

Statistical release: BIS international banking statistics and global liquidity indicators at end-March 2023

- In Q1 2023, global cross-border claims rose by \$619 billion and credit (ie loans and holdings of debt securities) by \$921 billion, due mainly to seasonal factors.
- Against the backdrop of rising global interest rates, the year-on-year (yoY) growth in cross-border credit has slowed over the past few quarters, falling to 2% by Q1 2023. Credit to advanced economies (AEs) expanded yoY while that to emerging market and developing economies (EMDEs) contracted.
- Banking sector strains that came to a head in March 2023 have had a limited impact on cross-border deposits, with only banks in Switzerland and the United Kingdom reporting outsize outflows.
- The BIS global liquidity indicators (GLIs) show that foreign currency credit denominated in US dollars contracted yoY, while that denominated in euro expanded but at a slower rate. These developments are in line with rising funding costs and the strength of the respective currencies.

Global cross-border credit rose in Q1 2023

The BIS locational banking statistics (LBS) show that banks' global cross-border claims rose by \$619 billion during the first quarter of 2023, with the stock reaching \$37 trillion for the first time (Graph 1.A and Annex Graph A.1).¹ The quarterly rise reflected an increase in bank loans (+\$507 billion) and debt securities (+\$414 billion), offset in part by a \$309 billion drop in the market value of derivatives and other instruments (Graph 1.A). However, seasonal factors appear to have played an outsize role in these developments (see below); looking at yoY growth rates instead reveals a third consecutive quarterly slowdown in the growth of cross-border claims against a backdrop of rising interest rates and dollar strength (Graph 1, lower panels).

Cross-border bank credit in all major currencies expanded in Q1 2023 (Graph 1.B). Yet, on a yoY basis, dollar credit growth remained slow, weighed down by falling credit to EMDEs, at -7% (Graphs 1.F and 2.D). In fact, dollar credit growth has been losing momentum since mid-2022 after the Federal Reserve began to raise interest rates, while yoY growth in euro credit started to slow in late 2022, after the ECB started its tightening cycle (Graph 1.F). All in all, growth in cross-border credit overall has remained positive, ending the latest quarter at 2% yoY.

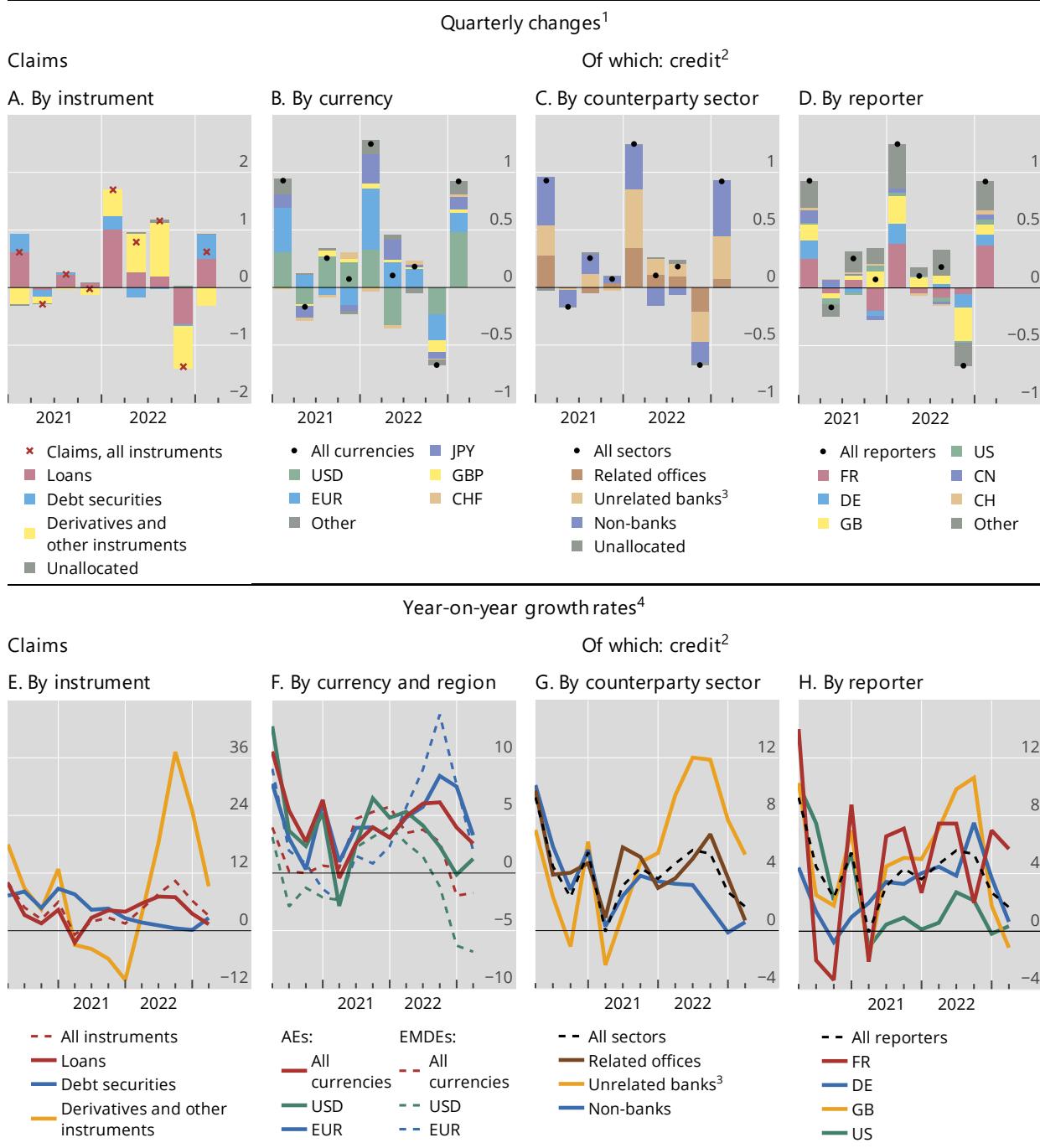
Cross-border credit to all sectors grew in Q1 2023 (Graphs 1.C and 1.G), with credit to non-banks expanding the most. Credit to non-bank financial institutions (NBFIs), in particular, has expanded steadily in recent years along with their growing

¹ In the BIS locational banking statistics, claims comprise: (i) loans and deposits; (ii) holdings of debt securities; and (iii) derivatives with a positive market value and other residual instruments (combined). Credit is defined as the sum of (i) and (ii).

heft in the global financial system. By Q1 2023, NBFIs' share in global bank cross-border credit reached 22%.

Changes in banks' global cross-border claims

Graph 1



¹ Quarterly changes adjusted for breaks in series and exchange rate fluctuations, in trillions of US dollars. ² Credit refers to loans and holdings of debt securities, ie excluding from "claims" all other instruments (derivatives with positive market value, equity and other residual instruments). ³ Includes credit to central banks and to banks unallocated by subsector. ⁴ Annual compound adjusted change, in per cent.

Source: BIS locational banking statistics.

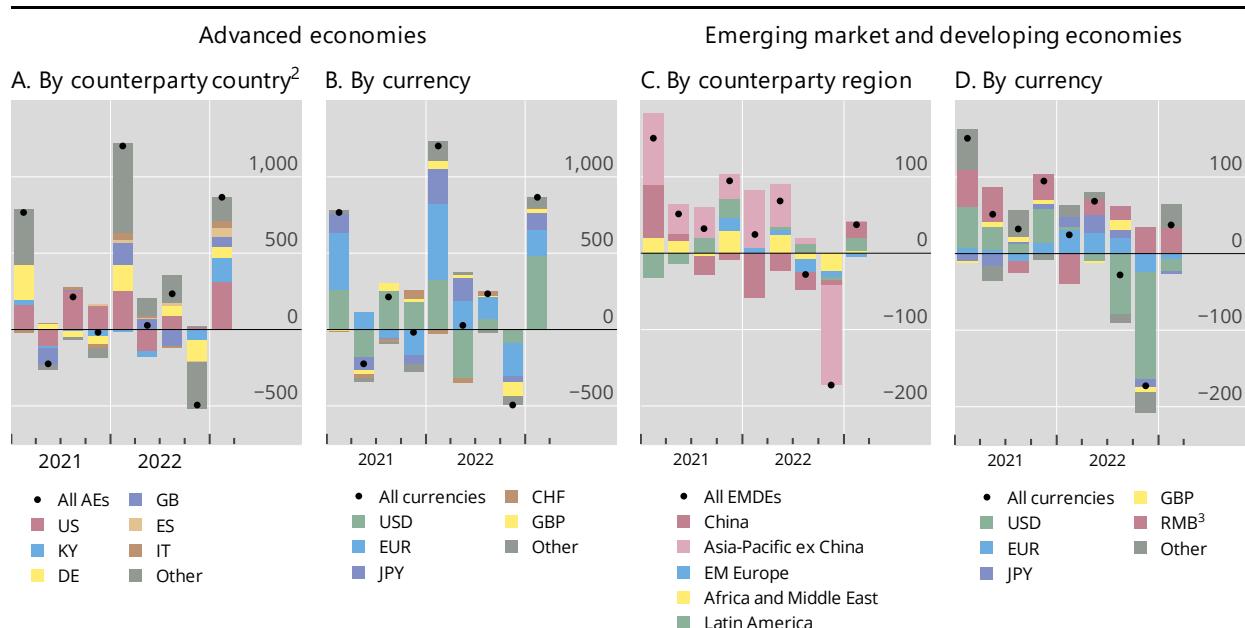
Dollar credit to emerging economies continues to decline

The bulk (\$866 billion) of the Q1 2023 increase in cross-border credit went to AEs (Graph 2). Cross-border credit to the United States and the Cayman Islands accounted for more than half of that amount (Graph 2.A). The consolidated banking statistics (CBS), which aggregate worldwide claims by banking system, indicate that a rise in French and Japanese banks' reported foreign claims on the US official sector drove the Q1 increase in cross-border credit to the United States.²

Cross-border bank credit to AEs and EMDEs¹

Quarterly FX- and break-adjusted changes, in billions of US dollars

Graph 2



¹ Credit refers to loans and holdings of debt securities, ie removing from "total claims" all other instruments (derivatives with a positive market value, equity and other residual instruments). ² The countries shown are the ones with the largest adjusted changes in the latest quarter.

³ Based on partial reporting by China and 13 other reporting jurisdictions.

Source: BIS locational banking statistics.

Against a longer trend decline in dollar credit, cross-border credit to EMDEs edged up in Q1 2023. Credit increased the most to China and Korea while the largest drops were vis-à-vis Singapore and Saudi Arabia. Lending in Chinese renminbi (RMB) grew while credit in dollar, euro and yen continued to drop (Graph 2.D). Dollar credit in particular, has been falling sharply over the past four quarters, by \$245 billion (or by 7% yoy, at end-Q1 2023) (Graph 1.F). Over the same period, credit in renminbi expanded by more than \$100 billion (red bars), mostly in the form of regional credit to China, Hong Kong SAR and Macao SAR.³

² In the LBS, Japan does not report a complete sectoral breakdown of cross-border claims on the non-financial sector. Japan does report a complete breakdown of foreign claims in the CBS.

³ The coverage of renminbi positions in the BIS international banking statistics is incomplete, since only 14 reporting countries break out the Chinese currency.

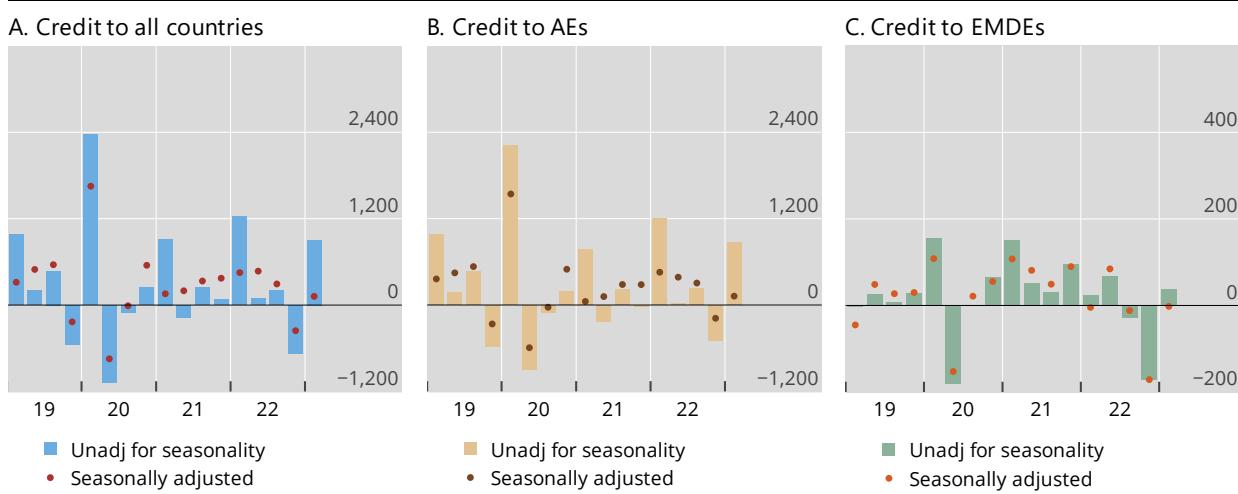
Seasonal factors drive large quarterly changes in Q1

The rise in global cross-border credit in Q1 2023 was mainly the result of seasonal factors inherent to several large banking systems. This regularly occurs at year-ends, when banks in some jurisdictions reduce their positions only to expand them again in the following quarter (Graph 1.D).⁴ Removing these seasonal effects lessens the fluctuations in cross-border credit (from the bars to the dots in Graph 3). Such seasonal effects accounted for as much as 80% of the expansion registered in Q1 (Graph 3.A). The remaining amount was due to other factors and went mostly to AEs (Graph 3.B).

Seasonal effects in cross-border credit¹

Quarterly changes, in billions of US dollars

Graph 3



¹ Quarterly changes are adjusted for breaks in series and exchange rate fluctuations. The seasonal adjustment uses the Arima X13 with the additive decomposition method. The sample consists of quarterly data from Q1 2015. Seasonally adjusted series are based on the reported cross-border credit to the AE and EMDE regions (panels B and C), by reporting country. The adjusted series are then aggregated to produce the total adjusted cross-border credit vis-à-vis each region. The series in panel A are calculated from the data in panels B and C.

Sources: BIS locational banking statistics; BIS calculations.

Deposit flows amidst recent banking strains

The banking strains of March 2023 in the context of global monetary tightening also left a mark on the BIS international banking statistics. Several US regional banks failed following depositor runs triggered by losses on long-maturity government securities. In Europe, the strains appear to have peaked in late March, when Credit Suisse was taken over by UBS, Switzerland's other global systemically important bank.⁵

In the United States, the strains appear to have had a limited impact on banks' cross-border funding. National data show deposit outflows from small domestic banks in Q1 2023 (Graph 4.A, blue bars). That said, large banks also saw deposit outflows before the March 2023 turmoil (red bars), likely reflecting the pull from

⁴ Most reporting banks' fiscal year closes at the end of the calendar year. Some, however, have their fiscal year-end at end-March (eg Japanese banks).

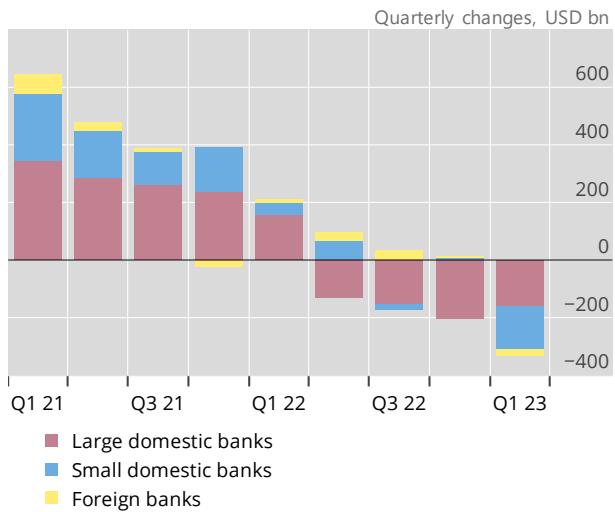
⁵ See BIS Annual Economic Report, 2023, Chapter I, www.bis.org/publ/arpdf/ar2023e1.htm.

higher returns offered by money market funds (MMFs).⁶ Yet, these developments remained largely contained: cross-border deposits held with banks in the United States have remained stable in aggregate over the past year (Graph 4.B).

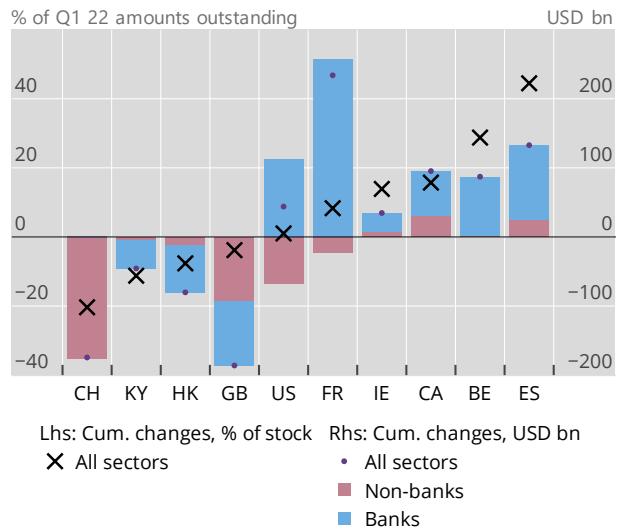
Changes in banks' deposit liabilities¹

Graph 4

A. Total deposits of banks in the United States



B. Cross-border deposits, Q2 22–Q1 23, by bank location



¹ Panel A shows quarterly changes in (seasonally adjusted) amounts outstanding. Panel B shows quarterly FX- and break-adjusted changes, cumulated over four quarters.

Sources: Federal Reserve Release H.8; BIS locational banking statistics.

There are few signs across BIS-reporting jurisdictions of generalised cross-border deposit outflows (Graph 4.B). If anything, banks in several major economies experienced deposit inflows over the past year, including banks in the euro area.⁷ Most inflows were interbank deposit placements. By contrast, deposits placed by non-banks proved to be less stable. Indeed, banks in the United Kingdom and in Switzerland lost deposits worth 4% and 20% of the respective totals; the latter coincided with the growing strains at Credit Suisse.⁸ For banks in Switzerland, households and NBFIs abroad played an important role in these developments (Graph 5.A). Most notably, households in EMDEs withdrew as much as \$44 billion over the past year (Graph 5.B). Local deposits (Graph 5.C, blue bars) began to decline only in Q4 2022. The loss of deposits was counterbalanced by forceful liquidity measures by the Swiss National Bank in support of an orderly takeover of Credit Suisse.

⁶ Federal Reserve Bank of New York research shows that the use of MMFs rises along with interest rate increases, since the interest rates paid by MMFs to their investors adjust faster than those of bank deposits. See G Afonso, M Cipriani and G La Spada, "Banks' Balance-Sheet Costs, Monetary Policy, and the ON RRP", Federal Reserve Bank of New York, *Staff Reports*, no 1041, December 2022.

⁷ On the domestic side, the ECB bank lending survey for Q1 2023 finds that outflows from overnight deposits shifted into term deposits owing to the stronger interest rate increases for term deposits.

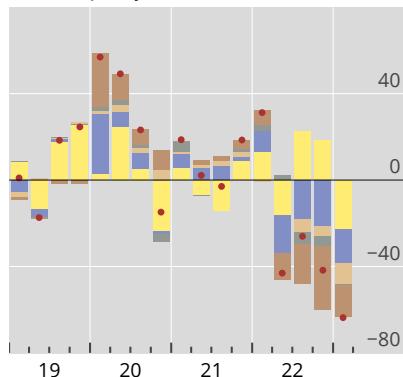
⁸ For more on deposit outflows from Credit Suisse, see Financial Times, 24 April 2023 and Credit Suisse Q1 2023 results. On liquidity assistance and other analysis, see Swiss National Bank, Financial Stability Report, June 2023.

Deposit liabilities of banks in Switzerland

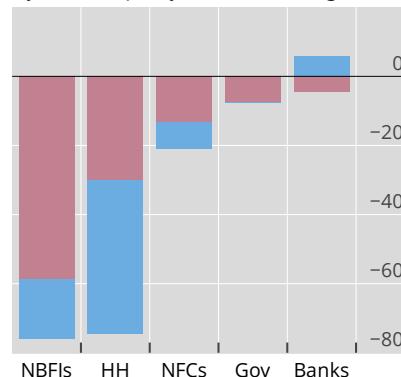
Quarterly FX-adjusted changes, in billions of US dollars

Graph 5

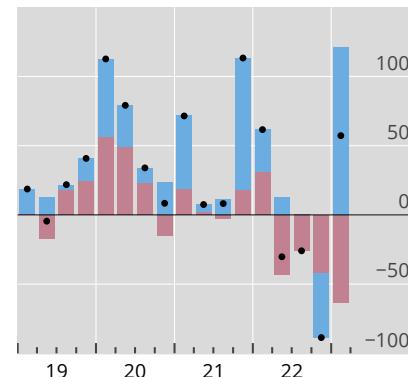
A. Cross-border deposits, by counterparty sector



B. Cross-border: cumulative changes, by counterparty sector and region



C. Cross-border and local deposits vis-à-vis all sectors



AEs = advanced economies; EMDEs = emerging market and developing economies; Gov = general government; HH = households; NBFIs = non-bank financial institutions; NFCs = non-financial corporations.

Source: BIS locational banking statistics.

Global liquidity indicators at end-March 2023

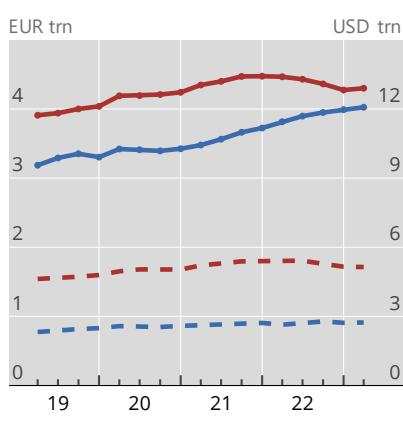
The BIS global liquidity indicators (GLIs) track credit to non-bank borrowers, covering both loans extended by banks and funding from global bond markets through the issuance of international debt securities (IDS). The main focus is on foreign currency credit denominated in three major reserve currencies (US dollars, euros and Japanese yen) to non-residents, ie borrowers outside the respective currency areas.⁹

Global foreign currency credit in the three major currencies rose slightly in Q1 2023. The quarterly increase of \$79 billion in US dollar credit to non-banks outside the United States left the outstanding stock at \$12.9 trillion (Graph 6.A, solid red line). Even so, the yoy growth rate remained firmly negative (Graph 6.B, solid red line). Euro-denominated credit to non-banks outside the euro area also lost momentum (Graph 6, blue solid lines), bringing the stock to €4 trillion, 5.5% higher than the year before. In contrast, yen credit outside Japan continued to expand at a rapid pace (yellow line).

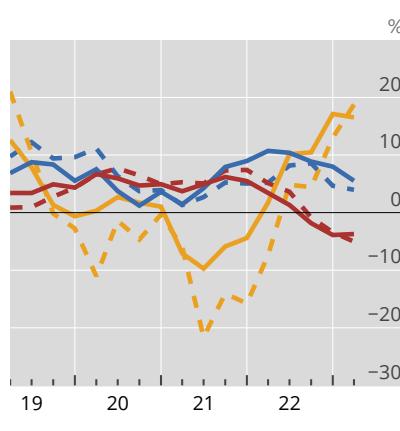
Foreign currency credit to non-banks, by counterparty region¹

Graph 6

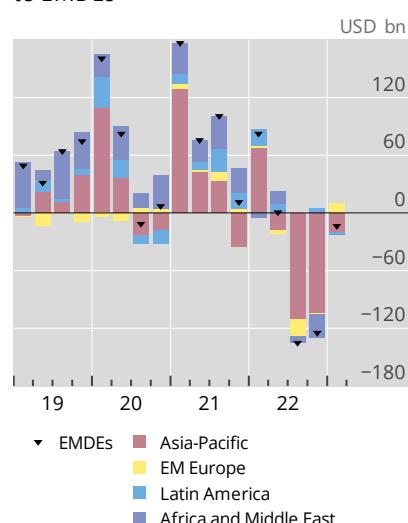
A. Amounts outstanding



B. Year-on-year growth



C. Quarterly changes in dollar credit to EMDEs²



¹ Global refers to those economies outside the currency area.

² Data on local loans denominated in foreign currency extended by banks in Russia are not available after Q3 2021.

Source: BIS global liquidity indicators.

Foreign currency credit to non-banks in EMDEs remained fairly steady in Q1 2023 (Graph 6.A, dashed lines). Dollar credit inched down while euro credit rose slightly, leaving the respective stocks at \$5.1 trillion and €0.9 trillion. Yet the yoy growth rates for dollar and euro credit continued to decline, with dollar credit shrinking at an annual rate of 5%. By contrast, the growth in yen credit accelerated further due to brisk bank lending (Graph 6.B, dashed lines).

The divergence in global foreign currency credit growth across the three major currencies continues to reflect their respective funding costs and associated exchange rate movements. The growth in dollar- and euro-denominated credit has fallen as

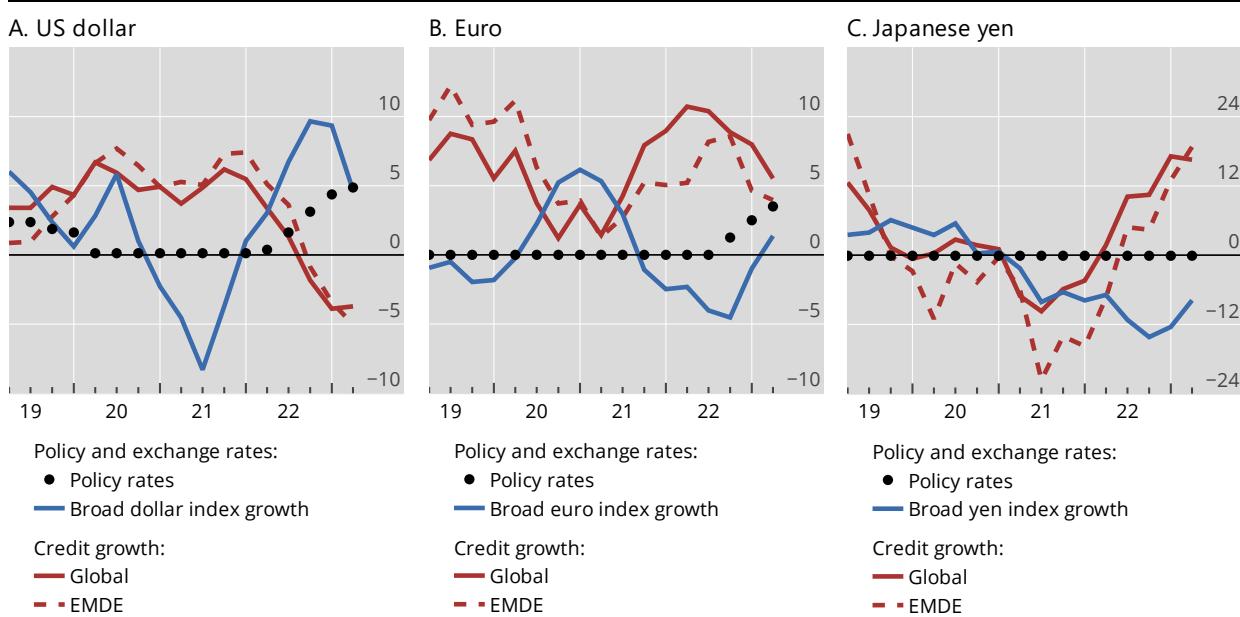
⁹ For more details, see the GLI methodology: www.bis.org/statistics/gli/gli_methodology.pdf.

interest rates rose and the respective currencies strengthened (Graph 7.A and 7.B, solid lines).¹⁰ This pattern was more pronounced for credit to EMDEs (dashed lines). Even as the pace of US tightening slowed in 2023, US funding rates and the dollar index remained elevated, resulting in tight financial conditions. By contrast, the Bank of Japan's continued monetary easing contributed to the sustained increase in yen-denominated credit growth (Graph 7.C).

Foreign currency credit growth,¹ exchange rates² and policy rates

In per cent

Graph 7



¹ Credit to non-bank borrowers. The calculation of year-on-year growth rates of credit is based on the quarterly changes adjusted for breaks in series and exchange rate fluctuations. ² Year-on-year growth rate of nominal effective exchange rate index (NEER) for dollar, euro and yen. An increase indicates appreciation of the currency.

Sources: BIS global liquidity indicators; BIS effective exchange rates; BIS policy rates.

¹⁰ See the previous [GLI Statistical Release](#). Rapid US monetary policy tightening in 2022 led the value of the US dollar to peak in September 2022, making it expensive relative to other major currencies and depressing dollar-denominated foreign currency credit. Euro credit started to reflect rising rates and higher valuations only later in 2022, while the Bank of Japan's commitment to monetary easing and protracted depreciation have made the yen a preferred funding currency.

Annex A Locational banking statistics graphs

Cross-border claims¹ by sector, currency and instrument

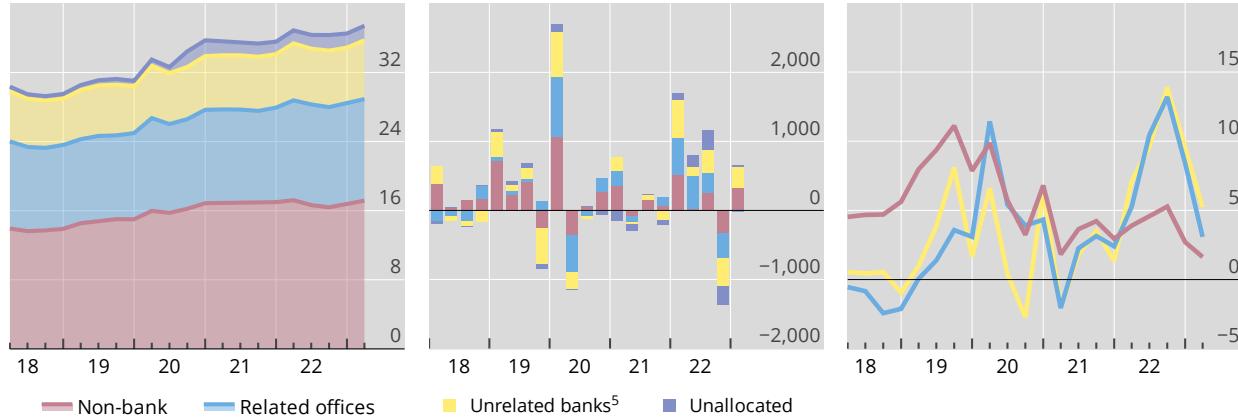
Graph A.1

Amounts outstanding, in USD trn²

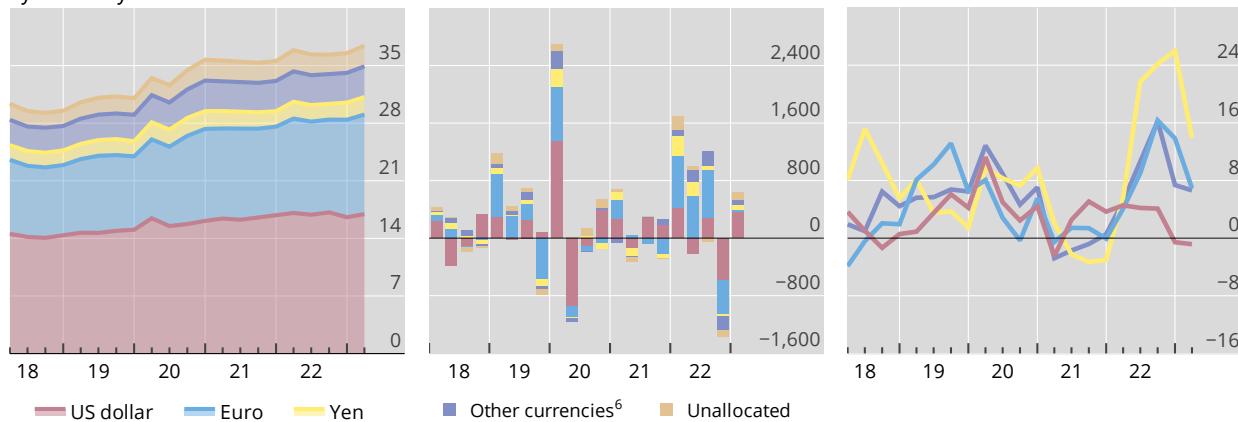
Adjusted changes, in USD bn³

Annual change, in per cent⁴

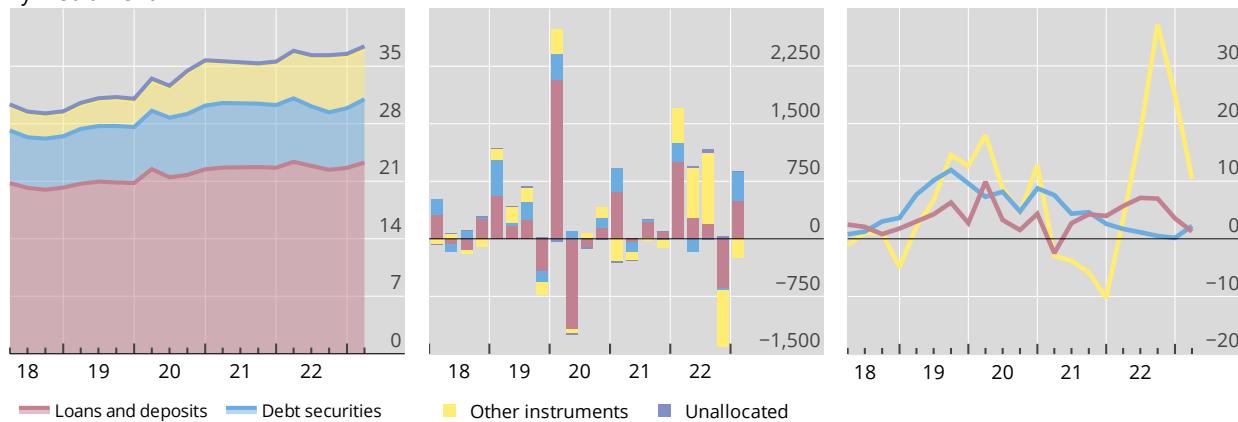
By sector of counterparty



By currency



By instrument



¹ Claims comprise loans and deposits, holdings of debt securities, and other instruments comprising derivatives with a positive market value and other residual instruments. ² At quarter-end. Amounts denominated in currencies other than the US dollar are converted to US dollars at the exchange rate prevailing on the reference date. ³ Quarterly changes in amounts outstanding, adjusted for the impact of exchange rate movements between quarter-ends and methodological breaks in the data. ⁴ Geometric mean of quarterly percentage adjusted changes. ⁵ Includes central banks and banks unallocated by subsector between interoffice and unrelated banks. ⁶ Other reported currencies, calculated as all currencies minus US dollar, euro, yen and unallocated currencies. The currency is known but reporting is incomplete.

Source: BIS locational banking statistics. Further information is available at www.bis.org/statistics/bankstats.htm.

Cross-border credit¹ by borrowing region

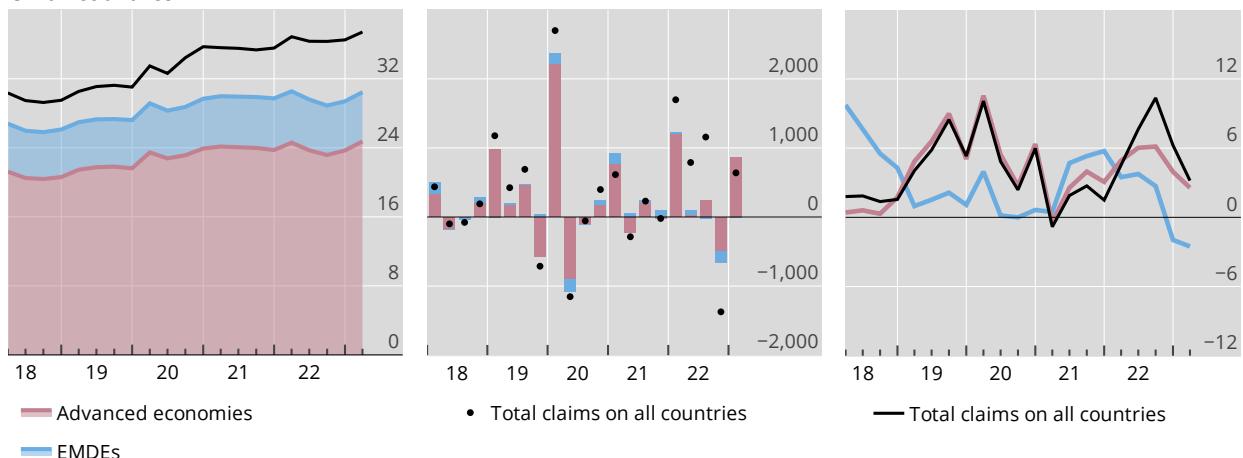
Graph A.2

Amounts outstanding, in USD trn²

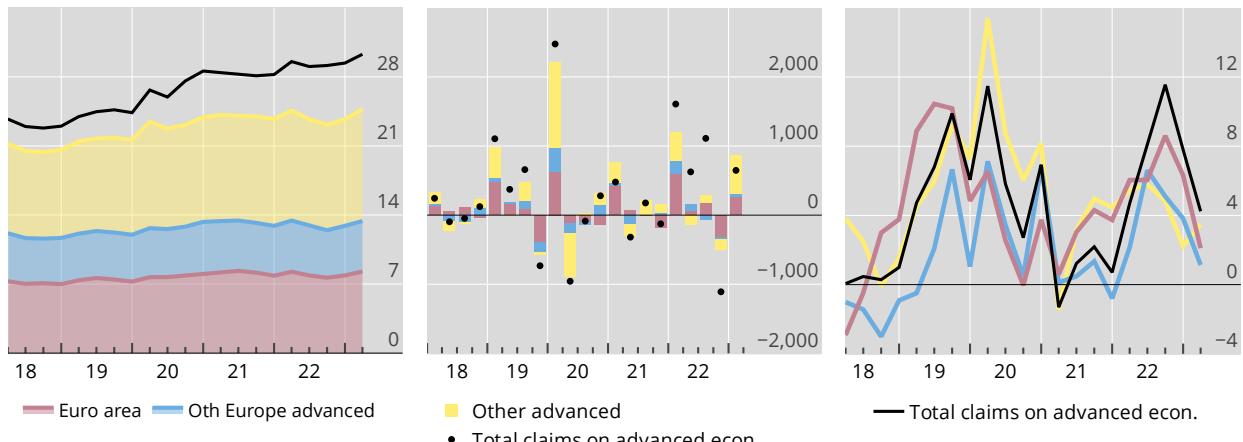
Adjusted changes, in USD bn³

Annual change, in per cent⁴

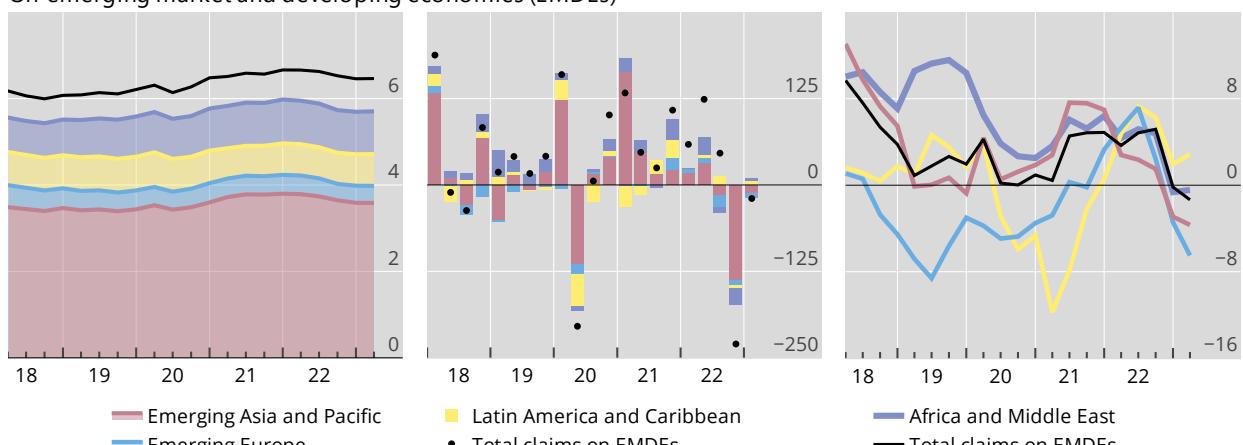
On all countries



On advanced economies



On emerging market and developing economies (EMDEs)



¹ Credit refers to loans and deposits, and holdings of debt securities, ie excluding from "claims" all other instruments (derivatives with positive market value and other residual instruments). ² At quarter-end. Amounts denominated in currencies other than the US dollar are converted to US dollars at the exchange rate prevailing on the reference date. ³ Quarterly changes in amounts outstanding, adjusted for the impact of exchange rate movements between quarter-ends and methodological breaks in the data. ⁴ Geometric mean of quarterly percentage adjusted changes.

Source: BIS locational banking statistics. Further information is available at www.bis.org/statistics/bankstats.htm.

Cross-border credit¹ by borrowing country

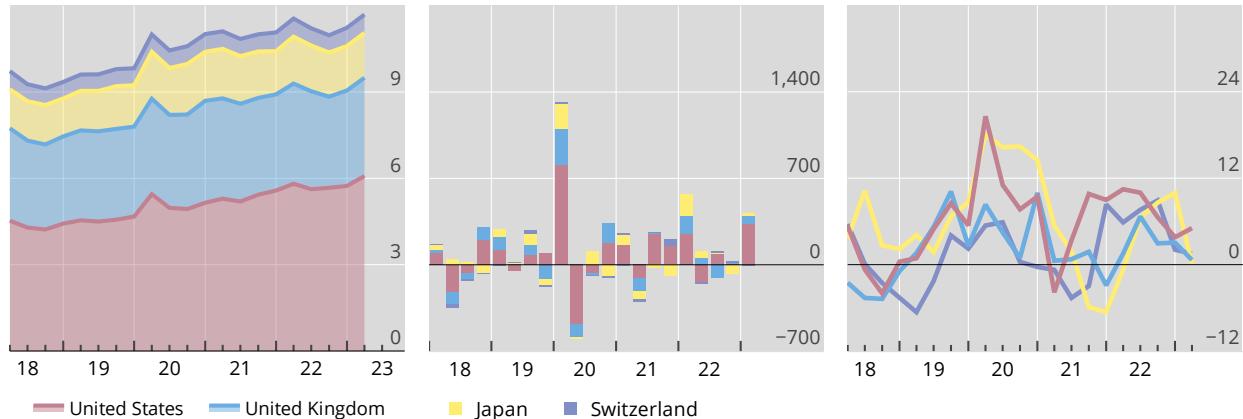
Graph A.3

Amounts outstanding, in USD trn²

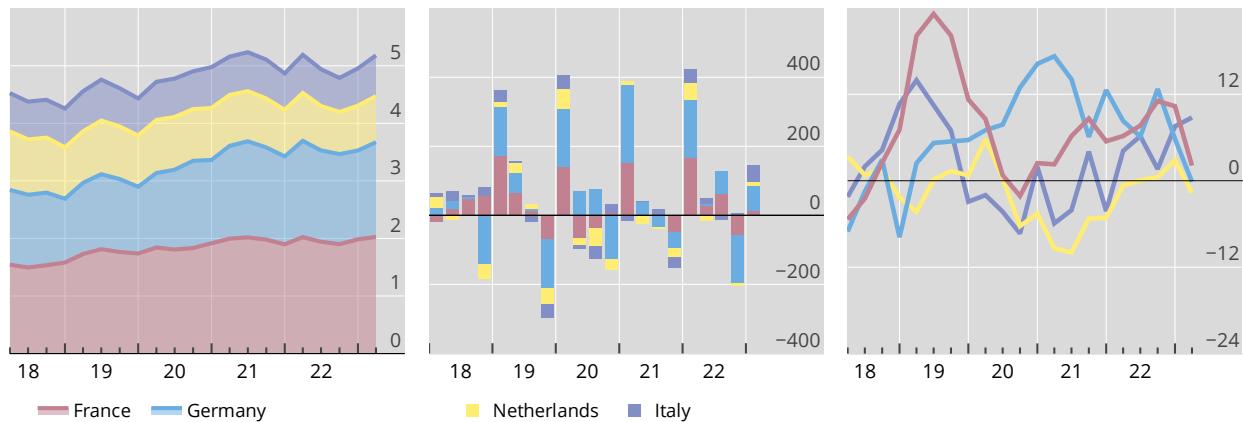
Adjusted changes, in USD bn³

Annual change, in per cent⁴

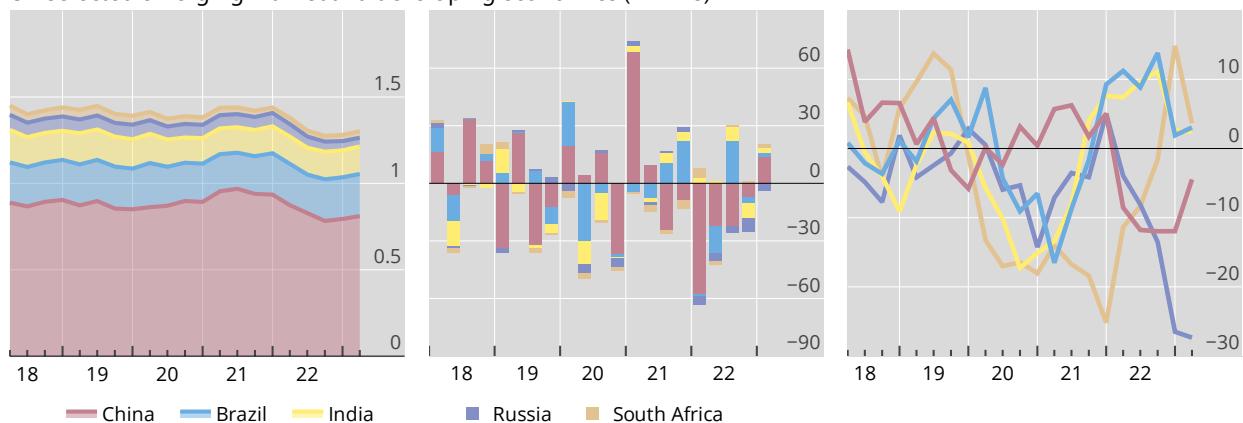
On selected advanced economies



On selected euro area countries



On selected emerging market and developing economies (EMDEs)



¹ Credit refers to loans and deposits, and holdings of debt securities, ie excluding from "claims" all other instruments (derivatives with positive market value and other residual instruments). ² At quarter-end. Amounts denominated in currencies other than the US dollar are converted to US dollars at the exchange rate prevailing on the reference date. ³ Quarterly changes in amounts outstanding, adjusted for the impact of exchange rate movements between quarter-ends and methodological breaks in the data. ⁴ Geometric mean of quarterly percentage adjusted changes.

Source: BIS locational banking statistics. Further information is available at www.bis.org/statistics/bankstats.htm.

Cross-border claims by nationality of reporting bank and currency of denomination

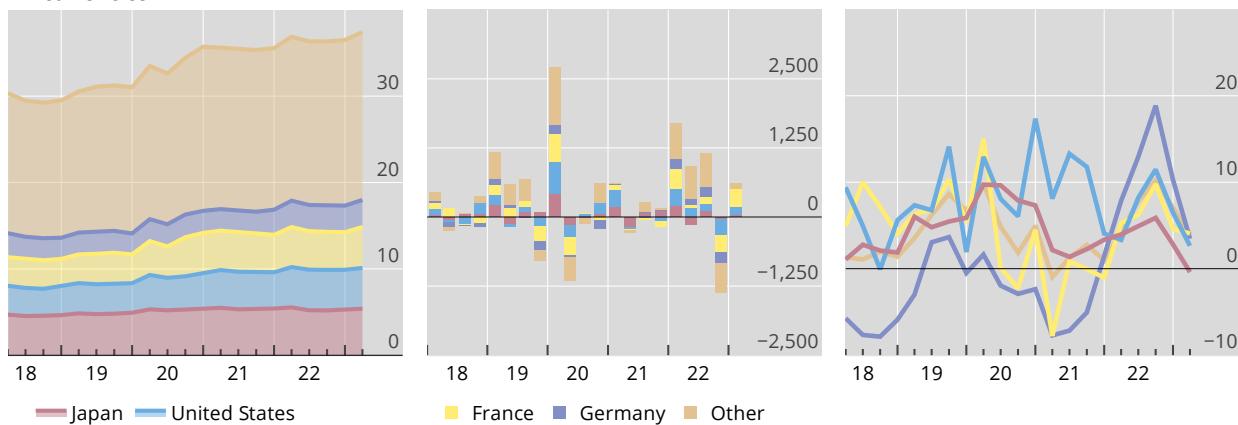
Graph A.4

Amounts outstanding, in USD trn¹

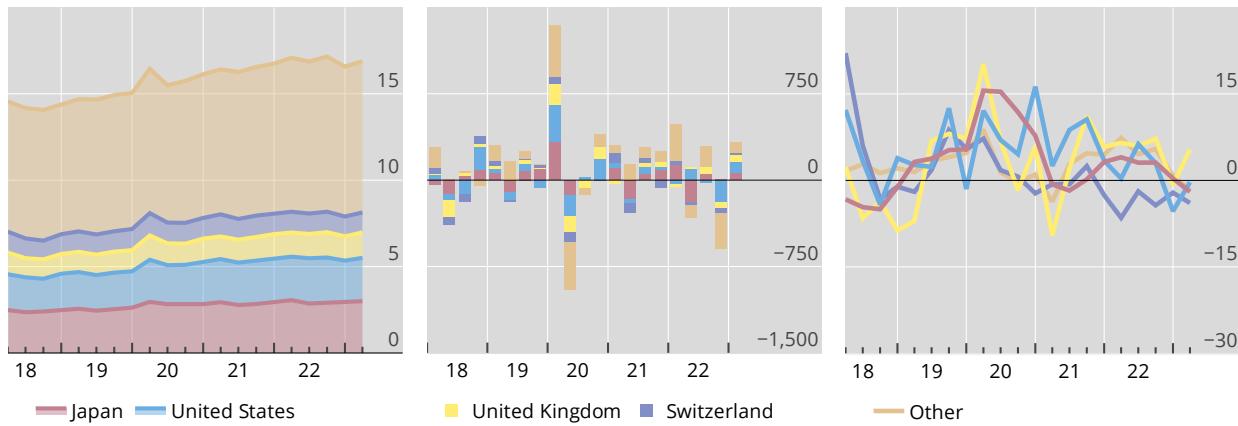
Adjusted changes, in USD bn²

Annual change, in per cent³

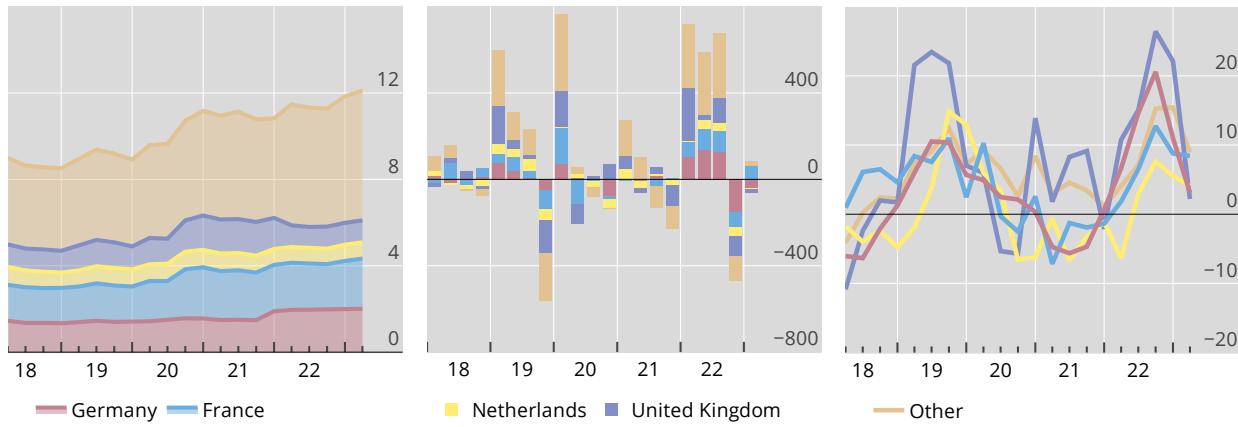
All currencies



US dollar



Euro



¹ At quarter-end. Amounts denominated in currencies other than the US dollar are converted to US dollars at the exchange rate prevailing on the reference date.

² Quarterly changes in amounts outstanding, adjusted for the impact of exchange rate movements between quarter-ends and methodological breaks in the data.

³ Geometric mean of quarterly percentage adjusted changes.

Source: BIS locational banking statistics. Further information is available at www.bis.org/statistics/bankstats.htm.

Cross-border debt liabilities¹ of reporting banks

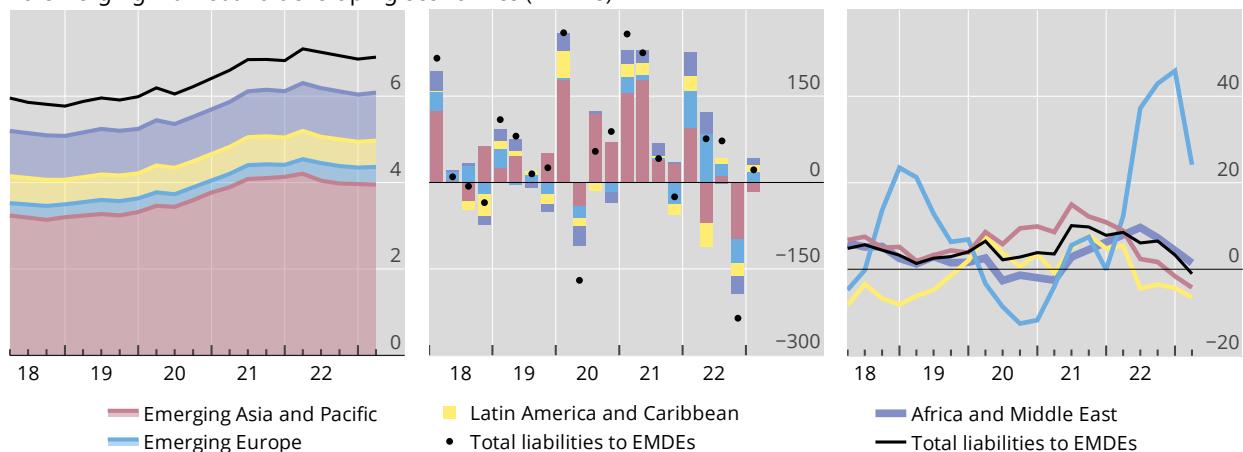
Graph A.5

Amounts outstanding, in USD trn²

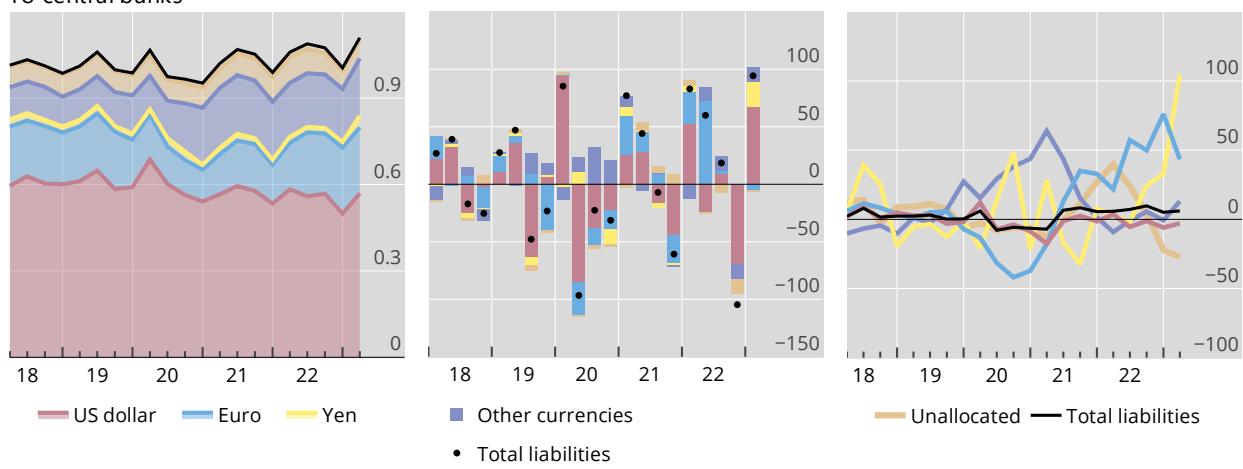
Adjusted changes, in USD bn³

Annual change, in per cent⁴

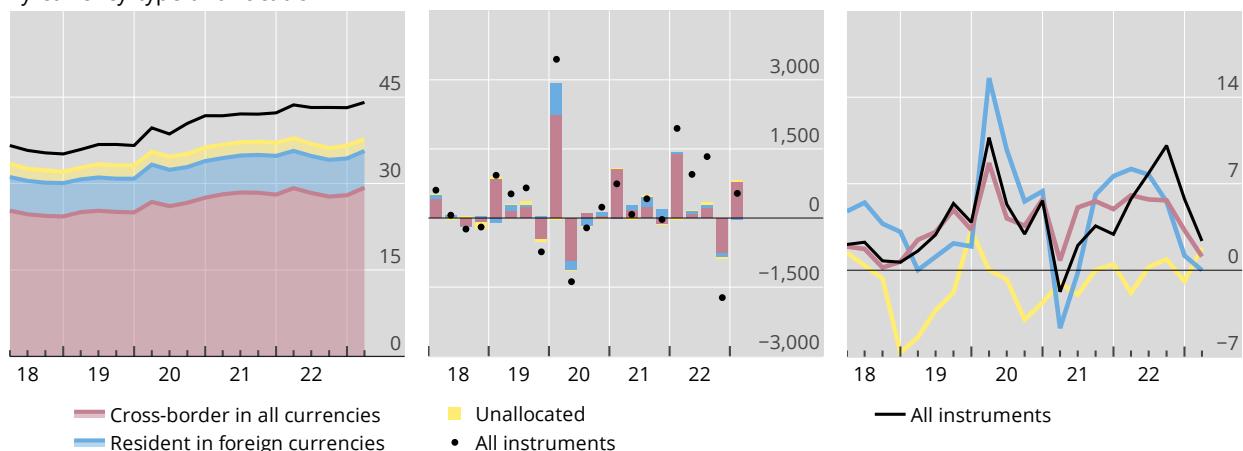
To emerging market and developing economies (EMDEs)



To central banks



By currency type and location



¹ Debt liabilities refer to loans and deposits and debt securities, ie excluding from "total liabilities" all other instruments (derivatives with negative market value and other residual instruments). ² At quarter-end. Amounts denominated in currencies other than the US dollar are converted to US dollars at the exchange rate prevailing on the reference date. ³ Quarterly changes in amounts outstanding, adjusted for the impact of exchange rate movements between quarter-ends and methodological breaks in the data. ⁴ Geometric mean of quarterly percentage adjusted changes.

Source: BIS locational banking statistics. Further information is available at www.bis.org/statistics/bankstats.htm.

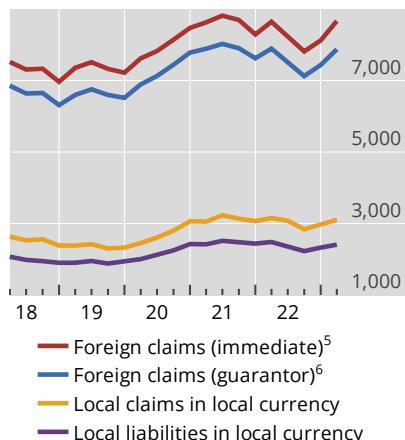
Annex B Consolidated banking statistics graphs

Consolidated claims of reporting banks on advanced economies

Graph B.1

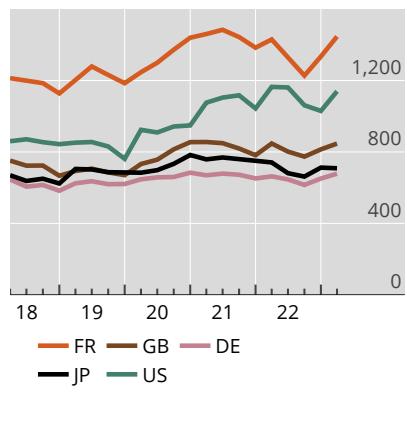
Foreign claims and local positions,
in USD bn^{1, 2}

On the euro area



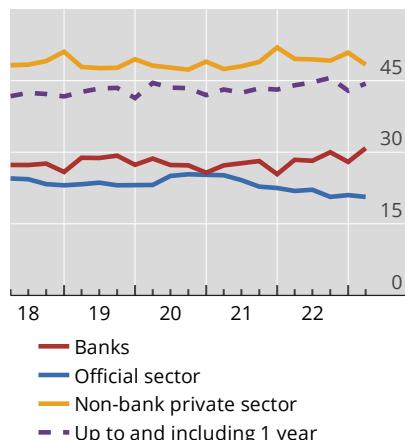
Foreign claims of selected creditors,
in USD bn^{1, 3}

On the United States

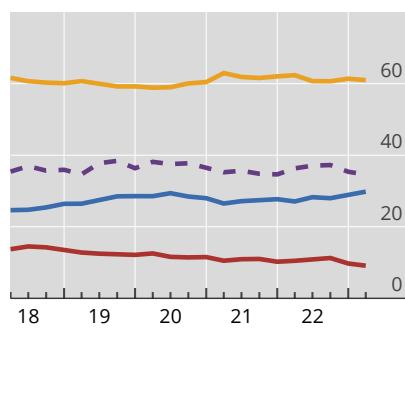
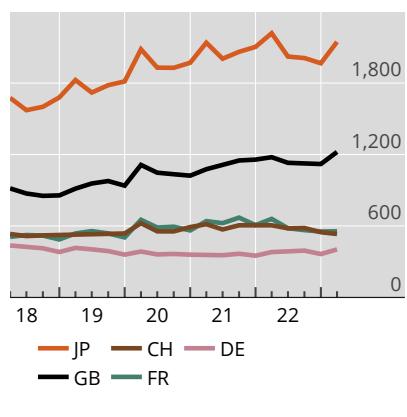
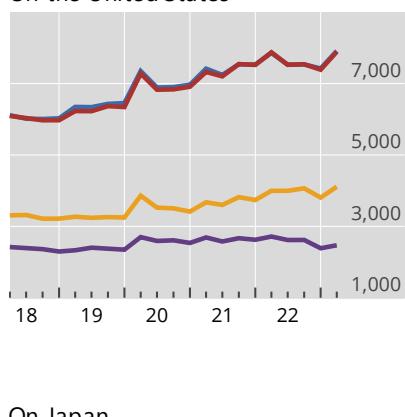


International claims, by sector and
maturity, in per cent⁴

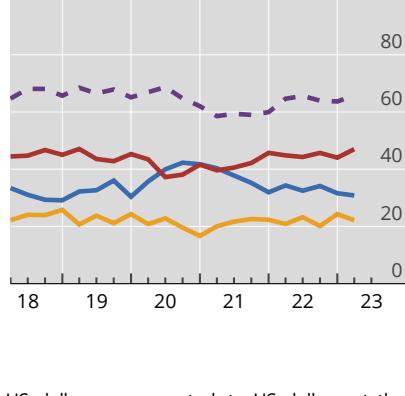
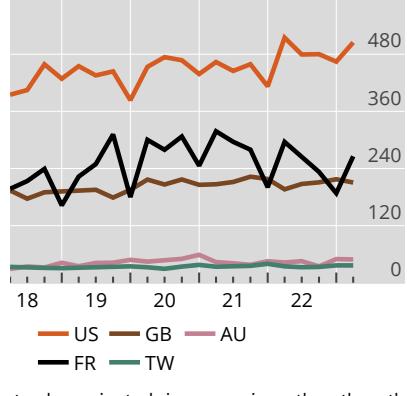
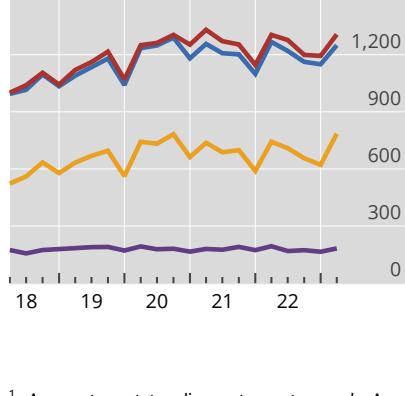
On Japan



On the United States



On Japan



¹ Amounts outstanding at quarter-end. Amounts denominated in currencies other than the US dollar are converted to US dollars at the exchange rate prevailing on the reference date. ² Excludes domestic claims, ie claims on residents of a bank's home country. ³ Foreign claims on a guarantor basis, by nationality of reporting bank. The banking systems shown are not necessarily the largest foreign bank creditors on each reference date. ⁴ As a percentage of international claims outstanding. ⁵ On an immediate counterparty basis. Includes the unconsolidated claims of banks headquartered outside but located inside CBS-reporting countries. ⁶ On a guarantor basis.

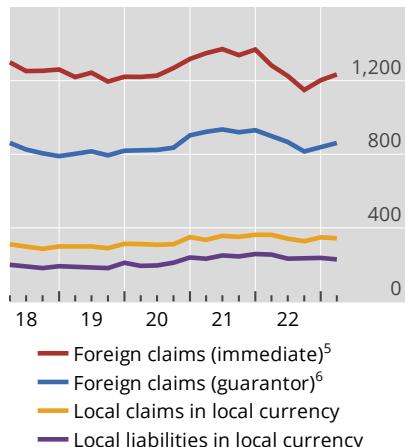
Source: BIS consolidated banking statistics (CBS). Further information is available at www.bis.org/statistics/consstats.htm.

Consolidated claims of reporting banks on emerging market and developing economies (EMDEs)

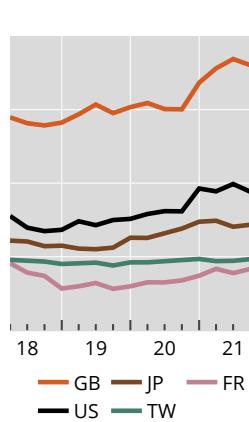
Graph B.2

Foreign claims and local positions,
in USD bn^{1,2}

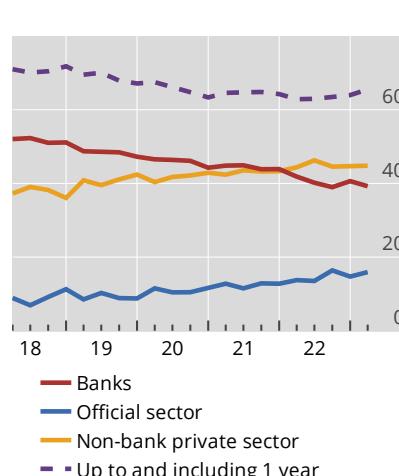
On China



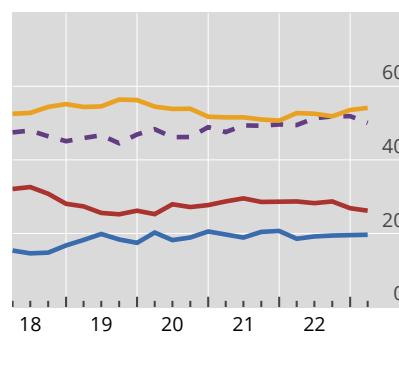
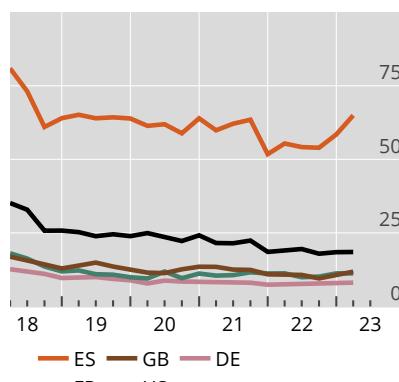
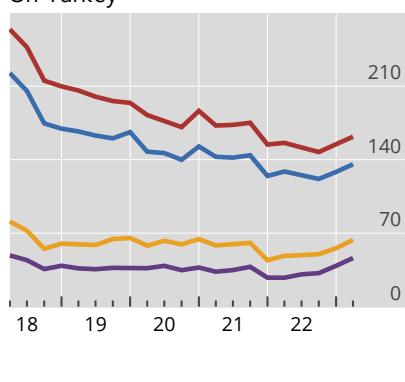
Foreign claims of selected creditors,
in USD bn^{1,3}



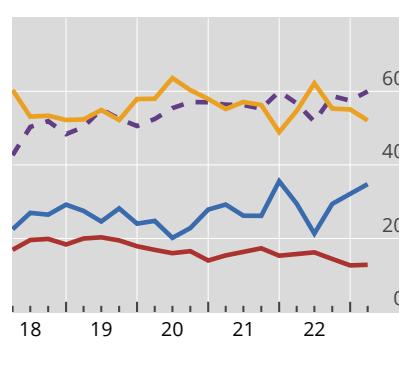
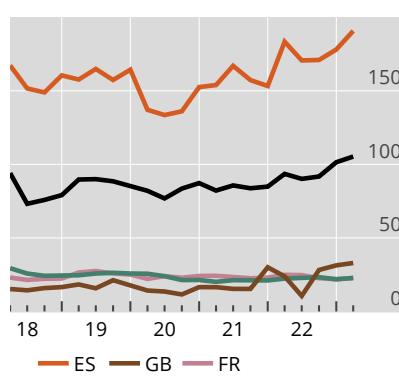
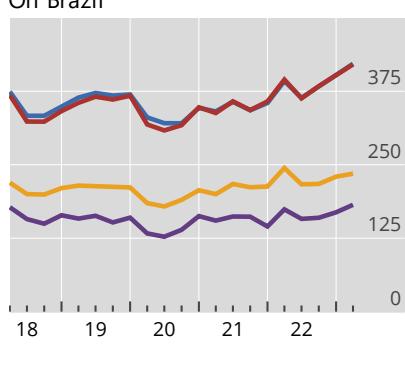
International claims, by sector and
maturity, in per cent⁴



On Turkey



On Brazil



¹ Amounts outstanding at quarter-end. Amounts denominated in currencies other than the US dollar are converted to US dollars at the exchange rate prevailing on the reference date. ² Excludes domestic claims, ie claims on residents of a bank's home country. ³ Foreign claims on a guarantor basis, by nationality of reporting bank. The banking systems shown are not necessarily the largest foreign bank creditors on each reference date. ⁴ As a percentage of international claims. ⁵ On an immediate counterparty basis. Includes the unconsolidated claims of banks headquartered outside but located inside CBS-reporting countries. ⁶ On a guarantor basis.

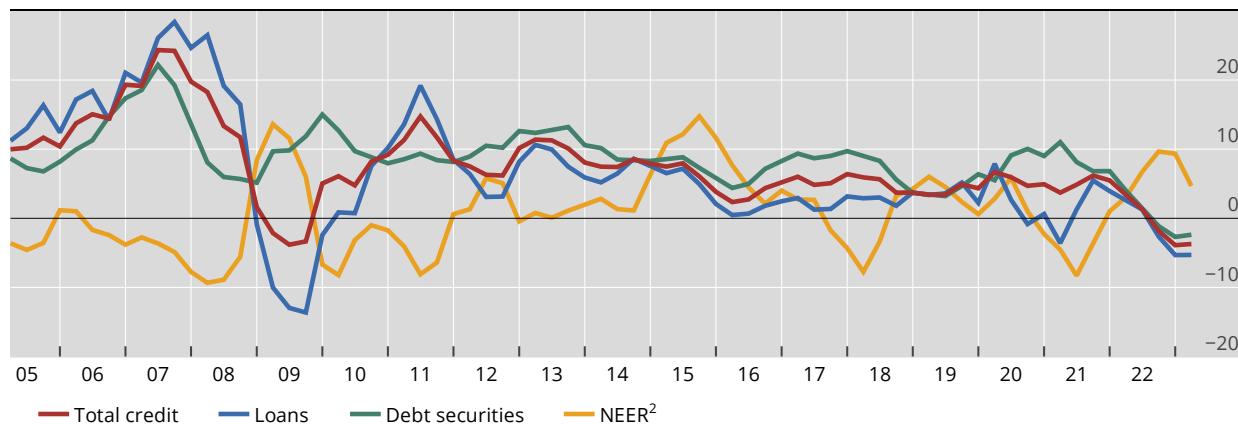
Source: BIS consolidated banking statistics (CBS). Further information is available at www.bis.org/statistics/constats.htm.

Annex C Global liquidity indicators graphs

US dollar credit outside the United States¹

Annual change, in per cent

Graph C.1



Further information on the BIS global liquidity indicators is available at www.bis.org/statistics/about_gli_stats.htm.

¹ Annual growth of US dollar-denominated credit to non-banks outside the United States. ² Annual growth of the US dollar nominal effective exchange rate (NEER). An increase indicates an appreciation of the US dollar NEER.

Sources: Datastream; Dealogic; Euroclear; Thomson Reuters; Xtrakter Ltd; national data; BIS locational banking statistics; BIS effective exchange rate statistics; BIS calculations.

Global bank credit to the private non-financial sector, by residence of borrower

Banks' cross-border credit plus local credit in all currencies¹

Graph C.2

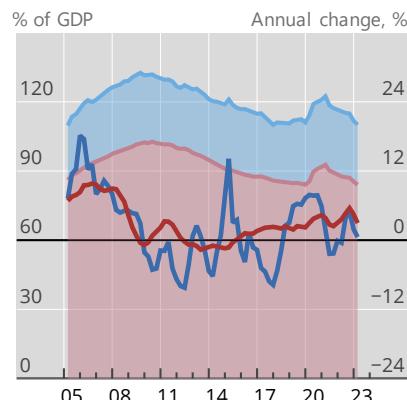
All countries²



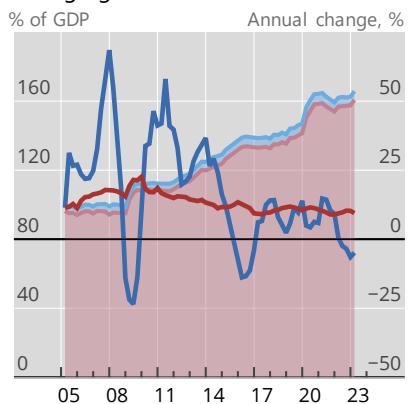
United States



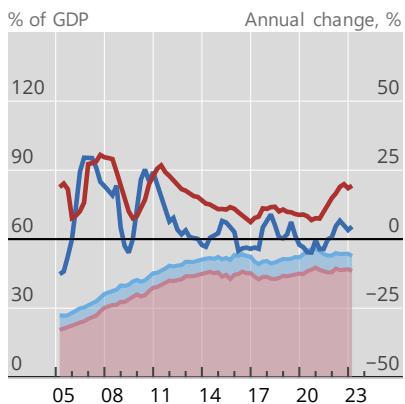
Euro area³



Emerging Asia⁴



Latin America⁵



Central Europe⁶



Amounts outstanding (lhs):

- Cross-border credit
- Local credit

Annual changes (rhs):

- Cross-border credit
- Local credit

Further information on the BIS global liquidity indicators is available at www.bis.org/statistics/about_qli_stats.htm.

¹ Cross-border claims of LBS-reporting banks to the non-bank sector plus local claims of all banks to the private non-financial sector. Weighted averages of the economies listed, based on four-quarter moving sums of GDP. ² Australia, Canada, Denmark, Israel, Japan, New Zealand, Norway, Russia, Saudi Arabia, South Africa, Sweden, Switzerland, Turkey and the United Kingdom, plus the countries in the other panels. ³ Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain. ⁴ China, Hong Kong SAR, India, Indonesia, Korea, Malaysia, Singapore and Thailand. ⁵ Argentina, Brazil, Chile, Colombia and Mexico. ⁶ The Czech Republic, Hungary and Poland.

Sources: BIS statistics on credit to the non-financial sector; BIS locational banking statistics (LBS); BIS calculations.

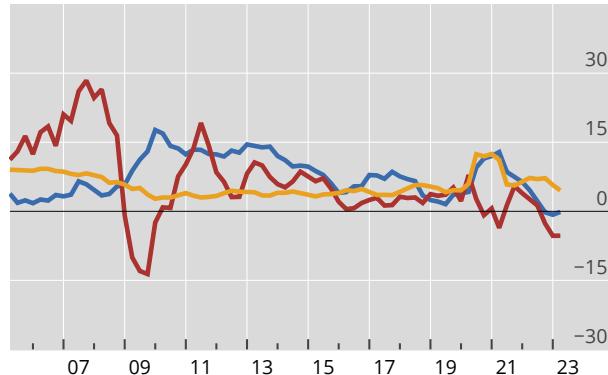
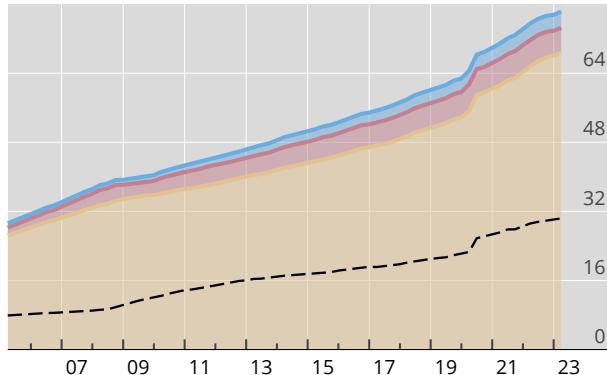
Global credit to the non-financial sector, by currency

Graph C.3

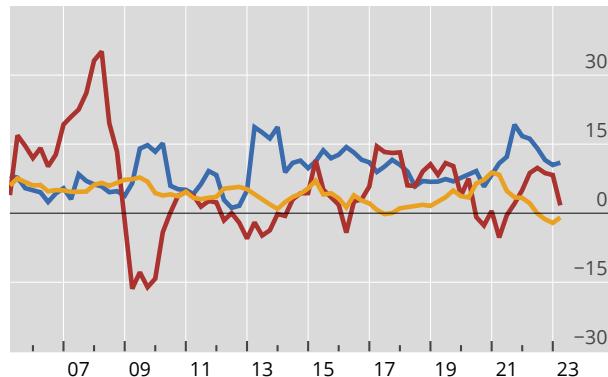
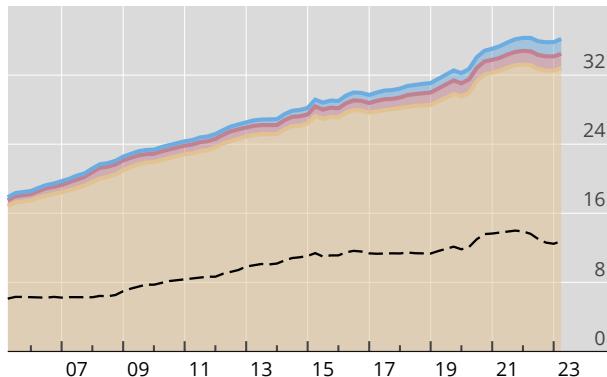
Amounts outstanding, in trillions of currency units¹

Annual change, in per cent²

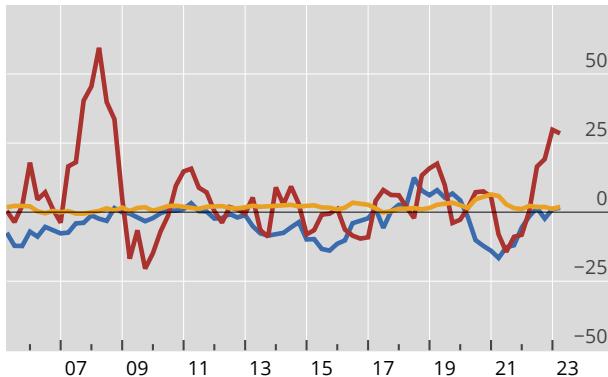
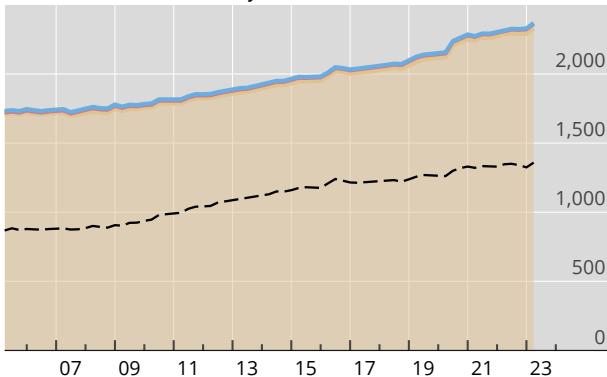
Credit denominated in US dollars



Credit denominated in euros



Credit denominated in yen



Credit to non-residents:

— Bank loans³

— Debt securities⁴

Credit to residents:⁵

— Non-financial sector

— Of which: government

Credit to non-residents:

— Bank loans³

— Debt securities⁴

Credit to residents:⁵

— All

Further information on the BIS global liquidity indicators is available at www.bis.org/statistics/about_gli_stats.htm.

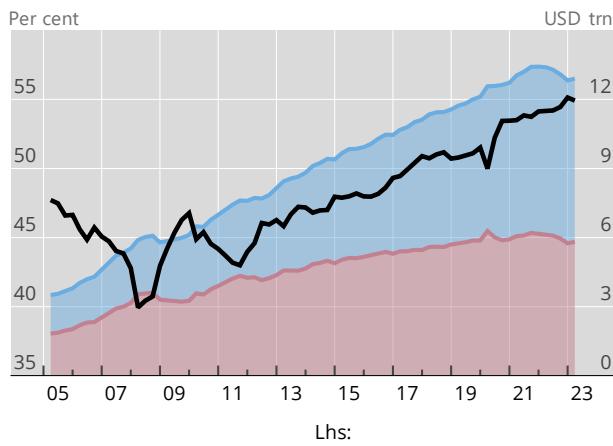
¹ Amounts outstanding at quarter-end. ² Based on quarterly break- and exchange rate-adjusted changes. ³ Loans by LBS-reporting banks to non-bank borrowers, including non-bank financial entities, comprise cross-border plus local loans. ⁴ Excluding debt securities issued by special purpose vehicles and other financial entities controlled by non-financial parents. Euro-denominated debt securities exclude those issued by institutions of the European Union. ⁵ Credit to non-financial borrowers residing in the United States / euro area / Japan. National financial accounts are adjusted using BIS banking and securities statistics to exclude credit denominated in non-local currencies.

Sources: Datastream; Dealogic; Euroclear; Thomson Reuters; Xtrakter Ltd; national data; BIS locational banking statistics (LBS); BIS calculations.

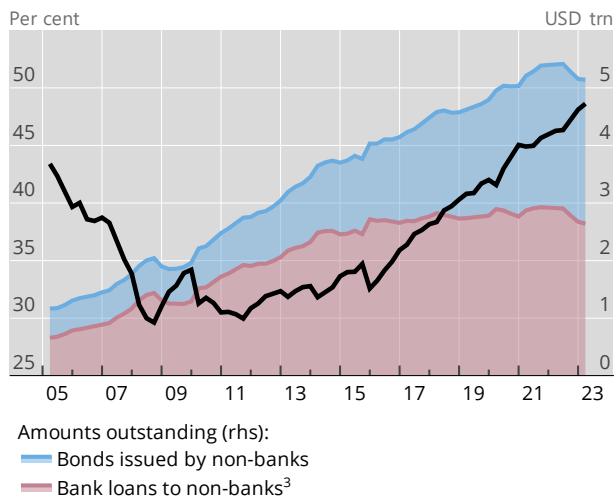
US dollar-denominated credit to non-banks outside the United States¹

Graph C.4

World



EMDEs²



Further information on the BIS global liquidity indicators is available at www.bis.org/statistics/about_gli_stats.htm.

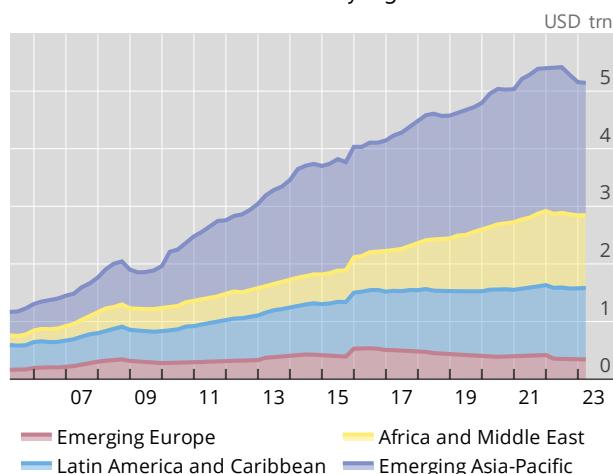
¹ Non-banks comprise non-bank financial entities, non-financial corporations, governments, households and international organisations. ² From December 2022, this grouping has been aligned with the country classification in the BIS Annual Economic report, as detailed [here](#). ³ Loans by LBS-reporting banks to non-bank borrowers, including non-bank financial entities, comprise cross-border plus local loans.

Sources: Datastream; Dealogic; Euroclear; Thomson Reuters; Xtrakter Ltd; national data; BIS locational banking statistics (LBS); BIS calculations.

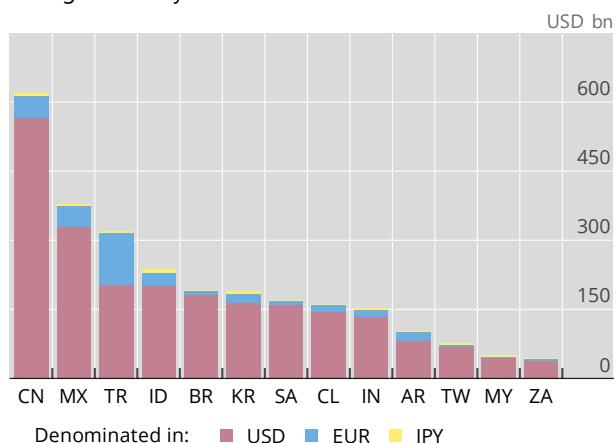
Foreign currency credit to non-banks in EMDEs¹

Graph C.5

US dollar-denominated credit by region



Foreign currency credit to selected EMDEs²



Further information on the BIS global liquidity indicators is available at www.bis.org/statistics/about_gli_stats.htm.

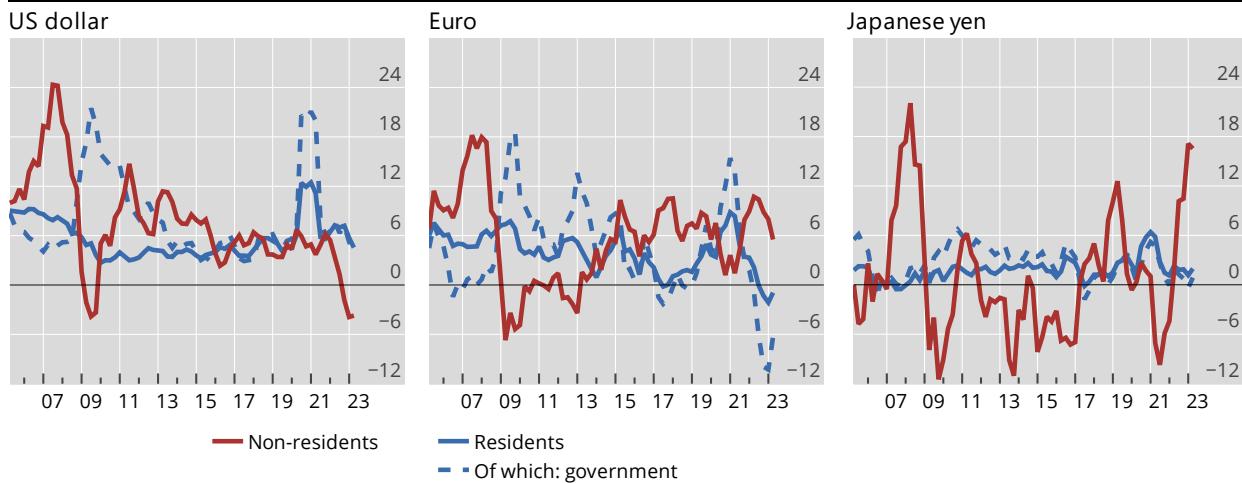
¹ From December 2022, this grouping has been aligned with the country classification in the BIS Annual Economic report, as detailed [here](#). ² Amounts outstanding for the latest available data.

Sources: Datastream; Dealogic; Euroclear; Thomson Reuters; Xtrakter Ltd; national data; BIS locational banking statistics; BIS calculations.

Credit to non-residents and residents

Year-on-year change, in per cent

Graph C.6



Credit to non-resident non-bank sector and resident non-financial sector.

Sources: Datastream; Dealogic; Euroclear; Thomson Reuters; Xtrakter Ltd; national data; BIS locational banking statistics (LBS); BIS calculations.