REPORT ON THE LATIN AMERICAN ECONOMY

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International Economics
and Euro Area Department

BANCO DE ESPAÑA
Eurosistema

INFLATIONARY RISKS AND ECONOMIC POLICY NORMALISATION

Editorial

Economic recovery in Latin America continues, now that the most acute phase of the pandemic has passed, albeit in a highly uncertain environment. The main uncertainties relate to the war in Ukraine, the slowdown in the Chinese economy and the heightening of inflationary pressures in the short term, all of which affect monetary policy conduct worldwide.

Against this backdrop, the growth outlook for the region has been revised down in recent months, albeit only slightly and less than for other economic areas. This is partly because the increase in certain commodity prices in recent quarters, which has intensified since the start of the war in Ukraine, is a positive shock for some Latin American countries' terms of trade.

This Report analyses the main recent developments in the region in economic activity, prices, financial conditions, banking systems and economic policy, and also the key factors that may shape their future course. In this respect, several analytical exercises are included, which examine the sensitivity of the Latin American economies to various shocks – for example, as regards US monetary policy developments or domestic social unrest – and identify the region's main external and fiscal vulnerabilities and its banking sector's vulnerabilities.

The Report includes three boxes. Box 1 analyses how a possible ban by the European Union and the United States on imports of Russian energy products and other commodities might affect the GDP of the main Latin American economies. Box 2 takes a closer look at developments in Latin American public and corporate sectors' foreign currency indebtedness, which in the past has influenced the impact of external shocks. Lastly, Box 3 illustrates how public finance sustainability risks have increased in some of the main Latin American economies, as government debt has climbed in recent years as a result of the health crisis.

Cut-off date for data: 30 June 2022.
Publication date: 13 July 2022.
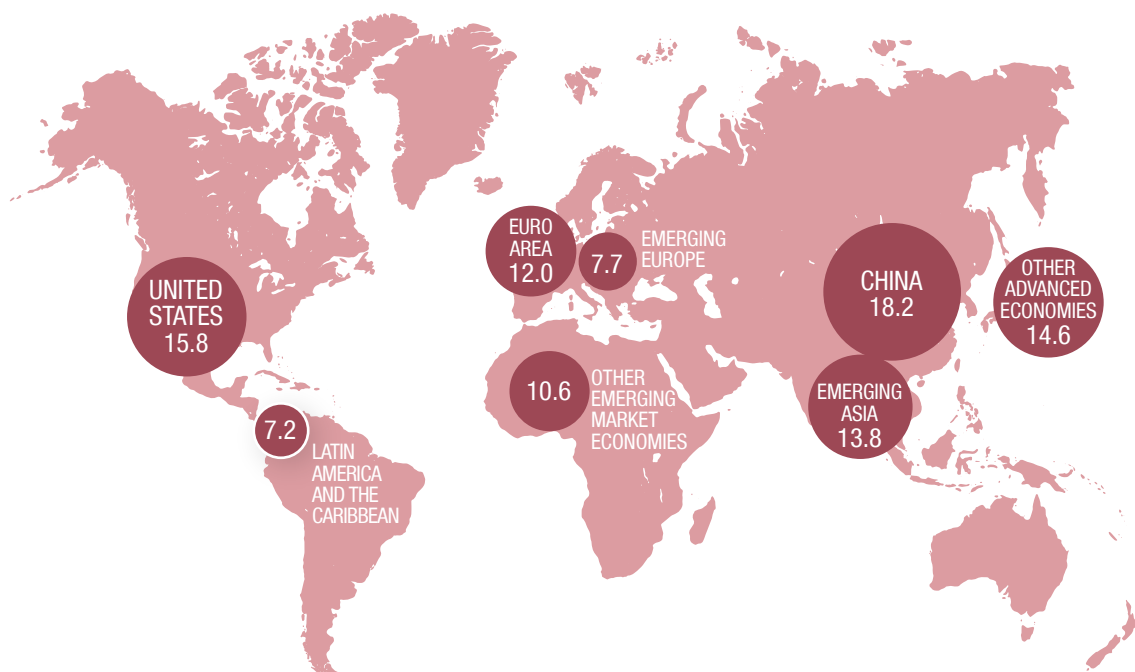
Latin America: population and income

636m
people

8%
of the world total

$16,624
GDP per capita

76 years
life expectancy

SOURCES: World Bank and IMF.

Takeaways

— Economic recovery in Latin America continues, now that the most acute phase of the pandemic has passed, albeit in a highly uncertain environment.

— The main factors affecting economic performance are the war in Ukraine, the economic slowdown in China and the heightening of inflationary pressures in the short term, all of which affect monetary policy conduct worldwide.

— Direct exposure to Russia and Ukraine is very low in the region, but economic activity momentum could still be indirectly affected through various channels.

— In the short term, some of these channels could even work in Latin America's favour, for example if rising commodity prices have a positive impact on the region's terms of trade.

— However, recent developments are further exacerbating inflation, which was already rising faster in the region than in the rest of the world.

— Analysts continue to forecast a gradual decline in today's high inflation rates. Yet if the current inflationary episode lasts longer than expected, it could ultimately trigger significant indirect and second-round effects, especially in some Latin American economies with high levels of price indexation.

— The monetary policy response of Latin America's main central banks to the climb in inflation has been swifter and sharper than in other emerging regions and than in previous normalisation cycles. This has helped to keep long-term inflation expectations anchored.

— In any event, further monetary policy normalisation in the advanced economies – especially in the United States – could have a significant impact on the macro-financial outlook for the region.

— Specifically, an unanticipated increase in US policy rates would have significant negative effects on macro-financial conditions across Latin America.

— Despite such an uncertain backdrop, the region's financial markets have performed relatively well in recent months, while bank lending has recovered.

— The main indicators available show that the banking sector remains sound.

— The Latin American economies' external vulnerabilities are generally contained.

— By contrast, public finance vulnerability indicators have deteriorated, and this could continue in the absence of medium-term fiscal consolidation plans in most countries of the region.

— The risk of greater social and institutional unrest also continues, for instance considering that the most vulnerable households have lost purchasing power in recent quarters as a consequence of rising inflation. This could dampen the growth outlook for the region and hinder the roll-out of far-reaching economic reforms.

— In any event, a number of important safety buffers remain in place, both at the domestic and the international level. In the domestic arena, private sector savings and Latin American central banks' international reserves are, in general, close to their historical average, while at the international level, the IMF and other multilateral or regional bodies can deploy, where necessary, several instruments to provide financial support to the countries of the region.

Distribution of global GDP by region (2020) (%)

UNITED STATES 15.8

7.2 LATIN AMERICA AND THE CARIBBEAN

EURO AREA 12.0

7.7 EMERGING EUROPE

10.6 OTHER EMERGING MARKET ECONOMIES

CHINA 18.2

EMERGING ASIA 13.8

OTHER ADVANCED ECONOMIES 14.6

SOURCE: IMF.

Report

Contents

1 The economic recovery continues, in a highly uncertain environment

— Economic activity continued to recover in Latin America in 2021 Q3 and Q4. As a result, the GDP of the region's main economies, with the exception of Mexico, had already returned to pre-pandemic levels at year-end (see Chart 1.1).

— The recovery has continued in 2022 H1 but is proving less robust than in other emerging regions (see Chart 1.2).

— In a setting in which the health crisis is gradually passing (see Chart 1.3), the momentum of consumption and investment, the buoyancy of external demand, the rise in commodity prices (see Chart 1.4) and the very favourable performance of migrant remittances in some countries[1] have acted as levers for growth.

— The slowdown in the Chinese economy and the Russian invasion of Ukraine have heightened uncertainty about the strength of the global economic recovery, while short-term inflationary pressures have simultaneously intensified.

— The slowdown in the Chinese economy could have a significant impact on Latin America, given the major trade and investment links the region has with that country.

— As regards the war in Ukraine, Latin America is far removed from its main events, and the region has no significant direct trade links[2] with Russia or Ukraine.

— Nevertheless, the region may be indirectly affected by the adverse impact of the war on global economic activity, global value chain disruptions, commodity prices (and their volatility), risk appetite on the international financial markets and households' and firms' confidence. By contrast, some developments linked to the adoption of certain trade sanctions against Russia could ultimately have a positive impact on economic activity in Latin America (see **Box 1**).

— Moreover, against a backdrop of increased inflationary pressures, monetary policy normalisation or tightening has gathered pace of late in the world's main economies, especially in the United States. This poses a downside risk to the future momentum of activity, not to mention the possibility of there being some significant turmoil on the international financial markets.

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1   In 2020 and 2021 Latin America and the Caribbean was the region with the highest rates of growth in remittances at global level. This dynamic is also expected to continue in 2022. See World Bank (2022).

2   For the region as a whole, these direct trade exposures only represent around 0.6% of exports and 0.7% of imports. Some exceptions on the exports side include meat in Paraguay, some chemicals in Jamaica and fruit in Ecuador. Notable on the imports side are fertilisers, which are highly relevant to agricultural production (see Inter-American Development Bank (2022)). Box 4.4 of Inter-American Development Bank (2022) describes Latin American banking systems' exposure to Russia. The main conclusion of this box is that, with the exception of US banks, foreign banks that are highly exposed to Russia have a low exposure to Latin America and the Caribbean.

Chart 1.1
Latin America-6 (a). Real GDP

2019 Q4 = 100

ARGENTINA   BRAZIL   CHILE   COLOMBIA   MEXICO   PERU

Chart 1.2
Real GDP by economic area

2019 Q4 = 100

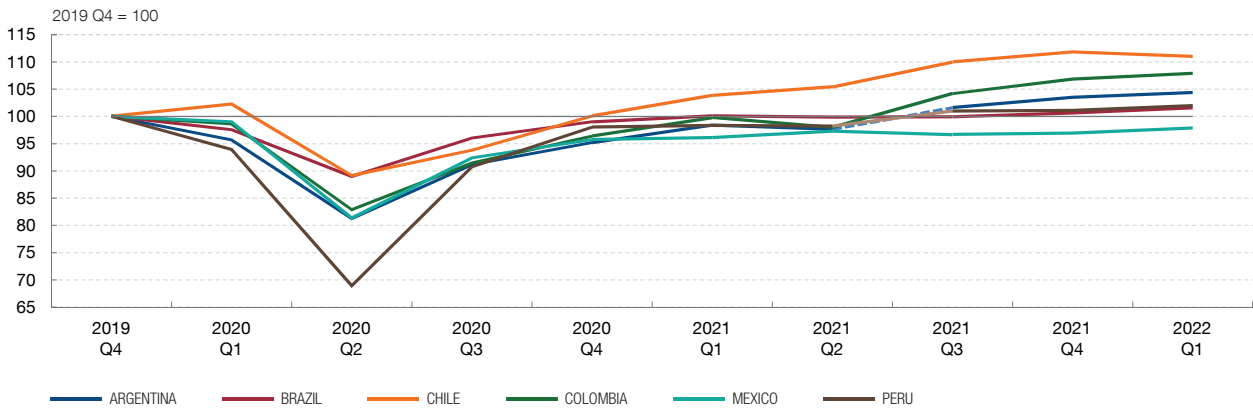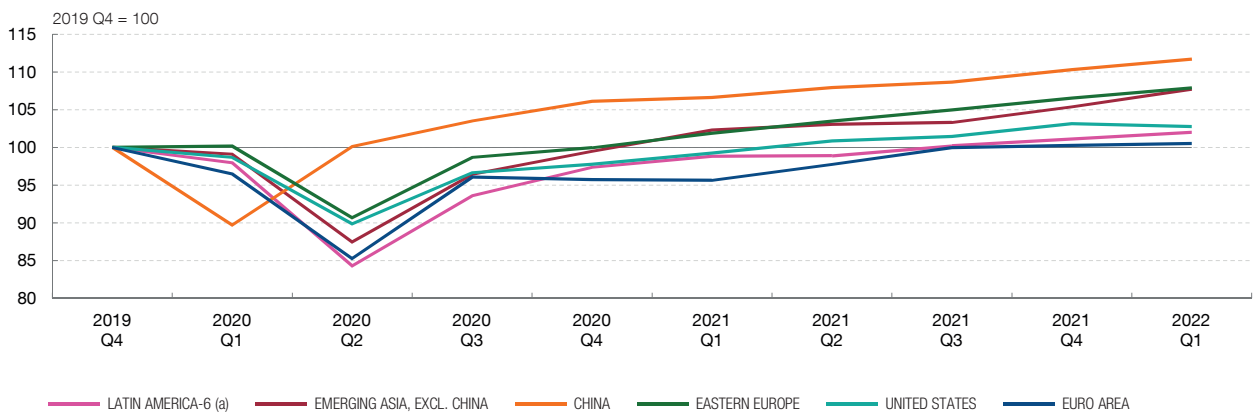LATIN AMERICA-6 (a)   EMERGING ASIA, EXCL. CHINA   CHINA   EASTERN EUROPE   UNITED STATES   EURO AREA

SOURCES: World Bank, national statistics, IMF, Refinitiv and Johns Hopkins University.

a Argentina, Brazil, Chile, Colombia, Mexico and Peru.

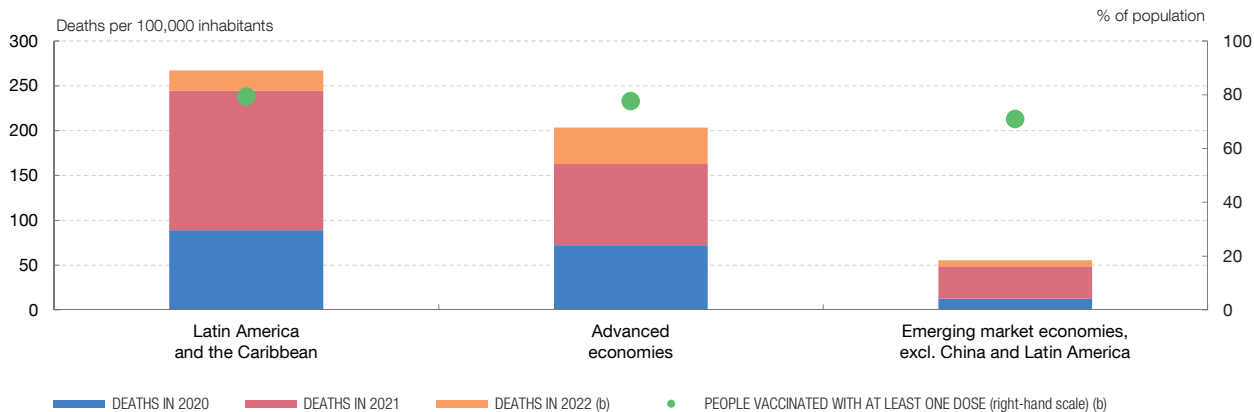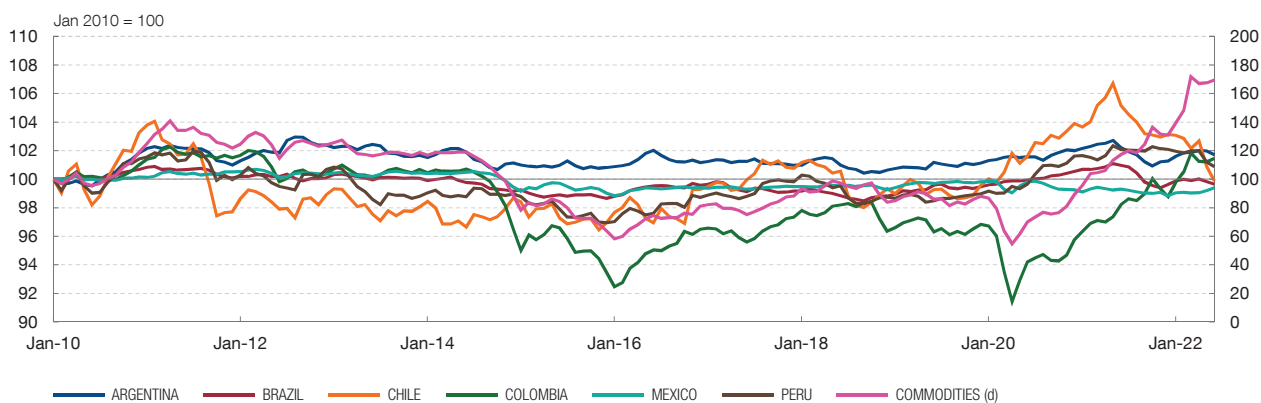DOWNLOAD

Chart 1.3
COVID-19. Deaths and percentage of population vaccinated

Deaths per 100,000 inhabitants

% of population

DEATHS IN 2020   DEATHS IN 2021   DEATHS IN 2022 (b)   ● PEOPLE VACCINATED WITH AT LEAST ONE DOSE (right-hand scale) (b)

Chart 1.4
Composite commodity terms-of-trade index (c)

Jan 2010 = 100

ARGENTINA   BRAZIL   CHILE   COLOMBIA   MEXICO   PERU   COMMODITIES (d)

SOURCES: World Bank, national statistics, IMF, Refinitiv and Johns Hopkins University.

b   Data up to 20 June 2022.
c   Up to April 2022 the commodity terms-of-trade index devised by the IMF is used for each of these six countries. The weights vary over time and are calculated as explained in Gruss and Kebhaj (2019). From May 2022 these indices are extrapolated, drawing on their historical correlation with the commodity prices published by the World Bank. The indices have been standardised at a value of 100 in January 2010.
d   The composite commodities index is constructed using the simple mean of the changes in the World Bank's energy and non-energy indices. This index has been standardised at a value of 100 in January 2010.

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2   While less affected by the war, the region's growth outlook is highly uneven

— Broadly speaking, since the war in Ukraine began, the growth outlook for the Latin American economies has been revised downwards, albeit only slightly and less than for other economic areas. According to consensus forecasts, GDP in Latin America as a whole will grow by around 2% in both 2022 and 2023 (see Chart 2.1).

— Nevertheless, these growth rates continue to be notably lower than those projected for other emerging areas, such as Asia.

— GDP growth is expected to be highly uneven across the region's countries, with rates projected for 2022 ranging from 1.3% in Brazil to 5.5% in Colombia.

— This heterogeneity can largely be explained by the asymmetric impact of the pandemic on each country in the region,[3] cross-country differences in the pace of economic policy normalisation[4] and the mixed impact on these economies of the increases in various commodity prices and changes in external demand, for products and from different geographical areas.

Chart 2.1
GDP growth projections

SOURCE: Latin American Consensus Forecasts.

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3   See Banco de España (2020a), Banco de España (2021) and Hernández de Cos (2021), which consider the main characteristic structural differences of the Latin American economies.

4   Notable in this regard are the sizeable (particularly fiscal) stimulus packages deployed in Brazil, Chile and Peru in response to the pandemic. See Banco de España (2020b), Inter-American Development Bank (2021), Buesa et al. (2021), Kirti et al. (2022) and "Database of Country Fiscal Measures in Response to the COVID-19 Pandemic" in the Methodological and Statistical Appendix of the Fiscal Monitor.

3   The terms-of-trade shock has mitigated the impact of the war for some countries, but it represents higher inflationary pressures

— One differentiating feature of the region is that the main Latin American economies are in general net commodity exporters. Consequently, an increase in commodity prices (such as that observed in the weeks following the start of the war in Ukraine) represents, a priori, an improvement in the terms of trade and, therefore, a transfer of income from the rest of the world.[5]

— However, the impact of this channel is highly uneven across countries, depending on their pattern of productive specialisation and the mixed performance of various commodity prices on the global markets.

— For instance, between 14 February (shortly before the war in Ukraine began) and 30 June (the cut-off date for this report), the highest commodity price increases were seen in energy prices (22%), while agriculture and metals prices declined (by 1% and 11%, respectively).

— Based on commodity price developments and the import and export structures for these products in the main Latin American economies, it can be inferred that the terms-of-trade shock in the weeks following the start of the war in Ukraine was positive for Argentina, Brazil, Mexico and, especially, Colombia. However, it was negative for Chile and Peru (see Chart 3.1), owing to their relative higher energy dependence and a less favourable performance of the commodities of which they are net exporters, namely industrial metals.

— In any event, the rising cost of these commodities puts further inflationary pressure on the Latin American economies.

— In this respect, it appears that the potential boost to activity from the aforementioned positive terms-of-trade shock is being offset, at least in part, by the erosion of real incomes and by the tightening of monetary conditions prompted by higher inflation.
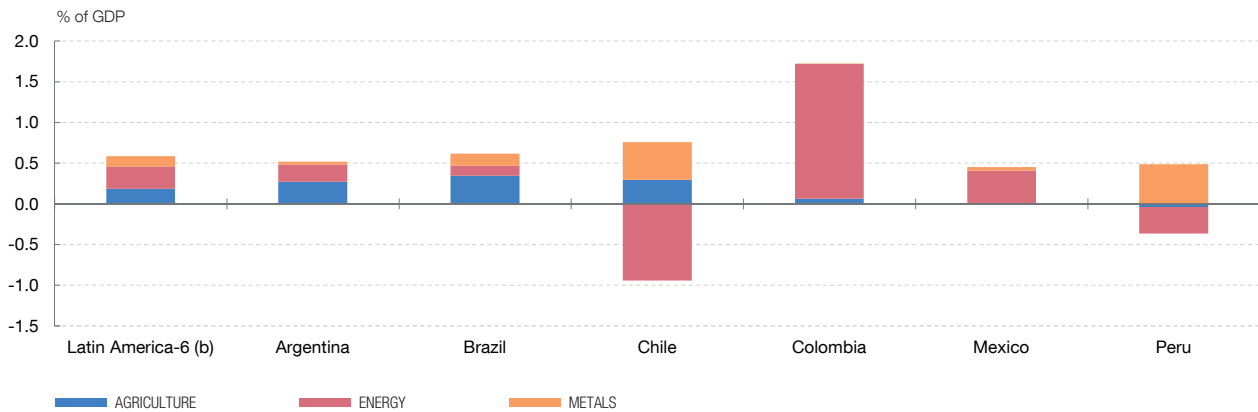

Open pit copper mine in the north of Chile.

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5   Box 4.2 of Inter-American Development Bank (2022) considers the possibility of Latin America being able to mitigate, in quantitative terms, the decline in supply of some products prompted by the war in Ukraine. See also Box 1.

Chart 3.1
Effects of the commodities shock on the trade balance (a)

% of GDP

AGRICULTURE   ENERGY   METALS

SOURCES: OECD, Refinitiv and Banco de España.

a The depicted shock is calculated using average trade, for each of the three commodities aggregates, between 2015 and 2018. A commodity price index is applied to this average at two different points in time (January 2022 and 24 February-7 April 2022) to obtain the difference, which is represented as a percentage of GDP. For the commodity prices, the price of the commodity most representative of each country's trade is used: soy, for Argentina and Brazil; oil, for Colombia and Mexico; and copper, for Chile and Peru. Thus, in the case of Argentina and Brazil, the soy price is taken as the price for agriculture, and the Dow Jones aggregates are used for metals and energy; in the case of Chile and Peru, the copper price is taken as the price for metals, and the Dow Jones aggregates are used for agriculture and energy; and, lastly, in the case of Colombia and Mexico, oil prices are taken as the price of energy, and the Dow Jones aggregates are used for agriculture and metals.
b Weighted aggregate of Argentina, Brazil, Chile, Colombia, Mexico and Peru.

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4 The surge in inflation is proving to be very sharp

— In recent quarters, the increase in consumer prices has steepened in Latin America, pushing the inflation rate to 9.8% year-on-year in May.[6]

— This is close to the April figure, which was the highest rate for the past two decades (see Chart 4.1), and above the 8.8% observed in May for emerging market economies as a whole, excluding China (see Chart 4.2).

— In terms of levels, in the main Latin American economies as a whole consumer prices were 16.9% higher in May 2022 than in January 2020; this increase is sharper than that observed in the developed economies and in China and similar to that seen in other emerging market economies (see Chart 4.3).

— By component, the increase in consumer price levels between January 2020 and May 2022 was especially acute in food (28.2%) and energy (17.4%) (see Chart 4.4).

Chart 4.1
Long-term inflation outlook in Latin America and the Caribbean (a)

P 25-P 75 RANGE   MEDIAN   AVERAGE MEDIAN IN DECADE
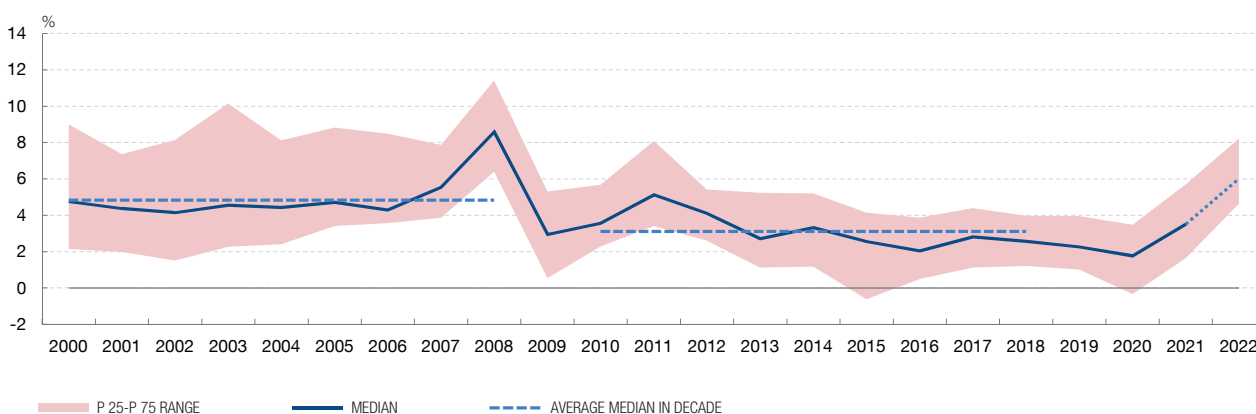
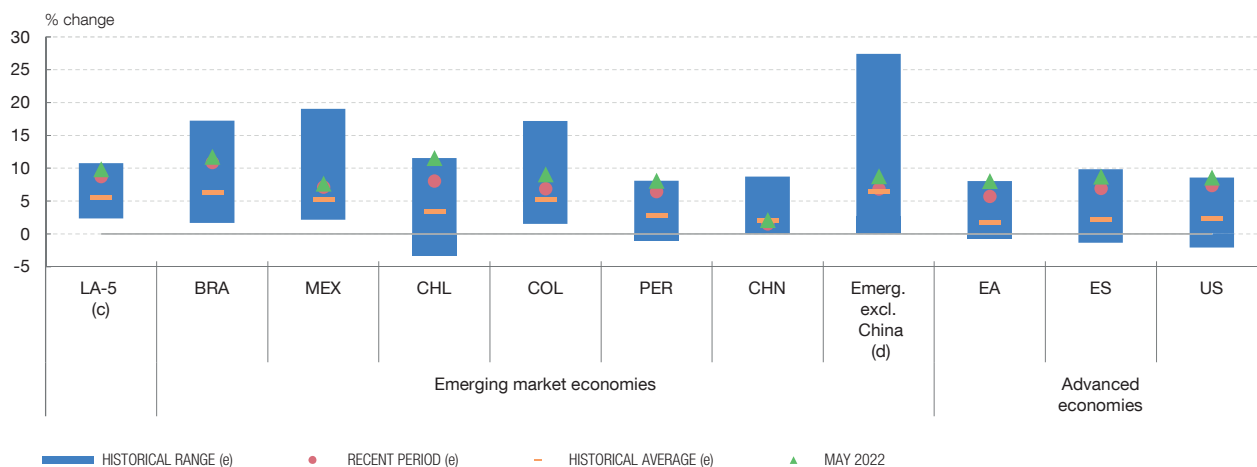**SOURCES:** IMF, Refinitiv and national statistics.

a Data from the IMF's April 2022 WEO for Latin America and the Caribbean as a whole (forecasts for 2022).

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6   Weighted average of Brazil, Colombia, Chile, Mexico and Peru, the region's largest economies whose central banks have an inflation target.

Chart 4.2
Headline inflation (b)

% change

HISTORICAL RANGE (e)   RECENT PERIOD (e)   HISTORICAL AVERAGE (e)   MAY 2022

SOURCES: IMF, Refinitiv and national statistics.

b ES: Spain; US: United States; CHN: China; BRA: Brazil; MEX: Mexico; CHL: Chile; COL: Colombia; PER: Peru.
c Latin America-5: aggregate of Brazil, Chile, Colombia, Mexico and Peru.
d Includes Brazil, Chile, Colombia, Mexico, Peru, Hungary, Poland, the Czech Republic, Russia, India, Indonesia, Malaysia, Thailand and Taiwan.
e The historical averages and ranges cover the period 1999-2021. The recent period refers to the inflation rate average from September 2021 to May 2022 (April 2022 for Emerging market economies, excl. China).

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Chart 4.3
Consumer price level. Cumulative change January 2020-May 2022 (f)

January 2020 = 100

HEADLINE INFLATION
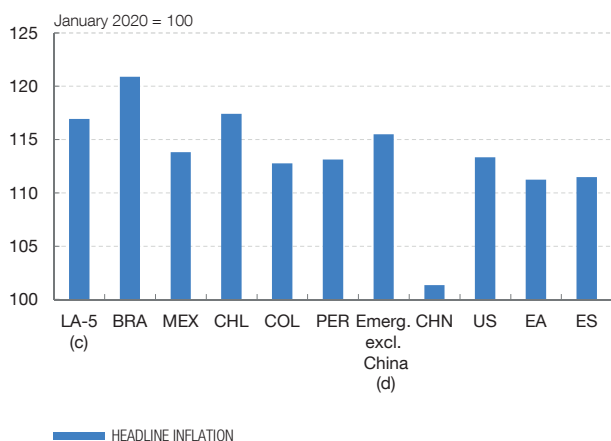
Chart 4.4
Consumer price level. Cumulative change January 2020-May 2022 (f)

January 2020 = 100

ENERGY   FOOD
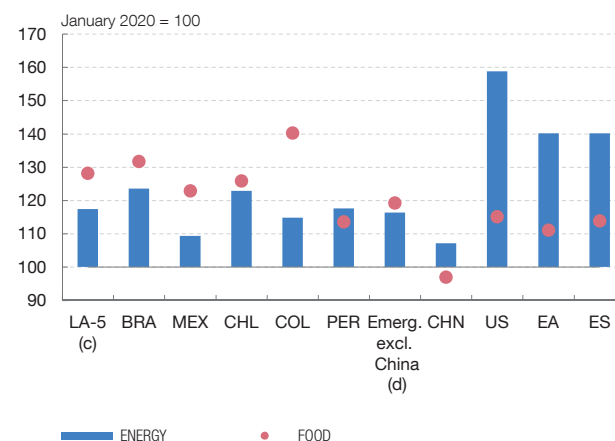
SOURCES: IMF, Refinitiv and national statistics.

c Latin America-5: aggregate of Brazil, Chile, Colombia, Mexico and Peru.
d The emerging market economies aggregate includes Brazil, Chile, Colombia, Mexico, Peru, Hungary, Poland, the Czech Republic, Russia, India, Indonesia, Malaysia, Thailand and Taiwan.
f Up to April 2022 for Emerging market economies, excl. China.

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5 Inflation is rising across the board

— Energy and, in particular, food are making a larger contribution to the rise in inflation in Latin America than in the emerging economies as a whole, excluding China, which has much lower rates of inflation (see Chart 5.1).

— Moreover, in recent quarters price increases in the region have spread to other consumer items, as borne out by the acceleration in core inflation (see Chart 5.2).

— In a similar vein, the percentage of consumer price index components with inflation rates above the upper range of the inflation targets set by the central banks of Brazil, Chile, Colombia, Mexico and Peru[7] has risen very notably in the last year, and now stands at over 60% in all of these countries (see Chart 5.3).

Chart 5.1
Energy and food. Contribution to inflation in the most recent period (a) (b)
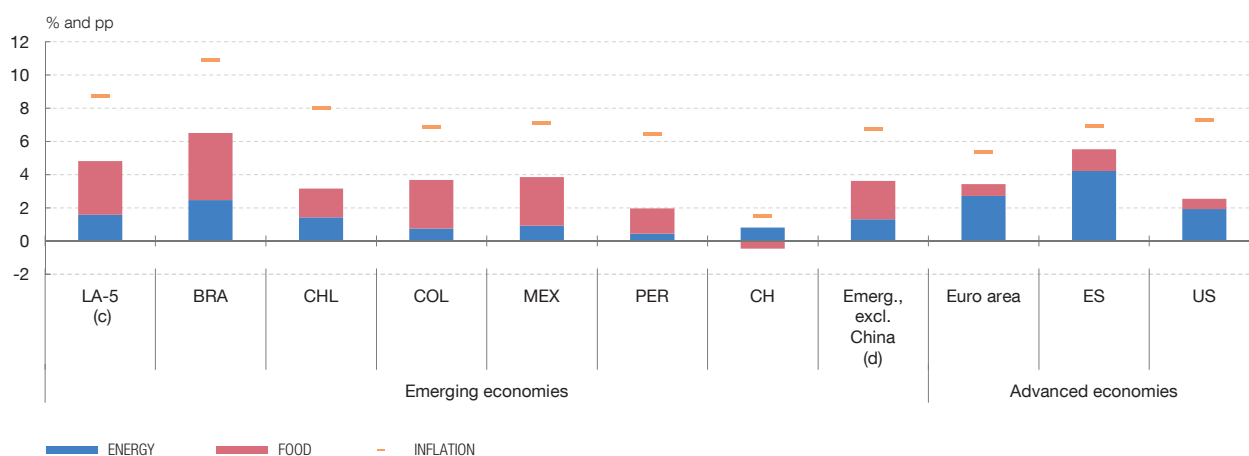
SOURCES: Eurostat, Banco de España and national statistics.

a Average inflation rate between September 2021 and May 2022 (up to April 2022 for the aggregate of emerging economies).
b ES: Spain; US: United States; CH: China, BRA: Brazil; MEX: Mexico; CHL: Chile; COL: Colombia; PER: Peru.
c Aggregate of Brazil, Chile, Colombia, Mexico and Peru.
d The aggregate of emerging economies includes Brazil, Chile, Colombia, Mexico, Peru, Hungary, Poland, the Czech Republic, Russia, India, Indonesia, Malaysia, Thailand and Taiwan.

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7   Inflation targets of the region's main central banks: Brazil: 3.5% ± 1.5 pp in 2022; Chile, Colombia and Mexico: (3% ± 1 pp); and Peru (2% ± 1 pp).

Chart 5.2
Core inflation (b)

%

| | HISTORICAL RANGE (e) | RECENT PERIOD (e) | HISTORICAL AVERAGE (e) | MAY 2022 |

SOURCES: Eurostat, Banco de España and national statistics.

b ES: Spain; US: United States; CH: China, BRA: Brazil; MEX: Mexico; CHL: Chile; COL: Colombia; PER: Peru.
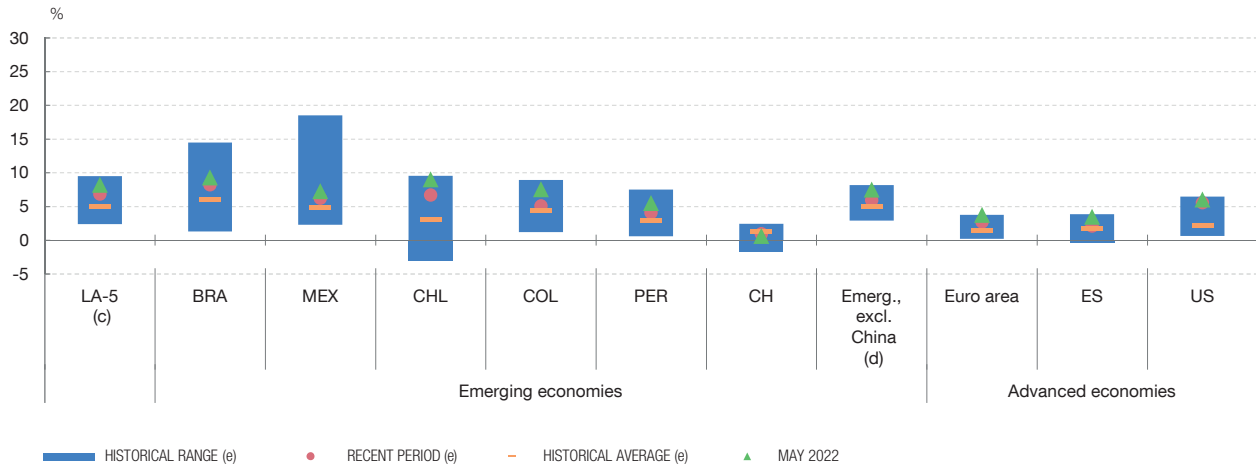**c** Aggregate of Brazil, Chile, Colombia, Mexico and Peru.
d The aggregate of emerging economies includes Brazil, Chile, Colombia, Mexico, Peru, Hungary, Poland, the Czech Republic, Russia, India, Indonesia, Malaysia, Thailand and Taiwan.
e The historical average and range comprise the period 1999-2021, except for the aggregate of core inflation in the emerging economies, where the period is 2005-2021. Recent period refers to the average inflation rates between September 2021 and May 2022.

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Chart 5.3
Distribution of Consumer Price Index components as per the interval in which their inflation rate lies (f)

% of components

| | π ≥ 0 | 0 < π ≤ 2 OR BELOW THE TARGET INTERVAL |
| | 2 < π ≤ 4 OR WITHIN THE TARGET INTERVAL | π > 4 OR ABOVE THE TARGET INTERVAL |
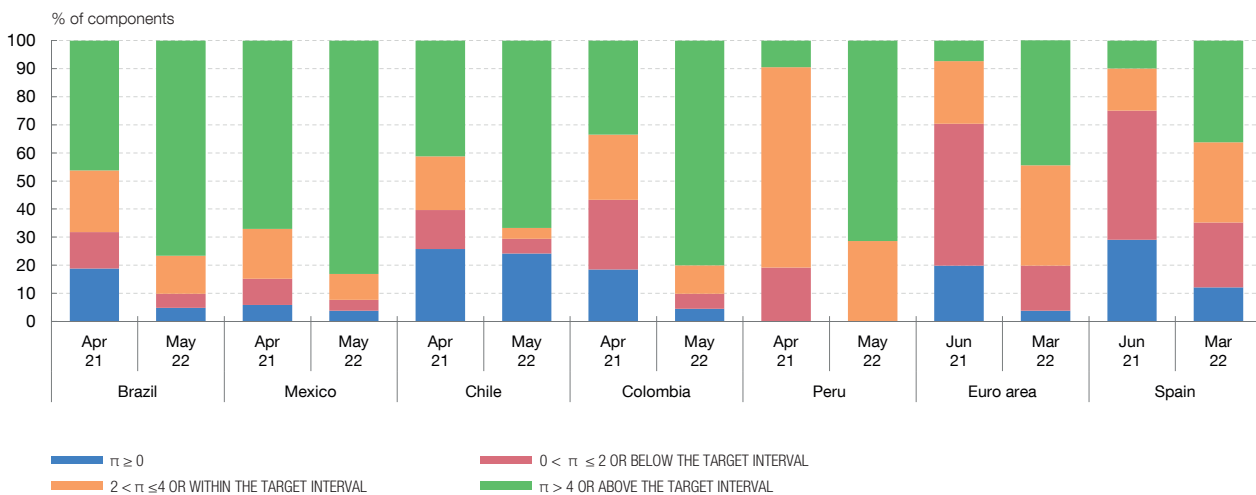
SOURCES: Eurostat, Banco de España and national statistics.

f In each country/region, the month in which an acceleration in inflation is first observed is taken as reference. The target intervals are 2%/4% (Mexico, Chile and Colombia), 1%/3% (Peru) and 2.5%/5.5% (Brazil).

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6 The rise in inflation is due to supply and demand factors

— While precisely quantifying the relative weight of each of the different factors driving the current inflationary episode – essentially, the post-pandemic rebound in demand, global value chain bottlenecks and certain idiosyncratic aspects that have shaped developments in commodity prices – is no easy task, it can be estimated using a structural econometric model.[8]

— Within the framework of this analysis, the Banco de España's estimates[9] suggest that exchange rate depreciation and rising commodity prices have played a key role in the rise in inflation in all of Latin America's main economies (see Chart 6.1). However, the other factors analysed appear to have had a more uneven impact on the inflationary pressures experienced by these economies.

— Thus, for example, supply shocks and bottlenecks appear to have made a particularly relevant contribution to the upsurge in prices in Brazil and Mexico (where manufacturing has a greater weight), while the sharp recovery in domestic demand seems to have had a particularly marked impact on inflationary dynamics in Colombia (where fiscal and monetary policy was looser in 2021).

Chart 6.1
Contribution to the rise in average inflation (January 2020-April 2021 to May 2021-April 2022) (a)
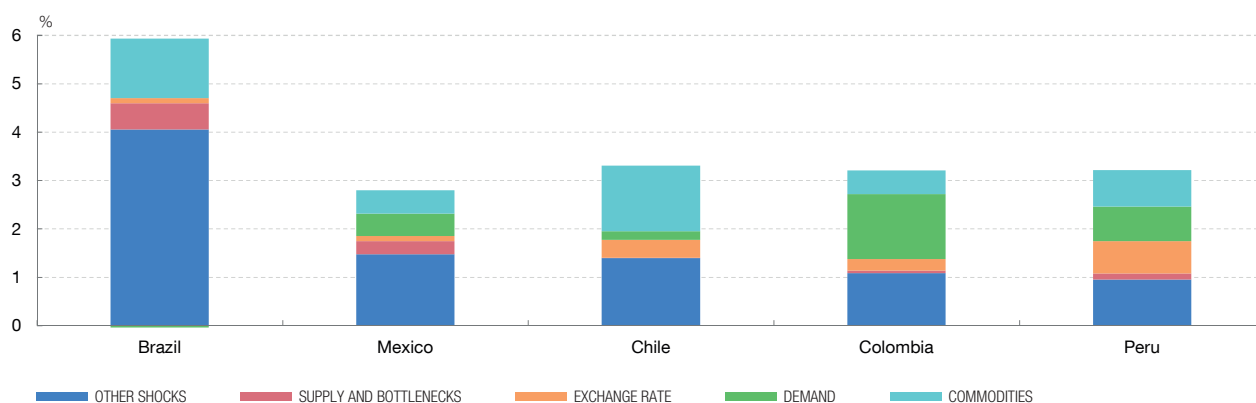
SOURCE: Banco de España.

a Based on the findings of Molina and Vidal (2022). Initially, the supply and demand shocks are estimated using a BVAR model with sign restrictions for prices and industrial output, and are then included in another BVAR model together with a synthetic index of energy commodity and food prices, an international transport cost indicator, the monthly rate of change in the exchange rate against the dollar and the respective CPI of each country, estimated using a Cholensky ordering. The chart depicts the differences between contributions to average inflation between January and April 2021 and contributions to average inflation between May 2021 and March 2022.

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8 To this end, a distinction is drawn between demand and supply shocks in the industrial sector, the increase in production costs due to rising commodity prices and exchange rate shocks. See Chapter 3 of Banco de España (2022) for a similar exercise.

9 See Molina and Vidal (2022).

7 Long-term inflation expectations remain anchored and the projections continue to point to a gradual decline in the current high rates

— As in the main economies, short-term inflation expectations have risen in Latin America, and the rates forecast for December 2022 are significantly higher than the targets set by the region's central banks (see Chart 7.1).

— Despite these high short-term inflationary pressures, analysts still expect the increase in prices in Latin American countries (and globally) to slow over the coming quarters (see Charts 7.1 and 7.3). Specifically, the inflation expectations for end-2023 in the main Latin American economies are at the upper bound of their central banks' target intervals.

— Meanwhile, long-term inflation expectations have barely risen in recent quarters, and remain in line with the inflation targets of the regions' various central banks, which are generally more credible than the central banks of other emerging market economies[10] (see Charts 7.1 and 7.2).

Central Bank of Mexico building. © Shutterstock.

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10 See Chapter 3, "Credibility, Communication, and Monetary Policy Procyclicality in Latin America", IMF (2018).

Chart 7.1
Inflation expectations (June 2022)

y-o-y change

TARGET RANGE   ◆ EXPECTATIONS FOR DECEMBER 2022   ◆ EXPECTATIONS FOR DECEMBER 2023   ◆ LONG-TERM EXPECTATIONS
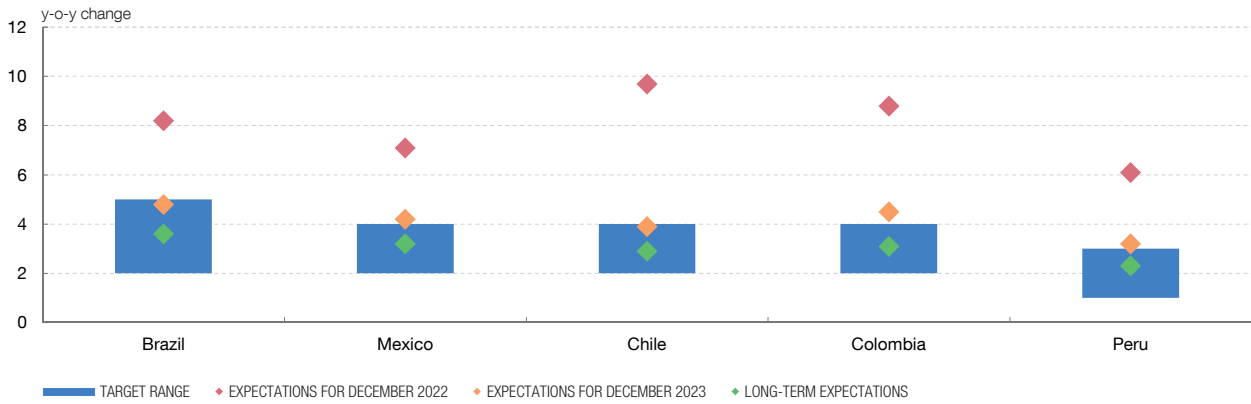
Chart 7.2
Long-term inflation expectations

y-o-y change

—— BRAZIL   —— MEXICO   —— CHILE   —— COLOMBIA   —— PERU

Chart 7.3
Inflation forecasts

% change

JANUARY 2022   ● JUNE 2022

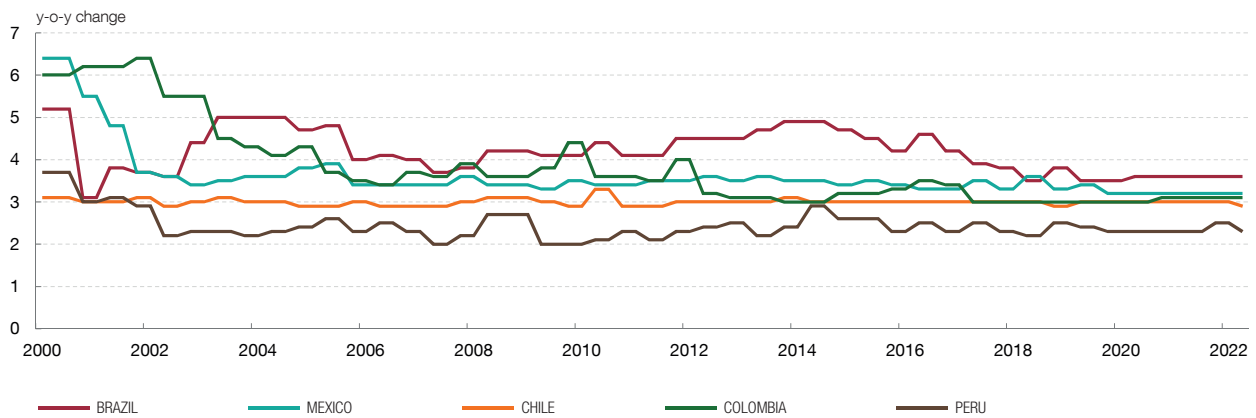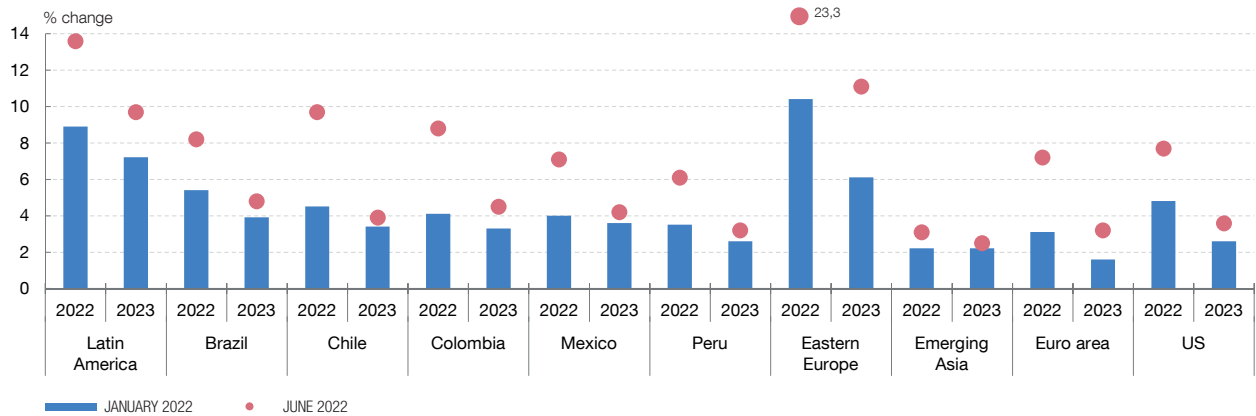**SOURCES:** Refinitiv, consensus forecasts and national statistics.

8   The risk of significant indirect and second-round effects on inflation persists

— While the consensus forecasts point to a gradual decline in the current high rates of inflation, there is considerable uncertainty as to how inflation will develop in the short and medium term.

— Price dynamics in the coming quarters will hinge decisively on how the pandemic unfolds (particularly in China, where the very harsh measures deployed by the authorities to curb the expansion of the virus have affected global supply chains) and on the scale and persistence of the war in Ukraine. These factors shape both the momentum of global economic activity and commodity prices and the severity of global production chain bottlenecks.

— Other factors may also affect the persistence of the current inflationary episode. First, the rises already seen in the prices of many goods and services could trigger further inflationary pressures in the future via indirect effects.

— Thus, in terms of the average for the main Latin American economies, between 2003 and 2022 both demand and supply shocks are estimated to have impacted price dynamics for several months after the initial shock (see Chart 8.1).

— Second, the degree to which the current price dynamics persist will also depend on the possible emergence of significant second-round effects. These could emerge if, as a result of rising inflation, employees were to demand higher wages, which in turn would drive up firms' labour costs and generate fresh upward pressures on prices.

— According to the Banco de España's estimates, these second-round effects would pose a comparatively higher risk for the Brazilian and Chilean economies, since these countries are where the closest correlation between wages and inflation has been observed in the past (see Chart 8.2). In turn, this could reflect a greater prevalence of wage indexation mechanisms in these economies.[11]
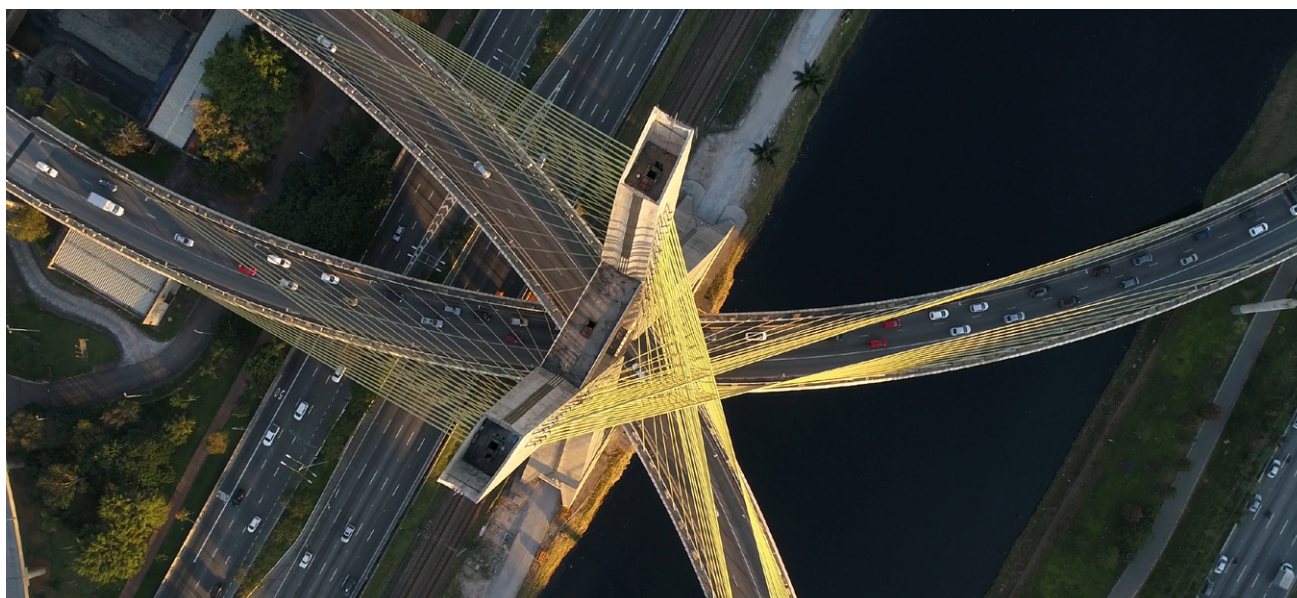
Aerial view of the Estaiada bridge, São Paulo, Brazil.

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11   See IMF (2021 and 2022b).

Chart 8.1
Latin America. Response of industrial prices to demand and supply shocks (a)
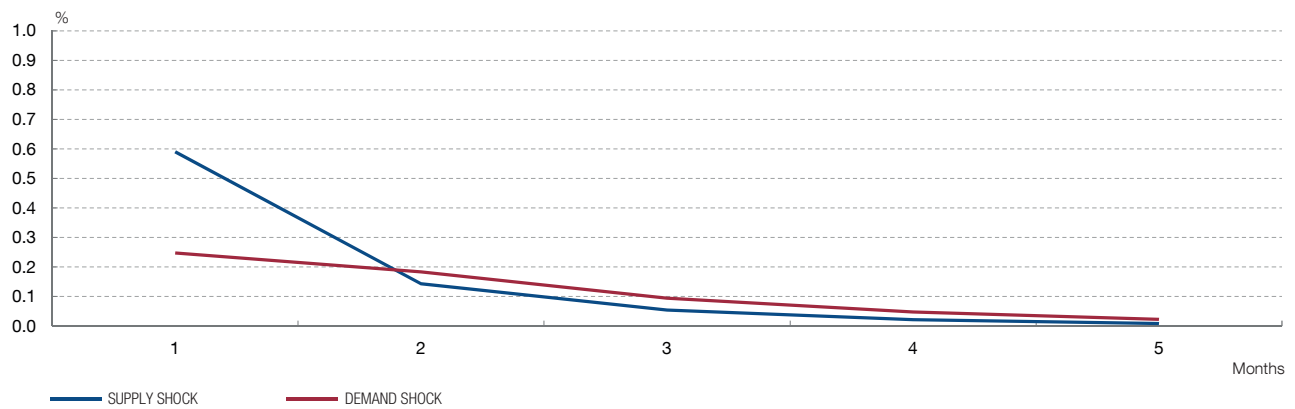
Chart 8.2
Sensitivity of wages to past inflation (b)
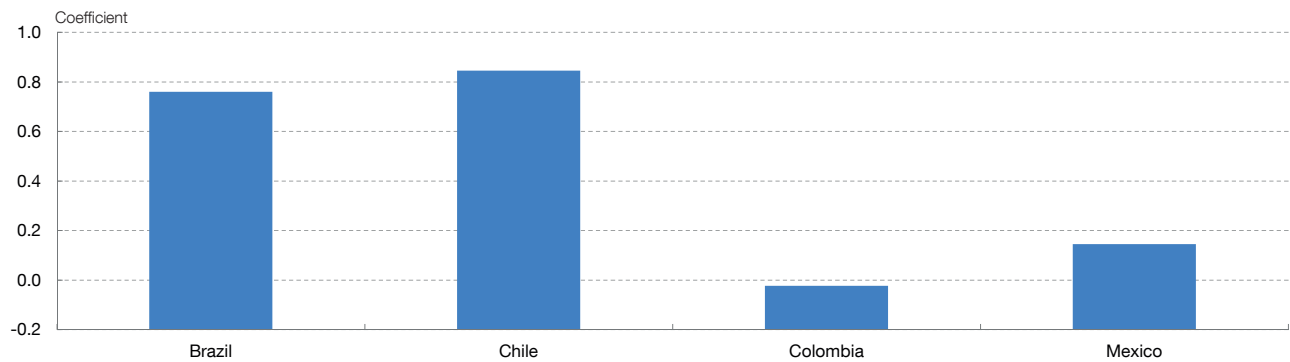
SOURCES: Refinitiv, national statistics, Molina and Vidal (2022).

a   Weighted aggregate of the five countries with inflation targets: Brazil, Chile, Colombia, Mexico and Peru. Estimated using a BVAR model with industrial prices and industrial output. The shocks depicted are a supply shock that reduces output by 1% and a demand shock that increases output by 1% .

b   Coefficient α of the regression equation: $W\_t = \alpha \pi\_{(t-1)} + (1-\alpha)\,\pi^{\wedge *} + \varepsilon\_t$, where W_t is salary growth, $\pi\_{(t-1)}$ is year-on-year inflation in the preceding quarter, and $\pi^{\wedge *}$ is the inflation target. Quarterly figures are used with a sample period running from 2005 Q1 to 2022 Q1, although, for some countries, the sample may start later or end earlier.

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9 So far, the sensitivity of long-term inflation expectations to current inflation is generally very low

— The sensitivity of long-term inflation expectations to current inflation is one of the indicators that enables assessment of the risk of materialisation of significant indirect and second-round effects and of deanchoring of inflation expectations.

— On Banco de España estimates, the sensitivity of long-term inflation expectations to current inflation in the main Latin American countries is generally very low and has even decreased in recent years (see Chart 9.1).

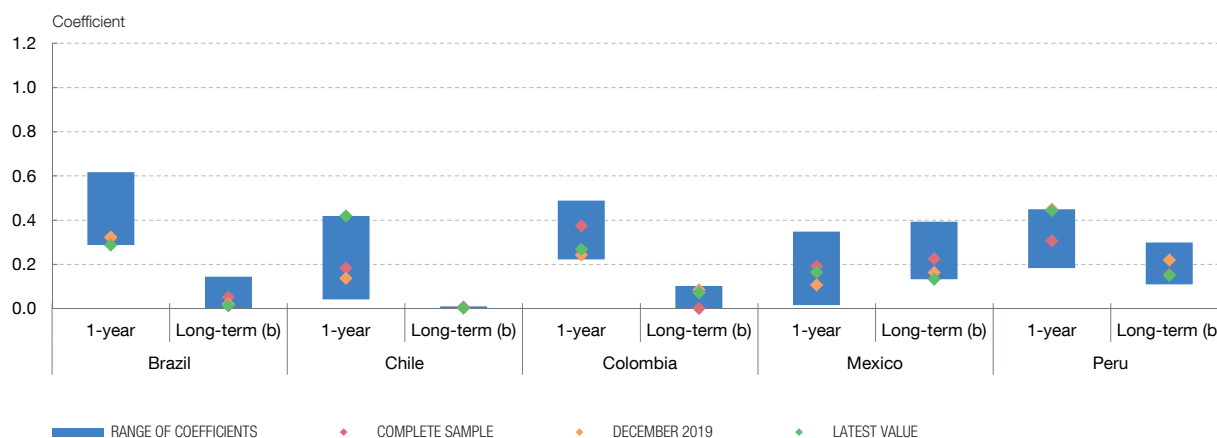— However, the recent climb in inflation does appear to be passing through to short-term expectations, which are more sensitive to current current inflation. Moreover, this sensitivity has increased in recent quarters.

Chart 9.1
Sensitivity of inflation expectations to past inflation (a)

Legend: RANGE OF COEFFICIENTS ◆ COMPLETE SAMPLE ◆ DECEMBER 2019 ◆ LATEST VALUE

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

a Coefficient α of regression equations: $\pi_t^{ecp} = \alpha\pi_{t-1} + (1-\alpha)\pi_t^{elp} + \varepsilon_t$ y $\pi_t^{lcp} = \alpha\pi_{t-1} + (1-\alpha)\pi^* + \varepsilon_t$, estimated across 5-year sliding windows, where π_t^{ecp} denotes 1-year inflation expectations, π_{t-1} year-on-year inflation in the previous quarter, π_t^{lcp} long-term inflation expectations, and π^* the inflation target. Drawing on quarterly data, using a sample period ranging from 2004 Q1 to 2022 Q1.
b Long-term expectations taken from Latin American Consensus Forecasts at 6 to 10 years.

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10 The monetary policy response to the inflationary episode has been swift and sharp

— Holding long-term inflation expectations around the targets set by the region's central banks is closely linked to an early and sustained central bank response. The central banks have tightened their monetary policies since the first half of 2021, after the most acute phase of the pandemic had passed (see Chart 10.1).

— In particular, in recent quarters, the region's central banks have raised their policy rates more than in previous tightening phases (see Chart 10.2) and more than in other emerging regions such as Asia.

— Indeed, in countries such as Brazil or Chile, real interest rates (which are above the neutral interest rates calculated by the central banks) already point to a clearly restrictive monetary policy stance (see Chart 10.3).

— This significant monetary policy tightening in the region, in excess of the level factored in by the financial markets some months ago, has also been reflected in an increase in long-term interest rates in the Latin American economies (see Chart 10.4).

— Looking ahead, the financial markets are pricing in continued policy rate increases in the region in the coming months, although the rate hike cycle looks to be nearing its end in some countries (see Chart 10.1).

Chilean peso banknotes.
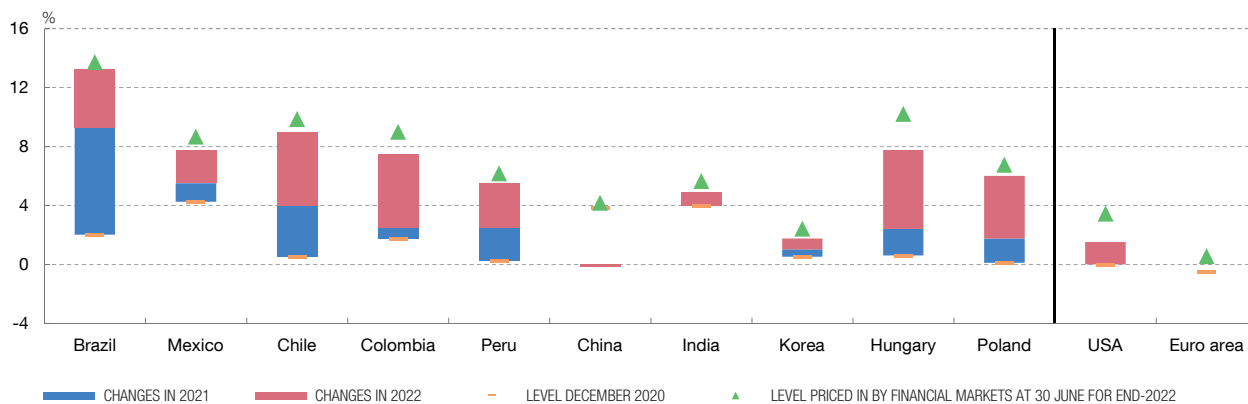
Chart 10.1
Policy interest rates

CHANGES IN 2021   CHANGES IN 2022   LEVEL DECEMBER 2020   ▲ LEVEL PRICED IN BY FINANCIAL MARKETS AT 30 JUNE FOR END-2022

Chart 10.2
Latin America. Policy interest rate hike cycles (a)

Inflation at start: 6.1%
Policy rate at start: 2%

Inflation at start: 6.4%
Policy rate at start: 12.75%

Inflation at start: 5.9%
Policy rate at start: 4%

Inflation at start: 3.1%
Policy rate at start: 5%

Inflation at start: 4.6%
Policy rate at start:1.75%

Inflation at start: 3.3%
Policy rate at start: 4.1%

Inflation at start: 4.5%
Policy rate at start: 0.5%

Inflation at start: 3.9%
Policy rate at start: 3.1%

Inflation at start: 4.9%
Policy rate at start: 0.25%

Inflation at start: 2.1%
Policy rate at start: 2.5%

Brazil   Mexico   Colombia   Chile   Peru

Months

CURRENT CYCLE   PREVIOUS CYCLES

SOURCES: Refinitiv and national statistics.

a The broken lines denote the policy interest rates priced in by the markets in the last week of June 2022. The current cycles begin in March 2021 (Brazil), June 2021 (Mexico), October 2021 (Colombia), July 2021 (Chile) and August 2021 (Peru). The previous cycles start from 2000, when all five countries had adopted an inflation-targeting framework, and begin: in March 2001, October 2002, September 2004, April 2008 and April 2013 (Brazil); in April 2007 and December 2015 (Mexico); in April 2006, December 2007, June 2010, October 2015 and October 2018 (Chile); in April 2006, February 2011 and April 2014 (Colombia); and in December 2005, May 2010 and September 2015 (Peru).

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Chart 10.3
Real interest rates in main Latin American economies (b)

DECEMBER 2019   JUNE 2022   EQUILIBRIUM INTEREST RATE (c)
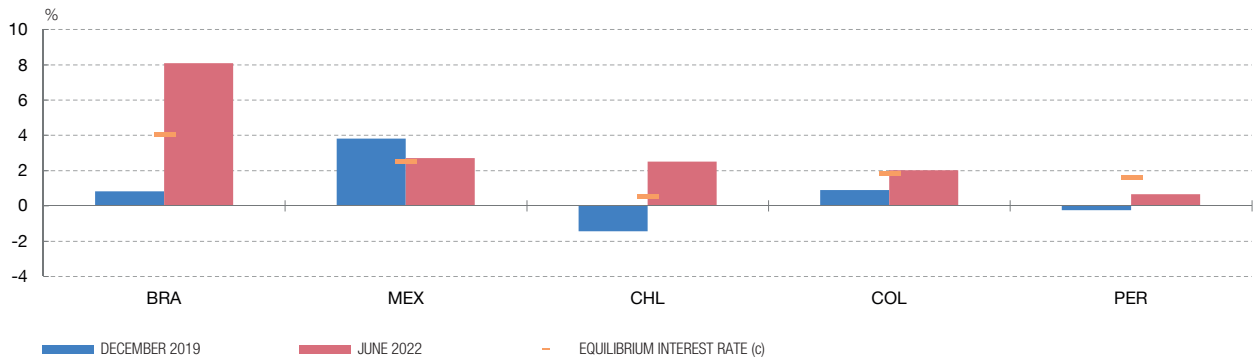
Chart 10.4
Long-term local currency interest rates

BRAZIL   MEXICO   CHILE   COLOMBIA   PERU   EASTERN EUROPE (d)   ASIA EXCLUDING CHINA (e)
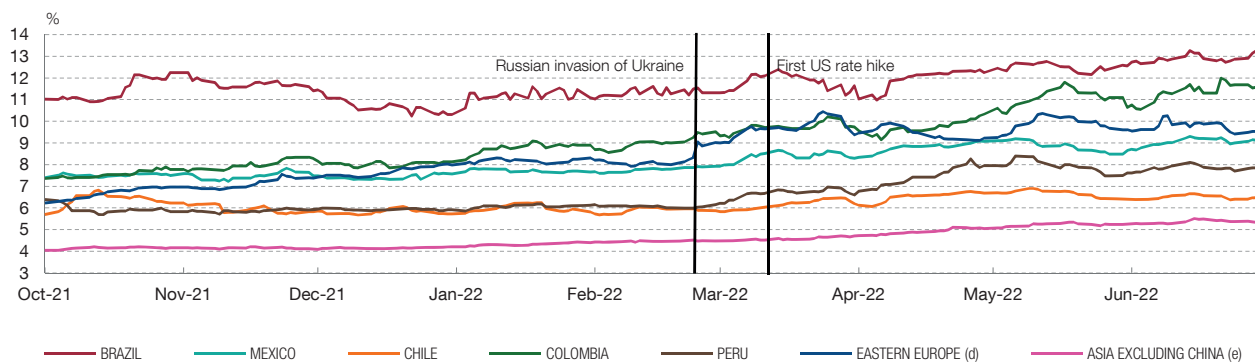
SOURCES: Refinitiv and national statistics.

b Real interest rates calculated as the difference between policy rates and 1-year expected inflation, taken from central bank surveys.
c On Latin American central bank estimates.
d The simple average of the long-term local currency interest rates in Czech Republic, Hungary, Poland, Romania, Russia and Turkey.
e The simple average of the long-term local currency interest rates in Korea, Philippines, India, Indonesia, Malaysia and Thailand.

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11 The US Federal Reserve's monetary policy decisions could affect the macro-financial outlook for the region

— As a result of the escalation in inflation in recent quarters, the main advanced economies' central banks, like their Latin American counterparts, have also embarked on monetary policy normalisation. These processes have recently gathered pace.

— Specifically, in March of this year, the United States Federal Reserve initiated a policy rate hike cycle, which has continued at successive FOMC meetings, such that its target range stood at 1.50%–1.75% in June. The financial markets expect this process to continue in the coming months, which could entail, by year-end, a further increase in this range of 175 basis points (bp).

— On past evidence, this monetary policy normalisation in the United States could have a very significant impact on the headroom available to Latin American central banks, and a considerable effect on financing conditions in their economies.

— Specifically, on Banco de España estimates, were US monetary policy to tighten unexpectedly,[12] the Latin American economies would face widening sovereign risk spreads and currency depreciation, leading the region's central banks to raise their own policy rates (see Chart 11.1).

— According to the simulations made, the combination of these factors would have a negative impact on the GDP of all the Latin American economies analysed (compared with a baseline scenario with no shocks). Brazil would be the country hardest hit, owing to its financial market, which is more interconnected with the rest of the world, and its greater financial vulnerability[13] (see Chart 11.2).

Federal Reserve building, Washington, D.C.

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12 The impact of a Federal Reserve policy rate hike depends on the underlying reasons. In particular, the effects of a rate increase in response to higher domestic demand in the United States – which also entails beneficial effects for Latin America – are not the same as the effects of an unexpected rate hike unrelated to higher demand, as in the simulations in Charts 11.1 and 11.2.

13 The greater impact of US monetary policy on the Brazilian economy is consistent with the comparative findings contained in Borrallo et al. (2016).

Chart 11.1

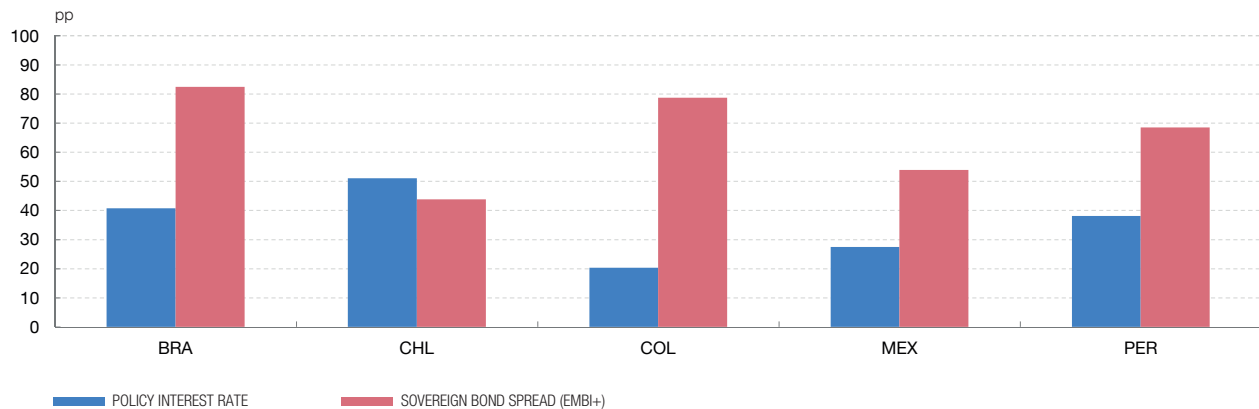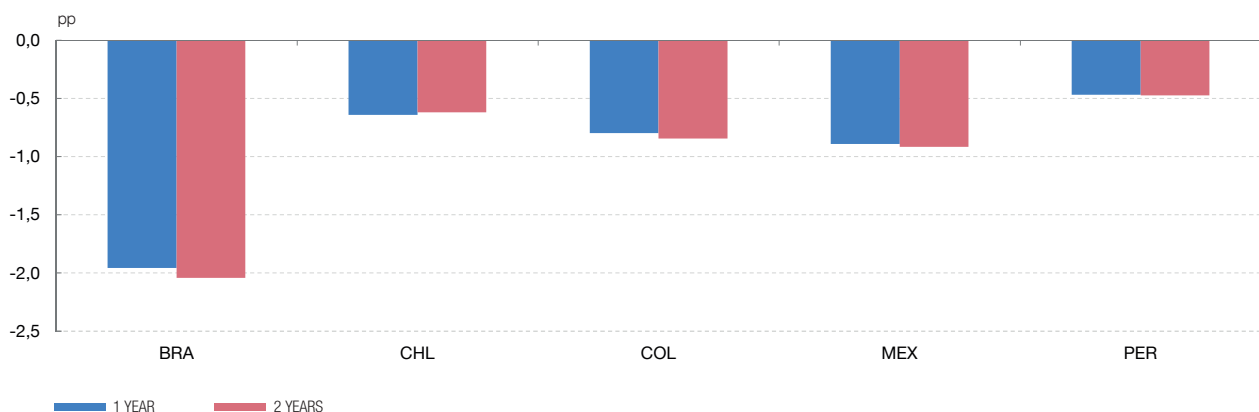**Latin America. Impact of a US monetary policy surprise on interest rates and spreads (a)**

Legend: POLICY INTEREST RATE SOVEREIGN BOND SPREAD (EMBI+)

Chart 11.2

Cumulative GDP deviation following a US monetary policy surprise (a)

Legend: 1 YEAR 2 YEARS

SOURCES: Refinitiv and Banco de España.

a To assess the impact of a more limited monetary policy surprise, an auto-regressive vector model is used, and identification using sign restrictions on impulse response functions as is usual in the literature (see, for instance, Fry and Pagan, 2011). The model for the United States has three variables: GDP growth, inflation and the monetary policy interest rate. It is estimated quarterly for the period 1960-2019. The shadow rate of Wu and Xia (2016) is used to correctly capture monetary policy in the quantitative easing period. Drawing on this model, a historical series of demand and supply shocks and strictly monetary shocks in the United States is obtained. The estimated impact on US economic activity of a monetary shock that triggers a 100 bp policy rate increase is a fall of 1.5 pp after one year; this is consistent with the range identified by other authors (Ramey (2016), Miranda-Agrippino and Rey (2020)). In a second stage, individual auto-regressive vector models are estimated for five Latin American countries, taking US monetary shocks as the exogenous variable and GDP growth, inflation, the policy interest rate, the change in the nominal exchange rate against the dollar and the EMBI+ as endogenous variables for each country. This model is estimated using quarterly data for the period 2000-2019. The effect of a 100 bp policy rate increase in the US, when this is due to a monetary policy shock, is quantified for each country.

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12 The region's financial markets have performed relatively well in recent months

— Despite the prevailing uncertainty, in recent months the region's financial markets have performed somewhat more favourably than those of the other emerging economies and than other similar risk assets, as shown by sovereign spreads (see Chart 12.1), financial conditions indicators (see Chart 12.2) and stock market indices (see Chart 12.3).

— The exchange rates of the main currencies in the region have performed differently from those of the other emerging economies, appreciating significantly since 2021 Q4, partly owing to the region's higher interest rates. The recent depreciation in some countries appears to be connected with elections and other political developments (see Chart 12.4).

— In addition, in recent months, portfolio capital inflows in the region have been more dynamic than in other benchmark economies (see Chart 12.5). These capital inflows have materialised especially in debt securities. This is also reflected in debt issuance on the international markets (see Chart 12.6).

Family of Colombian banknotes.

Chart 12.1
Sovereign spreads over US long-term yield

pb

Russian invasion of Ukraine   First US rate hike

Oct-21   Nov-21   Dec-21   Jan-22   Feb-22   Mar-22   Apr-22   May-22   Jun-22

— EMBI LATIN AMERICA (a)   — EMBI ASIA   — EMBI EASTERN EUROPE (b)   — US HIGH YIELD
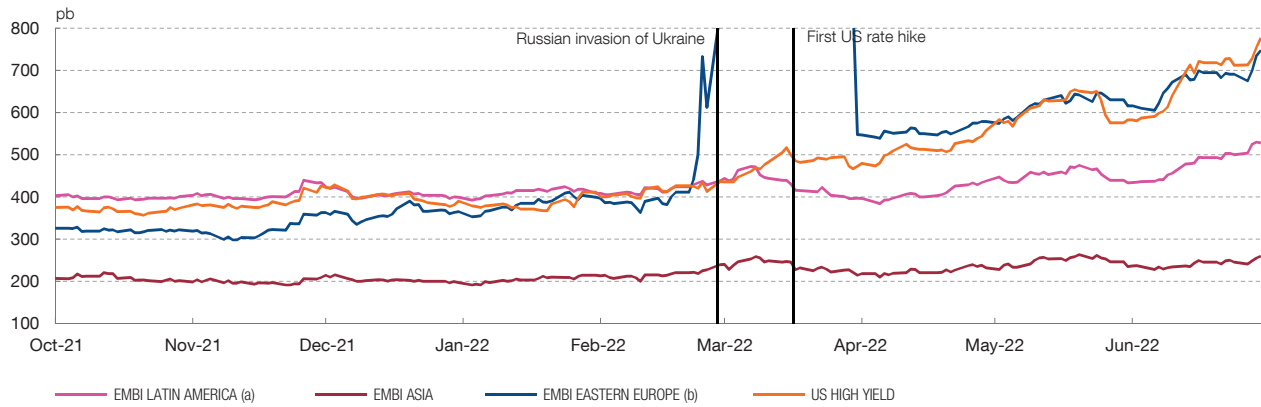
Chart 12.2
Financial conditions indices

Level

Tightening of financial conditions

Brazil   Mexico   Chile   Colombia   Peru   Argentina   Emerging (c)

■ RANGE BETWEEN MAXIMUM AND MINIMUM OF PERIOD 2008-2022   ● OCTOBER 2021   ▲ JUNE 2022
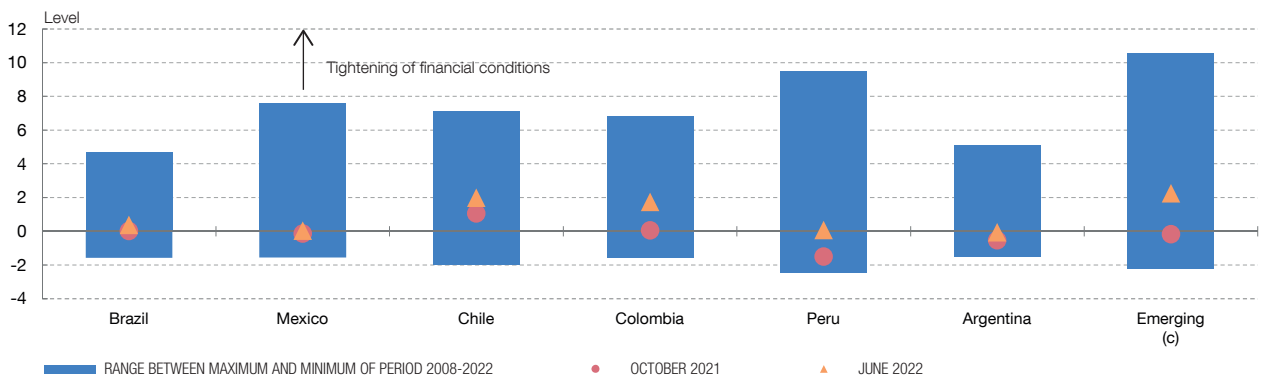
SOURCES: Refinitiv, Dealogic and Banco de España.

a The JP Morgan Emerging Markets Bond Index (EMBI) is a synthetic fixed-income sovereign bond and quasi-sovereign bond issued under certain liquidity and nominal value conditions on international markets.
b Among other factors, the share of Russian assets in the EMBI Eastern Europe has severely affected its performance. This share has fallen significantly in recent months.
c A Goldman Sachs index.

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Chart 12.3
Stock market indices

January 2021 = 100

MSCI LATIN AMERICA, LOCAL CURRENCY (d) — MSCI EMERGING MARKETS, LOCAL CURRENCY — UNITED STATES — EURO AREA

Chart 12.4
Dollar exchange rates

January 2021 = 100

AGGREGATE LATIN AMERICA (e) — EMBI EMERGING MARKETS (f) — EURO
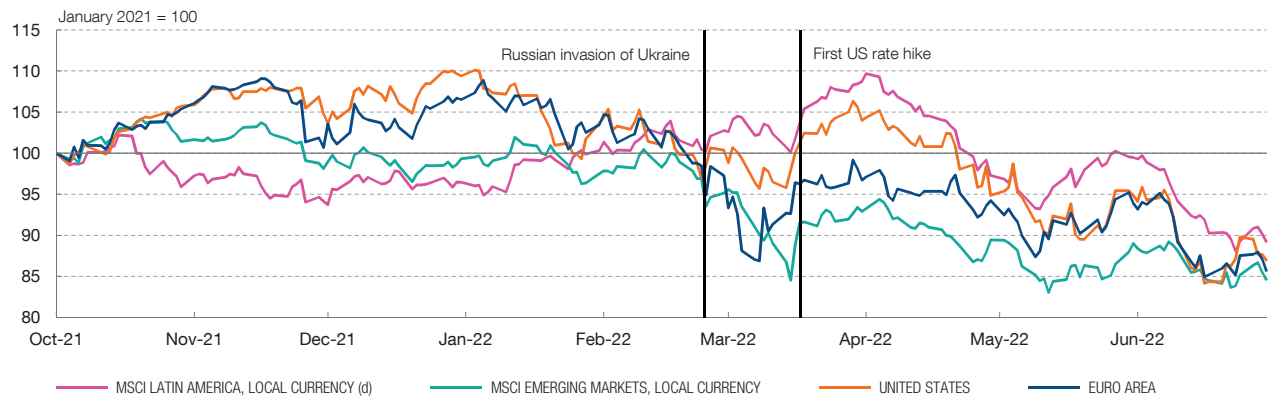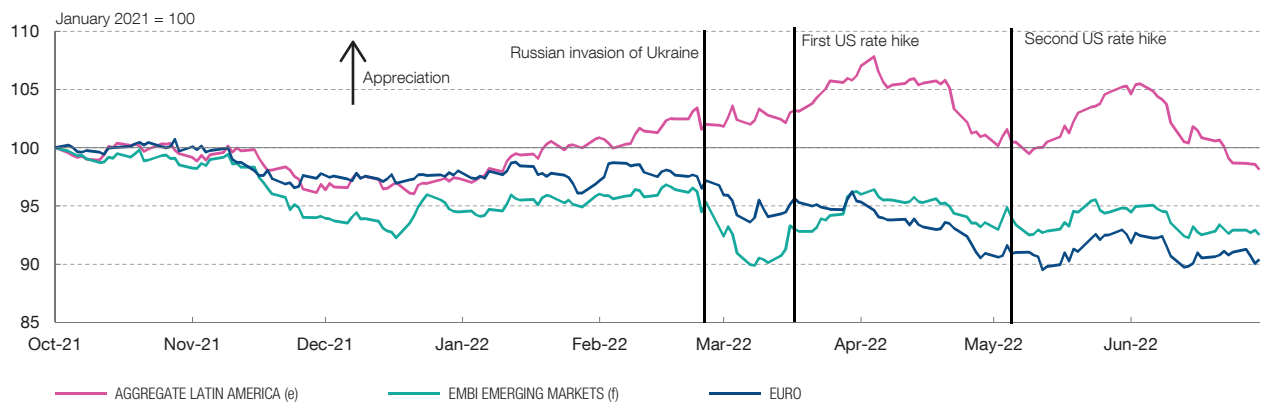
SOURCES: Refinitiv, Dealogic and Banco de España.

d The MSCI is a Morgan Stanley aggregate stock market index for various regions.
e The simple average of the indices of the dollar exchange rates of Brazil, Mexico, Chile, Colombia and Peru.
f The JP Morgan emerging markets aggregate exchange rate.

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Chart 12.5
Portfolio capital flows

January 2021 = 0; $bn

LATIN AMERICA   EMERGING ASIA (EXCLUDING CHINA)   EASTERN EUROPE   OTHER EMERGING (EXCLUDING CHINA)
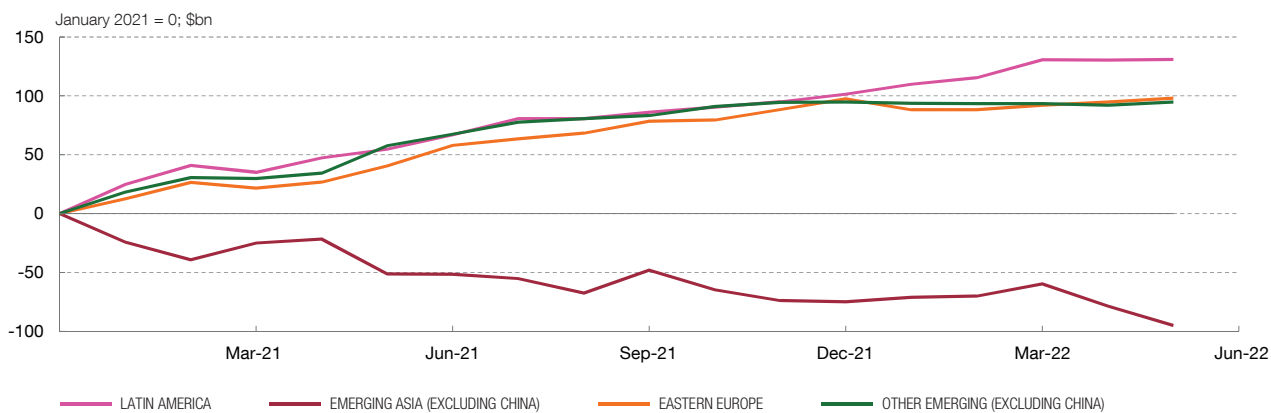
Chart 12.6
Fixed-income issues on international markets ($bn, cumulative)

January 2021 = 0; $bn

LATIN AMERICA   EMERGING ASIA (EXCLUDING CHINA)   EASTERN EUROPE   OTHER EMERGING (EXCLUDING CHINA)
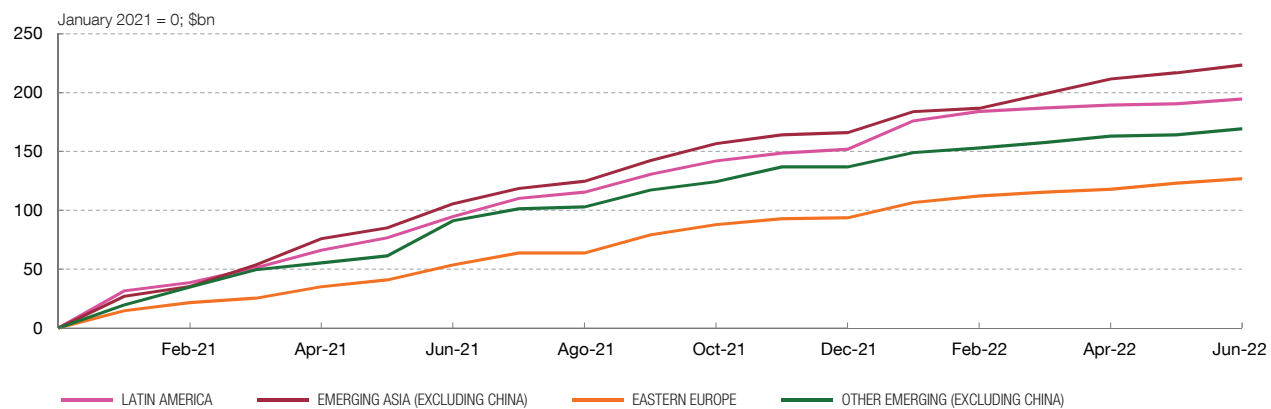
SOURCES: Refinitiv, Dealogic and Banco de España.

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13 Bank lending has recovered

— A recovery in bank lending in the region has been observed in recent quarters (see Chart 13.1), driven by improvements in economic activity, even though a great many of the credit support programmes set in place in 2020 have come to an end.[14]

— This recovery in lending can be seen across the board, particularly in lending to firms, which had contracted sharply during the pandemic.

— In terms of currency denomination, the trend away from the dollarisation of credit observed since the onset of the pandemic has stabilised or even been partially reversed (as in the case of Peru), possibly as a result of the end of the credit support programmes launched during the pandemic, which were denominated in local currency (see Chart 13.2 and **Box 2**).

— Moreover, interest rates on loans have risen recently (in line with the hikes observed in policy interest rates) and now stand above pre-pandemic levels, particularly in riskier segments such as consumer loans.

View of Brasilia. © Shutterstock.

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14 Some of these programmes were extended to 2021 and even further, such as the PRONAMPE in Brasil.

Chart 13.1
Credit to the private sector (a)

% y-o-y change

BRAZIL   CHILE   COLOMBIA   MEXICO   PERU
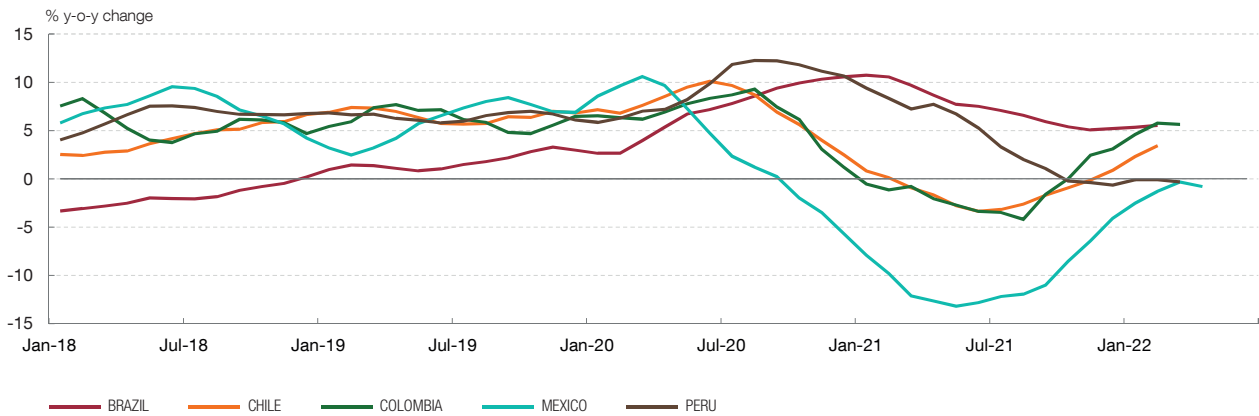
Chart 13.2
Dollarisation of loans

% of total loans

CHILE   MEXICO   PERU
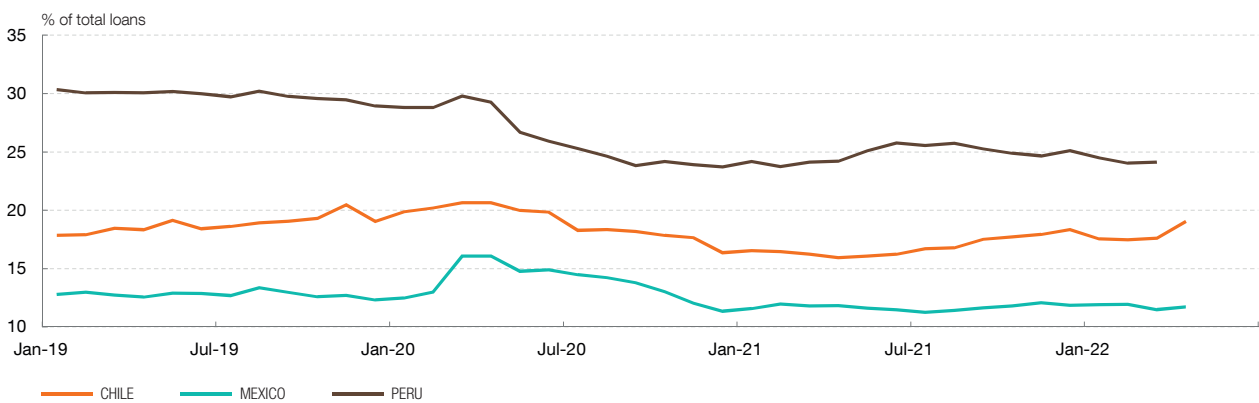
SOURCES: National statistics, Refinitiv, IMF and Banco de España calculations.

a In real terms.

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14 The banking sector remains relatively sound

— The capital ratios of Latin America's banking sectors have remained high in recent quarters (see Chart 14.1).

— Profitability in the sector continued to recover, reaching pre-pandemic levels in almost all of the region's economies, thanks to the rise in both net interest income and other forms of revenue (see Chart 14.2).

— While there are no signs of any over-extension of credit, there has recently been a slight rise in NPLs (partly as a result of the end of many of the moratoria arranged at the height of the pandemic), although they are still very low by historical standards (see Chart 14.3).

— Credit defaults have been kept in check, not only by the improvement in economic activity, but also thanks to the fact that ratings downgrades of non-financial corporations during the pandemic were, in general, less numerous than in previous recessionary periods (see Chart 14.4).

— In keeping with these developments, the synthetic indicators of vulnerability[15] in the banking sector remained at moderate levels in 2021 and the first months of 2022 (see the right-hand columns of Table 1).

— Moreover, the banking crisis warning signals (based on probabilistic models) suggest that such crises are very unlikely (by historical standards) to occur in the medium term (six quarters)[16] (see Chart 14.5).

Bank building in Punta Arenas, Chile.

15 The distribution of the historical frequencies of each variable in each country is used to estimate the percentile position of each indicator in the distribution, assigning colours that go from green (lower risks) to red (extreme risks). A comparison with another 26 emerging market economies at a single moment in time is also included. See Alonso and Molina (2021) for further details.

16 See Alonso and Molina (2019).

Chart 14.1
Regulatory capital

% of risk-weighted assets

Legend: 2019 Q4 | 2020 Q4 | 2021 Q4 | 2022 Q1

Values (Chile): 12.8, 14.7, 14.9
Values (Colombia): 15.4, 17.2, 22.0, 20.8
Values (Brazil): 17.1, 16.9, 16.5, 16.2
Values (Mexico): 16.1, 17.4, 19.4, 19.7
Values (Peru): 14.6, 15.5, 14.9, 14.6
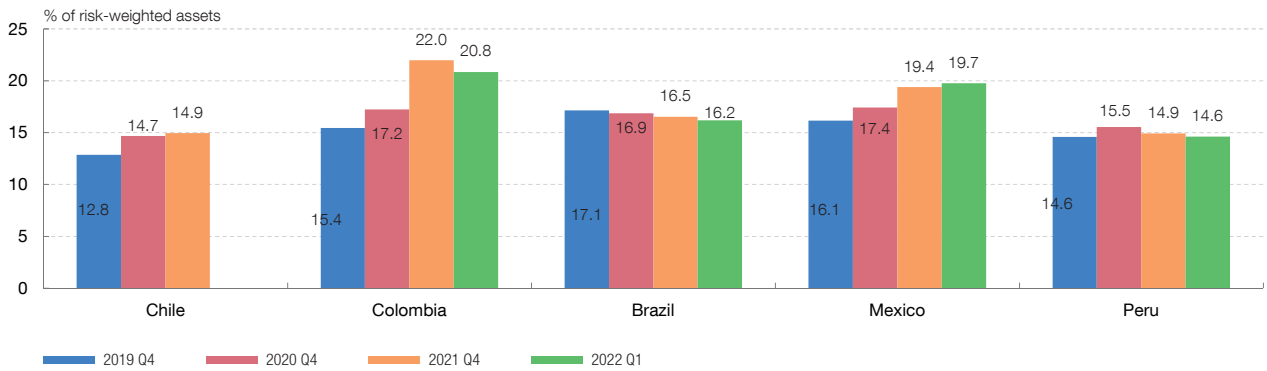
Chart 14.2
Profitability (a)

% of average assets

Legend: BRAZIL | CHILE | COLOMBIA | MEXICO | PERU
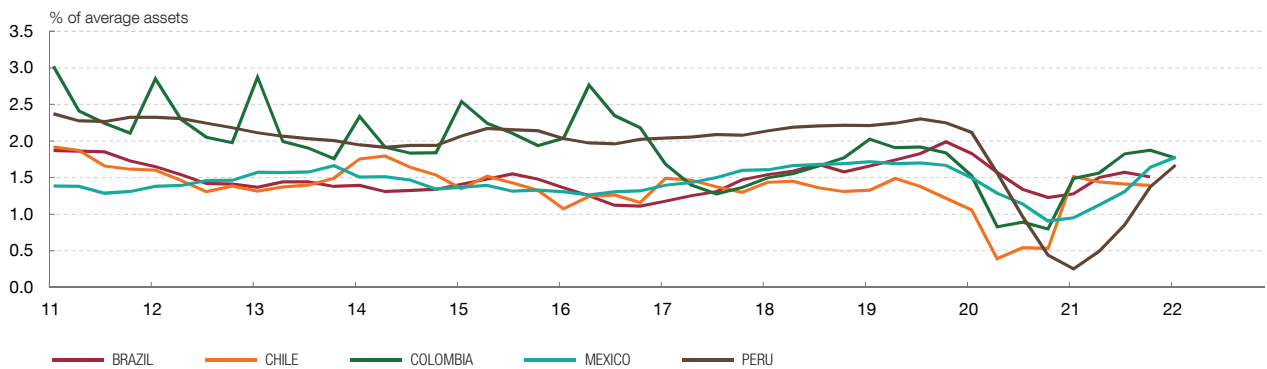
Chart 14.3
Non-performing loans
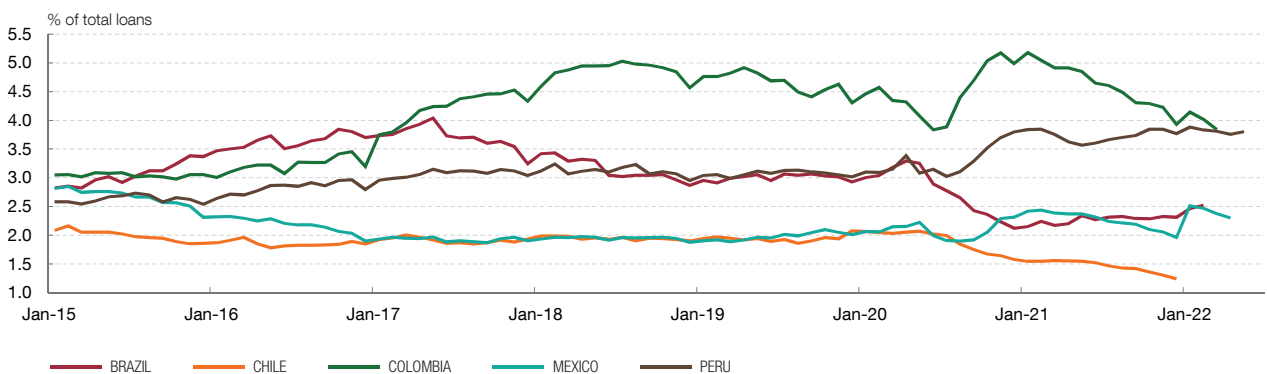
% of total loans

Legend: BRAZIL | CHILE | COLOMBIA | MEXICO | PERU

SOURCES: National statistics, Refinitiv, IMF and Banco de España calculations (Alonso and Molina (2019)).

a Return on assets (ROA).

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Chart 14.4
Firms whose rating was downgraded

Number

MEXICO   BRAZIL   REST

Chart 14.5
Synthetic vulnerability indices: Latin America (b)

Level

BANKING CRISES   SOVEREIGN CRISES   CURRENCY CRISES
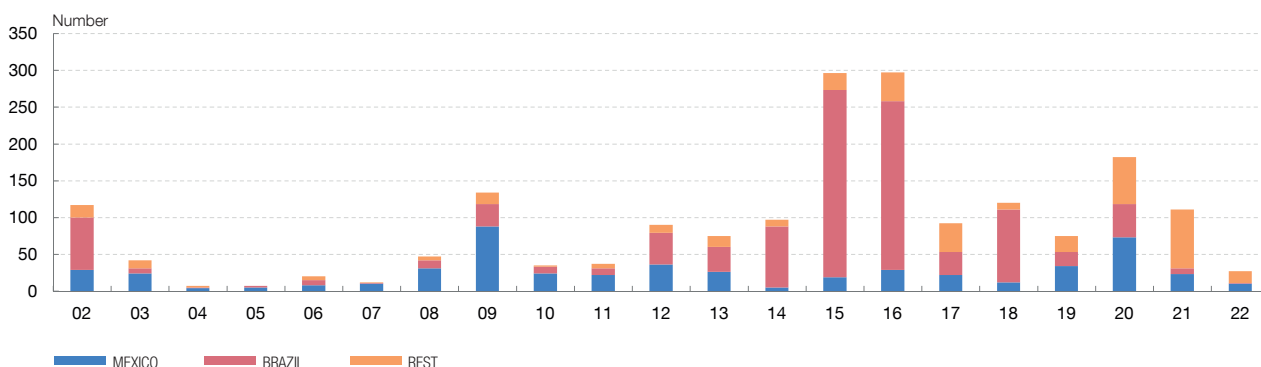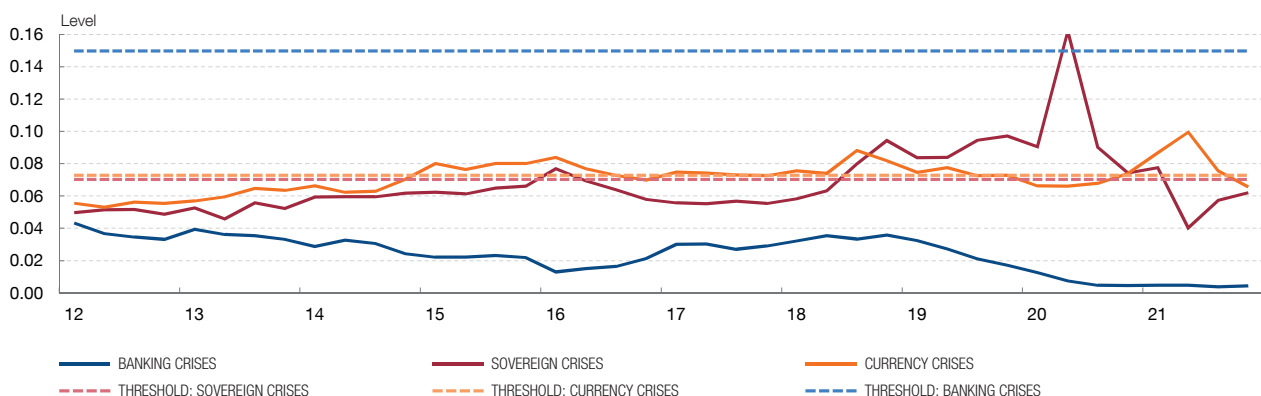THRESHOLD: SOVEREIGN CRISES   THRESHOLD: CURRENCY CRISES   THRESHOLD: BANKING CRISES

SOURCES: National statistics, Refinitiv, IMF and Banco de España calculations (Alonso and Molina (2019)).

a The synthetic indicators represent the likelihood of being in a vulnerable state, estimated using a logit model for three types of crisis (banking, currency and sovereign) with pre-selected variables based on the issue of correct signals six quarters before a crisis (threshold of a ROC curve). An increase in a synthetic indicator thus implies an increase in the likelihood of recording a crisis in each of the categories. The regional indicators are the average of the synthetic indicators for eight countries in Latin America (Argentina, Brazil, Chile, Colombia, Mexico, Peru, Ecuador and Uruguay), five in Asia (China, India, Indonesia, South Korea and Thailand), and six in Eastern Europe (Czech Republic, Hungary, Poland, Romania, Russia and Turkey).

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Table 1

Latin America: vulnerability situation (a)

	Time series						Cross-section		Time series						Cross-section
	2019		2020		2021		Latest data available (h)		2019		2020		2021		Latest data available (h)
	H1	H2	H1	H2	H1	H2			H1	H2	H1	H2	H1	H2	
Financial markets (b)								**Banks (e)**							
Argentina								Argentina							
Brazil								Brazil							
Mexico								Mexico							
Chile								Chile							
Colombia								Colombia							
Peru								Peru							
Venezuela								Venezuela							
Ecuador								Ecuador							
Uruguay								Uruguay							
Macroeconomics (c)								**External (f)**							
Argentina								Argentina							
Brazil								Brazil							
Mexico								Mexico							
Chile								Chile							
Colombia								Colombia							
Peru								Peru							
Venezuela								Venezuela							
Ecuador								Ecuador							
Uruguay								Uruguay							
Fiscal (d)								**Politics and wealth (g)**							
Argentina								Argentina							
Brazil								Brazil							
Mexico								Mexico							
Chile								Chile							
Colombia								Colombia							
Peru								Peru							
Venezuela								Venezuela							
Ecuador								Ecuador							
Uruguay								Uruguay							

SOURCE: Alonso and Molina (2021).

a The risk level is indicated with shades of green (associated with lower levels of vulnerability), yellow (medium vulnerability) and red (variables in the higher risk percentiles).

b Sovereign spread (level and quarterly change) and quarterly change in stock market index and exchange rate.

c Change in GDP and industrial production, inflation rate and change in GDP per capita.

d General government balance and gross public debt (% of GDP).

e Real change in credit and deposits, loan-to-deposit ratio, non-performing loans in portfolio, banks' net foreign assets, banks' equity index, interest rate on banks' external debt, qualitative indicators (BICRA / IHS Markit), short-term interbank rate and net interest income.

f Current account balance, direct and portfolio investment inflows, external debt, short-term external debt and external debt service, and international reserves.

g IHS Markit political risk indicator, geopolitical risk indicator and GDP per capita.

h May 2022 for financial markets (including banks' equity index and bond spreads), and for political risk, banking risk and GPR indicators. 2022 Q1 for GDP and balance of payments, external debt, public debt and budget deficit data. April 2022 for credit, deposits, non-performing loans and external position of banks.

15 The external vulnerabilities of Latin America's economies generally remain in check

— Generally speaking, the external sector-related vulnerability indicators are at relatively low risk levels (see the left-hand columns of Table 1).

— This has been helped by the current account balance adjustments (with notable exceptions, such as Chile and Colombia, see Chart 15.1), levels of reserves in line with historical averages and real effective exchange rates that are not overvalued, thus affording the authorities some room for manoeuvre in the event of any global turmoil.

— In any event, the current levels of external debt are higher than a decade ago and such debt continues to be denominated in foreign currency in the great majority of cases (**see Box 2**).

— In keeping with these developments, the likelihood of an exchange rate crisis in Latin America diminished over 2021 (see Chart 14.5). Compared with other emerging regions, Latin America is less likely to face an exchange rate crisis than the Eastern European economies, but more likely to do so than the Asian economies (see Chart 15.2).

View of Bogotá, Colombia.
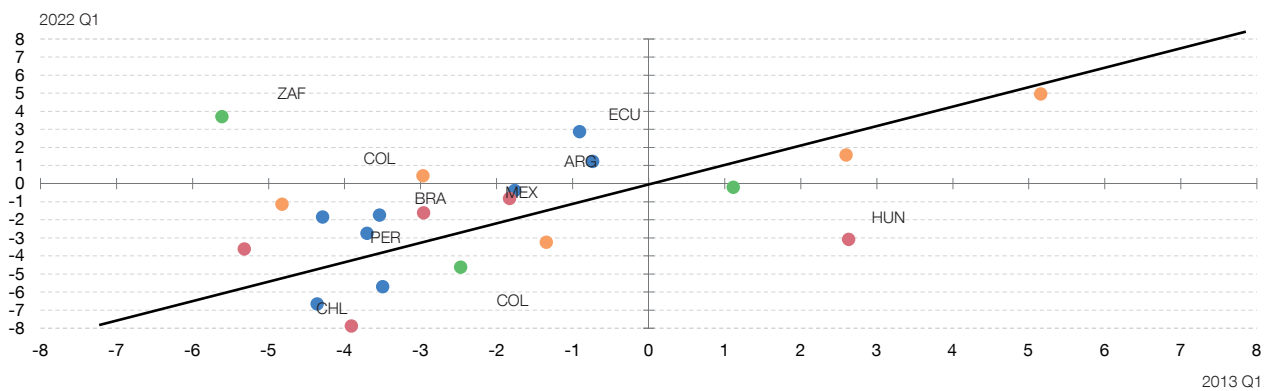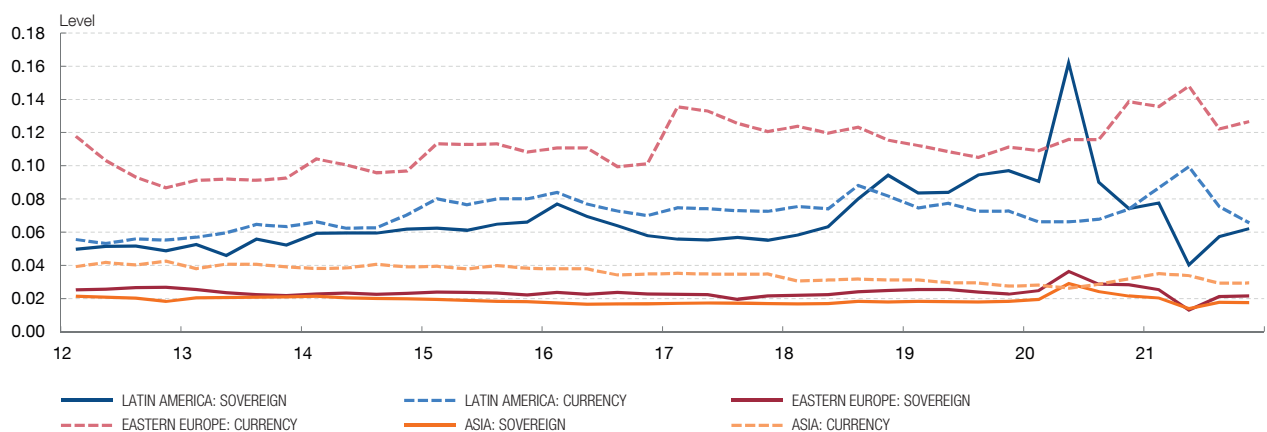
Chart 15.1
Current account balance (% of GDP) (a)

Chart 15.2
Synthetic vulnerability indices: comparison between emerging regions (b)

LATIN AMERICA: SOVEREIGN — LATIN AMERICA: CURRENCY — EASTERN EUROPE: SOVEREIGN — EASTERN EUROPE: CURRENCY — ASIA: SOVEREIGN — ASIA: CURRENCY

SOURCES: National statistics and Alonso and Molina (2019).

a The current account balance-to-GDP ratio (cumulative over four quarters) is compared at two different points in time, 2013 Q1 and 2022 Q1.
b The synthetic indicators represent the likelihood of being in a vulnerable state, estimated using a logit model for three types of crisis (banking, currency and sovereign) with pre-selected variables based on the issue of correct signals six quarters before a crisis (threshold of a ROC curve). An increase in a synthetic indicator thus implies an increase in the likelihood of recording a crisis in each of the categories. The regional indicators are the average of the synthetic indicators for eight countries in Latin America (Argentina, Brazil, Chile, Colombia, Mexico, Peru, Ecuador and Uruguay), five in Asia (China, India, Indonesia, South Korea and Thailand), and six in Eastern Europe (Czech Republic, Hungary, Poland, Romania, Russia and Turkey).

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16 The vulnerabilities associated with public finances are increasing

— The fiscal vulnerability indicators in Latin America show signs of an increase in risk (see left-hand columns of Table 1), and the probability of a sovereign crisis in the region has risen in recent quarters (see Chart 14.5), to levels well above those estimated for other emerging market economies (see Chart 15.2).

— In general, there remains a high degree of uncertainty about the future course of public finances. Moreover, although tax revenue is benefiting from the higher commodity prices (see Chart 16.1), structural deficits are not improving and, broadly speaking, the authorities have not approved medium-term fiscal consolidation plans.

— All this in a setting of high public debt levels among emerging market economies as a whole (see Chart 16.2) and more unfavourable spreads between interest rates and growth rates than in other emerging regions (see Charts 16.3 and 16.4).

— Further, in the short term, new upward pressure on public spending has emerged, as governments in many of the region's countries are seeking to mitigate the adverse effects of the surge in prices on households and firms, in particular its impact on lower-income households, which are more adversely affected by the rise in inflation.[17]

Central Bank of Argentina building, Buenos Aires.

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17 See IMF (2022b).

Chart 16.1
Budget balance

% of GDP

ARGENTINA — BRAZIL — MEXICO — CHILE — COLOMBIA — PERU — EMERGING, EXCL. LATIN AMERICA

Chart 16.2
Gross public debt

% of GDP

RANGE BETWEEN MAXIMUM AND MINIMUM IN THE PERIOD 1995-2021   ▲ PUBLIC DEBT IN 2019   ◆ PUBLIC DEBT IN 2020   ● PUBLIC DEBT IN 2021
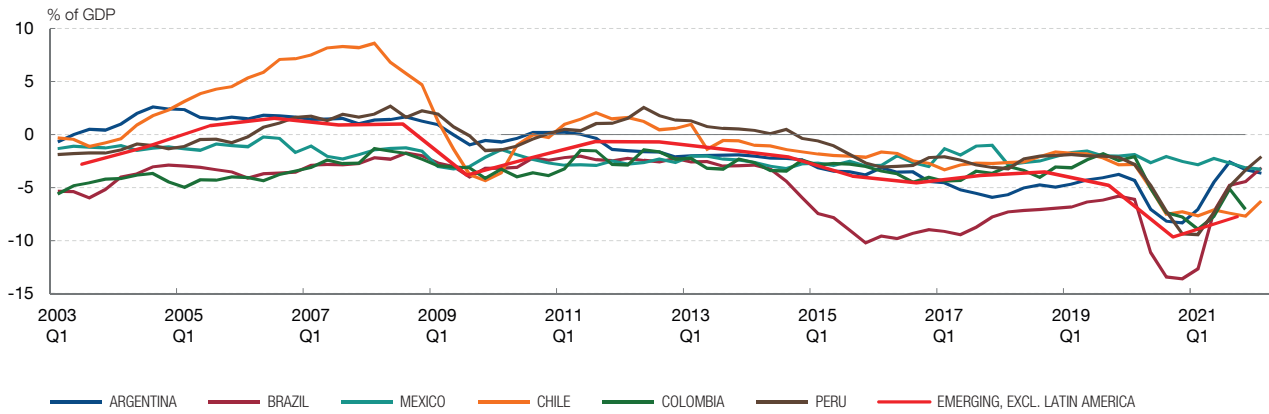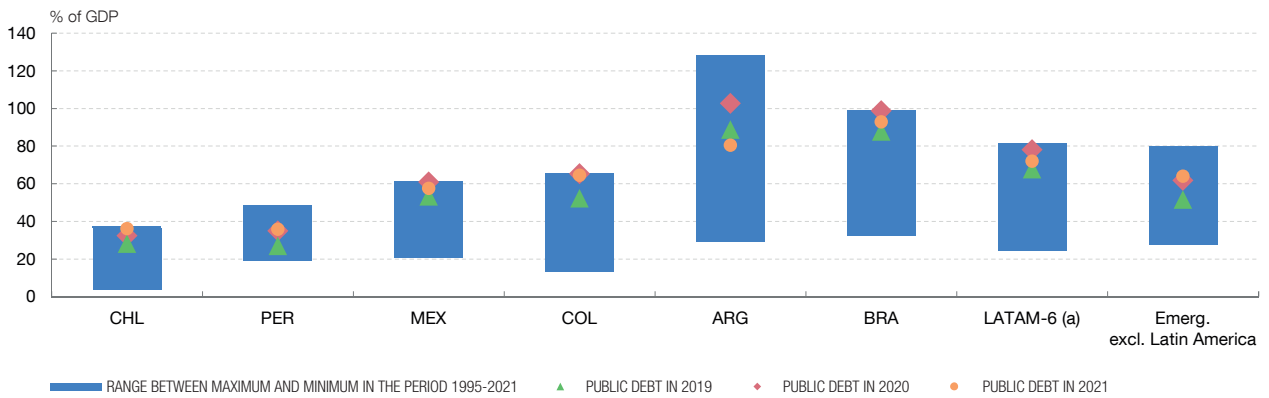
SOURCES: IMF, Refinitiv, national statistics and Banco de España.

a Aggregate of Argentina, Brazil, Chile, Colombia, Mexico and Peru.

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Chart 16.3
Interest rate on public debt (b)

%

EMERGING EUROPE — MIDDLE EAST & NORTH AFRICA — ADVANCED ECONOMIES — ASIA, EXCL. CHINA — LATIN AMERICA

Chart 16.4
GDP growth rates

% y-o-y change

EMERGING EUROPE — MIDDLE EAST & NORTH AFRICA — ADVANCED ECONOMIES — ASIA, EXCL. CHINA — LATIN AMERICA

SOURCES: IMF, Refinitiv, national statistics and Banco de España.

b Calculated as the interest payments for one year divided by the total debt at the end of the prior year.

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17 There is still a risk of potential greater institutional instability
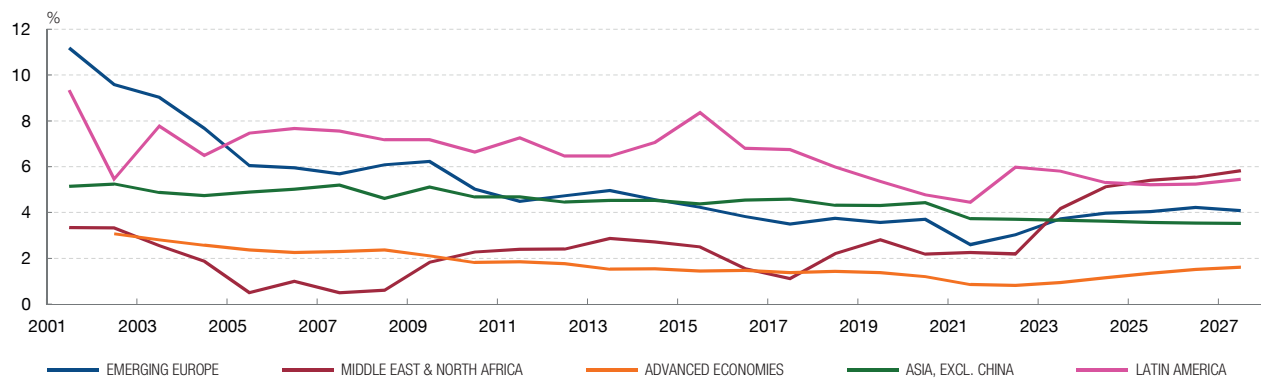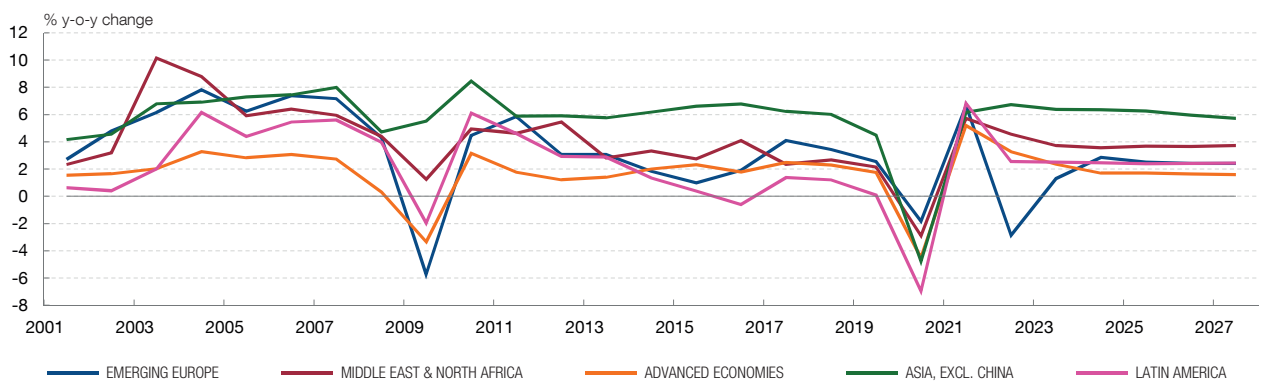
— Among other factors, the tension in Peru between the President and Congress, the uncertainty surrounding the approval of the Constitution in Chile and the elections in Colombia have helped push up the IMF's Reported Social Unrest Index (RSUI) in recent months (see Chart 17.1).

— Looking forward, if political and social instability were to increase (for example, owing to the erosion of the most vulnerable households' purchasing power in recent quarters on account of the rise in inflation), this could significantly weigh on the region's growth outlook and hinder the implementation of far-reaching economic reforms.[18]

— Indeed, according to Banco de España estimates,[19] a worsening of the various indicators proxying the degree of conflict, social unrest and economic policy uncertainty in Brazil, Mexico and Colombia could lead to a notable decline in these countries' GDP after two years (see Chart 17.2).

View of San Isidro district of Lima, Peru.

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18 For information on the relationship between increases in food and other basic product prices and social and political conflict, see, inter alia, Arezki and Bruckner (2011), Bellemare (2015), Weinberg and Bakker (2015), De Winne and Peersman (2019) and Redl and Hlatshwayo (2021).
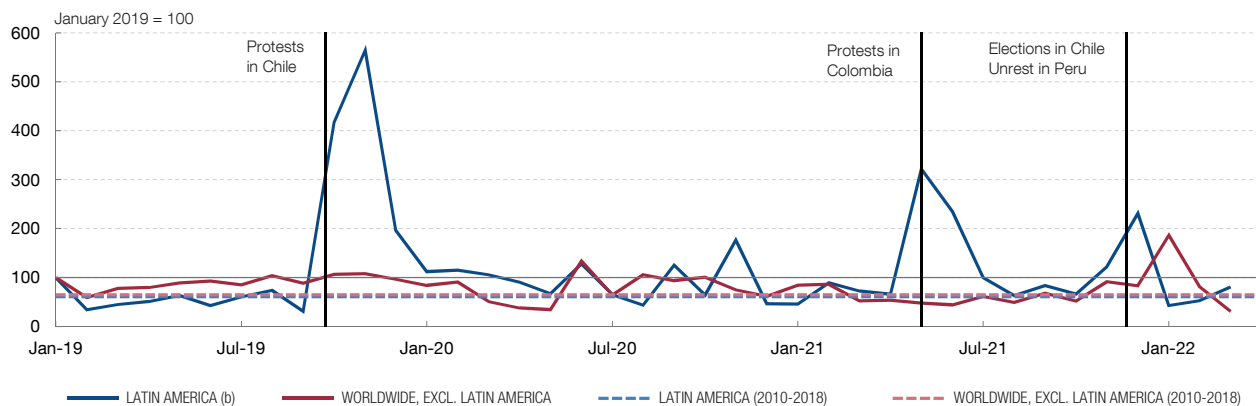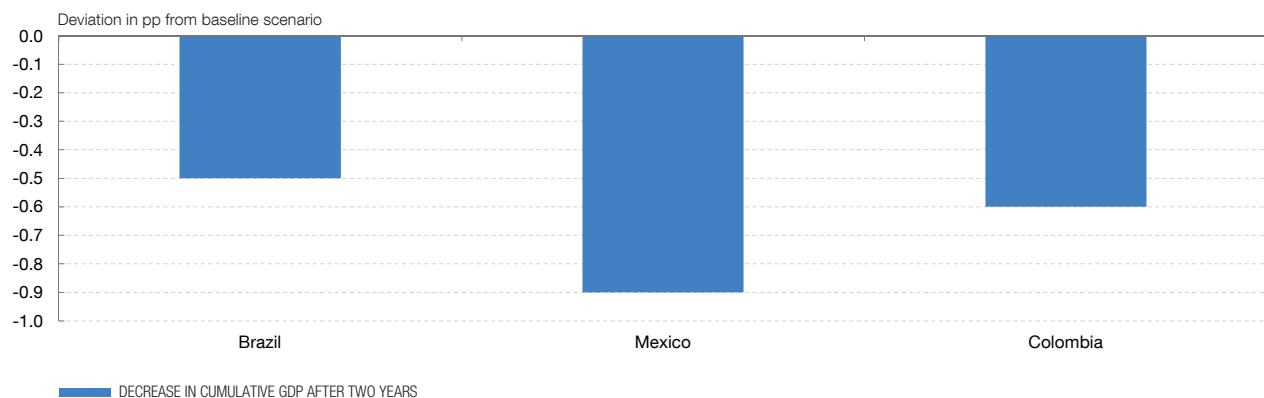
19 See Diakonova et al. (2022).

Chart 17.1
RSUI (a)

January 2019 = 100

Protests
in Chile

Protests in
Colombia

Elections in Chile
Unrest in Peru

LATIN AMERICA (b) — WORLDWIDE, EXCL. LATIN AMERICA — — LATIN AMERICA (2010-2018) — — WORLDWIDE, EXCL. LATIN AMERICA (2010-2018)

Chart 17.2

Effects on GDP growth of a shock to the indicators of institutional instability (c)

Deviation in pp from baseline scenario

DECREASE IN CUMULATIVE GDP AFTER TWO YEARS

SOURCES: Diakonova et al. (2022) and Barrett (2020).

a IMF Reported Social Unrest Index. An increase indicates greater social unrest.
b Average of Argentina, Brazil, Chile, Colombia, Mexico and Peru.
c Effect on GDP of increasing four indicators of different aspects of institutional instability by two standard deviations compared with their historical average (similar episode to the 2016 protests in Brazil and the unrest in Mexico in the 2006 presidential elections). A comparison is made of the GDP trajectories predicted by a MIDAS model (Diakonova et al. (2022)) with 25 traditional and institutional instability indicators, measuring the effect produced by an increase in the latter after approximately two years. To this end, two GDP time paths are calculated, one in which the model's variables remain at their historical average and another with the same specification except for the aforementioned increase in the levels of the Economic Policy Uncertainty (EPU) index, the Geopolitical Risk (GPR) index, the RSUI and conflict intensity.

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18 Significant internal and external buffers remain in place

— The level of private-sector saving and Latin American central banks' international reserves are, broadly speaking, close to their historical average (see Charts 18.1 and 18.2).

— In addition to these internal funds, several instruments are available from the IMF to provide financial support to the region's countries if needed:[20, 21]

  • The Flexible Credit Line (FCL), established in 2009 for countries with very strong macro-financial fundamentals, to which Colombia, Mexico and Peru have access.

  • The Short-term Liquidity Line (SLL), launched in 2020 in the context of the pandemic, for countries with very strong macro-financial fundamentals, to which Chile has had access since May 2022.

  • The Resilience and Sustainability Trust (RST), established in May 2022 for low-income and vulnerable middle-income countries (including many Latin American countries) with a view to addressing longer-term structural problems that pose macroeconomic risks, such as climate change and pandemics.

— Meanwhile, in the context of the pandemic, the US Federal Reserve established dollar swap lines with Brazil and Mexico. Although these expired in late 2021, they would foreseeably be reactivated if needed. Moreover, the temporary Foreign and International Monetary Authorities (FIMA) overnight repo facility has been turned into a permanent tool for the Federal Reserve to supply dollars.

IMF building entrance, Washington, D.C.

20 Funds are also available for countries in need over the coming years from other multilateral institutions (such as the World Bank) and regional institutions (such as the Andean Development Corporation (CAF)-Development Bank of Latin America, the Inter-American Development Bank (IDB) and the Latin American Reserve Fund (FLAR)).

21 Most Latin American countries have already used the special drawing rights (SDRs), allocated in August 2021 and representing around 1% of GDP, to directly shore up their international reserves. However, some countries have used these SDRs to settle their debt to the IMF or to obtain liquidity in foreign currency.

Chart 18.1
Savings (a)

% of GDP

RANGE BETWEEN MAXIMUM AND MINIMUM IN THE PERIOD 2000-2021 Q4 ● 2020 Q4 ● 2021 Q4
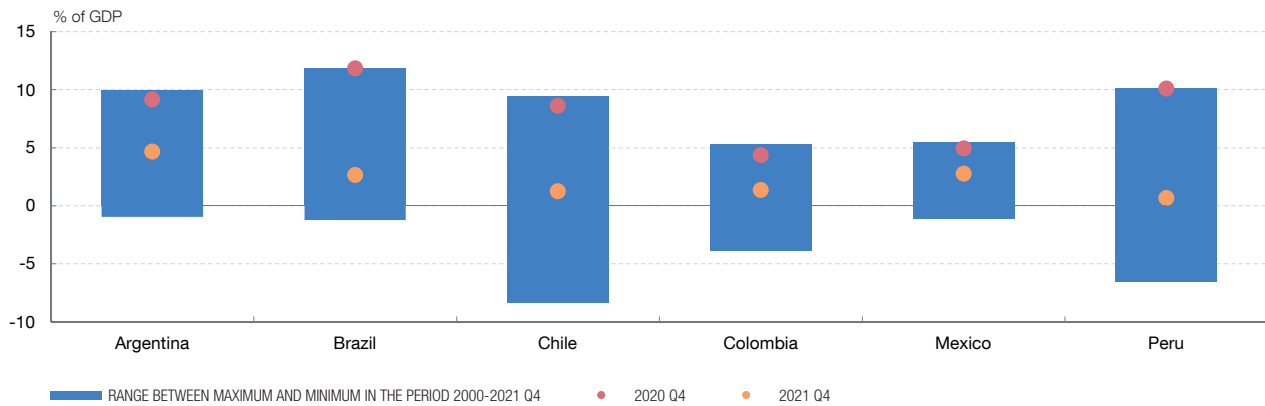
Chart 18.2
Level of international reserves

% of GDP

RANGE BETWEEN MAXIMUM AND MINIMUM IN THE PERIOD 2008-2022 ● DECEMBER 2019 ▲ MAY 2022
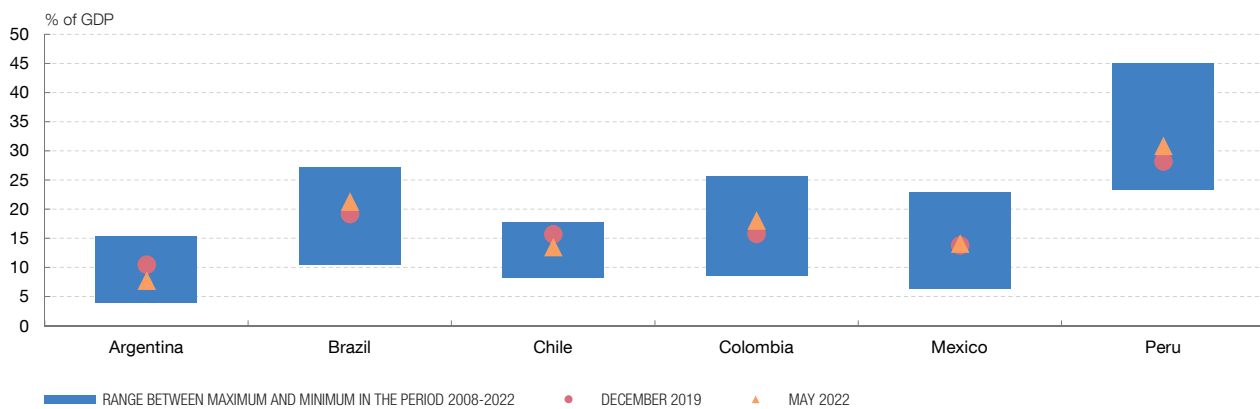
SOURCE: Refinitiv and national statistics.

a Net lending (+) and net borrowing (-) of the domestic private sector.

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Table 2
Latin America: main economic indicators

	2007-2020 average	2021	IMF Projections (April 2022 WEO) 2022	2023	2020 Q3	Q4	2021 Q1	Q2	Q3	Q4	2022 Q1 (a)
GDP (change on previous period) (b)											
Latin America and the Caribbean (c)	1.5	6.8	2.5	2.5	11.4	4.1	1.5	0.1	1.3	0.9	0.9
Argentina	0.8	10.3	4.0	3.0	12.2	4.4	3.4	-0.8	4.1	1.9	0.9
Brazil	1.5	4.6	0.8	1.4	7.9	3.1	1.1	-0.2	0.1	0.7	1.0
Mexico (d)	1.2	5.0	2.0	2.5	13.6	3.6	0.4	1.2	-0.6	0.2	1.0
Chile	2.4	11.7	1.5	0.5	5.3	6.7	3.7	1.5	4.3	1.7	-0.8
Colombia (d)	2.9	10.7	5.8	3.6	10.3	5.4	3.5	-1.8	6.4	2.5	1.0
Peru	3.8	13.5	3.0	3.0	31.7	8.0	0.3	-0.1	2.8	0.1	0.9
CPI (year-on-year rate) (b)											
Latin America and the Caribbean (c)	5.5	9.8	11.2	8.0	2.9	3.5	4.1	6.1	7.2	8.2	9.8
Argentina	20.0	48.4	51.7	43.5	39.8	36.4	40.6	48.5	51.9	51.4	60.7
Brazil	5.4	8.3	8.2	5.1	2.6	4.3	5.3	7.7	9.6	10.5	11.7
Mexico	4.1	5.7	6.8	3.9	3.9	3.5	4.0	6.0	5.8	7.0	7.7
Chile	3.3	4.5	7.5	4.5	2.7	2.9	3.0	3.6	4.9	6.6	11.6
Colombia	4.0	3.5	7.7	4.2	1.9	1.6	1.6	3.0	4.3	5.2	9.1
Peru	2.9	4.0	5.5	3.6	1.8	2.0	2.6	2.7	4.7	6.0	8.1
Budget balance (% of GDP) (b) (e)											
Latin America and the Caribbean (c)	-0.7	-4.5	-4.6	-4.2	-8.2	-8.6	-8.3	-5.5	-4.1	-4.3	-3.6
Argentina	-3.8	-3.3	-3.8	-3.2	-8.2	-8.3	-7.1	-4.5	-2.6	-3.3	-3.6
Brazil	-5.6	-4.4	-7.6	-7.4	-13.4	-13.6	-12.7	-7.3	-4.8	-4.4	-3.2
Mexico	-3.0	-3.1	-3.2	-3.2	-2.1	-2.5	-2.8	-2.3	-2.7	-3.1	-3.3
Chile	-0.8	-7.7	-1.5	-0.6	-7.5	-7.3	-7.7	-7.1	-7.4	-7.7	-6.3
Colombia	-2.5	-7.1	-4.6	-2.2	-7.3	-7.8	-8.9	-7.7	-5.1	-7.1	-5.5
Peru	-0.7	-3.4	-2.4	-2.0	-7.2	-9.3	-9.4	-7.3	-4.9	-3.4	-2.1
Public debt (% of GDP) (b)											
Latin America and the Caribbean (c)	54.3	72.0	71.3	71.4	70.5	69.5	69.5	65.0	64.8	63.6	—
Argentina	58.7	104.4	74.4	74.3	90.9	86.3	83.1	70.5	70.5	67.9	—
Brazil	72.0	88.8	91.9	92.8	88.6	88.6	87.4	83.0	82.3	80.3	78.5
Mexico	48.3	51.3	58.4	58.9	55.3	53.1	55.2	51.5	52.0	51.3	51.8
Chile	15.9	36.3	38.3	38.4	32.2	32.6	34.5	35.1	35.5	36.3	34.4
Colombia	43.5	61.5	60.6	59.2	61.2	62.0	64.1	63.6	62.1	61.5	58.9
Peru	25.8	35.9	34.4	34.7	31.8	34.6	36.3	33.8	34.5	35.9	33.5
Current account balance (% of GDP) (b) (e)											
Latin America and the Caribbean (c)	-1.8	-1.6	-1.2	-1.2	-0.7	-0.2	-0.3	-0.3	-1.0	-1.7	—
Argentina	-1.1	0.8	0.5	0.4	1.8	0.9	0.9	0.7	1.1	1.4	—
Brazil	-2.4	-1.7	-1.5	-1.6	-2.0	-1.7	-1.6	-1.3	-1.5	-1.7	—
Mexico	-1.2	-0.4	-0.6	-0.7	1.2	2.5	2.3	2.6	0.8	-0.4	-0.2
Chile	-2.3	-6.4	-4.5	-3.4	-2.9	-1.7	-1.8	-2.9	-4.5	-6.4	-7.3
Colombia	-3.7	-5.7	-3.3	-3.4	-3.5	-3.4	-3.7	-4.2	-4.9	-5.7	-6.3
Peru	-2.2	-2.7	-1.5	-1.4	0.7	0.8	0.1	-0.8	-1.6	-2.7	
External debt (% of GDP) (b)											
Latin America and the Caribbean (c)	36.4	51.8	48.0	46.9	45.1	47.2	47.4	44.8	43.6	42.8	—
Argentina	40.3	54.4			68.3	69.8	68.9	63.4	59.2	54.6	—
Brazil	28.2	41.7			40.1	43.9	44.4	43.3	42.0	41.7	40.6
Mexico	22.2	28.8			33.6	33.9	34.2	31.2	29.6	28.8	—
Chile	53.7	75.5			84.7	82.6	78.6	73.4	75.6	75.5	76.2
Colombia	31.5	54.5			52.9	56.9	56.2	54.4	54.7	54.6	54.4
Peru	33.4	46.0			41.4	43.2	44.8	41.7	43.5	46.0	—
MEMORANDUM ITEMS: Aggregate of emerging economies excluding Latin America and China (IMF, April 2022 WEO)											
GDP (year-on-year rate)	4.0	6.0	3.8	4.4							
CPI (year-on-year rate)	7.0	8.0	12.0	9.0							
Budget balance (% of GDP)	-2.8	-5.1	-4.7	-4.7							
Public debt (% of GDP)	40.9	58.7	58.3	59.9							
Current account balance (% of GDP)	0.6	1.0	2.4	1.3							
External debt (% of GDP)	27.6	27.7	25.2	24.5							
Share of global GDP, in PPP (%)	31.7	32.0	31.9	32.1							

SOURCES: IMF, Refinitiv, LatinFocus and national statistics.

a Data as at May 2022 for inflation.
b 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).
c Quarterly data, aggregate of the six main economies (Argentina, Brazil, Chile, Colombia, Mexico and Peru), and for inflation, aggregate excluding Argentina.
d Seasonally adjusted series.
e 4-quarter moving average.

Box 1

THE IMPACT IN LATIN AMERICA OF POSSIBLE EU AND US SANCTIONS ON RUSSIAN COMMODITIES AND ENERGY PRODUCTS

Since the start of the war in Ukraine, the European Union (EU) and other Western countries, such as the United States, have progressively increased sanctions on Russia, with the aim of impacting its economy and putting pressure on it to end the war. The economic consequences of these measures may be significant, not only for the Russian economy, but also for the global economy overall and, in particular, for Latin America.

This box estimates the impact that a possible ban by the EU and the United States on imports of Russian energy products and other commodities could have on the main Latin American economies. This impact is approximated using the multi-sector general equilibrium model developed by Izquierdo et al. (2022).[1] The model has 44 sectors and 11 countries/regions: Argentina, Brazil, Chile, Colombia, Mexico, Peru, the European Union, the United States, Russia, China and a rest of the world aggregate.

The model is calibrated using the OECD's input-output tables and certain estimates available in recent research papers. In line with the literature, a low elasticity of substitution is considered for intermediate goods, while the trade elasticities, which reflect the substitution between varieties of the same product across countries, are specific to each sector and correspond to those estimated by Caliendo and Parro (2015).[2] This approach entails a

scenario in which the substitution of imports from different countries is generally relatively high.

According to this calibration of the model, the EU and US ban on imports of Russian energy products (ignoring possible reprisals by Russia and sanctions by other countries) may have a positive impact on Latin American economies, in particular the most open ones and those that produce significant amounts of oil and oil products (Colombia, Mexico and Peru), whose GDP growth rates could rise by around 0.2 pp in the short-term (see Chart 1).

If the ban on imports of Russian products were extended to all the commodities exported by Russia (not only energy commodities), the positive impact on the region's GDP would be even higher. In particular, it would be notably higher in Chile and Peru, whose exports of mineral commodities are comparatively high.

In short, the results of these simulations suggest that a possible tightening of the trade sanctions on Russia would afford Latin America opportunities to supply, to the EU in particular, those products that the European economies could no longer import from Russia. This could boost activity in the main Latin American economies, provided that the global economic outlook does not further deteriorate as a result of an escalation of the conflict.

Chart 1
IMPACT ON GDP OF THE EU AND US BANS ON IMPORTS FROM RUSSIA
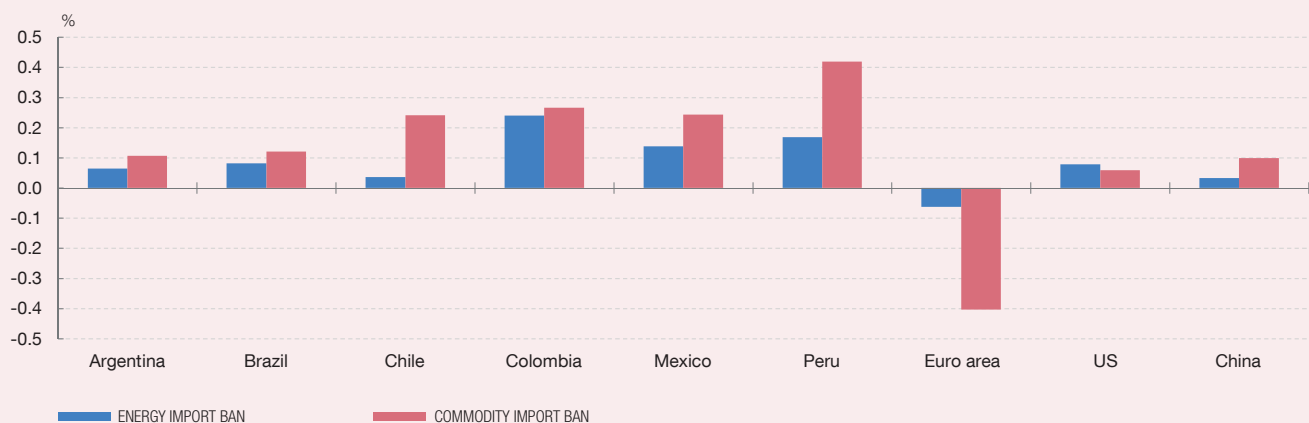
SOURCE: Banco de España.

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1   M. Izquierdo, E. Moral-Benito, E. Prades and J. Quintana (2022). "The propagation of worldwide sector-specific shocks", Working Paper No 2213, Banco de España.

2   L. Caliendo and F. Parro (2015). "Estimates of the Trade and Welfare Effects of NAFTA", The Review of Economic Studies, Vol. 82(1), pp. 1-44.

Box 2
FOREIGN CURRENCY DEBT DEVELOPMENTS IN LATIN AMERICA

It is very common for emerging market economies to issue debt denominated in foreign currency, given the difficulty they have borrowing in their local currencies on international markets. This phenomenon is known in the literature as "original sin".[1] The external debt of the main Latin American economies continues to be very largely denominated in foreign currency, especially in dollars, with Brazil and Mexico being the countries with the highest percentage of external debt denominated in local currency (see Chart 1). As seen in the 1994-1995 crisis in Latin America, the 1997-1998 crisis in Asian emerging market economies and the

2008 crisis in European emerging market economies, this foreign currency indebtedness may have very significant adverse effects on the balance sheets of domestic agents in the event of exchange rate depreciation.[2]

In the case of public debt, the proportion issued in foreign currency (mainly dollars) varies widely across the region, ranging from 10% in the case of Brazil to more than 70% in the case of Argentina (see Chart 2). Moreover, part of the public debt denominated in local currency is held by international investors (see Chart 3). A larger presence of foreign investors in local currency

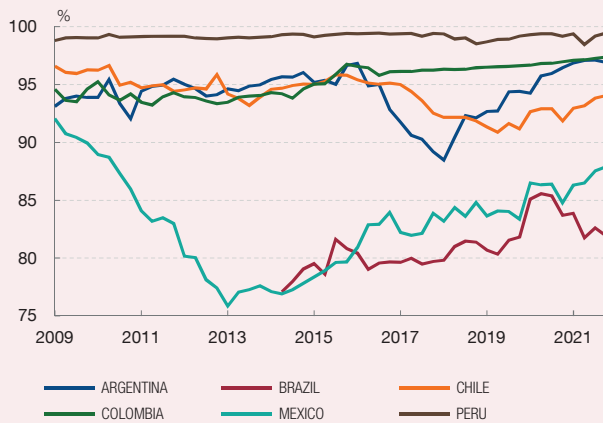Chart 1
GROSS FOREIGN CURRENCY-DENOMINATED EXTERNAL DEBT

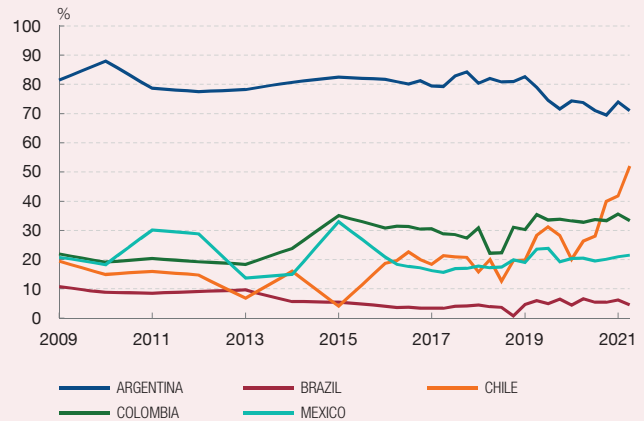Chart 2
FOREIGN CURRENCY-DENOMINATED PUBLIC DEBT

Chart 3
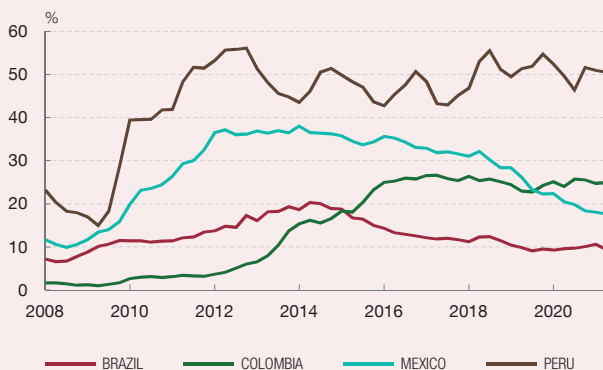FOREIGN HOLDINGS OF LOCAL CURRENCY-DENOMINATED PUBLIC DEBT
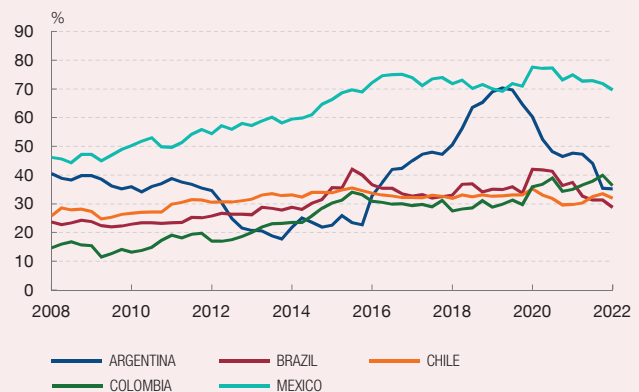
Chart 4
NON-FINANCIAL CORPORATIONS' FOREIGN CURRENCY-DENOMINATED DEBT

SOURCES: World Bank, IIF and Giraldo and Turner (2022).

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1   See B. Eichengreen, R. Hausmann and U. Panizza (2005), "The pain of original sin", *Other people's money: Debt denomination and financial instability in emerging market economies,* pp 13-47.

2   See, for example, M. Chui, I. Fender and V. Sushko (2014), "Risks related to EME corporate balance sheets: the role of leverage and currency mismatch", BIS Quarterly Review, September, pp 35-47. For a theoretical analysis, see R. Ranciere and A. Tornell (2016), "Financial liberalization, debt mismatch, allocative efficiency, and growth", *American Economic Journal: Macroeconomics.*

Box 2 (cont.)

debt markets may, on one hand, be interpreted as a sign of the confidence of these agents in the soundness of the domestic fundamentals and economic policies. On the other hand, however, a higher share of international investors in local markets may also give rise to more pronounced episodes of financial instability in response to exchange rate depreciations, since it is precisely the foreign investors who suffer the most adverse effects on the value of their assets and who have the greatest incentives to dispose of their investments.[3]

In the case of private corporate debt in Latin America,[4] the proportion issued in foreign currency (again, mainly in dollars) is also significant, especially in Mexico (see Chart 4). In this respect, a structural factor that encourages the dollarisation of corporate debt in emerging countries is the tendency of agents themselves to save largely in dollars too.[5] This means that banks and other financial institutions have large amounts of dollars in their liabilities, which are, moreover, cheaper than other liabilities denominated in local currency. Financial institutions use these dollars to grant loans in that currency, which is why there is a clear positive correlation between the dollarisation of deposits and the dollarisation of bank lending in emerging market economies.

Chart 5
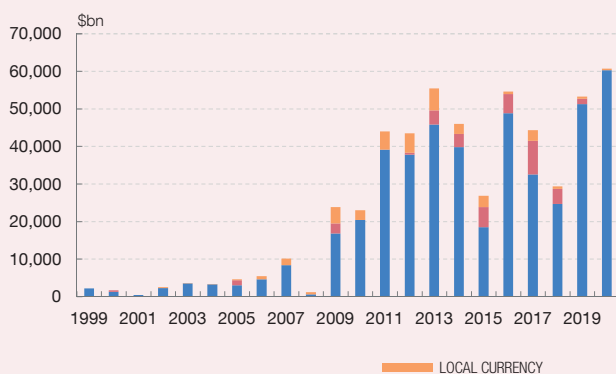BOND ISSUANCE ON CAPITAL MARKETS. TRADABLE SECTOR

Chart 6
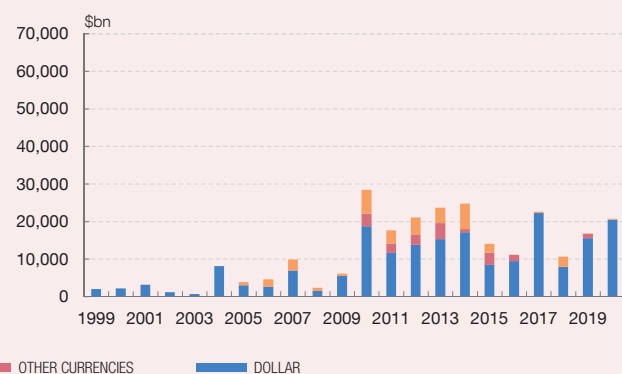BOND ISSUANCE ON CAPITAL MARKETS. NON-TRADABLE SECTOR

LOCAL CURRENCY   OTHER CURRENCIES   DOLLAR

Chart 7
FOREIGN CURRENCY-DENOMINATED PUBLIC DEBT (a)
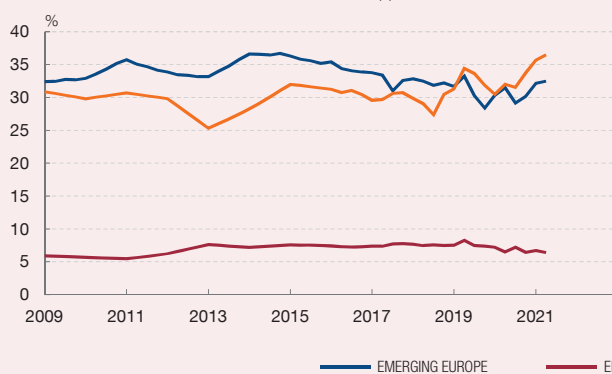
Chart 8
NON-FINANCIAL CORPORATIONS' FOREIGN CURRENCY-DENOMINATED DEBT (a)

EMERGING EUROPE   EMERGING ASIA   LATIN AMERICA
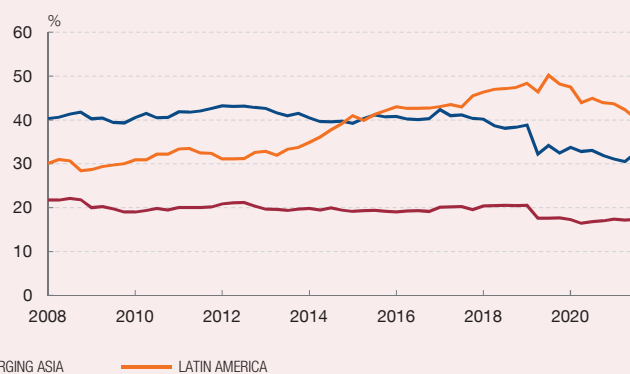
SOURCES: World Bank, IIF and Giraldo and Turner (2022).

a   Simple averages for each group of countries: Emerging Europe includes the Czech Republic, Hungary, Poland, Russia, Turkey and Ukraine. Emerging Asia includes India, Indonesia, Korea, Malaysia and Thailand. Latin America includes Argentina, Brazil, Chile, Colombia and Mexico.

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3   See A. Carstens. and H. S. Shin (2019), "Emerging markets aren't out of the woods yet", *Foreign Affairs.*

4   Including debt issued on international markets and debt issued locally.

5   See, for example, H. C. Dalgic (2018), *Financial dollarization in emerging markets: an insurance arrangement*, University of Mannheim, 248, and L. Christiano, H. Dalgic and A. Nurbekyan (2021), *Financial dollarization in emerging markets: Efficient risk sharing or prescription for disaster?,* No w29034, National Bureau of Economic Research.

Recuadro 2 (cont.)

As seen in Charts 5 and 6, the dollarisation of corporate debt is very commonplace among Latin American non-financial corporations, including both those producing tradable goods or services and those producing non-tradable goods or services.[6] The risks of this debt strategy are especially acute for the latter, since they usually have no natural mechanism available to hedge the exchange risks assumed.

Lastly, Charts 7 and 8 show the percentages of public debt and corporate debt denominated in foreign currency in a set of European, Asian and Latin American emerging market economies.[7] As is apparent in these charts, in recent years public and corporate debt dollarisation in Latin America has exceeded that observed in emerging Europe and, by even more so, that in emerging Asia. In the light of this evidence, among the emerging regions, the Latin American economies are particularly vulnerable to episodes of sharp depreciation of their currencies, especially against the dollar.

---

6   Data obtained from a database constructed by I. Giraldo and P. Turner (2022), "The dollar debt of companies in Latin America: the warning signs", *National Institute of Economic and Social Research,* No 534. This database includes the main corporate bond issuers in Latin America. They are chiefly from Mexico (38.6%), Argentina (18.6%), Chile (15.8%) and Brazil (14.8%).

7   Simple averages of the foreign currency-denominated debt ratios have been calculated for each group of countries. Emerging Europe includes the Czech Republic, Hungary, Poland, Russia, Turkey and Ukraine. Emerging Asia includes India, Indonesia, Korea, Malaysia and Thailand. Latin America includes Argentina, Brazil, Chile, Colombia and Mexico.

Box 3
PUBLIC DEBT SUSTAINABILITY IN LATIN AMERICA

The recent growth in public debt in the Latin American economies – essentially as a consequence of the health crisis – has contributed to the increased vulnerability of their public finances. To illustrate these risks, this box uses a public debt sustainability analysis model[1] to project the paths of the fiscal variables (budget deficit and interest payments on debt) and the macroeconomic variables (GDP, inflation and interest rates) needed to calculate future public debt levels consistent with compliance with public sector budgetary constraints. Using these projected future trajectories, it is possible to calculate the probability of public debt being over a certain threshold at a given point in time (for example, in ten years' time).

The results obtained for Brazil, Mexico, Colombia and Chile are presented in Chart 1. The model is simulated, taking as the starting point two different moments in time: 2019 Q4 (to reflect the analysis that would have been made pre-pandemic) and 2022 Q4.[2] For each exercise, the probabilities

of public debt exceeding two benchmark values ten years after the starting point taken are shown: the pre-pandemic public debt level – 80% of GDP for Brazil, 60% for Colombia, 50% for Mexico and 30% for Chile – and a public debt level 20 pp above that benchmark value.

The simulation exercises show that, for Colombia and Brazil, there is a probability of around 90% that the public debt-to-GDP ratio in ten years' time will still be higher than the pre-pandemic figure. This probability is 20 pp and 9 pp higher, respectively, than that estimated for the two countries before the onset of the health crisis. For Mexico and Chile, the probability that the public debt-to-GDP ratio in ten years' time will still be higher than the pre-pandemic figure also rises between 2019 Q4 and 2022 Q4 – by 8 pp and 13 pp, respectively – but from much lower levels – some 20% lower – than those estimated for Colombia and Brazil.

Chart 1
PROBABILITY OF PUBLIC DEBT EXCEEDING A CERTAIN THRESHOLD IN TEN YEARS' TIME (a)

● DEBT > PRE-PANDEMIC BENCHMARK   ● DEBT > PRE-PANDEMIC BENCHMARK + 20 PP
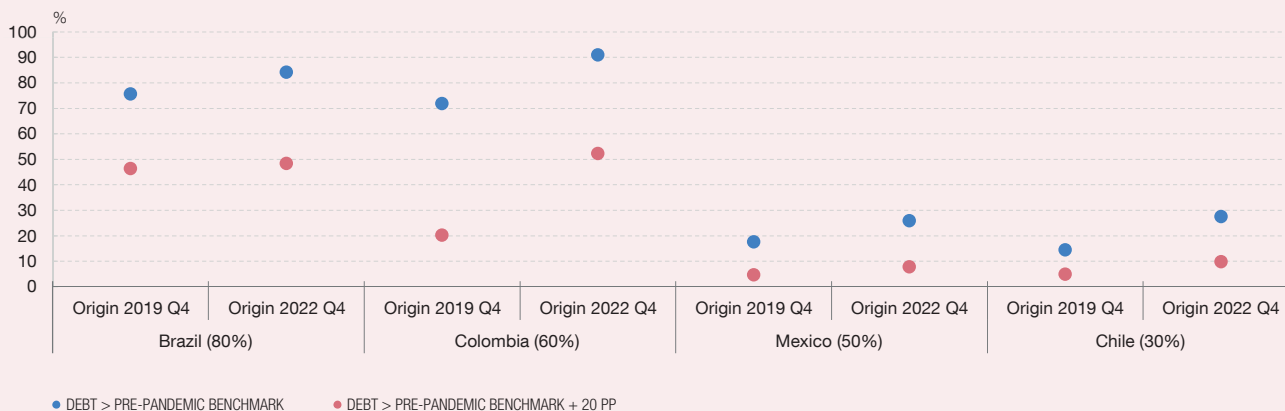
SOURCES: IMF, Refinitiv, national statistics and Banco de España.

a In brackets, pre-pandemic benchmark level debt used to calculate the probabilities shown in the chart.

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1   See Alloza et al. (2021). "Implicit public debt thresholds: An operational proposal", *Journal of Policy Modelling,* 42, pp. 1408-1424.

2   The values of the variables in the model for the second half of the year are estimated drawing on private analysts' consensus forecasts.

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