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Economic policy and aggregate outcomes in South Africa and selected Latin American countries, 1994–2024

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Economic policy and aggregate outcomes in South Africa and selected Latin American countries, 1994–2024

Jesse Naidoo*

Abstract

I examine macroeconomic outcomes and policies over the last 30 years in four Latin American countries: Brazil, Chile, Mexico and Venezuela. With the exception of Venezuela, which has suffered economic collapse and protracted hyperinflation since 2016, these countries have largely converged in their macroeconomic policies to a similar mix as in South Africa – inflation targeting, an independent central bank and a floating exchange rate. And, again with the exception of Venezuela, these countries have pursued liberalisation in their microeconomic policies. There is strong evidence that these reforms have improved productivity. While there have been some crises in the last three decades, the 1970s and 1980s were considerably worse. The remaining policy lessons to be learned for South Africa involve the importance of fiscal discipline and avoiding poor design of quasi-fiscal institutions.

JEL classification

E63, L33, F34, F61, O54, O55

Keywords

South Africa, Latin America, macroeconomic policy, stabilisation, currency crisis

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1. Introduction

This paper aims to compare the economic outcomes and policies of South Africa with those of some Latin American countries over the past 30 years. To keep the analysis manageable, I will concentrate on four countries: Brazil, Chile, Mexico and Venezuela. Mexico and Brazil are the largest countries in the region, representing over 50% of the population and economic output. Chile and Venezuela, on the other hand, exemplify the best and worst performers in terms of growth and economic stability over this period, so it may be especially useful to study their experiences. Some of these facts are evident in Table 1, which displays basic economic statistics for these countries in 1994 and in the most recent year for which data are available.

Over the last three decades, these four countries have faced macroeconomic challenges. For instance, Mexico nearly defaulted on its debt in 1995, only to be rescued by a bailout from the United States (US) Treasury and the International Monetary Fund (IMF). Venezuela has been grappling with hyperinflation since 2016. In addition, both Mexico (in 1994) and Brazil (in 1999) experienced balance-of-payments crises early in this period.

Throughout this time, macroeconomic policies in these countries evolved, too. Brazil and Chile adopted inflation targeting in 1999, followed by Mexico in 2002. Both Brazil and Chile allowed their currencies to float freely starting in 1999, while Mexico's peso transitioned to a floating exchange rate earlier, in 1994. Furthermore, Brazil and Chile established formal fiscal rules in the early 2000s, with Chile also implementing changes to its public pension system and its sovereign wealth funds.

These reforms were largely responses to the crises of previous decades: the macroeconomic history of these countries before 1994 reveals a period of even worse instability, particularly in the 1970s and 1980s. During the 1980s alone, these nations faced multiple sovereign defaults and large public-sector bailouts. Chile (in 1982) and Venezuela (in 1983) both experienced balance-of-payments crises that led to substantial currency devaluations. In Venezuela's case, the central bank responded with capital controls.

Table 1: Basic economic statistics, selected countries

Country	Year	Population (m)	GDP (billion USD)	Gini coefficient, income	Unemployment rate (%)
South Africa	1994	44.0	275.5	0.593	22.9
	2024	63.2[i]	990.7	0.63[iii]	33.1
Brazil	1994	159.3	1 130.4	0.60	6.6
	2023	211.1	4 474.7	0.52	7.9
Chile	1994	14.3	115.8	0.56	5.9
	2024	19.7	679.0	0.43[ii]	9.1
Mexico	1994	89.2	1 014.3	0.53	4.4
	2023	129.7	3 196.3	0.43[ii]	2.8
Venezuela	1994	21.7	237.2	0.47[iv]	8.6
	2024	28.3[i]	227.6	-	5.5

Note: GDP figures are expressed in 2024 international dollars, adjusted for purchasing power parity (PPP). PPP adjusts exchange rates for international differences in local prices. Figures quoted are for (i) 2023, (ii) 2022, (iii) 2014 and (iv) 1995.

Source: UN, World Population Prospects 2024 (population data); IMF World Economic Outlook (GDP data); ILO Modelled Estimates and Projections database (ILOEST) – ILOSTAT, via World Bank (2025) (unemployment data); World Bank Poverty and Inequality Platform (2025) (income inequality data).

In Mexico, the government nationalised all banks in 1982 as part of its response to a crisis that involved both balance-of-payments problems and a sovereign default. Brazil suffered a decade of hyperinflation in the 1980s, and Venezuela had a series of bank runs in 1994.

South Africa's economic experience has some similarities with these Latin American countries, though it is less extreme in many respects. Like them, South Africa adopted inflation targeting and liberalised its foreign exchange market in the 1990s. Like several other developing countries, South Africa suffered a currency crisis (see section 1.2.4). The country also faced macroeconomic instability in the 1980s, including a near-default event and a banking bailout. Inflation rates in South Africa were also high during the 1970s and 1980s, though not at hyperinflationary levels.

The rest of the paper is structured as follows. In the remainder of this introduction, I give a basic overview of the macroeconomic performance of the five countries under consideration. Because the macro-fiscal policy framework of three of the four Latin American countries (Brazil, Chile and Mexico) was so strongly affected by particular crises, I dedicate some space to a discussion of the nature, causes and consequences of balance-of-payments crises (also called 'currency crises'). I also briefly discuss an

important distinction between the aggregate and the distributional effects of fiscal policy.

Then, in sections 2–5, I give an account of selected macroeconomic developments in the last 30 years in each of the four Latin American countries under study. For Brazil and Mexico, I give special attention to crisis events that forced important policy reforms; and for Chile, I describe the less dramatic, but still important, progress of fiscal policy and the rise and fall of capital controls. In each case, I also note the important microeconomic reforms that often accompanied the macroeconomic ones: trade liberalisation and privatisation. There is strong evidence that both of these reforms can improve productivity in the economy. Venezuela, though, has made large (and largely foreseeable) policy errors under the populist Chávez and Maduro governments, with the result being hyperinflation, a deep depression and massive waves of emigration.

Finally, in section 6, I describe some policy lessons for South Africa. While South Africa seems to have learned similar lessons to Brazil, Chile and Mexico – in part because it faced similar shocks and crises – there remains room for improvement in establishing credible fiscal discipline. And weaknesses in Brazil's quasi-fiscal institutions may serve as a warning about certain policy changes that are often suggested in South Africa.

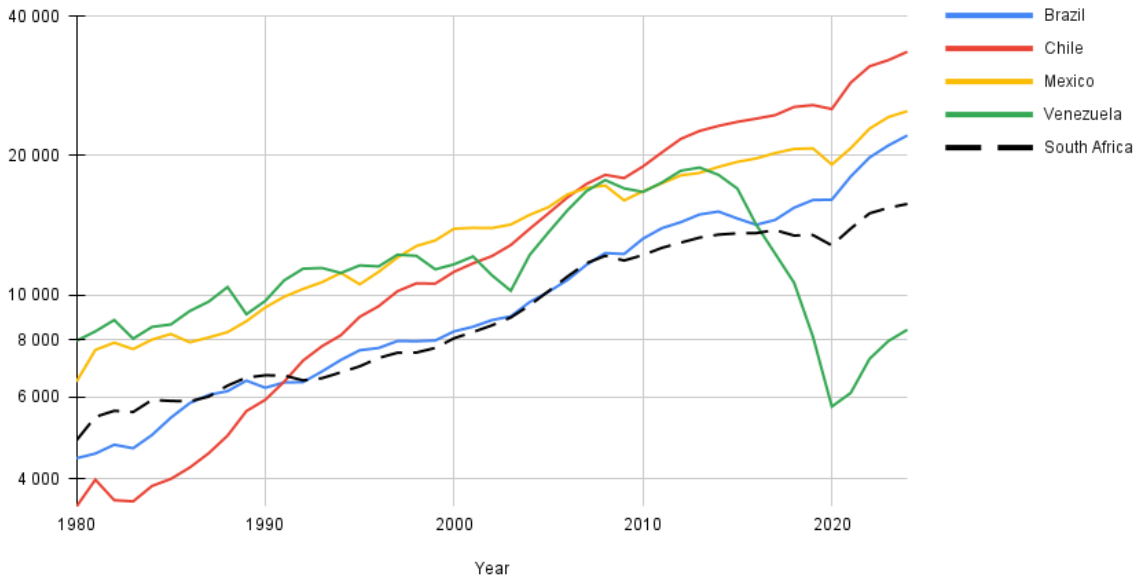
1.1 A macroeconomic overview and comparison of South Africa and selected Latin American countries

This section presents some basic data about four Latin American countries – Brazil, Chile, Mexico and Venezuela – and compares them to South Africa. Although this paper mainly concerns macroeconomic stability, not growth, it is still useful to start with GDP per capita. In Figure 1, one sees that over the last few decades South Africa has had a mediocre growth performance compared to these countries – and Latin America is itself a relative underperformer by global standards.

Note that Figure 1 is on a logarithmic scale, where a constant growth *rate* would appear as a straight line. Thus, one can see that Chile has consistently grown faster than the other countries – going from the poorest to the richest country in the group. One can also see that Venezuela's growth was always weak (although it started off richer than its neighbours), even before the economic collapse of the 2010s. South Africa was

once in the middle of the pack for this group of countries, but has since been surpassed by Brazil and Chile, and has not caught up with Mexico.

Figure 1: GDP per capita, 2024 PPP-adjusted international dollars (logarithmic scale), selected countries

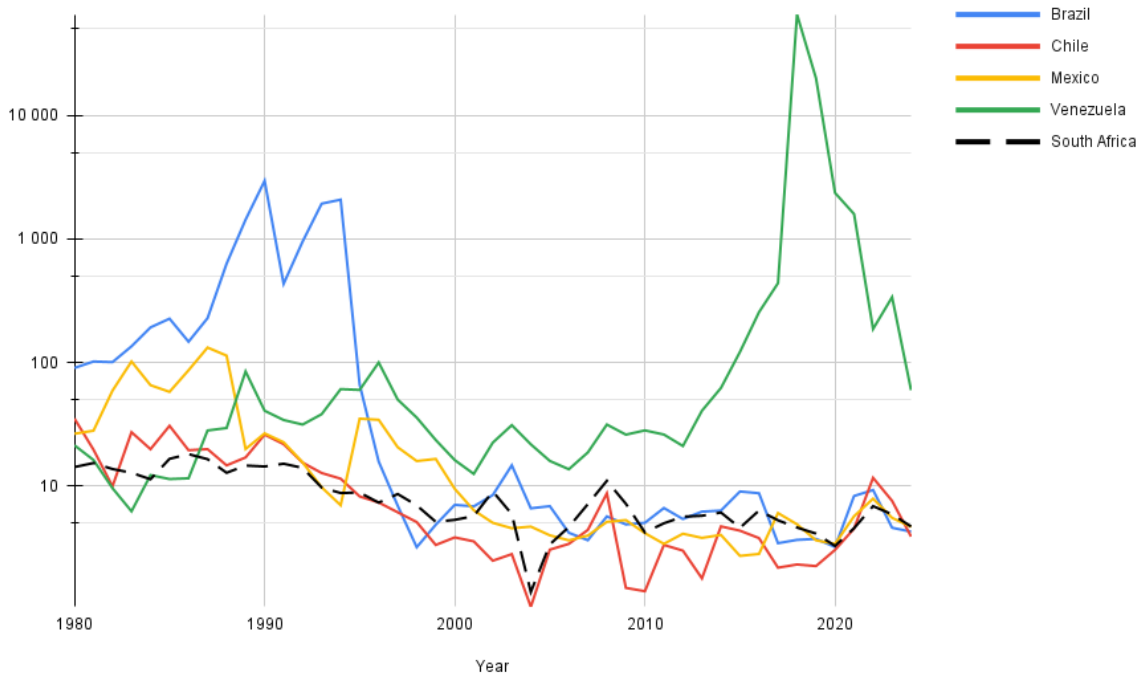


Source: IMF World Economic Outlook.

In Figure 1, one can also see the boom and bust cycle that prompted Venezuela's turn to populism: there, GDP per capita grew rapidly in the 2000s, but subsequently collapsed. The other countries also experienced a sharp dip in GDP per capita during the recession of 2020 induced by the COVID-19 pandemic, but they have since recovered to pre-pandemic levels. While Brazil and Chile have continued to grow since the global financial crisis of 2008, South Africa and Mexico have struggled to regain their pre-2008 growth trends.

Turning to inflation rates, South Africa has performed relatively better. Because the extreme inflation rates experienced in Brazil and Venezuela would obscure the rest of the data, I again use a logarithmic scale in Figure 2. This scale allows us to see smaller variations in inflation closer to zero – the difference between 5% and 10% per year – as well as large differences for high baseline rates (the difference between 5 000% and 10 000% per year). Note that the minor gridlines mark the halfway point between the major gridlines, for example at 5%, 50%, 500% and 5 000% per year.

Figure 2: Annualised inflation rates (logarithmic scale), selected countries

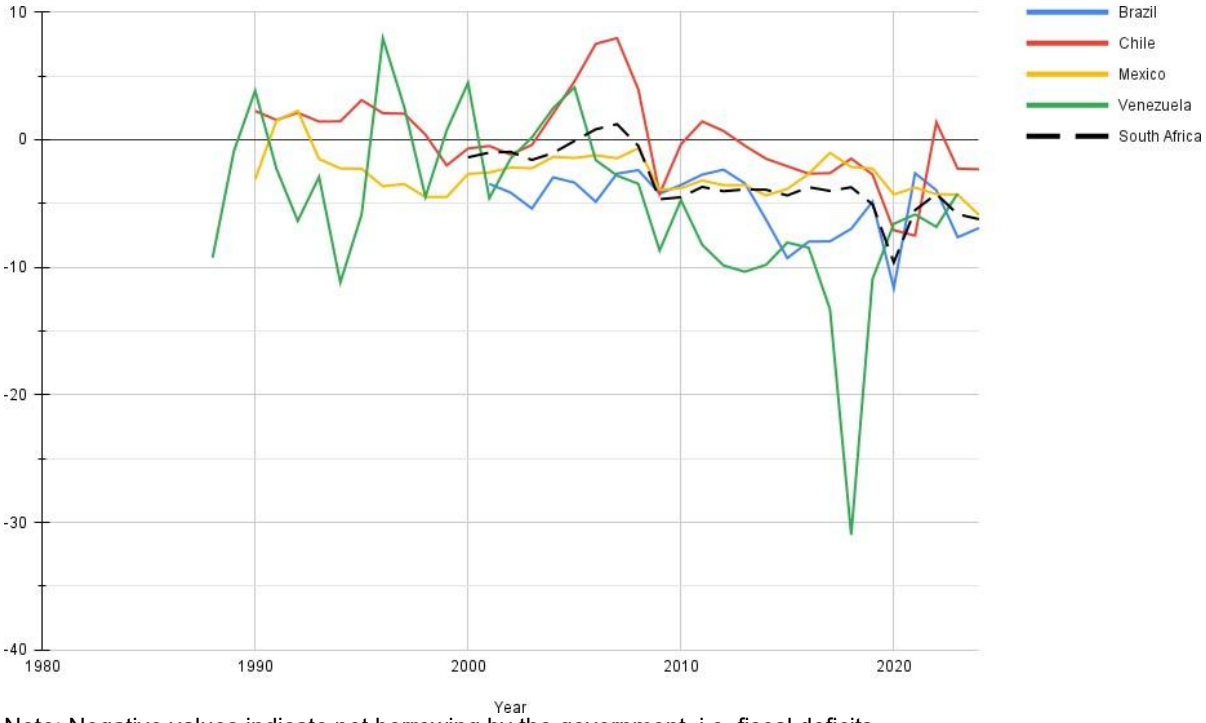


Source: IMF World Economic Outlook.

The most obvious feature of Figure 2 are the hyperinflationary episodes in Brazil (throughout the 1980s) and in Venezuela (in the 2010s). ('Hyperinflation' is traditionally defined as a period in which inflation exceeds 100% per year.) South Africa, like several of the other countries, had a double-digit inflation rate throughout the 1980s, but successfully brought it down to single digits in the 1990s. And, with the exception of Venezuela, all these countries have managed to keep inflation at relatively low levels in the 21st century.

Next, Figures 3 and 4 convey a sense of the stance of fiscal policy over time across these five countries. These figures display the level of net borrowing (when the values are negative) or net saving (when the values are positive) by each country's government, relative to GDP. Thus, the data displayed in these figures give an indication of the size of the fiscal deficit or surplus in each country over time.

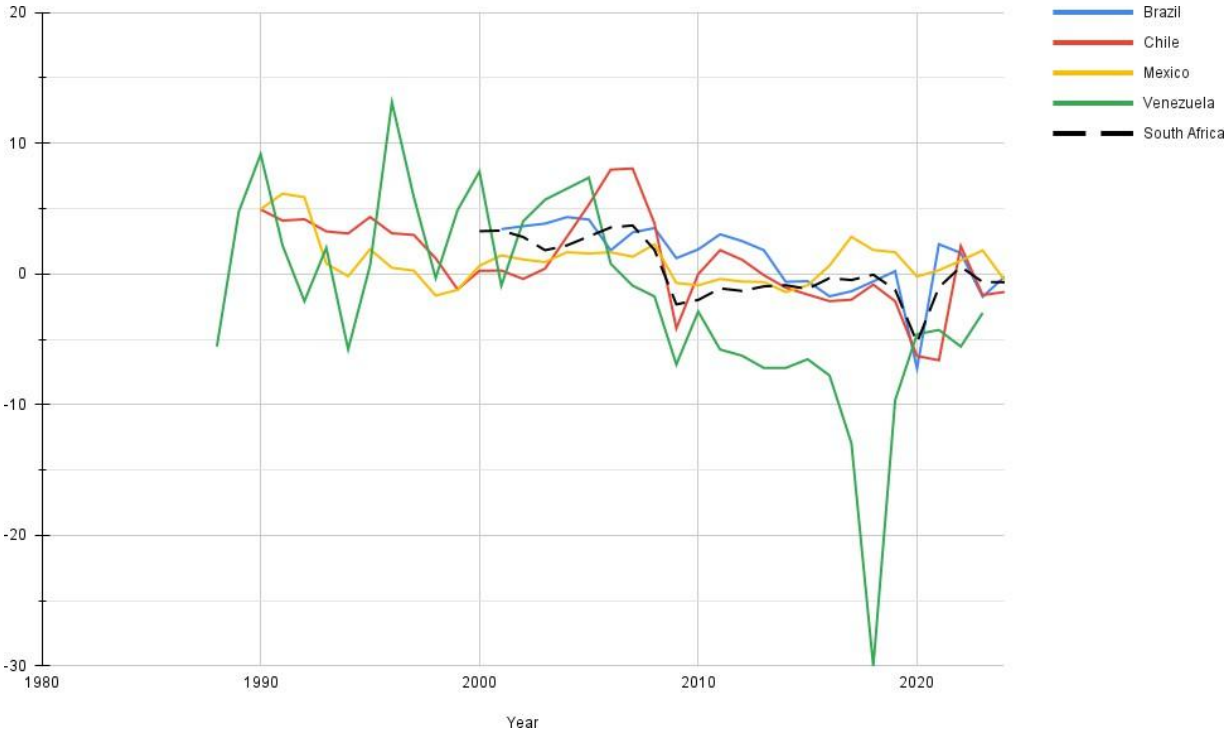
Figure 3: Government net lending, percentage of GDP, selected countries



Note: Negative values indicate net borrowing by the government, i.e. fiscal deficits.

Source: IMF World Economic Outlook.

Figure 4: Government primary net lending (excluding interest payments), percentage of GDP, selected countries



Note: Negative values indicate net non-interest borrowing by the government, i.e. primary fiscal deficits.

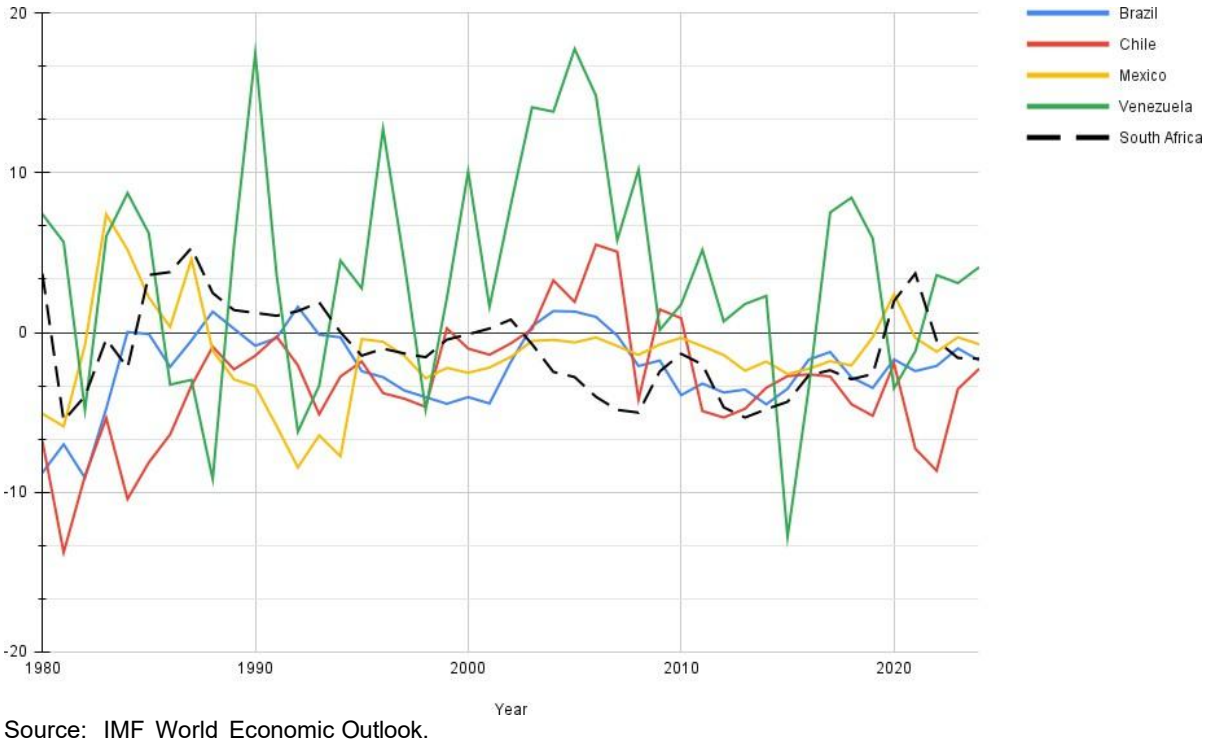
Source: IMF World Economic Outlook.

Unfortunately, these data are not available (at least not in a way that is harmonised across countries) for the same length of time for all countries: Brazil and South Africa's series only dates back to 2000, while Mexico, Chile and Venezuela's series dates back to at least 1990. Nevertheless, one can see that South Africa, like Mexico, Chile and Brazil, has had persistent fiscal deficits in the past 15 years. However, the *primary* deficit (excluding interest payments) in each case is much smaller. This difference points to the difficulties imposed by the history and stock of accumulated debt. And, as on several other dimensions, Venezuela stands out for its extreme volatility: a consequence of its fiscal dependence on oil revenues.[1]

Finally, I compare the current account deficits or surpluses of the five countries under consideration (Figure 5). Again, Venezuela is an exceptional case marked by very high volatility and many years of large current account surpluses – both of which are clearly consequences of that economy's dependence on oil. The other three Latin American countries look comparable to South Africa, particularly over the last 30 years: typically, each will run a moderate deficit on the current account, with identifiable exceptions around, for example, the pandemic-induced recession in 2020–2021.

[1] The deterioration in Venezuela's fiscal balance from 2014 onwards is largely due to the collapse in oil prices, which slashed government revenues. But even before then, the populist policies of the Chávez government had created large fiscal deficits by increasing public spending without corresponding increases in tax revenues. This can be seen in Figures 3 and 4, where Venezuela ran deficits close to 10% of GDP during the oil boom years of the 2000s.

Figure 5: Current account balance, percentage of GDP, selected countries



Source: IMF World Economic Outlook.

Table 2 shows these macroeconomic indicators for each country as two 'snapshots': one from three decades ago and one from the present.

Table 2: Macroeconomic indicators, selected countries

Country	Year	GDP per capita	Inflation rate (%)	Fiscal balance	Current account balance
South Africa	1994	6 793	8.8	-	0.01
	2024	15 723	59.61	-6.23	-1.65
Brazil	1994	7 225	2 075.8	-	-0.31
	2024	22 122	4.3	-6.93	-1.75
Chile	1994	8 174	11.5	1.44	-2.76
	2024	33 574	3.9	-2.32	-2.27
Mexico	1994	11 152	7.0	-2.26	-7.75
	2024	24 971	4.7	-5.9	-0.74
Venezuela	1994	11 146	60.8	-11.19	4.50
	2024	8 403	59.61	-4.22[i]	4.085

Note: GDP per capita is denominated in 2024 PPP-adjusted international dollars. Fiscal balance and current account balance are shown as a fraction of GDP; negative values indicate fiscal deficits or current account deficits, respectively. Figures quoted are for (i) 2023.

Source: IMF World Economic Outlook.

In the next section, I discuss why the current account balance is sometimes an important macroeconomic indicator to track.

1.2 Common patterns in balance-of-payment crises

1.2.1 The balance of payments accounting identity

A ‘balance-of-payments crisis’ (sometimes also called a ‘currency crisis’) is a certain class of macroeconomic phenomenon that involves sudden, sharp pressures on a country’s exchange rate. In three of the four Latin American countries under study in this paper, such crises forced major reforms to their macroeconomic policies. I therefore discuss these crises and their aftermath in some detail in the case studies below. Because these crises also have important similarities, it is worth understanding some of the forces at work and the typical consequences in a more generic way up front, before seeing how the crises played out in each instance.

In a country’s national accounts, the ‘balance of payments identity’ states that

$$\text{current account} + \text{financial account} + \text{capital transfers} = 0.$$

This equation holds true as a matter of accounting definitions. To understand what it means, it helps to interpret each of the terms. The *current account* is the net flow of goods and services traded between a given country and the rest of the world; one can think of this as the value of a country’s exports in a given year less the value of its imports. The current account also includes factor incomes, like dividend payments to foreign investors, and the interest earned on debt held by foreigners.

The *financial account* is the net total flow of assets traded between a given country and the rest of the world; and *capital transfers* account for certain other cross-border financial flows such as debt forgiveness. (In South Africa and most other countries, the capital transfers component of the international balance of payments is very small, so I will ignore it from now on.)

The reason the balance of payments identity holds true is because the market for foreign exchange must ‘clear’: every sale of dollars to purchase rands is equally a sale of rands to purchase dollars by someone else. The mechanics of these transactions can be complicated, but nevertheless it is always true that current account deficits are matched by capital inflows from abroad, and similarly current account surpluses are matched by capital outflows to the rest of the world.

If the exchange rate is fixed, the central bank must ensure the exchange always takes place at the fixed exchange rate and must buy or sell foreign currency to ensure this holds. With a floating exchange rate, the price at which foreign exchange transactions occur changes. When, for example, there is a sudden outflow of foreign capital associated with a global crisis, the price may change dramatically, with attendant consequences for the price of imports and inflation.

A balance-of-payments crisis occurs when there is a ‘sudden stop’ in very large capital inflows. While current account deficits are not necessarily bad, and current account surpluses are not necessarily good, the logic of national accounting above implies that large and persistent current account deficits (which imply large and persistent capital inflows) create the risk of a sudden stop, and the process of adjusting to this stop can be very damaging (Calvo and Reinhart 2000).

1.2.2 Causes of ‘sudden stops’

Trading volumes in international capital markets and the markets for foreign exchange are much larger than the balance sheet of any country’s central bank. This implies that countries have a limited ability to resist market movements. Thus, sudden stops in capital inflows are always the result of shifts in investor sentiment or expectations. Sometimes these stem from changes in domestic sentiment, but they can also be triggered by international events unrelated to the economic fundamentals of the country in question.

However, the expectations or beliefs of market participants can sometimes be interpreted rationally. For example, when a country pursues macroeconomic policies that are not mutually compatible and are therefore not credible, market participants can and will trade based on that information. In other cases, it is less easy to foresee such market movements; and in some cases even speculative attacks on a country’s currency can have a ‘self-fulfilling’ quality, where even otherwise unfounded beliefs that a currency will depreciate, if widespread enough, can cause it to do so.

While policymakers cannot dictate patterns of demand in the international capital market, they can at least partially control the extent to which an economy is vulnerable to sudden stops, and how easily the economy can recover if and when one occurs.

1.2.3 Consequences of 'sudden stops'

An abrupt reduction in capital inflows to an economy (or, in extreme cases, a complete reversal or 'capital flight') will reduce the demand for that country's currency in the foreign exchange market, and so create pressure on the currency to depreciate. In several of the Latin American crises described in this paper, the central bank was following a policy of fixing the exchange rate, and so initially tried to resist this pressure. In so doing, the central bank will be forced to deplete its foreign exchange reserves.[2]

Further, if market participants anticipate that a given country's currency will depreciate in the future, this lowers the rate of return on local assets when denominated in foreign currency. Thus, foreign investors will want to sell that country's government bonds, lowering their price and raising their rate of return to offset the expected depreciation. But this means that local interest rates must rise, and indeed balance-of-payment crises often involve a sudden rise in local interest rates. This can lead to a collapse in investment and a recession. A sudden rise in interest rates also increases the repayment burden on that country's fiscus, and even the risk of sovereign default.

The banking sector is particularly vulnerable in currency crises, especially if local firms and banks have borrowed in foreign currencies under the expectation that a fixed exchange rate would continue to hold. The combination of a sudden and large currency depreciation (increasing the repayment burden for foreign debt), a looming recession and higher local interest rates all threaten the solvency of local banks. Further, balance-of-payment crises often involve sudden falls in the price of local real estate (this has to do with the fact that real estate does not trade easily on international markets). To the extent that real estate holdings make up an important part of local

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[2] South Africa, too, experienced such a currency crisis in 1998, as described in section 1.2.4. In that case, the causes of the 'sudden stop' were completely external to South Africa.

banks' assets, this represents an additional channel through which balance-of-payment crises can threaten financial stability.[3]

1.2.4 South Africa's experience in the aftermath of the Asian financial crisis

In the aftermath of the 1997 Asian and 1998 Russian financial crises, South Africa experienced a currency crisis of its own. 'Contagion' from these events hit the economy and triggered massive foreign disinvestment from the domestic bond market. This capital flight placed the rand under severe pressure, causing it to depreciate sharply from R5.05 to R6.32 against the US dollar between April and August 1998.

At the time, the South African Reserve Bank (SARB) did not have a freely floating exchange rate; it was instead using the currency as an implicit anchor to control inflation. Consequently, the SARB intervened to defend the rand. This ambiguous policy commitment proved costly and ultimately failed, as the rand weakened sharply anyway.

The SARB's attempt to defend the rand's value on foreign exchange markets had two components. First, the bank implemented aggressive interest rate hikes, raising bank lending rates by 725 basis points (7.25%) between June and August, eventually taking the prime overdraft rate to a record high of 25%. Second, because the SARB lacked sufficient foreign reserves for direct intervention, it also borrowed large amounts of US dollars in the forward market and sold them spot.

The failed intervention had severe macroeconomic consequences. The dramatic rise in interest rates crushed domestic demand and investment, pushing the economy into a recession. Furthermore, the forward market strategy resulted in huge losses on the SARB's net open forward position, costs that were ultimately transferred to the National Treasury. The failed defence also left the rand in an extremely vulnerable 'one-way

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[3] Models of currency crises that emphasise the role of the banking sector in transmitting shocks to the real economy – so-called 'third generation' models – include Kaminsky and Reinhart (1999) and Chang and Velasco (2001). Earlier 'first generation' models, such as Krugman (1979), focused more on inconsistent macroeconomic policies as the root cause of crises; while 'second generation' models, such as Obstfeld (1986), emphasised self-fulfilling expectations and multiple equilibria.

bet', as the SARB would have to use any future currency strength as an opportunity to unwind its massive forward position.

This costly policy mistake exposed the vulnerabilities of using the exchange rate as a nominal anchor. It was, arguably, the major reason why South Africa formally adopted inflation targeting in February 2000. This new framework made it clear to market participants that future interventions to support the exchange rate would not be forthcoming.

With the benefit of hindsight, this seems to have been the right decision: future global crises would have only modest economic consequences for South Africa. For example, at the start of the 2008 global financial crisis, the SARB was able to *reduce* interest rates to support the economy because inflation was falling – a flexibility it did not have in 1998.

This reform enabled monetary policy to focus solely on price stability rather than defending a specific currency level. Much like the 1995 crisis in Mexico (discussed in section 4.2) and the 1999 crisis in Brazil (discussed in section 2.2.1), South Africa's 1998 currency crisis was the impetus that pushed South Africa to fully adopt the same macroeconomic policy principles as Brazil, Chile and Mexico: central bank independence, a floating exchange rate and inflation targeting.

1.3 Aggregate and distributional effects of fiscal policy

Although this paper focuses on aggregate outcomes, it is important to note that macroeconomic policies can also have distributional effects. For example, high inflation can erode the real value of savings, disproportionately affecting those who rely on fixed incomes or have limited access to inflation-protected assets (Doepke and Schneider 2006). Similarly, fiscal policies that involve cuts to social spending or increases in indirect taxes can disproportionately impact lower-income households.

In South Africa, fiscal policy is highly redistributive: for example, Chatterjee, Czajka and Gethin (2023) show that despite large increases in pre-tax inequality, post-tax inequality has nevertheless fallen over the post-apartheid period. This was achieved via large expansions in the system of cash transfers (social grants) in the early 2000s.

In Brazil, too, there have been important changes in the progressivity of fiscal policy in the last three decades – most famously with the introduction of a federal system of conditional cash transfers (Bolsa Familia) in 2003. Mexico also introduced and expanded a system of conditional cash transfers (Oportunidades, later renamed Prospera) in the early 2000s. In all three cases, this expansion of redistributive transfers took place during periods of relatively strong growth and fiscal consolidation (see Figures 1 and 4 above: all three countries ran primary surpluses during this period).

Because I aim to discuss mostly aggregate outcomes in this paper, I will not focus on these distributional effects here. However, it is important to keep in mind that macroeconomic policies do not affect all segments of the population equally, and that policymakers must consider these distributional consequences when designing and implementing such policies.

2. Brazil

2.1 Brazil's macro-fiscal policy framework

Brazil's journey towards modern monetary policy began relatively late, with the Real Plan in 1994. This plan was crucial in stabilising the Brazilian economy after years of hyperinflation. However, Brazil only formally adopted an inflation-targeting regime in 1999. This move was part of a broader set of reforms that included floating the exchange rate and implementing fiscal consolidation measures.

Central bank independence is a crucial component of this framework. Historically, the Central Bank of Brazil (BCB), established in 1964, had limited independence, with significant political interference in monetary policy decisions. This changed in the 1990s as part of a set of broader economic reforms. These reforms emphasised the need for a clear central bank mandate focused on price stability, operational independence to execute monetary policy, and accountability.

Initially, the BCB was accountable to the National Monetary Council, comprising the finance minister, the Minister of Planning and the president of the BCB. At the introduction of inflation targeting, the council set explicit inflation targets, starting with 8% for 1999, 6% for 2000 and 4% for 2001, with a tolerance interval of ±2% for each

year. The Broad Consumer Price Index (IPCA) was chosen as the measure for these targets, covering a wide demographic and geographical sample across the country.

Brazil granted its central bank legal independence in 2021, though this was by statute and not by constitutional amendment. And, in 2025, Brazil is transitioning to a new inflation-targeting framework, moving from annual targets to a continuous horizon guided by the 12-month consumer price index. This change is expected to enhance the central bank's ability to maintain price stability over longer periods.

2.2 Influences on Brazil's macro-fiscal policy framework

Brazil's 1999 balance-of-payments crisis arose from a combination of domestic economic imbalances and external financial shocks. This crisis ultimately led to the devaluation and floating of the Brazilian real, and the adoption of inflation targeting – two major shifts in the country's monetary policy regime (Averbug and Giambiagi 2000).

2.2.1 The 1999 balance-of-payments crisis

Brazil had been grappling with a rapidly expanding current account deficit throughout the 1990s, reaching 4.2% of GDP by 1998. This deficit was not adequately covered by financial inflows, which in the context of a fixed exchange rate led to an erosion of Brazil's foreign exchange reserves. Compounding this problem were large fiscal deficits, which persisted despite efforts (under the Real Plan) to rein in expenditures and boost tax revenues. By 1999, Brazil's public debt had risen to $244 billion, equivalent to 46% of its GDP.

In an attempt to combat inflation and stabilise the currency, Brazil maintained high interest rates. While this policy succeeded in attracting foreign investment, it also dramatically increased the cost of servicing the country's public debt, creating a tension that proved unsustainable (Palma 2006).

One of the roots of the crisis can be traced back to 1994 when Brazil introduced the otherwise successful Real Plan. The Real Plan involved pegging Brazil's new currency, the real, to the US dollar. While initially successful in taming the hyperinflation which had persisted throughout the 1980s, and in attracting foreign investment, this fixed

exchange rate system became increasingly untenable as economic imbalances grew. To defend the pegged exchange rate, Brazil's central bank depleted its foreign exchange reserves, which dropped by $24 billion, or 40%, between 1996 and 1998.

External factors also played some role in creating the crisis. The Asian financial crisis of 1997 and the Russian financial crisis of 1998 had a contagion effect on Brazil. The Russian default, in particular, eroded investor confidence in emerging markets, intensifying pressure on the Brazilian real.

Political events in late 1998 further destabilised the situation. The newly elected governor of Minas Gerais announced a suspension of debt payments to the federal government, triggering a rapid acceleration of capital outflows. The failure of key fiscal reforms in December 1998 further undermined investor confidence (Gruben and Kiser 1999).

In response to the mounting crisis, the IMF stepped in with a $41.5 billion loan package in late 1998. However, this intervention proved insufficient to stem the tide. In January 1999, the central bank was forced to devalue the real by 8%. By the end of that month, the real had plummeted by 66% against the US dollar.

In the wake of this devaluation, Brazil abandoned its crawling peg system and adopted a floating exchange rate regime. This decision was crucial in addressing the root causes of the crisis and preventing further depletion of foreign exchange reserves. The central bank also adopted an inflation-targeting framework to provide a clear and transparent nominal anchor for monetary policy. This framework aimed to stabilise inflation expectations and restore credibility to the central bank's actions. Despite initial fears of runaway inflation, the adoption of inflation targeting helped contain inflationary pressures, and the inflation rate stabilised more quickly than many had anticipated.

On the fiscal side, the government tried to address the chronic budget deficits that had contributed to the crisis. This included efforts to control government spending and increase revenues through tax reforms. Importantly, the IMF's emergency loan was contingent on Brazil implementing stringent fiscal adjustments to reduce the primary deficit and stabilise public debt levels.

In the immediate aftermath of the crisis, Brazil experienced a sharp recession, but the economy began to recover relatively quickly. By 2000, GDP growth had rebounded to nearly 4%, and the current account deficit had decreased significantly, thanks in part to a recovery in exports and increased inflows of foreign direct investment.

The adoption of a floating exchange rate regime and inflation targeting laid the foundation for more sustainable economic policies. These changes improved Brazil's economic resilience and reduced the likelihood of future crises stemming from fixed exchange rate pressures. The crisis also prompted a major overhaul of the regulatory framework governing the money market and domestic government debt market, enhancing the efficiency and stability of Brazil's financial system (Fraga 2000).

The crisis had significant social and economic costs. Unemployment rates remained high for several years, and the burden of economic adjustment fell disproportionately on the poorer segments of the population.

The move towards a flexible exchange rate was supported by complementary economic reforms. These included the liberalisation of the capital account (Fraga 2000) and the overhaul of the regulatory framework for the domestic government debt market (Velandia-Rubiano, David-Pur and Cabral 2022; Bevilaqua and Garcia 2002). These reforms were designed to enhance the efficiency of monetary policy and improve the transmission mechanism, thereby supporting the new inflation-targeting regime.

2.2.2 Further lessons from the past: the hyperinflation of the 1980s

While Brazil's macroeconomic policy framework of the early 1990s was vulnerable to a balance-of-payments crisis – as eventually happened in 1999 – it is worth understanding how this framework was itself a reaction to the severe economic instability and hyperinflation of the 1980s.

The many failed 'stabilisation plans'

One of the earliest attempts at stabilisation was the Cruzado Plan in 1986. This plan aimed to combat inflation by freezing prices and wages and introducing a new currency, the cruzado, to replace the cruzeiro. Initially, the plan appeared to be successful, as inflation rates dropped significantly. However, the lack of fiscal discipline and the inability to control public spending led to a resurgence of inflation, causing the plan to ultimately fail. Boughton (2001) provides an account of the strained relations between the IMF and Brazil's government at the time.

Following the Cruzado Plan, the Bresser Plan was introduced in 1987. This plan sought to stabilise the economy through a combination of price freezes, wage controls and fiscal adjustments. Although it temporarily reduced inflation, this plan also did not address the underlying fiscal imbalances, leading to its collapse within a few months.

In 1989, the Summer Plan was launched by Finance Minister Maílson da Nóbrega. This plan included another currency reform, replacing the cruzado with the cruzado novo, and implemented price and wage freezes. Despite these measures, inflation continued to rise due to persistent fiscal deficits and a lack of confidence in the government's ability to manage the economy effectively.

The most radical attempt came with the Collor Plan in 1990, named after President Fernando Collor de Mello. This plan involved freezing a significant portion of the population's financial assets, including bank accounts, to drastically reduce the money supply. It also included price freezes, the abolition of indexation and the introduction of new taxes to address the fiscal crisis.[4] While the Collor Plan initially succeeded in reducing inflation, it led to severe liquidity shortages, economic contraction and widespread public discontent.

The plan's failure was compounded by political instability and corruption scandals, culminating in President Collor's impeachment in 1992.

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4 Mérette (2000) attempts to formally model the causes of the failure of the Collor Plan.

The Real Plan (1994)

The economic stabilisation plans of Brazil during the 1980s and early 1990s relied on drastic measures like price and wage freezes, currency reforms and asset freezes, but nevertheless failed.

In contrast, the Real Plan, introduced in 1994, succeeded. The Real Plan was implemented in several stages, which helped it achieve lasting economic stability. One of the key innovations of the Real Plan was the introduction of the Real Unit of Value (URV), a temporary currency unit that helped recalibrate relative prices without immediate disruption (Ayres et al. 2021).

The URV was pegged to the US dollar, and the government forced all wages and prices in the public sector, as well as in certain regulated industries, to be quoted in URV as well as in *cruzeiro reals* (the currency at the time). In this way, firms, workers and consumers could 'practice' observing prices being quoted in a more stable currency. This gradual transition allowed for smoother adjustments and built public confidence in the new currency, the *real*, which replaced the cruzeiro real in July 1994 at the 'exchange rate' of 1 real = 1 URV.

Another difference was the Real Plan's comprehensive approach, which included strict fiscal discipline, monetary policies aimed at controlling inflation and structural reforms to stabilise the economy. It implemented a floating exchange rate, an inflation target and primary surplus goals, collectively known as the 'macroeconomic tripod', which provided a stable framework for economic management. The Real Plan also benefited from a rare moment of political consensus and support from various sectors of society, which was crucial for its success.

2.3 The contribution of microeconomic reforms

Brazil also undertook some important microeconomic reforms in the 1990s – most notably, trade liberalisation and privatisation of some public-sector firms, including many state-owned banks. These reforms were part of a shift towards economic policies which sought to increase competition, boost productivity and integrate Brazil more fully into the global economy. However, these measures were often implemented

inconsistently and faced significant political and social resistance, limiting their effectiveness.

The effects of trade liberalisation on consumer prices and inflation are – somewhat surprisingly – understudied (see Goldberg and Pavcnik 2016), at least in the Latin American case.[5] However, there is good evidence from a variety of contexts that trade liberalisation helps to improve firm productivity.

These effects have been found to operate through a variety of channels: competition from foreign firms can induce local firms to innovate and reorganise themselves so as to operate more efficiently. Increased competition can also drive inefficient firms out of business, while export opportunities allow the most productive local firms to expand – both of which raise productivity at the industry level. Further, easier access to imported inputs and intermediate goods can help to lower the costs of local firms.

Shu and Steinwender (2019) review much of this evidence, which comes from many countries across the world; the finding that trade liberalisation raises firm productivity is robust. In the Brazilian case, trade liberalisation involved both the replacement of many non-tariff barriers (such as quotas or permit systems) with explicit tariffs and the reduction of those tariffs to lower levels; Dix-Carneiro and Kovak (2017) provide a useful summary of the Brazilian policy reform experience. There is no reason to expect that these liberalisations would have the same effects on all industries, and indeed Schor (2004) finds that among Brazilian manufacturing firms, different industries respond to liberalisation to differing extents.

Privatisation, too, can result in improvements to firm productivity. Brazil privatised many state-owned firms in the 1990s. Firms across many industries – including telecommunications, mining, steel production, petrochemicals and energy – were privatised. (This programme of privatisation was not comprehensive; for example, the state oil company, Petrobras, as well as some electricity producers and the Bank of Brazil remained state-owned.)

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[5] De Loecker et al. (2016) study the case of India's trade liberalisation and find that tariff reductions were only weakly passed through to consumer prices; closer to home, Edwards et al. (2022) find much higher pass-through rates for tariff increases on certain food products in South Africa.

Taking it as given that trade liberalisation and privatisation can generate improvements in firm productivity, important policy questions remain about how the gains from productivity increases will be distributed. It is not obvious whether improvements in firm productivity will translate into lower consumer prices, expanded scale (and thus more labour demand), higher wages or higher firm profits in a given economy. The answer will depend on the economic context: for example, whether other inputs like capital and labour can be easily reallocated from declining to expanding firms. It will also depend on other, complementary aspects of local policy – competition policy, most obviously, but also labour market policies that may affect the ease with which workers can move between firms.

Anuatti-Neto et al. (2005) use financial statements of non-financial firms to compare measures of profitability between those in the public and private sectors over the period 1991–2000. They find that privatisation did lead to increases in profitability and in certain measures of operating efficiency. However, the accounting data they use do not allow them to compute measures of output prices, or of workers' wages. Despite the unusually large scale of the Brazilian privatisation programme, its effects are less well studied than those in Mexico or Chile.

2.4 Post-pandemic experience

After the COVID-19 pandemic, prices in Brazil rose sharply, a shock driven by global supply issues and domestic stimulus spending. The BCB began raising interest rates, which climbed from a low of 2.0% in 2021 to 13.75% by late 2022.

These high interest rates sparked a major policy debate in 2023. The government, led by the newly re-elected President Lula da Silva, challenged the central bank, arguing that the official inflation target of 3% was too low. The president also claimed that the tight monetary policy of the BCB was suppressing growth and investment. Supporters of the central bank's policy countered that stubborn inflation was driven by excessive fiscal deficits, which made the bank's job harder.

The dispute cooled in mid-2023 when the National Monetary Council voted to keep the 3% target. The council also approved a change proposed by the BCB: starting in 2025,

the bank would target inflation ‘continuously’, rather than aiming for a specific number by the end of each year. The bank did begin to cut rates for a time, but persistent inflation and worries about the government’s budget led it to pause those cuts and start raising rates again in late 2024 to keep inflation expectations under control. Thus, the BCB’s independence remains intact, even in the face of direct challenges from the executive branch of Brazil’s government.

While it appears this dispute has been resolved for now, it highlights the ongoing tensions that can arise between fiscal and monetary authorities. The episode also underscores the importance of central bank independence in maintaining credible monetary policy. If, for example, the conflict had persisted, it is possible that inflation expectations could have become unanchored, leading to higher inflation and economic instability.

3. Chile

3.1 Chile’s macro-fiscal policy framework

Inflation targeting and central bank independence

Chile started moving towards an independent monetary authority before either Brazil or Mexico: the 1980 Constitution included the principle of central bank autonomy. This was a crucial step in breaking away from the practice of monetising fiscal deficits. However, it was only in 1989 that the Central Bank of Chile was granted operational independence through constitutional reform, giving it the authority to conduct monetary policy independently of political pressures.

With this newfound independence, the Central Bank of Chile began to focus on price stability as its primary objective. In 1990, the bank started to announce annual inflation targets, marking the initial steps towards an inflation-targeting regime. This approach was adopted as a strategy to gradually reduce inflation, which had been a persistent problem in the Chilean economy for decades.

The transition to a full-fledged inflation-targeting framework was a gradual process. Initially, the central bank set annual targets for inflation reduction. As the bank gained credibility and the economy stabilised, it moved towards a medium-term inflation target.

By 1999, Chile had fully implemented its inflation-targeting regime, with the central bank pursuing a target of 3% inflation, with a tolerance range of 1% above or below this figure.

One of the key challenges in implementing inflation targeting in Chile was the widespread use of indexation clauses in the economy. These clauses, which automatically adjusted prices and wages based on past inflation, had the potential to create significant 'inflation persistence'. This meant that even as the central bank worked to reduce inflation, these indexation mechanisms could make it difficult to break inflationary cycles. This persistence has also been a problem in other countries, notably Brazil.

Despite these challenges, the adoption of inflation targeting, combined with central bank independence, proved successful in bringing inflation under control. Since the full implementation of the inflation-targeting regime in 1999, inflation in Chile has remained relatively stable, rarely exceeding the upper bound of the target range.

The Central Bank of Chile's approach to inflation targeting is complemented by a floating exchange rate regime. This allows the bank to focus on its inflation target without being constrained by exchange rate considerations. However, the bank retains the right to intervene in foreign exchange markets under exceptional circumstances.

The success of Chile's inflation-targeting regime can be attributed to several factors. On the fiscal side, the absence of large and persistent government deficits was helpful in relieving inflationary pressure. At the same time, the technical and political credibility of the central bank helps to anchor inflation expectations. The bank's commitment to transparency and clear communication has been crucial in anchoring inflation expectations and maintaining its credibility.

Floating exchange rates

Throughout the 20th century, Chile experimented with many different exchange rate policies, from hard pegs to managed floats. The adoption of a floating regime in 1999 was therefore not a sudden change, but rather the result of a gradual evolution in policy thinking and economic circumstances.

In the aftermath of the debt crisis of the early 1980s (discussed below), Chile implemented an exchange rate band system that lasted for almost 15 years. This band underwent several modifications in its parameters and objectives over time, reflecting the country's efforts to balance exchange rate stability with economic flexibility. As the 1990s progressed, the exchange rate band began to resemble a more flexible system, with wider bands and more frequent adjustments in response to market pressures.

The decision to fully adopt a flexible exchange rate in 1999 was driven by several considerations. It was seen as a natural progression of the existing policy direction, aligning with the Central Bank of Chile's successful inflation-targeting framework. The Asian financial crisis of 1997–1998 also played a crucial role, highlighting the limitations of managed exchange rates in the face of significant external shocks.

A floating exchange rate regime allowed the Central Bank of Chile to focus on inflation targeting without the conflicting objective of maintaining a specific exchange rate. This freedom proved valuable during periods of external economic stress, such as the commodity price drop in 2014–2015, when the bank was able to implement countercyclical (i.e. looser) monetary policies despite currency depreciation.

Another important factor was the desire to facilitate economic adjustments to real shocks. Exchange rate flexibility allows for smoother adjustments in relative prices, preventing persistent misalignments that could lead to larger economic costs in the long run. This flexibility has helped Chile weather various external economic storms more effectively than under previous exchange rate regimes.

The adoption of a flexible regime was also expected to reduce currency mismatches in the private sector, especially for private banks. By shifting the risk of exchange-rate volatility onto the private sector, it created incentives for better currency matching on firms' balance sheets. In this way, allowing the currency to float helped to reduce the potential moral hazard problems that might arise from an implicit bailout guarantee.

While the move to a floating regime can increase exchange rate volatility, the Chilean case shows that this need not be detrimental to the economy. The development of

Chile's financial markets, including more sophisticated hedging instruments, has helped economic agents manage this volatility. Moreover, the increased exchange rate flexibility has actually led to fewer extreme (real) exchange rate valuations compared to previous regimes.

The flexible exchange rate policy has been complemented by a clear intervention framework. The Central Bank of Chile maintains the right to intervene in exceptional circumstances when financial stability might be at risk, but such interventions have been rare and transparently communicated.

Overall, Chile's experience with flexible exchange rates has been largely positive. It has contributed to maintaining low and stable inflation, enhanced the economy's ability to adjust to external shocks and supported the credibility of the country's monetary policy framework. While challenges remain, such as managing occasional bouts of high volatility, the flexible exchange rate regime has proven to be important for Chile's macroeconomic stability in the 21st century.

Fiscal policy

Chile's fiscal policy in the last 30 years has been characterised by a commitment to fiscal discipline, countercyclical measures and institutional reforms aimed at ensuring long-term economic stability.

In the early 1990s, following the return to democracy, Chile's government focused on social spending and tax reforms to address income inequality and poverty. Presidents Patricio Aylwin (1990–1994) and Eduardo Frei Ruiz-Tagle (1994–2000) implemented policies that increased social spending (on education, health and redistributive transfers, for example) and reformed labour laws to make collective bargaining easier (Weyland 1999). These measures contributed to significant poverty reduction and more equitable income distribution during the decade.

In response to the Asian financial crisis of 1997–1998, the government adopted a mix of fiscal and monetary policies that included capital controls to mitigate the effects of the crisis. Despite these efforts, the economy experienced a recession in 1999.

However, Chile's strong institutional framework and fiscal discipline helped the country recover quickly, with positive growth resuming by the end of 1999.

The last two decades of Chilean fiscal policy have been shaped by the 'structural surplus rule', introduced in 2001. This rule mandated that the government maintain a structural surplus of 1% of GDP, adjusted for the economic cycle and copper prices. This policy aimed to save excess revenues during boom periods and use those savings during downturns, thereby stabilising public finances and reducing economic volatility. Throughout the 2000s, successive administrations, including those of Presidents Michelle Bachelet (2006–2010) and Sebastián Piñera (2010–2014), adhered to the fiscal rule. Importantly, governments led by different parties respected the rule (Bachelet was from the Socialist Party, while Piñera was from the centre-right National Renewal party). Adhering to the rule proved its value during the global financial crisis of 2008–2009, when Chile was able to implement a countercyclical fiscal policy – drawing on its accumulated savings to stimulate the economy and mitigate the crisis's impact.

Chile has also used its sovereign wealth fund (the Copper Revenue Stabilization Fund, which was converted into the Economic and Social Stabilization Fund in 2007) to manage the volatility of copper revenues, which are a significant source of government income and foreign exchange reserves. These funds have allowed Chile to smooth public expenditure over the economic cycle and maintain fiscal stability.

Capital controls

Since the 1990s, Chile's primary instrument of these controls was the unremunerated reserve requirement (URR), also known as the *encaje*, which was implemented in 1991.

The URR required that a portion of foreign capital entering Chile be deposited with the central bank for a specified period without earning interest. This measure aimed to curb short-term speculative inflows, while allowing for longer-term investments. By imposing the URR, Chile sought to maintain control over its monetary policy and exchange rate.

During the 1990s, the URR was adjusted several times in response to changing economic conditions. Initially, it helped Chile manage the surge of capital inflows driven by low international interest rates and the country's economic reforms. The controls were effective in shifting borrowing towards longer-term debt (Gallego, Hernández and Schmidt-Hebbel 1999), thus reducing the risk of sudden capital flight and financial instability. Thus, the URR provided the central bank with more monetary policy flexibility.

However, the effectiveness of these controls was tested during the Asian financial crisis of 1997 and the Russian debt crisis of 1998. These crises led to a sudden decline in capital flows to emerging markets – including Chile. Critics argued that the capital controls exacerbated the economic strain by making it harder for Chile to attract needed foreign investment during the downturn (Nadal-De Simone and Sorsa 1999).

By the late 1990s, the URR was gradually phased out and the country moved towards a more open capital account. This shift was part of a broader strategy to integrate Chile more fully into the global financial system while maintaining macroeconomic stability through other means, such as robust fiscal policies and a flexible exchange rate regime.

The transition to a more liberalised capital account was completed in the early 2000s and since then Chile has maintained a relatively open stance on capital flows. This liberalisation has been accompanied by strong regulatory frameworks and prudent macroeconomic management, which have helped the country cope with subsequent financial shocks (Edwards 1999; Carrière-Swallow and García-Silva 2013).

3.2 The (private) debt crisis of the 1980s

The early 1980s were a tumultuous period for Chile, marked by a severe economic crisis that necessitated significant bank bailouts. Several interconnected factors and events played a role in this financial turmoil.

In 1979, Chile pegged its currency, the peso, to the US dollar. With Chilean inflation rates higher than those in the US, this led to the peso being overvalued and contributed to a growing trade deficit (Barandiarán and Hernández 1999). The fixed exchange rate

and prior episodes of financial sector liberalisation both allowed, and encouraged, foreign borrowing by Chilean firms and banks, as the strong peso made dollar-denominated loans appear relatively cheaper.

When the ‘Volcker shock’ of sharply higher global interest rates arrived, it brought with it higher debt-servicing costs for countries like Chile with significant dollar-denominated debt. Further, a decline in global commodity prices, including copper (a major Chilean export), worsened the economic difficulties.

By 1981, signs of economic distress were evident. The Chilean economy contracted sharply, with GDP falling by 14.3% in 1982 and unemployment rising to 23.7%. The contraction was driven by reduced export revenues, high debt-servicing costs and declining investor confidence.

Financial instability led to a wave of bank failures. In November 1981, the government intervened to bail out several banks that had taken excessive risks, including Banco de Talca, Banco Español-Chile, Banco de Linares and Banco de Fomento de Valparaíso. These interventions involved nationalising some banks and dissolving others.

In January 1983, the government undertook a massive intervention in the banking sector, bailing out five additional banks and dissolving three others. At the time, this measure was thought to be necessary to prevent a complete collapse of the financial system. Beyond nationalisation and liquidation, the central bank’s immediate response to the banking crisis involved purchasing non-performing loans and providing liquidity support, which resulted in a considerable build-up of central bank debt and quasi-fiscal deficits (Larrain 1989).

Then, in March 1983, Chile abandoned the fixed exchange rate and devalued the peso. This move was intended to restore competitiveness to Chilean exports and reduce the trade deficit. The IMF and the World Bank provided Chile with substantial financial assistance. They also guided the restructuring of the country’s financial system and implementation of economic reforms aimed at recovery.

How did the 1980s crisis affect the macro-fiscal policy framework?

Chile's central bank had to absorb the losses from the banking sector bailouts, leading to a negative net worth that persisted for many years. This situation was worsened by the need to accumulate international reserves during the 1990s, further straining the central bank's financial position. The central bank's purchase of non-performing loans and provision of liquidity support also led to an increase in the money supply, which had to be carefully managed to prevent inflationary pressures.

To address these challenges, the central bank implemented a series of monetary policy measures aimed at restoring stability and confidence in the financial system. One of the key measures was the adoption of a more flexible exchange rate regime, which allowed the central bank to better manage external shocks and maintain monetary stability. The central bank also strengthened its regulatory and supervisory frameworks to ensure that banks adhered to prudent lending practices and maintained adequate capital buffers (Larrain 1989; Barandiarán and Hernández 1999).

In the 1980s, the central bank focused on reducing inflation and stabilising the currency. This involved tightening monetary policy and raising interest rates to curb inflationary pressures. These measures, while necessary to stabilise the economy, had the effect of slowing down economic growth and increasing unemployment in the short term.

Moreover, the government undertook significant tax system reforms to encourage the reinvestment of profits and reduce reliance on debt financing. The overhaul of the prudential and regulatory frameworks for banks also helped to prevent future crises and maintain financial stability.

3.3 The contribution of microeconomic reforms

From the late 1970s until the early 1980s, Chile embarked on a programme of trade liberalisation. As in Brazil, this programme involved replacing non-tariff trade barriers with explicit tariffs, harmonising tariffs across goods and eventually lowering the levels of tariffs. In Chile's case, the reduction in tariffs happened mostly over the period 1974–1979.

Pavcnik (2002), like La Porta and López-de-Silanes (1999), used data from a census of firms to estimate productivity for Chilean manufacturing firms over the period 1979–1986. She is able to compare firms in sectors especially exposed to import competition with those in more 'non-tradeable' sectors to isolate the productivity improvements arising from trade liberalisation specifically (as opposed to those arising from other factors, e.g. general technological progress or improvements in workforce quality).

She finds large improvements in firm productivity, both on the 'intensive margin' (existing firms becoming more productive) and the 'extensive margin' (less productive firms shrinking or going out of business). On average, she finds that the firms that exit due to trade liberalisation are 8% less productive than the surviving ones.

Like Mexico and Brazil, Chile also undertook a broad programme of privatisation; and as with trade liberalisation, Chile started earlier than its counterparts. In the earliest phases (starting in 1974) of what could be called privatisation, the Pinochet regime simply reversed many nationalisations and expropriations of the prior Allende government. But throughout the 1980s, the government privatised firms in industries that are often considered 'strategic': telecommunications, power generation, steel production and airlines. And finally, in the 1990s, Chile started moving away from government ownership even of major infrastructure such as ports and highways – opting instead to contract with private-sector firms to build and operate them. Thus, Chile's privatisation programme not only started earlier but lasted longer and had a wider scope than that in Mexico or Brazil.

Fischer, Gutiérrez and Serra (2005) describe much of this history, and like Anuatti-Neto et al. (2005) did for Brazil, they use data from firms' financial statements to estimate the effects of privatisation on Chilean firms. But, like Anuatti-Neto et al. (2005), they are limited by the nature of the accounting data and can only examine effects on certain measures of profitability. Nevertheless, one key observation that Fischer, Gutiérrez and Serra make is that Chilean firms in regulated industries experienced an increase in profitability after privatisation, while those in less-regulated

industries did not. Again, this highlights the importance of the interaction between competition policy and liberalisation efforts.[6]

3.4 Post-pandemic experience

Chile engaged in an aggressive fiscal policy response to the COVID-19 pandemic, including a temporary change to the tax treatment of pension fund withdrawals and large government transfers. This resulted in a strong rebound from the pandemic, but also a surge in inflation, peaking at 14.1% in August 2022. In response, the Central Bank of Chile tightened monetary policy and withdrew fiscal stimulus spending.

The country's long-standing fiscal rule, which had been suspended temporarily, was phased back in 2024. This adjustment proved challenging; despite expenditure containment, revenue shortfalls from lower-than-expected lithium prices and corporate taxes led to a larger-than-budgeted headline deficit of 2.8% of GDP in 2024. Economic policy debates in Chile have since centred on securing long-term sustainability and funding social demands amid limited fiscal space, with major political clashes over proposed pension and tax reforms.

4. Mexico

4.1 Mexico's macro-fiscal policy framework

Inflation targeting and central bank independence

Monetary institutions in Mexico have undergone gradual reforms over several decades, driven by the country's experiences with economic instability and high inflation.

The foundations for central bank independence were laid in 1993 when the Mexican Congress amended the constitution to grant autonomy to Banco de México, which came into effect in 1994. This reform established price stability as the central bank's

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[6] Reviewing the more recent literature on privatisation, including studies from former communist countries, Estrin and Pelletier (2018) cautiously conclude that while privatisation has been open to abuse – especially in cases where politically connected insiders, rather than disinterested investors, were the buyers of state-owned firms – it is *possible* for privatisation to enhance efficiency in developing countries, but such enhancement is not *automatic*.

primary mandate, marking a significant shift in Mexico's monetary policy framework. The move towards independence was part of a broader trend among central banks globally, reflecting a growing consensus among economists and policymakers about the benefits of insulating monetary policy from short-term political pressures.

In the years following its newfound autonomy, Banco de México began taking steps towards an inflation-targeting framework. The bank started setting annual inflation targets in 1996, signalling its commitment to price stability. The transition accelerated in 2000 when the bank announced a medium-term inflation target of 3% to be achieved by 2003, with intermediate targets for 2001 and 2002.

The formal adoption of inflation targeting came in 2001. This framework established a permanent target of 3% for annual CPI inflation, with a tolerance band of one percentage point on either side of the target.

The implementation of these policies has had important effects on Mexico's economy. Inflation, which had reached triple digits in the 1980s, was reduced to low and stable levels by the early 2000s. The anchoring of inflation expectations and the reduced pass-through from exchange rate fluctuations to domestic prices have been notable achievements (Rodríguez et al. 2019). This low-inflation environment has also contributed to the development of Mexico's financial markets, allowing for the issuance of long-term peso-denominated bonds and the growth of a fixed-income market.

There have, of course, also been challenges. The central bank has had to navigate various economic shocks, including the global financial crisis of 2008–2009 and, more recently, the economic disruptions caused by the COVID-19 pandemic. These events have tested the bank's commitment to its inflation target and its ability to anchor inflation expectations. Despite these challenges, the combination of central bank independence, inflation targeting and a flexible exchange rate regime has generally been credited with improving price formation in Mexico and contributing to a more stable macroeconomic environment.

Floating exchange rates

Like Brazil in 1999, Mexico's transition to a flexible exchange rate regime was largely a forced response to a balance-of-payments crisis. Before adopting a floating exchange rate, though, Mexico had experimented with various exchange rate regimes, including fixed rates and managed floats. However, these regimes often led to economic instability and speculative attacks on the peso.

The most significant shift occurred in December 1994. This financial crisis was precipitated by a combination of factors, including a large current account deficit, political instability and a loss of investor confidence. The Mexican government had been defending a pegged exchange rate, which led to a rapid depletion of international reserves. Faced with the exhaustion of reserves and mounting speculative pressure, the government was forced to let the peso float freely.

Several considerations influenced Mexico's decision to adopt a flexible exchange rate regime. Economic stability and the reduction of speculative pressure were primary concerns. Fixed and pegged exchange rate regimes had made Mexico vulnerable to speculative attacks. By allowing the peso to float, the government aimed to reduce the risk of such attacks and enhance economic stability. The floating regime helped absorb external shocks and discouraged short-term capital flows that could destabilise the economy.

The depletion of international reserves during the crisis highlighted the unsustainability of defending a fixed exchange rate. Under a floating regime, the exchange rate is determined by market forces, reducing the need for constant intervention and allowing for a more sustainable management of reserves.

Controlling inflation was another critical factor. A flexible exchange rate regime was seen as a tool to control inflation. The central bank could focus on monetary policy aimed at price stability without the constraints of maintaining a fixed exchange rate. This shift was crucial for restoring investor confidence and ensuring long-term economic stability.

Additionally, a floating exchange rate provided greater flexibility for monetary policy. The central bank could adjust interest rates and other monetary policies without being tied to maintaining a specific exchange rate level. This flexibility was essential for responding to domestic and international economic conditions.

Mexico's economy was, and continues to be, highly integrated with global markets, making it susceptible to external shocks. A floating exchange rate regime allowed for automatic adjustments to external shocks. It contributed to a reduction in speculative pressures and provided a buffer against external shocks. Interest rates became more stable, and the ratio of foreign direct investment to the current account deficit improved significantly. The central bank's focus on inflation targeting under the floating regime also helped stabilise prices and restore economic confidence.

4.2 The 1995 balance-of-payments crisis

Politically, Mexico faced considerable instability throughout 1994. The year began with the Zapatista uprising in Chiapas state on 1 January, coinciding with the implementation of the North American Free Trade Agreement (NAFTA). This was followed by the assassination of Luis Donaldo Colosio, the presidential candidate of the ruling Institutional Revolutionary Party, in March. The political climate remained tense, with further assassinations, kidnappings of high-profile executives and ongoing violence in Chiapas.

At the time, Mexico had a large current account deficit, which reached 7.6% of GDP by the end of 1994 (Masson and Agénor 1996). This imbalance made the country particularly vulnerable to shifts in investor sentiment. Additionally, the peso had been overvalued for several years, contributing to the trade deficit by making imports cheaper and exports more expensive. This situation was exacerbated by a credit boom in 1994 (Musacchio 2012), where inflation in Mexico outpaced that of the US, its main trading partner.

Mexico's situation was also precarious due to the reliance of its public finances on short-term debt instruments known as 'Tesobonos', which were denominated in pesos but indexed to the US dollar. The country had become increasingly dependent on foreign capital inflows, making it susceptible to sudden changes in investor confidence.

The situation was further complicated by the US Federal Reserve's decision to raise interest rates in 1994, which made investments in Mexico less attractive compared to those in the US.

The combination of political instability and economic concerns led to significant capital flight. To maintain the peso's peg to the dollar, the Mexican central bank intervened heavily in the foreign exchange market, depleting its foreign reserves. In an attempt to retain foreign investment, the government increased the issuance of Tesobonos, with their share of total government debt rising from less than 10% in early 1994 to almost 60% by July.

After winning the election, President Ernesto Zedillo appointed a new economic team, which was perceived unfavourably by investors; this accelerated capital flight in late November 1994. To manage the situation, the central bank attempted a gradual depreciation of the peso on 20 December 1994 by widening its trading band. However, this move failed to calm the markets, and a panic ensued, resulting in $5 billion in capital outflows over just two days. Consequently, the government was forced to float the peso on 22 December 1994.

How did the 1995 crisis affect the macro-fiscal policy framework?

Most obviously, the crisis forced Mexico to devalue the peso and allow it to float. But the crisis also had other effects on macroeconomic policy: in the short term, the central bank raised short-term interest rates to 25%, aiming to make holding pesos more attractive to investors and thus curb the excessive flight of capital. This decision, however, also increased borrowing costs, posing a risk to economic stability. In January 1995, the government introduced a comprehensive economic programme that included fiscal and monetary policy adjustments designed to stabilise the economy and restore confidence in the financial system.

In January 1995, US President Clinton approved a $20 billion loan from the US Treasury to Mexico, using his executive powers after Congress had rejected a larger

$50 billion bailout package.[7] The IMF also contributed to the bailout, coordinating a total package of $50 billion to support the Mexican economy.

The bailout came with conditions requiring Mexico to implement stringent fiscal and monetary policies. These measures aimed to ensure economic stability and maintain commitments under NAFTA. Despite initial criticism and scepticism, Mexico successfully repaid the loan three years ahead of schedule, along with $500 million in interest, demonstrating the effectiveness of the intervention.

4.3 The contribution of microeconomic reforms

Starting in 1985, Mexico undertook a programme of trade liberalisation. This involved simplifying and lowering both tariff and non-tariff barriers to trade, as well as replacing 'import-substitution' policies with ones that aimed to attract foreign direct investment. Thus, even before it joined NAFTA in 1994 – renamed the United States-Mexico-Canada Agreement in 2020 – Mexico's economy had become well integrated with world markets. Szymczak (1992) describes how Mexico's exports grew and became diversified away from oil through the 1980s; this liberalisation helped Mexico to avoid some of the extreme macroeconomic volatility suffered by other oil exporters like Venezuela.

As in other countries, trade liberalisation improved firm productivity in Mexico; these gains were noticed early on by Tybout and Westbrook (1995). And, as in Brazil, these gains were not the same for all firms and all industries; Iacovone (2012) shows that firms that were already more productive tended to gain more from the further liberalisations of NAFTA. It is easy to imagine why this might happen: more-productive firms may have better managers, for example, who are better able to take advantage of cheaper imported inputs or expand into new export markets.

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[7] The US Treasury's involvement in the bailout was driven by several concerns (Lustig 1997). First, there was a fear of financial contagion. The peso's devaluation had already affected other Latin American currencies and emerging markets, raising fears of a broader economic crisis. Stabilising Mexico was seen as essential to preventing further instability in the region. Second, the Clinton administration was worried that a collapsing Mexican economy could lead to increased illegal immigration and undermine US border security. A destabilised Mexico could also negatively affect American exports and its broader economic interests. Ensuring Mexico's economic stability was thus seen as a way to maintain political stability in the region.

Mexico also undertook a major privatisation programme, starting in 1983 and lasting until 1991. In part this programme was motivated by fiscal concerns, as the country had suffered a major sovereign debt crisis in 1982 and had defaulted on its debt. The privatised firms came from a very broad cross-section of industries: mining, both light and heavy manufacturing, and services (and even included a soccer team).

La Porta and López-de-Silanes (1999) study the effects of Mexico's privatisation and find, as in other contexts, that it led to an increase in profitability. However, they have access not just to firms' accounting data (as in Anuatti-Neto et al. 2005 and Fischer, Gutiérrez and Serra 2005) but also information from the Mexican census of firms, allowing them to measure output prices and wages. They find that in this context, privatised firms did not raise their prices by much, but did expand output and reduce employment. This is most consistent with the view that under state ownership, political pressure on public-sector firms leads to inefficiently high employment, inflated wage costs and lower output.

It must, however, be acknowledged that Mexico's growth performance has been relatively weak since the 1980s, especially when compared to that of other emerging markets, especially China. Kehoe and Ruhl (2010) address this directly and argue that while Mexico clearly has benefitted from trade liberalisation, the simple but fundamental force of diminishing returns can explain the contrast: Mexico started out much richer than China in the 1980s, and is still richer – per capita – than China today. (It is also unclear if the rapid growth of countries like China will be sustained as they converge with the income levels of advanced economies.)

4.4 Post-pandemic experience

In response to the global surge in inflation after the COVID-19 pandemic, Mexico underwent a monetary tightening cycle; the Banco de México raised interest rates, as did many other central banks. It appears that this tightening successfully anchored inflation expectations. By 2025, as headline inflation receded towards the 3% target, the policy debate shifted to the appropriate pace of monetary easing.

On the fiscal side, though, Mexico's policy response was unusual. After providing only limited fiscal support during the pandemic and associated recession, the government pursued significant fiscal expansion in 2024, resulting in the largest deficit in decades. This policy has increased public debt, sparking a debate between advocates for immediate, ambitious fiscal consolidation and those favouring a more gradual path to protect growth.

5. Venezuela

Since 1994, Venezuela's fiscal and monetary policies have undergone major changes. In part these changes were, as in the other countries profiled here, responses to particular crises. However, most of the changes can be seen as part of the rise of a populist and authoritarian regime in the late 1990s. In most respects – central bank independence, inflation targeting, fiscal discipline, microeconomic liberalisation and integration with global markets – Venezuela has gone in exactly the opposite direction to the other countries profiled here. Below, I briefly summarise some of that history.

5.1 Oil dependence and volatility

In 1976, President Carlos Andrés Pérez nationalised the oil industry, creating Petróleos de Venezuela, S.A. (PDVSA) to oversee all aspects of oil exploration, production, refining and exporting. This move was initially seen as moderate and non-radical, allowing for compensation and association agreements with foreign oil companies, provided PDVSA held 60% equity in joint ventures. In retrospect, though, it created severe macroeconomic problems that continue to harm Venezuela nearly 50 years later.

In the immediate aftermath of nationalisation, Venezuela experienced a substantial increase in oil revenues due to the oil boom of the 1970s. This windfall led to increased public spending and investments in various sectors, including social programmes and infrastructure. However, the reliance on oil revenues also made the economy highly vulnerable to fluctuations in global oil prices.

State-owned enterprises played a crucial role in exacerbating fiscal deficits during the 1980s. Many made losses, and the government was forced to borrow heavily to sustain

them. Despite the oil windfall, the government continued to borrow from abroad to finance the nationalisations and social spending initiated in the prior decade. The fiscal burden was further compounded by the fact that state-owned enterprises themselves conducted their own borrowing, often through short-term loans, which added to the national debt (Restuccia 2021).

Following nationalisation, crude oil production declined (Roy and Cheatham 2024); output was 55% lower in the mid-1980s than in 1970. This decline in production, combined with falling oil prices, led to a substantial decrease in fiscal revenues from oil exports over the 1980s.

Although this volatility and dependence on oil revenues has been very damaging for Venezuela, the nationalisation of the oil industry is not the only cause. Other countries – including Brazil and Mexico – have state-owned oil companies, but because their economies and tax bases are more diversified, they have not been as vulnerable to oil price shocks as Venezuela.

5.2 The early 1990s

In the mid-1990s, under President Rafael Caldera, Venezuela attempted a plan to stabilise the economy (Agenda Venezuela). This plan included measures such as exchange rate adjustments, fiscal austerity, and structural reforms aimed at reducing inflation and stabilising the currency. Despite these efforts, the country continued to struggle with high inflation and a large fiscal deficit (Raisbeck 2024; Restuccia 2021).

One major component of this plan was the adjustment of the overvalued bolivar to make Venezuelan exports more competitive and address balance-of-payments problems. Austerity measures were also introduced to reduce the fiscal deficit: for example, cutting public-sector wages and subsidies, as well as efforts to boost government revenue.

Trade liberalisation was another important aspect of the programme. By reducing tariffs and non-tariff barriers, the government sought to attract foreign investment and better integrate Venezuela into the global economy. Additionally, structural reforms

focused on privatising state-owned enterprises and deregulating various sectors to create a more market-oriented economy.

Despite these efforts, the Agenda Venezuela programme faced significant challenges. The austerity measures were unpopular and led to social unrest and political opposition. Furthermore, the economy's heavy reliance on oil revenues made it vulnerable to fluctuations in global oil prices, which undermined the effectiveness of the reforms.

5.3 The turn to populism

The election of Hugo Chávez in 1998 marked a turning point in Venezuela's economic policies. His administration significantly increased public spending, nationalised key industries such as communications and electricity generation, and imposed price controls and subsidies. Supported by high oil prices, these policies initially appeared to reduce poverty. However, they also resulted in a decline in oil production, increased fiscal deficits and mounting public debt.

This was the 'boom' phase of populism, and as with many other populist regimes, it sowed the seeds for a later economic crisis. Aggressive monetary and fiscal policies produce a temporary boost to growth and employment, but they also create imbalances that eventually lead to crises and often a severe depression. These patterns have been documented in many other countries (several of them being Venezuela's neighbours in the region), so it is unsurprising that Venezuela followed a similar trajectory.

During Chávez's presidency, the central bank frequently resorted to printing money to finance fiscal deficits, leading to hyperinflation. (Importantly, in 2007, the legislature passed a law forcing the central bank to provide subsidised credit to certain 'strategic' sectors and to buy the bonds of state-owned enterprises.) The fixed exchange rate regime and capital controls further exacerbated economic distortions and led to widespread shortages of goods.

Following Chávez's death in 2013, Nicolás Maduro continued many of his predecessor's policies. However, the economic situation deteriorated further due to

declining oil prices, reduced oil production and continued fiscal mismanagement. Hyperinflation reached unprecedented levels, and the government increasingly relied on monetary financing, which worsened the inflationary spiral.

In response to the deepening economic crisis, the Maduro administration implemented some policy shifts. By 2019, the government began to relax price and currency controls, allowing for greater use of the US dollar in domestic transactions (Iyer and Rodríguez 2021). This de facto dollarisation provided some relief to the economy by stabilising prices and improving access to goods. However, the underlying structural issues, such as high public debt and a weakened oil sector, remained unresolved.

The policies of the Chávez and Maduro governments have resulted in a catastrophic depression, with GDP falling by 75% between 2014 and 2021. Nearly 8 million Venezuelans have left the country, mostly seeking refuge in neighbouring countries (Roy and Cheatham 2024).

5.4 Post-pandemic experience

In Venezuela, the post-pandemic period has seen a deepening of the pre-existing humanitarian catastrophe, pushing its challenges beyond the realm of conventional macroeconomic policy. The country entered the pandemic already suffering from a protracted economic collapse. The primary post-pandemic development has been the government's abandonment of price and currency controls, leading to a de facto dollarisation of the economy. While this has provided some relief from hyperinflation, it does not address the fundamental institutional decay, the collapse of the oil sector, or widespread shortages of food and medicine.

6. Lessons for South Africa

6.1 Persistent fiscal deficits are bad

Monetary and fiscal policy are necessarily linked. Governments engage in asset markets through the issuance of sovereign debt and money creation. The returns on these assets – bond yields and inflation – are necessarily connected, although the relationship is influenced by external economic conditions.

Persistent fiscal deficits – or 'fiscal indiscipline' – lead to inflation through several mechanisms. First, when governments cannot finance their spending through taxation or borrowing, central banks will sometimes be forced to buy government debt directly or via secondary markets, which can directly fuel inflation. Second, a loss of credibility can erode confidence in the government's ability to manage the economy, leading to self-fulfilling expectations of inflation and currency depreciation. In this sense, even when central banks do not monetise fiscal deficits in the short term, large enough expected future deficits can create inflationary pressure. Third, external vulnerabilities, such as heavy reliance on foreign borrowing or commodity revenues, can leave countries exposed to shocks that potentially trigger fiscal crises and inflation. And finally, short-term political pressures often lead governments to delay necessary fiscal adjustments, exacerbating economic imbalances over time. Several of the historical episodes described in this paper illustrate precisely these risks – in Brazil in the 1980s (section 2.2.2) and in Venezuela in the 2010s (section 5.3).

South Africa, too, has experienced large and persistent fiscal deficits in the last two decades, with the ratio of public debt to GDP rising rapidly from a low of 28% in 2008 to above 72% in 2023. Sachs (2021) details the composition of non-interest government spending that drove that increase: the wage bill of public-sector employees, bailouts for troubled state-owned enterprises and redistributive transfers (see Figure 2 of that paper).

Reducing deficits, though, could mean either increased tax revenue or reduced spending (or a combination of the two). Havemann and Hollander (2022) argue that tax increases cannot, on their own, close South Africa's fiscal gap – a point also made by the National Treasury itself. And unlike Mexico in 1995, or Greece in 2008, South Africa cannot rely on a rich and sympathetic neighbour to help bail it out in the event of a fiscal crisis.

Havemann and Hollander (2022) also propose a 'fiscal rule', but this need not involve new legislation, as Chile's experience in the 1980s and 1990s shows: there, fiscal discipline was sustained for decades before the passage of the Fiscal Responsibility Law in 2006. And the fact that the US regularly raises its legislated debt ceiling shows that formal rules are not a panacea for rising public debt levels.

Absent economic growth or substantial efficiency gains in the public sector (which might allow for reductions in expenditure while maintaining the quality of public services), South Africa faces an unattractive choice between continued fiscal consolidation – itself politically risky, as Venezuela's experience shows – or escalating risks of default or inflation. However, it is important to note that reducing fiscal deficits is not necessarily regressive in its effects: in section 1.3 it was shown that Mexico, Brazil and South Africa all managed to reduce poverty and inequality through redistributive fiscal policies even while maintaining fiscal discipline.

6.2 Fixed exchange rates can lead to crises

The experiences of Chile in the early 1980s (section 3.2), Brazil in 1999 (section 2.2.1) and Mexico in 1995 (section 4.2) show how fixed or managed exchange rate regimes can lead to macroeconomic crises. These cases have obvious similarities in their progression and outcomes, illustrating the inherent risks of maintaining rigid exchange rate policies in the face of economic imbalances and volatile capital flows.

In Chile's case, the early 1980s saw the country maintaining a fixed exchange rate pegged to the US dollar. This policy led to a series of related problems. As inflation in Chile outpaced that of the US, the Chilean peso became overvalued in real terms, resulting in large current account deficits. When global interest rates rose and commodity prices fell in the early 1980s, Chile found itself unable to adjust its exchange rate to absorb the shock. As foreign reserves dwindled, speculators launched an attack on the peso, ultimately forcing Chile to abandon the peg in 1982 and devalue sharply.

Brazil's experience in 1999 followed a similar pattern, albeit under a crawling peg exchange rate regime. As in Chile two decades earlier, the real exchange rate appreciated significantly, contributing to growing current account deficits. Brazil became increasingly reliant on large capital inflows to maintain the peg, making it vulnerable to sudden shifts in investor sentiment. When the 1997–1998 emerging market crises led to capital outflows from Brazil, the country found itself in a precarious position. After depleting its reserves in an attempt to defend the peg, Brazil was forced to float the real in January 1999, resulting in a sharp depreciation.

Mexico's 1995 crisis, too, followed a very similar trajectory to the Chilean and Brazilian ones. When political shocks in 1994 triggered abrupt capital outflows, Mexico found itself in a dire situation. After exhausting its reserves, the country was forced to float the peso in December 1994. And, like in Brazil and Chile, the currency depreciated sharply once allowed to float. South Africa's experience following the Asian financial crisis bears a strong resemblance to these episodes (see section 1.2.4).

The Chilean experience, in particular, contains an additional lesson. It illustrates the dangers arising from the interaction of a fixed exchange rate and extensive foreign borrowing – even if that borrowing is done by the private sector. By the early 1980s, Chilean banks had accumulated high levels of foreign debt under a fixed exchange rate regime. When the peso depreciated, these banks faced a sharply higher repayment burden, creating an unpalatable choice for the central bank: bail out the banks, or tolerate widespread bank failures and a financial crisis. In the event, Chile's central bank chose to bail out the banks, but in so doing it may have created a moral hazard problem for future macroprudential policy.

Interestingly, South Africa's own history contains this lesson, too: Padayachee (1988) points out how many state-owned enterprises and private firms borrowed abroad during the 1980s, leading up to a pseudo-default event (the 'debt standstill') in 1985. While there may be an additional role for macroprudential policies in South Africa, too, the combination of exchange-rate commitments and an implicit or explicit commitment to financial stability may create systemic vulnerabilities.

6.3 Institutional design, political consensus and transparency

Macroeconomic policy has many aspects, and there is widespread recognition that certain institutional arrangements – or even, at a deeper level, political consensus – can be more important than any one policy decision. Broadly speaking, this is because these hard-to-observe factors help to determine the credibility of forward-looking policies.

6.3.1 Central bank independence

Central bank independence is important for maintaining low inflation rates. This is because the executive and legislative branches of government will typically have a

shorter time horizon than the central bank; thus, delegating certain powers to the central bank helps to solve a potential time-inconsistency problem in monetary policy. (Going in the opposite direction, Venezuela under Chávez took steps to curtail the independence of its central bank.)

Indeed, Garriga and Rodriguez (2020, 2023) document the rise in central bank independence across many countries – particularly during the 1990s – and show that it is associated with both lower levels of inflation and lower volatility of inflation in developing countries.

South Africa's 1996 constitution declares the SARB to be independent, and gives it a primary mandate to "protect the value of the currency", which is usually interpreted to mean price stability. However, the SARB's independence was not always as firmly established and its mandate was not always as explicit; Rossouw (2018) recounts two incidents in the 1980s where the SARB's decisions appeared to be subject to government approval. This is therefore an area in which South Africa appears to have already learned some of the same lessons as Latin America.

6.3.2 Fiscal rules

In some cases, formal fiscal rules can succeed in reducing deficits and providing for countercyclical public expenditures. Chile provides the most notable such example of successful fiscal policy, with public debt falling from 165% of GDP in 1985 to 20% in 2000 (Berganza 2012). This rule has had multi-party support in Chile, allowing it to endure over many electoral cycles.

However, Chile's fiscal prudence long predates the declaration of the 'structural surplus' rule in 2001, with the country running surpluses since the mid-1980s and throughout the 1990s (Caputo and Saravia 2021). It is therefore plausible to interpret Chile's fiscal rule as a formalisation of a pre-existing consensus on fiscal policy across its political spectrum. And, by contrast, while the US has some formal rules that are supposed to constrain fiscal policy – the nominal debt ceiling, for example – these are routinely revised and do not appear to be effective at constraining the growth of public debt in that country.

6.3.3 The abuse of quasi-fiscal institutions: monetary chaos in Brazil

Providing subsidised credit to selected industries or regions is a major component of industrial policy in many countries, and South Africa is no exception. (In some countries, such as the US and Brazil, it is also a housing policy tool.) Brazil's experience offers a cautionary tale about how poorly designed quasi-fiscal institutions – public-sector banks or state-owned enterprises – can be used to mask fiscal deficits and weaken the central bank's control of monetary policy.

Before the BCB was established in 1964, the Bank of Brazil (BB) acted as the government's banker and held the sole right to issue banknotes, but also operated as a commercial bank and a development bank (i.e. a provider of subsidised credit on behalf of the government). When the central bank was created, the BB continued to provide subsidised credit to targeted sectors (e.g. agriculture), as well as banking services to many state governments.

The government also created a special account at the BCB for the BB called the *conta de movimento* (movement account) which, in practice, allowed the BB to automatically overdraw funds and indirectly create money (Franco 2003). Thus, the BCB was unable to fully control the expansion of the money supply in Brazil and many fiscal expenditures were being financed directly by money creation. Ayres et al. (2021) report that this power was also used to finance the deficits of some state governments that had accounts with the BB.

Eventually, in 1986, the *conta de movimento* was closed (de Carvalho 2016). However, this was not the only abuse of Brazil's many quasi-fiscal institutions. Many state governments owned public banks, borrowed from them and could force them to roll over their debts – later to be restructured or bailed out by the federal Treasury and the BCB (Bornhorst, Mercês and Freire 2019). Some of these problems were fixed by the transparency and reporting requirements of the Fiscal Responsibility Law passed in 2000 (Soares 2006). Franco (2003) also reports that part of the Real Plan was increased enforcement of a somewhat obscure law that prevented banks from lending to their controlling partners.

While South Africa does not suffer from these exact problems, expanding the role of state-owned enterprises and especially the creation of public-sector banks is a policy frequently suggested by many political parties and activists. While there may be some version of these proposals that would be beneficial, it is worth noting that Brazil has privatised or liquidated many of its public banks, starting in the 1990s (Nakane and Weintraub 2005).

7. Conclusions

The macro-fiscal policy frameworks of Brazil, Chile and Mexico all involve three important principles: (1) an independent central bank, (2) a commitment to inflation targeting and (3) a floating exchange rate. Venezuela, by contrast, has never adopted any of these three. South Africa's adoption of these three principles largely overlaps with that of Brazil, Chile and Mexico. This suggests that while there may have been some mutual learning involved, there is also a sense in which the intellectual tides of the 1990s pulled all four countries – along with many others – in similar directions. But intellectual tides emerge from historical circumstances and, as shown in this paper, there are many similarities in the types of shocks and constraints that these countries faced that produced similar policy choices.

In microeconomic policies, too, these three Latin American countries have made some attempts at trade liberalisation and privatisation; broadly speaking, Chile took these policies furthest and started earliest, while Brazil's implementation efforts have been more limited and the political support for them more equivocal. Mexico, too, has pursued economic liberalisation and openness quite strongly but has not enjoyed the same growth performance as Chile. For its part, South Africa has never really embraced either trade liberalisation or privatisation.

The disappointing growth performance of South Africa relative to Chile and even Mexico – despite similar macro-fiscal policy frameworks – suggests that microeconomic policies may, at this stage, be a more relevant policy lever than macroeconomic policies. Reversing the decline in public-sector efficiency (popularly referred to as 'state capture') in South Africa over the last decade may also be important in determining medium-term growth prospects, but the evidence discussed in this paper is not conclusive proof of that claim.

Still, as Goldfajn, Martínez and Valdés (2021) point out, the so-called Washington Consensus suite of policies does appear to have delivered more macroeconomic stability and relief from the extremes of hyperinflation for Latin America, though the results for growth have been mixed. The remaining lessons South Africa can learn from these countries probably lie in avoiding certain mistakes in the design of quasi-fiscal institutions (see section 6.3.3), or in the specifics of microeconomic reform, rather than in broad macroeconomic policies.

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