

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

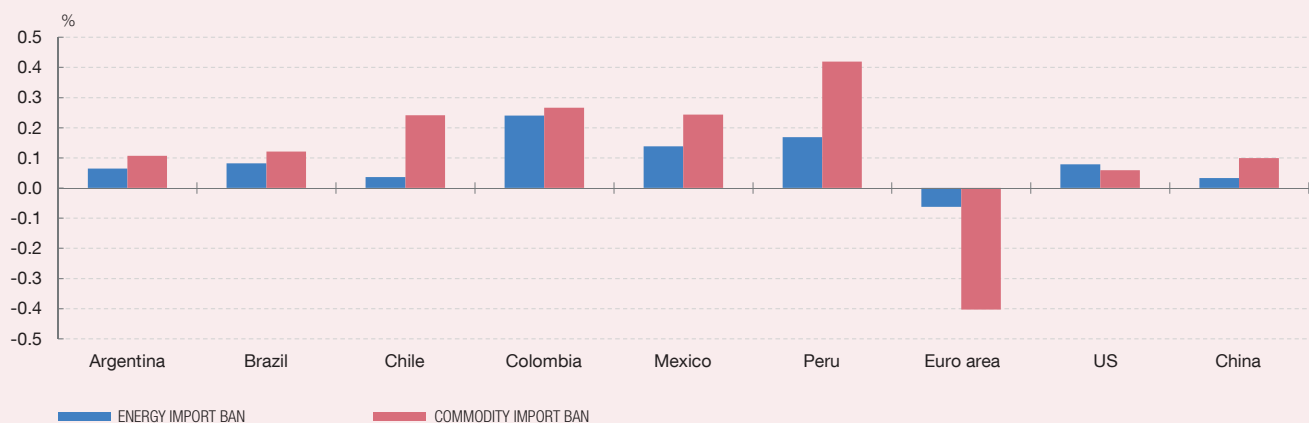
scenario in which the substitution of imports from different countries is generally relatively high.

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.

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

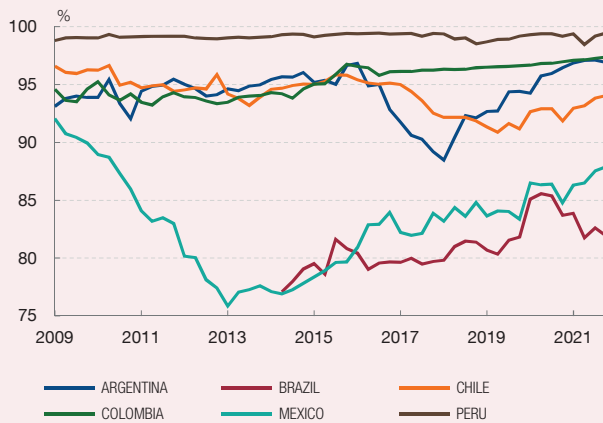


Chart 2
FOREIGN CURRENCY-DENOMINATED PUBLIC DEBT

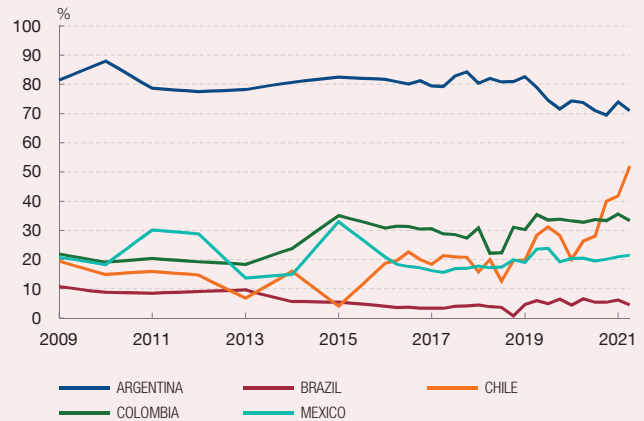


Chart 3
FOREIGN HOLDINGS OF LOCAL CURRENCY-DENOMINATED PUBLIC DEBT

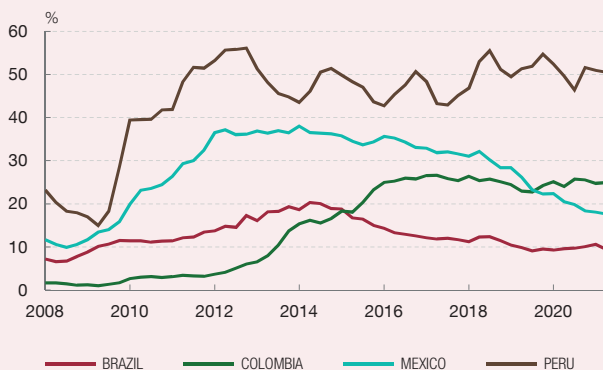
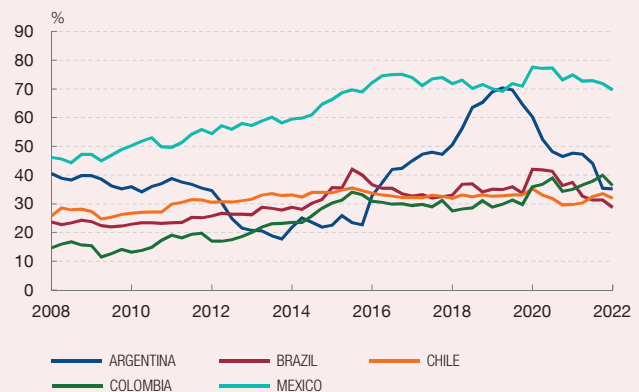


Chart 4
NON-FINANCIAL CORPORATIONS' FOREIGN CURRENCY-DENOMINATED DEBT



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

- 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

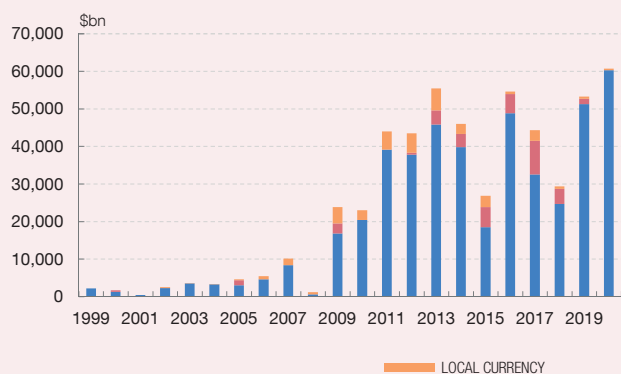


Chart 6
BOND ISSUANCE ON CAPITAL MARKETS. NON-TRADABLE SECTOR

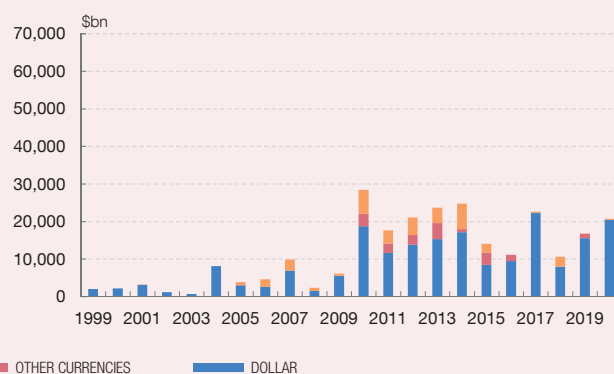


Chart 7
FOREIGN CURRENCY-DENOMINATED PUBLIC DEBT (a)

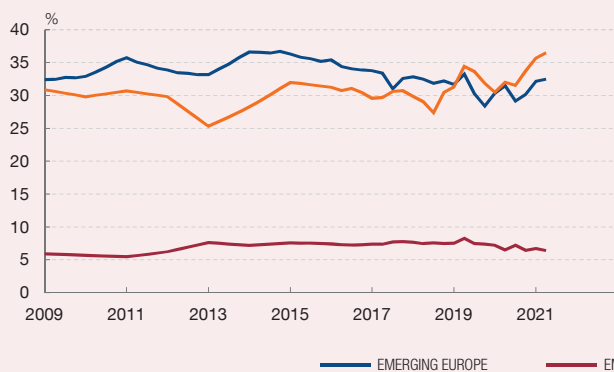
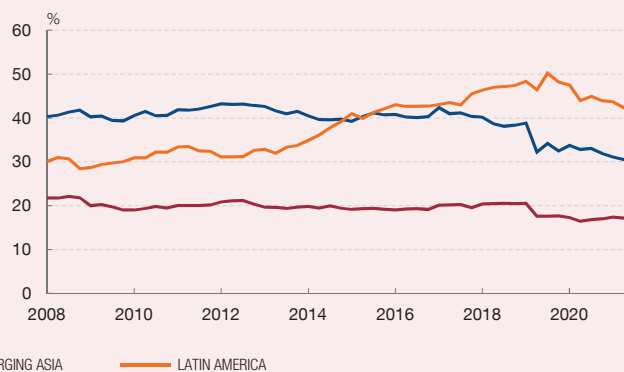


Chart 8
NON-FINANCIAL CORPORATIONS' FOREIGN CURRENCY-DENOMINATED DEBT (a)



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.

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

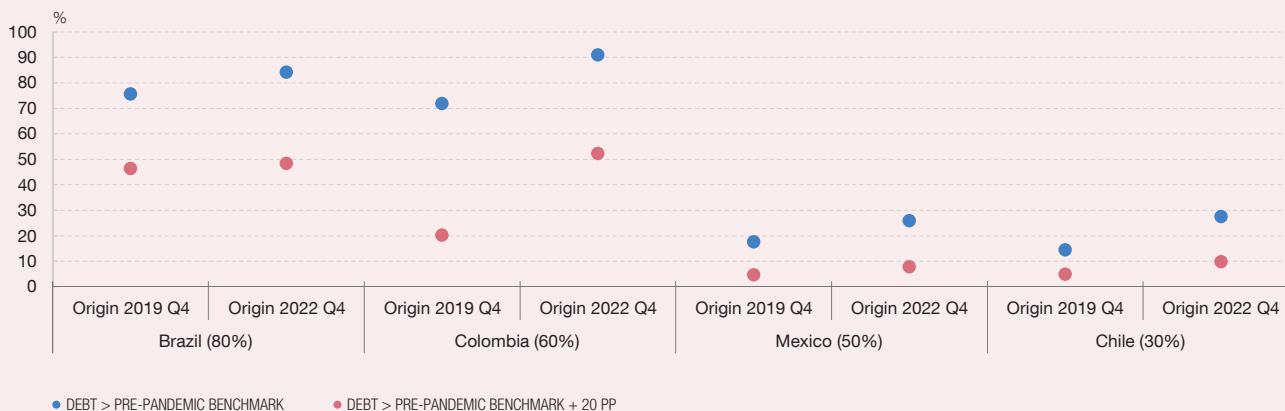
The recent growth in public debt in the Latin American economies – essentially as a consequence of the health crisis – has contributed to the increased vulnerability of their public finances. To illustrate these risks, this box uses a public debt sustainability analysis model¹ to project the paths of 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% 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)



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.

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.