REPORT ON THE LATIN AMERICAN ECONOMY
The main determinants of the monetary easing cycle

International Economics and Euro Area Department

First half of
2024

BANCO DE ESPAÑA
Eurosistema

Editorial

It is nearly one year since Latin American central banks began to lower their policy interest rates. The monetary easing process is progressing in line with financial market expectations and has been consistent with the economies' position in the business cycle and the pattern of falling inflation. Nevertheless, the decline in rates has been uneven across countries in terms of scale, pace and duration, owing to differences in cyclical conditions, inflation levels and fiscal policy stances.

Financial markets expect further policy rate cuts in the region in the coming quarters, although they see relatively limited scope for additional cuts in several countries. This process will also be influenced by US monetary policy decisions.

The baseline scenario has not changed significantly since early 2024. Inflation in the region is expected to continue to decline in the coming quarters, as it has in 2024 H1, to within the central banks' target ranges. This pattern will be underpinned by an environment in which the economies are growing at rates close to their potential and where there are no large positive output gaps. The credibility of the central banks will likely continue to anchor inflation expectations. However, this disinflation process is expected to remain gradual, given the stickiness of the services component, which is a characteristic seen around the world.

The region's currencies have depreciated against the dollar during this period of rate cuts, mainly as a result of the narrowing of the policy rate differential vis-à-vis the United States. However, the increase in the price of certain commodities produced and exported by some Latin American countries has cushioned the fall.

Financial conditions have deteriorated since March, primarily owing to higher interest rates on sovereign debt in both domestic and foreign currencies. However, unlike such episodes in the past, the monetary easing has not, as yet, been accompanied by financial market upheaval or capital outflows. Indeed, financial markets have remained somewhat buoyant. However, a flare-up of financial strains in the future cannot be ruled out. This could be prompted by, for instance, policy rates in the United States remaining at their current levels for longer than expected, a heightening of risk or uncertainty either at the global or domestic level, or a downturn in commodity prices. Furthermore, public finances in the region are highly vulnerable, especially in certain countries.

Lending has picked up slightly since the rate cuts began and is expected to gather momentum in the coming quarters. The risks to the banking systems remain contained, although non-performing loans are still high by historical standards.

This report includes four boxes.

— Box 1 describes recent developments in inflation and other economic variables in Argentina.

— Box 2 sets out different public debt scenarios for Brazil and Mexico using a new sustainability analysis tool developed by the Banco de España.

— Box 3, prepared in collaboration with the OECD Development Centre, provides an overview of tax revenue in Latin America.

— Box 4 examines bank lending in Latin America and how it is affected by domestic and international monetary policy, drawing a distinction between domestic and foreign banks, and within the latter group singling out Spanish banks.

Report

Contents

1 Latin America is in the middle of a cycle of monetary easing

— The main inflation-targeting central banks in the region have been reducing their policy interest rates since 2023 H2, as have those in other emerging regions such as eastern Europe. Only Mexico began dropping rates at a later stage (see Table 1). There is a great deal of unevenness across countries in the speed and intensity of this process, with Mexico making reductions of 25 basis points (bp) and Chile cutting by as much as 550 bp. This can be explained by the regional differences seen in the economies' business cycle, inflationary developments and fiscal policy stance.

— The monetary easing cycle began when inflation was still above the central banks' target ranges (excepting Brazil and Mexico). However, it had been on a downward trend for between 9 and 17 months from the peak of the inflationary episode (see Chart 1.a), and short-term inflation expectations fell within their target ranges (excepting Colombia).

Table 1
Monthly policy interest rate changes in the main economies and emerging market economies (bp) (a)

	2023										2024					
Brazil							-50	-50	-50	-50	-50		-50			-25
Chile						-100		-75	-50	-75		-100		-75	-50	-25
Colombia	+75		+25	+25						-25		-25		-50	-50	-50
Mexico		+50	+25									-25				
Peru	+25						-25	-25	-25	-25	-25	-25			-25	-25
Hungary							-75	-75		-75	-75	-100	-75	-50	-50	-25
Poland							-75	-25								
India		+25														
Indonesia	+25							+25						+25		
Thailand	+25		+25	+25			+25	+25								
Euro area		+50	+50	+25	+25		+25	+25								-25
United States		+25	+25	+25		+25										

SOURCE: Refinitiv.

a Red (blue) denotes monetary policy tightening (easing), while the intensity of the colour indicates the scale of the change.

Chart 1

1.a Year-on-year inflation and policy interest rates

Legend:
- Inflation. Year-on-year change
- Policy interest rate
- Inflation target range

Months (a)
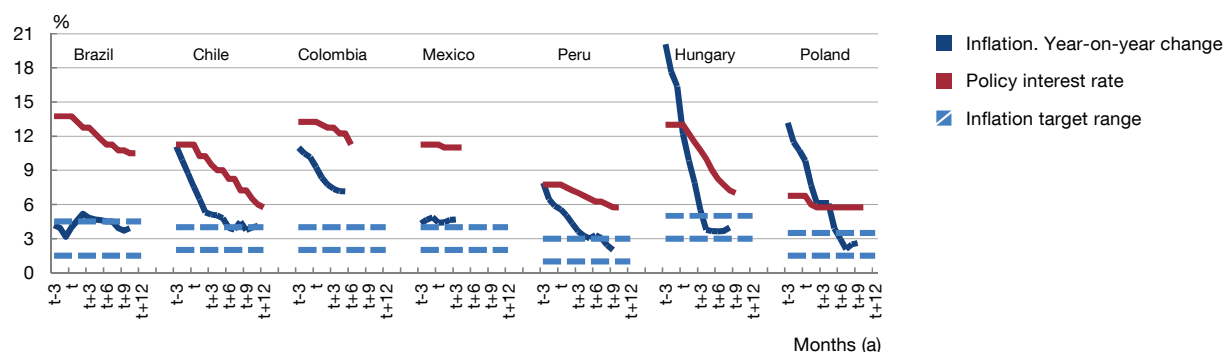
SOURCES: Refinitiv and national statistics.

a t denotes, for each country, the month immediately prior to the commencement of rate cuts. The month in which rate cuts began was: August 2023 in Brazil, July 2023 in Chile, December 2023 in Colombia, March 2024 in Mexico, September 2023 in Peru, October 2023 in Hungary and September 2023 in Poland.

2   The monetary policy easing is consistent with the business cycle and declining inflation

— Policy interest rates are in line with those resulting from the application of a broad set of Taylor rules. The Taylor rule accounts for the business cycle (output gap) and observed and expected changes in inflation relative to the target (inflation gap) (see Chart 2.a).

— Brazil and Mexico maintain a positive output gap, although it has narrowed, while the gap is negative in Colombia and Peru and has turned slightly positive in Chile, following marked growth in 2024 Q1 (see Chart 2.b).[1] With the exception of Brazil, inflation rates have fallen towards their targets.

Chart 2

2.a Policy interest rates and Taylor rules

Legend:
- Taylor rules. 10th-90th percentiles
- Median of Taylor rules (a)
- Policy interest rate
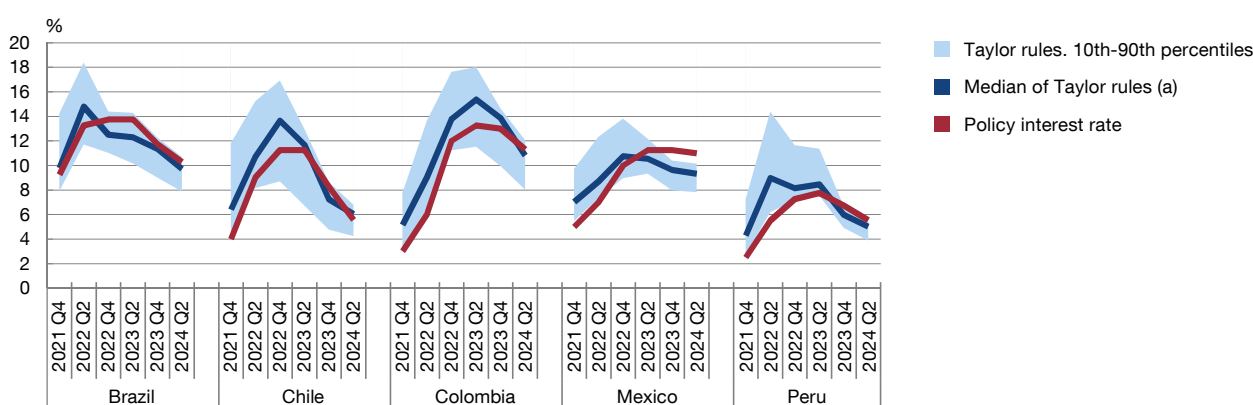
2.b Output gaps and inflation in Latin America (b)
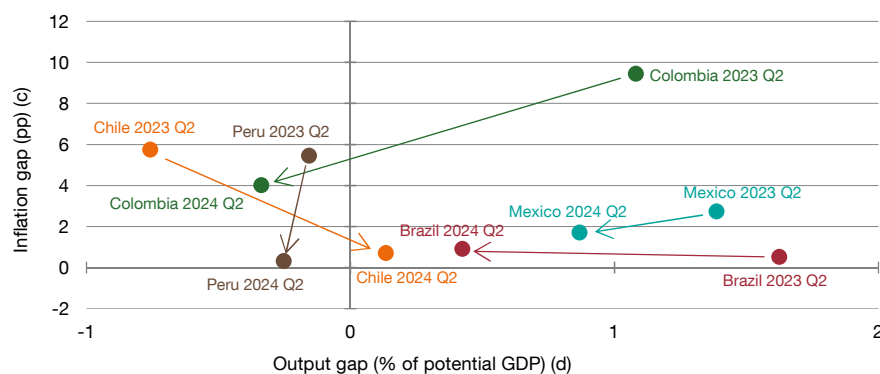
SOURCES: Refinitiv, LatinFocus Consensus, central banks, J.P. Morgan and Banco de España.

a The combination of possible values for coefficients and inflation (headline, core and expectations) makes it possible to calculate a set of Taylor rules, whose average and range between the 10th and 90th percentiles of the distribution are shown in the chart.
b The projections for inflation and GDP growth from LatinFocus June 2024 are used for 2024 Q2.
c Difference between inflation in the relevant quarter and the inflation target.
d The GDP trends in the economies are calculated using a two-sided Hodrick-Prescott filter with a smoothing parameter of 1,600 and using GDP forecasts up to 2025 Q4.
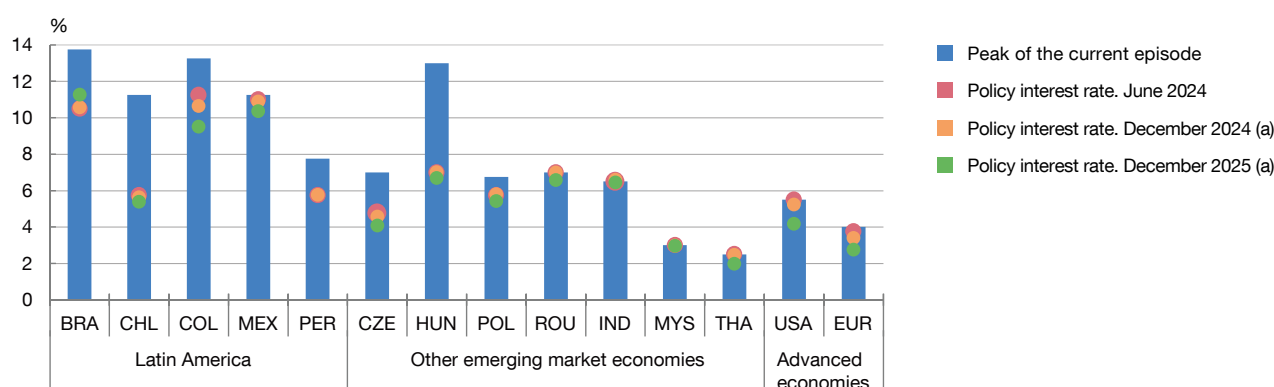
---

1 This assessment of the degree of economic slack is broadly consistent with the most recent inflation reports by the region's central banks. However, there is the occasional caveat, as in the case of Brazil, where the Banco Central do Brasil considers the output gap to be zero but warns that the relevant calculations are subject to considerable uncertainty.

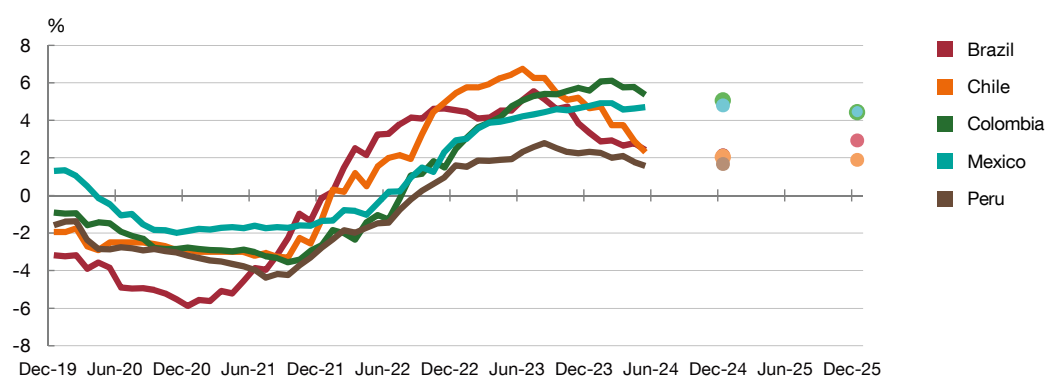## 3 Financial markets expect further cuts in the coming months

— Based on futures markets, few further reductions are expected in Brazil, Chile and Peru, the countries that implemented monetary easing earliest. There appears to be greater scope for rate cuts in Colombia and Mexico, although the latter would likely be limited in size (see Chart 3.a).

— If these markets' expectations are borne out, monetary policy at end-2025 would maintain a restrictive stance, as demonstrated by the positive spread between the real policy interest rate and the natural (or neutral) interest rate estimated by the region's central banks (see Chart 3.b).

— The size and duration of cuts will essentially depend on changes in inflation. In turn, this will be shaped by the performance of economic activity, the prices of the more volatile items in the consumption basket, the persistence of inflation, relative price changes, inflation expectations and US monetary policy developments.

— Inflation in Argentina is much higher and has its own specific traits, as detailed in Box 1.

Chart 3

3.a Policy interest rates

Legend:
- Peak of the current episode
- Policy interest rate. June 2024
- Policy interest rate. December 2024 (a)
- Policy interest rate. December 2025 (a)

3.b Real policy interest rates less equilibrium interest rates (b)

Legend:
- Brazil
- Chile
- Colombia
- Mexico
- Peru

SOURCES: National statistics, J.P. Morgan, LatinFocus and Refinitiv.

a   Priced in by the financial markets (calculated as the average of the last five days to 28 June).
b   Real policy interest rates calculated as the difference between the policy interest rates and the one-year-ahead inflation expectations, drawn from central bank surveys, except for December 2024 and December 2025, which are the policy interest rates according to futures or interest rate swaps less the inflation expected for end-2025 and end-2026, respectively, according to the LatinFocus June 2024 forecast. The equilibrium interest rate is calculated drawing on estimates by the region's various central banks.

DOWNLOAD

4 Economic growth in 2024 and 2025 will remain close to the potential growth rate for most of the region's economies
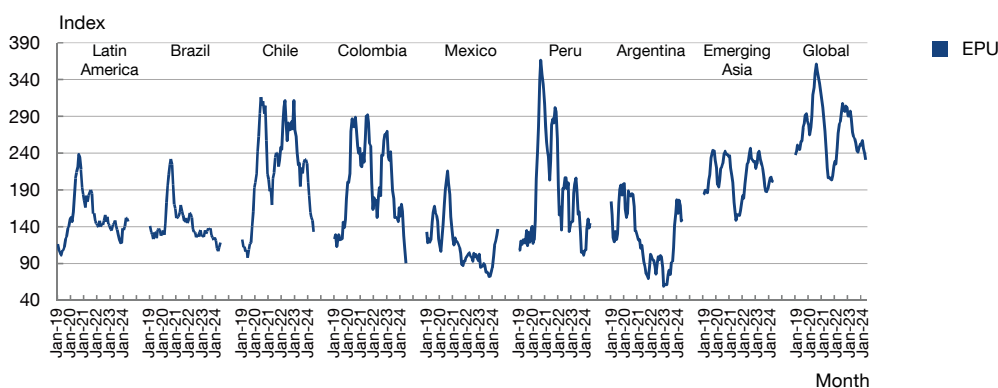
— Latin American economies will likely see growth at around their potential rates in 2024. This represents a slowdown from 2023 in Brazil and Mexico and an upturn in Chile and Colombia (which saw low growth in 2023 in the wake of overheating), as well as Peru (which was affected by negative supply shocks) (see Chart 4.a).

— Growth is being boosted by labour market resilience, policy rate cuts, the increase in commodity prices for some producer countries and the decline in economic policy uncertainty in some countries (see Chart 4.b).

— There are two major external downside risks to economic growth in the region: the possibility of the US monetary policy stance being tighter than anticipated by financial markets and the economic slowdown in China proving sharper than expected, owing to, for example, a worsening of difficulties in its real estate sector.[2]

Chart 4

4.a GDP growth forecasts for 2024 and 2025

Legend:
- Growth in 2023
- Consensus forecasts June 2024
- Consensus forecasts January 2024
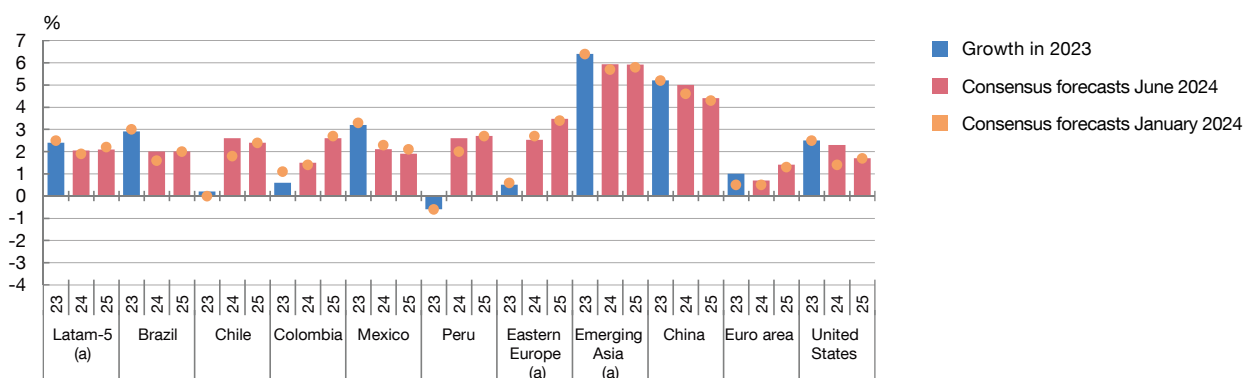
4.b Economic Policy Uncertainty Index (EPU) (b)

Legend: EPU

SOURCES: Banco de España, Refinitiv, Consensus Forecasts and national statistics.

a Latam-5: Brazil, Chile, Colombia, Mexico and Peru. Eastern Europe: Bulgaria, the Czech Republic, Hungary, Poland and Romania. Emerging Asia: India, Indonesia, Malaysia, the Philippines and Thailand. All aggregates weighted by purchasing power parity-adjusted GDP.
b Erik Andres-Escayola, Corinna Ghirelli, Luis Molina, Javier J. Pérez and Elena Vidal. (2022). "Using newspapers for textual indicators: which and how many?". Documentos de Trabajo, 2235, Banco de España. Economic policy uncertainty is an index based on words relating to economic policy uncertainty in local and international newspapers. Latest observation: June 2024.

DOWNLOAD

2 See p. 7 of the Report on the Latin American Economy. Second half of 2023.

5 Inflation in Latin America continued to ease gradually in 2024 H1

— Inflation continued to decline in 2024 H1 as a result of changes in the core component. The contribution of energy and food has not changed (see Chart 5.a).[3]

— Most of the decline in core inflation is down to slower growth in goods prices, while the services component is showing greater stickiness (see Chart 5.b).

— Services inflation in Colombia is especially noteworthy, being the main driver of the shallower and slower fall in inflation there relative to the more even developments seen in the other major inflation-targeting economies.

Chart 5

5.a Latin America: inflation and contributions (a)
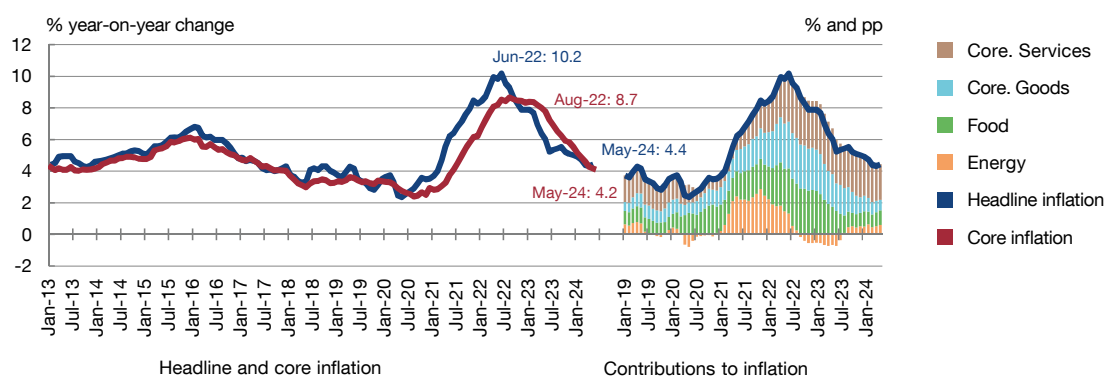
5.b Latin America: goods and services inflation (b)
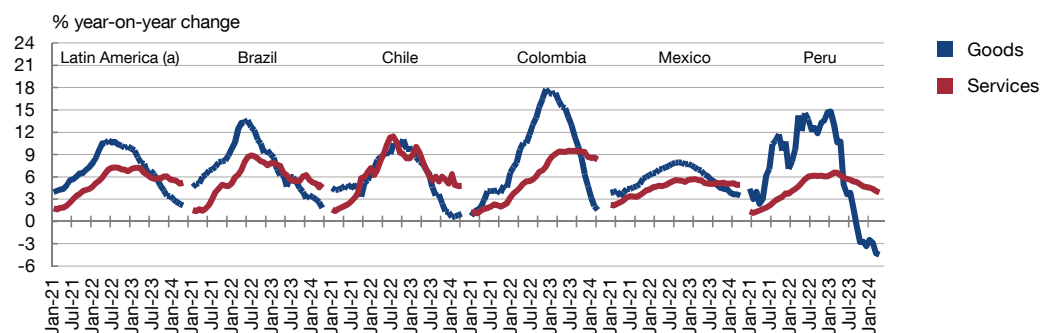
SOURCES: Refinitiv and national statistics.

a Aggregate of Brazil, Chile, Colombia, Mexico and Peru.
b Both the services and goods series exclude food and energy.

DOWNLOAD

---

3 For details of the upside risks to food inflation, see pp. 10-11 in the Report on the Latin American Economy. Second half of 2023.

6   Services inflation remains highly persistent …[4]

— Chart 6.a shows that services inflation was significantly more persistent in the recent inflationary episode and this persistence is still well above its pre-pandemic level. Inflation persistence is calculated by looking at the relationship between the monthly inflation rate at a given point and the previous value and taking a 48-month rolling window to track changes over time.[5]

— This increase in persistence is especially marked in Mexico and Colombia. The latter's central bank[6] believes that this increasing persistence in Colombia may be down to the larger size and/or number of shocks that have affected inflation ("inherited" persistence) or the greater sensitivity of inflation to such shocks ("intrinsic" persistence). Given the current high inflation, the Colombian central bank underlines the risk of the economy's degree of indexation having changed or changing in the future, hence the importance of continuing to study inflationary stickiness and its drivers.

Chart 6

6.a Core services inflation. Sensitivity to historical inflation (a)

- Range of coefficients (2005-2019)
- Median (2005-2019)
- April 2024
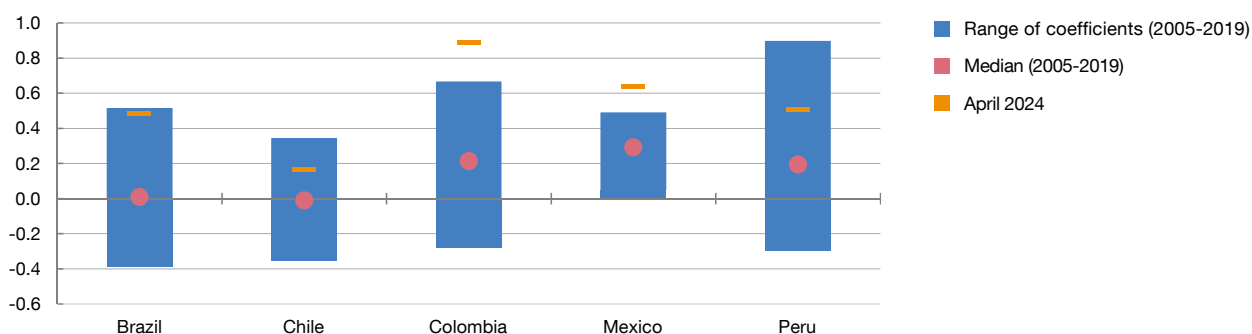
SOURCES: SECMCA and Refinitiv.

a Coefficient α of the regression equations: $\pi_t = \alpha\pi_{t-1} + \varepsilon_t$, estimated for maximum likelihood using four-year rolling windows; where π_t is the seasonally adjusted month-on-month core (services) inflation in month t. Monthly data are used with a sampling period from January 2005 to April 2024.

---

4 Jointly prepared with the Executive Secretariat of the Central American Monetary Council (SECMCA, by its Spanish initialism).

5 The method used is detailed in Juan Quiñónez Wu, Juan Manuel Serrano Fernández and Valery Solano Hidalgo. (2023). "Persistencia de la inflación en Centroamérica y República Dominicana". Notas Económicas Regionales, 154, Secretaría Ejecutiva del Consejo Monetario Centroamericano. The authors estimate an autoregressive model of order 1 for monthly, seasonally adjusted inflation in 48-month rolling windows with a sample from January 2000 to April 2024.

6 See José Vicente Romero-Chamorro, Nicolás Martínez-Cortés and Franky Galeano Ramírez. (2023). Box 1. Inflation Persistence in the Current Environment. *Monetary Policy Report – Banco de la República,* October 2023.

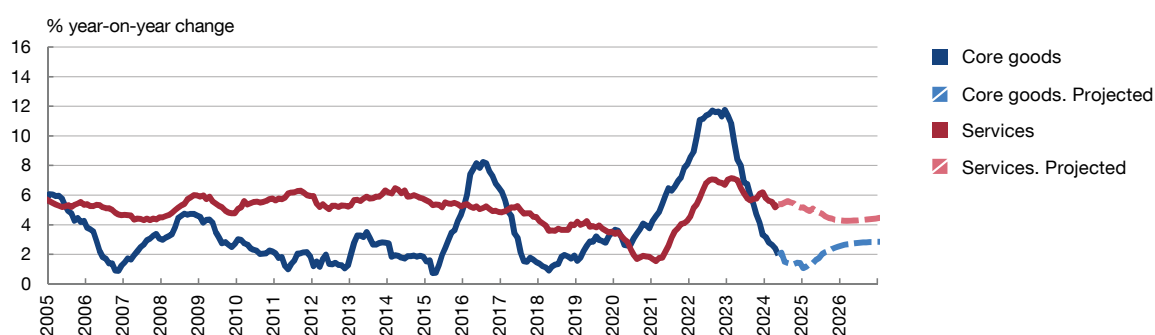# 7   ... that could continue in the short and medium term

— The long-term relationship between goods and services prices was severed during the pandemic, when the former began rising much faster than the latter, a trend that continued until just a few months ago (see Chart 7.a). This faster goods inflation was driven by consumption patterns and the emergence of bottlenecks. However, the year-on-year rate of change in services has risen above that of goods since September 2023, in line with pre-pandemic trends.

— According to an econometric model that adjusts historical developments in the relative prices of goods and services, the projected growth in services prices for the coming quarters stands at around 4-5%, against an average of 2% for goods prices (see Chart 7.b). If these dynamics materialise, services inflation in Latin America would remain high in the near term, especially in countries such as Mexico.

Chart 7

7.a Relative price of services and core goods in Latin America (a)

January 2020 = 100

Legend:
- Relative prices. Services/core goods
- Pre-pandemic trend (January 2005 to March 2020)
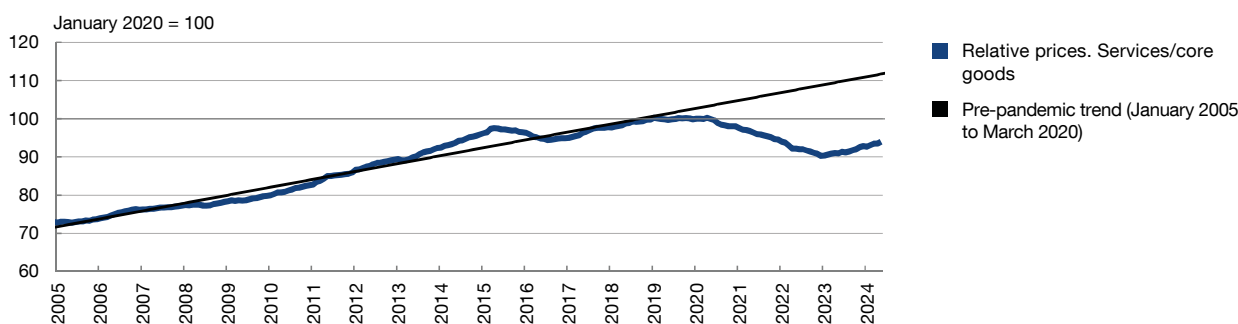
7.b Inflation in Latin America: services and core goods (a) (b)

% year-on-year change

Legend:
- Core goods
- Core goods. Projected
- Services
- Services. Projected

SOURCES: National statistics, IMF and Banco de España.

a   The Latin America aggregate is defined as the aggregate of Brazil, Colombia and Mexico, weighted by the purchasing power parity-adjusted GDP for 2023 according to the IMF.
b   Projections based on an error correction model estimated for each country for the period prior to the COVID-19 pandemic (January 2005 to March 2020). This model includes the following variables: the natural log of the price index of core goods (price index of goods excluding energy and food), the natural log of the index of services prices and the natural log of the global oil price.

DOWNLOAD

8   Inflation is expected to continue declining gradually in the coming quarters until it lies within the central banks' target ranges
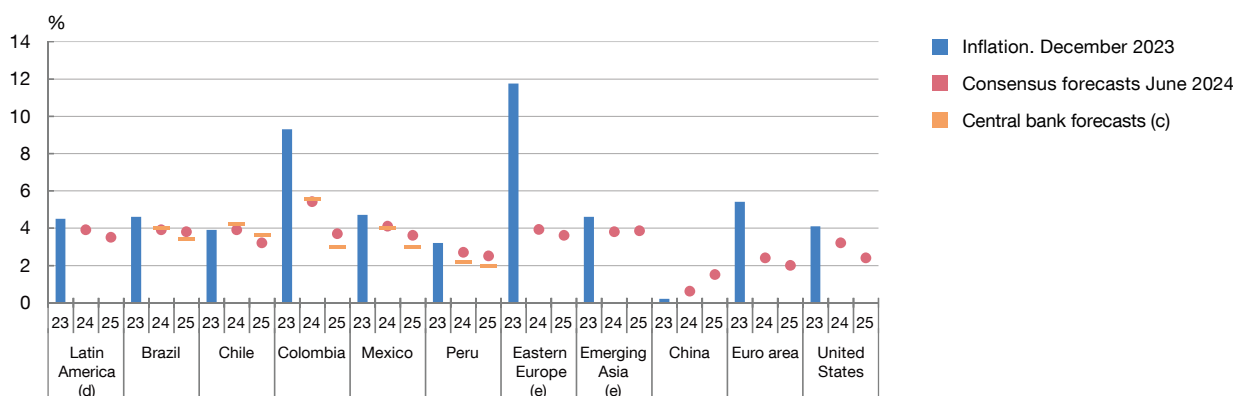
— According to the surveys conducted by the region's central banks, inflation will continue to decline gradually. It will fall within the target range in Peru in 2024 and in Mexico and Colombia the following year, after already having done so in Brazil and Chile in December 2023.[7] Nonetheless, with the exception of Chile, medium-term inflation expectations are likely to stand slightly above the specific inflation target (middle of the range) (see Chart 8.a).

— The consensus view tallies with the inflation expectations based on central bank surveys (see Chart 8.b). The central banks of some Latin American countries are slightly more optimistic (see Chart 8.b), although most note in their regular reports that upside risks are predominant.

Chart 8

8.a   Inflation: rates, targets and expectations

Legend:
- Target range (a)
- Inflation in May 2024
- Expectations for December 2024 (b)
- Expectations for December 2025 (b)
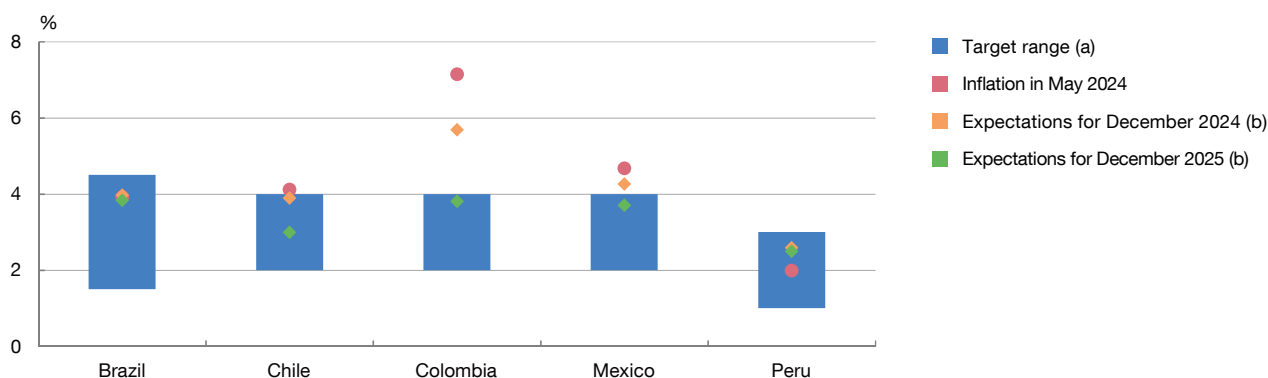
8.b   Inflation: rates and forecasts

Legend:
- Inflation. December 2023
- Consensus forecasts June 2024
- Central bank forecasts (c)

SOURCES: LatinFocus, Consensus Forecasts, Refinitiv and national statistics.

a   The inflation target is 3% for the central banks of Brazil, Chile, Colombia and Mexico and 2% for the central bank of Peru.
b   Inflation expectations for 2024 and 2025 are obtained from central bank surveys.
c   Central banks' forecasts for December 2024 and December 2025 published in their latest monetary policy reports.
d   Excluding Argentina and Venezuela.
e   Consensus Forecasts from June 2024. Eastern Europe: Bulgaria, the Czech Republic, Hungary, Poland and Romania. Emerging Asia: India, Indonesia, Malaysia, the Philippines and Thailand. All weighted by purchasing power parity-adjusted GDP.
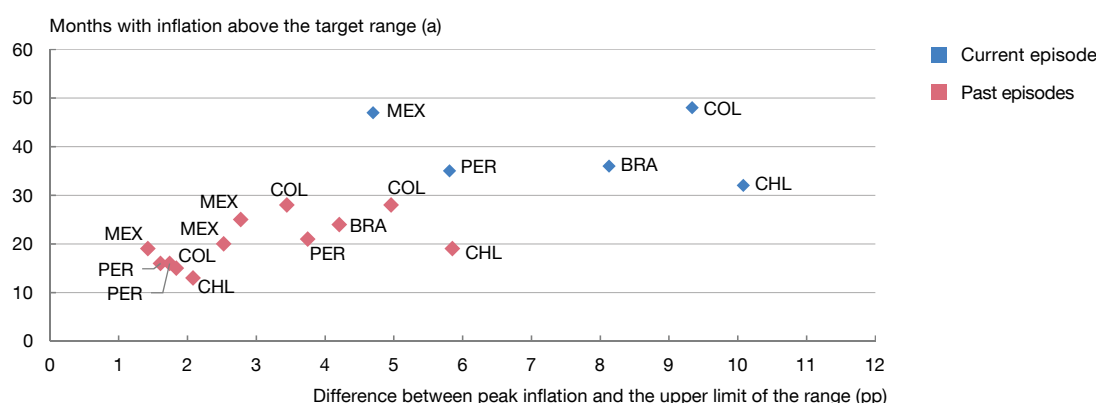
DOWNLOAD

---

7   The projections in the June 2024 Monetary Policy Report point to inflation in Chile rising in 2024 and 2025 and converging on the 3% target in 2026, as a result of the impact of the supply shock associated with the recent law to stabilise electricity rates.

9   Inflation expectations remain anchored

— The region's current inflationary episode is showing (or has shown) the largest deviations (in scale and duration) of inflation from the central banks' target ranges since inflation targeting began (around the turn of the century) (see Chart 9.a).

— Current long-term inflation expectations remain anchored, as they did throughout the recent inflationary episode, which is testament to the credibility of the region's central banks[8] (see Chart 9.b). However, a certain upward pressure has been noted in recent quarters in Brazil, which could be linked to fiscal policy conduct.

Chart 9

9.a The persistence of inflation above the target range in the recent episode

Months with inflation above the target range (a)

Difference between peak inflation and the upper limit of the range (pp)

- Current episode
- Past episodes

9.b Difference between long-term inflation expectations and the middle value of target ranges for inflation (b)

pp

- Brazil
- Chile
- Colombia
- Mexico
- Peru
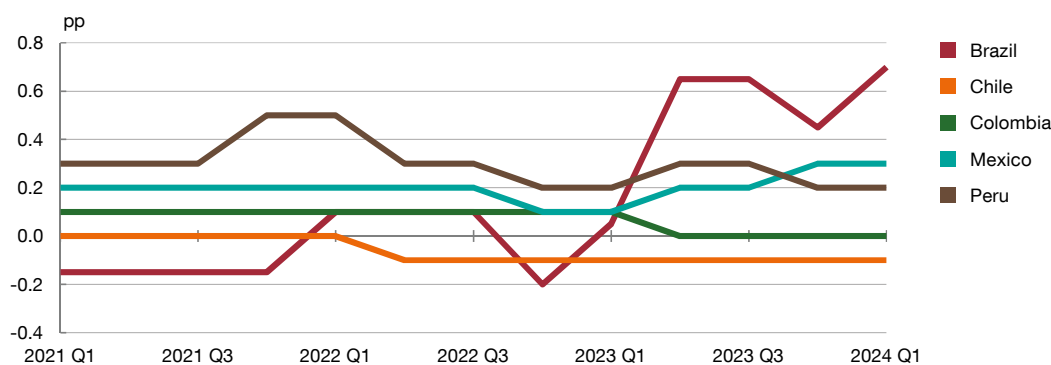
SOURCES: Refinitiv, LatinFocus and Consensus Forecasts.

a In Colombia and Mexico, where inflation is still above the target range in the current episode, the time reference is taken as the date on which the forecasts included in the LatinFocus June 2024 anticipate inflation falling within the range.
b Long-term inflation expectations taken from Consensus Forecasts at six to ten years.

DOWNLOAD

---

8   Juan Angel Garcia and Ricardo Gimeno. (2024). "Navigating high inflation: A joint analysis of inflation dynamics and long-term inflation expectations in Latin America". *Latin American Journal of Central Banking* 5(4).

10   The process of monetary policy easing could be influenced by US monetary policy decisions

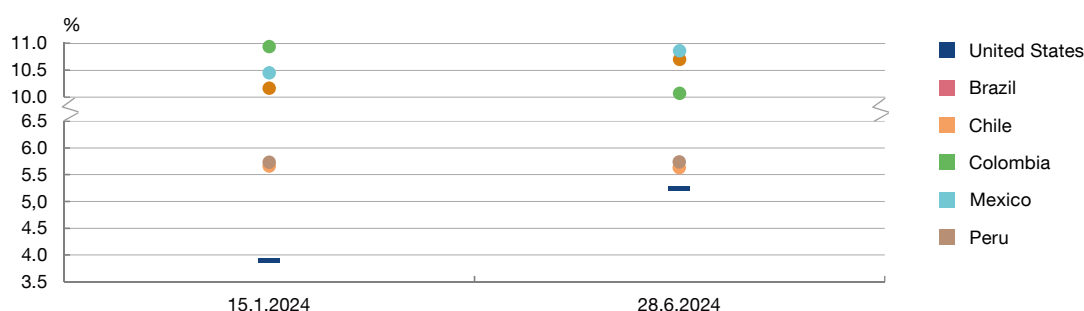— Financial markets are pricing in somewhat higher policy interest rates for end-2024 than they did at the start of the year for Brazil and Mexico, similar levels for Chile and Peru and lower levels for Colombia (see Chart 10.a). Meanwhile, markets have scaled back expectations for interest rate cuts by the Federal Reserve, pricing in a reduction of between 25 bp and 50 bp at end-June compared with 150 bp in January.

— Accordingly, the shallower path of rate cuts now expected in the United States appears, on average, to be having a moderate spillover effect on the region.

— One factor behind the currency depreciation against the US dollar is the narrowing of the policy rate differential between Latin American economies and the United States. That depreciation has been more pronounced in Chile and Brazil, the two economies with the largest cumulative policy rate cuts (see Charts 10.b and 1.a), and more recently in Mexico, following the country's legislative and presidential elections.

Chart 10

10.a Policy interest rates priced in by financial markets for December 2024

Legend: United States, Brazil, Chile, Colombia, Mexico, Peru

10.b Exchange rate against the US dollar

Day prior to the start of the policy rate cut cycle = 100

Appreciation of the local currency against the dollar

Days since the start of the rate cut cycle

Legend: Brazil, Chile, Colombia, Mexico, Peru
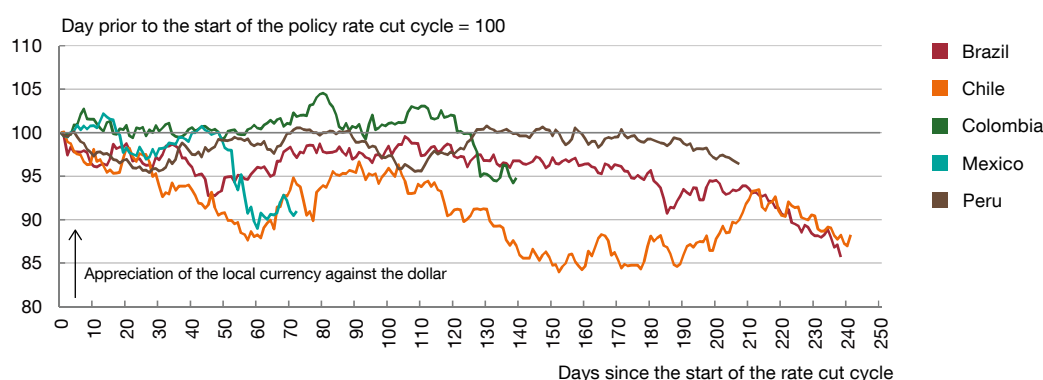
SOURCES: J.P. Morgan and Refinitiv.

11   Higher commodity prices are partially countering the impact on exchange rates caused by monetary policy divergence between the United States and Latin American countries

— The region's exchange rates depreciated against the US dollar in 2024 H1. According to a model that breaks down the exchange rate determinants, these currency movements have been influenced by opposing factors (see Chart 11.a).
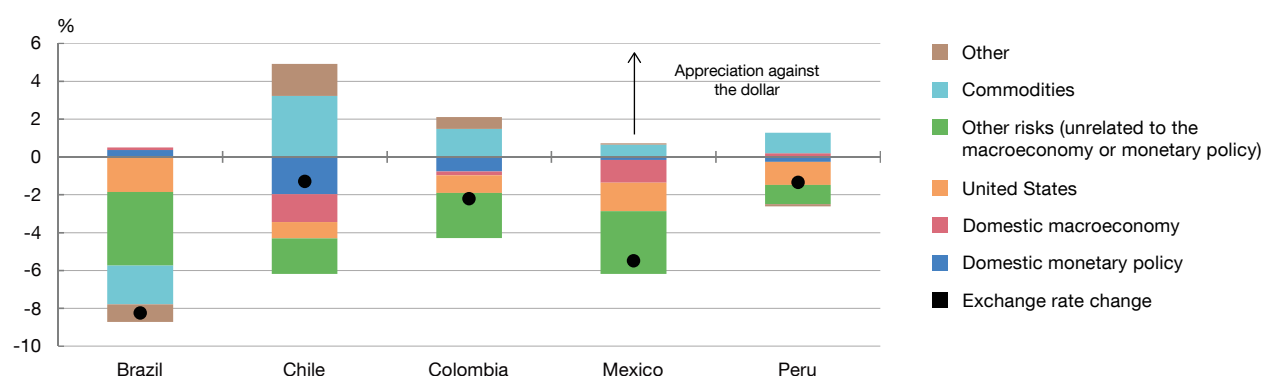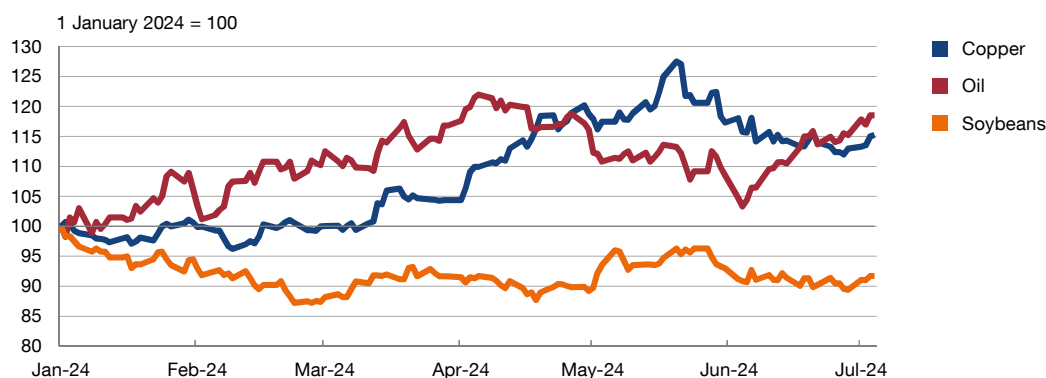
— On the one hand, the regional currency depreciation was driven by stronger risk aversion, US-related factors (primarily expectations of US policy rates remaining higher for longer) and lower policy rates in the region (particularly in Chile). On the other, it was mitigated by higher energy commodity and metal prices, given that several Latin American economies are producers and exporters of such commodities[9] (see Chart 11.b).

Chart 11

11.a   Breakdown of the exchange rate change against the dollar (a) (b)

Legend:
- Other
- Commodities
- Other risks (unrelated to the macroeconomy or monetary policy)
- United States
- Domestic macroeconomy
- Domestic monetary policy
- Exchange rate change

11.b   Commodity prices (c)

1 January 2024 = 100

Legend:
- Copper
- Oil
- Soybeans

SOURCES: Banco de España and Refinitiv.

a   Breakdown of the exchange rate movements against the dollar, estimated drawing on a Bayesian VAR model and taking each country's short and long-term interest rates, the stock markets of each country and the United States, the long-term interest rate spread between the country and the United States and the exchange rate itself, plus commodity prices as an exogenous variable. Identification is via the sign-restriction approach, similar to that used in David Lodge, Ana-Simona Manu and Ine Van Robays. (2023). "China's footprint in global financial markets". ECB Working Paper Series, 2861, European Central Bank.
b   Change since 15 January 2024, when the US policy interest rate priced in for end-2024 reached its lowest point.
c   Copper, oil and soybeans are chosen as the most representative production and export commodities for Latin American countries (Chile and Peru: copper; Colombia and Mexico: oil; Argentina and Brazil: soybeans).

---

9   See Chart 5.2 of *Report on the Latin American economy. First half of 2020* for a breakdown of the main Latin American economies' exports by product type.

12 Financial conditions in the region are no longer easing

— Financial conditions in Latin America,[10] which had been easing since October 2023, began to tighten from March of this year (see Chart 12.a), despite the continuation of policy rate cuts, exchange rate depreciation and stock market gains. In other emerging market regions, such as Asia, financial conditions have tightened more moderately in the same period, despite policy rates not being reduced or even rising in some jurisdictions (Indonesia).

— This tightening is related to somewhat less benign developments in the cost of public debt in Latin America than in other emerging regions (see Chart 12.b), owing to the anticipated deterioration of public finances in certain countries (see Box 2), the lower profitability of carry trades and certain idiosyncratic factors, such as the post-election dynamics observed in Mexico.

Chart 12

12.a Financial conditions indices (a)
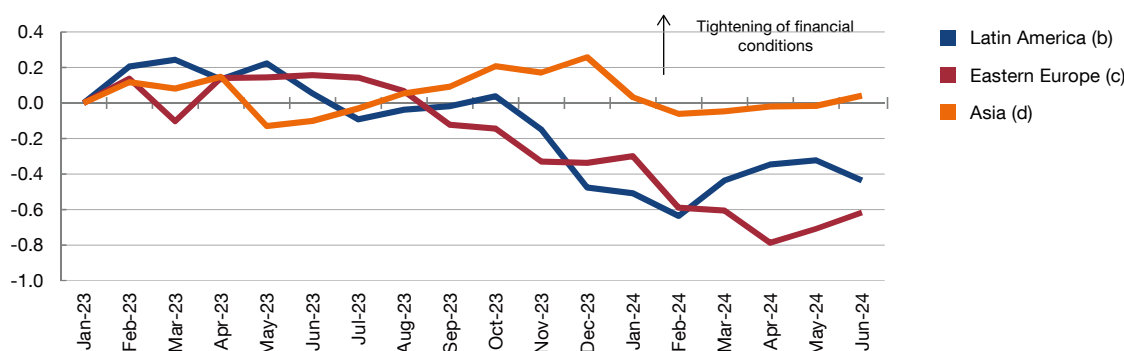
12.b Financial market variables
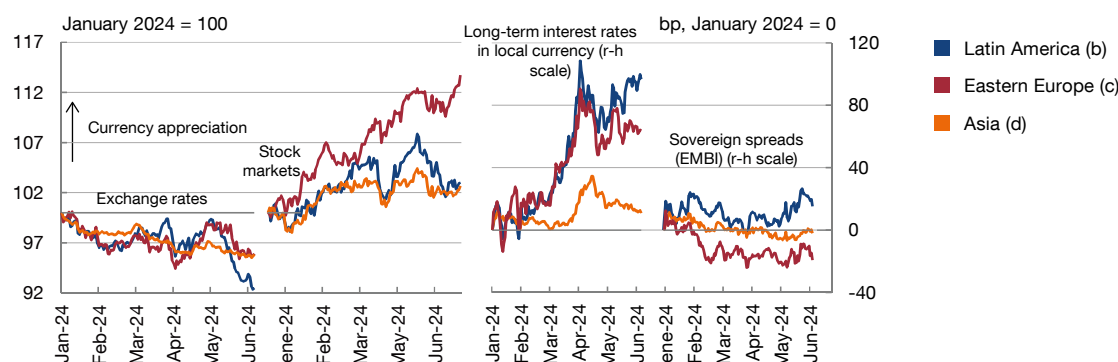
SOURCES: Banco de España, Refinitiv and national statistics.

a An increase denotes a tightening of financial conditions.
b Average of Brazil, Chile, Colombia, Mexico and Peru.
c Average of the Czech Republic, Poland and Hungary.
d Average of China, South Korea, the Philippines, India, Indonesia, Malaysia and Thailand.

---

10 For a description, see Table 3 of *Report on the Latin American economy. First half of 2018.*

13   Portfolio capital flows have remained somewhat buoyant

— Broadly speaking, portfolio capital inflows into the region were positive in 2024 H1 (see Chart 13.a), in line with the trends observed in other emerging economies and driven by external demand for debt securities. These inflows occurred despite the faster and more marked decrease in policy rates compared with other emerging market regions (see Table 1). That decrease has lowered the profitability of carry trades in some economies, prompting some investors to shift their investments in Latin America to other countries within the region (see Chart 13.b).

Chart 13

13.a Portfolio capital flows

% of GDP, January 2022 = 0

Latin America
Asia excl. China
China
Eastern Europe
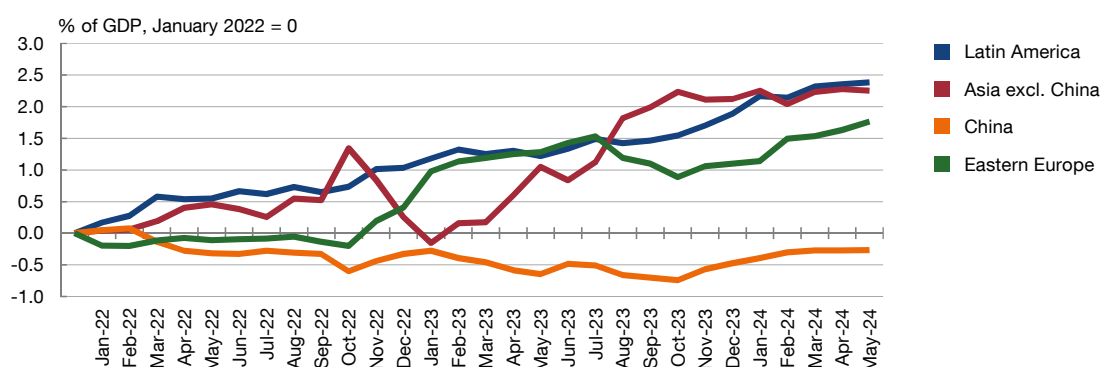
13.b Indicator of carry trade profitability (a)

Increase in carry trade profitability

Brazil
Chile
Mexico
India
Indonesia
Philippines
Poland
South Africa
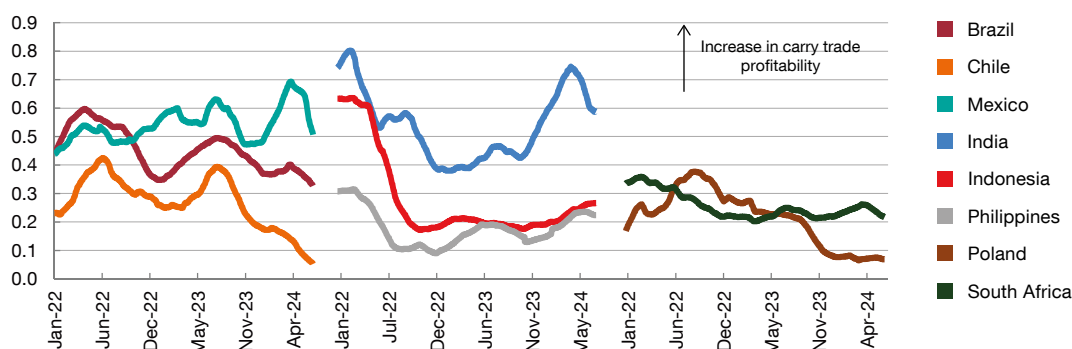
SOURCES: Banco de España, Institute of International Finance and Refinitiv.

a Calculated as the ratio between the interest rate spread between 1-month deposits in the national currency and in US dollars, and the exchange rate volatility of each currency against the dollar.

DOWNLOAD

14   Portfolio flows would suffer under a scenario of more aggressive US monetary policy tightening

— Portfolio capital inflows into Latin America are particularly sensitive to shocks related to global risk or the appreciation of the US dollar. The flow responses are also statistically significant and have the expected sign in the case of commodity prices (positive), domestic economic policy uncertainty (negative) and US monetary policy (negative), where the effects are more persistent (see Chart 14.a).

— A delay in US monetary easing would have a negative impact on portfolio inflows. Specifically, under a scenario in which the Federal Reserve keeps policy rates at the present levels for longer than expected – with this resulting in higher global risk, dollar appreciation and a downturn in commodity prices – the region's portfolio capital inflows, based on his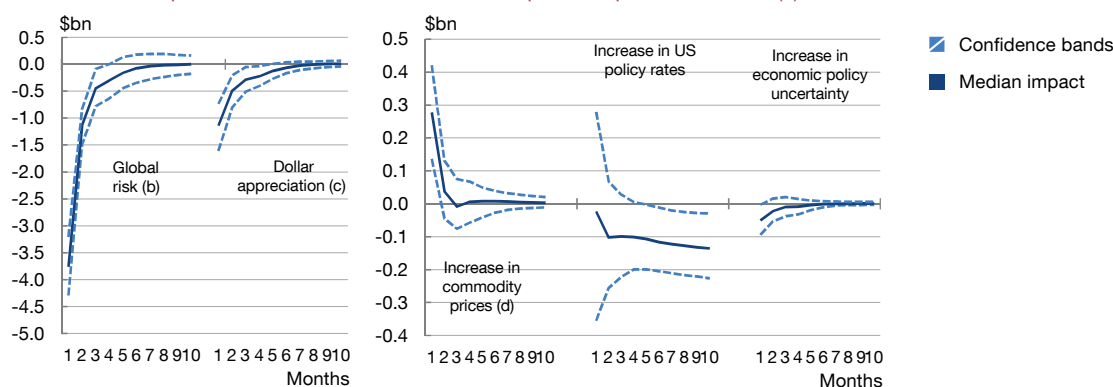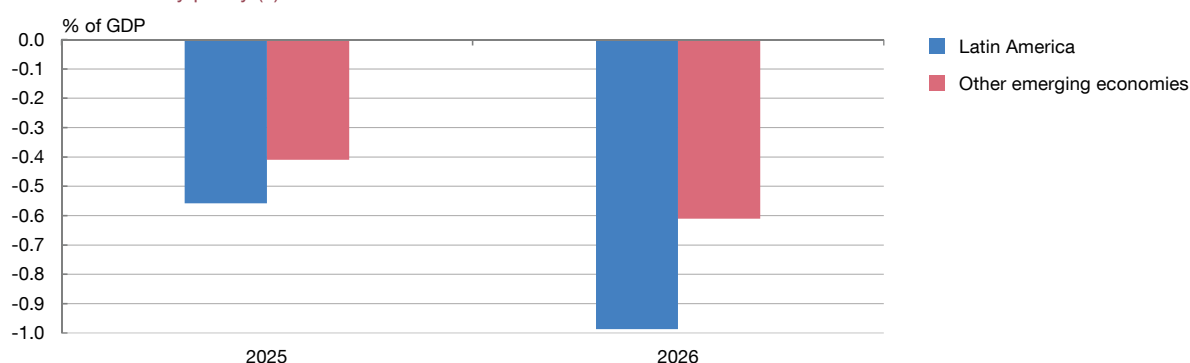torical correlations with these three variables, would decrease by 0.5 pp of GDP in 2025 and by 1 pp of GDP in 2026 (see Chart 14.b).

Chart 14

14.a Portfolio capital flows towards Latin America: impulse response functions (a)

14.b Effect on portfolio capital flows of a tightening of global financial conditions stemming from tighter than expected US monetary policy (e)

SOURCES: Institute of International Finance, Refinitiv and Banco de España calculations.

a   Derived from a monthly Bayesian VAR model with the five factors represented, in addition to the growth differential between emerging and advanced economies and reserves as a percentage of GDP, using Cholesky identification and three variable lags, between January 2010 and March 2024. The shocks have been normalised to 1% and the confidence bands use the 68% interval.
b   Spread between the high-yield bond and the 10-year US Treasury bond.
c   US dollar nominal effective exchange rate.
d   Change in the Standard & Poor's overall commodity index.
e   Deviations from the baseline scenario (US policy interest rates performing as priced in by financial markets in the final week of June 2024) of a scenario in which those policy rates remain at the current level until end-2026, prompting global risk aversion to rise by 132 bp in 2024, 2025 and 2026, the dollar to appreciate by 4.1% each year and commodity prices to fall by 10.9% in 2024, 2025 and 2026 (see Molina and Viani (2019) in footnote 11).

15 Foreign direct investment into the region contracted slightly

— In 2023, foreign direct investment (FDI) into the region slowed slightly. However, since early 2022 Latin America has accumulated more direct investment flows than other emerging economies (see Chart 15.a). FDI held at around 3% of regional GDP, with marked declines in Brazil, Mexico and Peru. Conversely, it increased to around 6% of GDP in Chile and Colombia. The current account deficit declined in all countries and was covered by inward FDI. Therefore the external financing risks appear contained (see *Indicators of vulnerability in emerging countries which are material for the Spanish banking system*).

— According to the estimates available, FDI inflows into the region are shaped less by financial factors (which have a greater impact on portfolio investment) than by more structural factors. For instance, a significant drop in commodity prices – a proxy for future returns on investment in producing countries – or a lasting increase in economic policy uncertainty (as measured by the EPU index) – perceived as a loss of institutional quality[11] – would have significant adverse effects on FDI into Latin America (see Chart 15.b).

Chart 15

15.a Inward FDI (cumulative)

% of GDP

Legend: Latin America; Asia excl. China; Eastern Europe
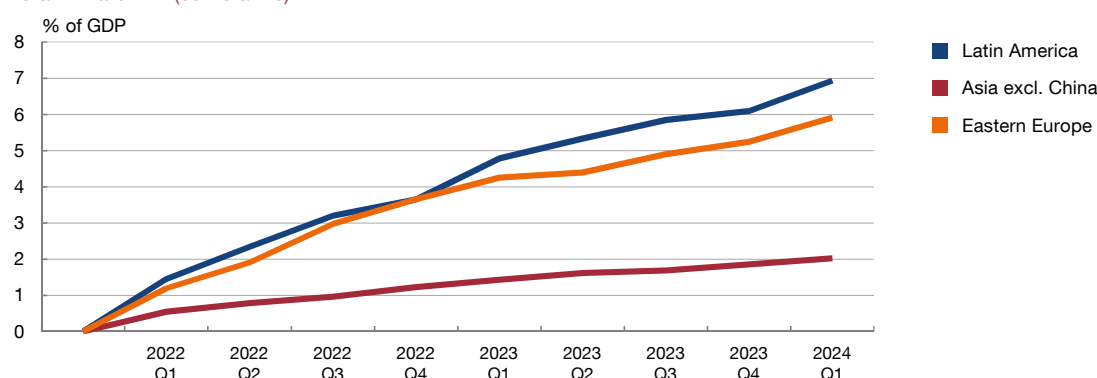
15.b Change in FDI into the region in response to adverse shocks (a)

% of GDP

Commodity prices (b)   EPU index (c)
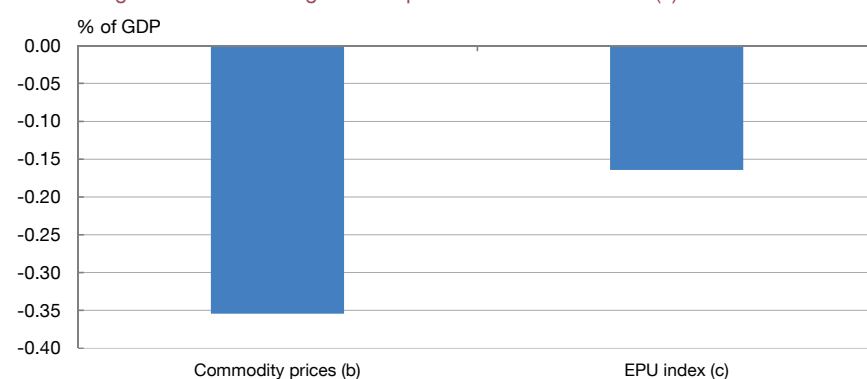
SOURCES: Refinitiv and Banco de España calculations.

a Panel data model for seven Latin American countries (Argentina, Brazil, Chile, Colombia, Mexico, Peru and Uruguay), from 1999 Q1 to 2023 Q4, based on Molina and Viani (2019).
b A drop in commodity prices of 48.8%, similar to that recorded between 2008 Q2 and 2009 Q1.
c A 150% increase in the EPU index, similar to that recorded between 2019 Q2 and 2020 Q3.

---

11 The model is based on Molina and Viani (2019). "Capital flows to emerging economies: recent developments and drivers". *Economic Bulletin – Banco de España,* 2/2019, Analytical Articles.

16   The fiscal stance, which appears looser in 2024, may also lead to more gradual rate cuts than expected

— In contrast to the tight monetary policy stance still evident across all countries in 2024, the fiscal policy stance is more varied. For instance, the fiscal policy stance appears to have become expansionary in Mexico, coinciding with the election year, and has become far less contractionary in Colombia (see Chart 16.a). Conversely, in Brazil, Chile and Peru fiscal policy has turned slightly contractionary. For most Latin American countries, analysts expect a more expansionary fiscal policy stance than anticipated by governments (see Box 2 for an analysis of public debt scenarios in Brazil and Mexico). This could lead to tighter monetary policy and less benign financial conditions in those countries.

— Public debt is expected to grow slightly in 2024, driven by high interest rates (which affect the debt interest burden) and in some instances by primary fiscal deficits. As a result, public debt is expected to hold at historically high levels in nearly all countries (see Chart 16.b). All this when public revenues stand well below the average for the Organisation for Economic Co-operation and Development countries (see Box 3).

Chart 16

16.a Monetary and fiscal policy stance
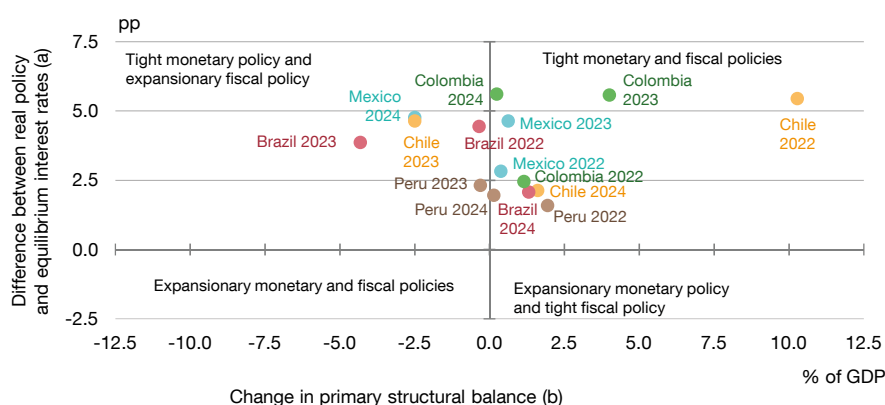
16.b Public debt
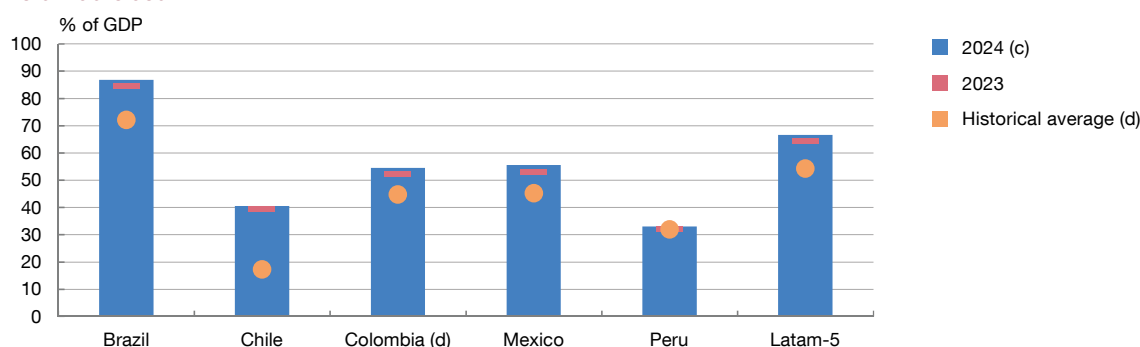
SOURCES: Refinitiv and IMF (Fiscal Monitor and World Economic Outlook, April 2024).

a   Real policy interest rates calculated as the difference between policy interest rates and 1-year-ahead inflation expectations (year-end data), drawn from central bank surveys, and the equilibrium interest rate based on the estimates for each economy by the corresponding central bank. The real interest rate for 2024 is calculated as the difference between the policy rates priced in by the markets for end-2024 and the expected inflation for 2025 taken from LatinFocus.
b   Difference between the primary structural balance in one year and that of the previous year (taken from the IMF's April 2024 Fiscal Monitor). An increase in the balance indicates a tighter policy and a decrease indicates a more expansionary policy.
c   Estimates from the IMF's April 2024 WEO.
d   Historical average: 2000-2023.

DOWNLOAD

17 Credit growth has rallied somewhat following the onset of policy interest rate cutting cycles

— The growth of bank lending in the region, which had been moderating since early 2023, tended to pick up slightly once central banks began to drop interest rates. This was particularly true of consumer lending (see Chart 17.a). These developments in lending may also be influenced by monetary policy developments in other jurisdictions (see Box 4).

— The demand for loans to households (consumer loans and mortgages) and firms remained sluggish, while credit conditions loosened for firms and consumer lending (see Chart 17.b) according to central bank surveys on credit conditions in 2024 Q1.

Chart 17

17.a Changes in credit to the non-financial private sector (real) in Latin America (a)
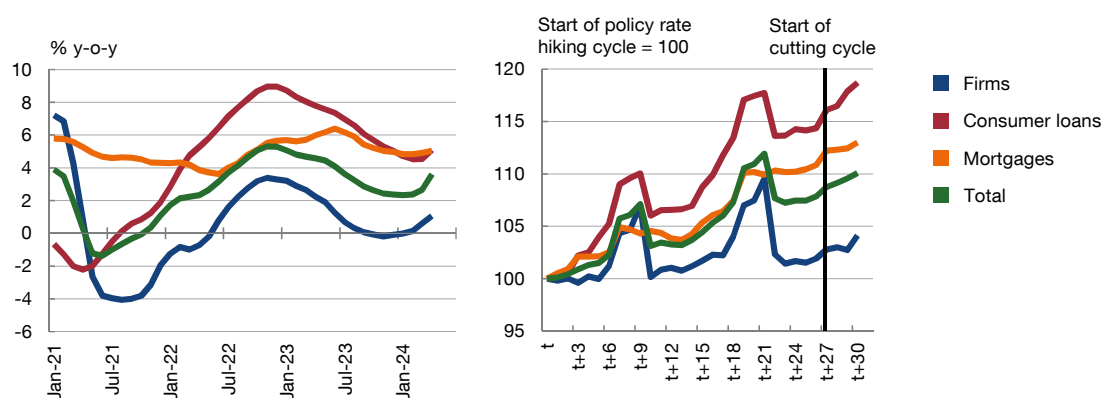
17.b Credit conditions index: Latin America (b)
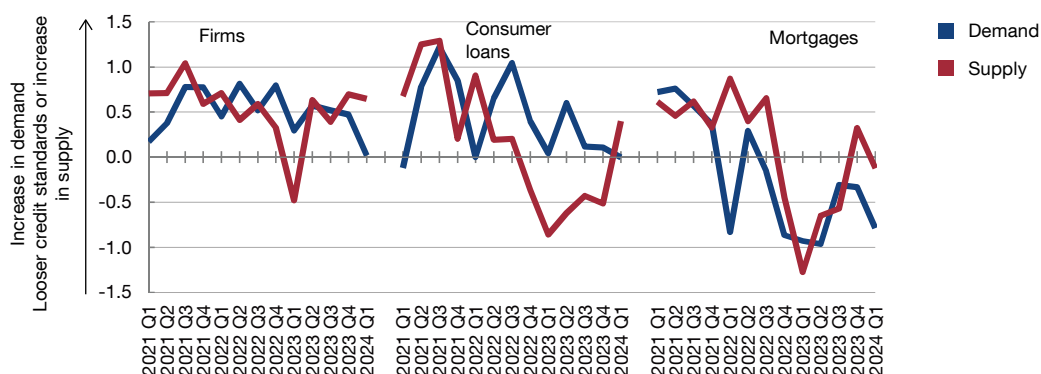
SOURCES: Banco de España, Refinitiv and national statistics.

a t denotes the start, in each country, of the most recent monetary tightening cycle. Aggregate of Brazil, Chile, Colombia, Mexico and Peru, with GDP in purchasing power parity terms.
b Aggregates calculated using GDP weightings in purchasing power parity terms. Latest data: 2024 Q1.

18 **Changes in policy interest rates have been passed through to bank lending rates, although with some unevenness across countries and segments**

— Changes in policy interest rates have been passed through to borrowing costs, although somewhat unevenly in both the rate hiking cycle (see Chart 18.a) and the rate cutting cycle (see Chart 18.b). Changes in policy interest rates appear to be passed through nearly completely to rates on loans to consumers, but less so to firms, while mortgage rates are barely affected.

Chart 18

18.a Policy interest rates and loan interest rates
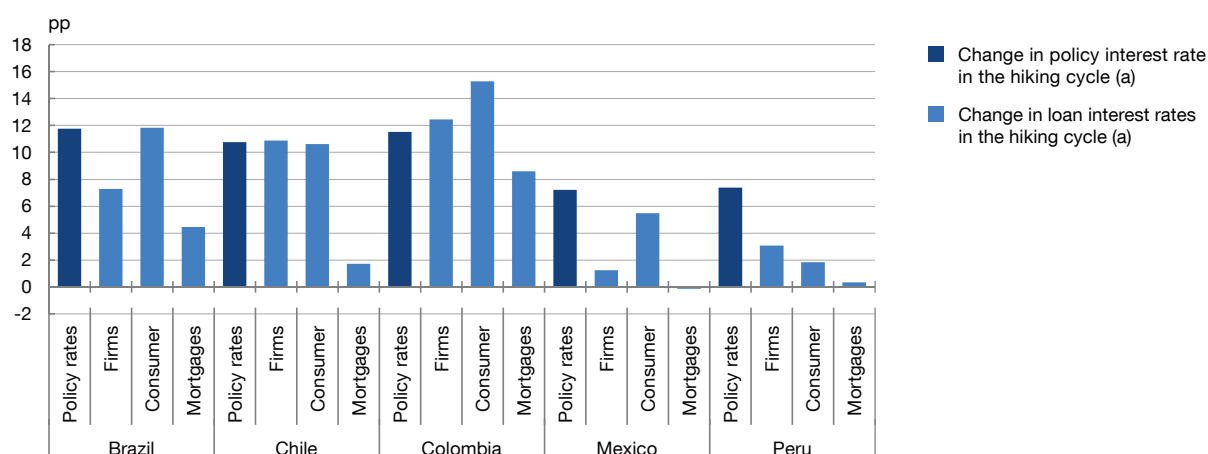
18.b Policy interest rates and loan interest rates
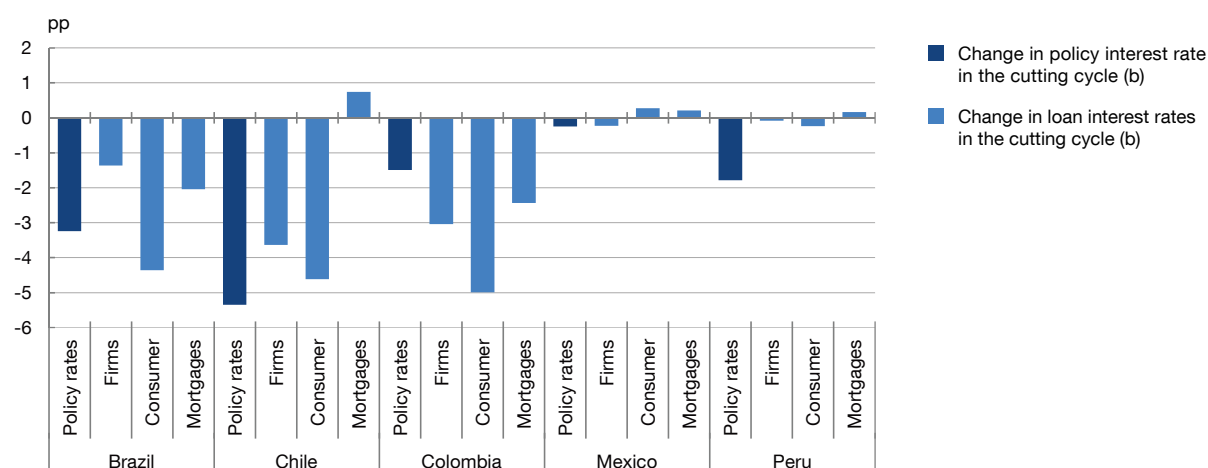
SOURCES: Banco de España and Refinitiv.

a February 2021 to July 2023 (Brazil), June 2021 to June 2023 (Chile), August 2021 to October 2023 (Colombia), July 2021 to February 2024 (Mexico) and July 2021 to September 2023 (Peru).
b From July 2023 (Brazil), June 2023 (Chile), October 2023 (Colombia), February 2024 (Mexico) and September 2023 (Peru) to May 2024 in all cases.

19 Non-performing loans have stabilised at high levels

— Non-performing loans (NPLs) steadied somewhat in Brazil and Mexico, while they remained on the rise in the other countries (see Chart 19.a), against a backdrop of slowing activity. NPL ratios stood above their historical averages in May, especially in some segments in Colombia and Peru.

— However, the composite early warning indicators of banking crises remain below the risk threshold, showing no significant change in 2024 Q1 (see Chart 19.b). The risks to banking systems in the region remain, therefore, contained for the time being (see Figure 1, which summarises the respective Financial Stability Reports, and the *Indicators of vulnerability in emerging countries which are material for the Spanish banking system*).

Chart 19

19.a Non-performing loans (a)
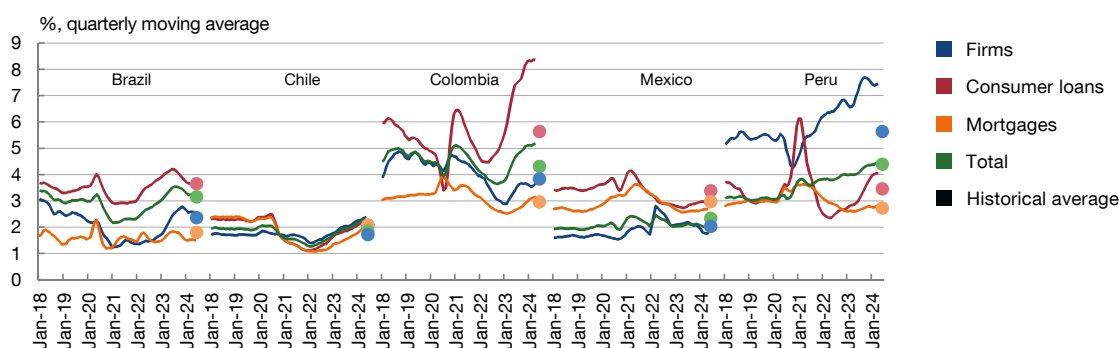
19.b Vulnerability to a banking crisis (b)
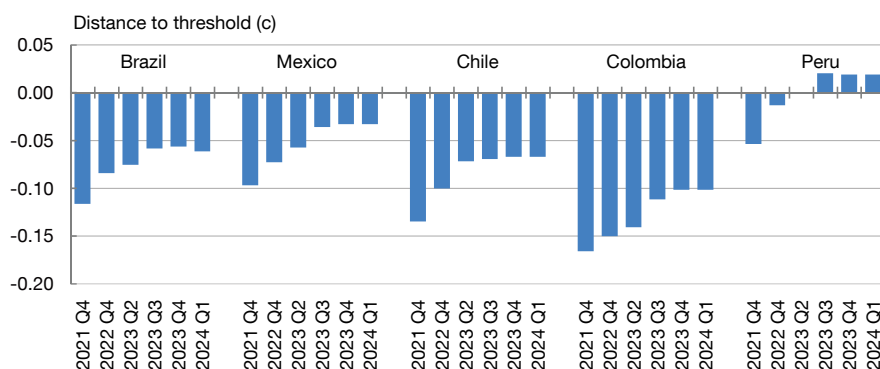
SOURCES: Banco de España, Refinitiv and national statistics.

a Percentage of total loans extended. The dots denote the historical average (2015-2024) for each type of loan and each country.
b Probability of vulnerability, estimated using a logit probability model for banking crises with pre-selected variables based on the emission of correct signals six quarters before a crisis (ROC curve threshold).
c The threshold is defined as the percentile above which the synthetic indicator has led to banking crises in the past, in a sample of 23 emerging market economies. See Irma Alonso-Álvarez and Luis Molina (2023), "How to foresee crises? A new synthetic index of vulnerabilities for emerging economies". Economic Modelling, Volume 125.

Table 2

Latin America: main economic indicators

	2007-2022 average	2023	IMF forecasts (April 2024 WEO)			2022		2023				2024
			2024	2025	2026	Q3	Q4	Q1	Q2	Q3	Q4	Q1
GDP (change on previous period) (a)												
Latin America and the Caribbean (b)	2.0	2.3	2.0	2.5	2.7	0.7	0.1	0.9	0.1	0.6	-0.2	0.3
Argentina	1.7	-1.6	-2.8	5.0	4.5	-0.1	-2.3	1.1	-2.4	2.3	-2.5	-2.6
Brazil	1.8	2.9	2.2	2.1	2.1	1.0	0.2	1.2	0.9	0.1	-0.1	0.8
Mexico (c)	1.5	3.2	2.4	1.4	1.9	1.0	1.0	0.7	0.8	0.8	0.0	0.3
Chile	3.1	0.2	2.0	2.5	2.4	-0.1	0.0	0.7	-0.9	0.9	0.1	1.9
Colombia (c)	3.7	0.6	1.1	2.5	3.0	0.5	-0.1	0.5	-0.7	-0.4	1.0	1.1
Peru	4.3	-0.6	2.5	2.7	2.3	0.0	0.7	-0.1	-1.0	0.2	-0.1	0.5
CPI (year-on-year rate) (a)												
Latin America and the Caribbean (b)	6.0	14.4	16.7	7.7	5.6	9.2	8.0	7.5	5.9	5.4	5.1	4.7
Argentina	25.5	133.5	249.8	59.6	31.8	77.6	91.8	102.0	113.0	125.9	172.8	273.5
Brazil	5.8	4.6	4.1	3.0	3.1	8.7	6.1	5.3	3.8	4.6	4.7	4.3
Mexico	4.4	5.5	4.0	3.3	3.0	8.5	8.0	7.5	5.7	4.6	4.4	4.6
Chile	3.9	7.6	3.2	3.0	3.0	13.7	13.0	11.8	8.7	5.6	4.6	4.0
Colombia	4.4	11.7	6.4	3.6	3.0	10.8	12.6	13.3	12.4	11.4	10.0	7.8
Peru	3.3	6.3	2.3	2.0	2.0	8.6	8.4	8.6	7.4	5.5	3.7	3.1
Budget balance (% of GDP) (a) (d)												
Latin America and the Caribbean (b)	-4.1	-5.0	-4.6	-3.3	-3.1	-3.7	-3.6	-4.3	-4.7	-5.2	-5.9	-6.1
Argentina	-3.8	-6.0	0.01	0.7	-0.4	-4.0	-3.8	-4.2	-4.3	-4.2	-5.9	-3.3
Brazil (e)	-5.5	-8.9	—	—	—	-4.2	-4.6	-6.0	-6.3	-7.5	-8.9	-9.1
Mexico (e)	-3.1	-3.8	—	—	—	-3.3	-3.4	-3.7	-4.2	-4.5	-3.8	-5.0
Chile	-1.1	-2.4	-1.9	-1.2	-0.3	0.4	1.1	0.8	-1.8	-2.3	-2.4	-3.4
Colombia	-2.9	-3.3	-3.3	-3.1	-2.8	-6.0	-4.1	-3.7	-2.7	-2.3	-3.3	-3.9
Peru	-0.9	-3.5	-2.5	-1.8	-1.1	-1.8	-2.2	-2.8	-3.7	-3.5	-3.6	-4.1
Public debt (% of GDP) (a)												
Latin America and the Caribbean (b)	57.5	73.7	68.1	68.0	67.8	63.3	63.7	63.1	62.9	62.9	—	—
Argentina	63.2	-	86.2	79.5	69.5	64.2	67.4	69.3	65.6	69.4	—	—
Brazil	73.3	84.7	86.7	89.3	90.9	83.2	83.9	81.7	83.5	81.5	84.7	85.5
Mexico (e)	49.0	47.5	—	—	—	49.6	48.3	48.8	48.0	48.8	47.5	49.5
Chile	19.8	39.4	40.5	40.8	41.3	37.2	37.8	38.0	38.3	38.8	39.4	39.6
Colombia	46.3	55.0	54.4	55.6	55.7	58.1	59.4	57.9	55.9	55.4	55.0	56.0
Peru	27.3	32.9	33.0	33.3	33.2	34.2	33.9	33.0	32.3	32.5	32.9	32.3
Current account balance (% of GDP) (a) (d)												
Latin America and the Caribbean (b)	-1.9	-1.2	-1.0	-1.2	-1.2	-3.0	-2.6	-2.7	-2.4	-1.7	-1.4	-1.1
Argentina	-0.9	-3.3	0.9	0.9	1.0	-0.9	-0.6	-1.3	-2.1	-2.5	-3.2	-2.4
Brazil	-2.4	-1.4	-1.4	-1.5	-1.7	-3.0	-2.5	-2.5	-2.3	-1.6	-1.4	-1.5
Mexico	-1.2	-0.3	-0.8	-0.8	-0.9	-1.2	-1.2	-1.7	-1.4	-0.9	-0.3	0.1
Chile	-3.2	-3.5	-3.9	-3.7	-3.6	-9.4	-8.6	-7.0	-5.1	-4.1	-3.5	-3.8
Colombia	-3.9	-2.7	-3.0	-3.3	-3.4	-6.4	-6.1	-5.5	-4.8	-3.4	-2.5	-2.1
Peru	-2.4	0.6	-1.1	-1.4	-1.4	-4.1	-4.0	-2.8	-1.5	-0.1	0.8	1.4
External debt (% of GDP) (a)												
Latin America and the Caribbean (b)	37.5	46.7	39.9	39.0	—	34.2	34.0	33.9	33.5	32.7	32.4	32.6
Argentina	41.5	44.5	—	—	—	44.9	43.9	42.8	42.7	43.6	44.4	47.0
Brazil	29.4	33.7	—	—	—	35.4	34.9	34.8	35.1	34.1	33.7	33.6
Mexico	13.5	12.0	—	—	—	14.8	13.9	13.6	12.3	11.4	11.3	11.7
Chile	56.8	71.8	—	—	—	73.1	76.0	74.3	72.2	70.3	71.8	73.5
Colombia	34.3	54.0	—	—	—	50.4	53.1	54.9	55.7	55.0	53.7	50.8
Peru	34.6	39.5	—	—	—	42.6	41.7	41.3	40.7	39.0	39.3	38.3
MEMORANDUM ITEMS: Aggregate of emerging market economies excluding Latin America and China (IMF, April 2024 WEO)												
GDP (year-on-year rate)	4.2	4.2	4.4	4.6	4.5							
CPI (year-on-year rate)	7.5	11.6	10.7	8.3	6.4							
Budget balance (% of GDP)	6.4	-4.5	-4.6	-4.3	-4.2							
Public debt (% of GDP)	42.9	57.9	58.7	59.7	60.8							
Current account balance (% of GDP)	0.7	0.5	0.0	-0.2	-0.3							
External debt (% of GDP)	27.5	27.4	27.1	26.4	—							
Share of global GDP, in PPP (%)	31.8	32.8	33.2	33.6	34.1							

SOURCES: IMF, Refinitiv, LatinFocus and national statistics.

a Latin America and the Caribbean account for 7.3% of global GDP measured in PPP. The six economies shown account for 86% of all Latin America and the Caribbean (IMF).
b Quarterly data, aggregate of the six main economies (Argentina, Brazil, Chile, Colombia, Mexico and Peru), and for inflation, aggregate excluding Argentina.
c Seasonally adjusted series.
d 4-quarter moving average.
e Annual IMF forecasts are not shown since they are not comparable with quarterly data from national sources.

Figure 1

Recent developments in Latin American banking systems and the risks to financial stability according to the region's central banks

BRAZIL

Political/geographical risk

Concern over climate risks, particularly droughts and desertification and their impact on natural resource scarcity, production, asset impairment, revenue losses, higher borrowing costs and NPLs.

Credit risk

Close attention must be paid to credit quality, given the slowdown in economic activity, high levels of household indebtedness and growing pressure on small firms' payment capacity.

International risk

Notable uncertainty regarding the onset of policy interest rate cuts in the developed economies, with implications for borrowing costs.

Resilience of the financial and fiscal system

Projected increase in the credit-to-GDP gap, a benchmark indicator proposed by the Basel Committee on Banking Supervision to activate 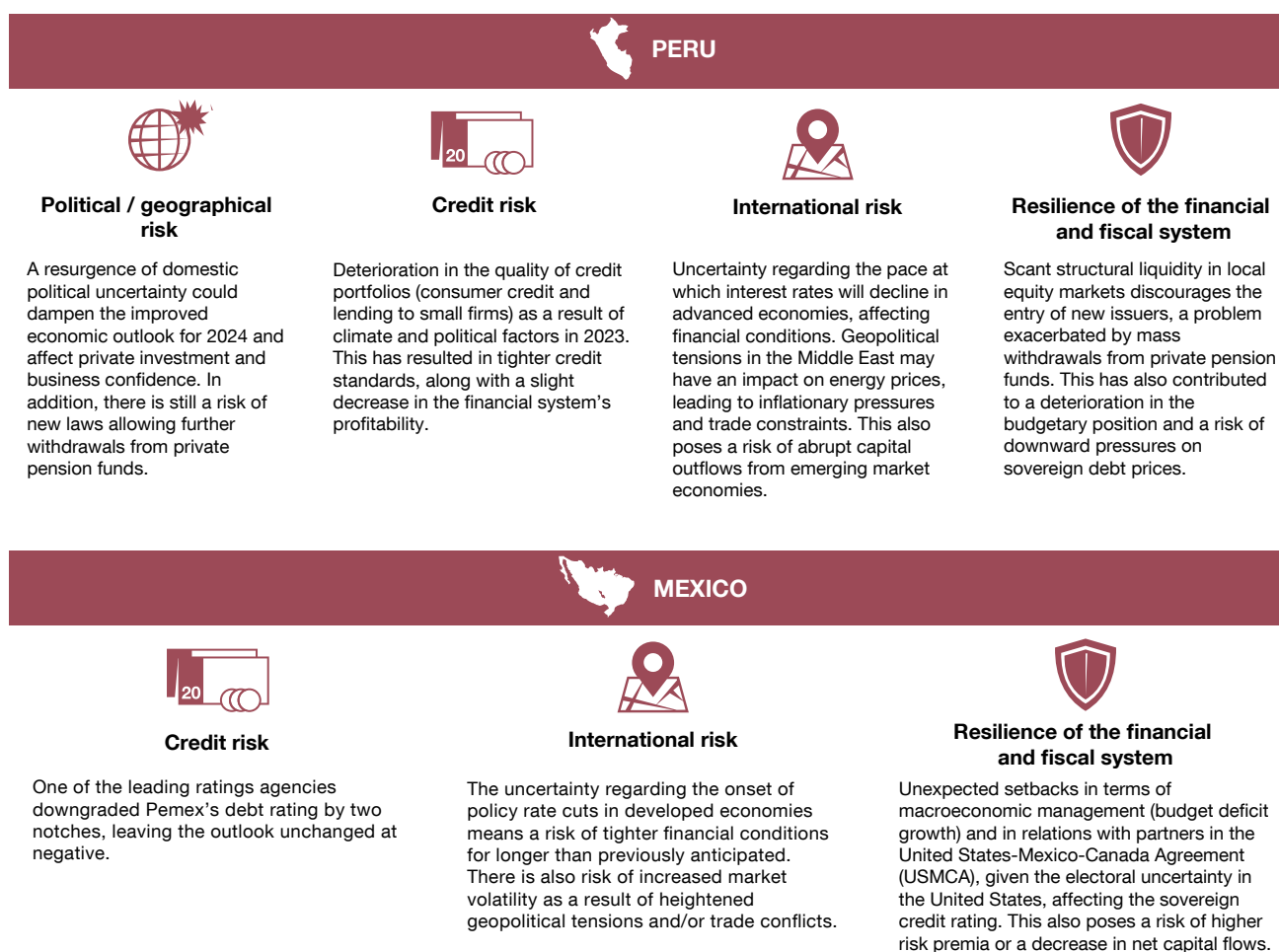countercyclical capital requirements. Monitor whether it points to excessive credit growth that could threaten financial stability.

CHILE

Credit risk

Weak growth in mortgage lending and the increase in long-term interest rates have impaired real estate companies' payment capacity. Further worsening of the financial indicators for smaller firms that received FOGAPE-COVID loans and for the wholesale and retail, construction and real estate sectors.

International risk

Uncertainty surrounds global financial conditions and the onset of US monetary policy rate cuts. Uncertainty surrounds developments in long-term interest rates in the United States, due to fiscal factors. These interest rates are also perceived as a source of risk, affecting, among other things, mortgage lending and public debt.

Foreign exchange risk

Risk of capital outflows from emerging market economies amid global uncertainty, with an appreciating dollar and rising external financing costs. However, this risk is mitigated by the low levels of currency mismatch on firms' balance sheets.

COLOMBIA

Political / geographical risk

Fiscal uncertainty occasioned by the publication of the Financial Plan and the reforms working their way through Congress could shape risk perception at local level.

International risk

Uncertainty regarding the pace of decline of interest rates in advanced economies risks financial conditions worsening.

Resilience of the financial and fiscal system

Fiscal uncertainty, with expectations of a larger budget deficit in 2024 and potential negative effects on investment decisions.

SOURCE: Banco de España.

Figure 1

Recent developments in Latin American banking systems and the risks to financial stability according to the region's central banks (cont'd)

PERU

Political / geographical risk

A resurgence of domestic political uncertainty could dampen the improved economic outlook for 2024 and affect private investment and business confidence. In addition, there is still a risk of new laws allowing further withdrawals from private pension funds.

Credit risk

Deterioration in the quality of credit portfolios (consumer credit and lending to small firms) as a result of climate and political factors in 2023. This has resulted in tighter credit standards, along with a slight decrease in the financial system's profitability.

International risk

Uncertainty regarding the pace at which interest rates will decline in advanced economies, affecting financial conditions. Geopolitical tensions in the Middle East may have an impact on energy prices, leading to inflationary pressures and trade constraints. This also poses a risk of abrupt capital outflows from emerging market economies.

Resilience of the financial and fiscal system

Scant structural liquidity in local equity markets discourages the entry of new issuers, a problem exacerbated by mass withdrawals from private pension funds. This has also contributed to a deterioration in the budgetary position and a risk of downward pressures on sovereign debt prices.

MEXICO

Credit risk

One of the leading ratings agencies downgraded Pemex's debt rating by two notches, leaving the outlook unchanged at negative.

International risk

The uncertainty regarding the onset of policy rate cuts in developed economies means a risk of tighter financial conditions for longer than previously anticipated. There is also risk of increased market volatility as a result of heightened geopolitical tensions and/or trade conflicts.

Resilience of the financial and fiscal system

Unexpected setbacks in terms of macroeconomic management (budget deficit growth) and in relations with partners in the United States-Mexico-Canada Agreement (USMCA), given the electoral uncertainty in the United States, affecting the sovereign credit rating. This also poses a risk of higher risk premia or a decrease in net capital flows.

SOURCE: Banco de España.

Box 1

INFLATION DEVELOPMENTS IN ARGENTINA

The fiscal origin of the inflation problem

In recent years inflation has been much higher in Argentina than in other Latin American countries. Average annual inflation was 72% between 2020 and 2023, rising to triple-digit inflation from February 2023. One of the main causes of this was the persistent budget deficits (see Chart 1) and its monetary financing. The central bank partially financed the deficits by issuing currency (see Chart 2) as they could not be covered with debt issuance, especially after Argentina abandoned the International Monetary Fund (IMF) programme in 2020.[1] Money supply, in a setting of economic slowdown, far exceeded demand in the private sector, leading to soaring inflation in recent years (see Charts 3 and 4).

The new Argentine Government's stabilisation programme

Argentina's current President was sworn in on 10 December 2023. A few days later, the new Government announced a fiscal consolidation programme that aimed to eliminate the fiscal deficit – estimated at 5% of GDP for 2024 – in the space of just one year, to put an end to the main cause of monetary issuance. At the same time, the official exchange rate was devalued sharply from 366 to 800 pesos to the dollar, bringing it closer to the parallel exchange rate. The Government also announced an automatic devaluation rate (crawling peg) of 2% per month, which has remained to date.

Argentina's key financial variables have improved since the new President took office, although some volatility remains which is linked to the passage through Congress of the new legislation proposed by the Government. Thus, the sovereign debt spread has narrowed (see Chart 5), the stock market indices have risen (also in US dollars) (see Chart 6) and the gap between the parallel and the official exchange rates has narrowed (see Chart 7). The central bank also stopped losing its international reserves and has begun to rebuild them (see Chart 8).

The Government has run a budget surplus since January, earlier than envisaged by private analysts, without even having implemented all the measures of the fiscal adjustment programme, as these had not yet been approved by Congress. The surplus was mainly achieved through spending cuts: all public works financed by the central government have been halted, discretionary transfers to provinces have been reduced and public sector wages and pensions have grown slower than inflation. Also, international trade taxes and the tax on foreign currency purchases paid with bank cards were raised. These measures were chosen because they do not require congressional approval. The Government has undertaken to reverse them when tax revenues from these two measures can be replaced by a fiscal package that was approved by Congress in late June. This package includes personal income tax and wealth tax changes and a fiscal moratorium.

The stabilisation programme also envisages a reduction in energy and transportation subsidies. This requires updating regulated prices, which have not increased at the same pace as those of other goods since 2020, leading to a growing distortion between the relative prices of regulated and non-regulated goods (see Chart 9). The updates are being made gradually, with the relative price of regulated goods having recovered slightly between February and April.

The strong fiscal consolidation has penalised economic activity, which fell further in the early months of the year. In Q1 GDP fell by 2.6% quarter-on-quarter (see Chart 4) and by 5.1% year-on-year. The IMF expects GDP to fall by 3.5% in 2024 as a whole.[2]

Inflation following the announcement of the stabilisation plan

Monthly inflation doubled in December 2023, reaching a monthly rate of 25.5% (211% year-on-year), compared with 12.8% (160% year-on-year) in November. This surge in inflation is, above all, explained by the price hikes recorded in the early weeks of the month in anticipation of the depreciation of the official exchange rate.[3] From February, the updating of public sector services and other regulated prices has had a highly significant direct

---

1   Banco de España. (2024). "Box 1. Recent economic policy measures in Argentina". In Banco de España. *Report on the Latin American economy – Second half of 2023*. Also IMF. (2024). "Eighth Review of the Extended Arrangement Under the Extended Fund Facility".

2   IMF (2024). "Eighth Review under the Extended Arrangement under the Extended Fund Facility".

3   In early December expectations were for the official exchange rate to be devalued more in 2024 Q1 than it ultimately was. According to the Consensus Economics December report, which was conducted two days before the adjustment programme was announced, the economic analysts expected the official exchange rate to stand at 935.40 pesos per dollar by end-March 2024. However, the actual official exchange rate was 857.42 pesos to the dollar at end-March.

Box 1

INFLATION DEVELOPMENTS IN ARGENTINA (cont'd)

inflationary impact. Despite accounting for 21% of the domestic consumption basket, the change in regulated prices explains around one-third of total inflation in 2024 to date.

In any event, since January the month-on-month inflation rates have been on a pronounced downward path,

declining from 20.6% in January to 4.2% in May. However, the year-on-year inflation rate has continued to rise (from 254% in January to a 289% high in April). This gradual and continuous reduction in inflation mainly reflects the effects and expectations of lower monetary issuance as the fiscal deficit has been eliminated. According to a

Chart 1
Budget balance (a)
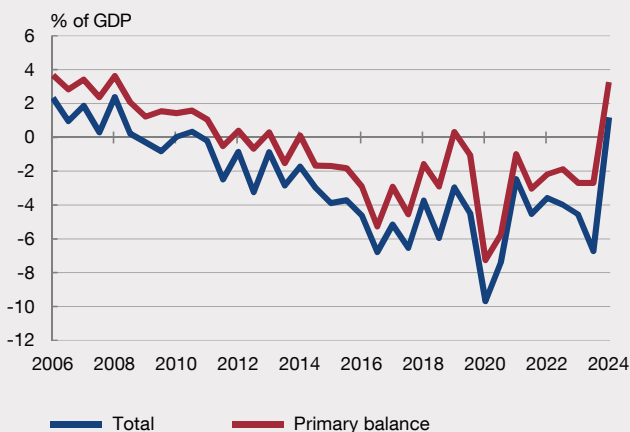
Chart 2
Transfers from the central bank to the Treasury (b)
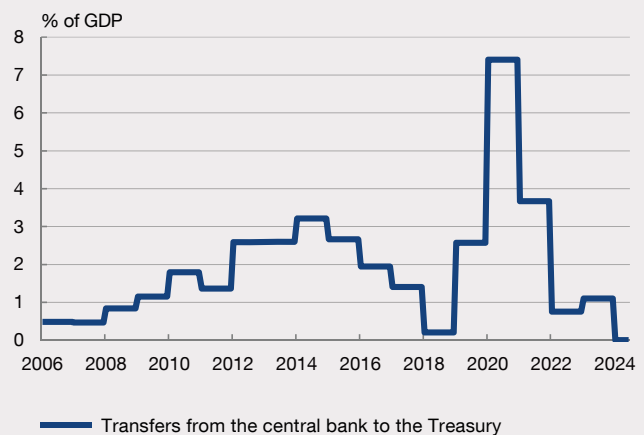
Chart 3
Inflation (c)
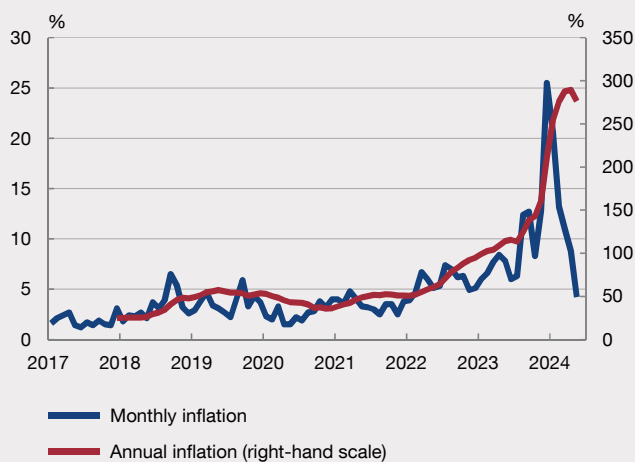
Chart 4
Economic activity (d)
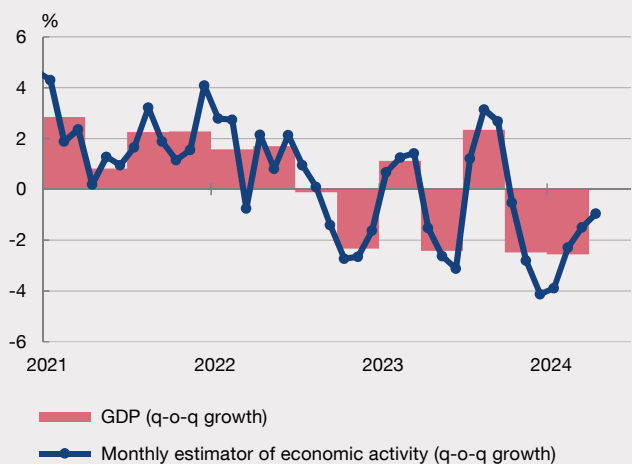
SOURCES: National statistics, Banco Central de la República Argentina, IMF, LatinFocus and Banco de España..

a Monthly data are aggregated into half-yearly data. The latest observation of the budget balance is May 2024. The latest observation of nominal GDP is 2024 Q1. For 2024 H1 the calculation is performed by extrapolating the budget balance for the first five months of the year. Nominal GDP in Q2 is estimated by drawing on LatinFocus's June 2024 GDP and inflation forecasts for that quarter.
b Latest observation: June 2024.
c Latest observation: May 2024.
d The monthly estimator of economic activity (EMAE by its Spanish initials) is a monthly measure of economic activity that weights the economic sectors by their respective shares of GDP. Both this indicator and GDP are calculated by Argentina's National Institute of Statistics and Censuses (INDEC, by its Spanish acronym). The latest observation of the EMAE is April 2024. The latest observation of GDP is 2024 Q1.

Box 1

INFLATION DEVELOPMENTS IN ARGENTINA (cont'd)

memorandum sent to the IMF,[4] the Argentine Government projects year-on-year inflation of 140% for December 2024 and of 45% for December 2025. These figures are in line with those expected by the economic analysts, according to the Banco Central de la República Argentina (BCRA) May survey (146% at December 2024 and 50% at December 2025).

Future risks to inflation

The stabilisation of inflation in Argentina will depend on the future course of public finances and exchange rates, and the regulated price adjustments that are still pending. All of these areas pose risks.

In the fiscal realm, the above-mentioned revenue and expenditure measures led to budgetary equilibrium. On

Chart 5
Sovereign spread
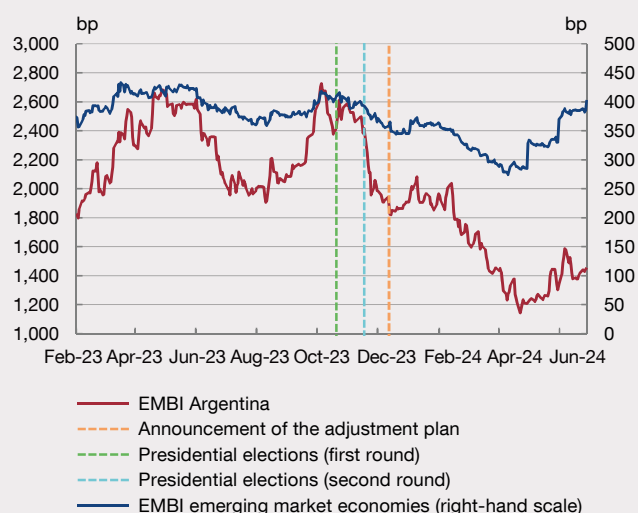
Chart 6
Buenos Aires stock exchange
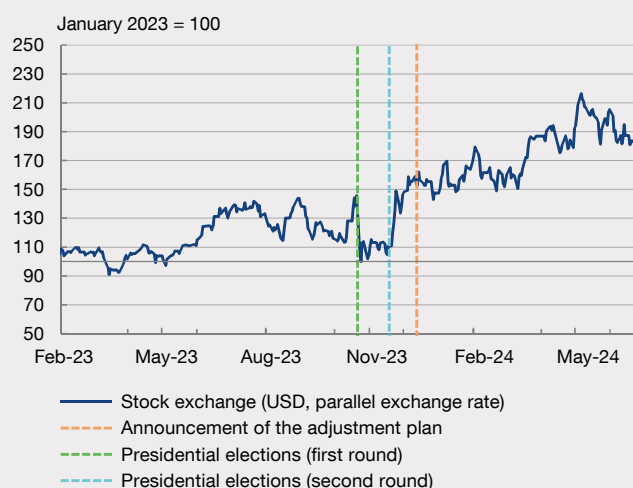
Chart 7
Exchange rate
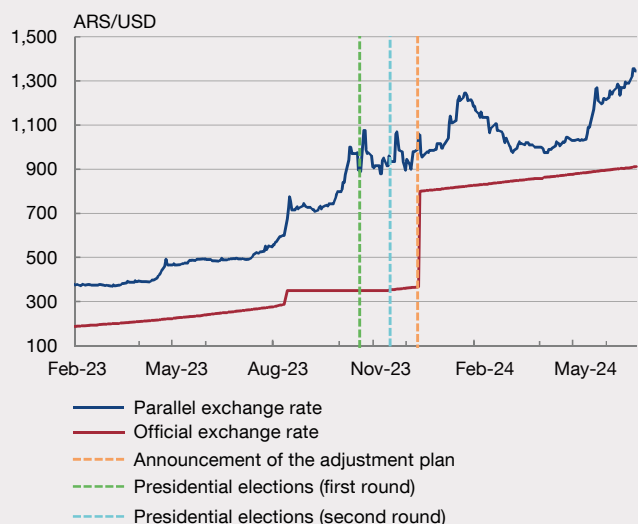
Chart 8
International reserves
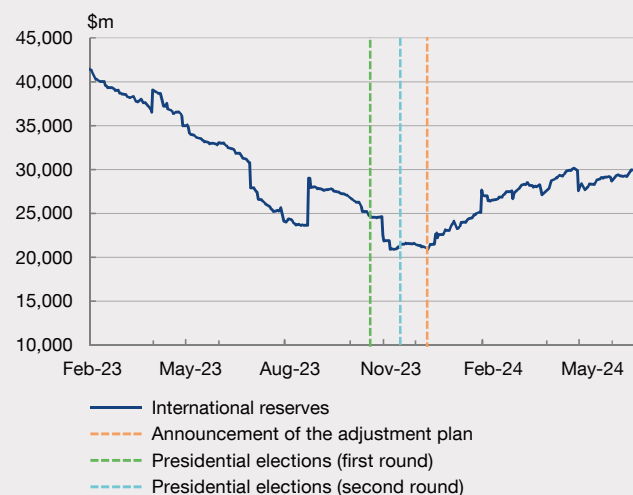
SOURCES: Refinitiv, Banco Central de la República Argentina and Banco de España.
NOTE: Latest observation: 28 June 2024.

_____

4   IMF. (2024). "Eighth Review of the Extended Arrangement Under the Extended Fund Facility".

Box 1
INFLATION DEVELOPMENTS IN ARGENTINA (cont'd)

28 June Congress approved a fiscal package sent by the executive branch which broadens the income tax bases, increases the tax rates for certain income brackets and introduces changes to the wealth tax. Reducing or eliminating other distortionary taxes, such as the taxes on international trade and foreign currency transactions, is also being considered.

As regards the pending adjustments to public services prices, Chart 9 shows the changes in the relative price of regulated goods and the total price index. The relative price of regulated goods has now reached 78% of its value in 2019. The increase in public services prices poses a challenge for the future since, as this item normalises, the regulated price component will drive inflation up. As an example, if this update were to be completed in a single month, with the relationship between regulated and non-regulated prices returning to that in 2019, regulated prices would automatically add around 7 percentage points to month-on-month inflation, without taking into

account the effect of this price change on the other macroeconomic variables.

Lastly, there is much uncertainty about the behaviour of the exchange rate, insofar as the Government has not yet announced what the monetary and exchange rate will be like moving forward. By way of illustration, a recent article[5] shows that inflation expectations still remain high as a result of the expected depreciation of the exchange rate, which exceeds the depreciation announced by the government (2% per month against the dollar). The authors use a model under which the inflation rate on internationally traded goods incorporates private analysts' depreciation expectations, while other prices are adjusted according to the inflation recorded in the past. As Chart 10 shows, the inflation path projected by the model[6] captures the dynamics of analysts' inflation expectations and converges towards the long-term inflation expectation, suggesting that such expectations are determined by devaluation expectations.
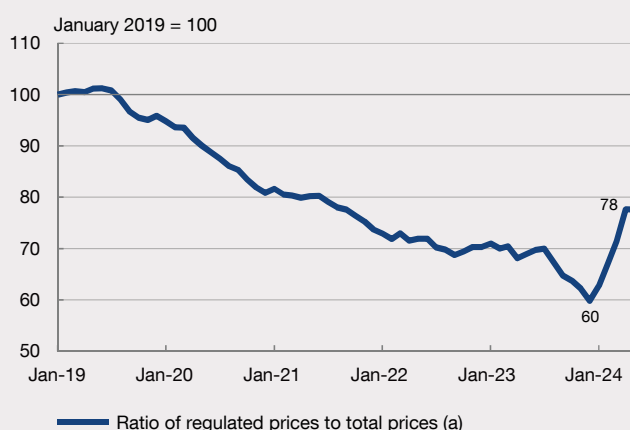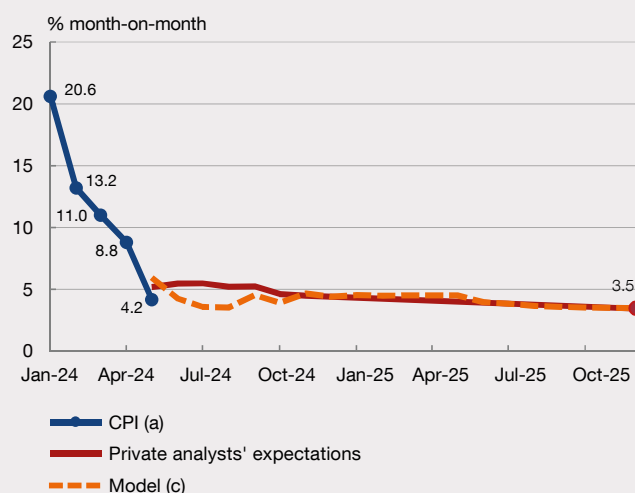
Chart 9
Relative price of regulated goods

January 2019 = 100

Ratio of regulated prices to total prices (a)

Chart 10
Inflation expectations

% month-on-month

CPI (a)
Private analysts' expectations
Model (c)

SOURCES: INDEC, Banco Central de la República Argentina and Banco de España.

a Latest observation: May 2024.
b The Banco Central de la República Argentina's May Market Expectations Survey (REM, by its Spanish initials). Publication date: 6 June 2024.
c The simulation model is taken from Ernesto Talvi and Sofía Harguindeguy. (2024). "From Milei's zero fiscal deficit towards a stabilisation plan to eradicate inflation: why now?", Elcano Royal Institute, 17 May. This model assumes that monthly inflation is determined by a linear combination of past inflation and expectations of depreciation of the exchange rate against the dollar. The model is updated using expectations data from the May REM.

5 Ernesto Talvi and Sofía Harguindeguy. (2024). "From Milei's zero fiscal deficit towards a stabilisation plan to eradicate inflation: why now?", Real Instituto Elcano, 17 May.
6 The chart replicates Talvi and Harguindeguy's simulation with data on devaluation and inflation expectations for May 2024.

Box 1
INFLATION DEVELOPMENTS IN ARGENTINA (cont'd)

Resolving the uncertainty about the future monetary and exchange regime might help to reduce inflation expectations. The IMF programme contemplates the gradual easing of exchange controls and the currently negative short-term ex ante real interest rate[7] turning positive to support peso demand and disinflation. In the longer term, the government has considered the possibility of implementing a currency competition system, where the local currency co-exists with foreign currencies and economic agents are free to choose the currency they use in contracts and transactions.

---

7   An ex ante real interest rate is one that discounts the nominal interest rate with expected inflation rather than actual inflation.

Box 2

PUBLIC DEBT SCENARIOS IN BRAZIL AND MEXICO OVER THE NEXT DECADE

Public finances in Latin America

The COVID-19 pandemic marked an inflection point for public finances globally in general and in Latin America in particular. The fiscal measures adopted in 2020 to cope with the health emergency caused public debt to balloon and adversely affected its dynamics. Although this situation has partly reversed in subsequent years, public debt remains above its average for the last three decades in most of the region's countries. Against this background, robust fiscal rule frameworks and public debt sustainability take on renewed importance.

Latin America's main economies have one or more fiscal rules, which seek to bolster their budgetary frameworks, thereby ensuring that public finances are stable and sustainable and that public funds are managed transparently. They do this by setting limits and rules on debt levels, deficits and government expenditure and/or revenue. Most of the region's economies suspended their fiscal rules during the pandemic, but virtually all of them have already reactivated the fiscal rules or implemented an overhauled version of them.[1]

However, public finances in some of the region's countries are still exposed to considerable challenges, such as persistent budget deficits, often accompanied by primary deficits and high interest payments, and the need to ensure sufficient fiscal space to deal with negative shocks in the future.[2]

In this setting, government forecasts and analysts' consensus paint a considerably different outlook for public finance dynamics. Given this uncertainty, it is important to present different scenarios for public debt dynamics. The analysis in this box focuses on Brazil and Mexico, the region's two biggest economies.

A new tool for examining debt sustainability

A new debt sustainability analysis (DSA) tool is used to calculate different scenarios for public debt dynamics. This tool builds on those available at the Banco de España[3] to reflect some particularities of Latin America (and other emerging market economies), insofar as it factors in the important distinction between public debt denominated in local and foreign currency.[4]

The tool provides paths for the main macroeconomic variables that determine the possible future courses of public debt, such as real GDP growth, inflation, interest rates and the primary balance. In addition, it captures the interactions between these variables, such that the shocks in the model spread as they would according to economic theory. For example, in addition to affecting the primary balance, a fiscal policy shock also directly and/or indirectly impacts the course of GDP, inflation and the interest rate.

Scenarios for the course of public debt in Brazil and Mexico

Different scenarios for Brazil and Mexico that show how changes in fiscal policy could affect public debt dynamics are presented below.[5]

Three scenarios are simulated for each country. Under scenario 1, which is common to both countries, the structural primary balance remains at its 2024 level throughout the projection horizon (see Charts 1 and 3). This should be construed as a no-policy-change scenario that describes public debt dynamics in the event the structural primary balance remained unchanged with respect to its 2024 level. It should be noted that the Brazilian and Mexican Governments have already presented fiscal plans for the coming years and projected

---

1   For more details on the status of the fiscal rules in Latin America, see pages 24 and 25 of Banco de España. (2024). *Report on the Latin American Economy. Second half of 2023*.

2   For more information on the region's fiscal position, see Banco de España. (2024). *Report on the Latin American Economy. Second half of 2023*, and International Monetary Fund (IMF). (2024). *Fiscal Monitor*. For more information on the situation of the region's sovereign wealth funds – state-owned investment vehicles often funded by the revenues from exploiting natural resources – which in the main have not received new deposits since 2019, see ICEX-IE. (2023). *2023 Sovereign Wealth Funds Report*.

3   Pablo Burriel, Iván Kataryniuk and Javier J. Pérez. (2022). "Computing the EU's SURE interest savings using an extended debt sustainability assessment tool". Documentos Ocasionales, 2210, Banco de España, and Mario Alloza, Jorge Martínez, Juan Rojas and Iacopo Varotto. (2024). "Public debt dynamics: a stochastic approach applied to Spain". Documentos Ocasionales, 2420, Banco de España.

4   For a detailed description of the tool, see Iván Kataryniuk, Raquel Lorenzo Alonso, Enrique Martínez Casillas and Jacopo Timini. (2024). "An extended Debt Sustainability Analysis framework for Latin American economies". Documentos Ocasionales, 2412, Banco de España. The paper details the equations governing the different economic variables and their interactions and the methodology used to calibrate the necessary parameters.

5   The public debt dynamics scenarios reflect data up to 2024. The model's simulations begin in 2025. If no consolidated data are available for 2023 and 2024, IMF estimates and forecasts are used.

Box 2

PUBLIC DEBT SCENARIOS IN BRAZIL AND MEXICO OVER THE NEXT DECADE (cont'd)

their fiscal paths, including the structural primary balance, in accordance with the reforms that have already been or are about to be implemented.

The two remaining scenarios focus on the differences between the Governments' projections for, and analysts' expectations of, the fiscal policy stance over the coming years.

Under scenario 2, over the coming years the structural primary balance will match the fiscal targets reported by

the Governments in 2024 (see Charts 1 and 3). For Brazil, this means primary balance equilibrium in 2025 and a surplus of 0.25% in 2026 and 0.5% in 2027.[6] For Mexico, this means a primary surplus of 0.9% in 2025, 0.5% in 2026 and 0.3% in 2027.

Under scenario 3, the structural primary balance over the coming years will match the analysts' expectations reported in the surveys conducted by the central banks (see Charts 1 and 3).[7] For Brazil, this means a primary deficit of 0.6% in 2025, 0.5% in 2026 and over 0.3% in

Chart 1
Brazil. Structural primary balance (a)
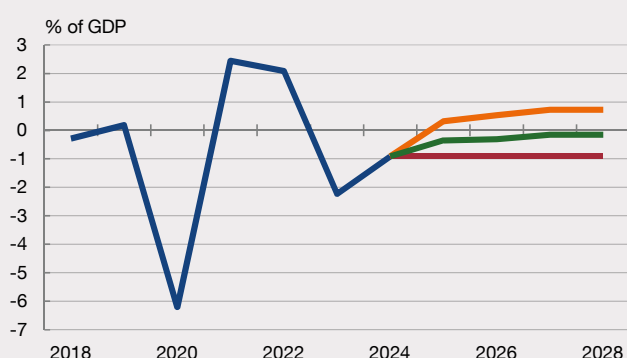
Chart 2
Brazil. Public debt
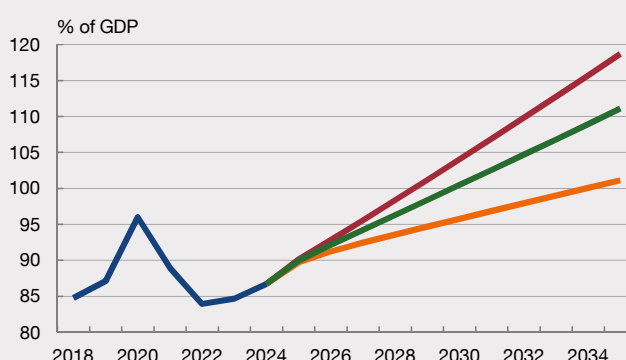
Chart 3
Mexico. Structural primary balance (a)
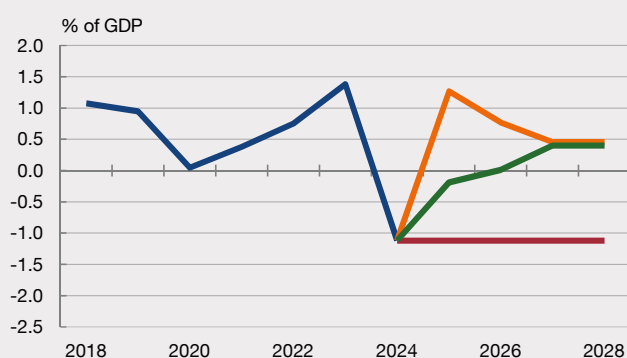
Chart 4
Mexico. Public debt
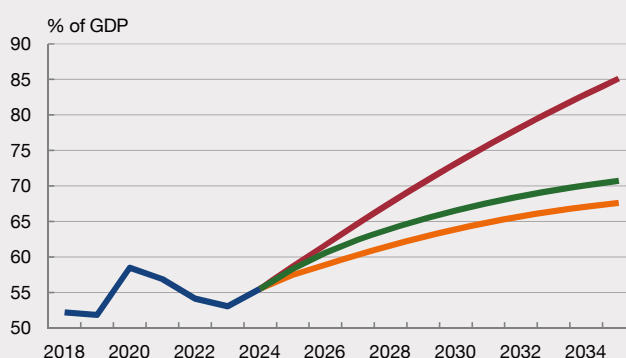
— Data to 2023 and IMF forecast for 2024
— Scenario 1: structural primary balance at its 2024 level
— Scenario 2: primary balance according to the state budget
— Scenario 3: primary balance according to analysts' expectations

SOURCES: Banco de España, IMF, Refinitiv, expert surveys conducted by the central banks and state budgets.

a In 2028 and subsequent years the structural primary balance remains at the same level as in 2027.

—————————————

6 In the projections, the structural primary balance remains unchanged from 2027 until the end of the projection horizon.

Box 2

PUBLIC DEBT SCENARIOS IN BRAZIL AND MEXICO OVER THE NEXT DECADE (cont'd)

2027. For Mexico, this means a primary deficit of 0.4% in 2025 and 0.2% in 2026 and a primary surplus of over 0.2% in 2027.

In the case of Brazil, under scenario 1 – the structural primary balance remaining at its 2024 levels (-0.9% of GDP) – public debt would grow by around 30 percentage points (pp) in ten years (see Chart 2), to approximately 120% of GDP in 2035. However, were the Government to achieve the primary balance targets announced in 2024 (scenario 2), it would significantly limit public debt growth – to around 15 pp over the same time horizon – and the public debt-to-GDP ratio would stand at 100% in 2035. Lastly, were the primary balance to perform in line with the analysts' consensus (scenario 3), public debt would increase by around 25 pp, to exceed 110% of GDP in 2035.

Turning to Mexico, the structural primary balance remaining at its 2024 level (-1.1% of GDP) over the following years (scenario 1) would see public debt growth similar to that of Brazil, i.e. around 30 pp in ten years (see Chart 4). In the event of a fiscal adjustment in line with that announced by the Government (scenario 2), public debt growth would be much lower (around 10 pp), with the public debt-to-GDP ratio standing at around 65% in 2035. Lastly, were the primary balance to perform in line with the analysts' consensus (scenario 3), public debt would increase by around 15 pp, to stand at around 70% of GDP in 2035.

In both countries, the Governments' planned fiscal adjustments (scenario 2) would have a considerable impact on economic growth. In 2025 GDP growth in Brazil and Mexico would be some 0.7 pp and some 1.2 pp, respectively, lower than under the no-policy-change scenario.

---

7   In Brazil, the new fiscal rule in force introduces a percentage-of-GDP primary balance target and greater flexibility for the growth of real primary government expenditure. The expert surveys conducted by the Banco Central do Brasil use the same unit of reference. To calculate these scenarios in the DSA tool used, the shock to the structural primary balance is calibrated to achieve these specific primary balance targets. In Mexico, the expert surveys conducted by the Banco de México report data on the public sector's financial requirements and the budget balance. To calculate these scenarios in the DSA tool used, the shock to the structural primary balance is calibrated to achieve some specific primary balance targets calculated by assuming that the interest payments forecast by the analysts are equal to those expected by the Government.

Box 3

TAX REVENUES IN LATIN AMERICA AND THE CARIBBEAN[1]

Tax revenues are governments' principal and most stable source of income, accounting for around 69% of total general government receipts in Latin America and the Caribbean (LAC) countries (around 86% in Organisation for Economic Co-operation and Development (OECD) member countries). They allow governments to plan and budget effectively and, inter alia, they facilitate the financing of essential public services, infrastructure projects and social programmes.

On average, tax revenues in LAC countries stood at 21.5% of GDP in 2022, the latest year for which data are available.[2] This is higher than in other emerging regions, such as Africa[3] (15.6% in 2021) and Asia and the Pacific[4] (19.8% in 2021), but much lower than in OECD economies[5] (34%) (see Chart 1). The LAC average masks significant heterogeneity: some countries have tax receipts in line with OECD economies, such as Brazil (33.3% of GDP), Barbados (30.5%) and Argentina (29.6%), while in others, such as Guyana, Panama and the Dominican Republic, they represent less than 14% of GDP (see Chart 2). The heterogeneity of tax receipts as a proportion of GDP largely reflects the cross-country differences in public spending as a proportion of GDP (see Chart 3).

Developments in recent decades

From a historical perspective, tax receipts have increased considerably in LAC countries. As a percentage of GDP, they rose from 14.6% in 1990 to 21.5% in 2022. However, despite this increase, the gap with OECD economies has remained relatively stable since 2007, at around 12 percentage points.

Since 1990 the increase in tax revenues has been driven mainly by the increase in value added tax (VAT), personal income tax (PIT) and corporate income tax (CIT), and is explained by various structural and temporary factors.

The structural factors include the introduction of VAT and reforms to this tax between 1990 and 2002, which were key to increasing VAT revenues from 2% of GDP in 1990 to 6% in 2022. Meanwhile, CIT revenues increased significantly between 2002 and 2008, partly on account of the rise in commodity prices. The 2008 global financial crisis affected revenues in subsequent years, although VAT recovered more rapidly than taxes on income and profits. In 2022 PIT and CIT receipts represented 3.3% and 6.3% of GDP, respectively.

Composition of the tax basket

The LAC region, like other emerging regions, such as Asia and the Pacific and Africa, depends mainly on indirect taxes. In 2022 indirect taxes represented approximately one-half of the total tax revenues in LAC countries (see Chart 4). VAT is the main source of these revenues, representing 28.3% of total tax receipts. Meanwhile, direct taxes on income and profits represented 30.1% of total tax revenues in 2021, of which 18.8% arose from CIT, 9.2% from PIT and 2.1% from other such taxes. Revenues obtained from social security contributions (SSCs) in the LAC region amounted on average to 16.7% of total revenues in 2022.

This LAC tax structure contrasts with the OECD's. On average, the resources of OECD economies are based less on taxes on consumption, in particular VAT (20.7% of total tax revenues). In 2021 SSCs accounted for the highest percentage of total tax revenues (25.6%), followed by PIT (16.3%) and CIT (10.2%).

LAC countries have lagged behind in implementing environmental taxes, with environmental tax revenues standing on average at 0.8% of GDP in 2022, as against 1.9% in the OECD. Although some countries have introduced carbon and other environmental taxes, they are still very limited and not effective enough to make a significant dent in carbon emissions.

Focus on the share of corporate taxation

The share of taxes on businesses in the LAC region is significantly higher, on average, than in the OECD. Indeed, CIT is the only direct tax that generates slightly more revenues for LAC countries than for OECD ones, representing 3.9% of GDP in the former in 2022, as compared with 3.3% in the latter in 2021. Statutory CIT rates are relatively high in the LAC region, standing on average at 24.1%, as against 23.6% in the OECD (see Chart 5).

1　This box has been prepared in collaboration with the OECD Development Centre.

2　OECD et al. (2024). *Revenue Statistics in Latin America and the Caribbean 2024*. OECD Publishing, Paris.

3　OECD/AUC/ATAF. (2023). *Revenue Statistics in Africa 2023*. OECD Publishing, Paris.

4　OECD. (2024). *Revenue Statistics in Asia and the Pacific 2024: Tax Revenue Buoyancy in Asia*. OECD Publishing, Paris.

5　OECD. (2023). *Revenue Statistics 2023: Tax Revenue Buoyancy in OECD Countries*. OECD Publishing, Paris.

TAX REVENUES IN LATIN AMERICA AND THE CARIBBEAN (cont'd)

Although these rates are relevant, other factors must be taken into account in order to calculate the effective level of taxation borne by businesses. Specifically, differences in how the tax base is defined across jurisdictions can have a significant impact on the tax burden. For example, tax systems vary with regard to the rules on depreciation and other provisions. To understand this impact, it is necessary to calculate average effective tax rates[6] and marginal effective tax rates.[7]

Chart 1
Tax revenues as a percentage of GDP, regional averages, 1990-2022
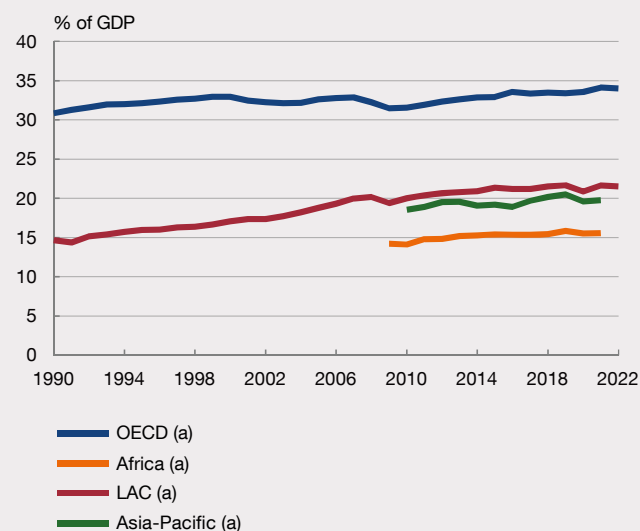
Chart 2
Tax revenues as a percentage of GDP in LAC countries and regional averages, 2022
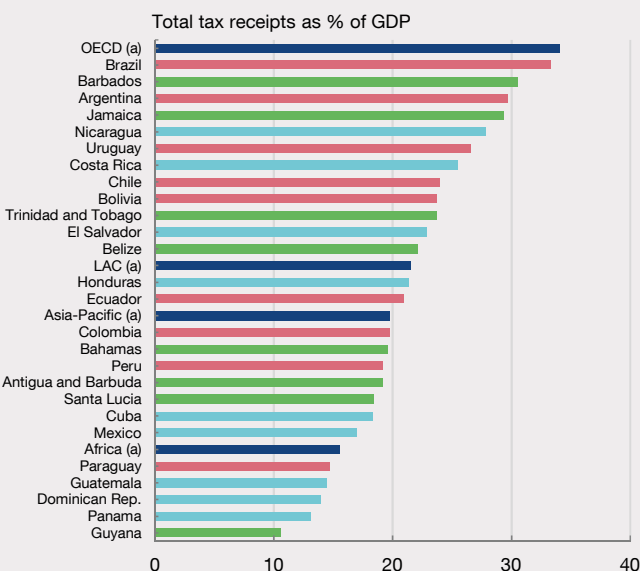
Chart 3
Total public spending and tax receipts as a percentage of GDP (2021)
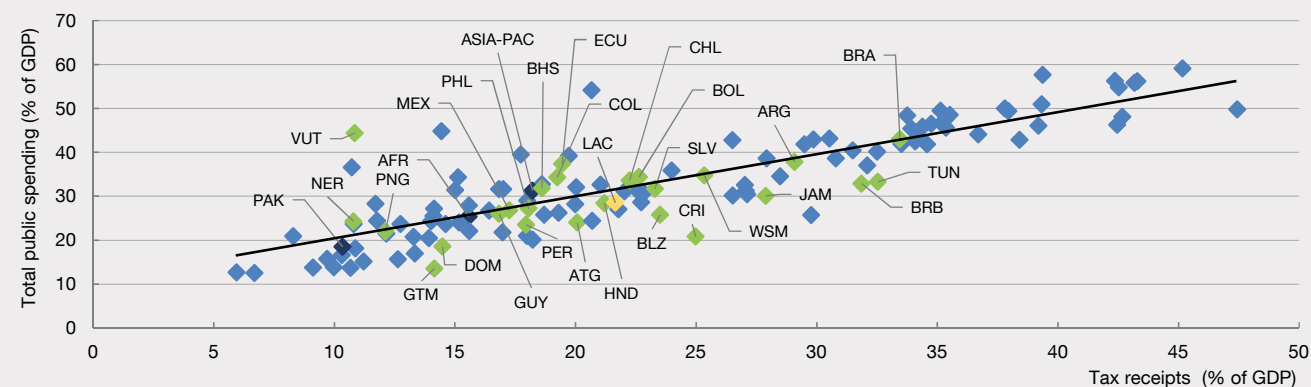
SOURCES: OECD and IMF.

a The aggregates represent the unweighted averages for the 38 OECD member countries, 26 LAC countries (not including Cuba or Venezuela), 29 Asia-Pacific countries and 31 African countries.

---

6   The average effective tax rate measures the percentage of profit that firms pay as corporate income tax. This indicator may help to show whether taxes affect firms' decisions to invest in new projects. See T. Hanappi, S. Nieto Parra, J. R. Orozco and A. Rasteletti. (2023). "Corporate Effective Tax Rates in Latin America and the Caribbean". Technical Note No IDB-TN-2782.

7   The marginal effective tax rate measures the extent to which taxes increase the marginal cost of capital. This indicator may help to show whether taxes affect firms' incentives to expand their existing investments. See T. Hanappi, S. Nieto Parra, J. R. Orozco and A. Rasteletti. (2023). "Corporate Effective Tax Rates in Latin America and the Caribbean". Technical Note No IDB-TN-2782.

Box 3

TAX REVENUES IN LATIN AMERICA AND THE CARIBBEAN (cont'd)
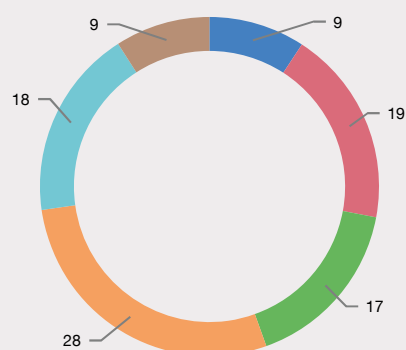
Chart 4
Tax structures

4.a OECD (a)
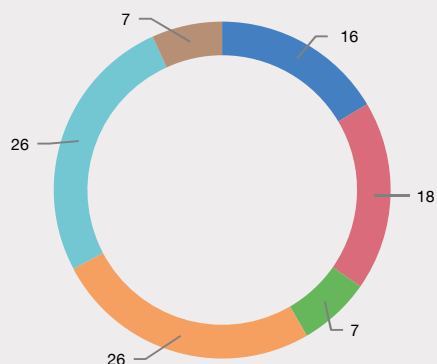% of total tax receipts
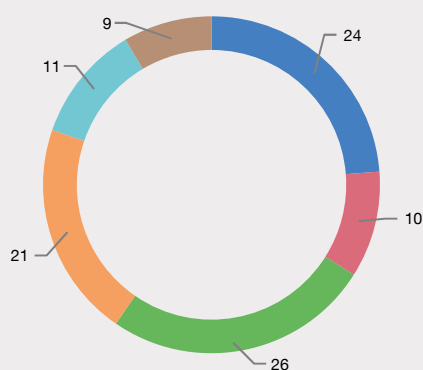
4.b LAC (a)
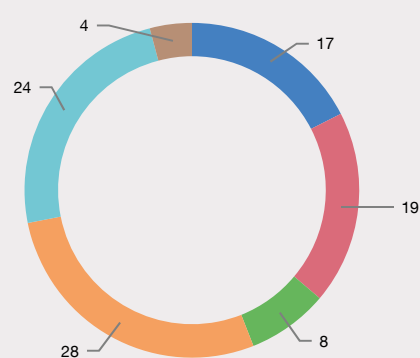% of total tax receipts

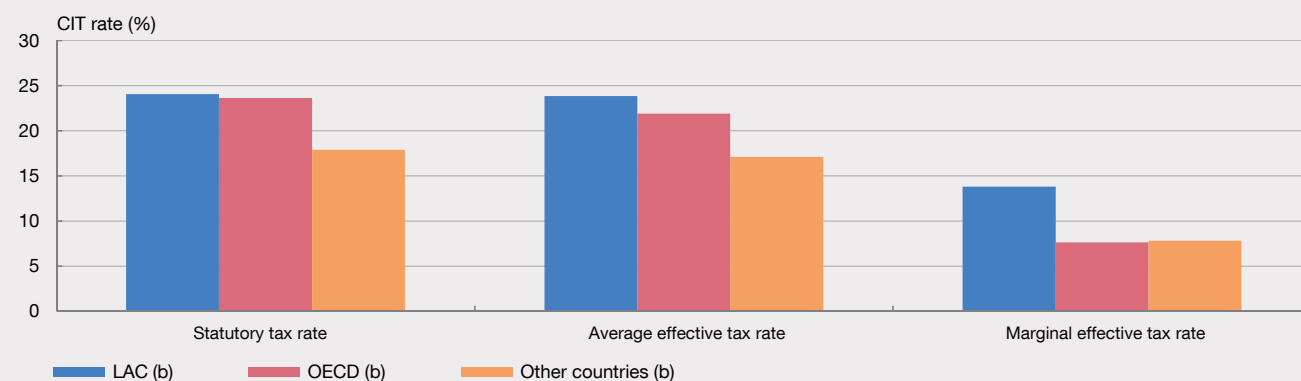4.c Asia-Pacific (a)
% of total tax receipts

4.d Africa (a)
% of total tax receipts

■ PIT   ■ CIT   ■ SSCs   ■ VAT   ■ Other taxes on goods and services   ■ Other taxes

Chart 5
Statutory tax rate and average and marginal tax rates, 2021

CIT rate (%)

■ LAC (b)   ■ OECD (b)   ■ Other countries (b)

SOURCE: Hanappi T., S. Nieto Parra, J. R. Orozco, and A. Rasteletti (2023), "Corporate Effective Tax Rates in Latin America and the Caribbean", Technical Note No IDB-TN- 2782, https://doi.org/10.18235/0005168

a The aggregates represent unweighted averages for the 38 OECD member countries, 26 LAC countries (not including Cuba or Venezuela), 29 Asia-Pacific countries and 31 African countries.
b OECD: 34 countries. LAC: 21 countries. Other countries: Emerging Europe (9 countries) and Middle East and Central Asia, Emerging Asia and Sub-Saharan Africa (16 countries). Unweighted averages.

Box 3

TAX REVENUES IN LATIN AMERICA AND THE CARIBBEAN (cont'd)

LAC countries have high average and marginal effective tax rates. In 2021 the average effective tax rate of the 21 LAC countries was 23.9% on average, as against 21.9% in OECD countries and 17.1% in the other countries shown in Chart 5. These average effective tax rates are key to understanding the cost for firms of new investment projects. The marginal effective tax rate in LAC countries was 13.8%, while in OECD countries it stood at 7.6%. Marginal effective rates help to clarify the cost to firms of expanding their existing investments.

The high effective rates are explained by high statutory rates and the fact that tax provisions are more restrictive in the region, which makes the definition of the CIT tax base broader. One example of this greater restrictiveness is the treatment given to the amortisation of software in the various countries in the region. While the real annual economic amortisation rate of software is estimated in the literature as 40%, Chilean law does not allow software to be amortised at all and the rates of amortisation permitted in Argentina and Bolivia are very low.[8]

---

8 When the depreciation allowed by statutory schedules lags behind economic depreciation, effective tax rates are higher. On the other hand, if the statutory schedule for an asset type allows for more rapid depreciation, CIT tax bases are reduced and effective tax rates decline.

Box 3

TAX REVENUES IN LATIN AMERICA AND THE CARIBBEAN (cont'd)

Box 4

IMPACT ON BANK LENDING OF MONETARY POLICIES IN THE REGION AND WORLDWIDE

This box examines the extent to which bank lending in Latin America is affected by shifts in monetary policies in the region and worldwide. This issue is particularly relevant at present because the differences in monetary policy conduct worldwide can have a heterogeneous impact on the region's banking systems, which are highly internationalised.

— Since mid-2023 monetary policy has been easing, in general, in Latin America. Meanwhile in the United States, both the markets and the Federal Reserve System expect a policy rate cut only in the second half of this year. As for the European Central Bank (ECB), although it cut its policy rate by 25 basis points in June, compared with a few months ago the financial markets are now factoring in fewer such cuts for the coming quarters.

— In countries such as Mexico, Peru and Chile, foreign banks account for more than 35% of total loans and deposits (see Chart 1). Even in Brazil, where legislation on foreign participation in domestic banking is more restrictive, they hold around 14% of total loans and deposits.

— This increased internationalisation is the result of the efforts made in recent decades by several countries of the region to deregulate their domestic financial systems and attract foreign capital, following the major financial crisis episodes experienced during the 1990s when foreign bank participation in domestic lending was essentially symbolic.[1] Spanish banks currently have the highest market share of all the international private banks present in Latin America, with Banco Santander in Mexico, Brazil and Chile and BBVA in Mexico and Peru.[2, 3]

According to the economic literature, the monetary policy of the central banks of the world's main economies can affect lending by domestic banks in various ways.

— First, it affects the cost of banks' external financing. This is particularly important for foreign banks that operate in the region through branches that may rely on funding from their parent banks.[4] It is less important for foreign banks that operate through independent subsidiaries that obtain their funding on the domestic market, which is the case of banks with Spanish capital.[5] In addition, banks operating in countries that have banking systems with some degree of dollarisation are also heavily reliant on external financing to provide credit at the local level.[6]

— Second, it can affect demand for local credit, by impacting financial asset prices, exchange rates and capital inflows into emerging countries.

— Moreover, in small, open economies, central banks generally adjust their interest rates in response to the Federal Reserve's monetary policy, to mitigate capital outflows and prevent currency depreciation and its pass-through to domestic inflation.[7]

— Conversely there is also evidence that, in the event of a monetary contraction in the United States, central banks in certain emerging countries may respond by cutting their policy rates to address the possible recessionary effects of a tightening of international financial conditions.[8]

To measure the quantitative impact on lending in some of the major Latin American economies of monetary policies in the main global economies (set by the Federal Reserve and the ECB) and in the domestic economies (set by the region's central banks), the following exercise is proposed.

---

1 In 1990, the percentage of loans extended by foreign banks was 0% in Peru, 0.7% in Mexico, 14.3% in Chile and 3.8% in Brazil. See Monetary and Economic Department. (2007). "Evolving banking systems in Latin America and the Caribbean: challenges and implications for monetary policy and financial stability". BIS Papers No 33, Bank for International Settlements.

2 See the notes to the macro-financial indicators, where the banking structure of these countries is described in more detail.

3 Although Colombia is not included in the group of countries analysed in this box, BBVA also holds a significant market share in Colombia (the fourth largest in 2023).

4 F. Bräuning and V. Ivashina. (2020). "U.S. monetary policy and emerging market credit cycles". *Journal of Monetary Economics,* Vol. 112, pp. 57-76. Also B. Morais, J.-L. Peydró, J. Roldán-Peña and C. Ruiz-Ortega. (2019). "The International Bank Lending Channel of Monetary Policy Rates and QE: Credit Supply, Reach-for-Yield, and Real Effects". *The Journal of Finance,* Vol. 74(1), pp. 55-90.

5 I. Argimón, C. Bonner, R. Correa, P. Duijm, J. Frost, J. de Haan, L. de Haan and V. Stebunovs. (2019). "Financial institutions' business models and the global transmission of monetary policy". *Journal of International Money and Finance,* Vol. 90, pp. 99-117.

6 Miguel Acosta-Henao, María A. Amado, Montserrat Marti and David Pérez-Reyna. (2024). "Heterogeneous UIP Deviations Across Firms: Spillovers from U.S. Monetary Policy Shocks". Banco de España, mimeo. Also C. Giraldo, I. Giraldo and J. Gómez-González. (2024). "U.S. monetary policy shocks and bank lending in Latin America: evidence of an international bank lending channel". *Applied Economics Letters,* pp. 1–5.

7 G. Huertas. (2022). "Why Follow the Fed? Monetary Policy in Times of U.S. Tightening". IMF Working Papers, 243, International Monetary Fund.

8 P. De Leo, G. Gopinath and S. Kalemli-Özcan. (2023). "Monetary policy cyclicality in emerging economies". NBER Working Paper Series No 30458, National Bureau of Economic Research.

Box 4

IMPACT ON BANK LENDING OF MONETARY POLICIES IN THE REGION AND WORLDWIDE (cont'd)
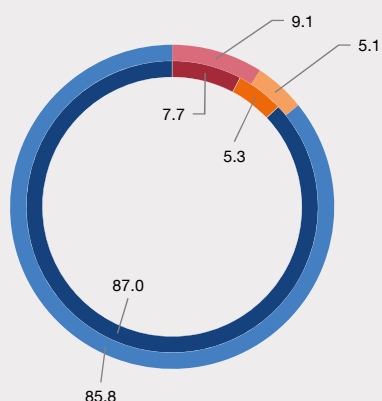
— An econometric model[9] is estimated to determine the extent to which monetary policies affect loan stock dynamics.

— Bank data published by the monetary and supervisory authorities of Brazil, Mexico, Chile and Peru are used.[10]

Chart 1
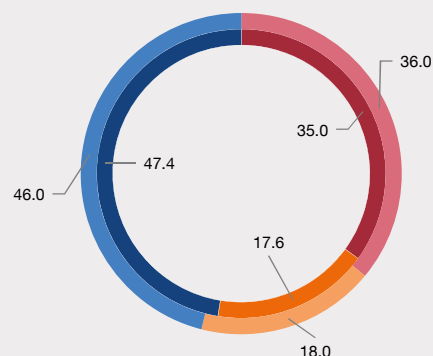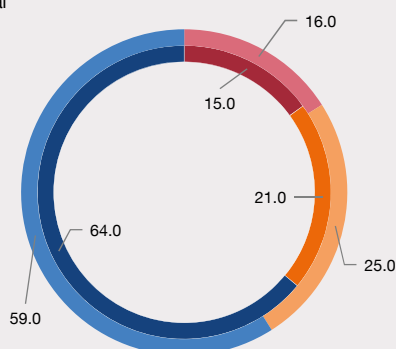Composition of loans and deposits by home country of bank (a)

1.a Brazil
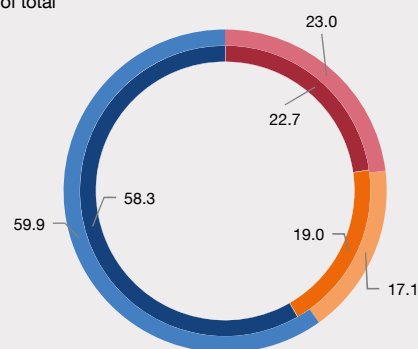
% of total

1.b Mexico

% of total

1.c Chile

% of total

1.d Peru

% of total

■ Spanish banks   ■ Other foreign capital private banks   ■ Local banks

SOURCES: Monetary and supervisory authorities and Banco de España.

a The inner circle denotes the composition of loans and the outer circle the composition of deposits.

---

9   This model comprises a dynamic panel, in which the volume of the stock of loans granted by a given bank in a given quarter and operating in a given country of the region is explained by lending in the previous period and by domestic and external (whether in the United States (Federal Reserve) or the euro area (ECB)) monetary policy shocks, as well as by domestic and external macroeconomic fundamentals, by bank-specific characteristics of the lending bank and by other technical factors such as unobservable effects at bank, country and period level.

10   The analysis starts in 2000 Q1 for Brazil, in 2004 Q1 for Peru and in 2008 Q1 for Mexico and Chile. The sample covers the period up to 2023 Q4. It includes most of the banks operating in these countries in each period, specifically a total of 105 banks: 16 in Peru, 25 in Chile and 44 in Mexico. In the case of Brazil, for the sake of simplicity and given the large number of financial institutions, the 21 banks with the highest level of participation were chosen, excluding small financial institutions with a low share of total lending.

Box 4

IMPACT ON BANK LENDING OF MONETARY POLICIES IN THE REGION AND WORLDWIDE (cont'd)

— Monetary policy shocks (domestic and foreign) are proxied by Taylor rule residuals.[11]

— For domestic monetary policy shocks in the four countries analysed, the official monetary policy rates are used. Foreign monetary policy shocks are calculated drawing on "shadow rates",[12] which capture the effect on the monetary policy stance of the unconventional measures adopted when policy rates reached their effective lower bound.

— The analysis draws a distinction between banks according to the origin of their capital,[13] that is, whether they are domestic or foreign capital banks, and within the latter group according to whether or not the capital is Spanish. This distinction is important because banks with Spanish capital, generally unlike other foreign capital banks, operate with a multinational banking business model predominated by independent subsidiaries[14] which, in consequence, are funded in a similar way to local capital banks. This makes it possible to assess whether monetary policy surprises have a different impact on lending by these groups of banks.

The main results of this exercise, shown in Chart 2, are set out below.

— An unexpected increase of 1 percentage point (pp) in the policy rates of the national central banks of the Latin American countries considered reduces the volume of lending by banks operating in the region by 0.42% on average. This effect is irrespective of the origin of the capital of the commercial lending bank.

— A 1 pp increase in the Federal Reserve's policy rate also reduces the volume of lending, but much more so, by 1.8% rather than 0.42%. Given that US monetary policy has a significant impact on the global financial cycle, this may be because financial conditions in Latin American economies may tighten further, for several reasons: (a) because the cost of borrowing for banks and the wider economy may rise;[15] b) because local banking systems' exposure to the global financial cycle limits the pass-through of domestic monetary policy in the short term;[16, 17] and (c) because there are credit segments, such as export credit lines, whose interest rates are indexed to international benchmark rates and which thus respond almost immediately to changes in financing conditions worldwide.[18]

— Moreover, in the event of a monetary policy surprise on the part of the Federal Reserve, the drop in lending by non-Spanish foreign capital banks (mostly US banks) is 0.5 pp higher than for all the others (their volume of lending falls by 2.3% compared with 1.8%). This greater exposure to Federal Reserve monetary surprises may be explained by their higher dependence on cross-border borrowing. This finding is consistent with those contained in other published works.[19]

---

11 For domestic monetary surprises, the Taylor rule responds to domestic variables such as annual real GDP growth and the annual change in the consumer price index, and the same variables for the United States. The residuals for the Federal Reserve and the ECB are built on a Taylor rule that responds only to domestic variables. See B. Morais, J.-L. Peydró, J. Roldán-Peña and C. Ruiz-Ortega. (2019). "The International Bank Lending Channel of Monetary Policy Rates and QE: Credit Supply, Reach-for-Yield, and Real Effects". *The Journal of Finance,* Vol. 74(1), pp. 55-90.

12 J. Wu and F. D. Xia. (2016). "Measuring the Macroeconomic Impact of Monetary Policy at the Zero Lower Bound". *Journal of Money, Credit and Banking,* Vol. 48(2-3), pp. 253-291.

13 In the econometric model, the distinction is drawn by interacting dummy variables capturing the origin of the capital with monetary policy shocks. This makes it possible to assess whether the latter have a different effect on lending according to the origin of the bank's capital.

14 Isabel Argimón. (2019). "Spanish banks' internationalisation strategy: characteristics and comparison". *Economic Bulletin - Banco de España,* 1/2019, Analytical Articles.

15 In periods of monetary tightening by the Federal Reserve there is also an increase in risk premia, which drives up the cost of borrowing for banks and other economic agents in emerging economies.

16 P. De Leo, G. Gopinath and S. Kalemli-Özcan. (2023). "Monetary policy cyclicality in emerging economies". NBER Working Paper Series No 30458. The paper presents evidence of this disconnect between market rates and domestic policy rates using data for emerging economies.

17 In this exercise the estimated effects are three months hence, whereas the evidence shows that, in emerging economies, monetary policy generally achieves its optimal impact in terms of real variables, on average, after eight quarters. See Pragyan Deb, Julia Estefania-Flores, Melih Firat, Davide Furceri and Siddharth Kothari. (2023). "Monetary Policy Transmission Heterogeneity: Cross-Country Evidence". IMF Working Papers, 204, International Monetary Fund.

18 The Brazilian central bank documents this high correlation between export credit lines and international benchmark rates such as Libor (see *Financial Stability Report,* April 2024, Edition 23, Banco Central do Brasil).

19 An increase in a standard deviation of the VIX index (which is highly correlated with the Federal Reserve's monetary policy rate) reduces lending by 2%; see A. Galindo, A. Izquierdo and L. Rojas-Suárez. (2010). "Financial Integration and Foreign Banks in Latin America. How do they Impact the Transmission of External Financial Shocks?". IDB Working Paper Series No 116, Inter-American Development Bank.

Box 4

IMPACT ON BANK LENDING OF MONETARY POLICIES IN THE REGION AND WORLDWIDE (cont'd)
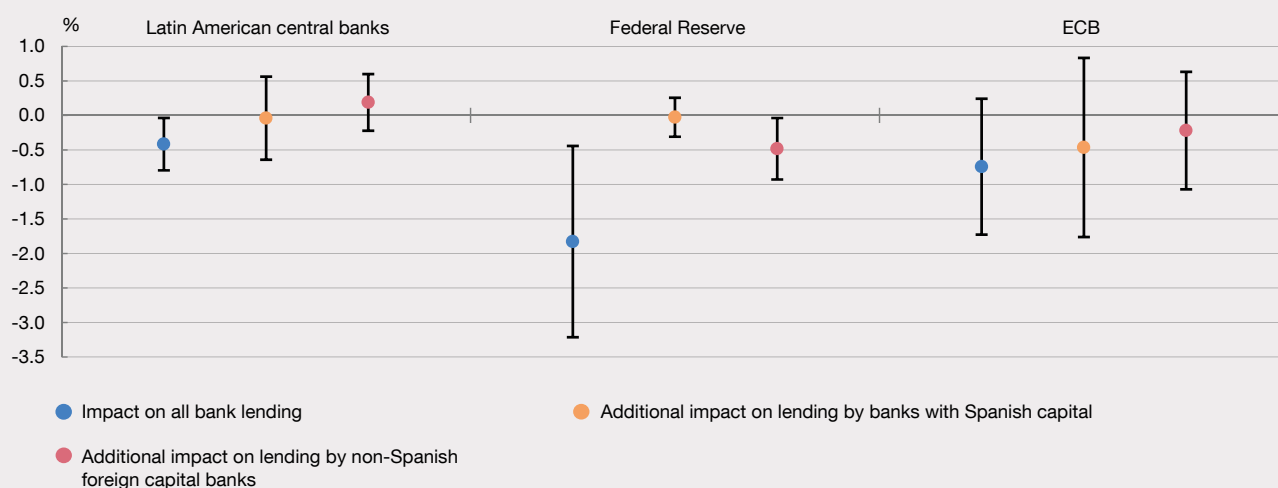
— Lastly, an ECB rate hike also has a negative impact on lending, but in this case it is not statistically significant. In other words, from the estimates made it cannot be inferred that the volume of lending by banks operating in Latin America is significantly affected by shifts in ECB monetary policy.

To sum up, this box estimates the contractionary effect that monetary policy tightening by the region's central banks has on bank lending in Latin America: a 1 pp interest rate rise reduces lending by 0.42%. It then shows

that the contractionary effect of the Federal Reserve's monetary policy is even greater, reducing lending by 1.8%, and even more so for non-Spanish foreign capital banks, reducing lending by 2.3%. It goes on to demonstrate that there is no such amplifying effect for banks with Spanish capital; this is consistent with their business model based on independent subsidiaries, which enables them to respond to such external shocks in a similar way to local capital banks. Lastly, it finds no robust evidence that ECB monetary policy tightening has a significant impact on bank lending in Latin America.

Chart 2
Impact on the stock of bank loans of an increase of 1 pp in policy rates (a)

● Impact on all bank lending   ● Additional impact on lending by banks with Spanish capital

● Additional impact on lending by non-Spanish foreign capital banks

SOURCE: Banco de España estimates, drawing on monetary and supervisory authorities' data.

a The coloured dots denote the estimated impact on bank lending in Latin America of increases of 1 pp in the policy rates of the region's central banks, the Federal Reserve and the ECB. The chart also shows the additional effects on foreign capital banks, drawing a distinction between Spanish and other foreign capital banks. The lines denote a 90% confidence interval.