INDICATORS OF VULNERABILITY IN LATIN AMERICA

First half of

2023

International Economics
and Euro Area Department

BANCO DE ESPAÑA
Eurosistema

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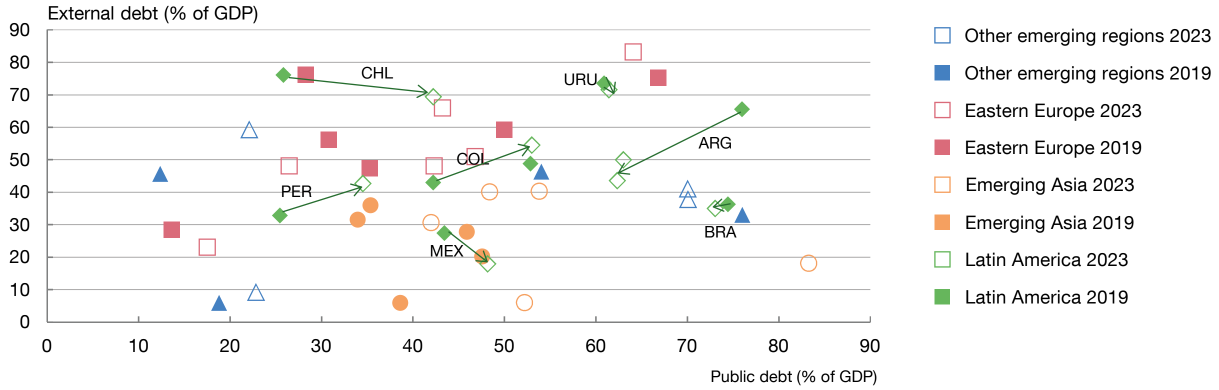
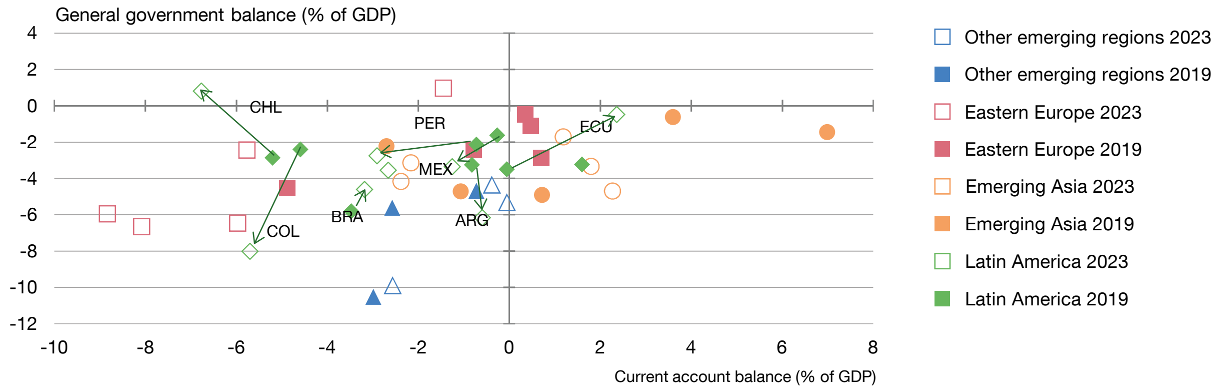
Chart 1

Public and external debt have risen above pre-pandemic levels in some countries in the region, driven by strong twin deficits

1.a Vulnerabilities: stocks (a)



1.b Vulnerabilities: flows (a)



SOURCES: Refinitiv and national statistical offices.

a Comparison of pairs of each variable at end-2019 and in 2023 Q1 (latest data available for all countries).

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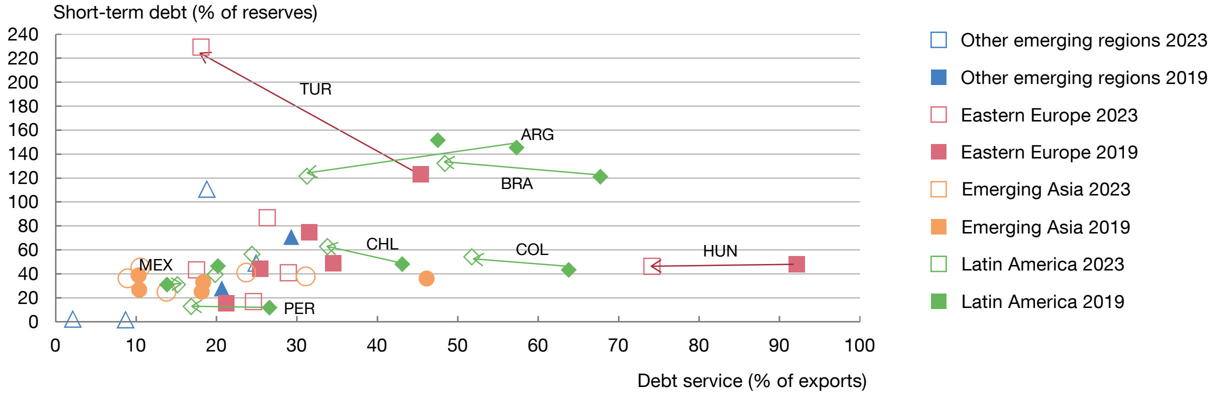
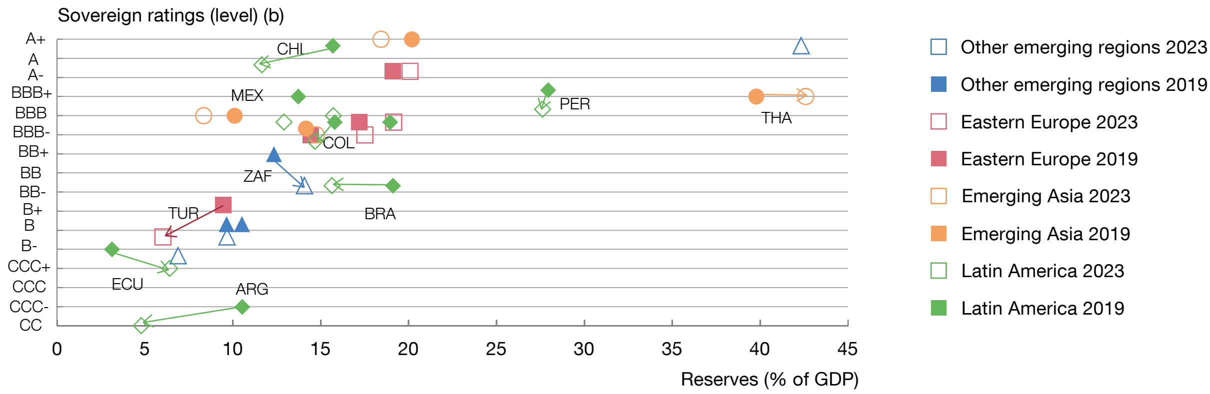
Chart 2

Compared with 2019, short-term debt levels have increased in some countries although debt servicing has declined. Reserves have fallen across the region, in a setting of greater sovereign credit rating downgrades than those of other emerging market economies

2.a Vulnerabilities: sustainability (a)



2.b Vulnerabilities: resilience (a)



SOURCES: Refinitiv and national statistical offices.

a Comparison of pairs of each variable at end-2019 and in 2023 Q1 (latest data available for all countries).
b Average ratings for Standard and Poor's, Fitch and Moody's.

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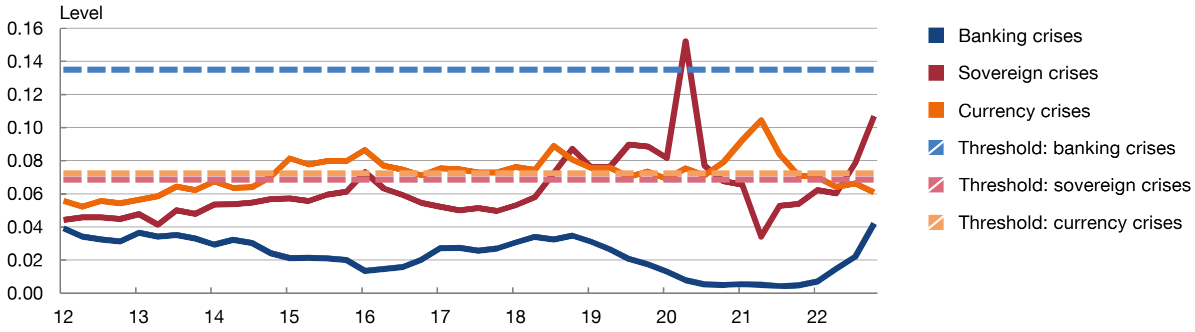
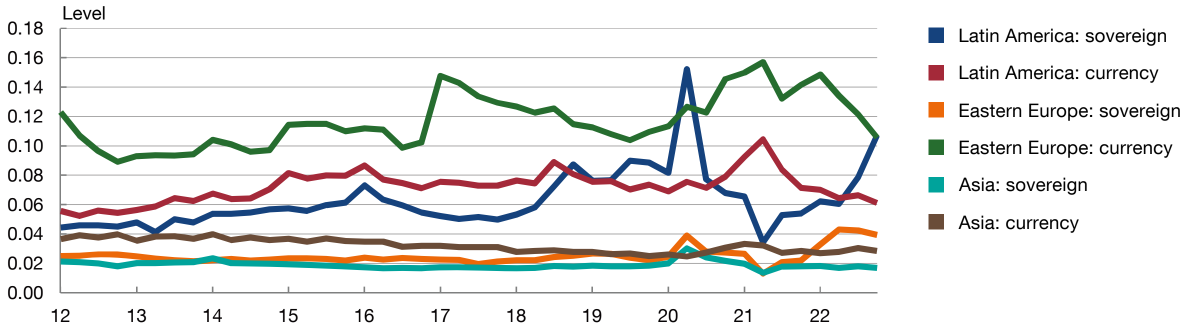
Chart 3

The synthetic vulnerability indicators for the region increased significantly towards end-2022

3.a Synthetic vulnerability indicators: Latin America (a)



3.b Synthetic vulnerability indicators: comparison between emerging regions (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 that have sent 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. 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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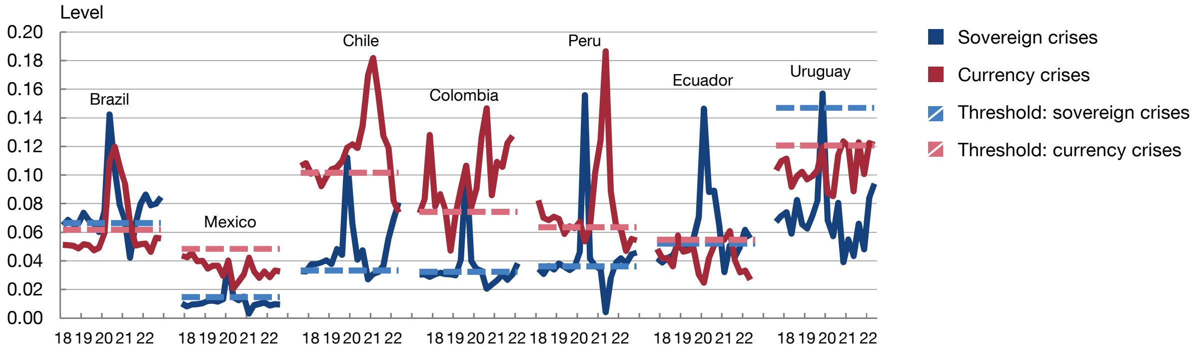
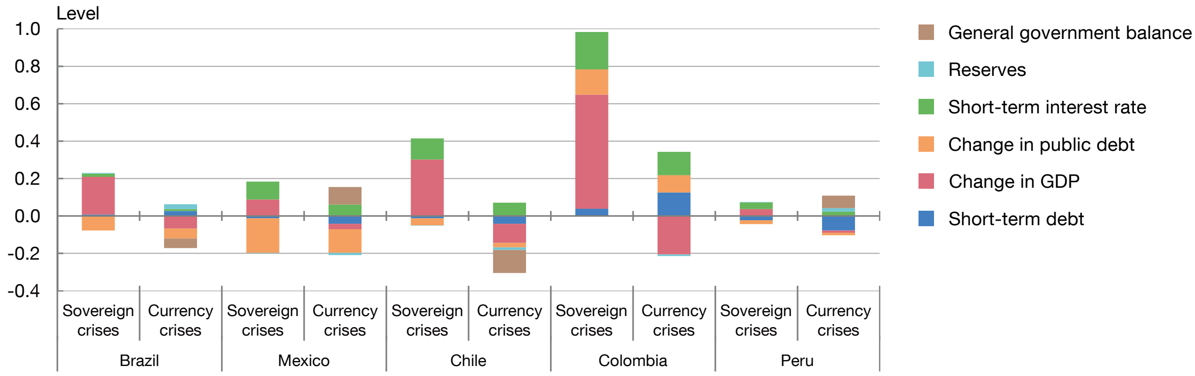
Chart 4

The indicators of vulnerability to sovereign crises have increased across the region, particularly owing to the slowdown in activity and rising interest rates at end-2022

4.a Synthetic vulnerability indicators: Latin America (a)



4.b Contributions to the change in the synthetic vulnerability indicator (b)



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 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.

b Contribution of the factors shown to the change in the synthetic vulnerability indices between 2022 Q3 and Q4.

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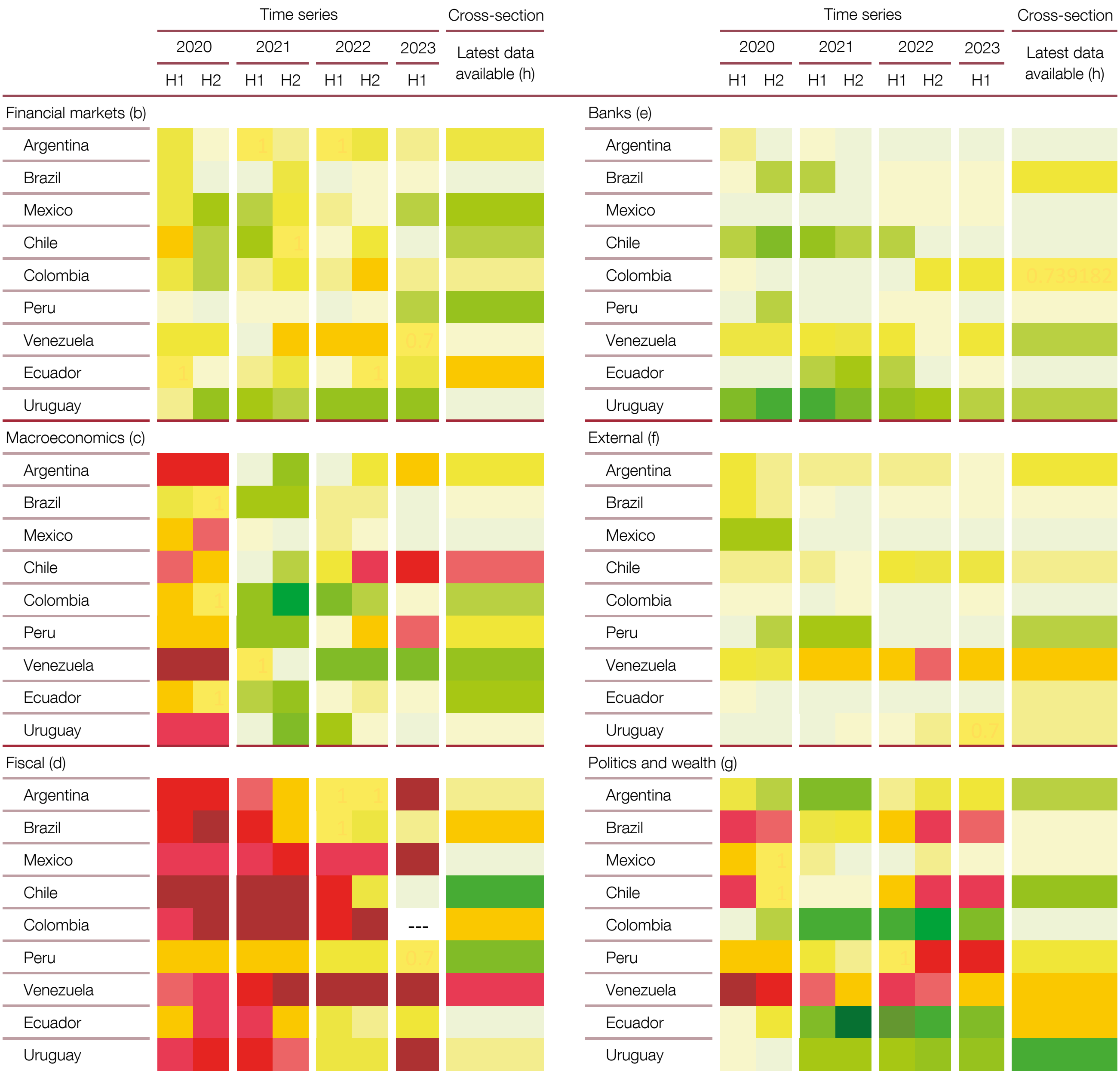
Table 1
Heatmap of vulnerability indicators (a)



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

a The risk level is shown with shades of green (associated with lower levels of vulnerability), yellow (medium vulnerability) and red (variables in the highest 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 output, 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 loan rate minus deposit rate.
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 index and GDP per capita.
h December 2022.