# **WORKING PAPER**

## 19-19 Inflation Targets in Latin America

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#### **Abstract**

Many emerging-market economies have adopted inflation targeting regimes since they were introduced by New Zealand in 1990. Latin America has not been the exception. Currently eight Latin American countries conduct monetary policy through inflation targeting regimes: Brazil, Chile, Colombia, Guatemala, Mexico, Paraguay, Peru, and Uruguay. This paper reviews the history of chronic inflation in Latin America and describes these countries' experience with inflation targets and their performance during the global financial crisis.

**JEL Codes:** E52, E58 **Keywords:** Inflation, Inflation Targets, Latin America, Monetary Policy

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### Introduction

Inflation targeting (IT) is a strategy to conduct monetary policy. It is not a policy to reduce inflation. In order to reduce inflation, its deep roots must be removed. Once inflation has been conquered, monetary authorities must decide how to manage monetary policy to achieve their goals in the most efficient way. Several countries in Latin America were able to conquer inflation and they implemented IT regimes to conduct monetary policy. In some cases, the disinflation process was accompanied by declining inflation targets in order to consolidate the fall. However, they were also accompanied by fiscal consolidation and granting of independence to the central banks in order to eliminate the causes of inflation.

The main role of central banks is to achieve price stability, usually together with some long-term consideration for employment or economic activity. Another goal is financial stability, which was seriously taken into account in Latin America well before the global financial crisis (GFC). Many monetary policy frameworks have been used, and since the early 1990s IT regimes have been increasingly adopted around the world.

IT regimes allow to anchor inflation to the target. For this, credibility is needed so economic agents set their expectations equal to the target. This requires both credibility on the target and credibility on the ability of the central bank to deliver price stability. Under this regime, monetary policy can be countercyclical, stabilizing both inflation and output. IT regimes were tested during the GFC, when they contributed to mitigating large demand shocks and provided room for a rapid recovery. This is the case in many Latin American countries, which for the first time were able to deploy countercyclical macroeconomic policies.

In this paper I provide some stylized facts on inflation in Latin America and then describe IT regimes in the region. I conclude by assessing the experience of IT countries during the GFC.

## High Inflation in Latin America

Latin America has had a long history of high inflation. During the whole postwar period until the turn of the 21<sup>st</sup> century, there were very few experiences with stable one-digit inflation, in particular within the largest economies. The region learned to live with inflation, which also made it very hard to control. Moreover, there have been several episodes of hyperinflation with associated costly adjustments. High inflation has been an important detriment to economic growth in the region (De Gregorio 1992).

For most of the postwar period until the 1980s Latin America suffered what Pazos (1972) called *chronic inflation*. Most of the time inflation stood at two-digit levels, rising to three digits or falling to one digit only occasionally. He documented that in Argentina, Brazil, Chile, and Uruguay, in the 22 years from 1949 to 1970, accounting for 88 yearly

observations, there were only 11 years in which inflation was at one digit, one year was negative (1950 in Uruguay) and two years were at three digits (Argentina in 1959 and Brazil in 1968). In all of the other 74 observations inflation stood at two-digit levels. During this period average inflation was 26 percent in Argentina, 31 percent in Brazil and Chile, and 29 percent in Uruguay. Thirty percent was the norm.

Inflation increased during the 1980s. There were also several episodes of hyperinflation (Argentina from May 1989 to March 1990, Bolivia from April 1984 to September 1985, Nicaragua from June 1986 to March 1991, and Peru in September 1988 and July to August 1990). More recently, Venezuela is suffering from hyperinflation, which started late in 2016 and has not concluded at the time of writing this paper. There were also episodes of extreme inflation, although not hyperinflation, such as the case of Brazil, with average yearly inflation above one thousand percent from 1989 to 1994.

Two issues are relevant in the Latin American high inflation experience: the causes of high inflation and its persistence. They are the reasons why it was difficult to reduce it in a durable way. High inflation has been caused mostly due to the needs of financing the budget, leaving no room for monetary policy to independently anchor inflation. Many times countries resorted to fixing the exchange rate to reduce inflation, but inertia and fiscal imbalances caused inflation to remain high, causing serious misalignments that ended with the abandonment of the fixed exchange rate and a return to chronic inflation.

The inflation problem was amplified by indexation mechanisms that allowed the propagation of high inflation and increased difficulties to reduce it. The mechanisms that mitigated the costs of living with inflation were also the reason why it seemed too difficult to reduce it, explaining its persistence. The unsuccessful stabilization plans made indexation and all mechanisms to protect from high inflation the rational response of the economy to transitory disinflation.

Inflation was an indicator of the institutional inability to conduct good macroeconomic policies. Fiscal and monetary policies were unable to serve their stabilization goals. They were characterized by procyclicality: tightened in recessions and loosened in expansions (Vegh and Vuletin 2013). In most instances this was the consequence of monetary authorities tightening to avoid a weakening of the currency, because of "fear of floating" (Calvo and Reinhart 2002). Fiscal policy was also tightened in recessions because during global slowdowns international financial conditions tightened and sovereigns had limited access to foreign financing. In contrast, when global financial conditions improved, fiscal

<sup>2</sup> Fear of floating refers to the unwillingness of authorities to allow the currency to depreciate, and facilitate adjustment, due to the fear of a financial crisis and the fear for rising inflation.

<sup>&</sup>lt;sup>1</sup> The list of hyperinflations is from Fischer, Sahay, ad Vegh (2002), who uses Cagan's definition of hyperinflation as beginning when monthly inflation goes above 50 percent and ending when it falls below 50 percent per month for at least one year. Chile had inflation above 50 percent in October 1973. It is the only case reported before the debt crisis.

policy loosened by the relaxation of borrowing constraints. Procyclicality exacerbated the business cycle.

Figure 1 shows the evolution of the median inflation rate in Latin America, South America, and the world economy, to avoid distortions of computing the mean with hyperinflations. All medians are unweighted. Inflation was high, in particular in South America. Before 2000, only in 1997 and 1999 median yearly inflation was at a one-digit level, and still above 5 percent.

Figure 2 shows inflation by decades for the largest Latin American countries. Chile was the only one in which inflation was below 10 percent in the 1990s, for the rest this occurred in the 2000s, and in Argentina it went back to two digits in the latest decade. Only Venezuela was excluded from the seven largest Latin American countries since it has no recent reliable data on inflation, and inflation has exploded to a full and protracted hyperinflation.

The decline in inflation that occurred in the late 1990s and early 2000s was a global phenomenon. World median inflation declined and reached one digit towards the end of the 1990s. An important global factor that explains the decline in inflation was increased competition, due to globalization and deregulation (Rogoff 2004). Competition not only reduces prices but also makes them more flexible and expands output, reducing the incentives for central banks to inflate and facilitating the decline in inflation. This was also a period of rapid productivity growth as a result of the first boom in information technologies.

Not only were external factors contributing to the decline in inflation at the turn of the century but also were efforts to stabilize the economies after a serious crisis. Brazil was coming from a protracted period of four-digit inflation, while Mexico had inflation above 30 percent the two years after the Tequila crisis of 1994, due to a large extent to the collapse of the peso. The dollar exchange rate went from 3.4 pesos before the Tequila crisis in late 1994 to 7.7 pesos in December 1995.

In the case of Latin America there was progress in macroeconomic policies and institutions. Central bank independence and fiscal consolidation were implemented. The overall fiscal deficit in Latin America fell from 4.6 percent of GDP in 1970-1989 to 2.7 percent of GDP in 1990-2002 (Rogoff 2004).

Regarding central bank independence, as reported in Jácome and Vázqez (2008), many countries implemented legal independence. They include Chile (1989), El Salvador (1991), Argentina (1992 and 2002), Colombia (1992), Nicaragua (1992 and 1999), Venezuela (1992 and 2001), Ecuador (1992 and 1998), Peru (1993), Mexico (1993), Bolivia (1995), Costa Rica (1995), Uruguay (1995), Paraguay (1995), Honduras (1996 and 2004), Guyana (1998), Guatemala (2001), and the Dominican Republic (2002). However, having legal independence does not always result in *de facto* independence, as has been the case in

Argentina, where the government exercises undue influence on the central bank. In contrast, in Brazil, without legal independence, the central bank has been able to have a very high degree of independence in setting monetary policy.

International and domestic macroeconomic conditions were also conducive to disinflation in emerging-market economies, in particular in Latin America. First, many countries suffered a slowdown, or a blunt recession, as a consequence of the Asian crisis and its aftermath, and were unable to implement countercyclical fiscal and monetary policies. Another consequence of the Asian crisis was a significant decline in commodity prices. For example, the oil price in real terms, deflated by the US producer price index (PPI), during 1998-2002 was 44 percent lower than 10 years before and a third below what it was the previous quadrennium. Therefore, a combination of negative demand shocks and positive supply shocks, mostly due to higher productivity and lower commodity prices, led to a decline in inflation.

All of these factors coincided and produced a historical decline in inflation in Latin America. This process of disinflation was against the skepticism that it would take too long to reduce it to one-digit level given all of the mechanisms that induced high persistence, such as indexation. Inflation fell much more rapidly than anticipated.

## Inflation Targeting in Latin America

The main cause in Latin America was fiscal imbalances, which made inflation subordinate to seigniorage needs. The other cause was the inability of the central bank to commit to low inflation. In the traditional theory of monetary policy games with time inconsistency, the central bank has the incentive to inflate the economy to spur economic activity. The public, by knowing this incentive, will set inflationary expectations high enough so the central bank has no incentive to increase it further. The prescription to avoid this inflationary bias is to grant independence to the central bank with a clear mandate of price stability. As discussed above, in both fronts, progress was made in Latin America.

Once the causes of inflation have been eliminated, an inflation targeting regime is a sensible way to conduct monetary policy (Svensson 2008). Several experiments with disinflation based purely on inflation targets have failed because of the mistaken idea that an inflation target could be a disinflation policy. This was the case in Argentina in the second half of the 2010s, where optimistic targets were pursued, without solving the fiscal imbalances and without a credible independent central bank.

In an IT regime the central bank has a numerical target, which can be a given number or a range and a period of time to correct deviations, called the policy horizon, which could be a certain number of years, usually two, or more ambiguous such as "the long term." The

<sup>&</sup>lt;sup>3</sup> The target can be defined by the central bank or the government. In the latter case the government mandates the central bank to achieve the target through its monetary policy.

target can be chosen by the central bank, in which case it has goal independence, or may be decided by the government, in which case the central bank has only instrument independence.

Several countries in the region have adopted inflation targets. Most of them started with a partial inflation target, mainly because they adopted a transitory target during a period of disinflation, to then move to a stationary inflation target. The inflation targeting regime was complementary to the disinflation, building credibility to establish a stationary IT regime.

For Latin American countries that have inflation targets table 1 shows the adoption date, which is the date the IT regime was announced; the initial target; and the latest target. Most of the adoption dates were in the late 1990s and early 2000s. Almost ten years had passed since this monetary policy strategy was first implemented in New Zealand in 1990. It was gaining traction among policymakers, international financial institutions, and academics. It was being adopted in many countries. Indeed, the number of countries following IT regimes rose from 9 in 1997 to 22 in 2002 (De Gregorio et al. 2018), and 5 of the 13 adopters were from Latin America. It was also a good time to consolidate low inflation, since the late 1990s was a period of global disinflation.

Brazil, Colombia, Mexico, and Peru started with a transitory target. They have all reached a stable IT. The case of Brazil is somewhat special. Until 2018 it had a target of 4.5 percent for 15 years. In 2018, it announced a multi-year declining target to reach 3.75 percent, reported in the table, by 2021.

Inflation targets have two key definitions. The first is the target itself, with its tolerance range, as reported in table 1. The second is the time horizon in which inflation deviations from the target are expected to return to it. <sup>5</sup> The form used to communicate the target horizon varies from country to country. Some countries declare that they want to meet the target at all times, such as Peru; in the medium term such as Colombia, Guatemala, and Mexico; December every year, like Brazil; or a specific medium-term horizon such as two years in the case of Chile, Paraguay, and Uruguay.

From a conceptual point of view no country wants to correct deviations in a very short period of time, not only because monetary policy operates with lags but also because it is costly in terms of output to reduce inflation. This is a somewhat overlooked feature of *flexible inflation targeting regimes*, as opposed to *rigid* ones. Flexibility implies that deviations are not intended to be corrected in the shortest possible period. This reveals a deeper issue of inflation targets—well known to academics, sometimes ignored in policy

<sup>5</sup> Given the autocorrelation process of inflation there is a one-to-one relationship between the tolerance range and the time horizon (De Gregorio 2007).

<sup>&</sup>lt;sup>4</sup> Mishkin and Schmidt-Hebbel (2007) introduced this distinction to classify IT regimes.

circles—and that is, *flexible inflation targets do take into account unemployment*, at least implicitly.

Indeed, the fact that shocks to inflation are expected to be absorbed gradually implicitly takes into account that it is costly in terms of employment to bring inflation back to target. Otherwise the horizon would be very short. From an analytical point of view the idea is that authorities minimize losses from deviations of inflation from the target and deviations of output from full employment. In the presence of some degree of persistence in the inflation process, inflation will adjust gradually. The more gradual, the more weight is placed on minimizing the unemployment cost to reduce inflation. This gradualism is what implicitly defines the target horizon and also the tolerance range. Gradualism is due to the concern of the output costs of disinflation but also the lags with which monetary policy affects aggregate demand and inflation. However, the latter is not enough to generate time horizons as those seen in practice that usually are in the range of two years to the "medium term."

An important feature of inflation targets is that expected inflation is the anchor of inflation, and for this reason credibility is central. In the past, the anchor was the money supply or the exchange rate. As long as the public expects inflation to be equal to the target, in equilibrium inflation is equal to its target, and output reaches its full capacity.

Using money supply or exchange rates to anchor inflation is very easy to monitor, although they have had a poor record in the region. Exchange rate data are continuous in computer terminals, and monetary aggregates can be published daily. However, monitoring inflation forecasts is quite complicated, and for this reason communication and transparency are particularly important in the context of inflation targets.

The main characteristics of the IT regimes in Latin America are presented in table 2. All countries prepare quarterly inflation reports and have regular monetary policy meetings every month or month and a half, where they set the policy instrument. This is done to communicate to the market the views of the central bank and to explain why monetary policy is supposed to be coherent with reaching the target in the policy horizon. In addition, when the interest rate is the monetary instrument, as is usually the case, a credible monetary policy facilitates forecasting the future path of interest rates, thus, having greater impact on the yield curve and, hence, on economic activity and inflation. All countries, except Uruguay, use the interest rate as the policy instrument. Uruguay implements monetary policy through monetary aggregates, in particular M1.

All countries declare that they do not have explicit targets for the exchange rate. All of them declare to allow the currency to float. However, there are differences across countries in the degree of exchange rate flexibility, where Brazil, Chile, Colombia, and Mexico have quite flexible regimes while Paraguay, Peru, and Uruguay have de facto crawling bands.

The exchange rate regime makes a significant difference in financially integrated economies, because an exchange rate objective could hamper the achievement of the inflation goal, since monetary policy becomes subordinated to the exchange rate. All IT countries have argued in their internal documents that despite allowing for intervention in the foreign exchange market, the overriding goal is inflation. The interventions are geared towards two goals. First, to avoid persistent deviations from some estimation of the long-term equilibrium exchange rate, in particular, avoiding a currency too strong that it may hamper competitiveness. And second, to limit short-term volatility. Thus, for example, some countries have implemented interventions triggered by a minimum and maximum for daily changes in the exchange rate, as in Colombia and Guatemala.

## Monetary Policy and Economic Performance during the Global Financial Crisis

After declining from double digits, most IT countries have had success in keeping inflation around the target, but not always within the target range. One episode in which inflation went above the tolerance band in most countries was at the end of 2008, the peak of the commodity price boom. There was a sharp increase in domestic food prices (figure 3).

Evidence supports the benefits of inflation targeting for macroeconomic performance. Advanced economies that have adopted IT have better anchored inflation expectations and reduced persistence in inflation dynamics (Levin et al. 2004). For emerging-market economies, Gonçalves and Salles (2008) show that countries that adopted an IT regime experienced not only greater declines in inflation but also a reduction in output volatility. Comparing the growth performance of emerging-market economies during the GFC and the Asian crisis, Alvarez and De Gregorio (2014) show that countries that followed looser monetary policy were able to grow faster.

During the GFC this policy was placed under a serious test. Two unprecedented responses took place: sharp reductions in interest rates and significant decline in the value of the currencies (figures 4 and 5). Regarding monetary policy, Brazil, Chile, Colombia, Mexico, and Peru cut rates to historical lows. The rate cut started with 50 basis points in Colombia in December 2008, followed by Brazil and Chile with a 100-basis-point cut and Mexico with a 50 basis-point cut in January 2009. The largest cut was done in Chile, with the monetary policy rate falling from 8.25 percent to 0.5 percent. Finally, in February Peru cut 25 basis points. The process followed at a very rapid pace. By August 2009 all countries, but Colombia, were at their minimum. The Central Bank of Colombia cut an additional 150 basis points until mid-2010.

The interest rate cycle was very synchronized around the region, but the loosening came much later than in advanced economies. By 2007 advanced economies were already

8

<sup>&</sup>lt;sup>6</sup> The rest of this section focuses on the largest Latin American countries following inflation targets, namely Brazil, Chile, Colombia, Peru, and Mexico.

cutting rates. But the scenario was much different in emerging markets than in advanced economies. Emerging markets were having a positive shock from terms of trade, were growing strong, and also had serious challenges on the inflationary front due to the rise in commodity prices and booming economies. In the context of inflation targets the loosening in advanced economies did not imply that a cut had to be made in Latin America.

During the GFC exchange rate tensions were acute, and except for some moderate interventions and provision of liquidity in foreign exchange, currencies floated sharply, and depreciations were severe. Indeed, Brazil, Chile, Colombia, and Mexico experienced depreciations about 60 percent from their strongest levels previous to the Lehman collapse in a period of just a few months. Peru's exchange rate was more stable, depreciating about 20 percent, as it was also the country that intervened in the foreign exchange market the most among these five IT countries. Inflationary consequences were muted, not only because they were transitory but also because the exchange rate pass-though is small in economies that float and have credible inflation targets.

In the past, a sharp depreciation like the ones presented in figure 5 would have caused serious financial distress. This time was different, and financial systems remained broadly strong. A few corporations suffered severe losses from currency speculation with derivatives, but they were isolated cases. Moreover, depreciations such as those shown in the figure would have been fought hard to avoid inflation. This fear of floating was at the heart of the poor performance during the Asian crisis.

In order to show the relative performance of IT countries in Latin America before and after they adopted the IT regime, figure 6 shows relative growth during the Asian crisis and the GFC. The bottom in the Asian crisis was 1998-1999 and in the GFC it was 2009. The figure compares the year previous to the bottom and the two years of recovery. It shows the unweighted average rate of GDP growth for Brazil, Chile, Colombia, Mexico, and Peru minus growth for the three groups of countries. The first two are aggregates from the *World Economic Outlook* weighted by purchasing power parity (PPP). They are the world and the group of emerging-market and developing economies. The third group is the unweighted average of the rest of the Latin American countries.

The decline during the GFC was milder when compared with the world and other Latin American countries. It is similar only to emerging-market and developing economies. The recovery was much faster after the GFC than after the Asian crisis when comparing with the three groups of countries.

#### Conclusion

In the late 1990s most Latin American economies conquered inflation. This was not only a period of global disinflation but also a period of institutional and macroeconomic progress in the region. Several countries have adopted inflation targets to conduct monetary policy,

and their experiences have been favorable, in particular during the GFC. There was an unprecedented monetary policy loosening, significant adjustment of the exchange rate without derailing progress on inflation and with relatively good economic performance, especially when compared with the Asian crisis.

An IT regime is not a strategy of disinflation, but in a credible process of disinflation, when the deep causes of it are being removed, following a partial IT is a good complement to gaining credibility. Once inflation has stabilized at low levels, a stationary IT regime can be used to conduct monetary policy. Most IT countries in the region have followed this route.

### References

Alvarez, Roberto, and José De Gregorio. 2014. Understanding Differences in Growth Performance in Latin America and Developing Countries between the Asian and the Global Financial Crises. *IMF Economic Review* 62, no. 4: 494–525.

Calvo, Guillermo A., and Carmen M. Reinhart. 2002. Fear of Floating. *Quarterly Journal of Economics* 107, no. 2: 379–408.

De Gregorio, José. 1992. Economic Growth in Latin America. *Journal of Development Economics* 39, no. 1: 59–84.

De Gregorio, José. 2007. *Defining Inflation Targets, the Policy Horizon and the Output-Inflation Tradeoff.* Working Paper 415. Central Bank of Chile.

De Gregorio, José, Barry Eichengreen, Takatoshi Ito, and Charles Wyplosz. 2018. *IMF Reform: The Unfinished Agenda*. Geneva Reports on the World Economy 20. CEPR Press.

Fischer, Stanley, Ratna Sahay, and Carlos A. Végh. 2002. Modern Hyper- and High Inflations. *Journal of Economic Literature* 40, no. 3: 837–80.

García-Solanes, José, and Fernando Torrejón-Flores. 2012. La Fijación de Metas de Inflación Da Buenos Resultados en América Latina. *Revista CEPAL*.

Gonçalves, Carlos Eduardo S, and Joao M. Salles. 2008. Inflation targeting in emerging economies: What do the data say? *Journal of Development Economics* 85, nos. 1-2: 312–18.

Hammond, Gill. 2011. State of the Art of Inflation Targeting – 2011. Handbook No. 29. Centre for Central Banking Studies. Bank of England.

Ilzetzki, Ethan, Carmen M. Reinhart, and Kenneth S. Rogoff. 2019. Exchange Arrangements Entering the Twenty-First Century: Which Anchor will Hold? *Quarterly Journal of Economics* 134, no. 2: 599–646.

Jácome, Luis, and Francisco Vázquez. 2008. Is There Any Link Between Legal Central Bank Independence and Inflation? Evidence from Latin America and the Caribbean. *European Journal of Political Economy* 24, no. 4: 788–801.

Levin, Andrew T., Fabio M. Natalucci, and Jeremy M. Piger. 2004. The Macroeconomic Effects of Inflation Targeting. *Federal Reserve Bank of Saint Louis Review* 88, no. 4: 51–80.

Mishkin, F., and K. Schmidt-Hebbel. 2007. Does Inflation Targeting Make a Difference? In *Monetary Policy under Inflation Targeting*, ed. Frederic Mishkin and Klaus Schmidt-Hebbel. Central Bank of Chile.

Pazos, Felipe. 1972. Chronic Inflation in Latin America. New York: Praeger Publishers Inc.

Rogoff, Kenneth S. 2004. Globalization and Global Disinflation. *Monetary Policy and Uncertainty: Adapting to a Changing Economy*: 77-112. Federal Reserve Bank of Kansas City.

Svensson, Lars E. O. 2008. Inflation Targeting. *The New Palgrave Dictionary of Economics*, Palgrave Macmillan, ed.

Vegh, Carlos, and Guillermo Vuletin. 2013. Overcoming the fear of free falling: Monetary policy graduation in emerging markets. Chapter 6 in *The Role of Central Banks in Financial Stability: How Has It Changed?*: 105–29. World Scientific Studies in International Economics 30. World Scientific Publishing Co. Pte. Ltd.

Table 1 Adoption dates and inflation targets in LATAM countries

Country	Adoption date	Initial target	Target as of 2018	Target horizon
Brazil	1999	8% ± 2%	3.75% ± 1.5%	Yearly
Chile	1999	3%	3% ± 1%	Two years
Colombia	1999	15%	3% ± 1%	Medium term
Guatemala	2005	4% ± 1%	4% ± 1%	Medium term
Mexico	2001	6.5%	3% ± 1%	Medium term
Peru	2002	2.5% ± 1%	2% ± 1%	All times
Paraguay	2011	5% ± 2.5%	4% ± 2%	18 to 24 months
Uruguay	2013	5% ± 1%	5%± 2%	24 months

Source: Adoption dates are from the Hammond (2011) except for Guatemala, Paraguay, and Uruguay, dates for which come from their central banks' websites. Initial targets are from García-Solanes and Torrejón Flores (2012) for Brazil, Mexico, and Peru; for Chile, Colombia, Guatemala, Paraguay, and Uruguay initial targets are from central banks' websites. Targets as of 2018 are from central banks' websites.

Table 2 Characteristics of current inflation targeting in LATAM countries

Inflation			Policy	_
Country	reports?	Policy meeting?	instrument?	Exchange rate regime
Brazil	Yes; quarterly	Yes; 8 times a year	Interest rate	Managed floating
Chile	Yes; quarterly	Yes; 8 times a year	Interest rate	Managed floating
Colombia	Yes; quarterly	Yes; 12 times a year	Interest rate	Managed floating
Guatemala	Yes; quarterly	Yes; 8 times a year	Interest rate	Crawling peg
Mexico	Yes; quarterly	Yes; 8 times a year	Interest rate	Managed floating
Paraguay	Yes; quarterly	Yes; 12 times a year	Interest rate	Crawling band +/-5%; US dollar
Peru	Yes; quarterly	Yes; 12 times a year	Interest rate	De facto crawling band +/-2%; US dollar
Uruguay	Yes; quarterly	Yes; 4 times a year	M1	De facto crawling band +/-5%; US dollar

*Source:* Central banks' websites; exchange rate regimes from Ilzetzki, Reinhart, and Rogoff (2019, online appendix).

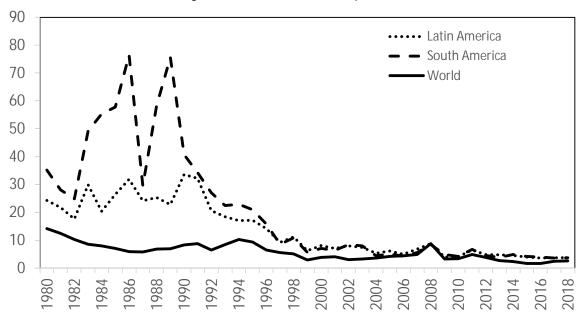


Figure 1 Median inflation (percent)

Source: IMF, World Economic Outlook database.

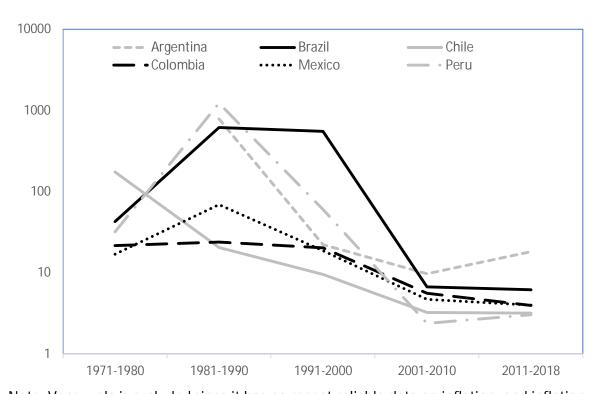


Figure 2 Inflation in the largest Latin American countries (percent, log-scale)

Note: Venezuela is excluded since it has no recent reliable data on inflation, and inflation has exploded to a full and protracted hyperinflation.

Sources: World Bank, World Development Indicators; IMF, World Economic Outlook database.

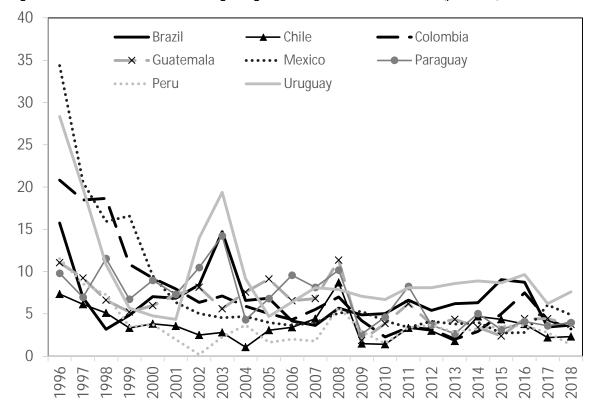
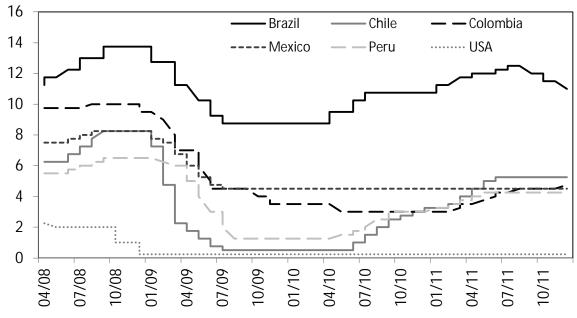


Figure 3 Inflation in inflation targeting countries in Latin America (percent)

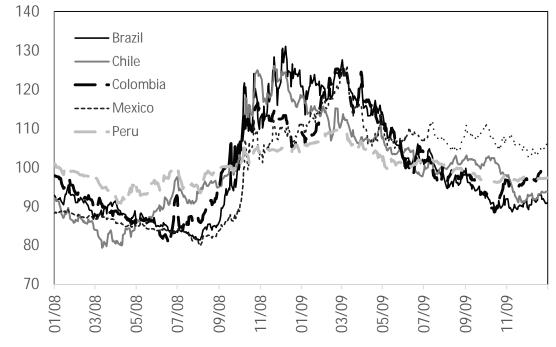
Source: IMF, World Economic Outlook database.

Figure 4 Monetary policy interest rate in selected inflation targeting LATAM countries and the United States during the global financial crisis and the aftermath (percent)

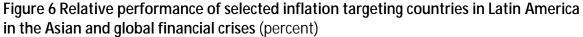


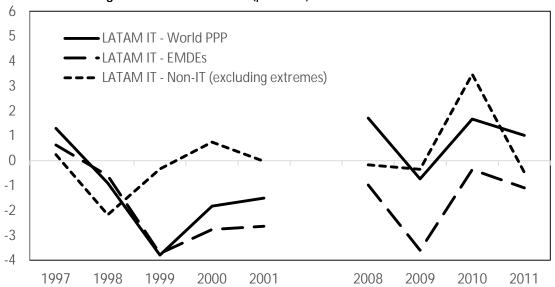
Source: Bloomberg.

Figure 5 Exchange rates during the global financial crisis, selected inflation targeting LATAM countries (period average = 100)



Source: Bloomberg.





Note: This figure shows the average unweighted growth of the five largest inflation targeting (IT) countries in Latin America (Brazil, Chile, Colombia, Mexico, and Peru) minus growth of the world weighted by purchasing power parity (PPP), growth of emerging-market and developing economies (EMDEs) weighted by PPP, and the unweighted average growth of non-IT countries in Latin America, excluding the maximum and the minimum rates of growth. During the Asian crisis there were no countries with a stable inflation target; after the crisis started some countries started implementing IT regimes.

Source: IMF, World Economic Outlook database.