

Barclays Day

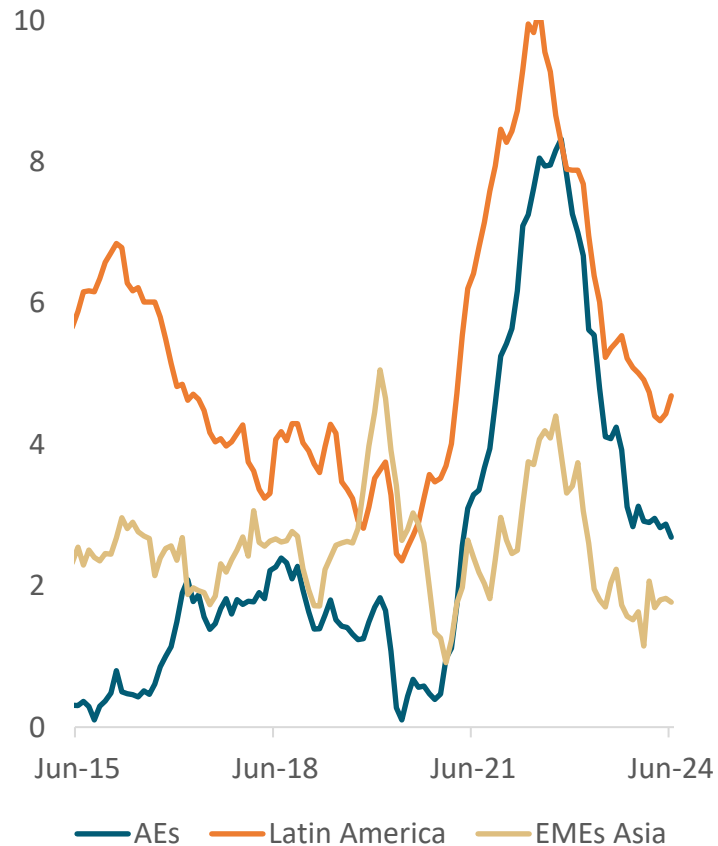
Economic Outlook and Agenda BC#

Roberto Campos Neto

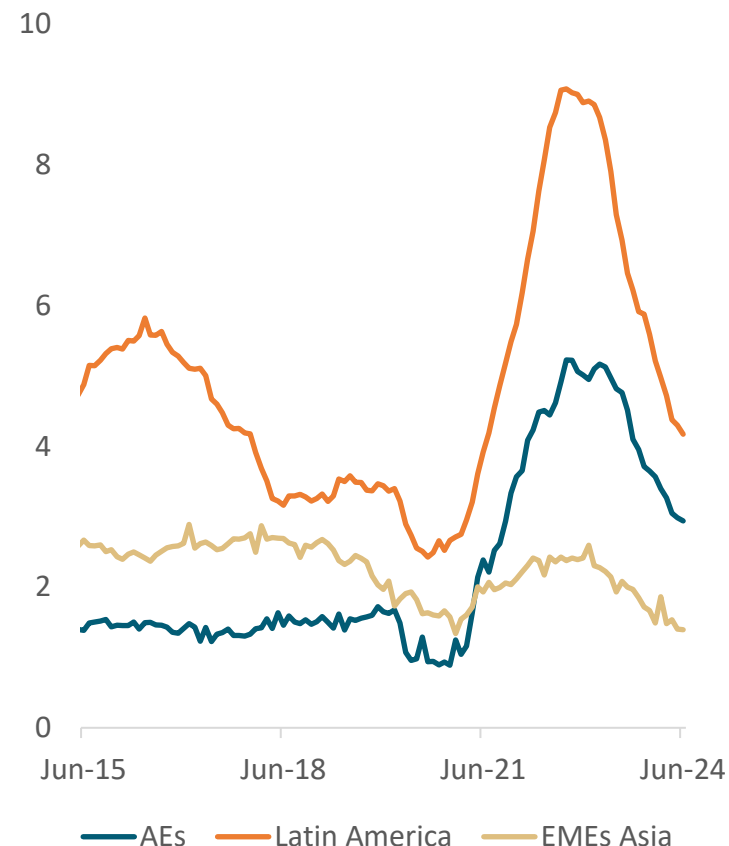
Governor of Banco Central do Brasil

Gradual reduction in inflation. Food and energy prices explain divergence between countries in recent data.

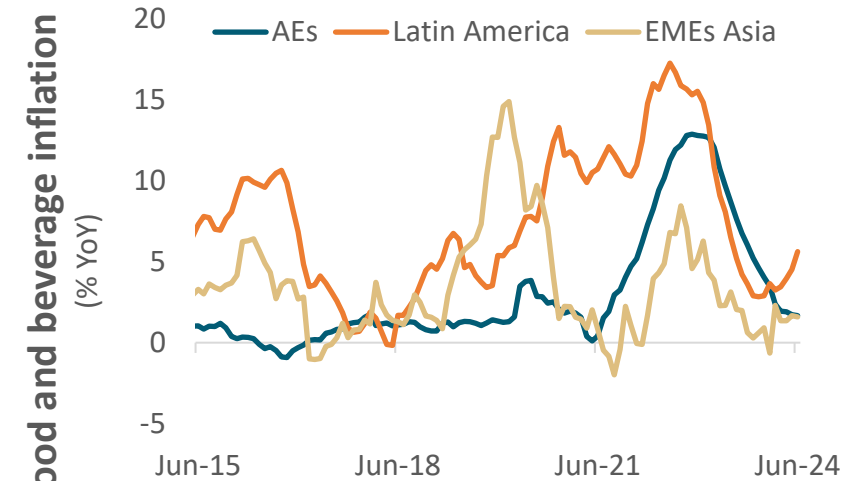
Headline inflation
(% YoY)



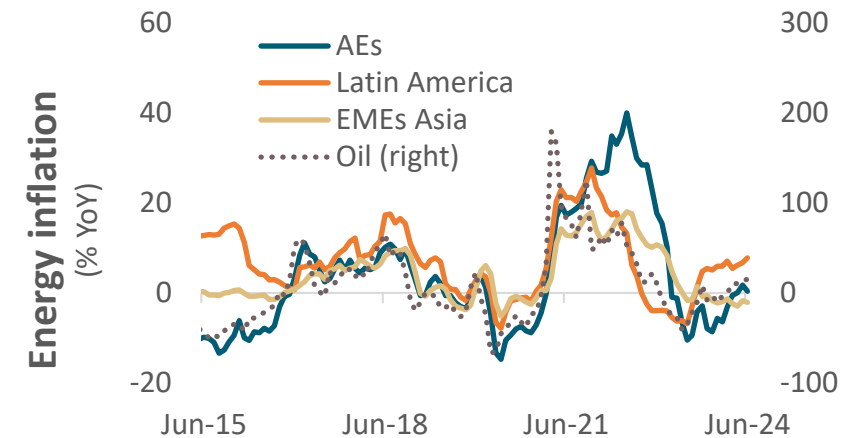
Core inflation
(% YoY)



Food and beverage inflation
(% YoY)



Energy inflation
(% YoY)



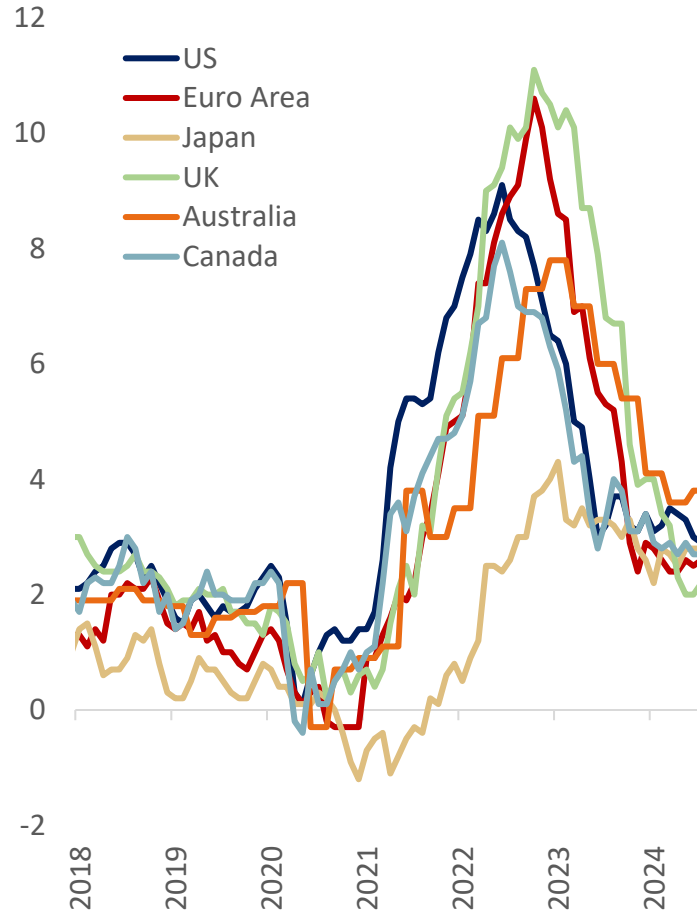
Sources: Bloomberg, Refinitiv.

*Weighted by PPP. Latam: BR, MX, CL, CO, PE (except food); Asia EM: CN, ID, IN, KR, PH, TW, TH; AEs: DE, FR, IT, BE, NE, IE, SP, CH, NO, DK, FI, US.

Gradual reduction in inflation. In EMEs, inflation remains under pressure. In Japan, inflation is resurgent.

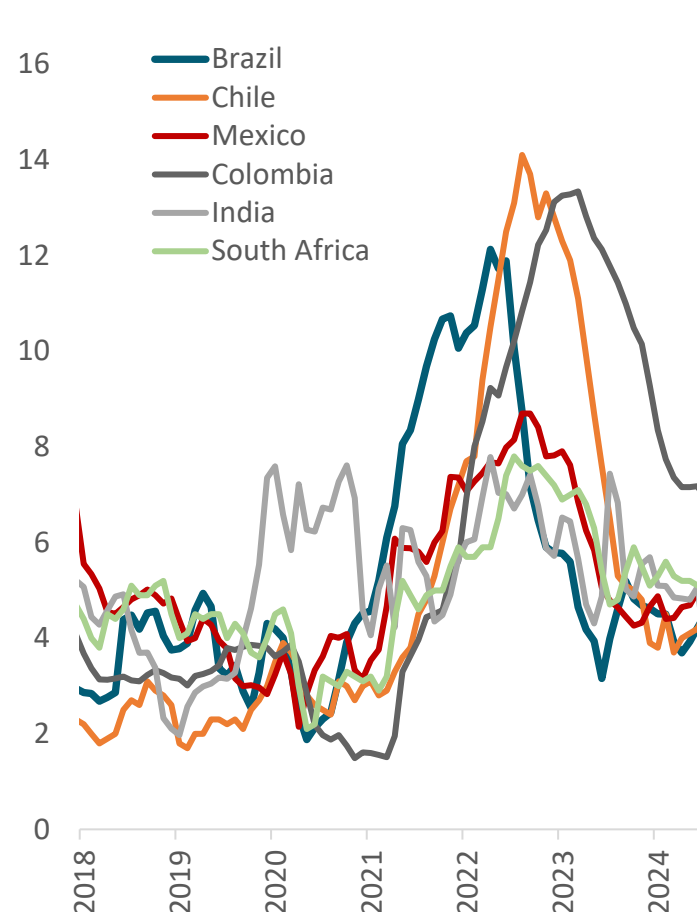
AEs: Headline inflation

(% YoY)



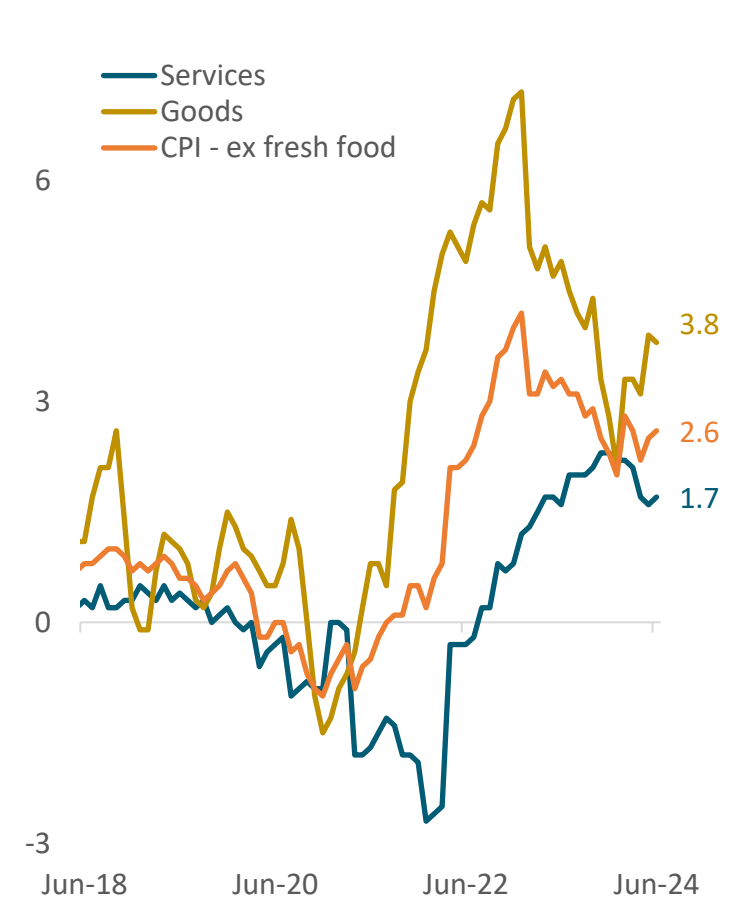
EMEs: Headline inflation

(% YoY)



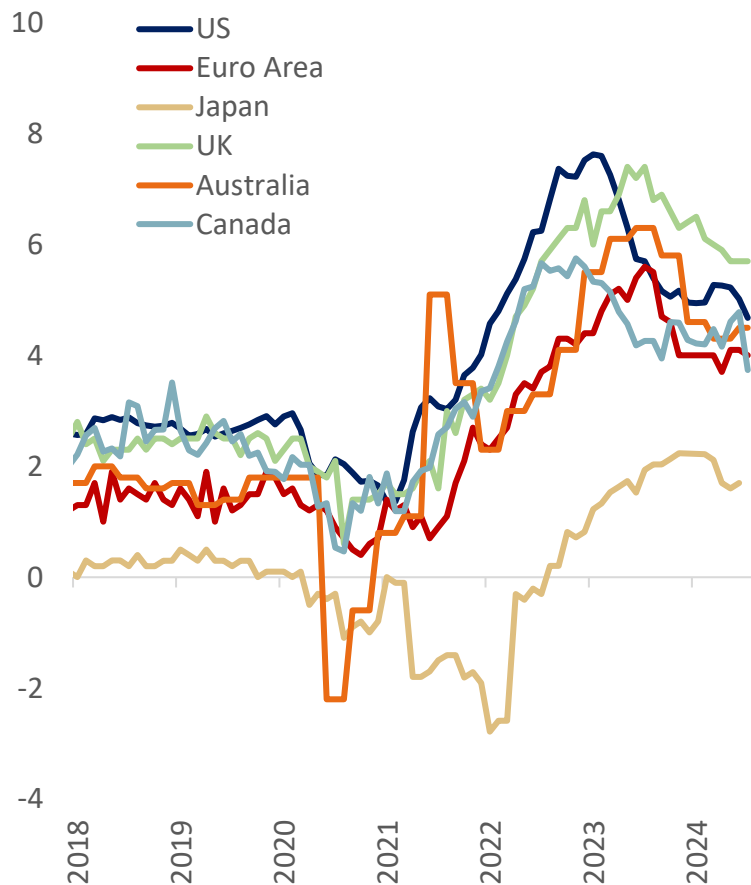
Japan: Inflation

(% YoY)

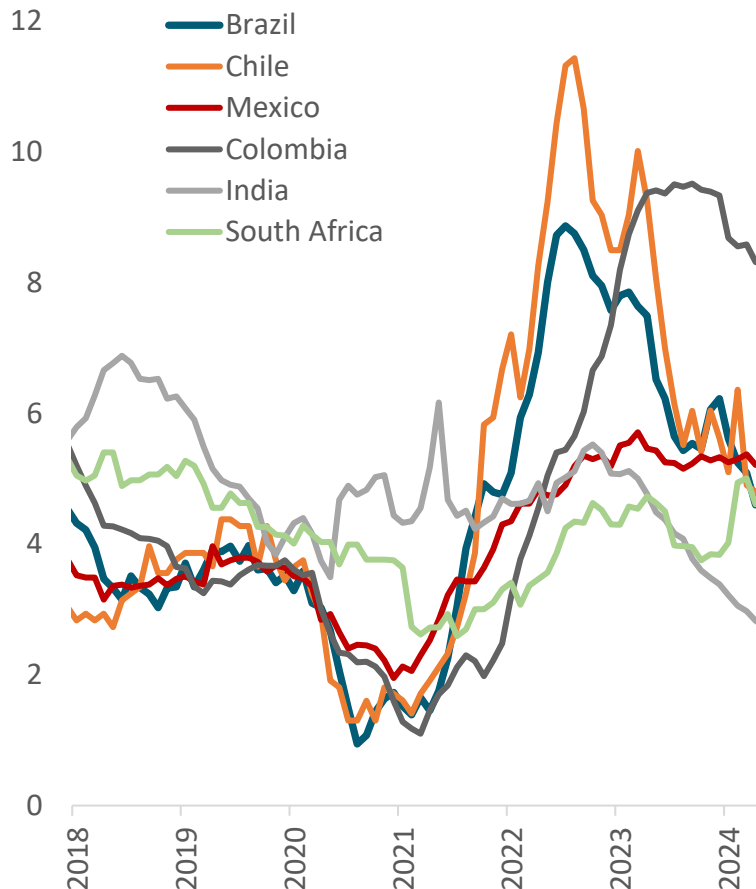


Resilience in services inflation partly explained by buoyant labor markets in different countries.

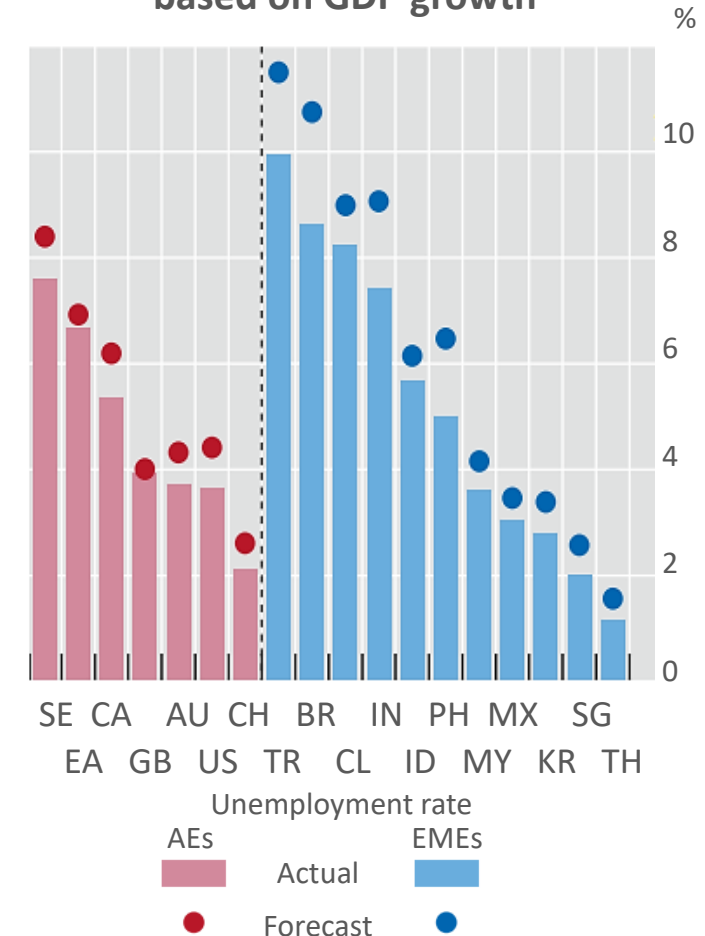
AEs: Services inflation
(% YoY)



EMEs: Services inflation
(% YoY)



Unemployment: actual vs. forecast based on GDP growth

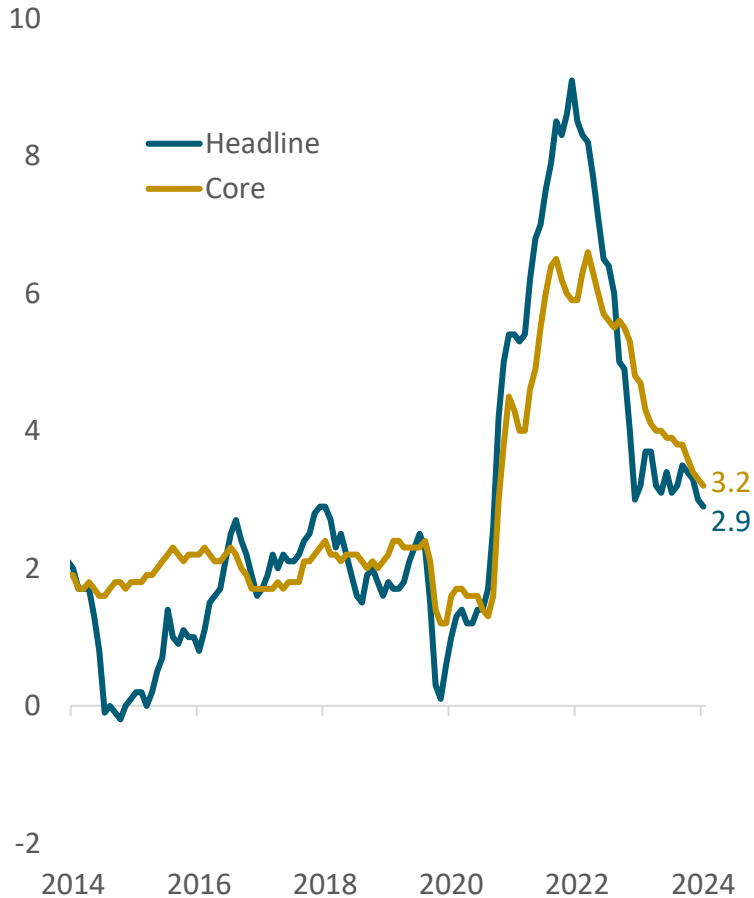


Countries: SE=Sweden, CA=Canada, AU=Australia, CH=Switzerland, BR=Brazil, IN=India, PH=Philippines, MX=Mexico, SG=Singapore, EA=Euro Area, GB=Great Britain, US=United States, TR=Turkey, CL=Chile, ID=Indonesia, MY=Malaysia, KR=Korea, TH=Thailand

Gradual reduction in inflation. Continuation of disinflation depends on the stickiest components.

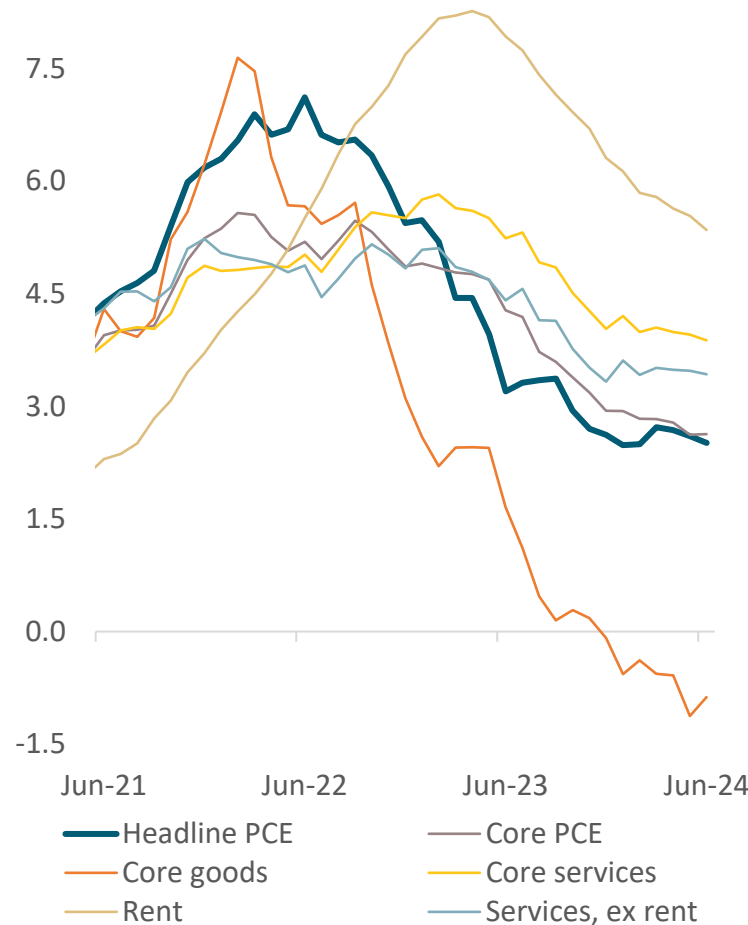
CPI: Headline and core

(% YoY)



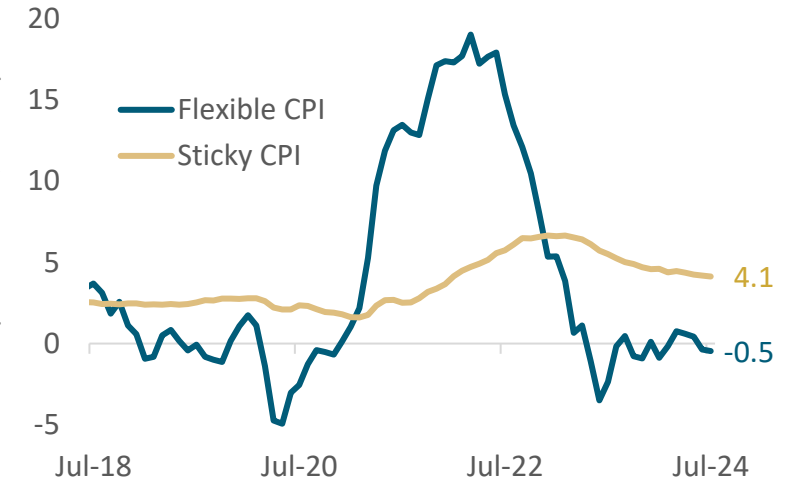
PCE and components

(% YoY)



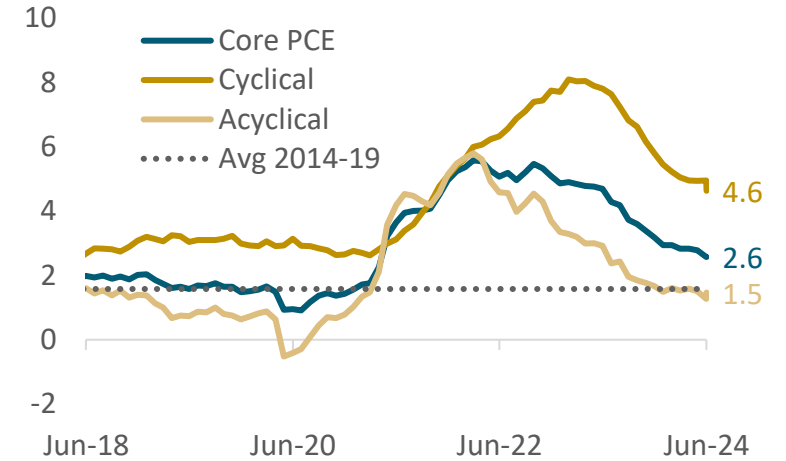
Sticky vs. Flexible prices

(Atlanta Fed, % YoY)



SF Fed: PCE, cyclical and acyclical

(% YoY)



Proposals discussed during the U.S. election campaign, if implemented, would have an inflationary effect.

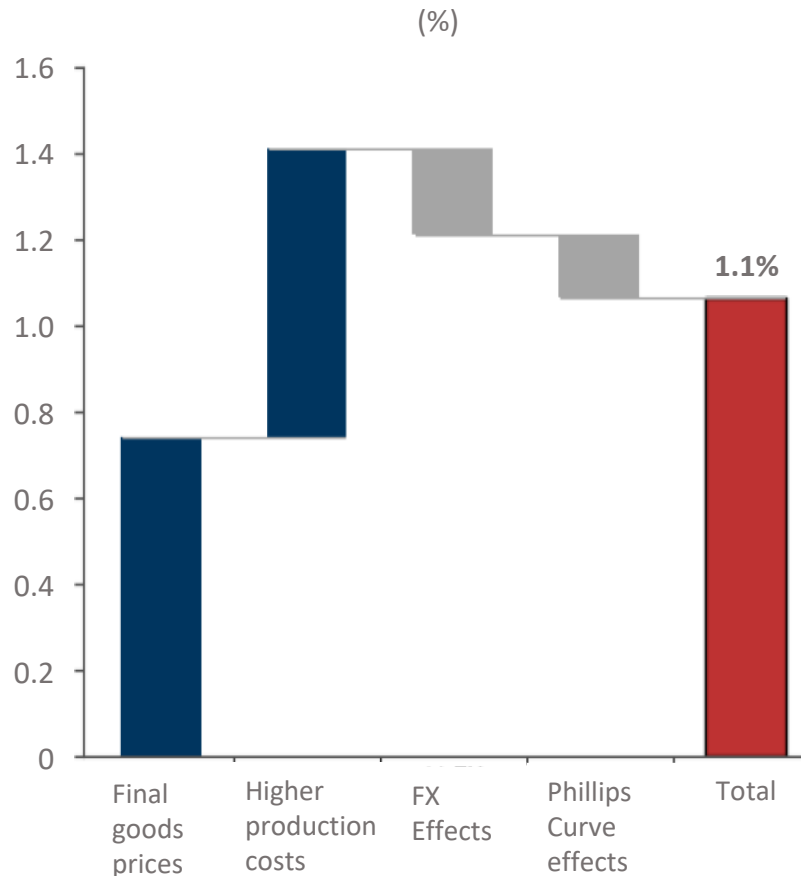
Fiscal policy

Rise of expansionary fiscal rhetoric (%)



Import tariffs

Effect on U.S. inflation of tariff hikes*

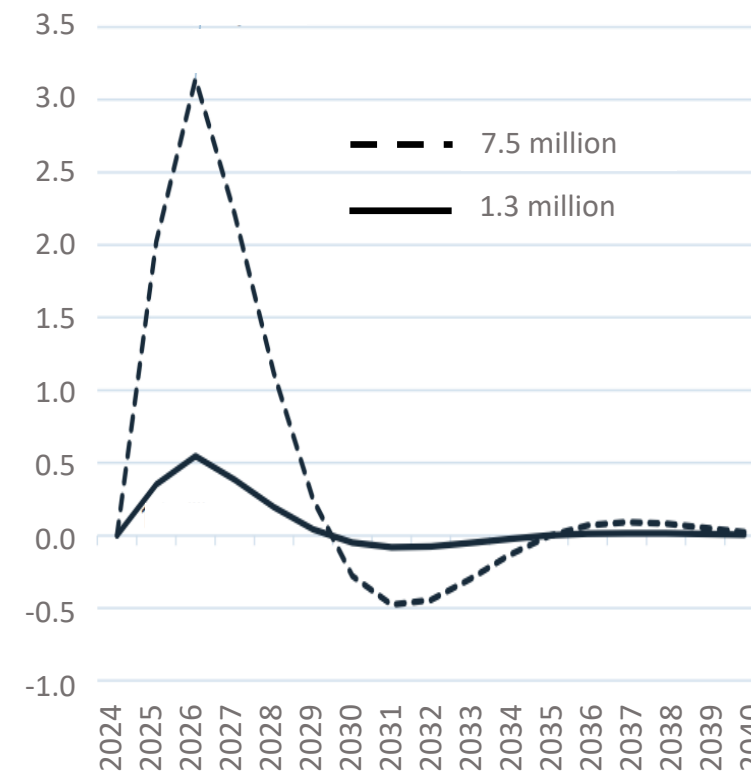


*The exercise consists on a 10 p.p. hike in import tariffs by the U.S., followed by a 10 p.p. retaliation by other countries.

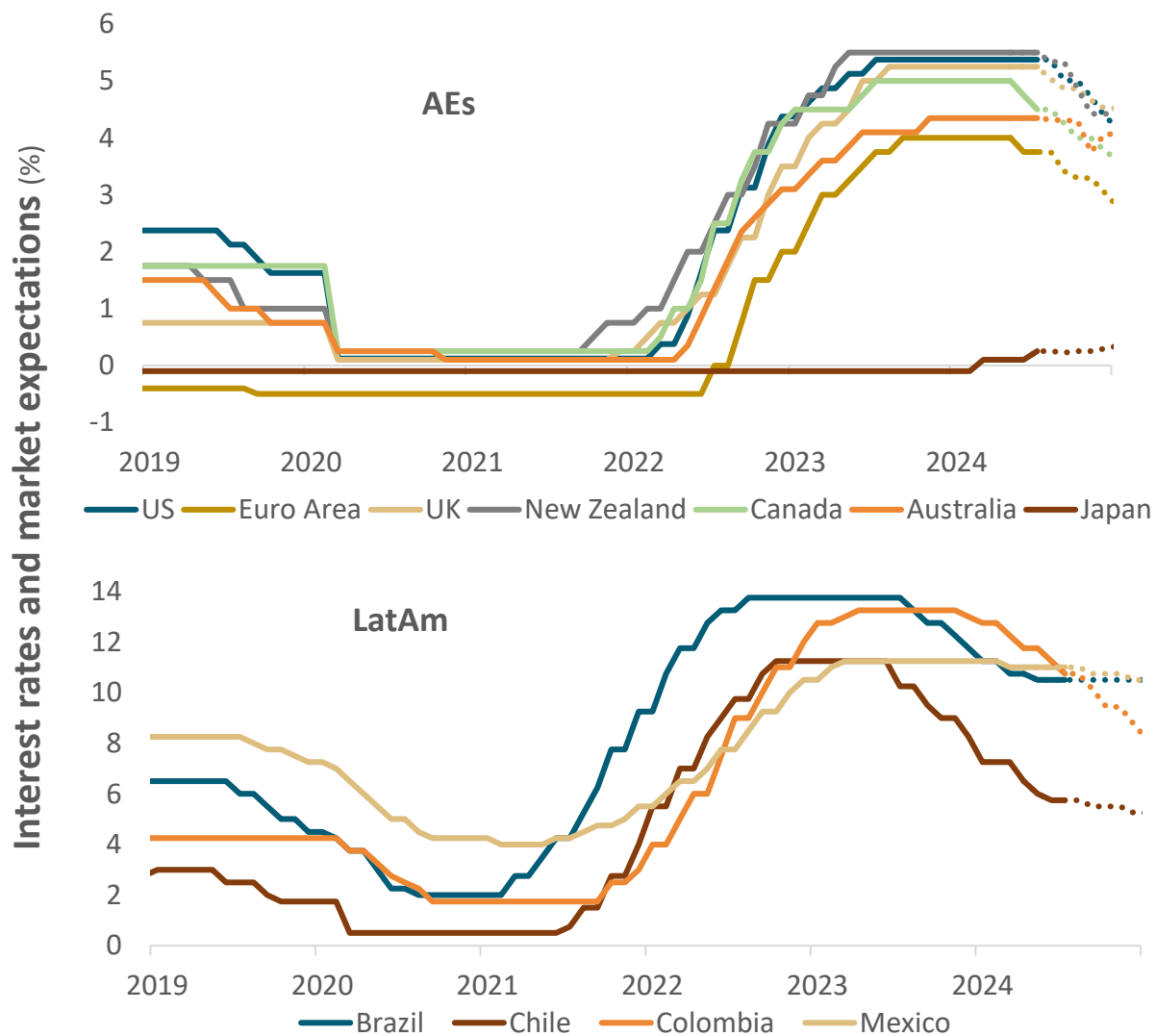
Immigration policy

Effect on U.S. inflation of changes in immigration policy

Scenario 1: deportation of 1.3 mi people from the US
Scenario 2: deportation of 7.5 mi people from the US
(Effect in p.p.)



Less synchronization among central banks concerning policy rate reductions. Central banks have been cautious.

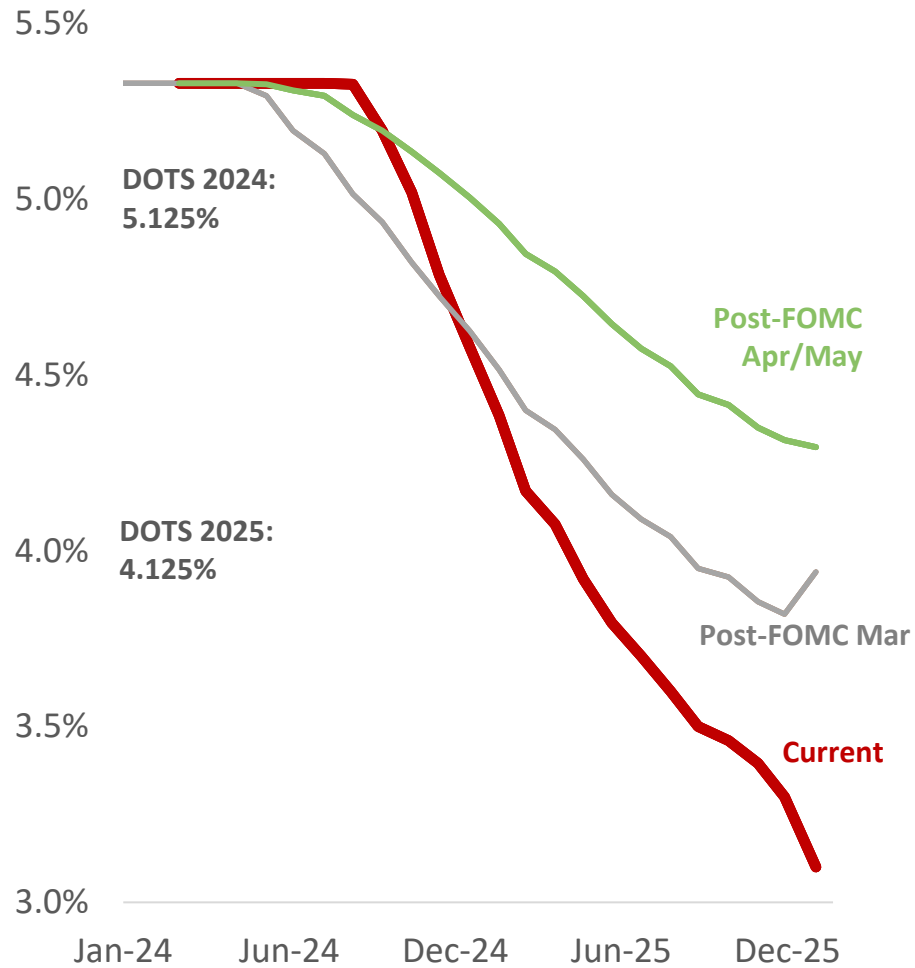


Monetary policy pricing

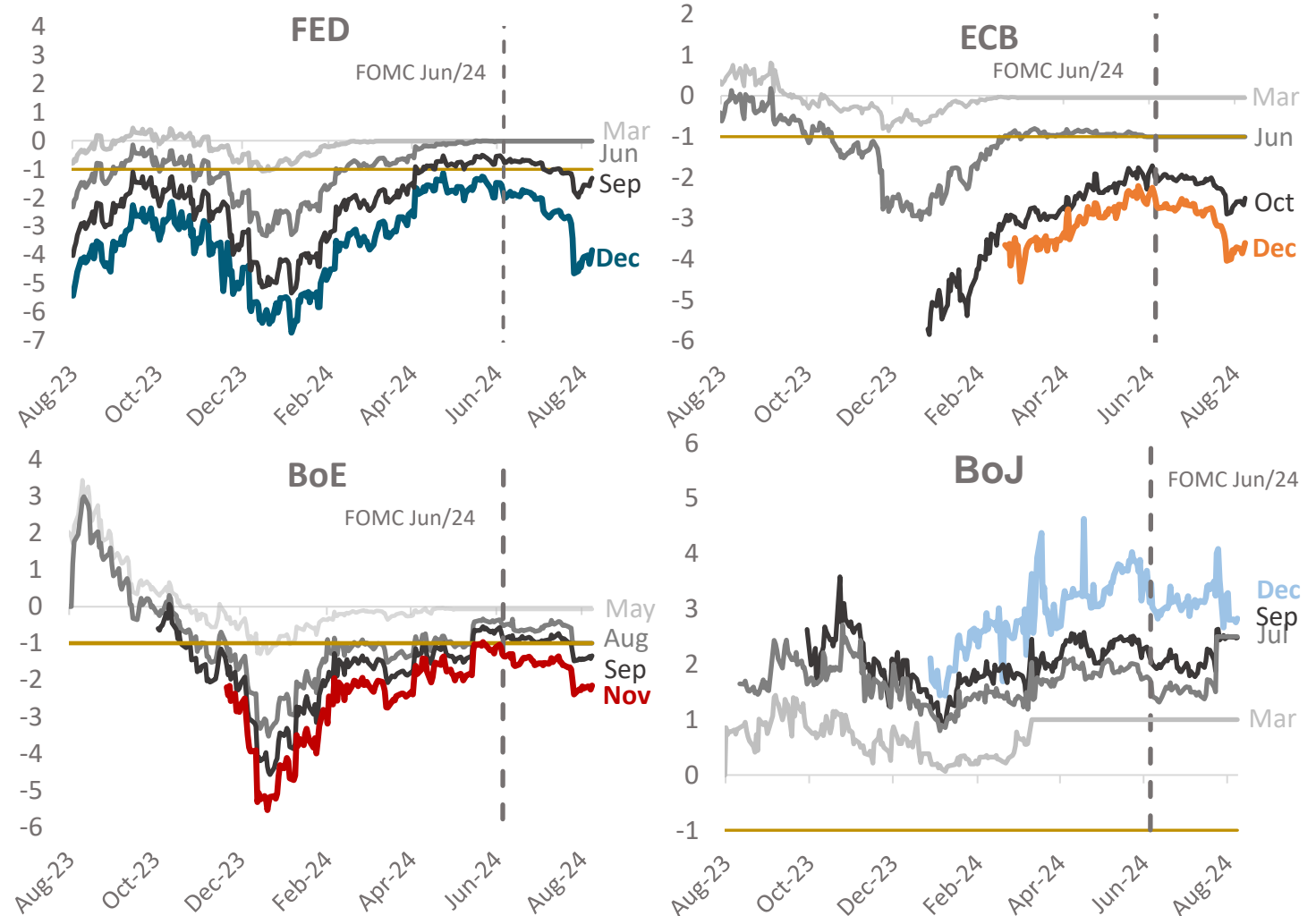
MONETARY POLICY PRICING			
08/14/2024			
Country	Rate (%) <small>last decision</small>	Pricing 6 Months <small>basis points</small>	Pricing 1 Year <small>basis points</small>
AEs			
US	5.38	-120	-197
Canada	4.50	-98	-162
Euro area	3.75	-84	-142
UK	5.00	-62	-106
Australia	4.35	-34	-90
New Zealand	5.25	-87	-186
Japan	0.25	+10	+19
EMEs			
Mexico	10.75	-64	-175
Chile	5.75	-74	-127
Brazil	10.50	+121	+134
Colombia	10.75	-215	-362
Russia	18.00	-40	-292
South Africa	8.25	-101	-142
China	1.70	-18	-27
India	6.50	-26	-53
Korea	3.50	-33	-68

Lower synchrony in monetary policy cycles contributes to more volatility in financial markets.

Fed Funds terminal rates (future curves)

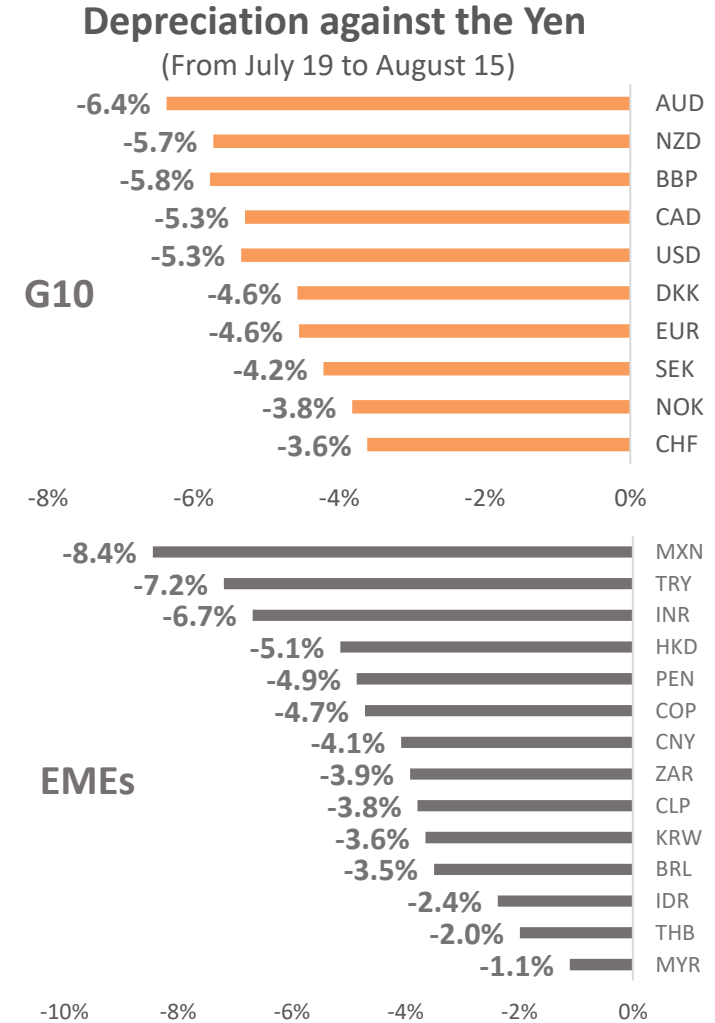
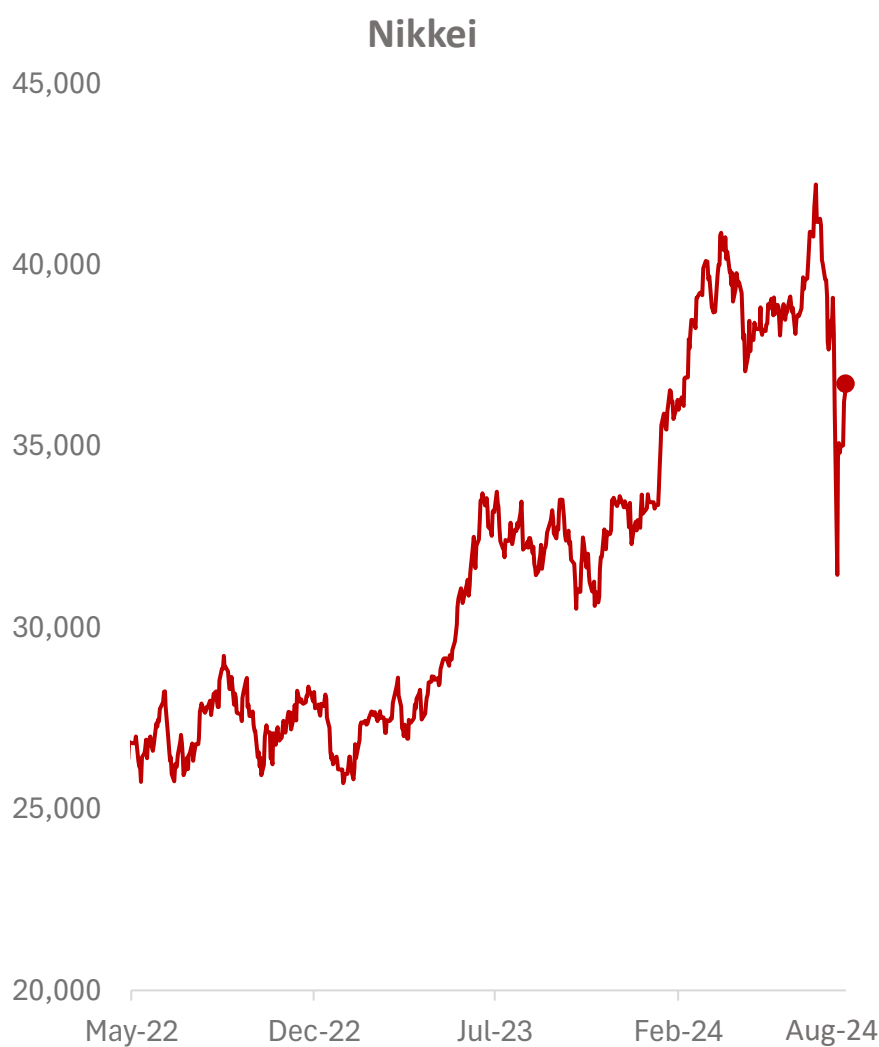
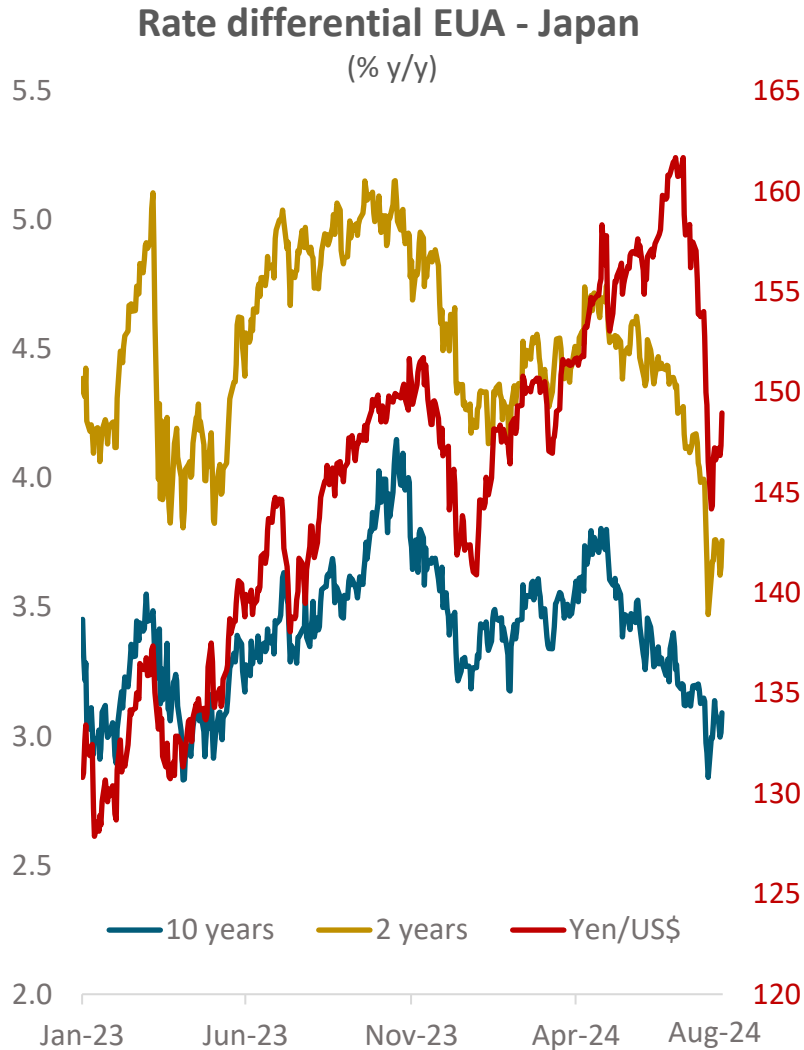


Interest rates accumulated raises/cuts priced at future markets



Sources: Bloomberg, Fed.

Lower synchrony in monetary policy cycles contributes to more volatility in financial markets.



Source: Bloomberg.

Despite measurement issues, data suggest that 3/4 of the global carry trade portfolio position has been undone.

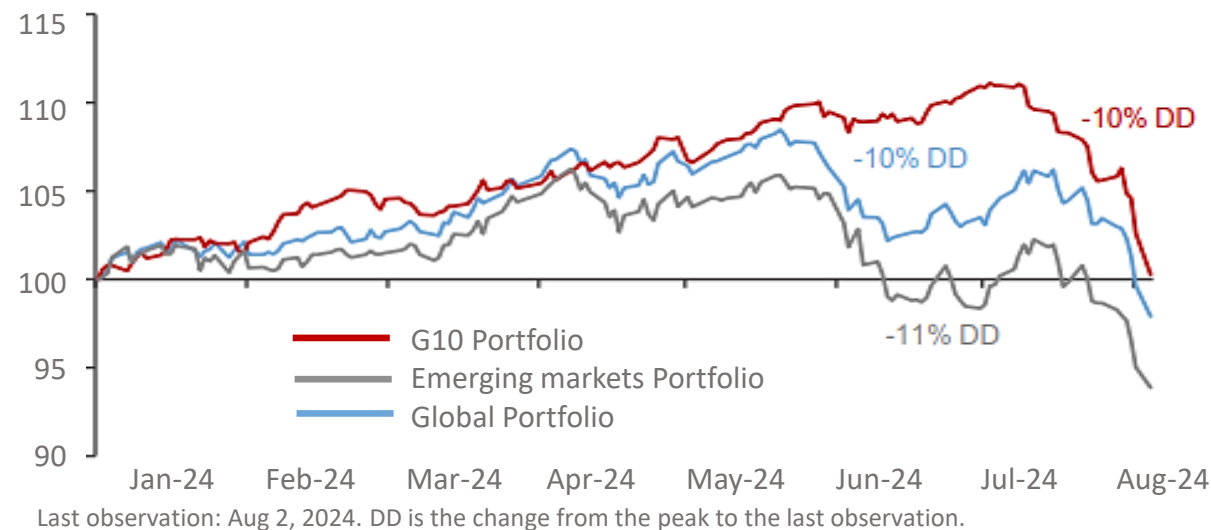
Global carry trade portfolio index

(Aug-21 = 100)



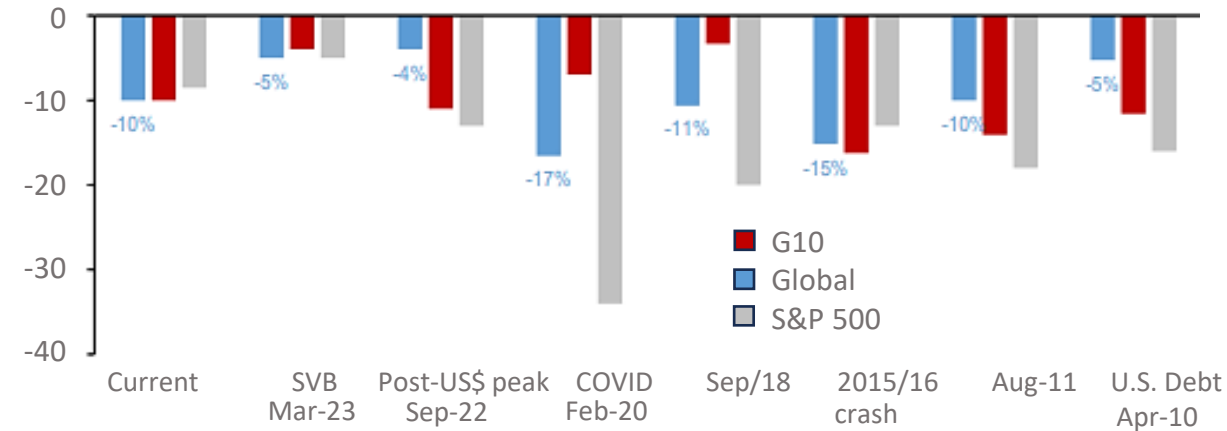
Source: JP Morgan.

Accumulated returns of carry trade positions in 2024



Historical losses of carry trade portfolios

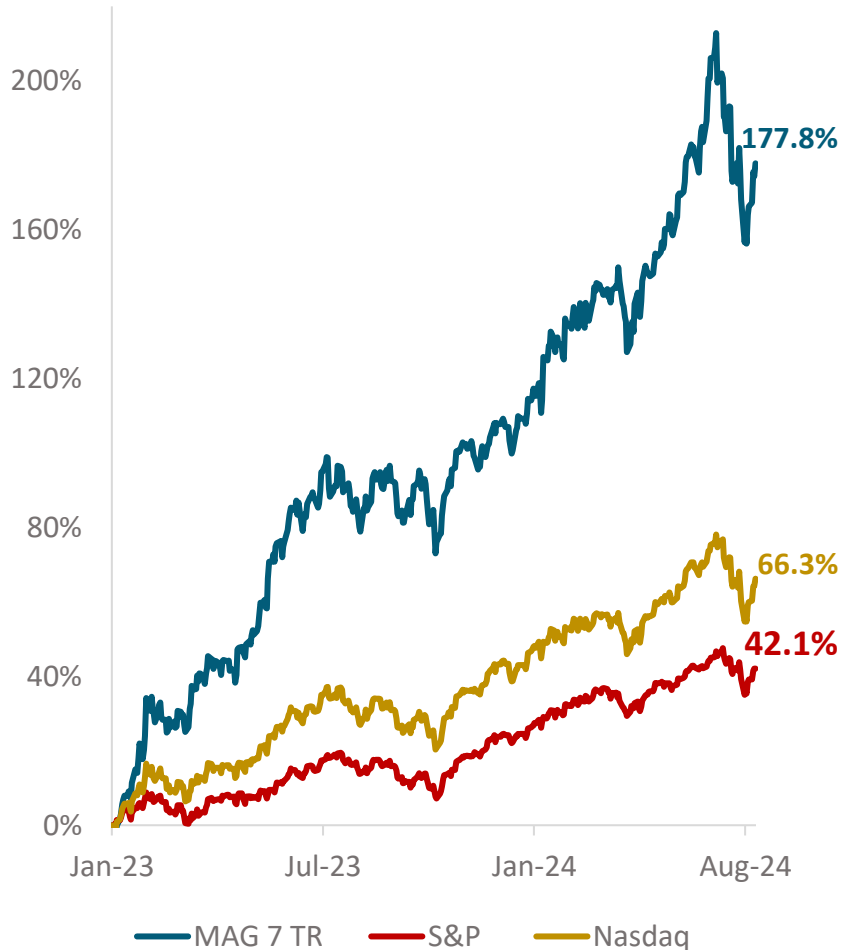
(%)



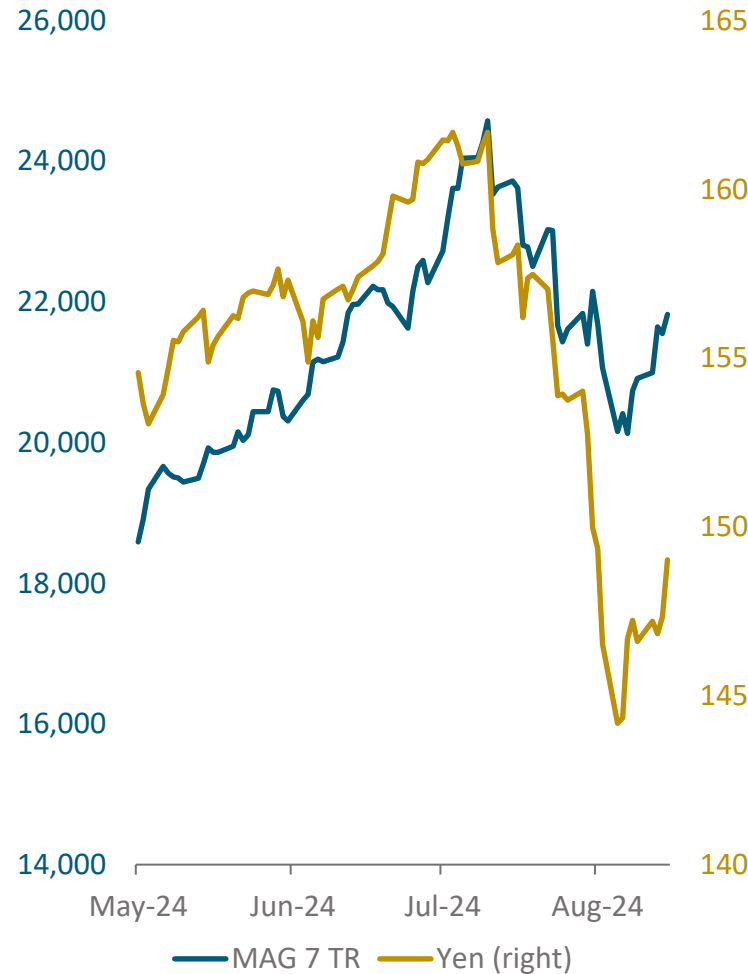
Recently, there was an increase in market volatility, impacting positions in technology companies.

MAG7 vs. Stock markets

(accumulated appreciation since Jan/23, %)

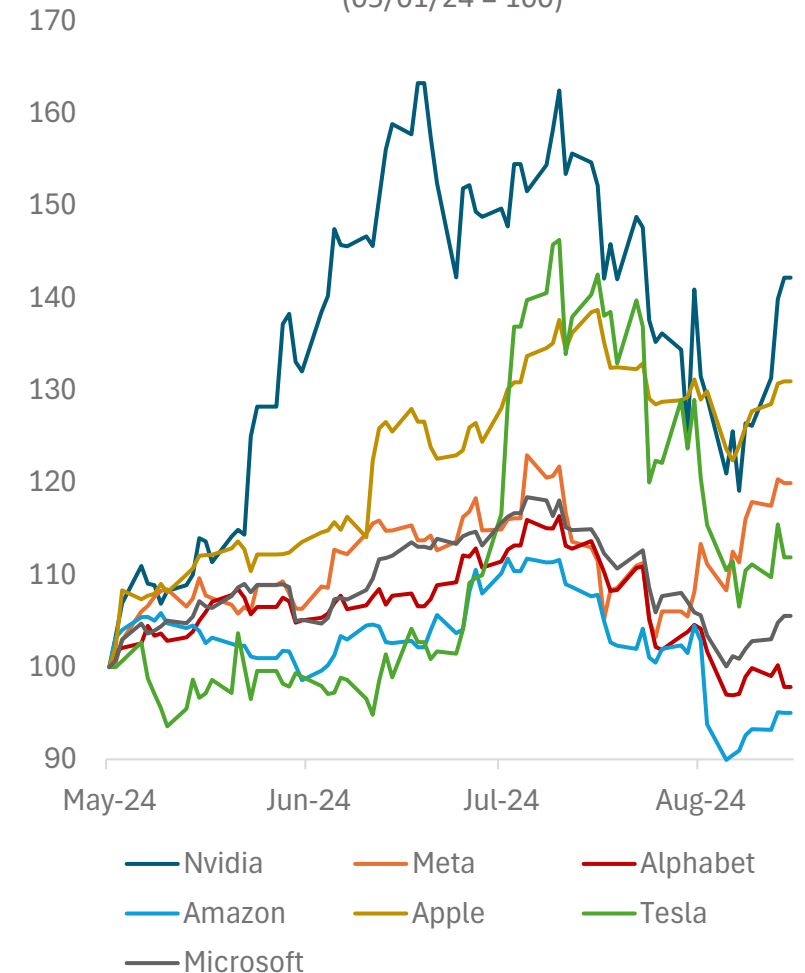


MAG7 vs. Yen



Performance of MAG7 stocks

(05/01/24 = 100)



Increase of market volatility

10 years treasury rate

(% YoY)



S&P 500

(Index)



MOVE

(Index)



VIX

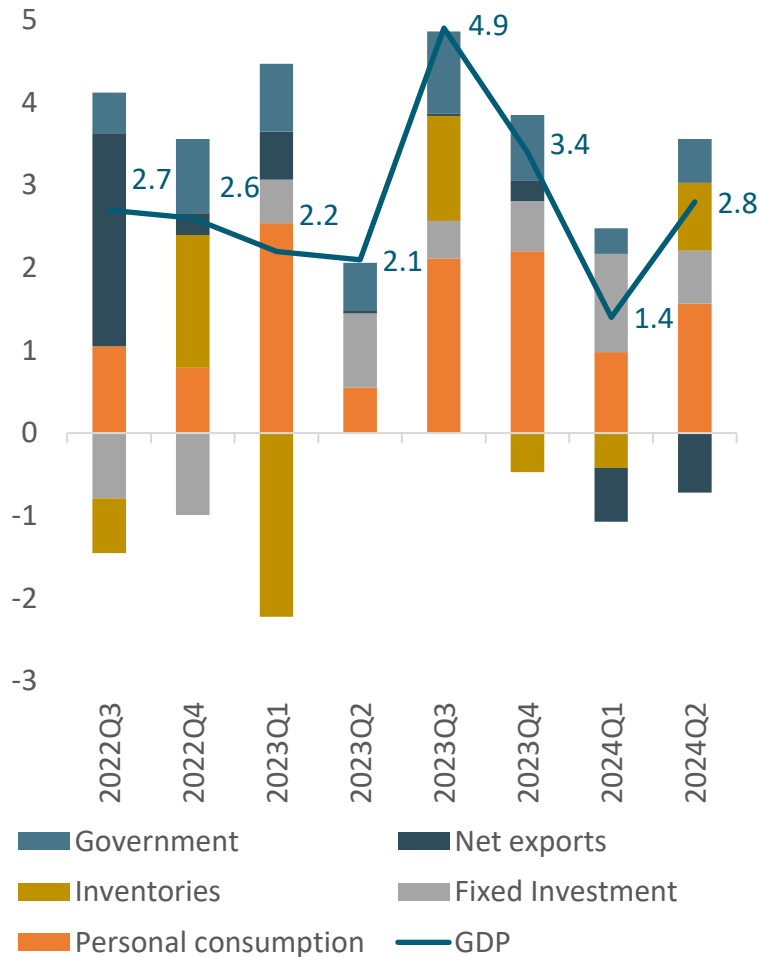
(Index)



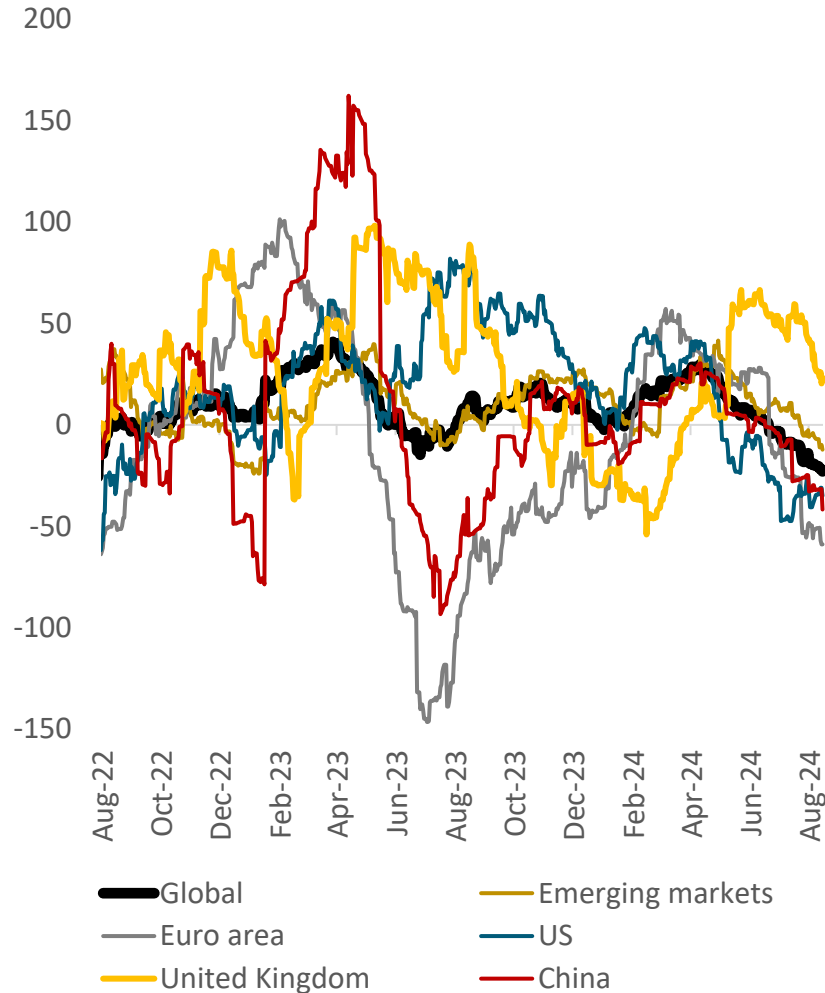
Uncertainties about the pace of economic activity persist. Current data suggest resilience, but a slowdown is observed at the margin.

GDP and contributions

(% QoQ, s.a., p.p.)

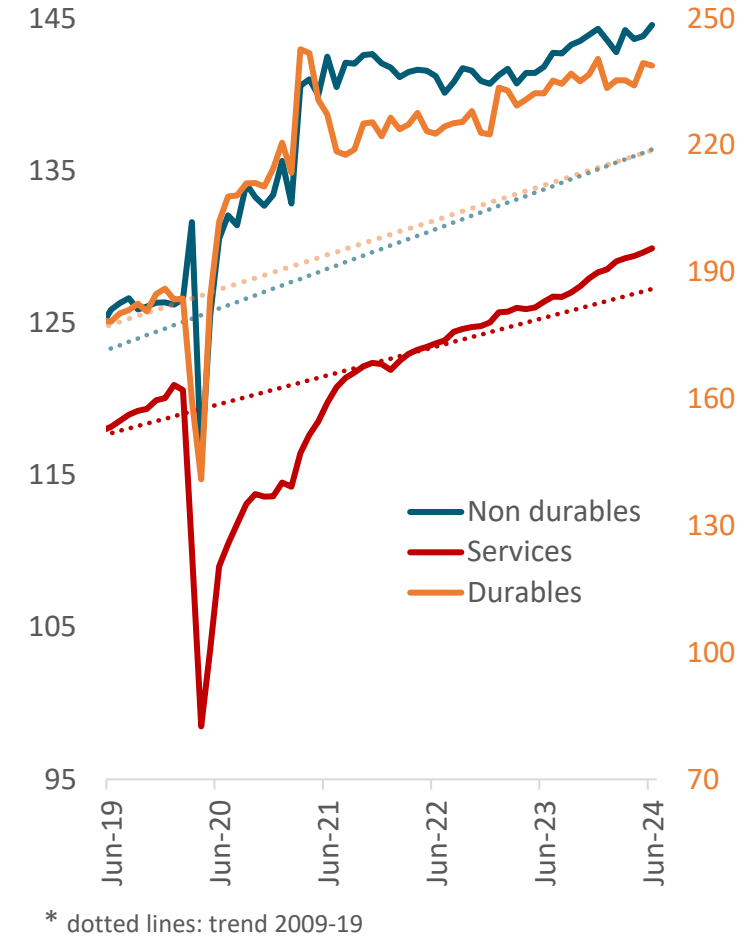


Growth surprise index



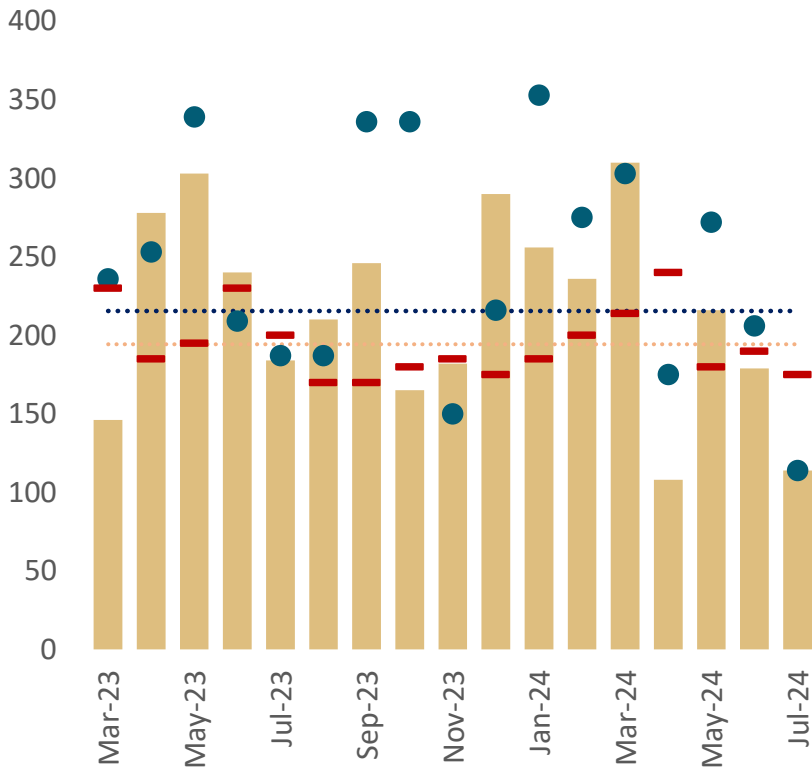
Real consumption per components

(index 2009 = 100)



The labor market shows signs of rebalancing, with a reduction in employment in the latest data.

Payroll (thousand jobs)



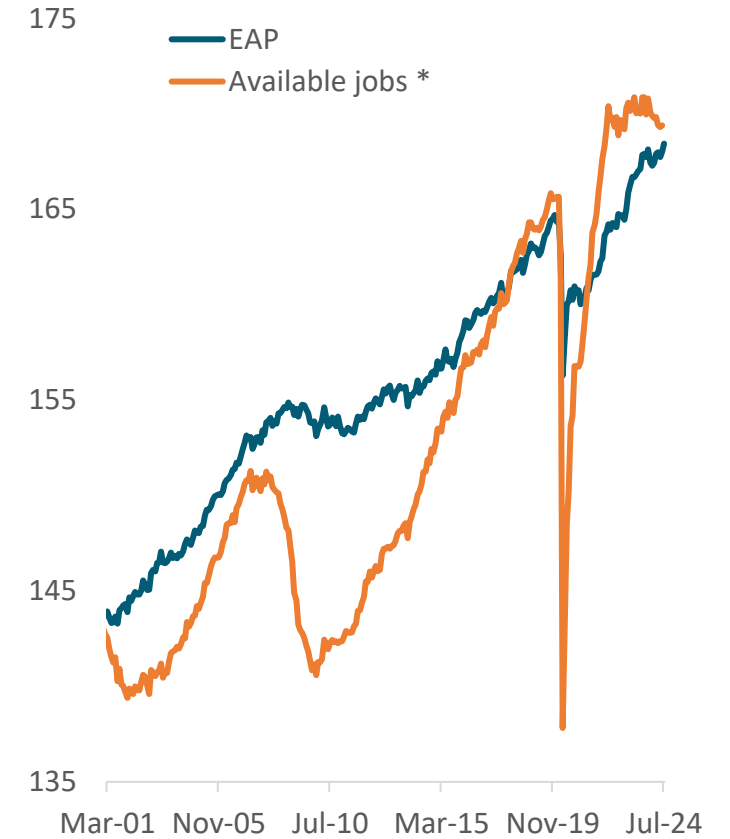
■ Actual ● Original data - Expected

Wage growth (% YoY)



— AHE (real) — AHE (nominal) — CPI — ECI

Available jobs and labor supply (millions)

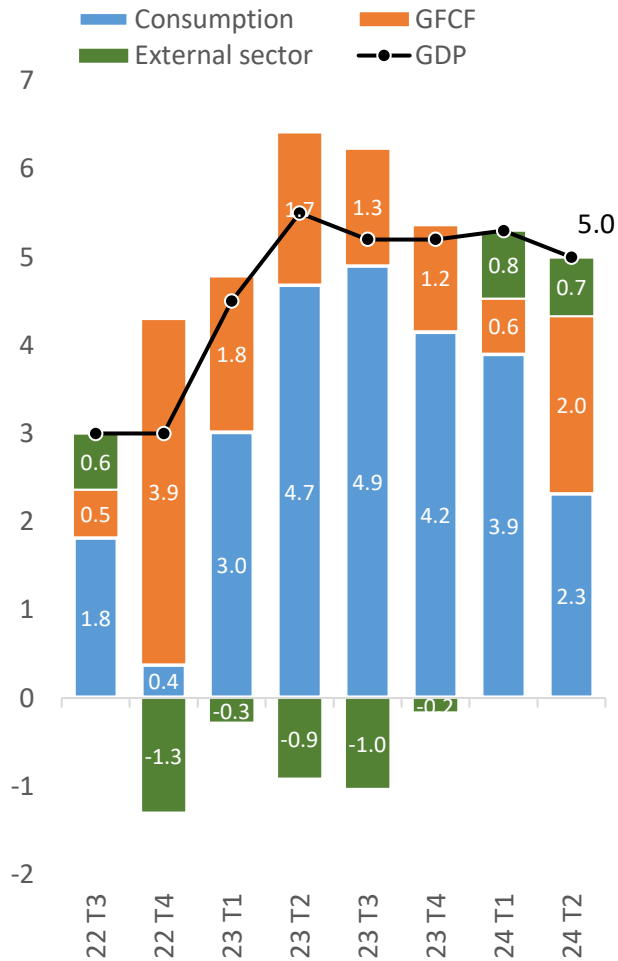


* Corresponds to employment plus job openings.

Growth expected to be close to the target, but losing momentum. Concerns on China's economic performance remain.

GDP and contributions

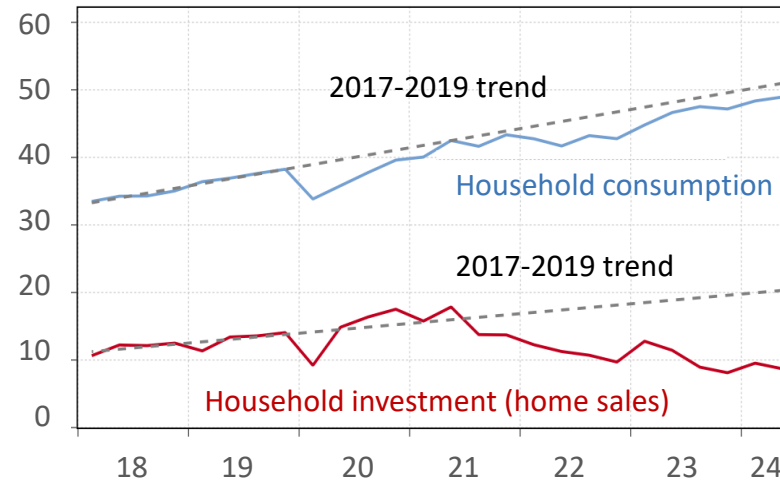
(% y/y), contribution in p.p.



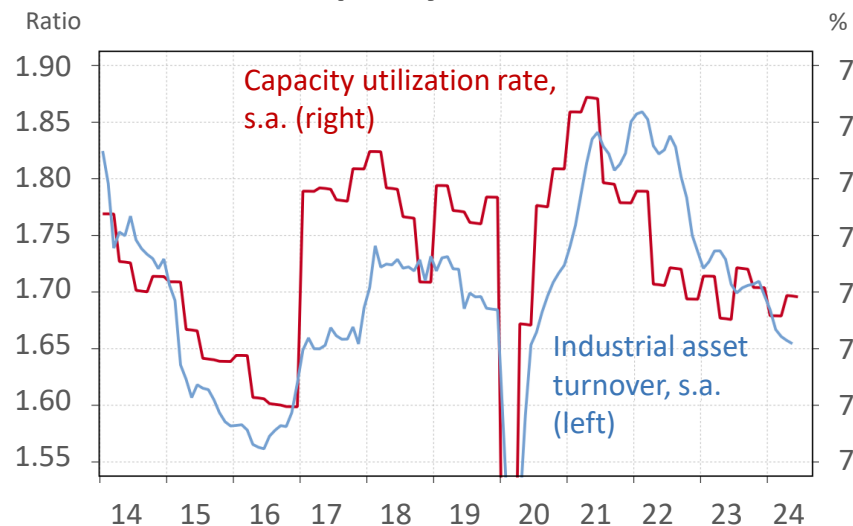
Sources: NBS, Bloomberg, Gavekal.

Household consumption and home sales

(s.a., annual rate vs. pre-2020 trend, RMB trillion)

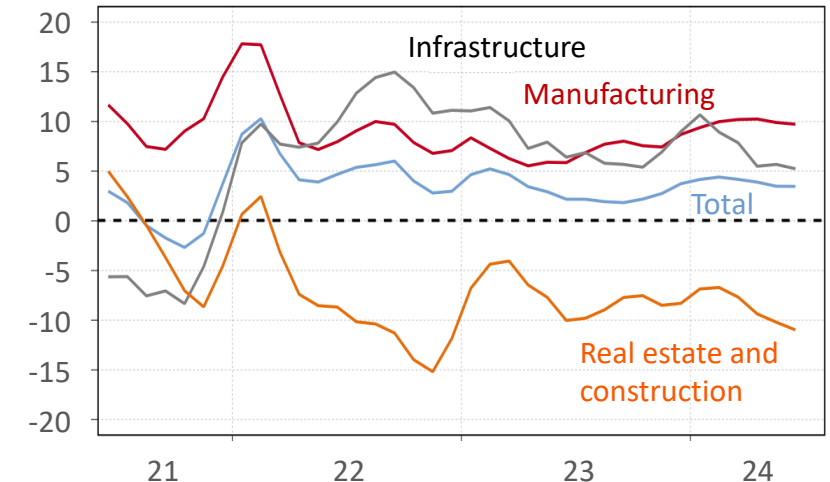


Capacity utilization



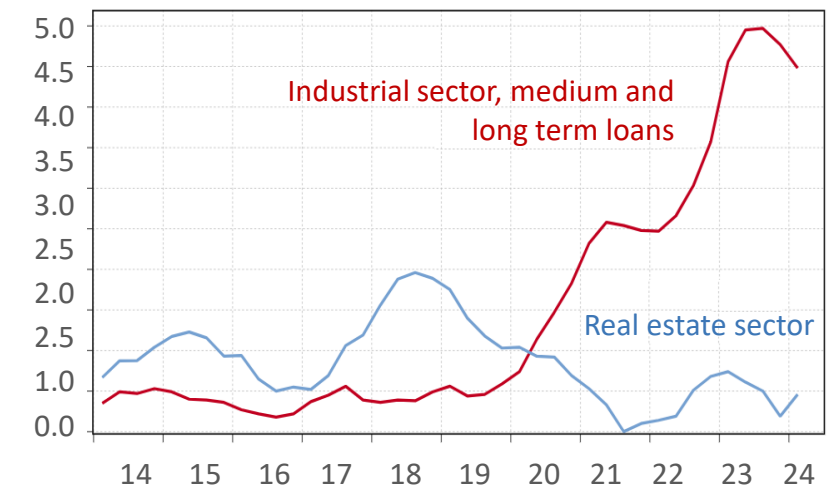
Fixed asset investment

(y/y % change, 3-m.m.a., adjusted by sector)

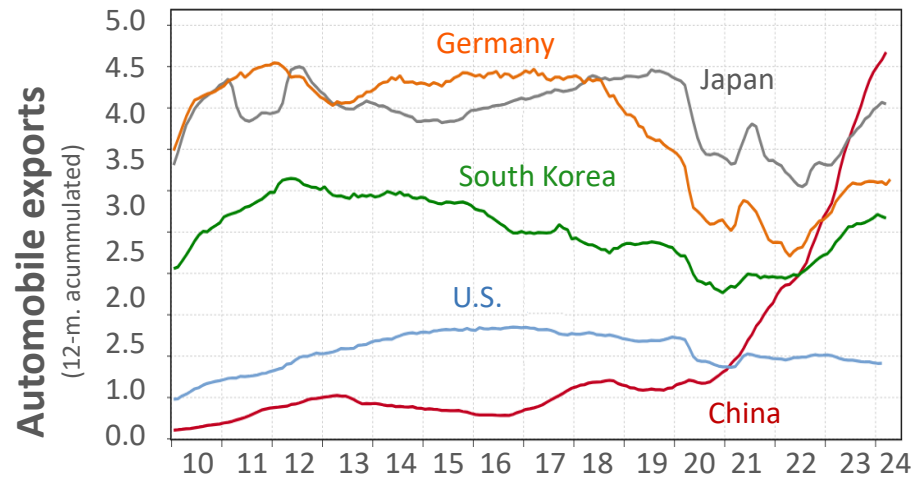
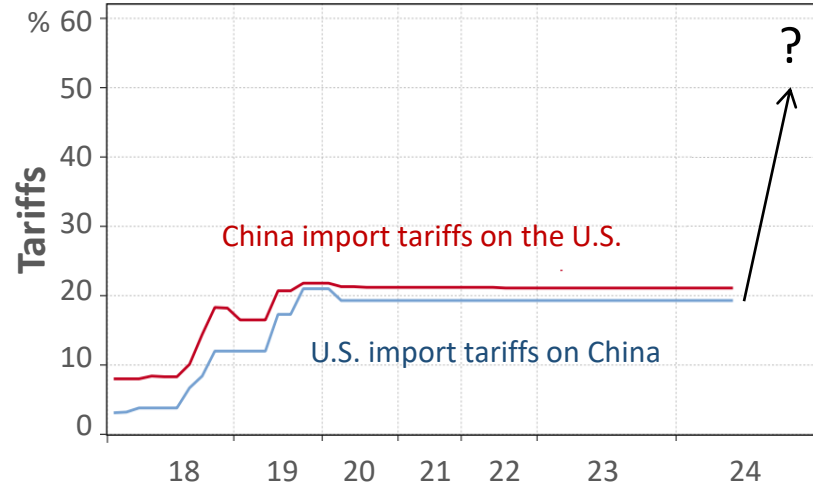
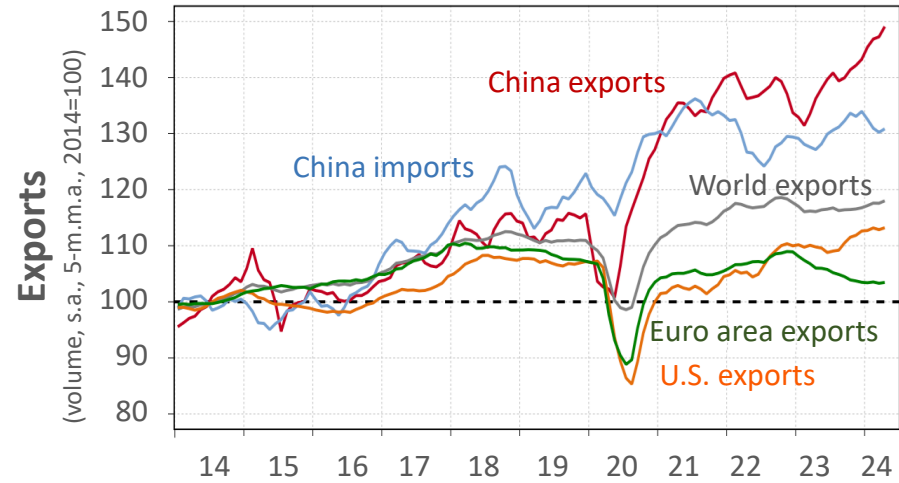


Growth in banking credit

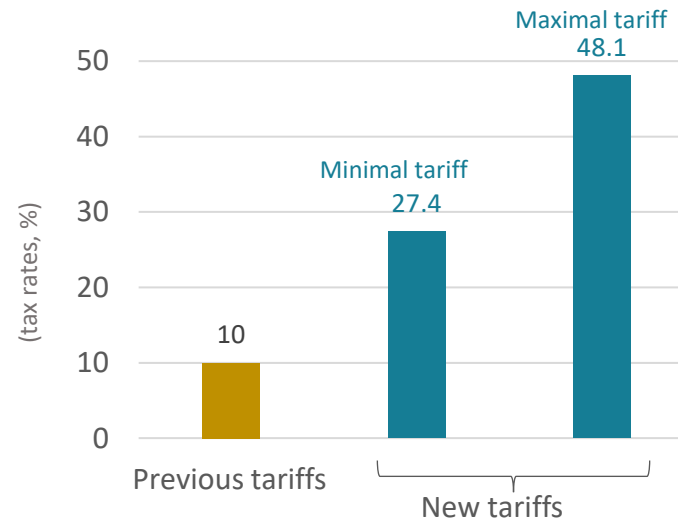
(y/y % change, by sector)



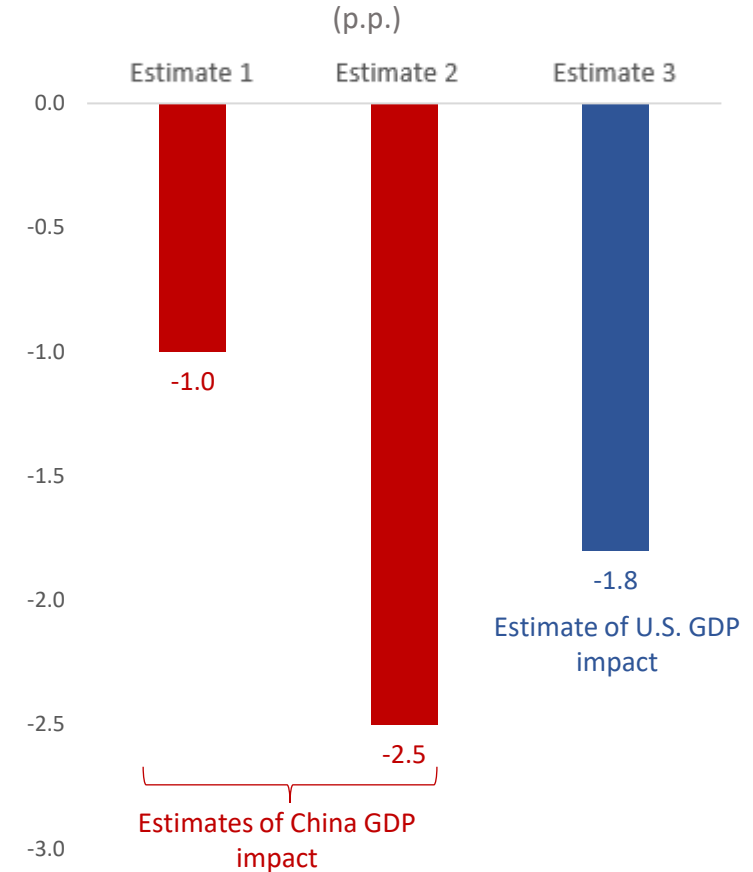
More protectionism may have a large effect on China and spill over to the global economy



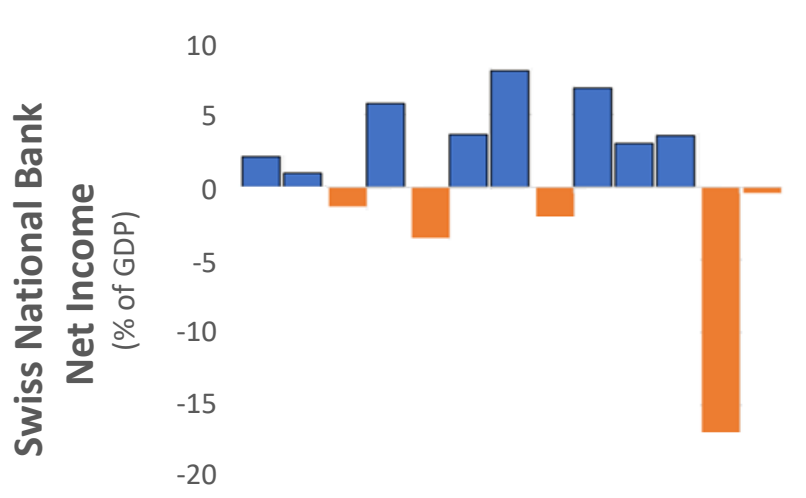
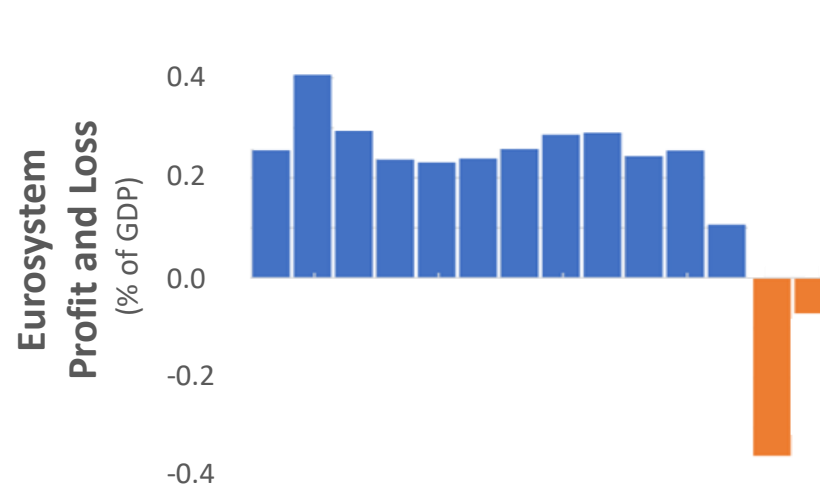
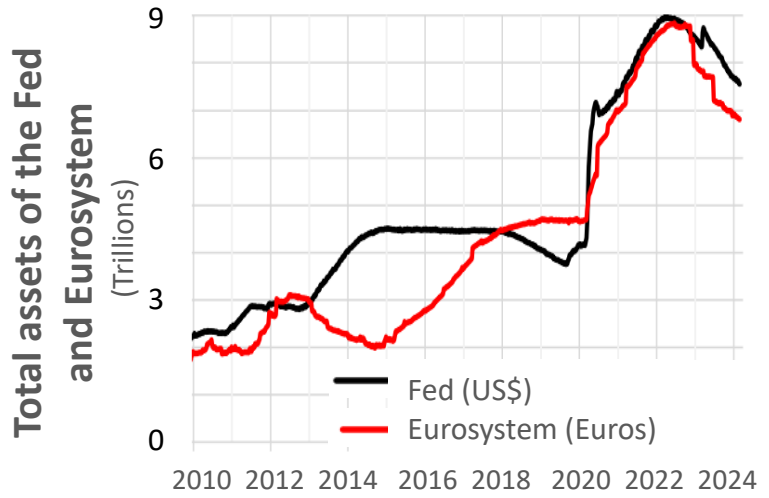
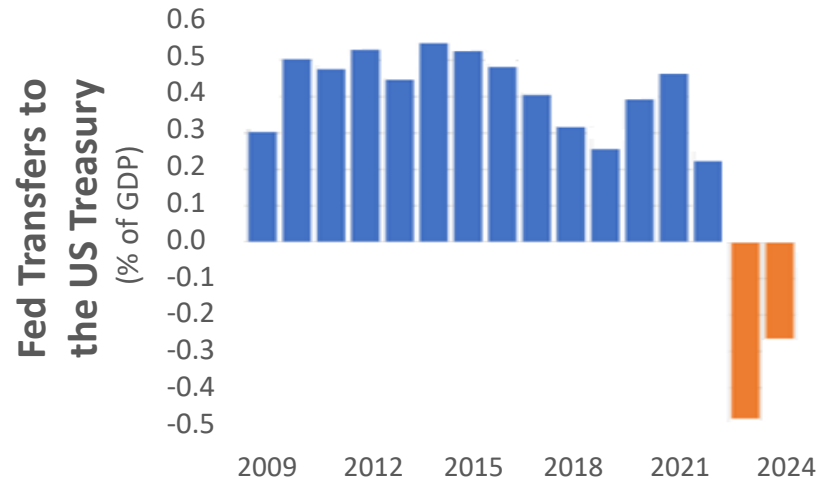
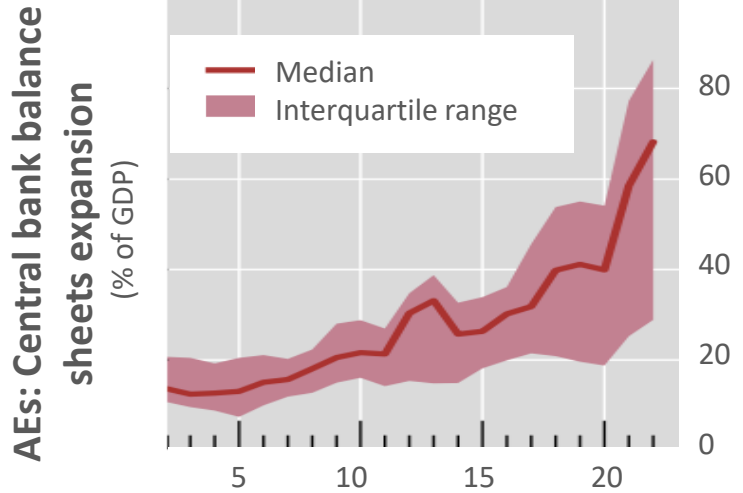
Euro area import tariffs on Chinese electric vehicles



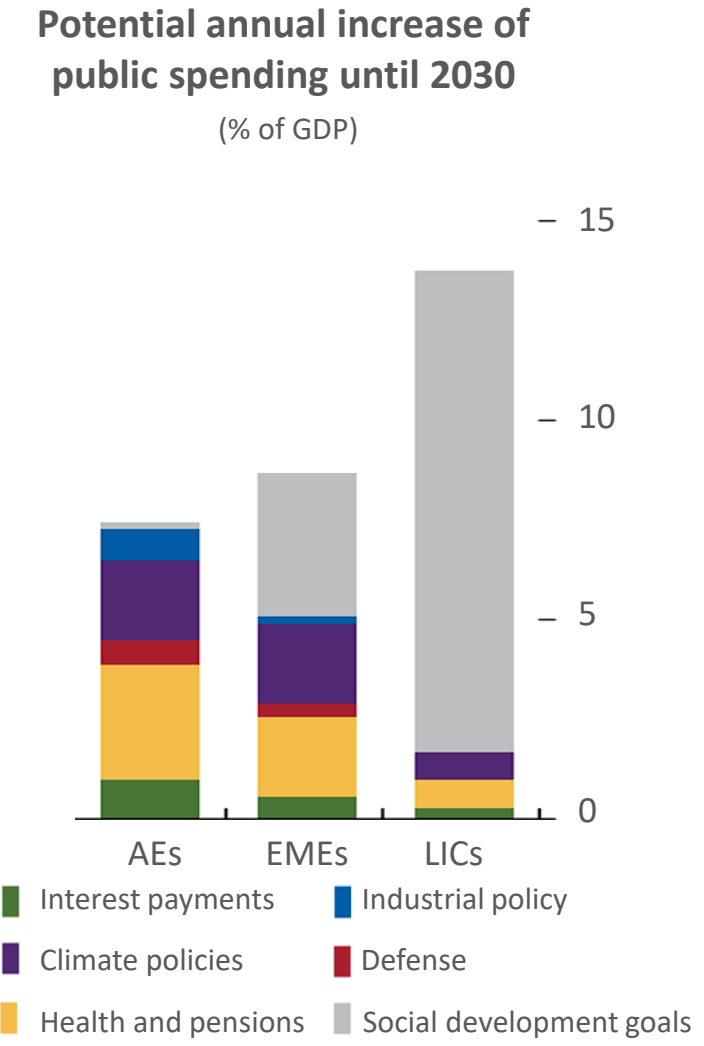
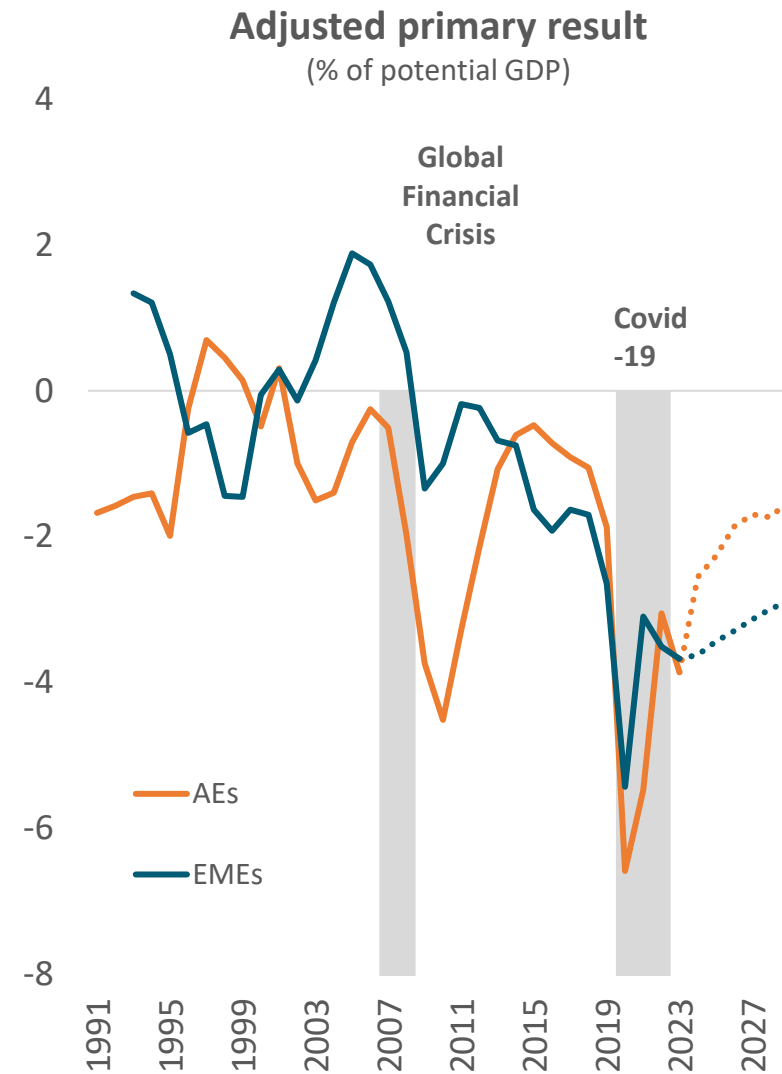
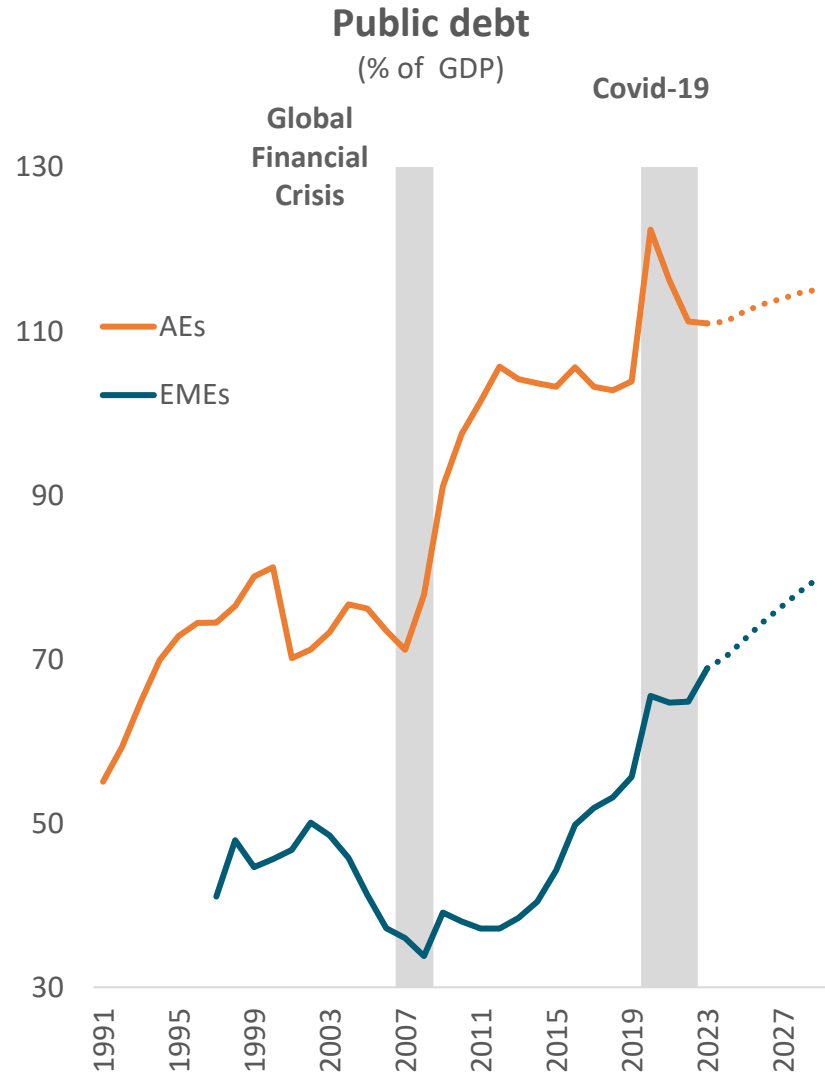
Estimates of GDP impact from hikes in import tariffs in the U.S.



In a scenario of a stronger slowdown in activity, there is little room for economic policy.



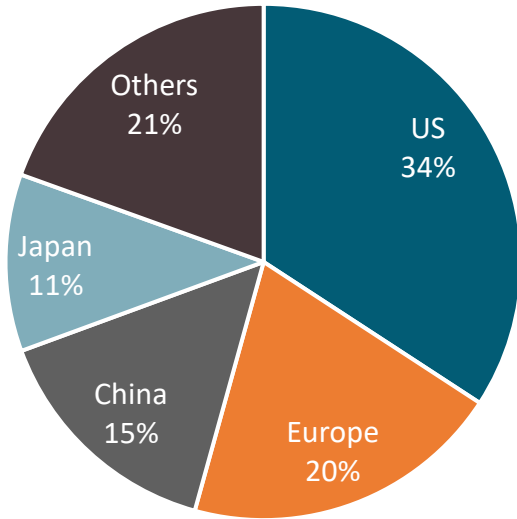
In case of economic hard landing, there is little room for economic policy.



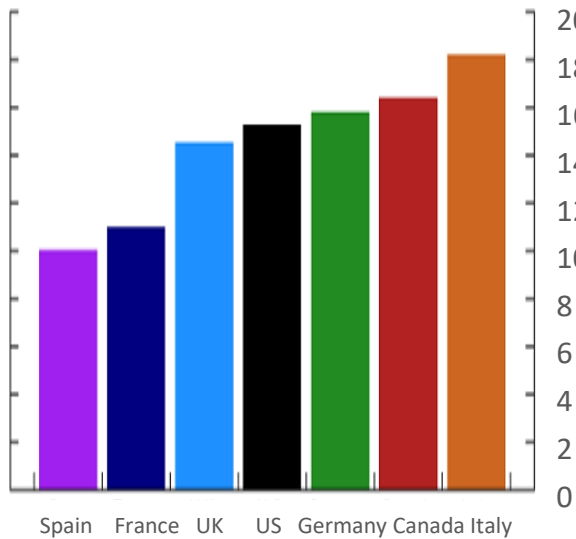
Source: FMI.

Increasing debt amount and costs in AEs will demand more and more resources.

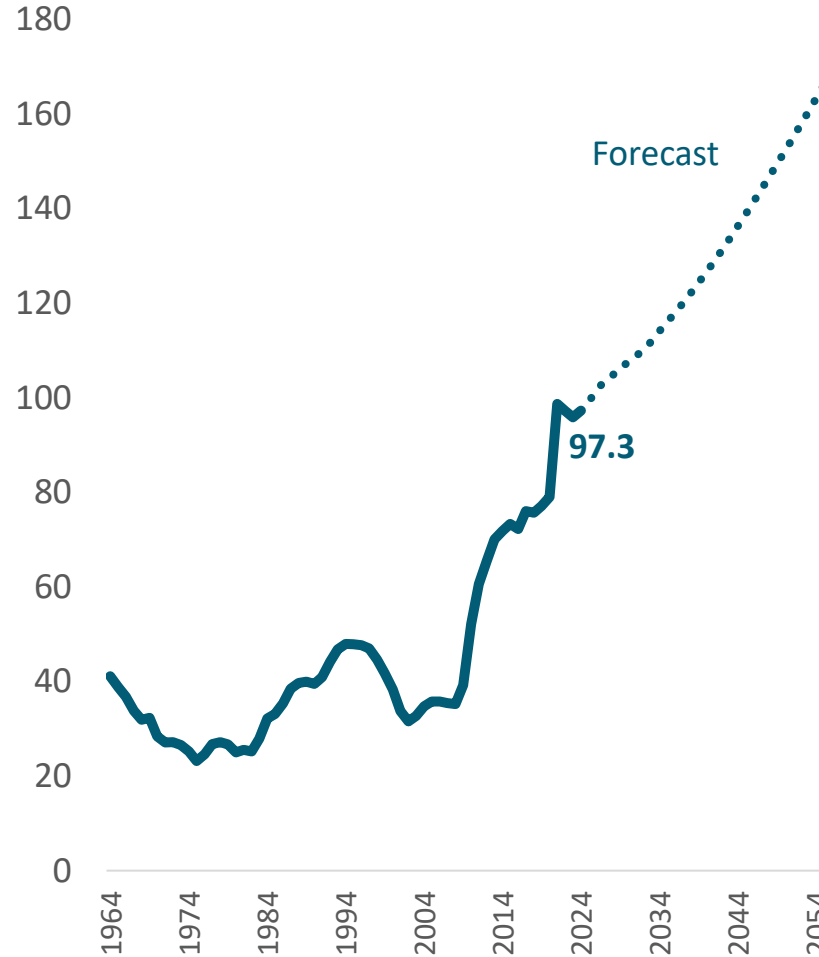
Global public debt
(% of countries' GDP)



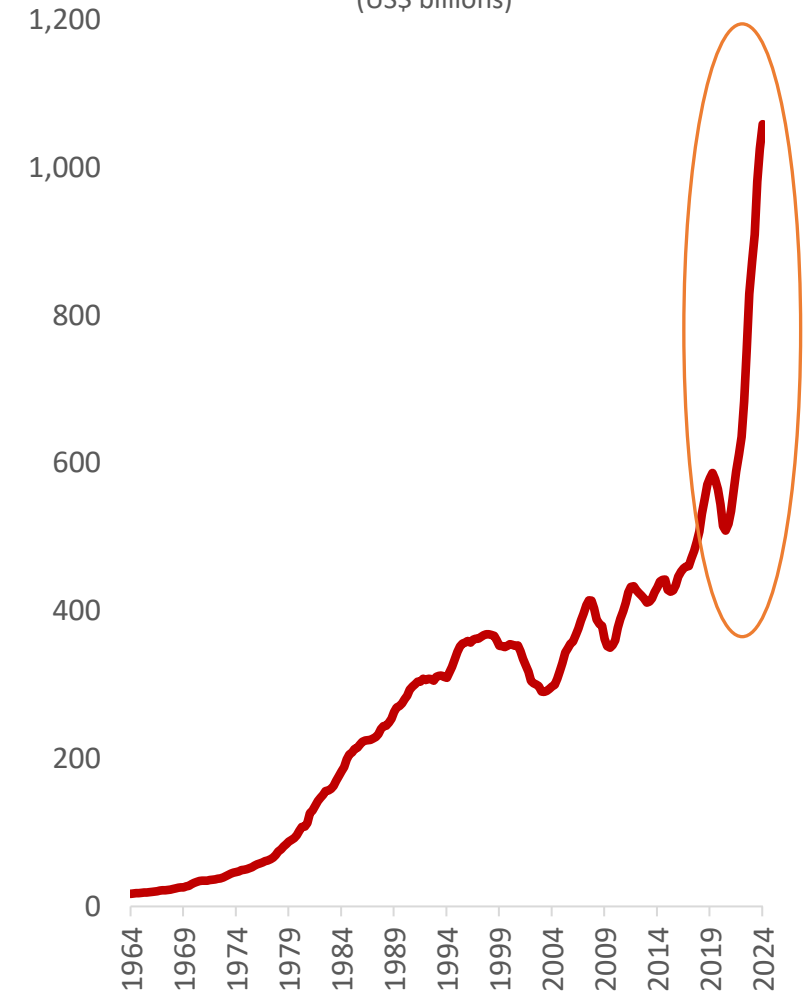
Accumulated public deficit
(% of GDP, growth in relation to the pre-crisis average)



US: public debt
(% of GDP)



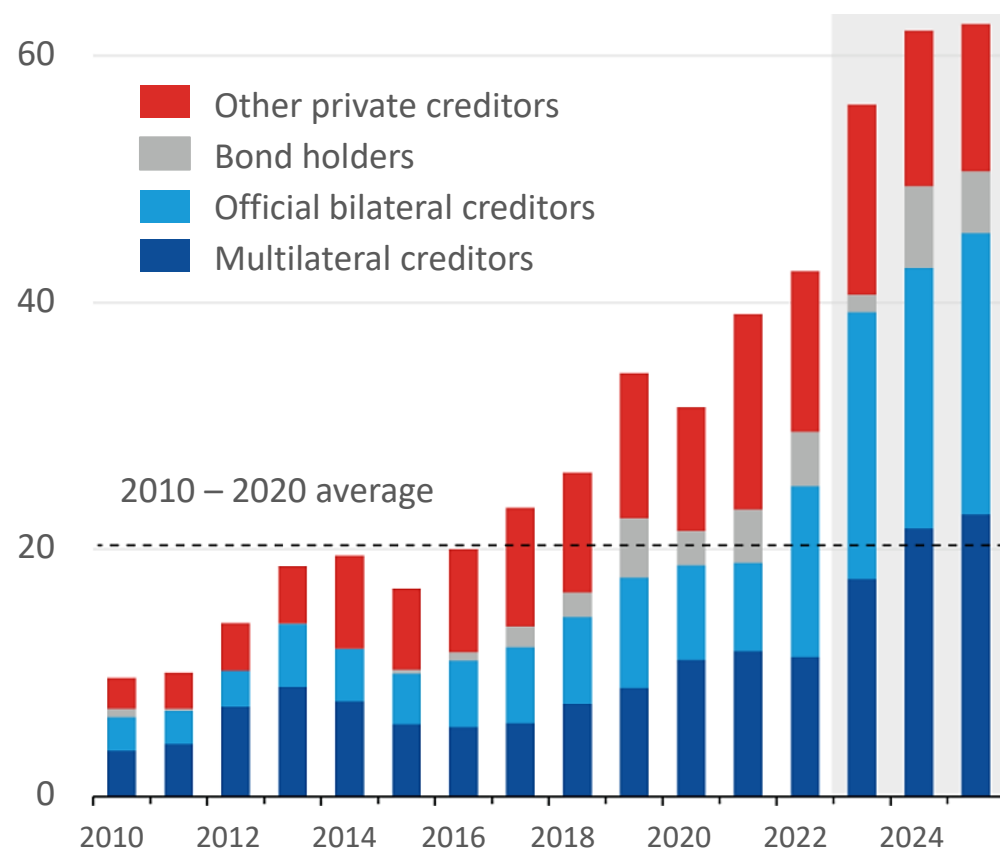
US: interest payments
(US\$ billions)



Debt service costs have been rising rapidly. Current refinancing needs are three times higher than the historical average.

Low income countries: principal payments due to foreign creditors

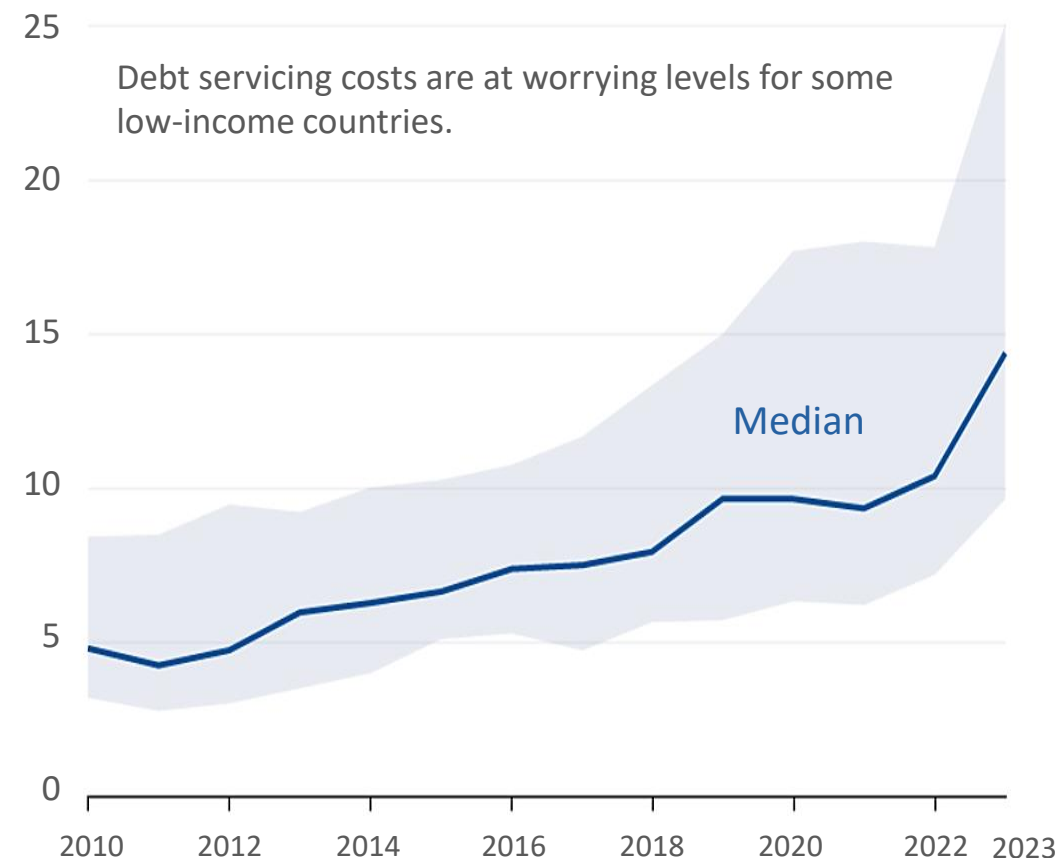
(Billions of US\$)



* Figures for 2023 and beyond are projections.

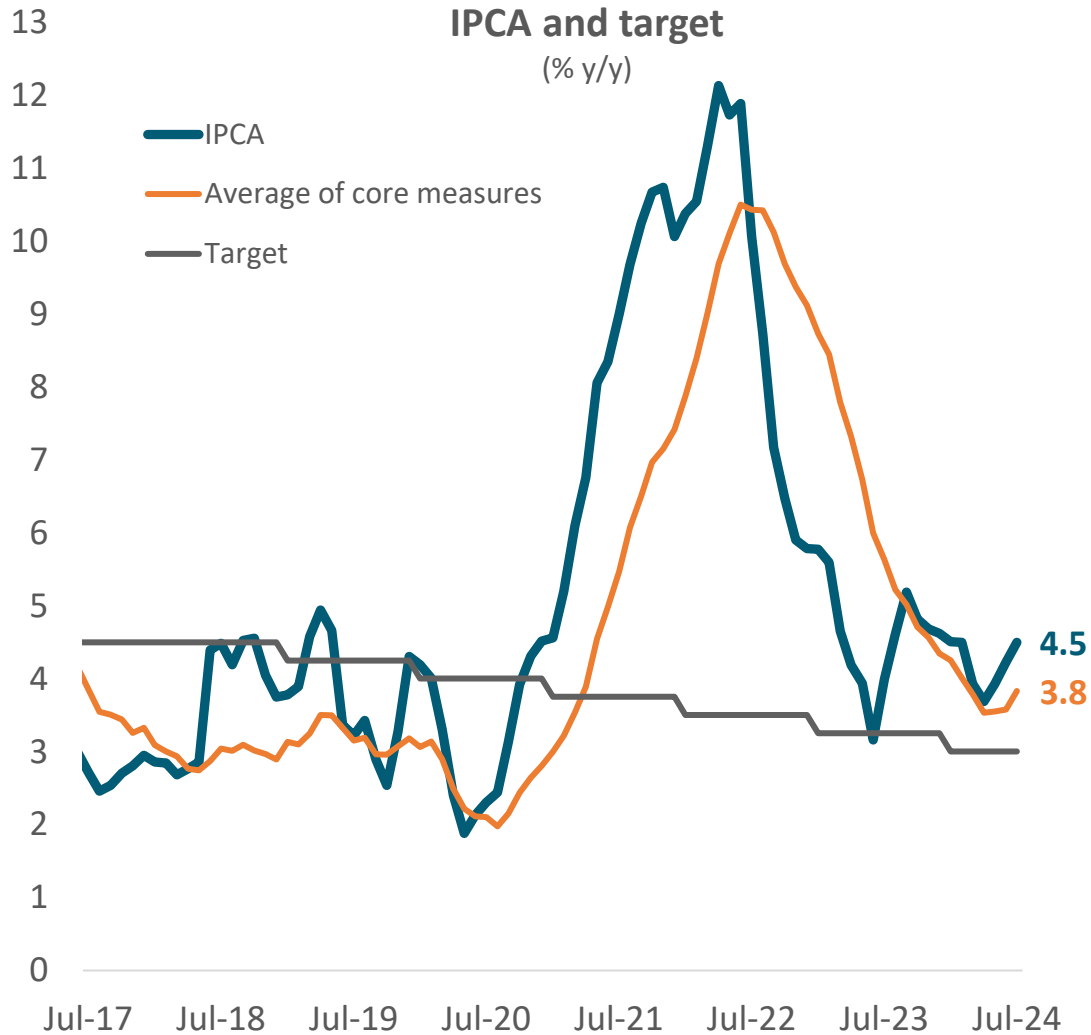
Low income countries: External debt service to revenues

(%)

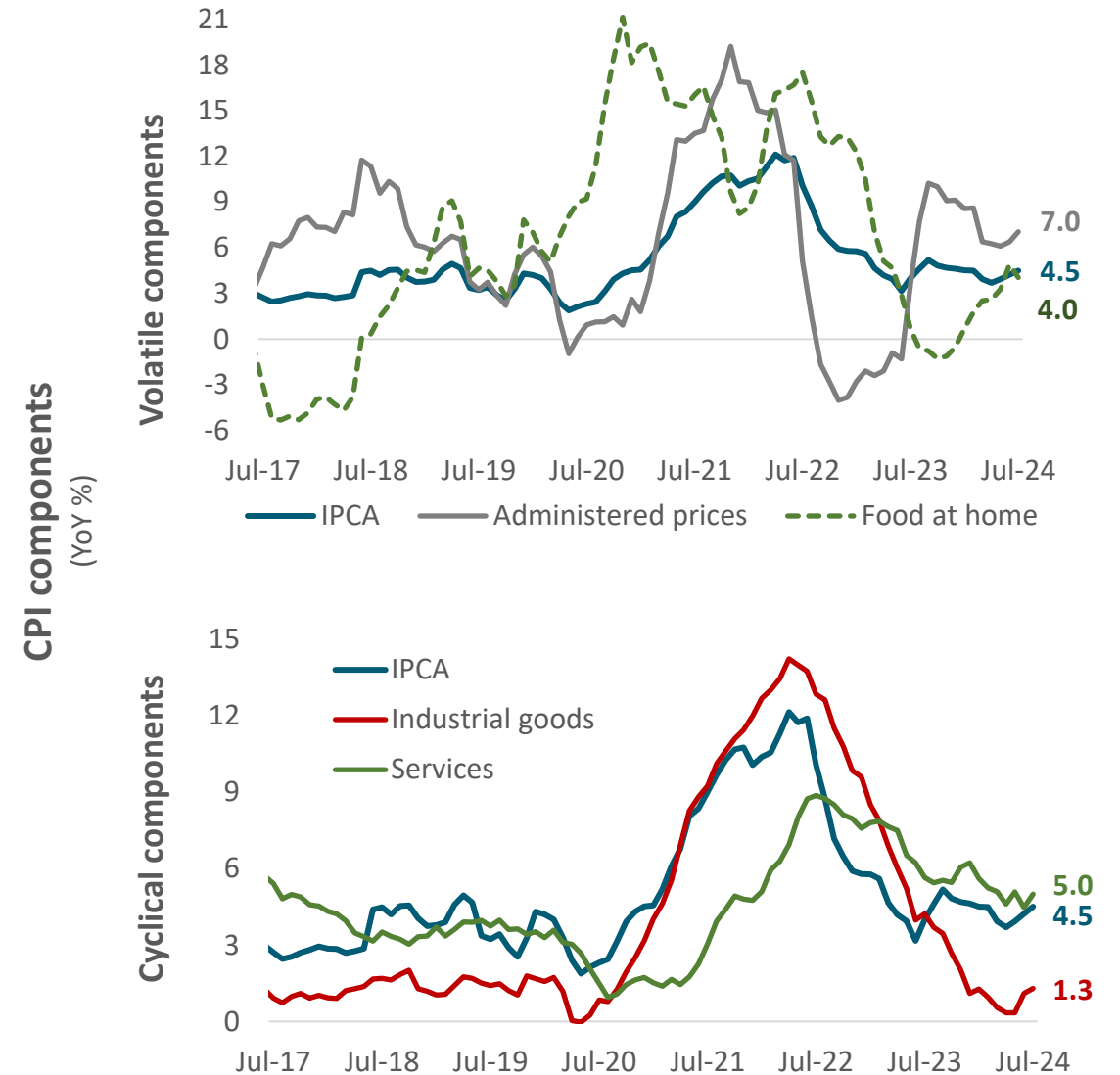


* Figures for 2023 are projections. Shaded area represents the interquartile range.

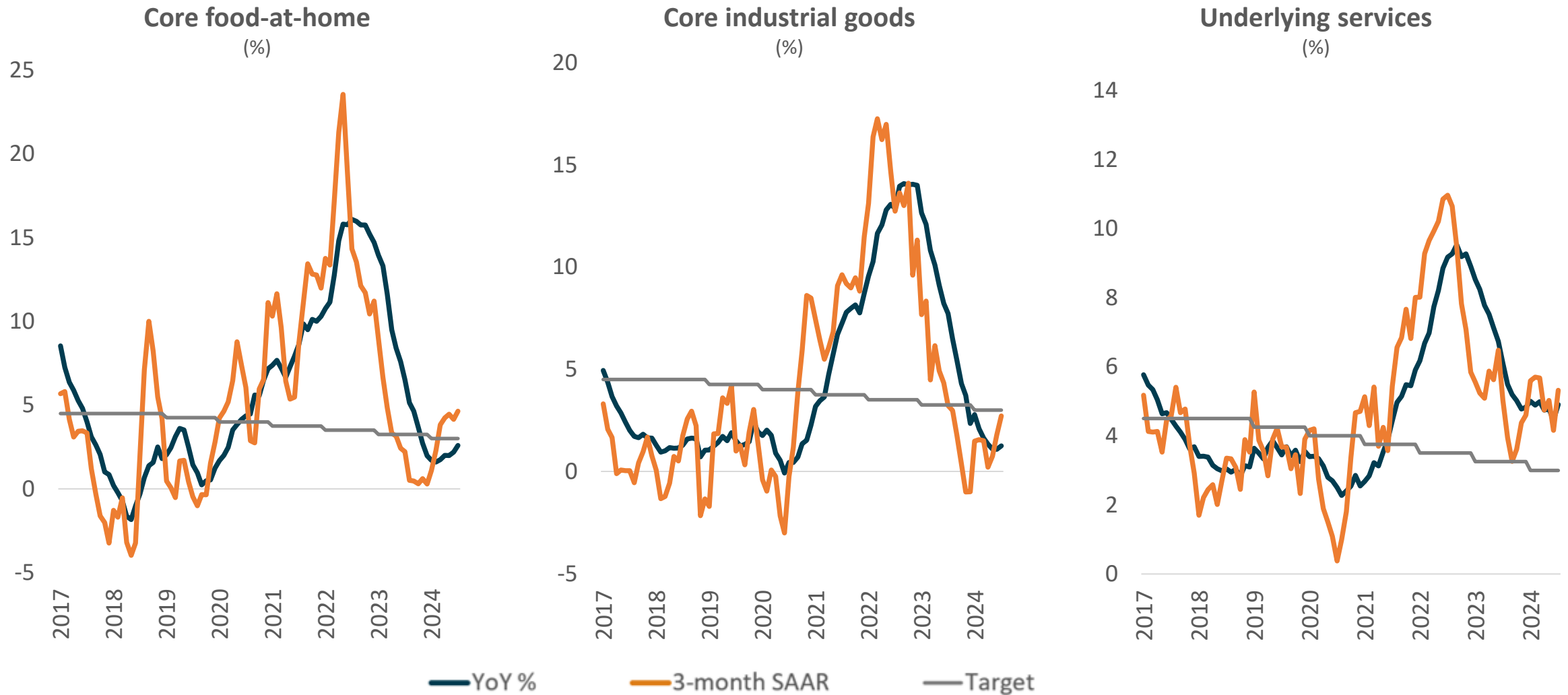
Disinflation has lost steam, while underlying inflation has remained over the target.



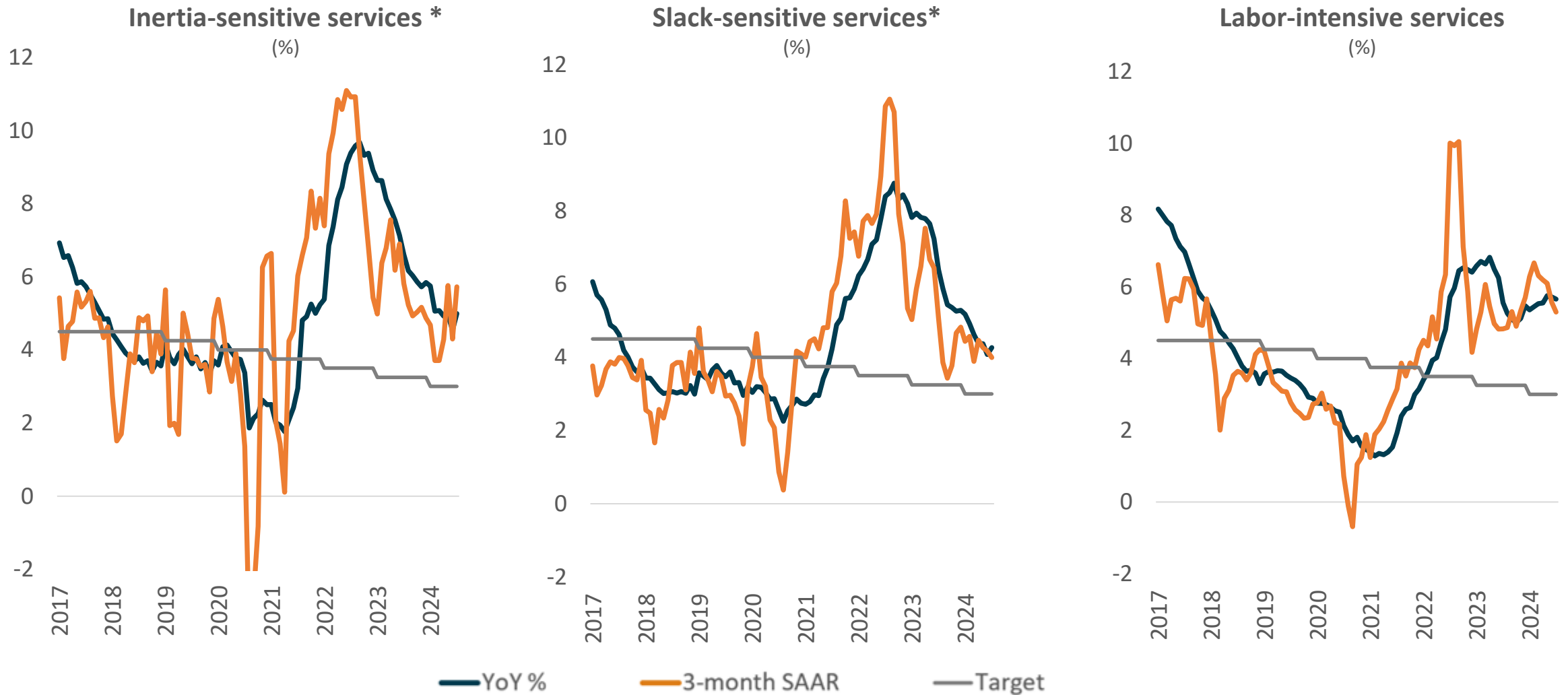
Sources: IBGE e BCB



Underlying inflation has remained over the target

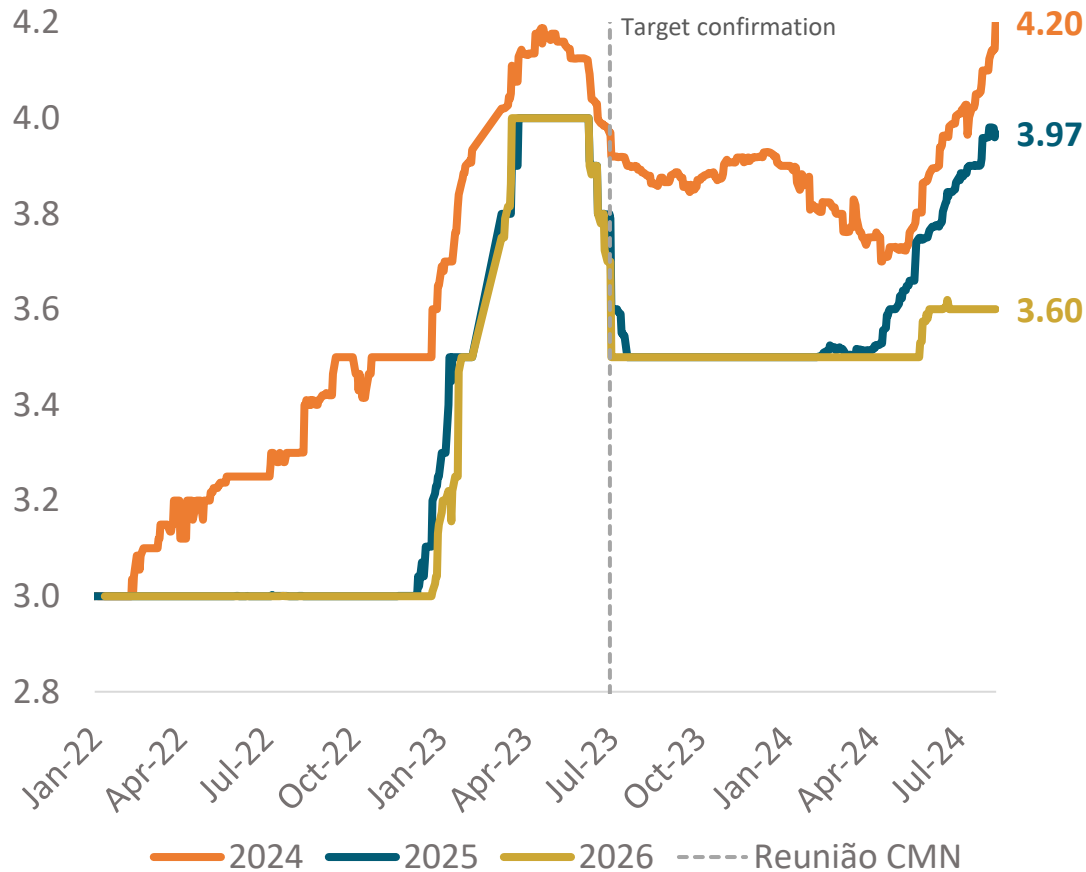


Services inflation, with its higher inertia, has a key role in the disinflationary dynamics at the current stage.



Recently, inflation expectations have shown further deanchoring.

Inflation expectations
(% YoY, Focus Report*, median)



* Updated until 08/09/2024
Source: BCB

Break-even inflation
(DAT, % YoY)



* Updated until 08/14/2024

Indicators of economic activity and labor market keep showing greater dynamism than expected.

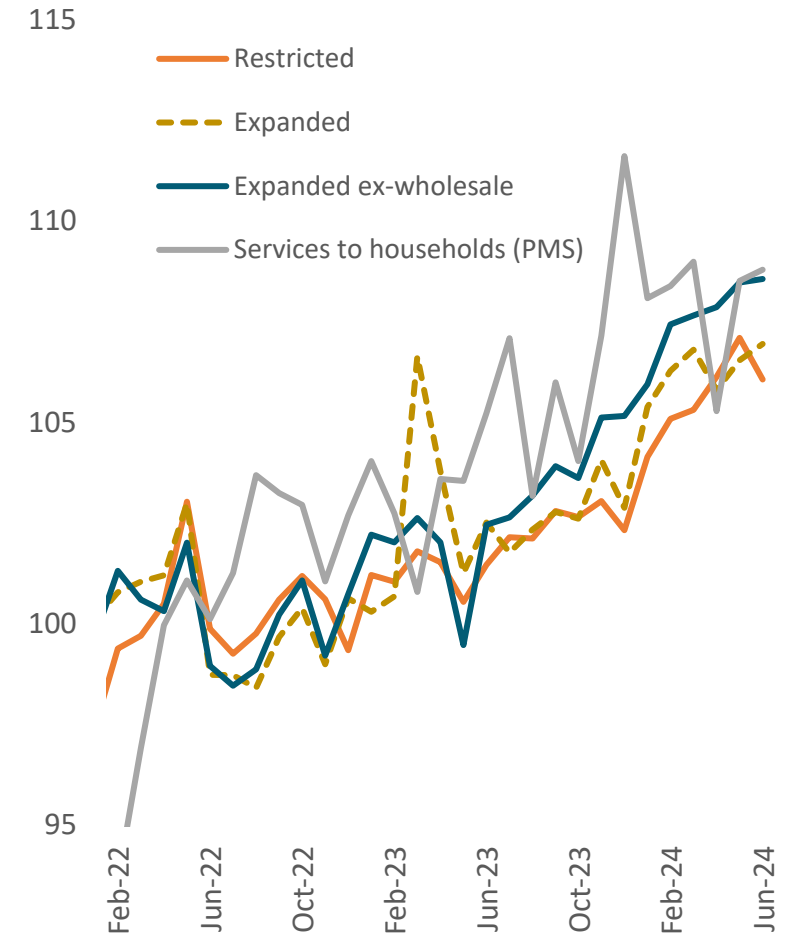
GDP expectations (median,%*)



IBC-Br activity index* (Feb/2020=100, seasonally adjusted)



Retail and services to households (PMC and PMS, 2022=100, s.a.)



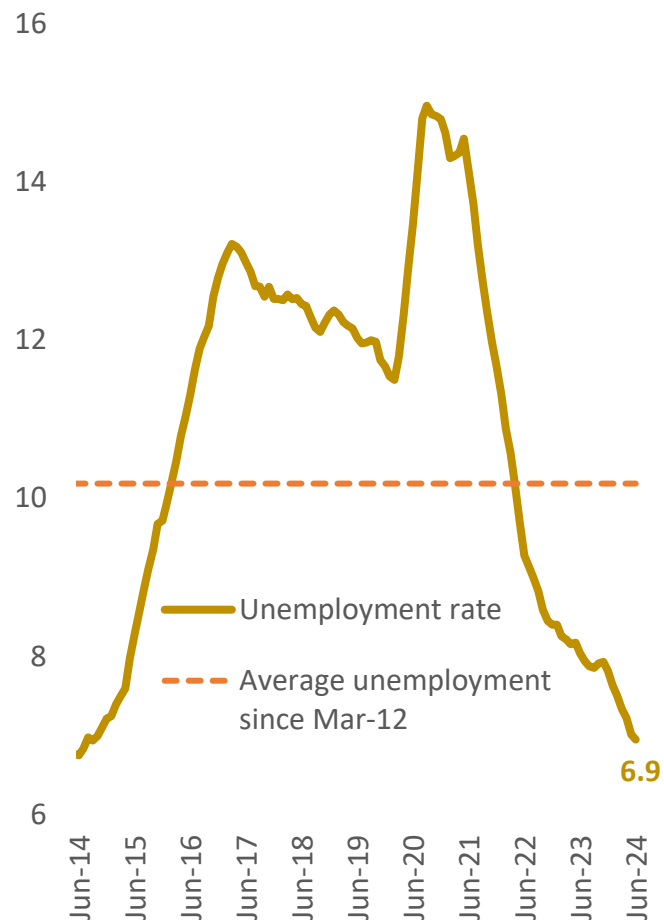
Sources: IBGE, Focus.

* Updated until Aug 9, 2024

Indicators of economic activity and labor market keep showing greater dynamism than expected.

Unemployment rate

(quarterly, %, s.a.)



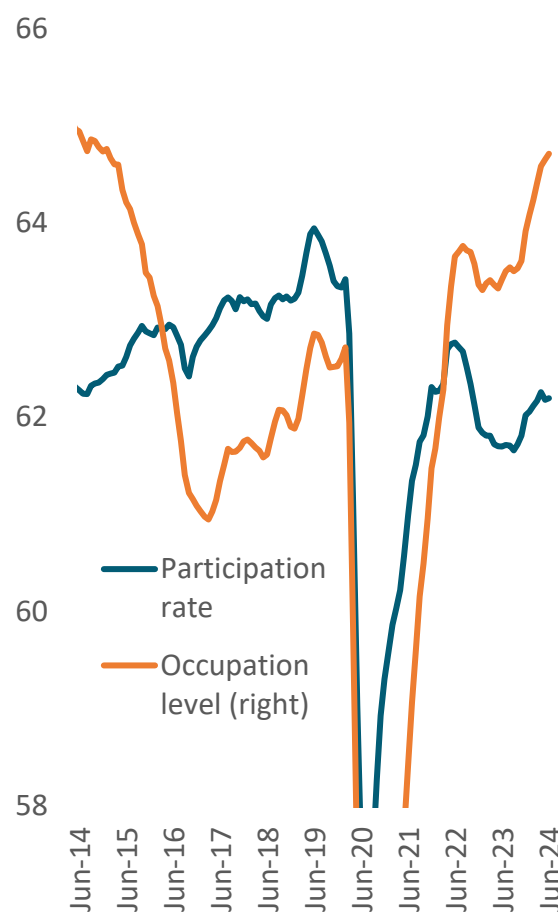
Unemployment rate and market forecasts

(%)



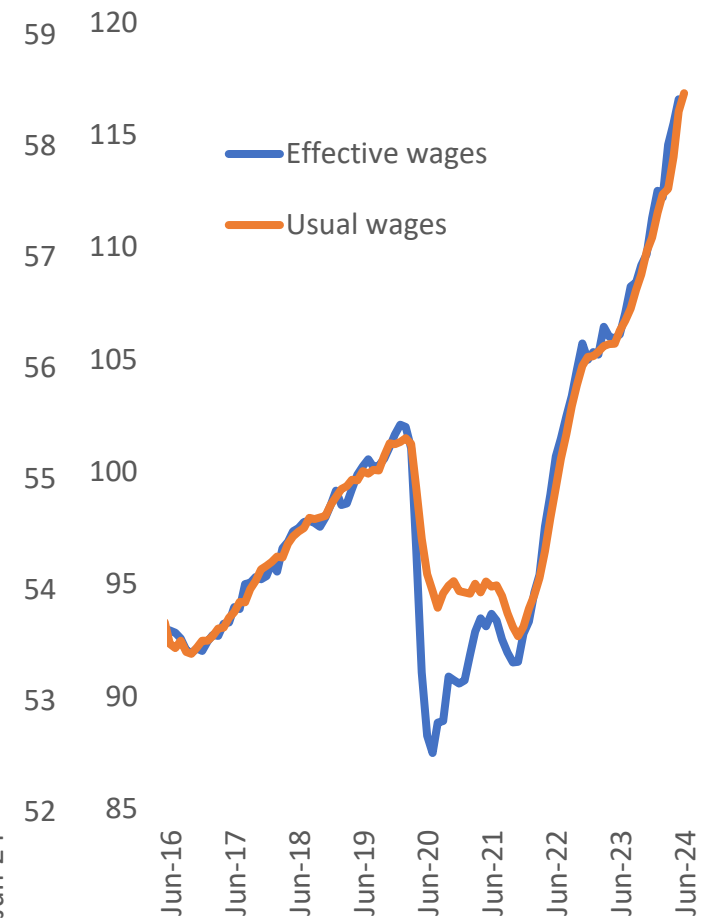
Participation rate and occupation level

(quarterly, %, s.a.)



Aggregate real earnings

(2019 = 100 quarterly, s.a.)

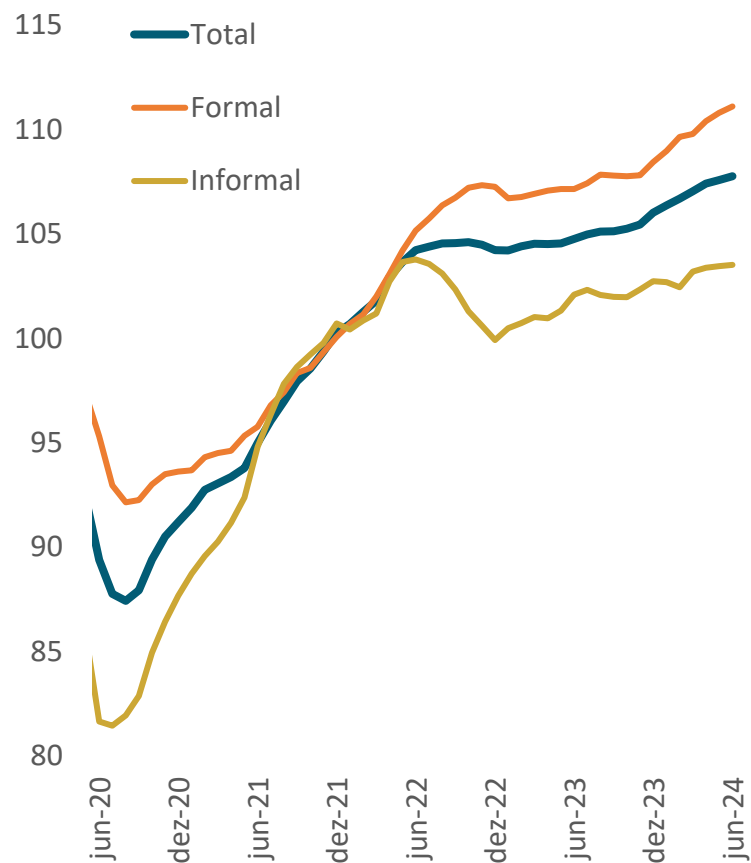


Sources: IBGE, MTE.

Over the last months, formal employment has grown more rapidly.

Formal/informal employment

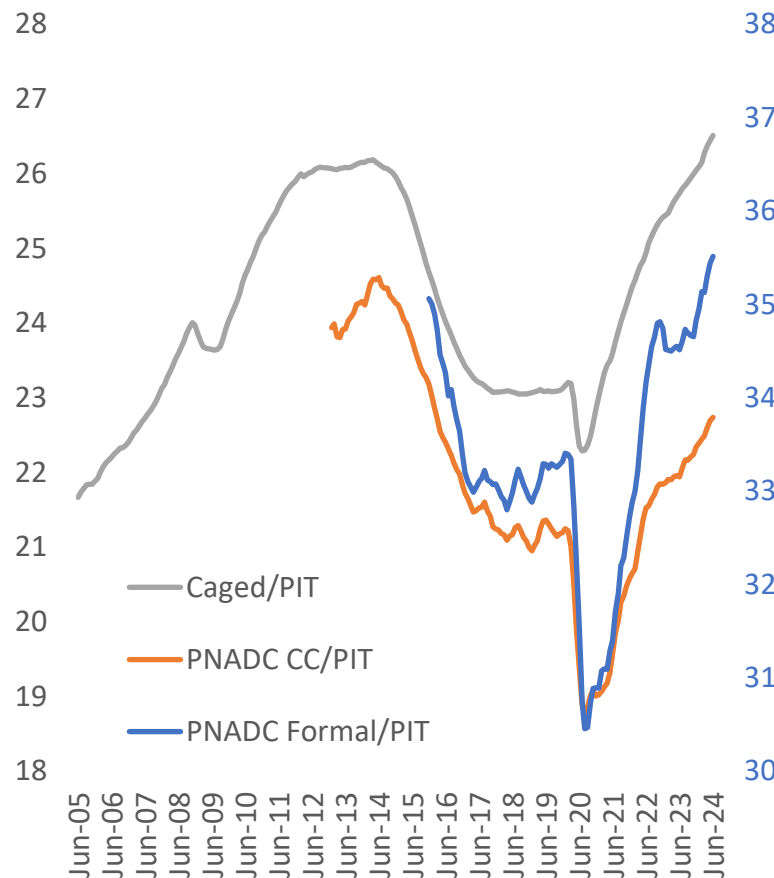
(Dec-19=100, 3-m.m.a., s.a.)



Sources: IBGE, MTE.

Formal employment/PIT*

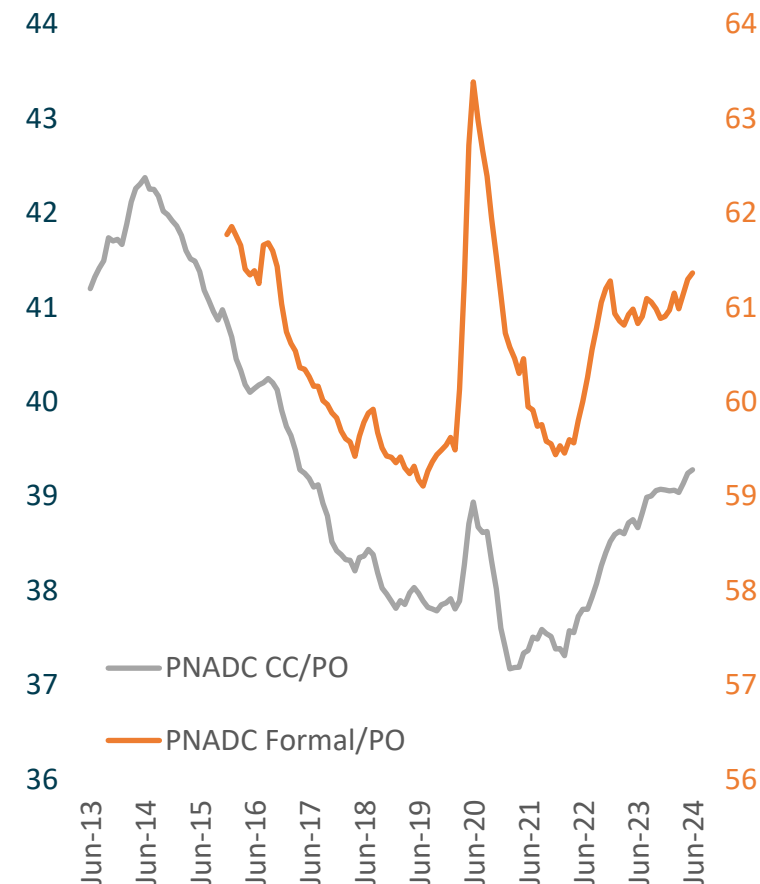
(%, 3-m.m.a., s.a.)



* PIT: working-age population

Formal employment/PO**

(%, 3-m.m.a., s.a.)



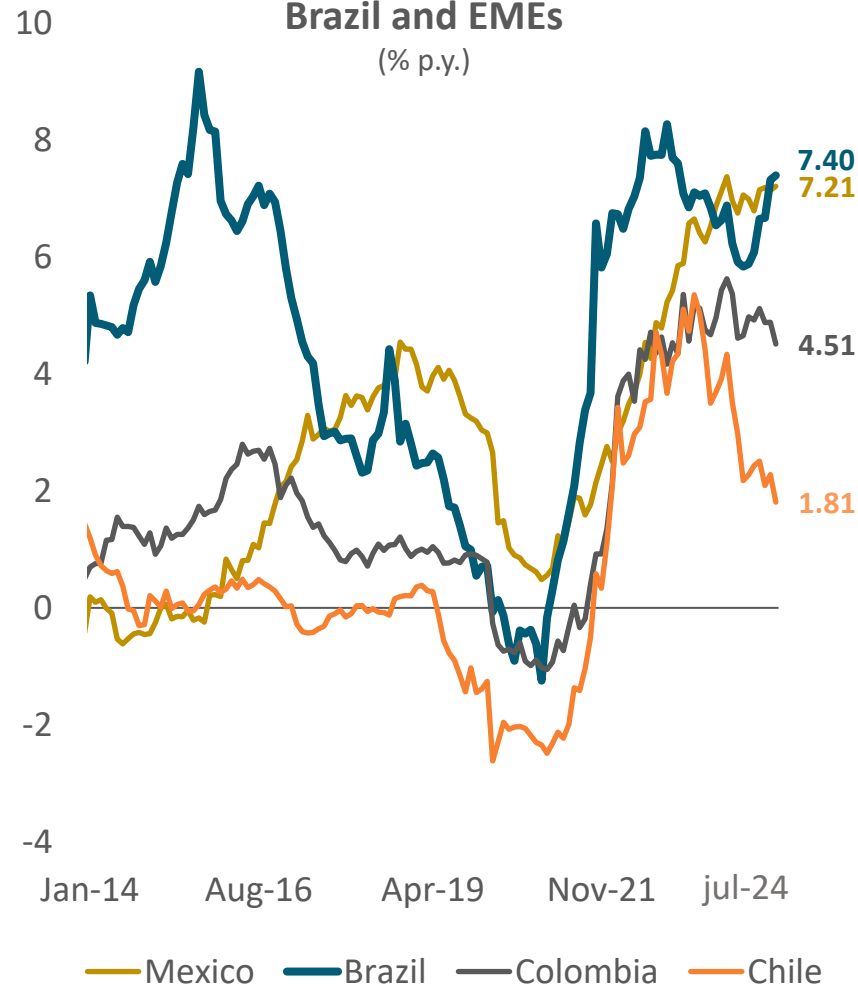
** PO: employed population

264th Copom meeting – July 2024

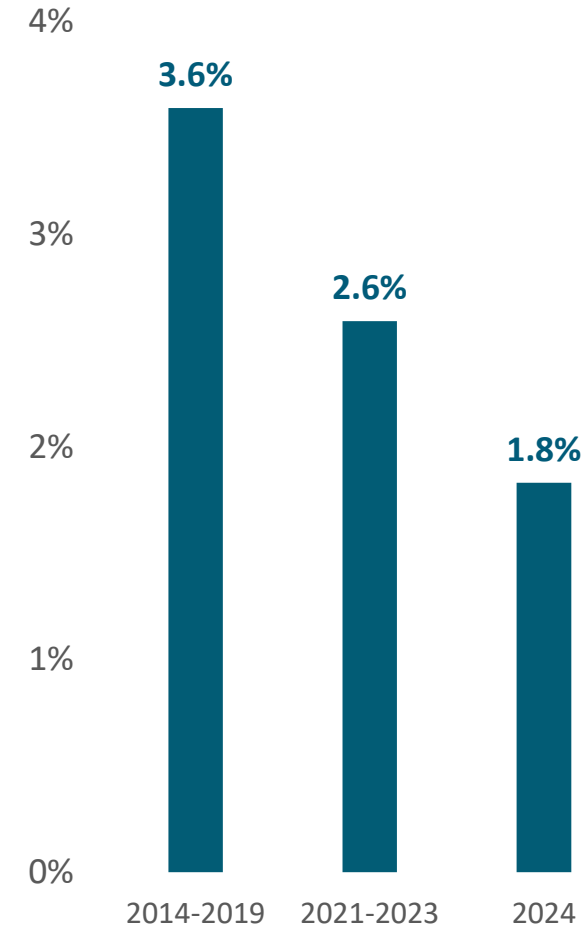
- Considering the evolution of the disinflationary process, the assessed scenarios, the balance of risks, and the broad array of available information, Copom decided to maintain the Selic rate at 10.50% p.a. and judges that this decision is consistent with the strategy for inflation convergence to a level around its target throughout the relevant horizon for monetary policy.
- The current context, characterized by a stage in which the disinflationary process tends to be slower, further deanchoring of inflation expectations, and a challenging global outlook, requires serenity and moderation in the conduct of monetary policy.
- The Committee unanimously decided to keep the interest rates unchanged, highlighting that the uncertain global scenario and the domestic scenario, marked by resilient economic activity, an increase in its own inflation projections and deanchored expectations, require diligent monitoring and even greater caution.
- The Committee also stresses that monetary policy should continue being contractionary for sufficient time at a level that consolidates both the disinflation process and the anchoring of expectations around the target.
- The Committee will remain vigilant and reminds that potential future changes in the interest rate will be determined by the firm commitment of reaching the inflation target.

Over time, Brazilian real interest rate has decreased, more than its peers.

**Ex-ante real interest rate:
Brazil and EMEs**
(% p.y.)

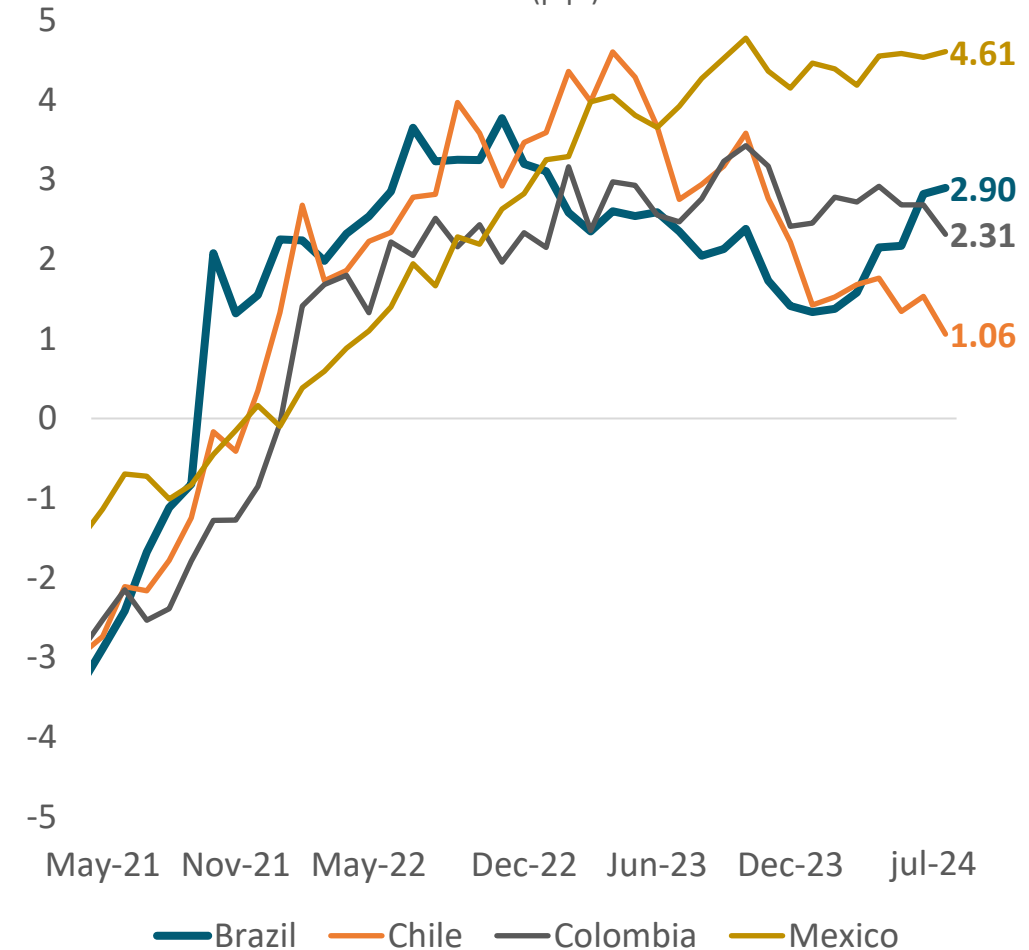


**Ex-ante real interest rate: difference
between Brazil and average of peers***



*Chile, Colombia and Mexico.

**Monetary effort: 1-year real interest rate
minus real neutral rate**
(p.p.)

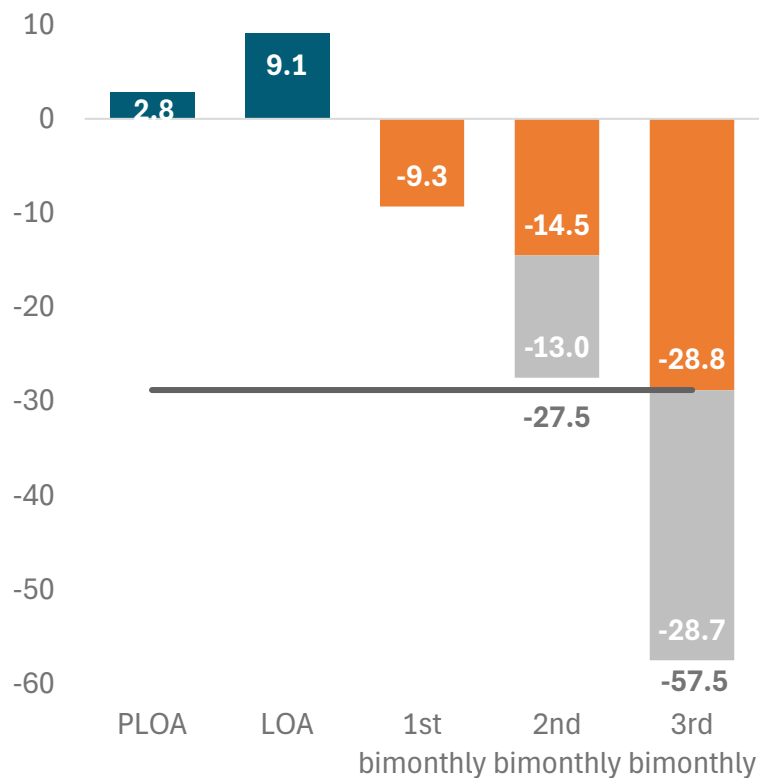


Sources: Bloomberg, central banks, BCB.

National Treasury forecast for 2024

primary result

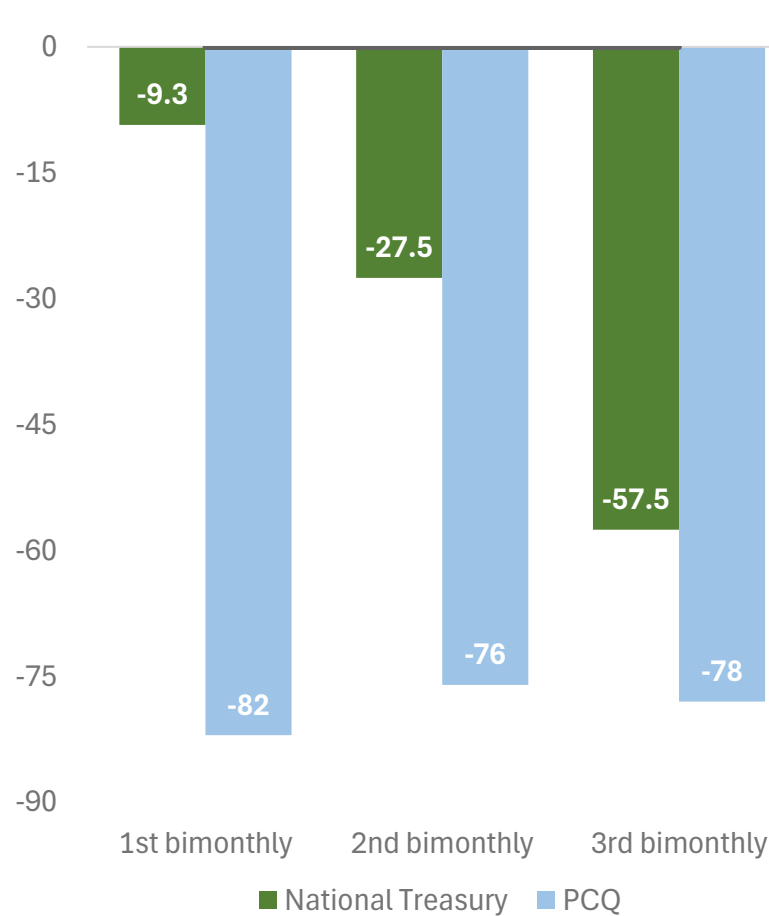
(R\$ billions, RARDP)



Treasury and market forecasts for

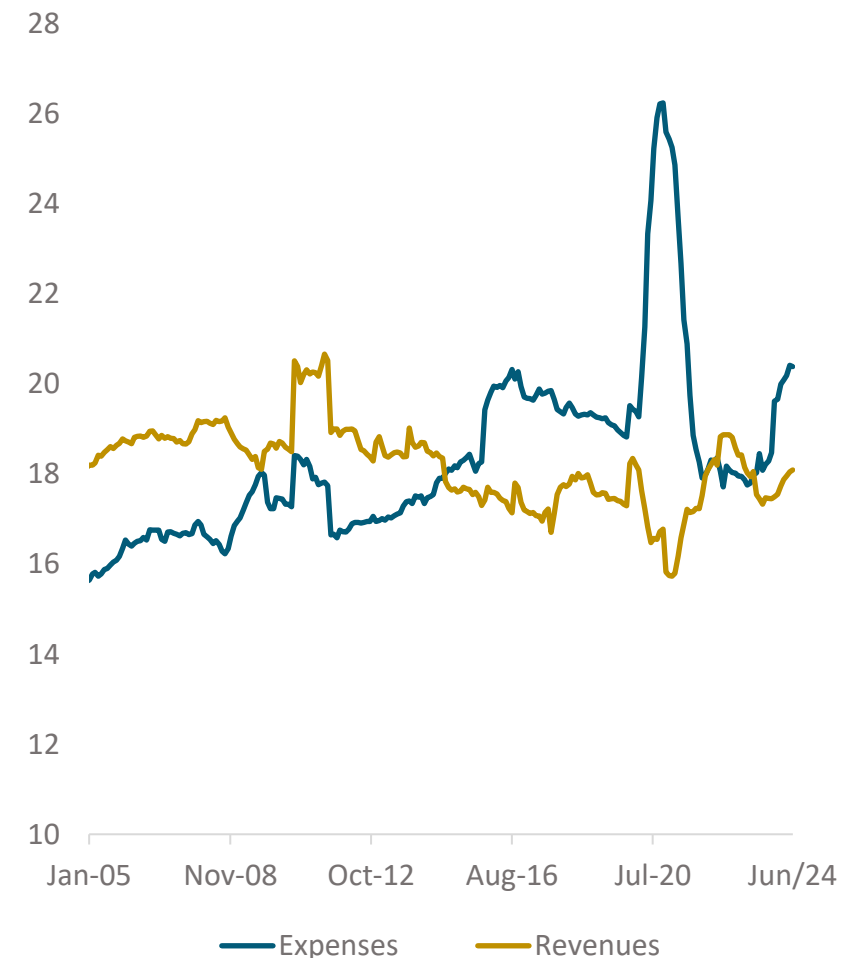
2024 primary result

(R\$ billions)



Revenues and expenses evolution

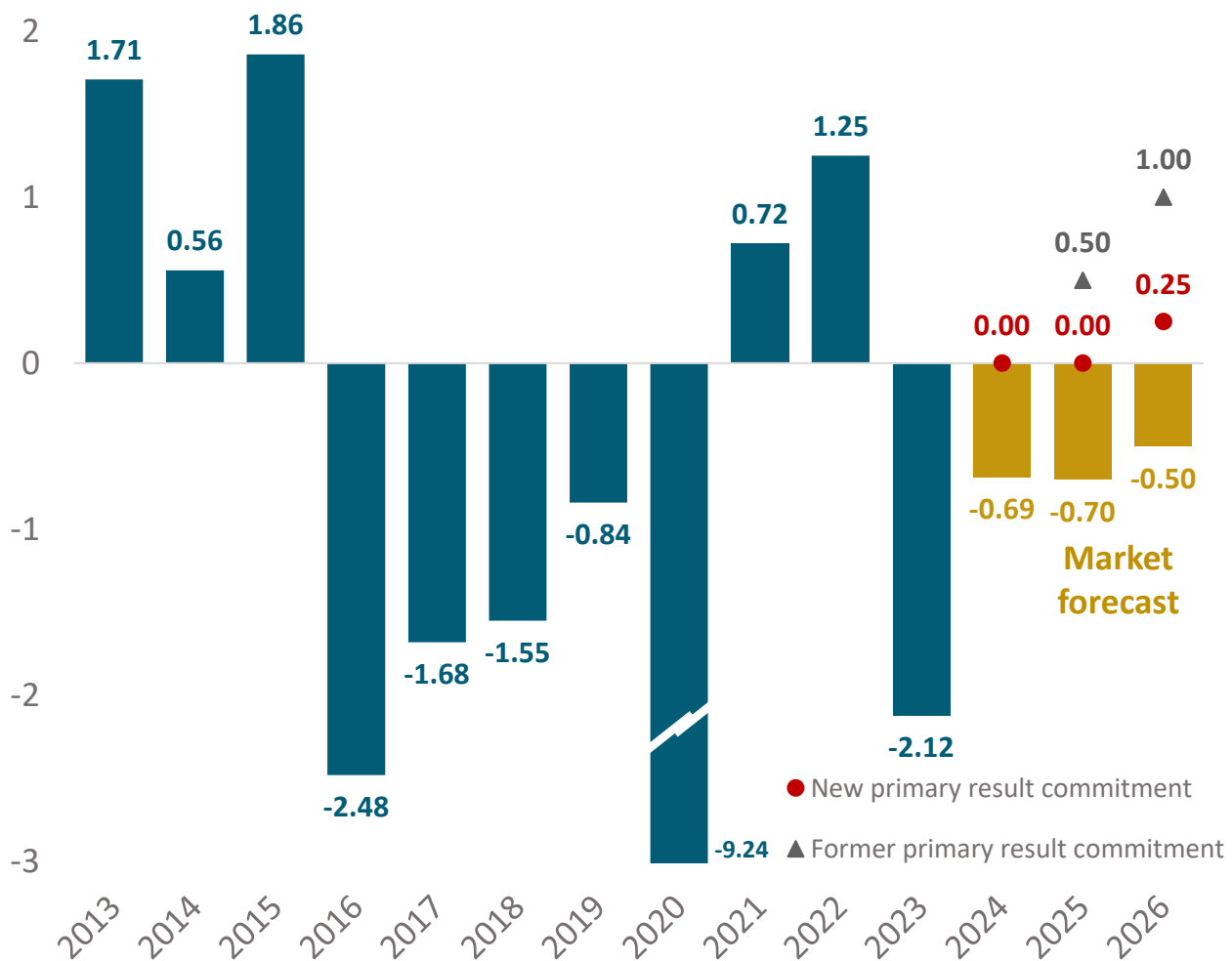
(12 months accumulated, % of GDP)



Sources: BCB, STN (RARDP) and 2025 PLDO.

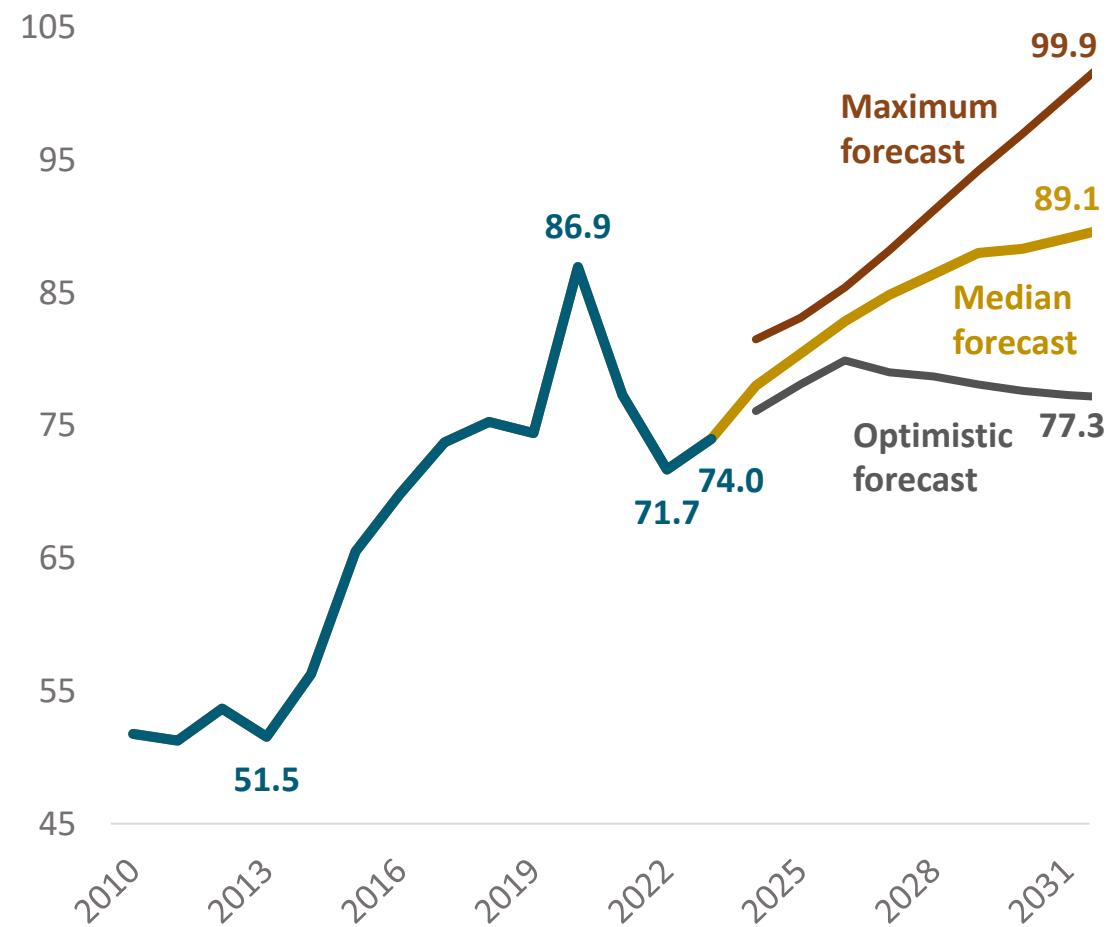
Consolidated public sector primary result

(% GDP, several years and forecast, Focus* median)



Evolution of GGGD/GDP

(%, several years, Focus* median)

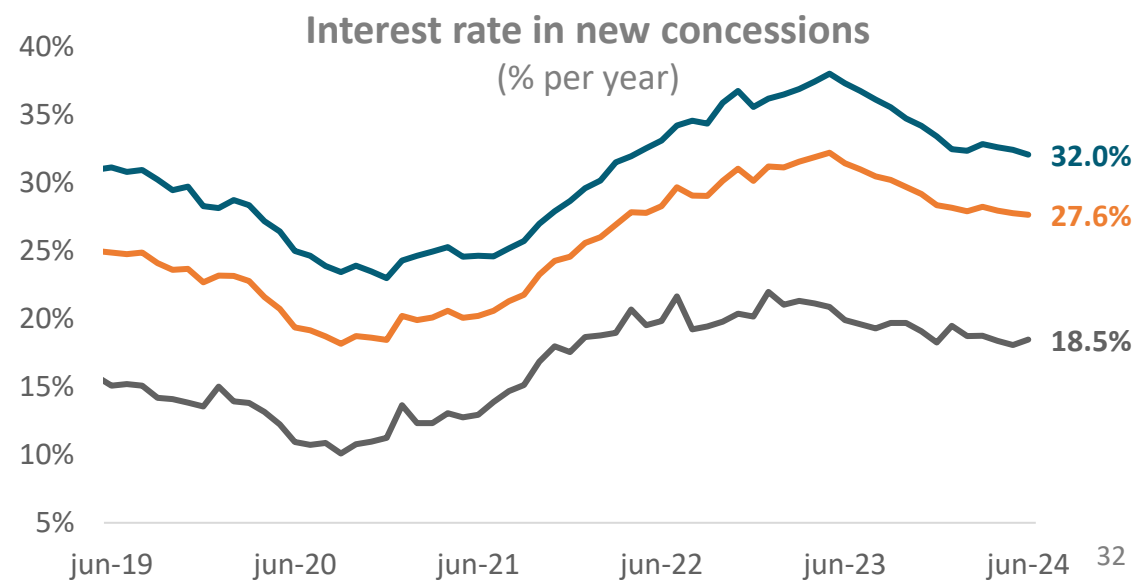
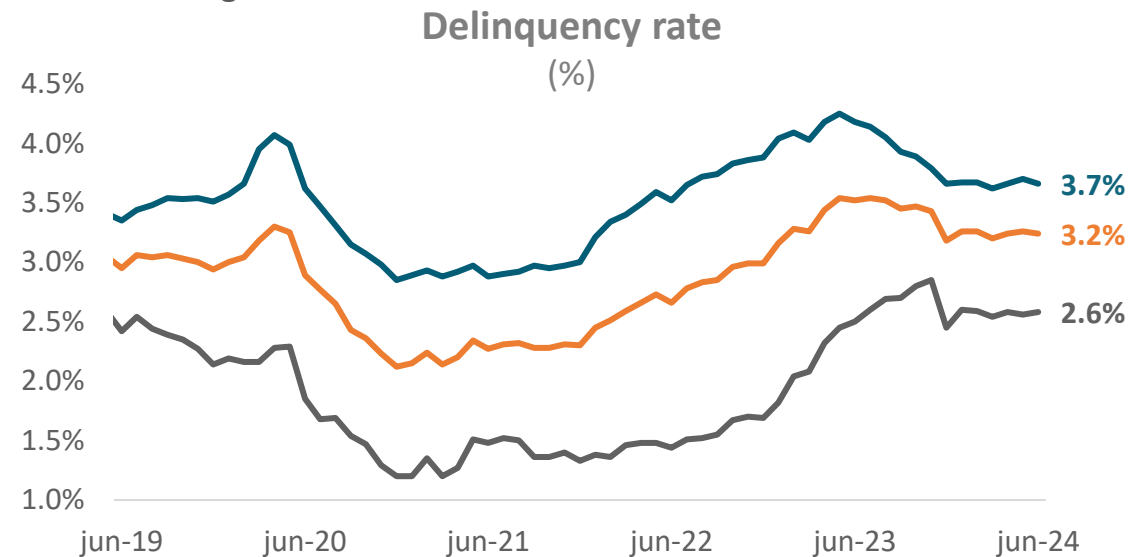
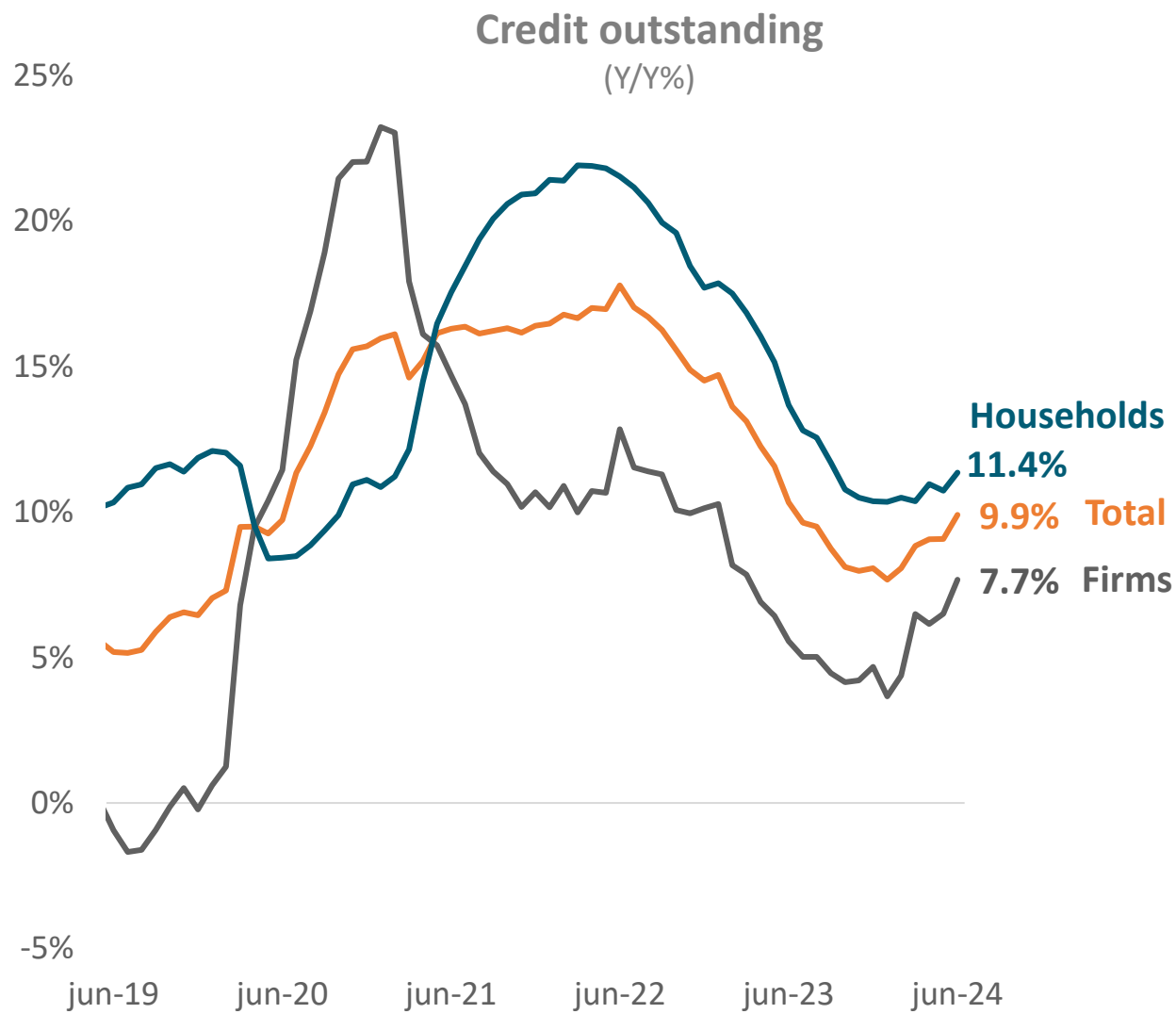


* Updated until 08/09/2024

Sources: BCB (Focus Report e QPC), STN (RARDP) and 2025 PLDO.

* Updated until 08/09/2024

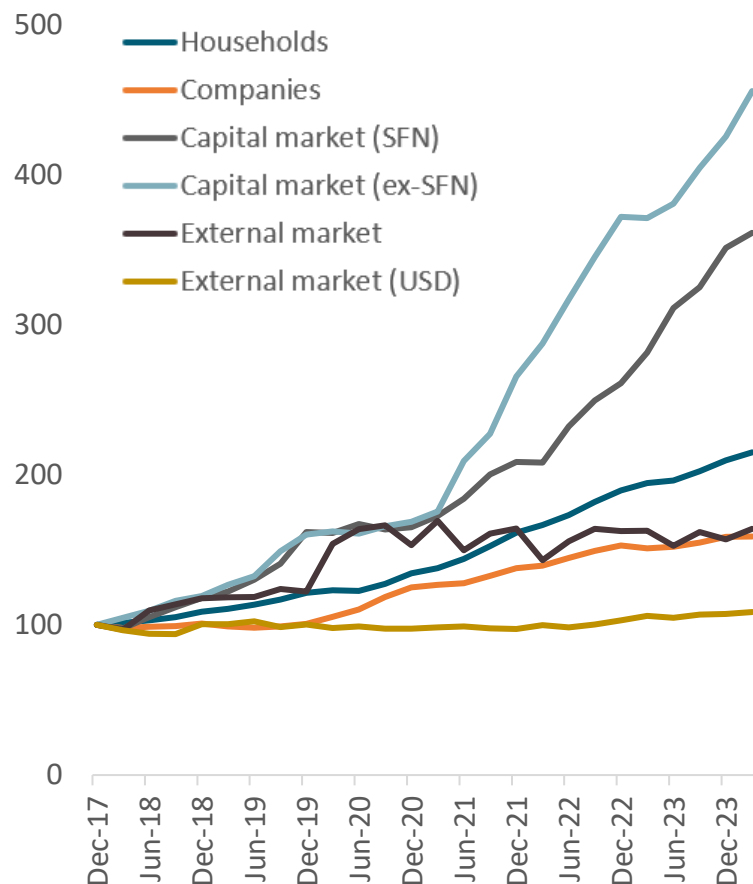
The credit cycle remains benign, with expansion in volume and reduction in rates in most categories.



Capital market issuances remain strong.

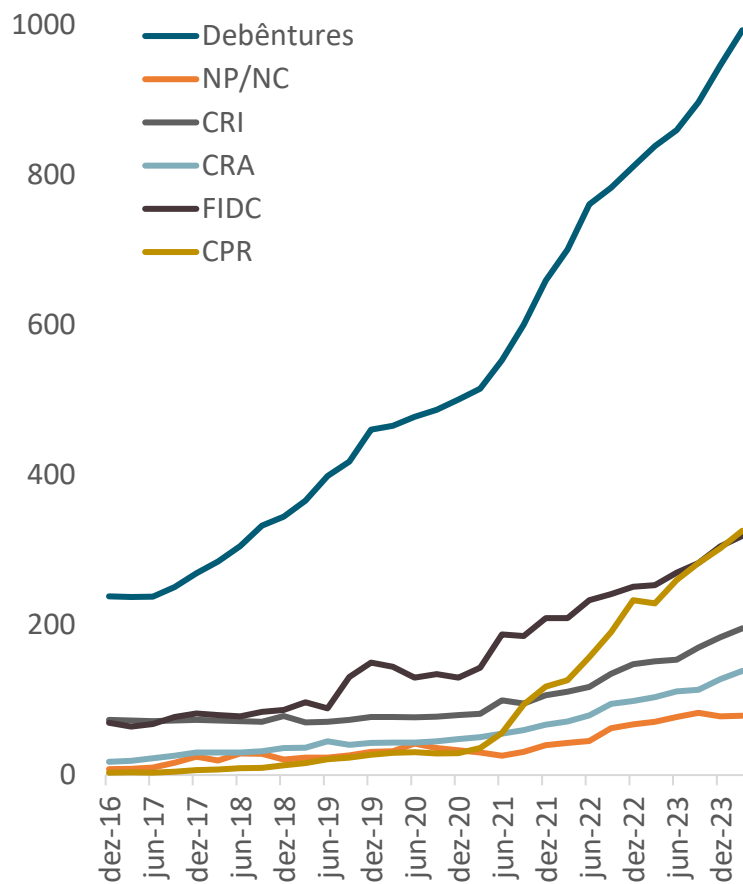
Total credit

(Dec-17 = 100)



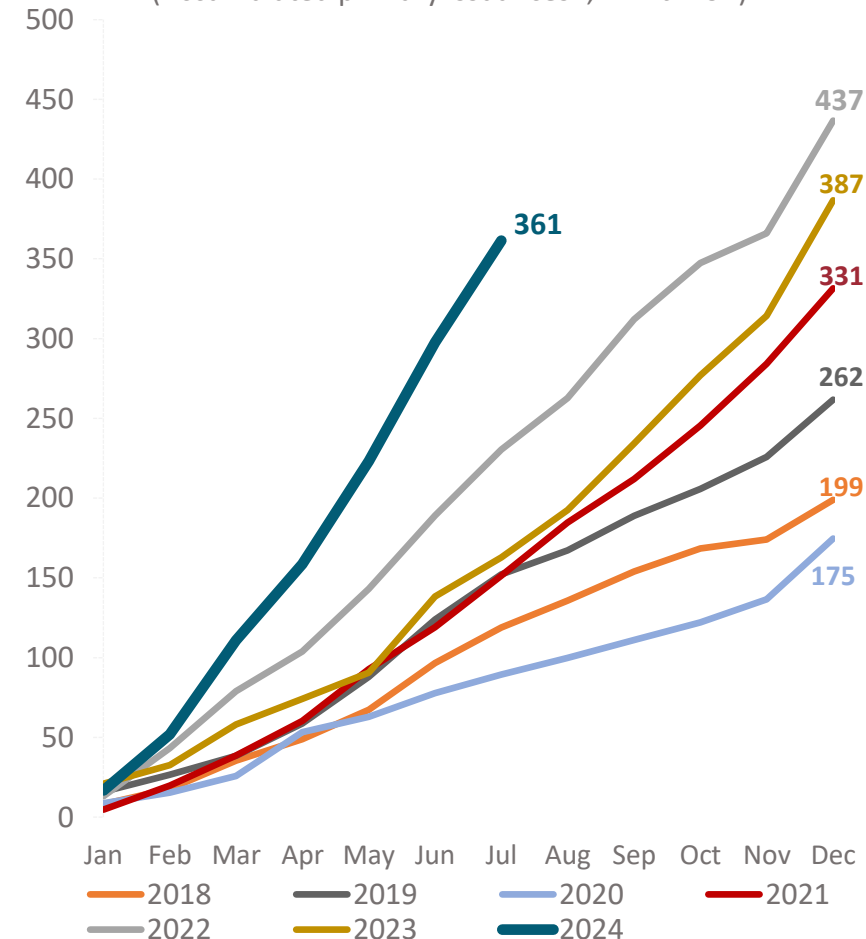
Capital markets

(credit outstanding, BRL billion)



Capital markets

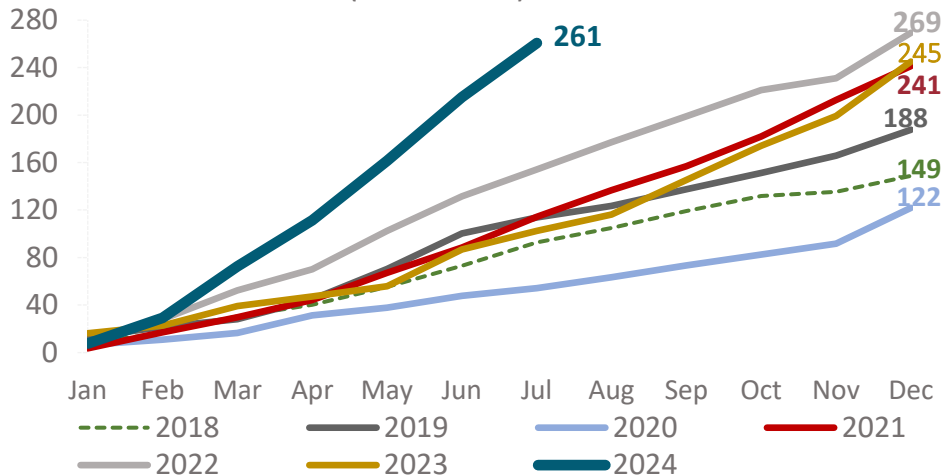
(Accumulated primary issuances*, BRL billion)



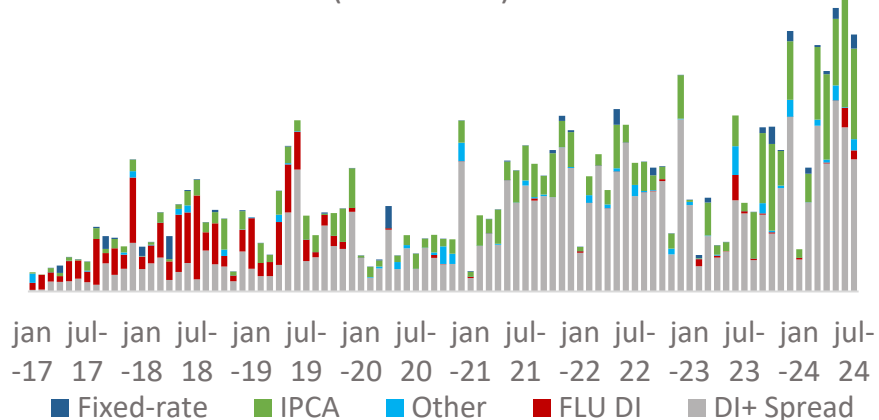
*Includes debentures, NC, CRI and CRA

Capital market issuances remain strong.

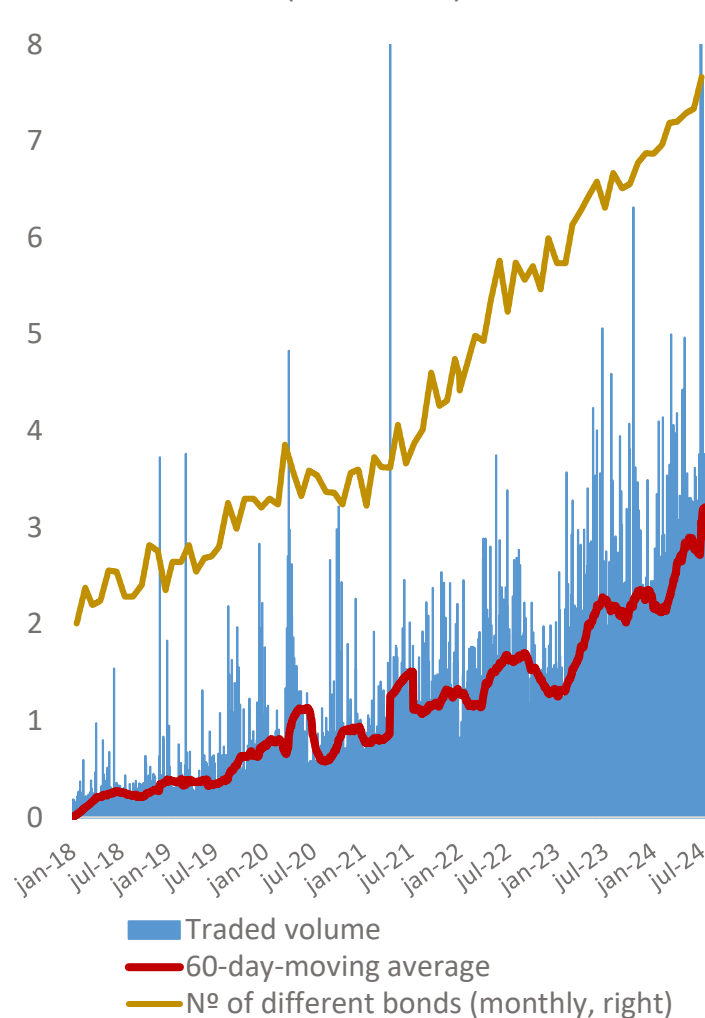
Accumulated primary issuances (BRL billion)



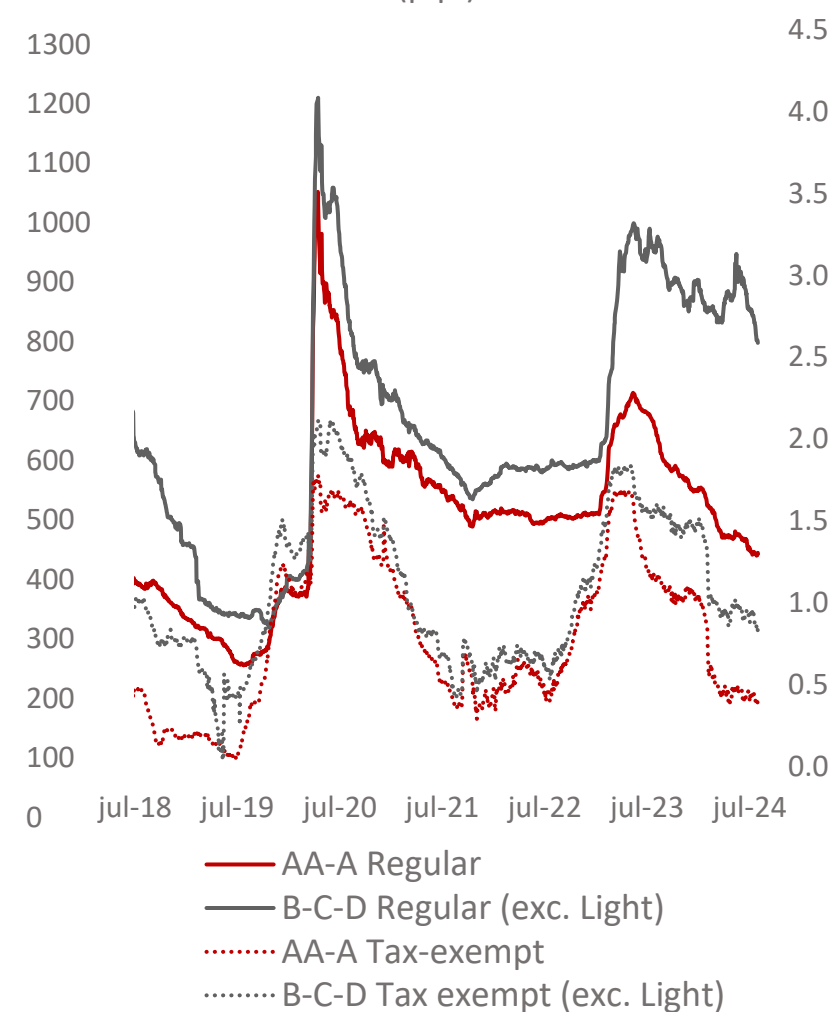
Issuances by type of index (BRL billion)



Secondary market – daily volume (BRL billion)



Daily spreads (p.p.)



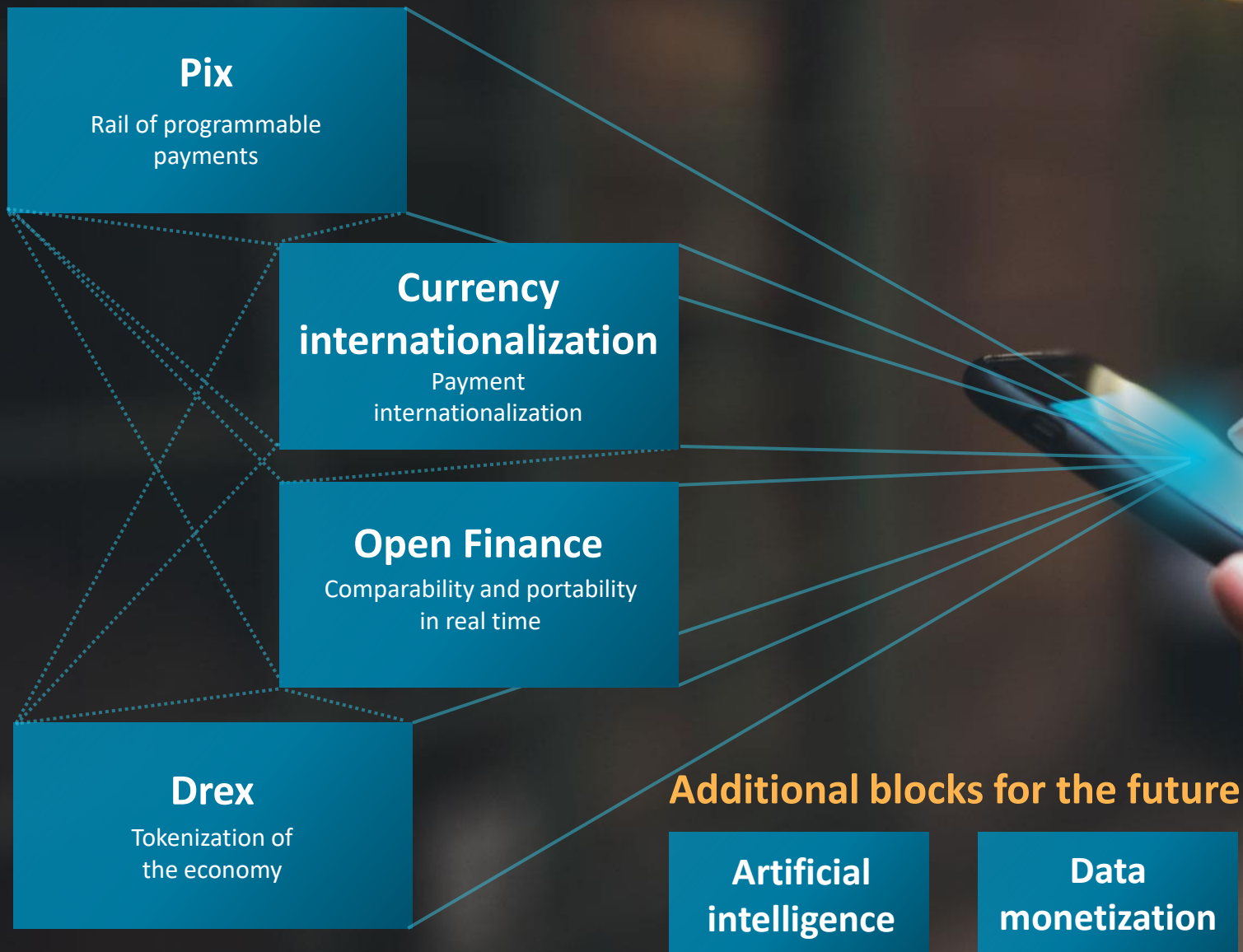
Sources: B3 and ANBIMA.

Technology Agenda

Design of the financial system
of the future

An integrated agenda

The four fundamental blocks



Pix gains space and increases its popularity



Pix growth promotes financial inclusion and enables small businesses

Pix growth

778.4 million

active Pix's keys.

152 million people and
14.8 million companies
use Pix.



224.2 million
operations in one
day

5.4 billion transactions in
Jul/24, against **3.5 billion** in
Jul/23, **increase of 53%**.

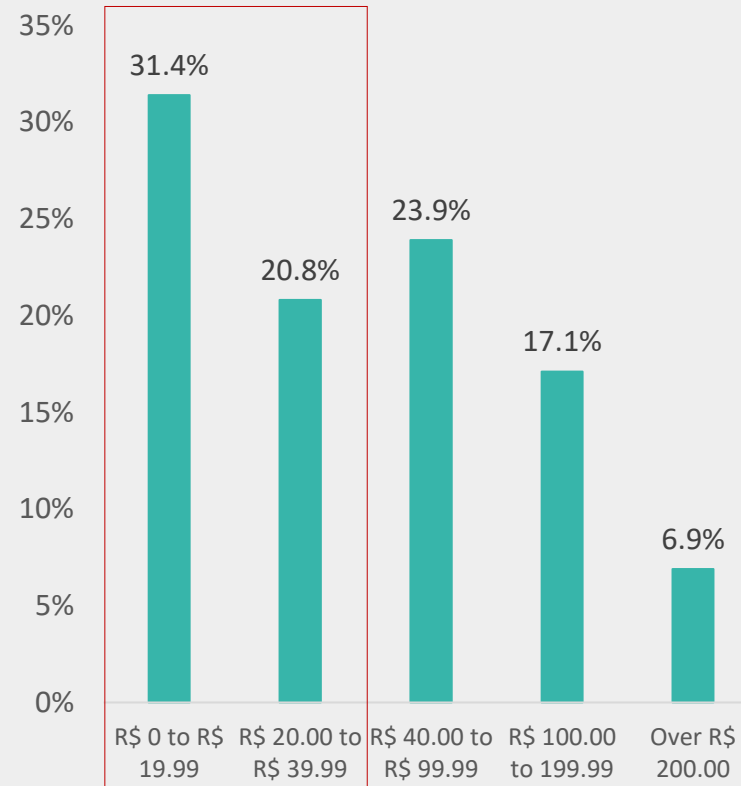
Sources: BCB, BIS.

Pix and financial inclusion

▪ **71.5 million** new users included with Pix.*

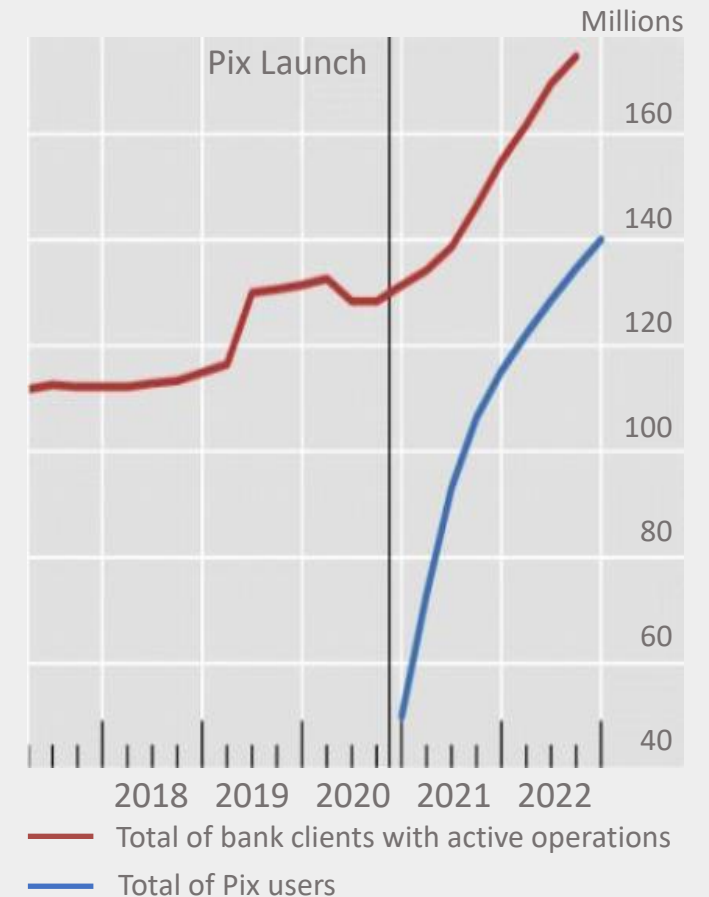
Transactions by value range

(Only natural persons payers – Nov/20 until Dec/22)



* Considering users who did not use TED in the 12 months prior to the launch of Pix and became PIX users.

Pix users vs. Bank clients



Currency internationalization

- **Connection of digital currencies.**
 - There will be real time transactions with low cost.
- **Three challenges for the connection of international payments systems:**
 - **Technology**
 - Connection between DLT and centralized systems (solved)
 - **Settlements**
 - Liquidity token pool (solved)
 - **Governance**
 - Taxonomy (minimal rules for cross-border payments)
 - We need to advance on the topic



Benefits already achieved:

- Greater efficiency in processes.
- More customized products and services.
- Easier credit and salary portability.
- More convenient and programmable transfers.
- Reduced interest payments for overdraft users.
- Financial aggregators and managers for individuals and companies.
- Easier customer onboarding.

Examples of benefits of Open Finance:

reports from participant institutions

Overdraft facility:

- R\$ 8 million in savings from paying overdraft interest at another financial institution in the first twelve months (a fintech).

More efficiency in credit operations:

- R\$ 2.5 million in personal loan through lower rates (a traditional bank).
- Credit card offered to 1.3 million clients, who did not have access to the facility (a traditional bank).
- R\$ 1.2 billion credit via loan portability, with a 61% effectiveness gain during the process (a traditional bank).
- + R\$ 240 million in credit recovery (a traditional bank).
- Analysis of data shared via Open Finance already results in 80% of credit origination for new sellers (a fintech).
- R\$ 1 billion in credit origination (a fintech).

Improved financial management:

- + 9 million clients using management tools (a fintech).
- 4 million customers engaged in consolidated financial management, with 47 million accesses (a fintech).

Easier account opening process (onboarding):

- Reduction from 32 hours to 2h10m in the account opening process based on information obtained within the scope of Open Finance (a credit cooperative).
- 34% growth in account opening requests (a credit cooperative).

Better investment performance:

- R\$ 1.5 billion in more profitable investments for the client (a traditional bank).
- 2.6 million clients been notified that their idle funds on another institution could be earning interest (a fintech).

Benefits in three dimensions:

1. Banking efficiency

- To introduce the concept of tokenization
 - Risk management, collateral, financing, asset management, data analysis, settlement and products

2. Efficiency in digital payments

- Bridge to De-Fi environment
 - To bring decentralized finance into the regulatory perimeter
- Efficiency in financial intermediation

3. Efficiency in contracts and register



Objectives

- Development of the Drex platform
- Dialog with society on Drex development

Guidelines:

1. Multi-asset DLT - Hyperledger Besu
2. Simulated transactions
3. Asset fragmentation
4. Access to services through IFs and IPs

Testing Expansion:

- Governance: smart contracts, assets, business models
- Privacy: requirements of other business models

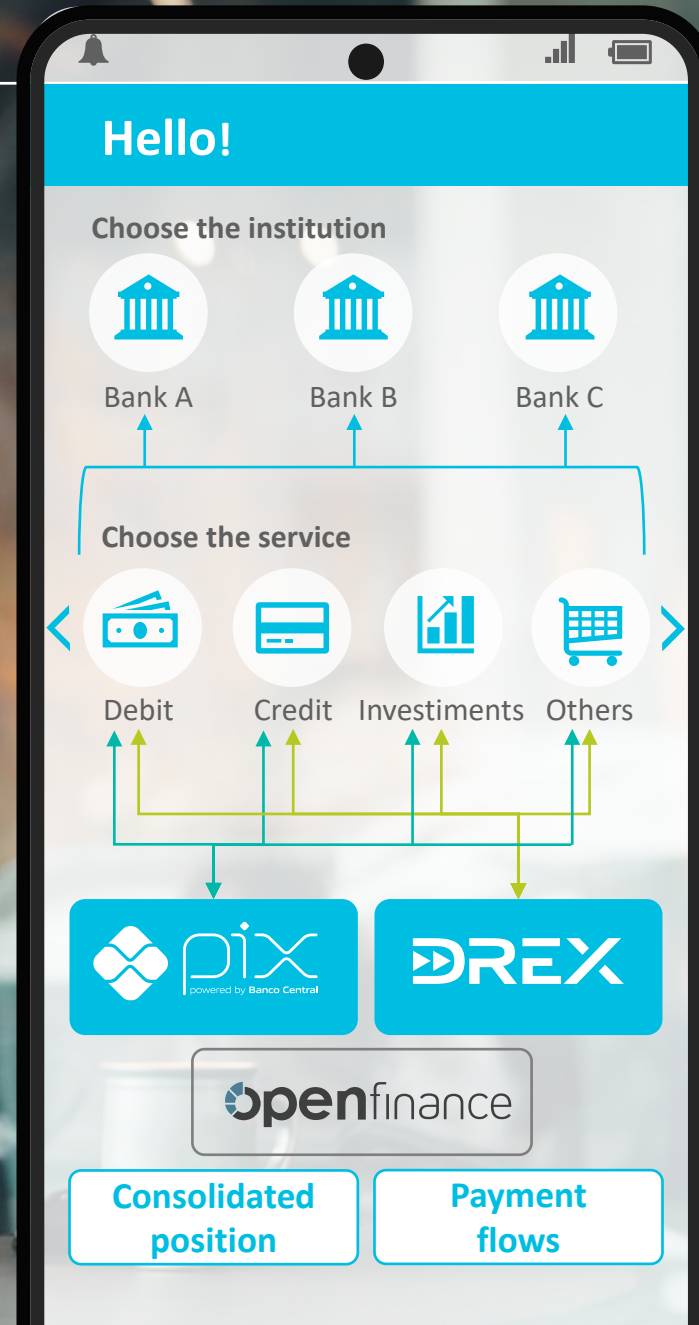
Business scope:

- Inclusion of new assets
 - Inclusion of the respective regulator, with governance over tests with its regulated assets and operators
- Expansion steps
 - 2024: Current Pilot participants, proposals for implementation in 2024Q3.
 - 2025: new bidders selected in 2024Q4.



Financial services aggregator

- Marketplace environment
- Competition by channel and for principality



Offline

Online

Data wallet

Thank you!

Roberto Campos Neto

Governor of Banco Central do Brasil

August 16th, 2024

