

Online Annex 1. Banking in a High-Interest-Rate Environment in Latin America¹

The risk of banking turmoil triggered by high interest rates—like the one seen in AEs in early 2023 (following the collapse of Silicon Valley Bank)—is low for Latin America. Historically, high policy rates have had negligible or positive impact on banks’ profitability, except for small banks, where evidence is less clear. While Latin America’s banks are resilient to high interest rates, the sovereign-bank nexus warrants attention in some countries.

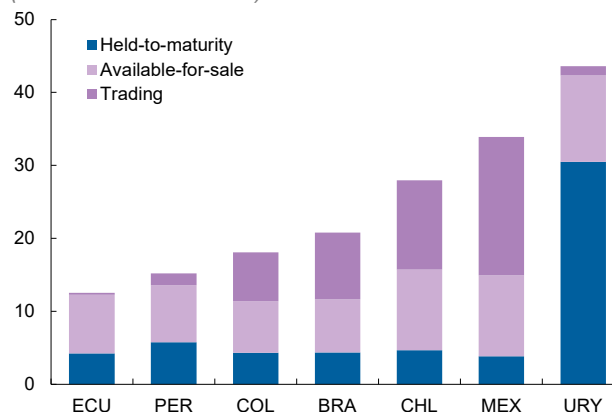
The risk of an SVB-type bank run² in the region—triggered by unrealized losses in fixed-income security holdings—is low. Although banks’ holdings of securities are sizable in some Latin American countries (Online Annex Figure 1.1), a significant share of them corresponds to debt at floating interest rates³ or short maturity, which value is less sensitive to interest rates movements. Moreover, unlike the US—where small-to-medium-sized banks were permitted to not account unrealized losses on Available-for-sale (AFS) securities in regulatory capital—in Latin America, such losses are typically deducted from regulatory capital and, therefore, do not pose hidden risks.⁴

Moreover, historically, high policy rates either did not reduce or slightly improved banks’ profitability, after accounting for other factors (like the strength of the economy and the level of inflation). Estimates using aggregated data indicate that the passthrough from the monetary policy rate to the average rates on banks’ interest-earning assets and liabilities has been substantial for LA5 countries in the last two decades (Online Annex Figure 1.2, panel 1). The high passthrough partly reflects the short maturity of banks’ assets and liabilities and the prevalence of flexible rate instruments in some countries. Net interest margins (NIMs) generally increased with the monetary policy rate—as lending rates increased more than deposit rates—contributing to higher profitability. At the same time, increased loan loss provisions, reflecting greater credit risk in loan portfolios as the interest risk shifted to borrowers, offset some of the gains in profitability. Overall, bank profitability did not change or slightly increased in response to high policy rates (Figure 4, panel 4).

However, some small banks are more vulnerable to interest rates increases. Analysis using bank-level data indicates that the increase in the banking sector’s NIMs primarily reflects increased profitability of medium and large banks, while small banks exhibit a less significant increase or even a deterioration in NIMs in response to rising interest rates, arguably due to their greater exposure to competition (Online Annex Figure 1.2, panel 2).

While these results indicate that the direct impact of high interest rates on banks is limited, elevated interest rates could pose risks through the sovereign-bank nexus as bank exposures to sovereigns are high in some countries in Latin America. A negative feedback loops between banks and the sovereign may be triggered if a sovereign

Online Annex Figure 1.1. Banks’ Security Holdings, 2022
(Percent of total assets)



Sources: Fitch Connect; and IMF staff calculations.

¹ Prepared by Chao He and Dmitry Vasilyev, with excellent research assistance from Damaris Garza.

² The U.S. Silicon Valley Bank (SVB) collapsed in March 2023 after a bank run triggered by its large unrealized losses on held-to-maturity securities, which resulted from rising interest rates. It sent shockwaves to global financial markets, contributing to the demise of Credit Suisse, a global systemically important bank. Combined with the subsequent failures of Signature Bank and First Republic Bank, the total assets of the three failed banks surpassed the combined assets of the 165 US banks that failed in 2008-09, during the of Global Financial Crisis.

³ For example, about 80 percent of general government debt has floating interest rate in Brazil, and about a half in Mexico.

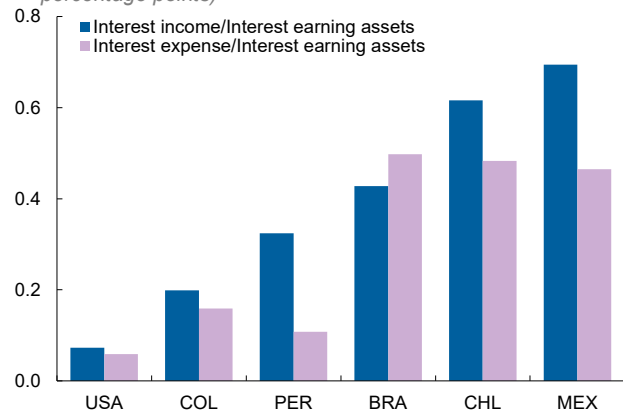
⁴ Held-to-maturity securities do not suffer from fair value loss when interest rate increases, hence no impact on regulatory capital. Unrealized losses on trading securities are reflected in regulatory capital in both the US and Latin America.

struggles to service its debt and/or banks face widespread defaults from other borrowers amid sustained high interest rates.

Online Annex Figure 1.2. Monetary Policy and Banking

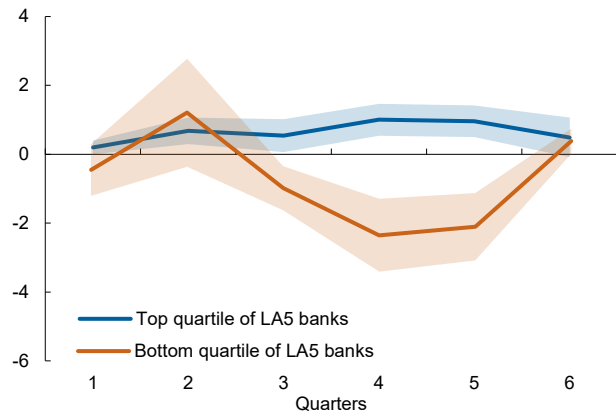
1. Passthrough from Monetary Policy to Bank Lending and Borrowing Rates¹

(Effect from one percentage point increase in policy rate; percentage points)



2. Cumulative Impact of Rise in Monetary Policy Rate on Bank's Net Interest Margin²

(Impact from one percentage point monetary shock)



Sources: Fitch Connect; Haver Analytics; IMF, Financial Soundness Indicators database; IMF, International Financial Statistics database; IMF, World Economic Outlook database; and IMF staff calculations.

Note: Data labels use International Organization for Standardization (ISO) country codes. LA5 = Latin America 5 (Brazil, Chile, Colombia, Mexico, Peru); NIM = net interest margin.

¹Estimates based on aggregate quarterly data for 2000–22. Country-by-country OLS regressions of NIM on the monetary policy rate, real GDP growth, inflation, lagged interest income divided by interest earning asset and lagged interest expense divided by interest earning asset.

²Estimates based on bank-by-bank quarterly data for 2000–22 encompassing 340 banks from LA5 countries; local-projection fixed-effect regressions of NIMs on: (i) monetary policy surprises; (ii) bank's other operating expense to average earning assets; (iii) inflation, (iv) real GDP growth; and (v) the size of the banking sector. Subsample of top and bottom 25 percent of banks in a country as classified by loan portfolio size.