

INDICATORS OF VULNERABILITY IN EMERGING COUNTRIES THAT ARE MATERIAL FOR THE SPANISH FINANCIAL SYSTEM

First half of
2026

Monetary Policy and International
Economy Department

BANCO DE **ESPAÑA**
Eurosistema



Table 1
Heat map of vulnerability indicators (a)

	Time series												Cross section
	2020		2021		2022		2023		2024		2025		Latest data available (i)
	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	
Financial markets (b)													
1 Material countries (c)													
Argentina													
Brazil													
Mexico													
Chile													
Colombia													
Peru													
Türkiye													
2 Systemic emerging market economies													
China													
India													
Russia													
South Africa													
Macroeconomy (d)													
1 Material countries (c)													
Argentina													
Brazil													
Mexico													
Chile													
Colombia													
Peru													
Türkiye													
2 Systemic emerging market economies													
China													
India													
Russia													
South Africa													
Fiscal (e)													
1 Material countries (c)													
Argentina													
Brazil													
Mexico													
Chile													
Colombia													
Peru													
Türkiye													
2 Systemic emerging market economies													
China													
India													
Russia													
South Africa													

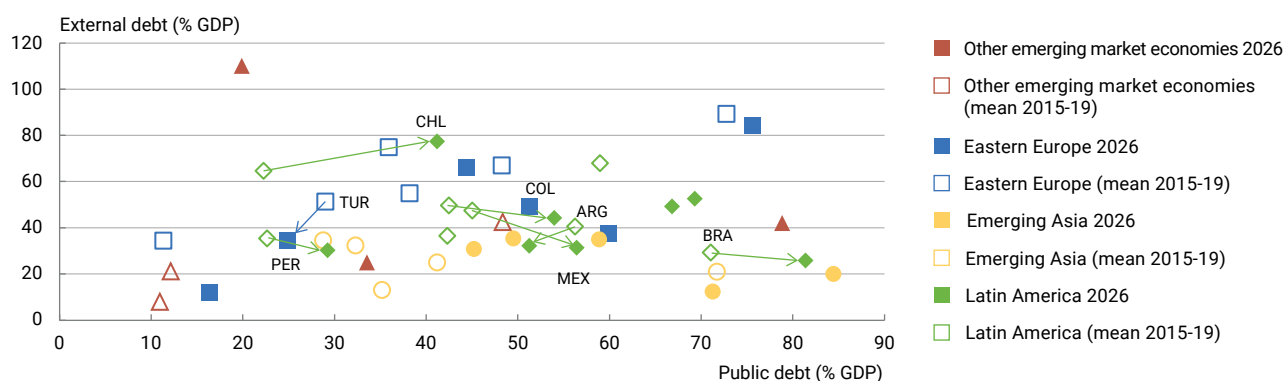
	Time series												Cross section
	2020		2021		2022		2023		2024		2025		Latest data available (i)
	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	
Banks (f)													
1 Material countries (c)													
Argentina													
Brazil													
Mexico													
Chile													
Colombia													
Peru													
Türkiye													
2 Systemic emerging market economies													
China													
India													
Russia													
South Africa													
External (g)													
1 Material countries (c)													
Argentina													
Brazil													
Mexico													
Chile													
Colombia													
Peru													
Türkiye													
2 Systemic emerging market economies													
China													
India													
Russia													
South Africa													
Politics and wealth (h)													
1 Material countries (c)													
Argentina													
Brazil													
Mexico													
Chile													
Colombia													
Peru													
Türkiye													
2 Systemic emerging market economies													
China													
India													
Russia													
South Africa													

SOURCE: Irma Alonso and Luis Molina. (2021). "A GPS navigator to monitor risks in emerging economies: the vulnerability dashboard". Documentos Ocasionales, 2111, Banco de España. <https://www.bde.es/f/webbde/SES/Secciones/Publicaciones/PublicacionesSeriadas/DocumentosOcasionales/21/Files/do2111e.pdf>

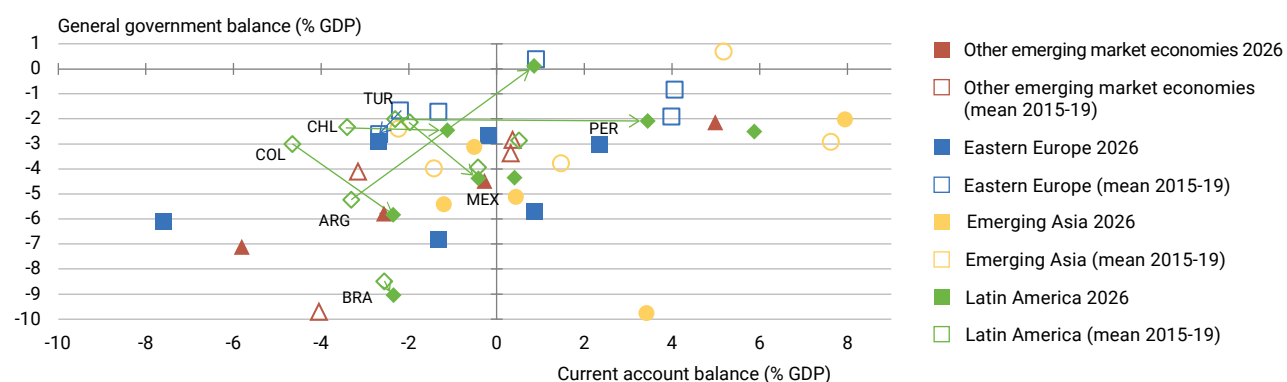
- For each indicator the historical frequency distribution (time series since 1993) and the frequency distribution for all emerging indicators at the same moment in time (cross section) are calculated. Then the percentile position of each indicator in each period shown is calculated, assigning a colour to each risk level, changing the colour hue every 5% in the frequency distribution. The level of risk is indicated with shades of green (associated with lower levels of vulnerability), yellow (medium vulnerability) or red (variables located in the highest risk percentiles).
- Sovereign spread (level and quarterly change) and quarterly change in stock market index and exchange rate.
- Each year, the Banco de España identifies third countries (i.e. outside the European Economic Area) that are materially significant to the Spanish financial system for the purpose of the countercyclical capital buffer (CCyB). To this end, the size of Spanish banks' international exposures is analysed according to the European Systemic Risk Board's guidelines. In 2024 eight material countries were identified – the United States, the United Kingdom, Türkiye and the five Latin American economies shown in the table. See the section on the CCyB on the Banco de España's website.
- Change in GDP and industrial output, inflation rate and change in GDP per capita.
- General government balance and gross public debt (% of GDP).
- 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.
- Current account balance, direct and portfolio investment inflows, external debt, short-term external debt and external debt service, and international reserves.
- IHS Markit political risk indicator and geopolitical risk index.
- March 2026.

Chart 1
Public finance and external vulnerabilities

1.a Stocks (a)



1.b Flows (a)



SOURCES: Refinitiv and national statistics offices.

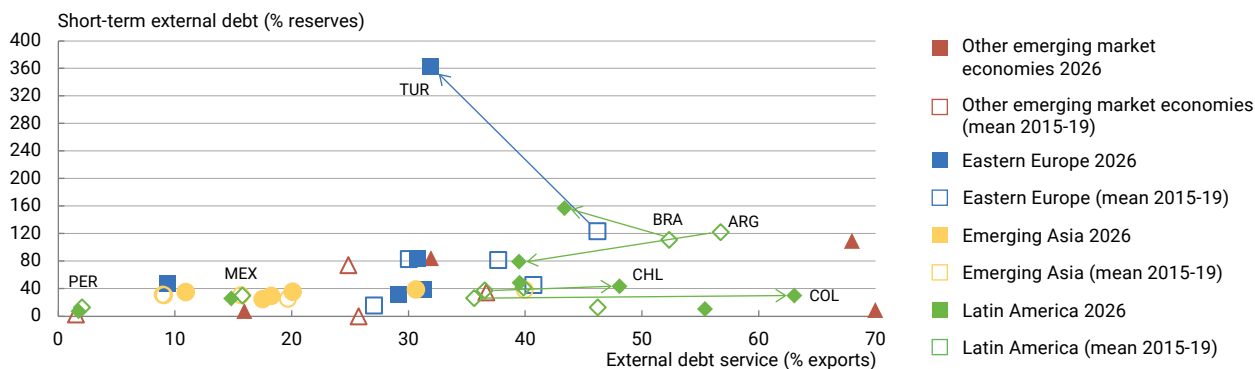
a Pairwise comparison of each variable for the 2015-19 average and in 2026 Q1 (latest data available). Cumulative four-quarter data. The countries marked in the chart are considered material for the Spanish financial sector.



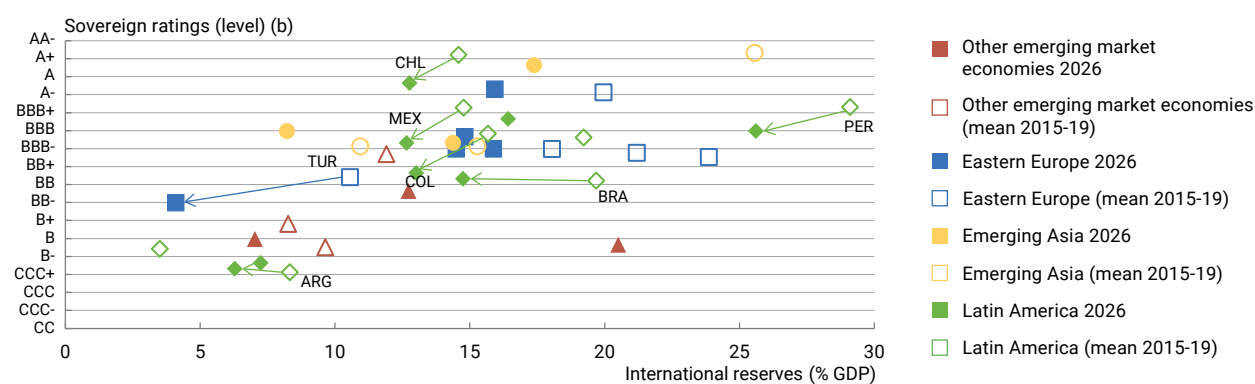
Chart 2

External vulnerabilities, resilience factors and market valuations

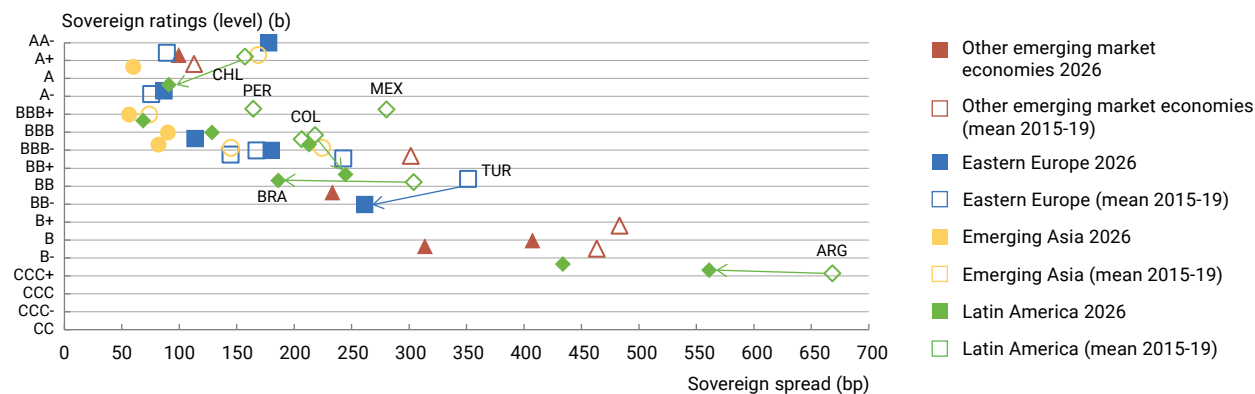
2.a External vulnerabilities: sustainability indicators (a)



2.b Resilience factors (a)



2.c Markets and rating agencies valuations (a)



SOURCES: Refinitiv and national statistics offices.

a Pairwise comparison of each variable in 2015-19 and in 2026 Q1 (latest data available for all countries), except the sovereign spread and sovereign ratings (May 2026). Cumulative four-quarter data for short-term external debt and external debt service. The countries marked in the chart are considered material for the Spanish financial sector.

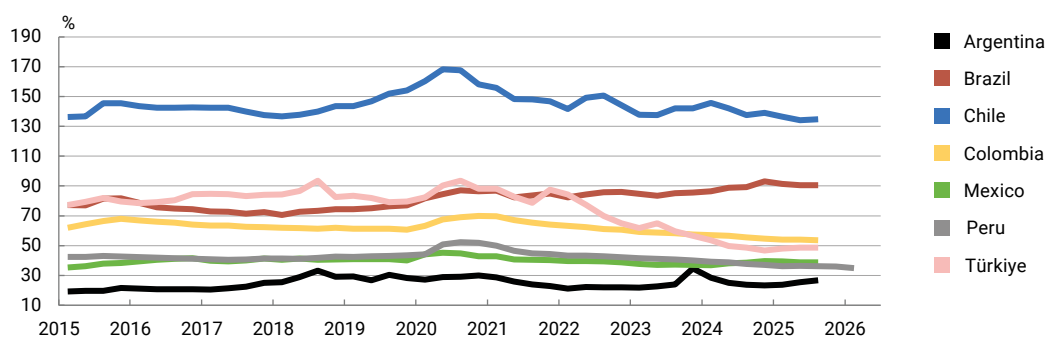
b Average ratings for Standard & Poor's, Fitch and Moody's.



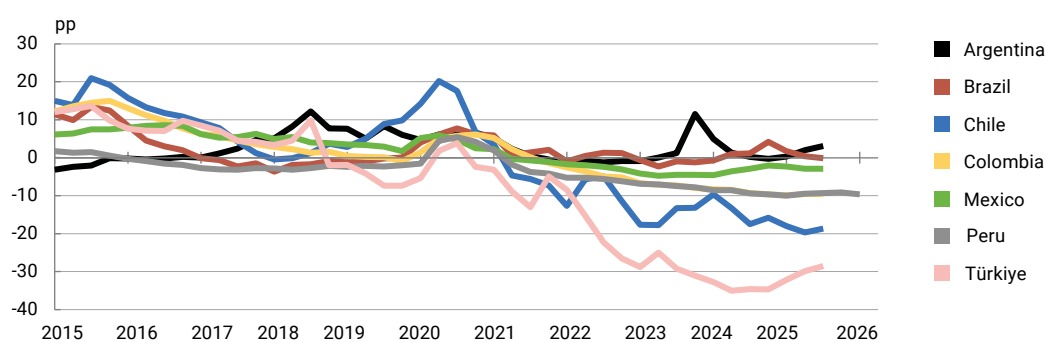
Chart 3

Macroprudential indicators

3.a Credit-to-GDP ratio (a)



3.b Credit-to-GDP gap (b)



SOURCE: Refinitiv.

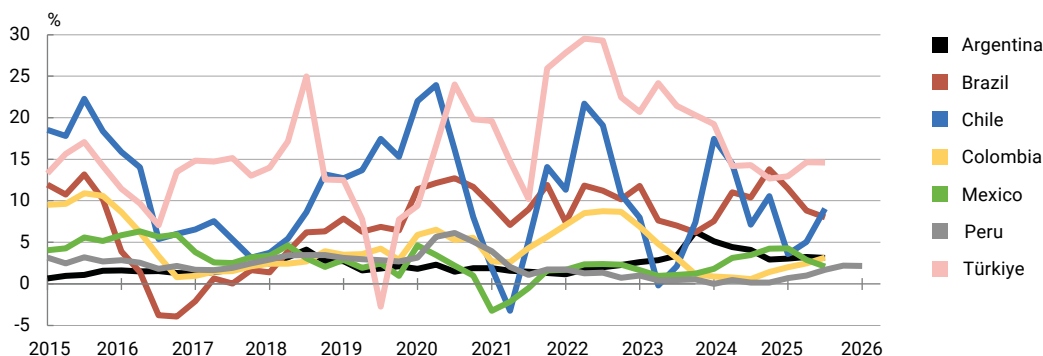
a Nominal credit to the non-financial private sector divided by nominal GDP. Cumulative four-quarter data.

b Difference in percentage points between the observed credit-to-GDP ratio and its long-term trend calculated by applying a Hodrick-Prescott statistical filter with a smoothing parameter of 400,000.

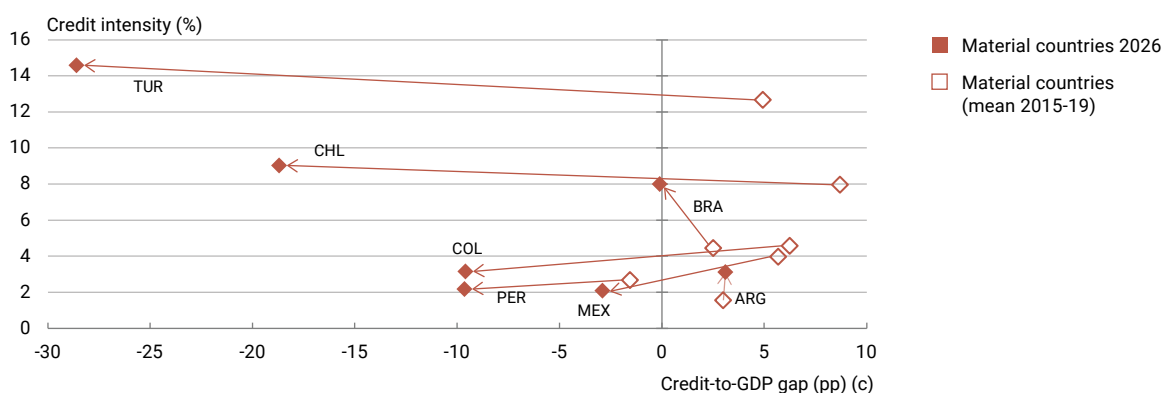


Chart 3
Macroprudential indicators (cont'd)

3.c Credit intensity (a)



3.d Macroprudential indicators (b)



SOURCES: Refinitiv and Banco de España.

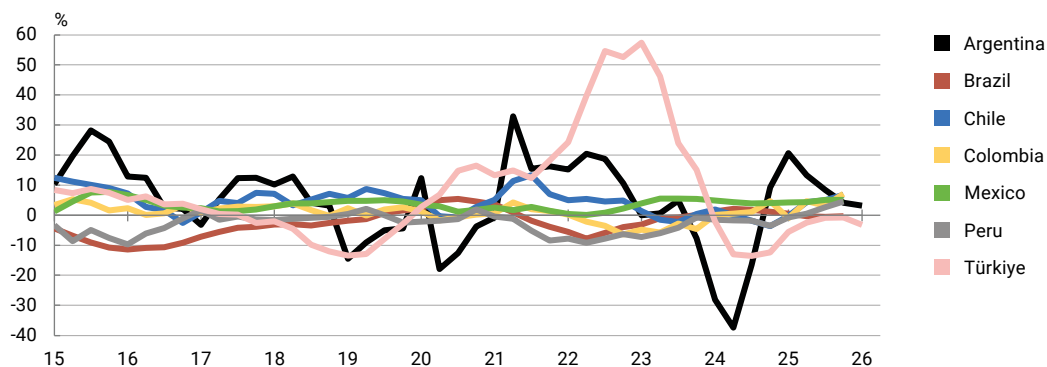
- a Year-on-year increase in nominal credit to the non-financial private sector divided by nominal GDP.
- b Pairwise comparison of each variable for the 2015-19 mean and in 2025 Q3 (latest data available).
- c Difference in percentage points between the observed credit-to-GDP ratio and its long-term trend calculated by applying a Hodrick-Prescott statistical filter with a smoothing parameter of 400,000.



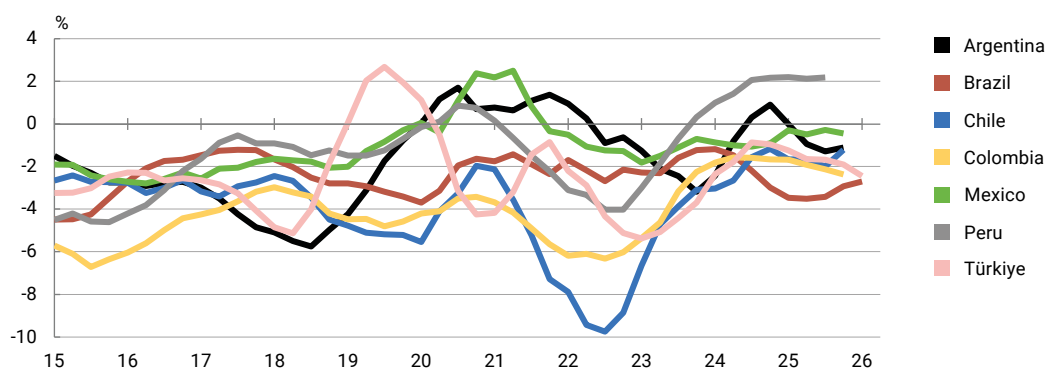
Chart 4

Macprudential indicators

4.a Real property prices (y-o-y) (a)



4.b Current account balance (% GDP) (b)



SOURCE: Refinitiv.

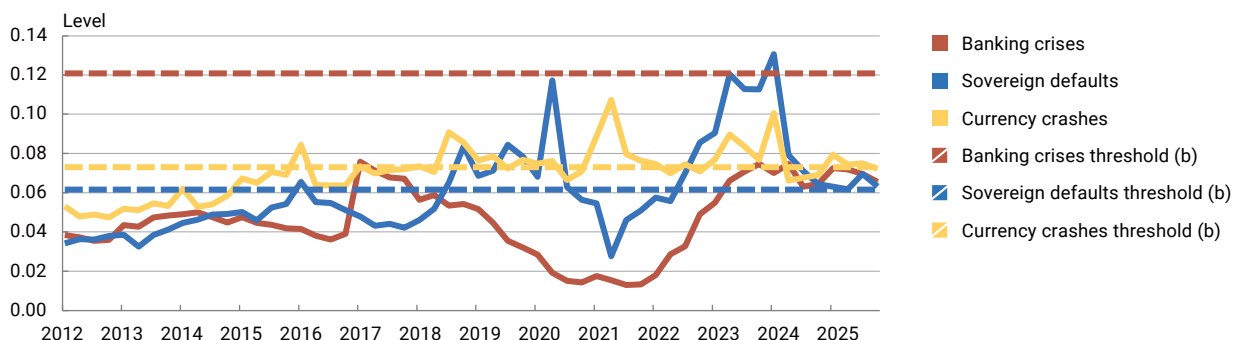
- a Deflated by the Consumer Price Index.
- b Cumulative four-quarter data.



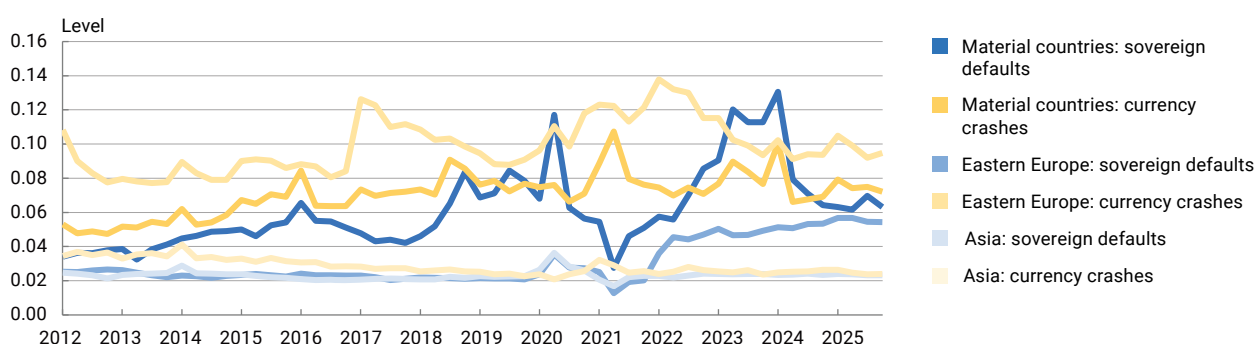
Chart 5

Synthetic vulnerability indicators

5.a Synthetic vulnerability indicators: material countries (a)



5.b Synthetic vulnerability indicators: comparison between emerging market economies (a)



SOURCE: Banco de España.

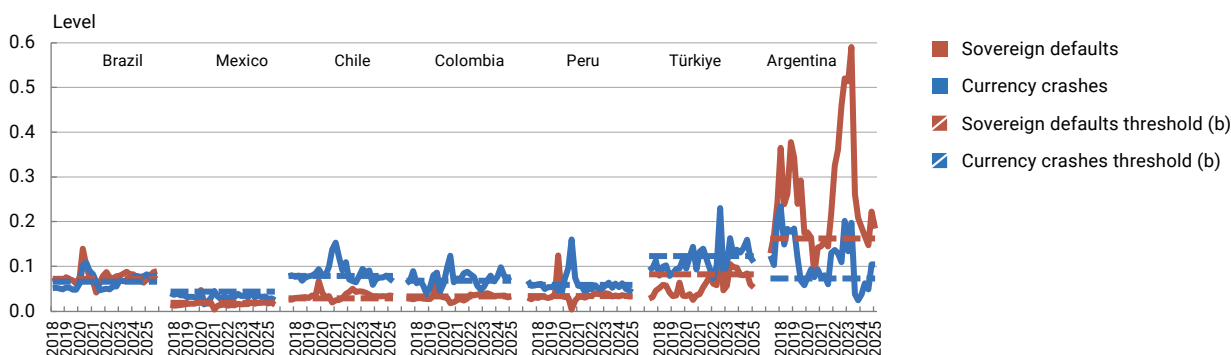
- a** The synthetic indicators represent the likelihood of being in a vulnerable state, estimated using a logit model for three types of crisis (banking, currency and sovereign) with pre-selected variables based on the issue of correct signals six quarters before a crisis (threshold of an ROC curve). An increase in a synthetic indicator implies an increase in the likelihood of recording a crisis in each of the categories. The regional indicators are the weighted average of the synthetic indicators for the seven material countries (Argentina, Brazil, Chile, Colombia, Mexico, Peru and Türkiye), five in emerging Asia (China, India, Indonesia, South Korea and Thailand) and five in Eastern Europe (Czech Republic, Hungary, Poland, Romania and Russia). The weights used for material countries are the original exposures of the Spanish financial system to each of those countries, and for the other regional aggregates, GDP at purchasing power parity.
- b** The thresholds are references that provide the percentile of the estimated probability of being in a situation of vulnerability, so that in the event of possible adverse shocks the probability of the country experiencing a crisis would be high (calculated according to the occurrence of crises in the past). The thresholds are estimated with the latest available sample and depend on the level of the synthetic indicators.



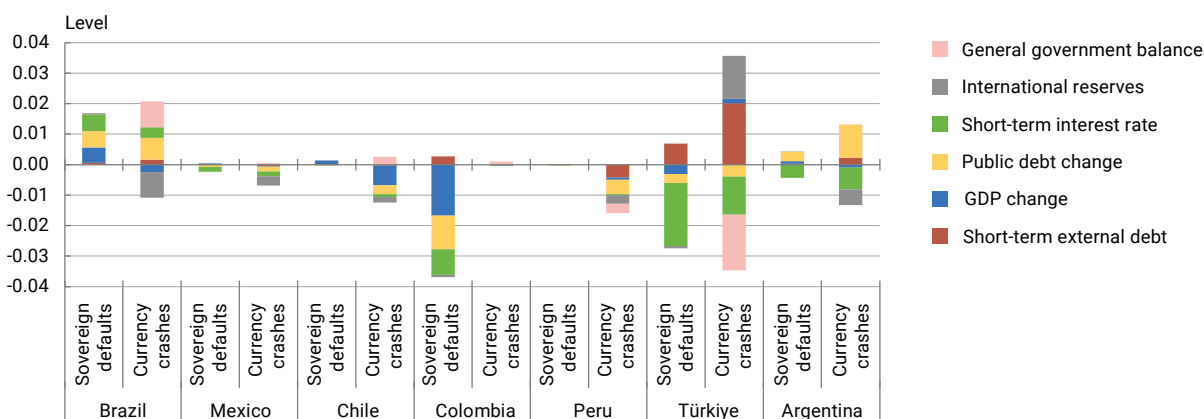
Chart 5

Synthetic vulnerability indicators (cont'd)

5.c Synthetic vulnerability indicators: material countries (a)



5.d Contributions to the change in the synthetic vulnerability indicator (c)



SOURCE: Banco de España.

- 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 an ROC curve). An increase in a synthetic indicator thus implies an increase in the likelihood of recording a crisis in each of the categories.
- b** The thresholds are references that provide the percentile of the estimated probability of being in a situation of vulnerability, so that in the event of possible adverse shocks the country could experience a crisis with high probability (calculated according to the occurrence of crises in the past). The thresholds are estimated with the latest available sample and depend on the level of the synthetic indicators.
- c** The factors' contribution to the change in the synthetic vulnerability indicators between the fourth quarter of 2025 and the fourth quarter of 2024 is represented. The contributions are calculated based on the effect of each of the variables on the linear probability estimated by the model, reweighted.



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