” is a translation from the Spanish *El Impulso y su Freno*, a book written by Carlos Real de Azúa, that used the phrase to refer to the import-substitution period between the 1930s and 1950s (Real de Azúa 1964).
- 9 Between 1896 and 1967, Banco República was both the state-owned commercial bank and the monetary authority.
- 10 The financial balance of the central government was mostly negative from the beginning of the 1930s. Nonetheless, it was not necessary to monetize the deficits at least until the second half of the 1950s, when the financial repression began.

- 11 The executive branch set bank interest rates by law (Act No. 9756 of 1938) until 1968. We assume bank interest rates in pesos were not significantly different from public debt interest rates in pesos.
- 12 Azar et al. (2009) arrive at the same conclusion.
- 13 Deposit withdrawals from the Transatlantic Bank on April 20 and 21 amounted to 10 percent of Banco República's cash availability at the end of March.
- 14 Although the Monetary and Foreign Exchange Reform law of 1959 imposed a single exchange rate, regulated "by the free play of supply and demand," in May 1963 a double exchange market was reestablished.
- 15 "In this situation, the inflationary impact of having a lender of last resort or a deposit insurance facility increases" (Vaz 1999, 102).
- 16 Commercial banks charged investors a discount for amortizing debt in advance, collecting part of the inflation tax (Vaz 1999).
- 17 Until 1967, the state-owned commercial bank Banco de la República Oriental del Uruguay had the role of monetary authority. During the transition time (1967–71), Banco República and the Central Bank of Uruguay shared the functions of a monetary authority.
- 18 The ratio of foreign currency deposits over international reserves is an adapted version of the "Calvo ratio" from "A Framework for Studying the Monetary and Fiscal History of Latin America." In a highly dollarized economy such as Uruguay's, the contingent liabilities of the central bank were mostly foreign currency deposits of the nonfinancial private sector in the banking system.
- 19 The central bank purchased nonperforming assets for US\$1,141 million and issued US\$755 million in public debt to Citibank and Bank of America (Vaz 1999). These agreements caused an increase in the quasi-fiscal deficit that reached 3.7 percent of GDP in 1984, almost half of the overall deficit of the public sector (Roldós 1994).
- 20 Appendix 2 (see at <http://manifold.bfi.uchicago.edu/>) describes the procedure followed to estimate RER-adjusted public debt.
- 21 The government had proposed to keep a stable real exchange rate against the currencies of Uruguay's major trading partners. The sharp international weakening of the dollar strengthened the peso and ended up generating a positive net wealth effect for debtors in dollars. Borrowing from the private sector was mainly in dollars. Noya and Rama (1987) conclude that this effect was 14.7 percent and 10.9 percent for private companies and the public sector, respectively, between 1985 and 1986. In addition, given the high level of public debt in dollars, real currency appreciation also had a significant positive net wealth effect on the public sector. According to Noya and Rama (1987), it was 15 percent of GDP between 1984 and 1985.
- 22 The definition of the 1991–2017 period is controversial. From the perspective of the economic history of Uruguay, the crisis of 2002 is a milestone that should define two subperiods: 1991–2002 and 2003–17. However, from the perspective of the conceptual framework of this project, the relevant change occurs at the beginning of the 1990s when the fiscal restriction becomes an anchor of macroeconomic policy.
- 23 The Brady Plan was preceded by the Baker Plan, which was launched by the secretary of the U.S. Treasury in October 1985. The Baker Plan sought to make the refinancing conditions of the highly indebted emerging countries more flexible. Within its framework, Uruguay, on the one hand, reprogrammed around 70 percent of its debt payments. On the other hand, it agreed with creditor banks on a three-year payment period, longer than the one agreed to with the IMF.
- 24 A 1964 law allowed the monetary authority to assist the Treasury with up to one-sixth of the annual budget (Banda and Onandi 1992).
- 25 Laens and Noya (2000) estimate that at the time of the reform, the implicit public debt

- was around 2.5 times Uruguay's GDP, one of the largest implicit debts in Latin America. They conclude that the reform reduced the system's primary deficit by 2 percent of GDP in the long run.
- 26 The system covers the risks of disability, old age, and survival. It is a mixed system, as it has two pillars: intergenerational solidarity and compulsory individual saving. The former is a defined benefit, and the benefits of the liabilities are financed by contributions from active workers, employers, taxes affected, and, if necessary, the state's financial assistance. The second pillar is a defined contribution: each worker accumulates individual contributions and returns in a personal savings account. At the time of cessation of activities for cause (thirty-five years of contribution), or when reaching sixty years of age, the worker has the right to receive a monthly income that is determined by the amount accumulated in the individual account, the worker's sex and age, and a technical interest rate determined by the regulator. Likewise, the second pillar has a collective capitalization insurance, with a defined benefit, which covers the risks of disability and death in activity.
- 27 Data are from the Central Bank of Uruguay.
- 28 "There was the perception among economic agents that, should anything happen in the banking system, the government would bail them out. This implicit guarantee, in turn, became a potential liability of the state" (De Brun and Licandro 2005, 7).
- 29 As Figure 18 shows, the central bank's contingent liabilities (estimated as the difference between M3 and international reserves as a percentage of GDP) became an additional source of risk by the end of 2001.
- 30 For example, (1) access to current accounts and savings accounts was restored to the clients of the suspended banks with funds from the Banking System Stabilization Fund; (2) the validity terms of the checks issued by the suspended banks were extended so that holders could claim from the drawer their payment or substitution by others against other banks; and (3) it was provided that the transfers ordered from and to the accounts in the suspended banks that had been accepted before the suspension had to be fulfilled in full.
- 31 The creditors of the banking companies in liquidation received shares in proportion to their credits, and a public auction enabled the purchase of the assets of the new bank.
- 32 The legal framework approved in order to make the liquidation operation of the suspended banks feasible gave the central bank powers for the first time since its creation in 1967 to supervise and sanction state-owned banks.
- 33 All dollar-denominated bonds were eligible, except for short-term instruments issued since January 2003 (De Brun and Licandro 2005).
- 34 The rating agencies considered it a default. S&P downgraded Uruguay's public debt to Selective Default and Fitch downgraded to DDD in 2003. Uruguay inserted a collective action clause in the new bonds as well, which many believed would trigger a credit default swaps event because it changed the underlying structure of the debt.
- 35 In 2008, the Parliament approved a new central bank act that included the creation of the Macroeconomic Coordination Committee and the Monetary Policy Committee and set restrictions on the type of bail-out operations for the central bank. Also, the Banking Supervision and Regulation Committee was granted greater technical autonomy from the central bank.
- 36 Collective bargaining has been active in Uruguay since 2005. Wage agreements in force since 2012 and 2013 have established clauses of periodic adjustments based on past inflation. This, together with a 10 percent inflation clause that triggers automatic wage increases in several sectors of the economy, resulted in a rigid nominal environment that favored inflationary inertia.
- 37 In September 2017, the annual deficit of the general regime of the pension system was

1.8 percent of GDP. The general regime excludes the retirement funds of the military, police, and bank officials, which have a deficit of 1.7 percent of GDP and are assisted by the government.

38 According to estimates by República AFAP, one of the main pension fund managers, this change would affect between forty thousand and seventy thousand people.

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