

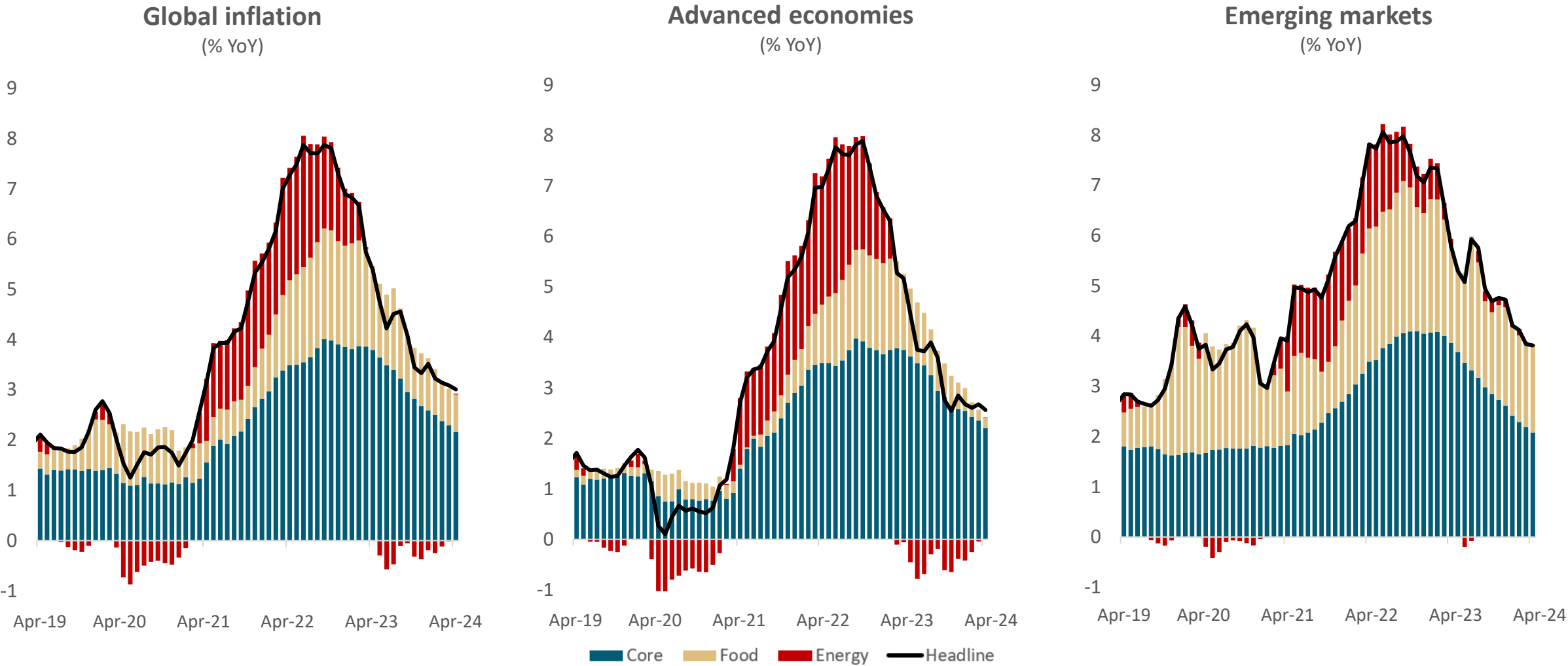
Webinar Constellation Asset Management

Economic Outlook and Agenda BC#

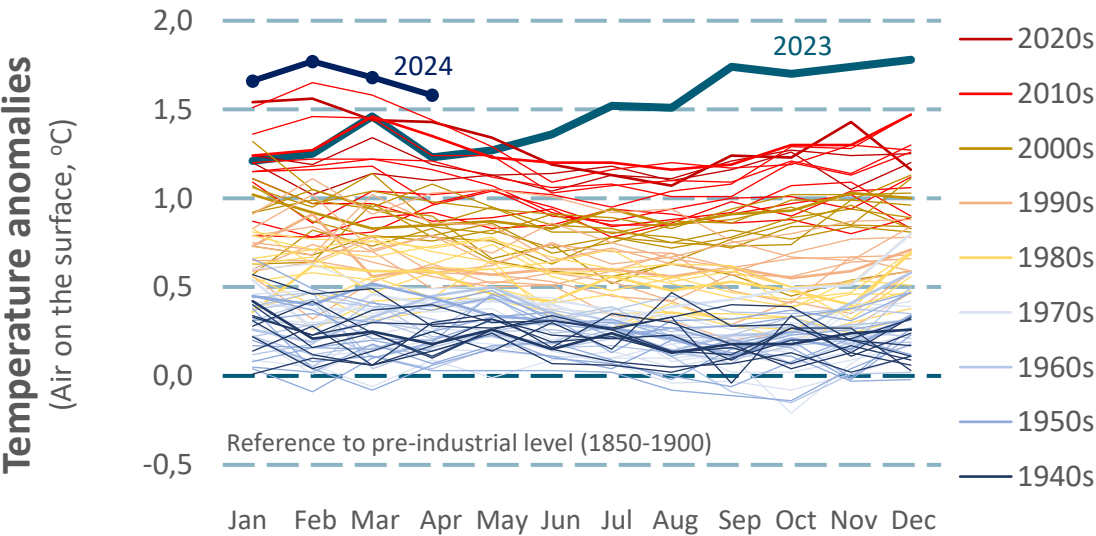
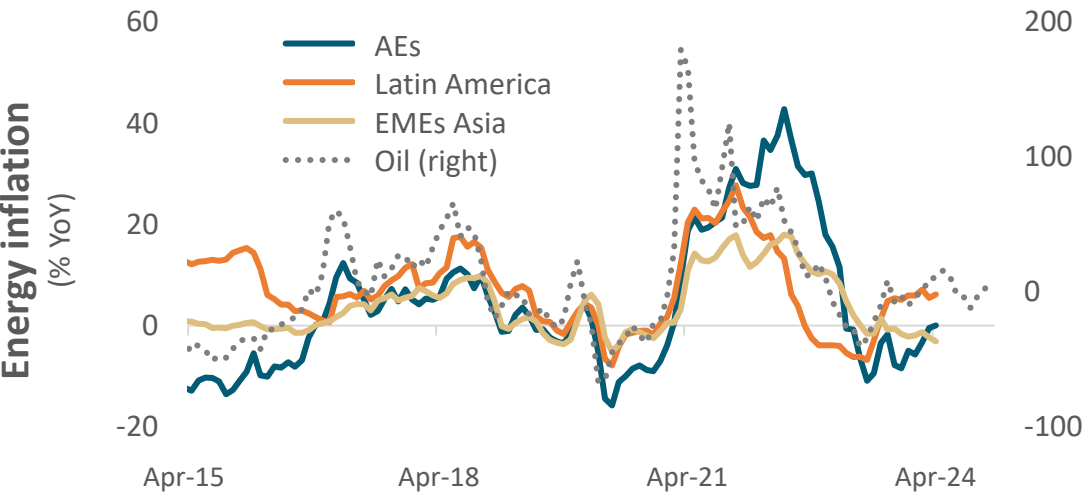
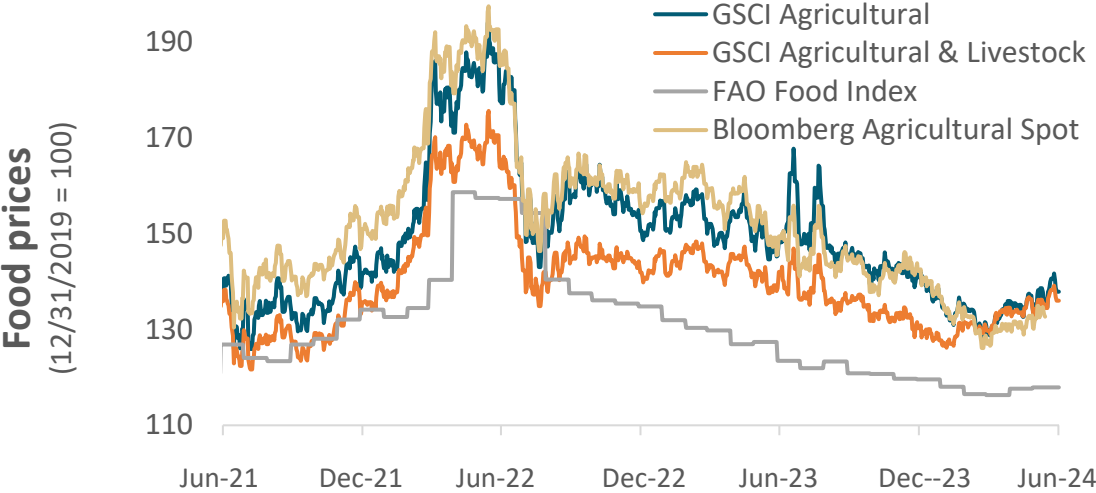
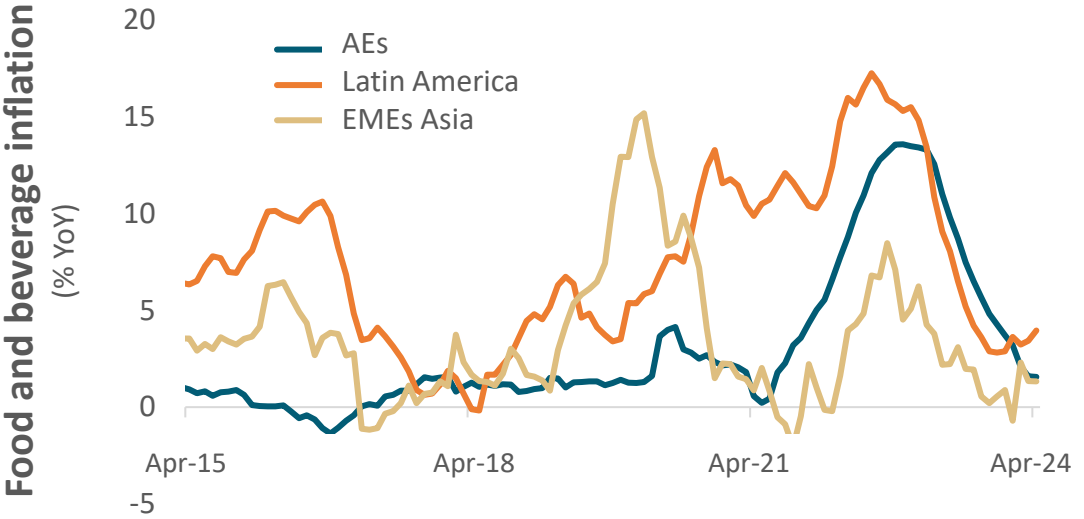
Roberto Campos Neto

Governor of the Banco Central do Brasil

High and persistent uncertainty regarding the speed at which inflation will fall in a sustained manner in several countries.



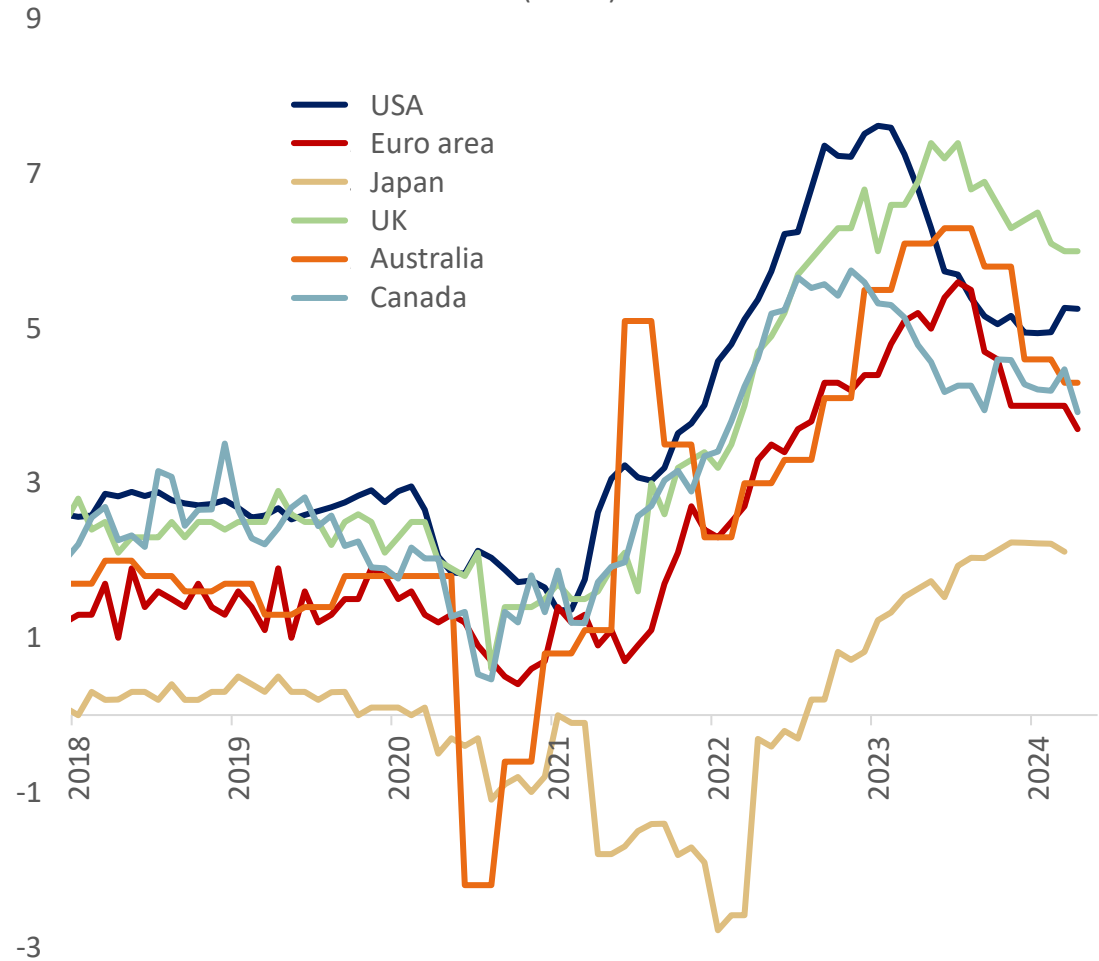
After a prolonged fall in food prices, new pressures threaten to interrupt the trend. Global warming raises risks.



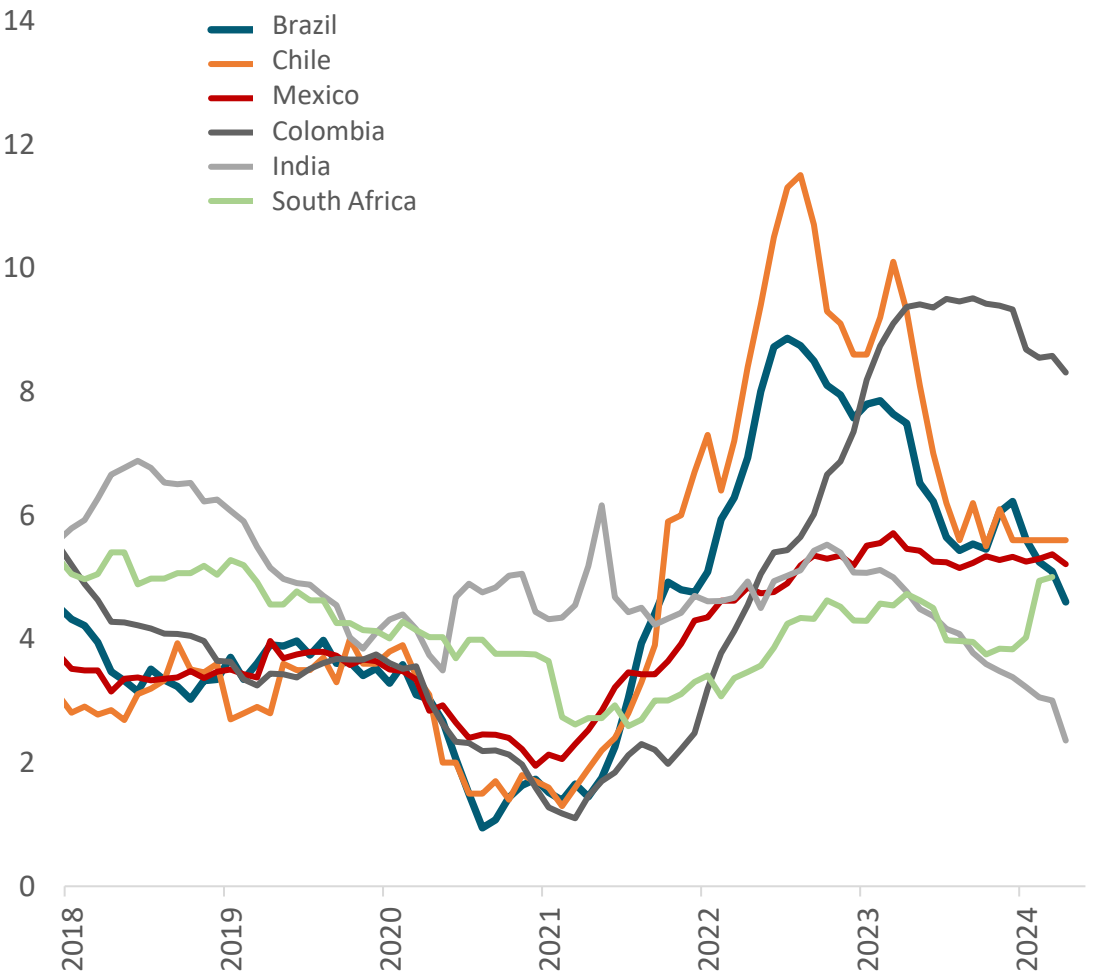
Sources: FAO, Bloomberg, Copernicus Climate Change Service.

Moderation in services disinflation.

AEs: Services inflation
(% YoY)



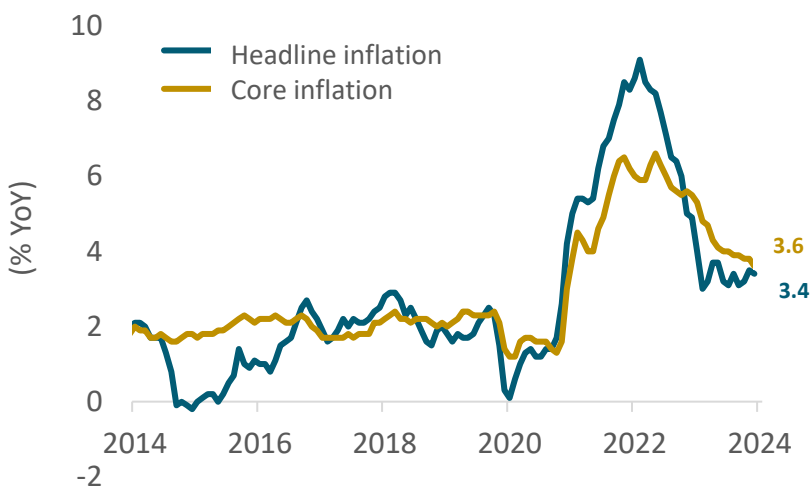
EMEs: Services inflation
(% YoY)



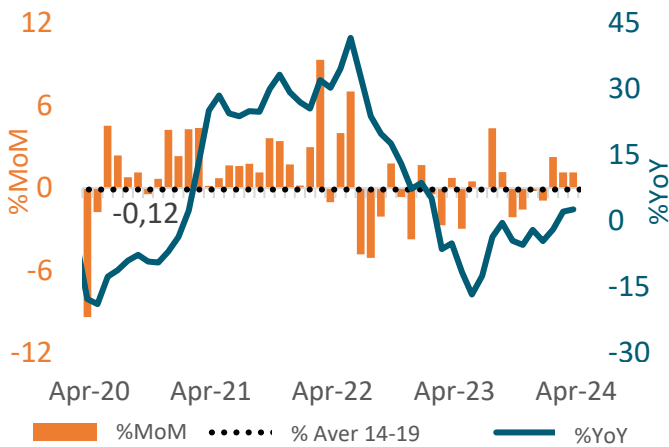
Sources: Bloomberg.

Inflation has been surprisingly high in recent readings. Services inflation remains resilient.

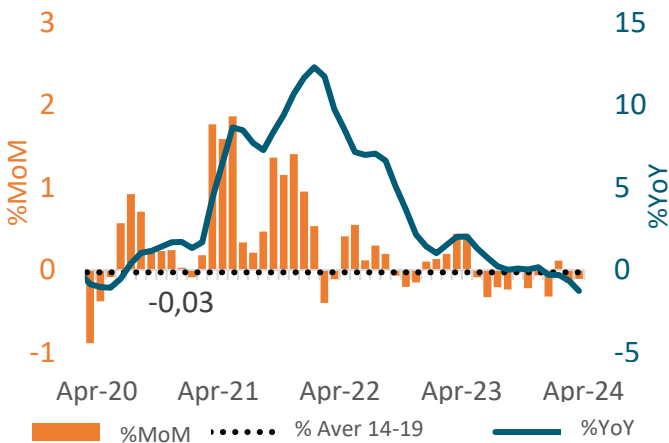
CPI: US headline and core



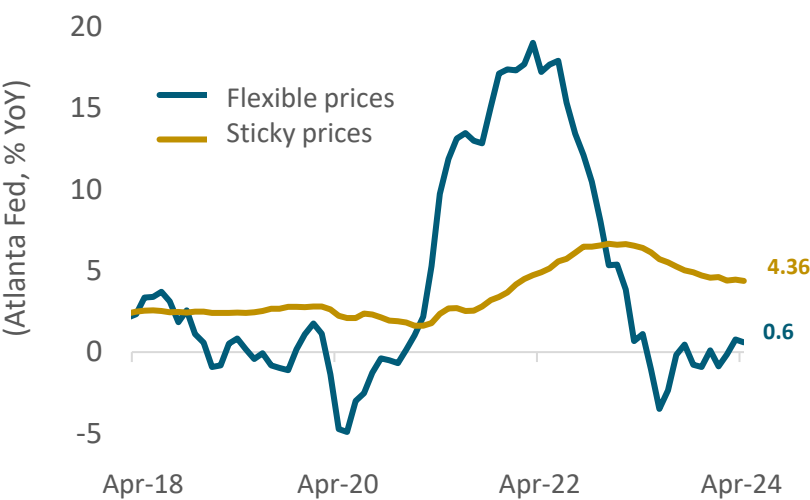
CPI US energy



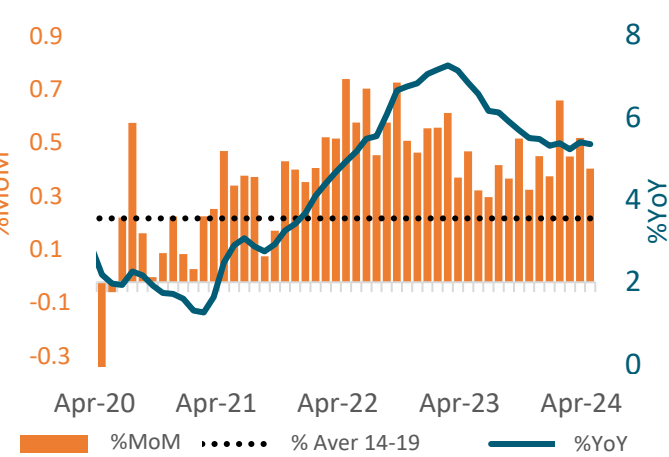
CPI US core goods



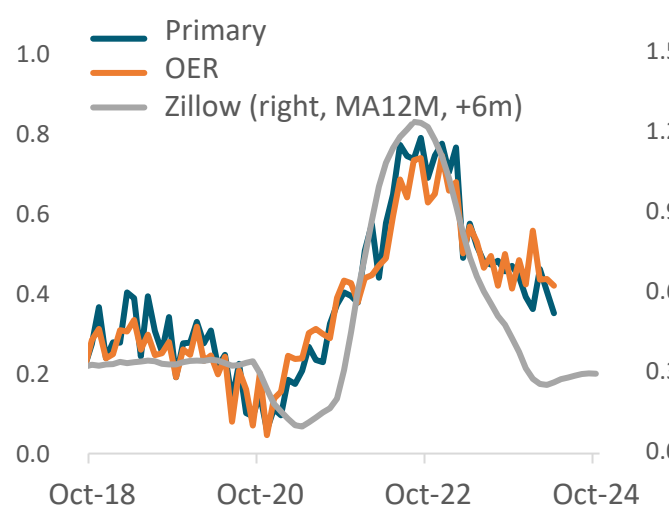
Rigid vs. Flexible Prices



CPI US core services

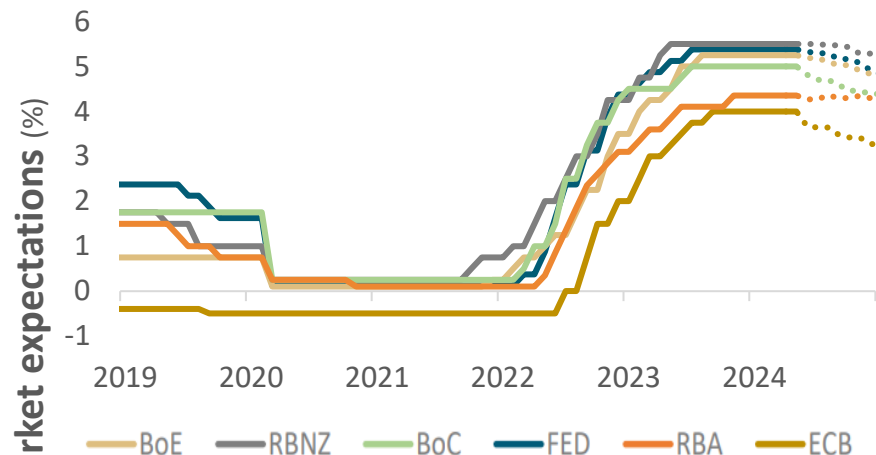


Rent CPI and Zillow index

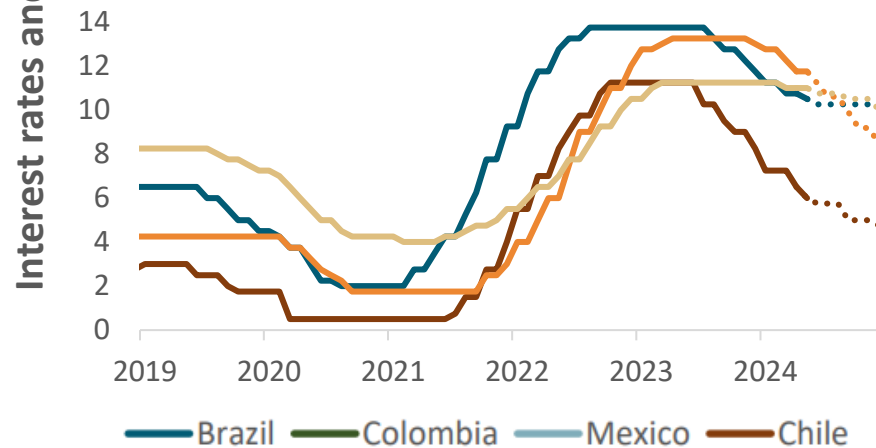


The global environment remains volatile, with higher uncertainty about the interest rate reduction cycle in AEs. Reduction in the number of expected cuts.

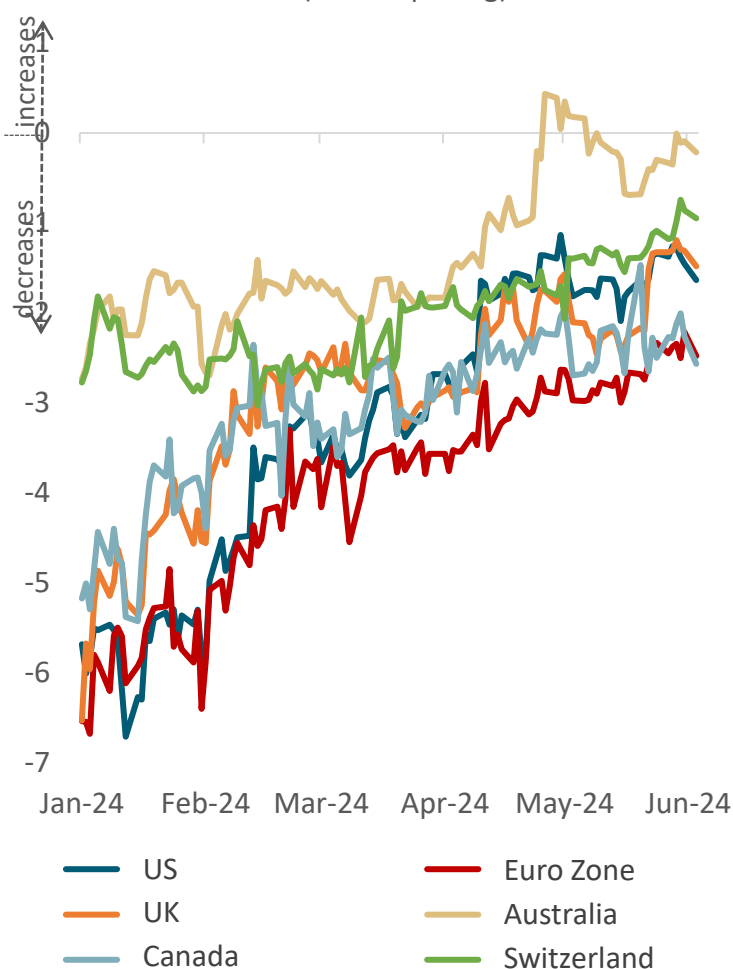
Advanced Economies



Latin America



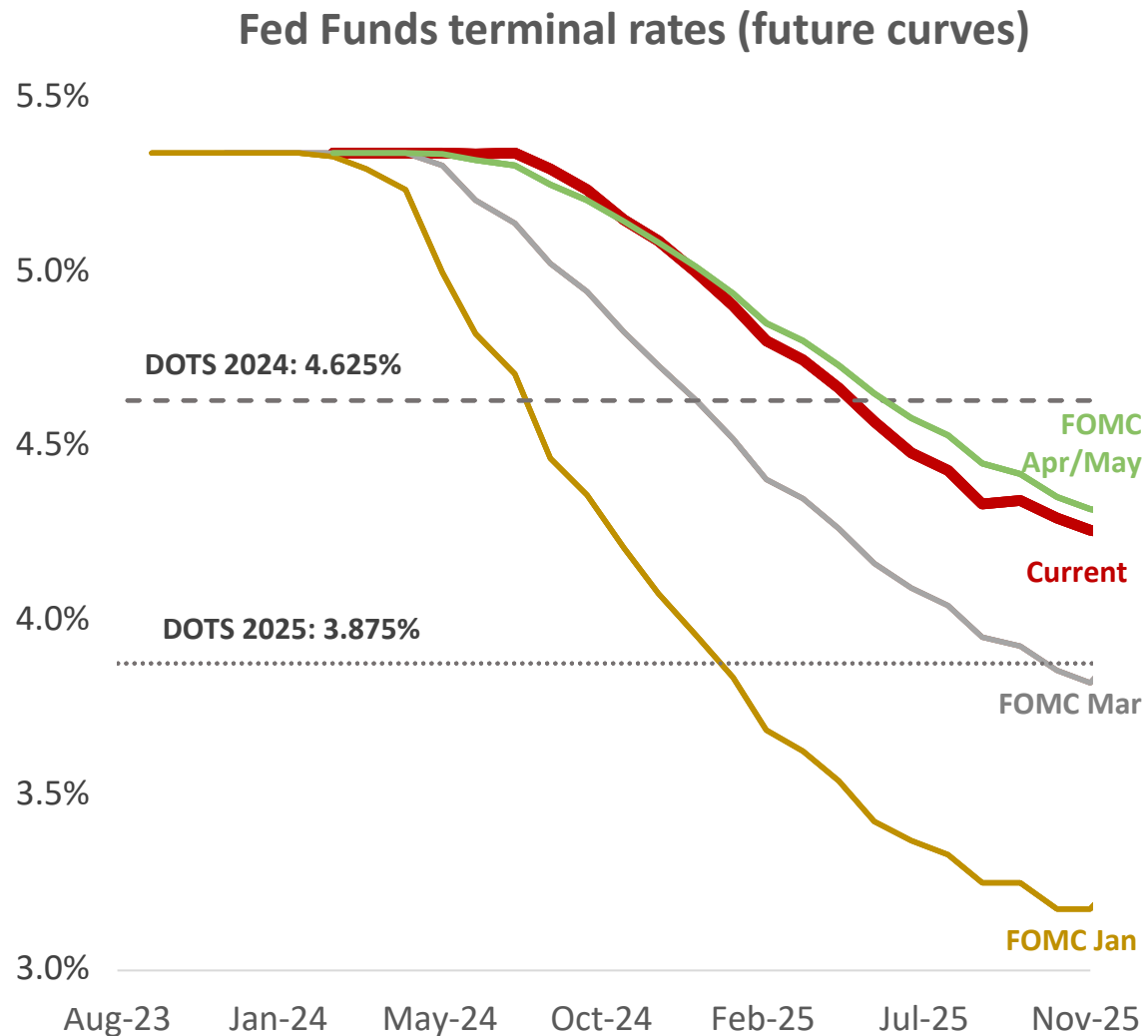
Number of decreases in interest rates up to dec/24 (market pricing)



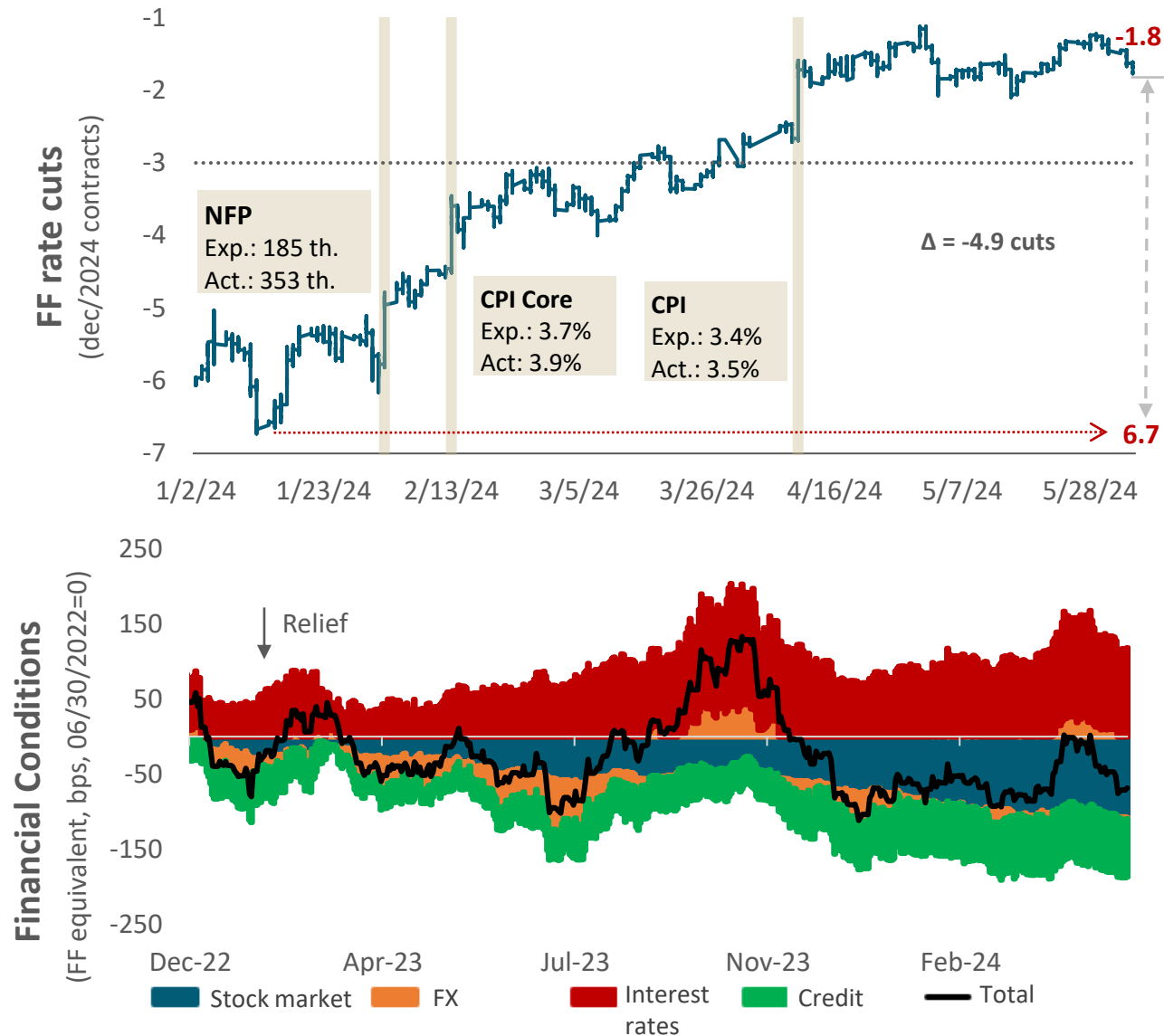
Monetary Policy Pricing

Region/country	Rate (%) Last decision	Pricing 6 months Base point	Pricing 1 year Base point
AEs			
US	5,38	-31	-80
Canada	5,00	-61	-100
Euro Zone	4,00	-50	-86
UK	5,25	-32	-69
Australia	4,35	-0	-23
New Zealand	5,50	-17	-77
Japan	0,10	+25	+42
EMEs			
Mexico	11,00	-36	-91
Chile	6,00 ↓	-107	-117
Brazil	10,50 ↓	+17	-59
Colombia	11,75 ↓	-191	-283
Russia	16,00	-195	-347
South Africa	8,25	-21	-39
China	1,80 ↓	+0	-4
India	6,50	+8	-6
Korea	3,50	-9	-17

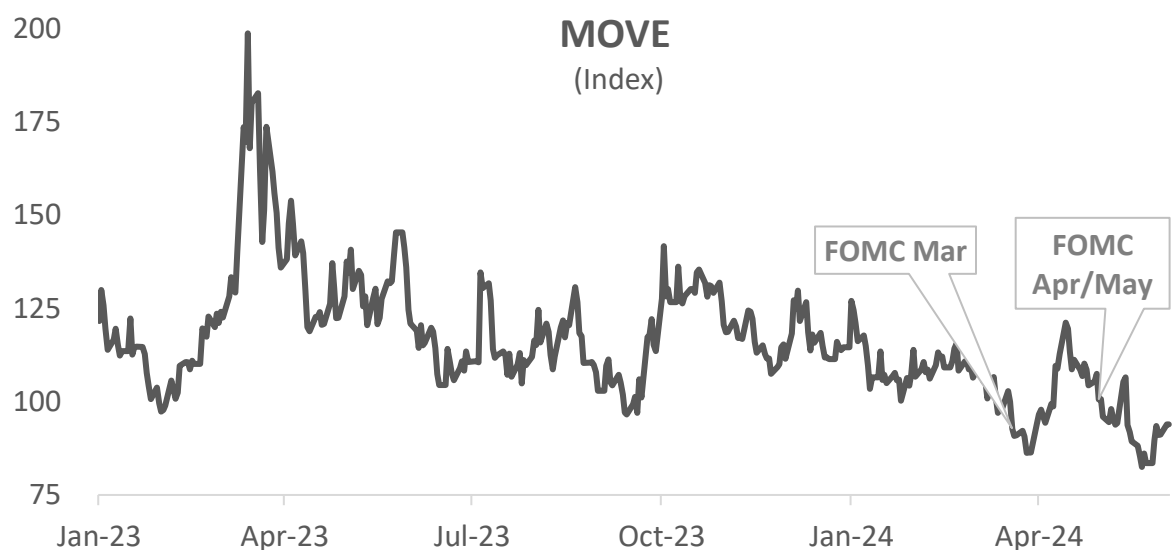
Repricing of the cuts cycle in the United States, with shorter length and postponement of its start.



Sources: Bloomberg, Fed.



High volatility in markets.



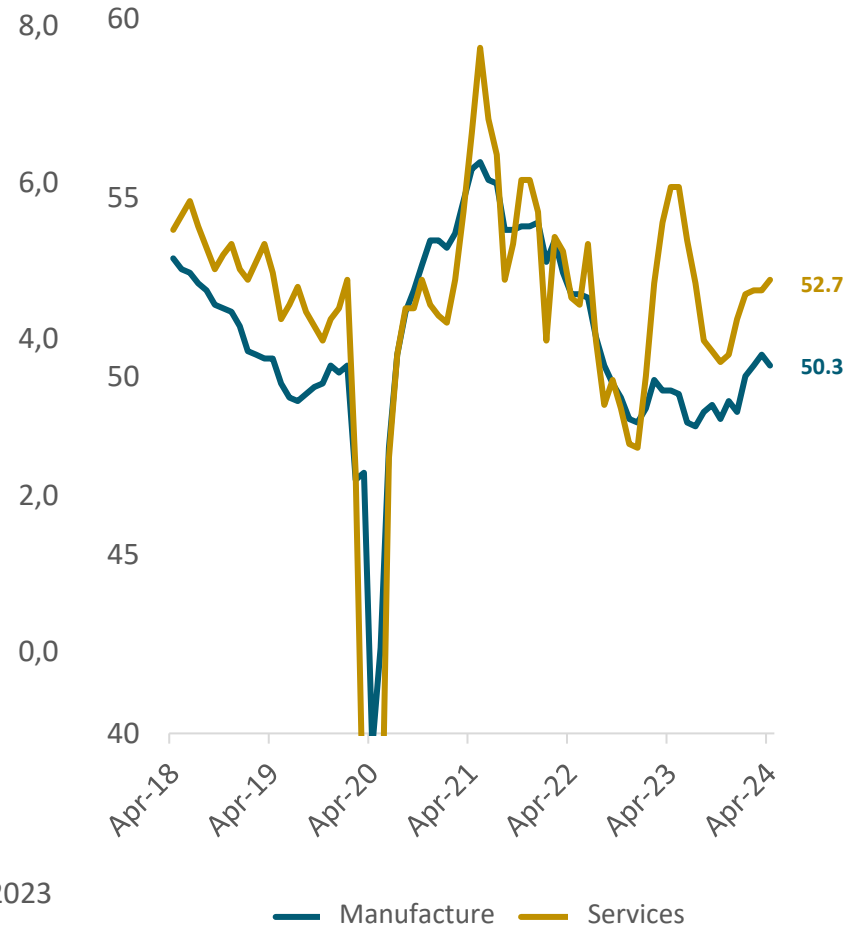
Global economic activity has been resilient. Recent economic data continues to surprise positively.

Real GDP growth

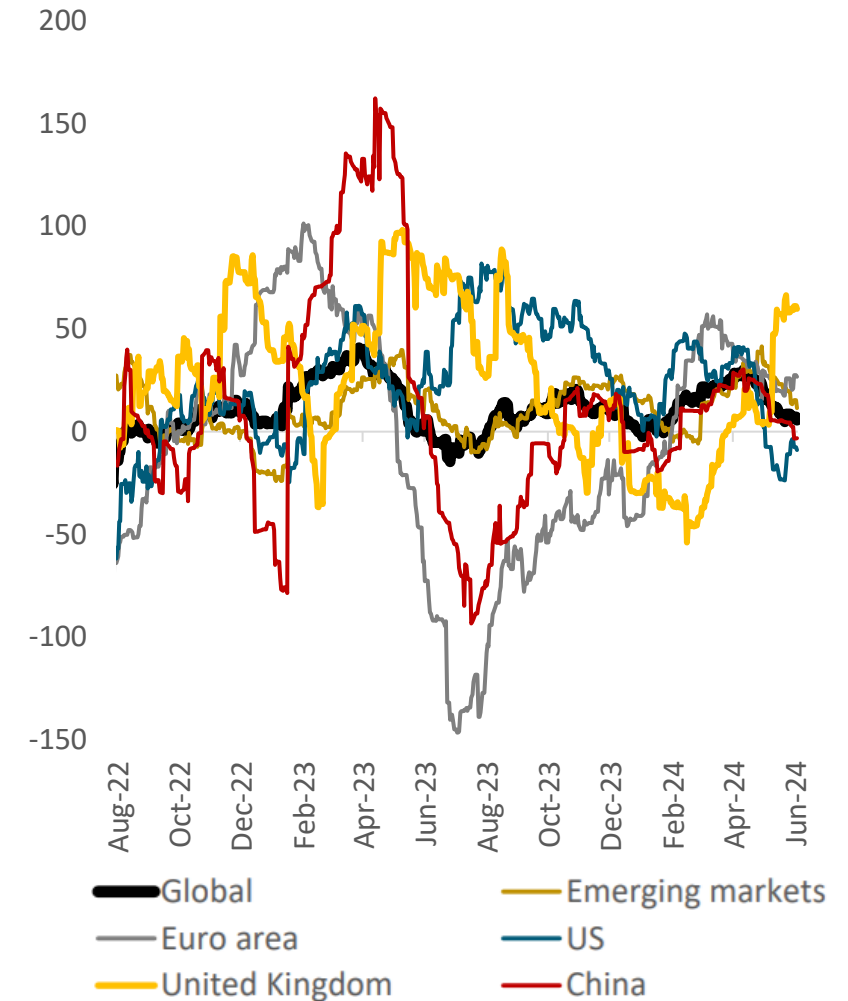
(% y/y)



Global PMI



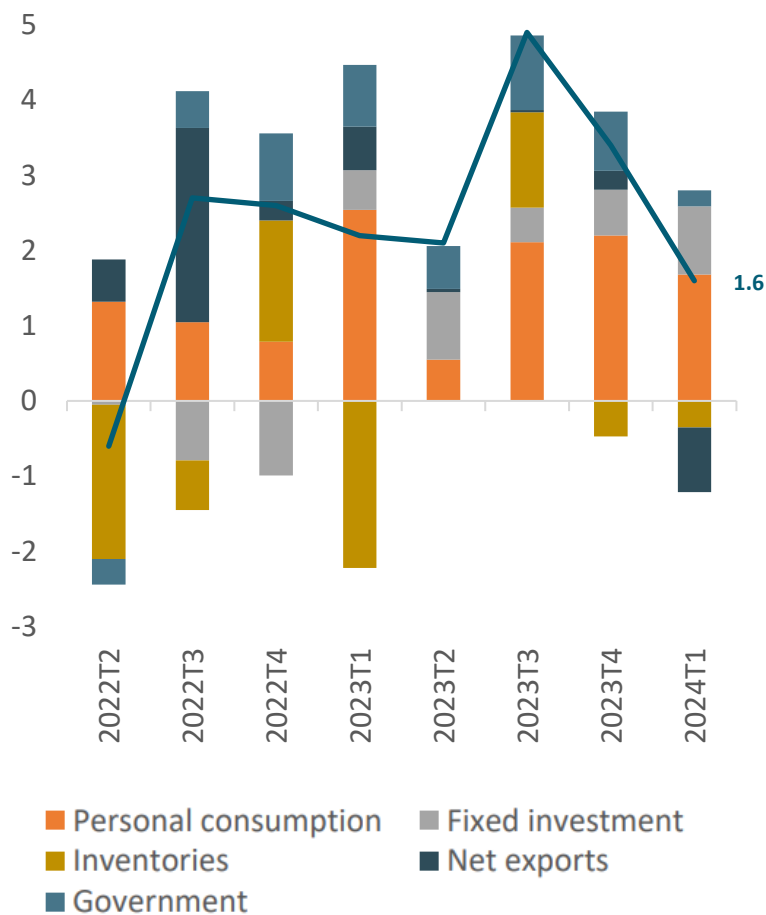
Growth surprise index



Economic activity has been resilient, supported mainly by consumption. Favorable reviews for the activity.

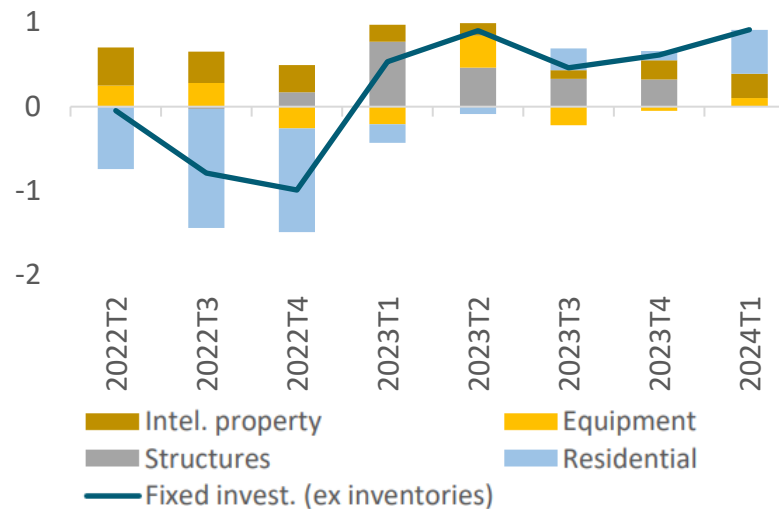
GDP and contributions

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

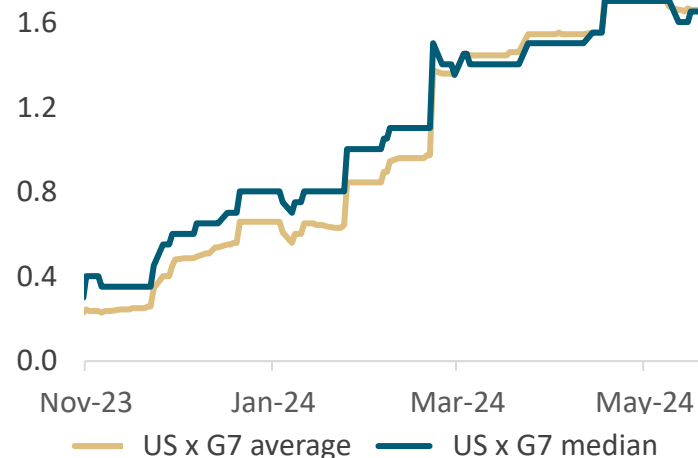


Fixed capital formation

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

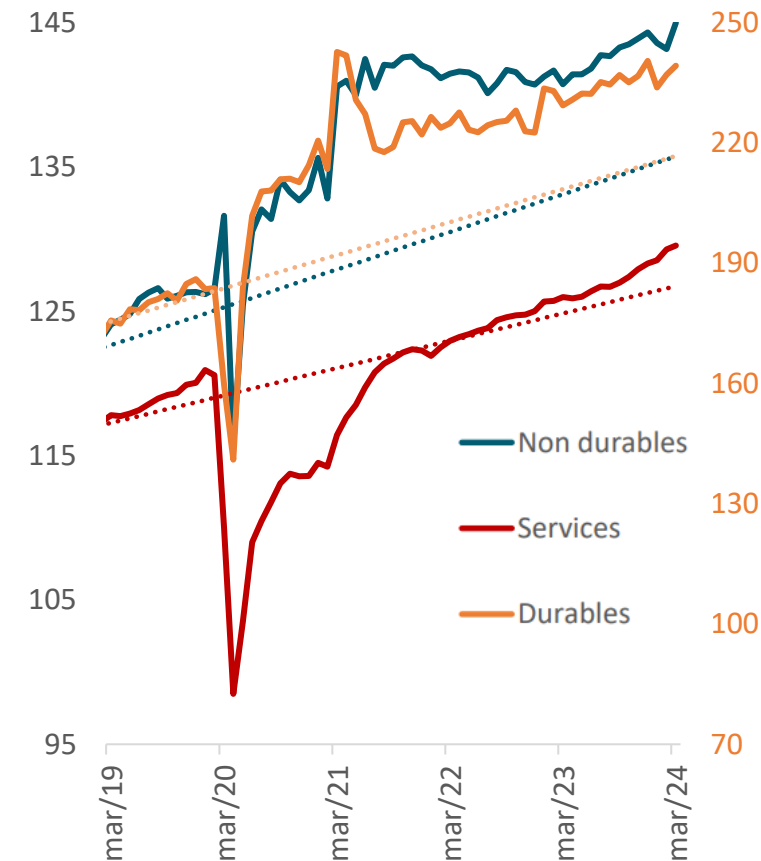


Differences in GDP growth projections for 2024

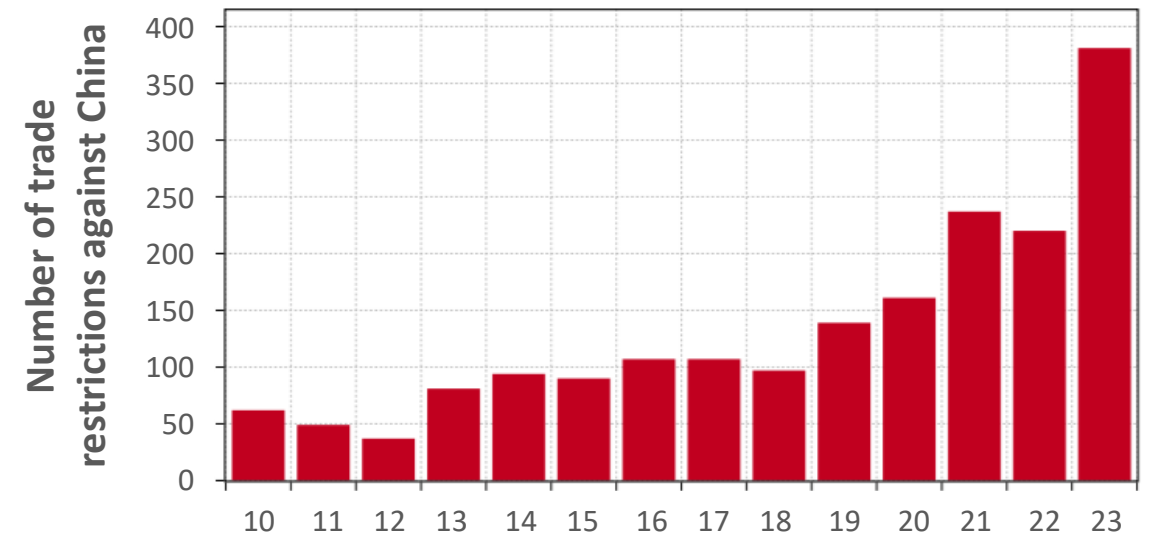
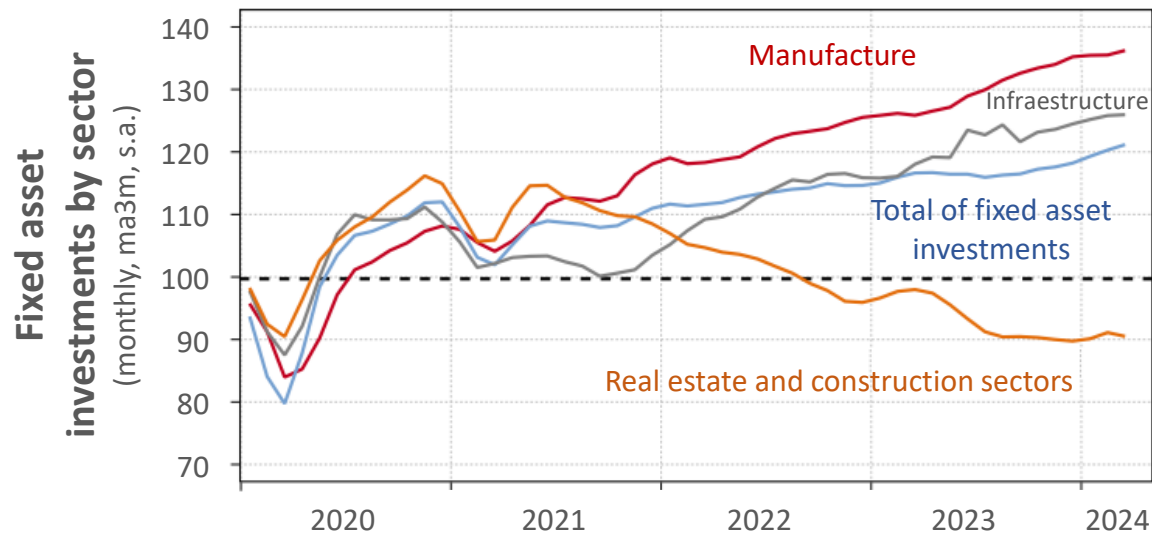
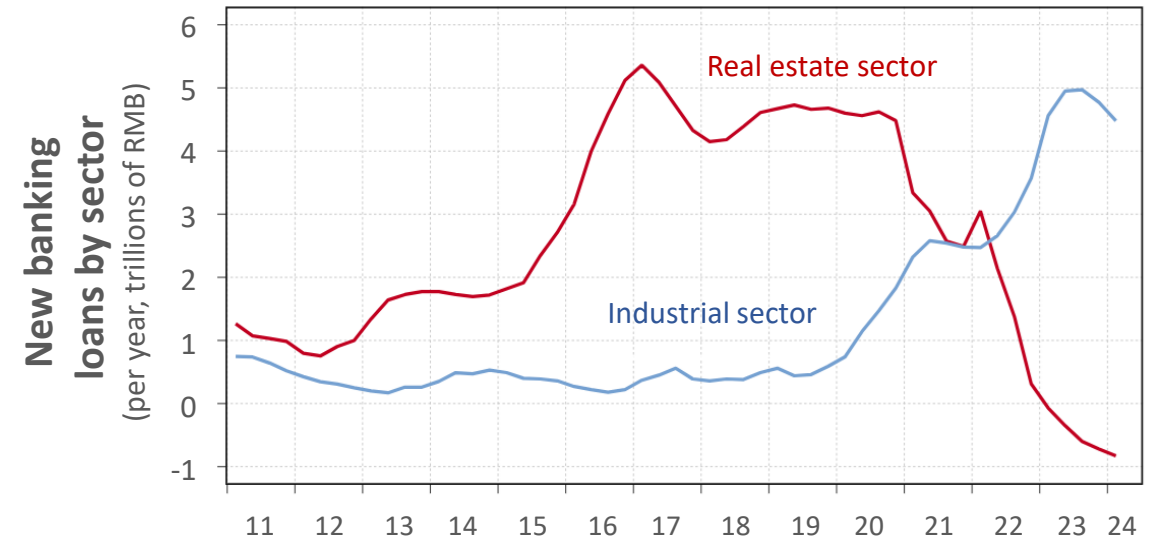
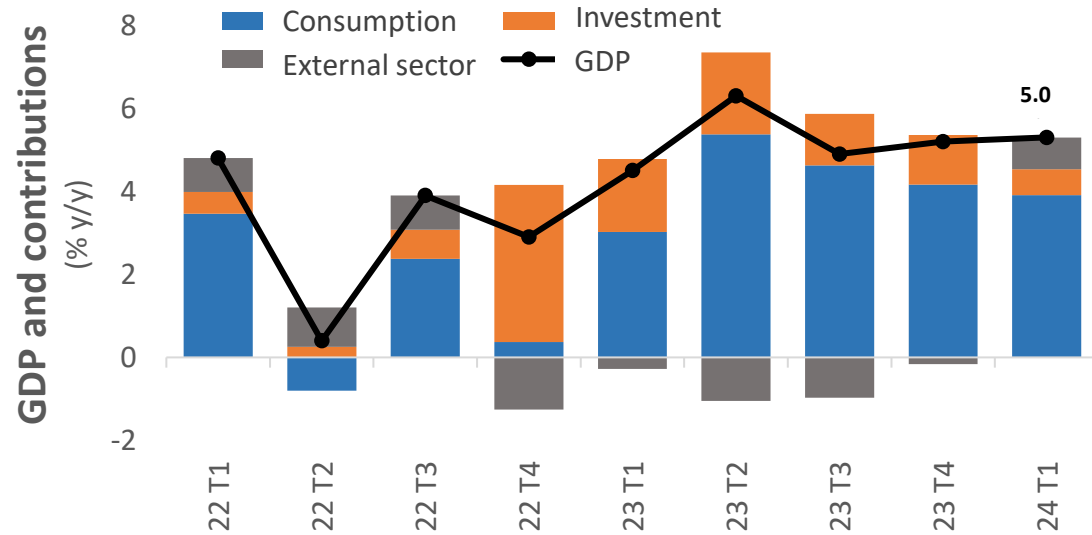


Real consumption per components

(index 2009 = 100)

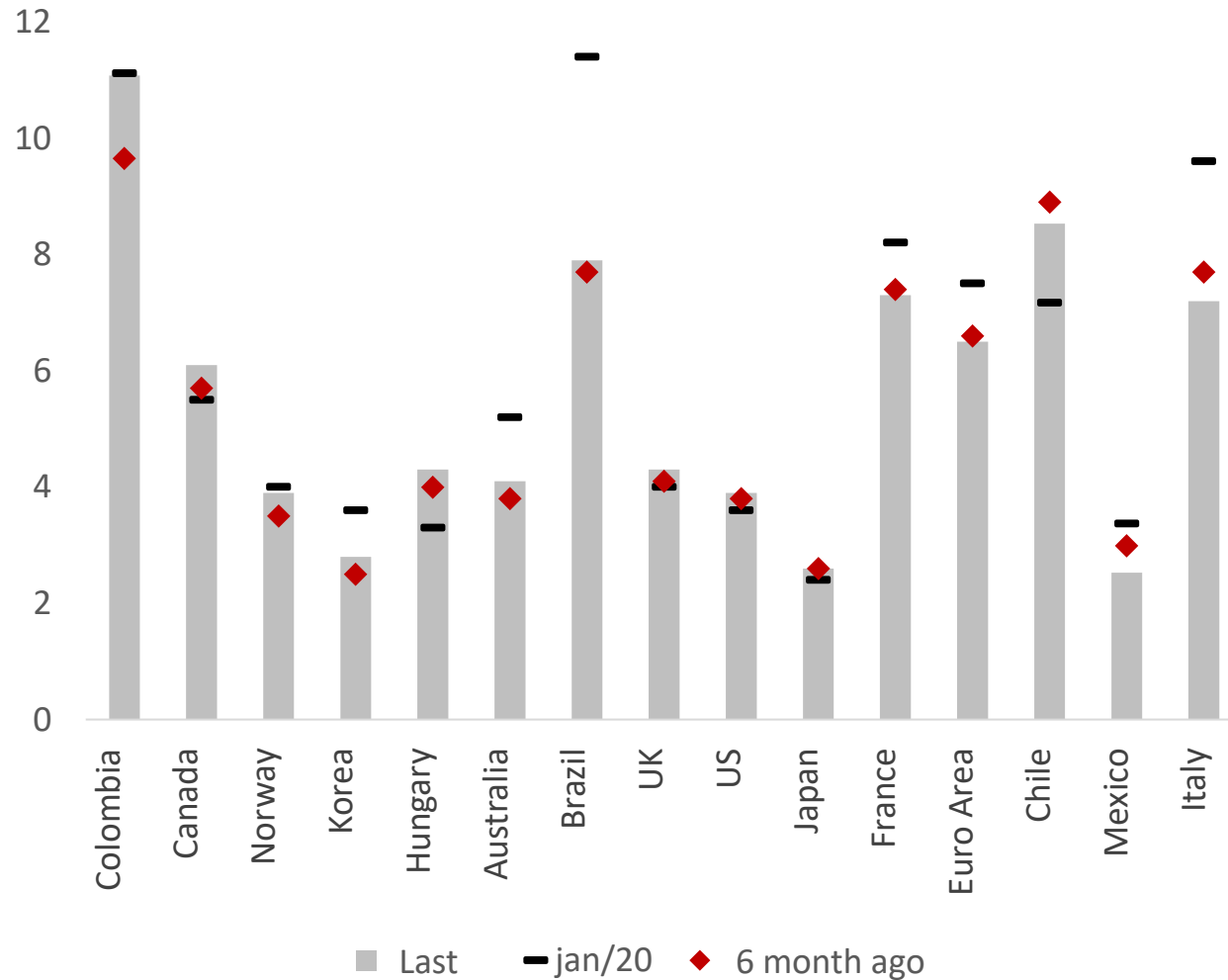


Real estate still negatively affects China's economic performance. Economic model transition is complex.



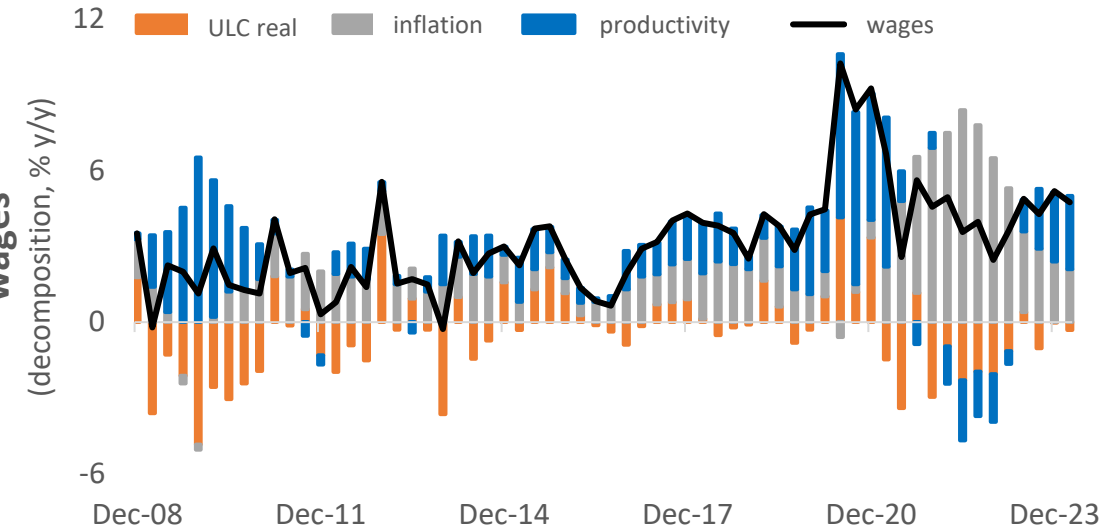
Labor markets with little or no loosening make global disinflation difficult.

Unemployment rate - countries

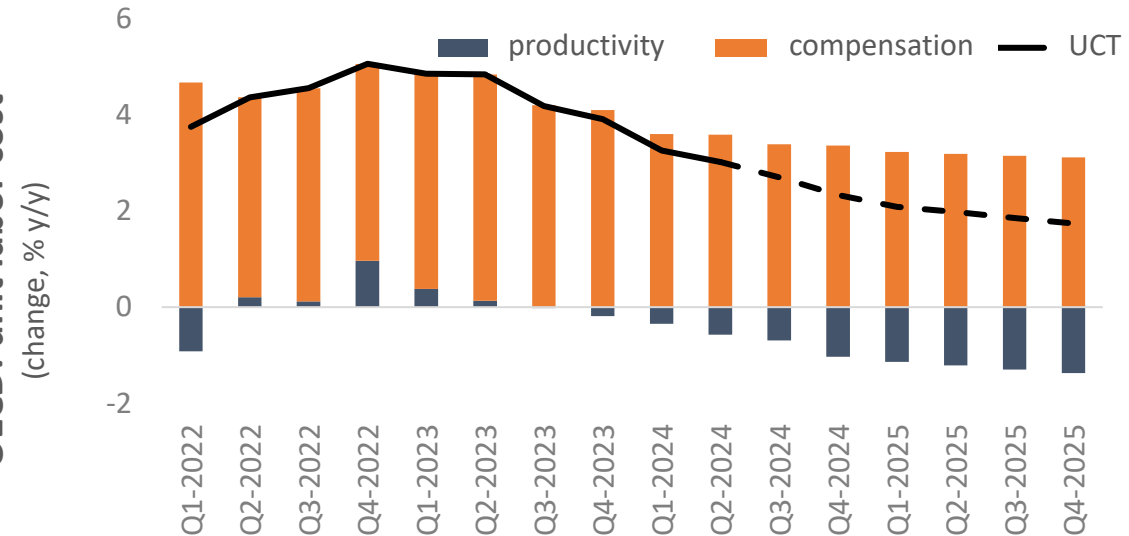


Sources: BLS, OCDE, Bloomberg, Refinitiv, FMI.

US: change in nominal wages



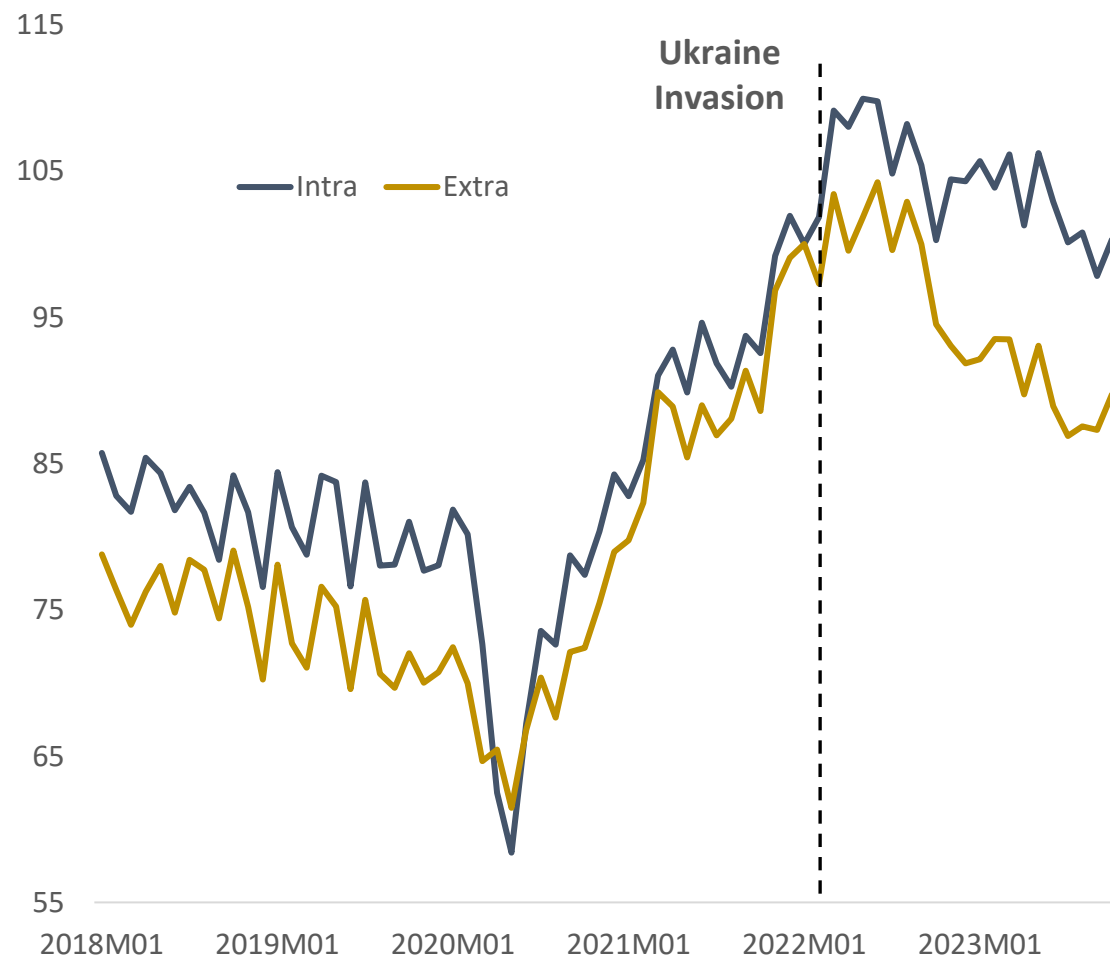
OECD: unit labor cost



Geopolitical fragmentation impacts global trade. Digital services show a growing trend.

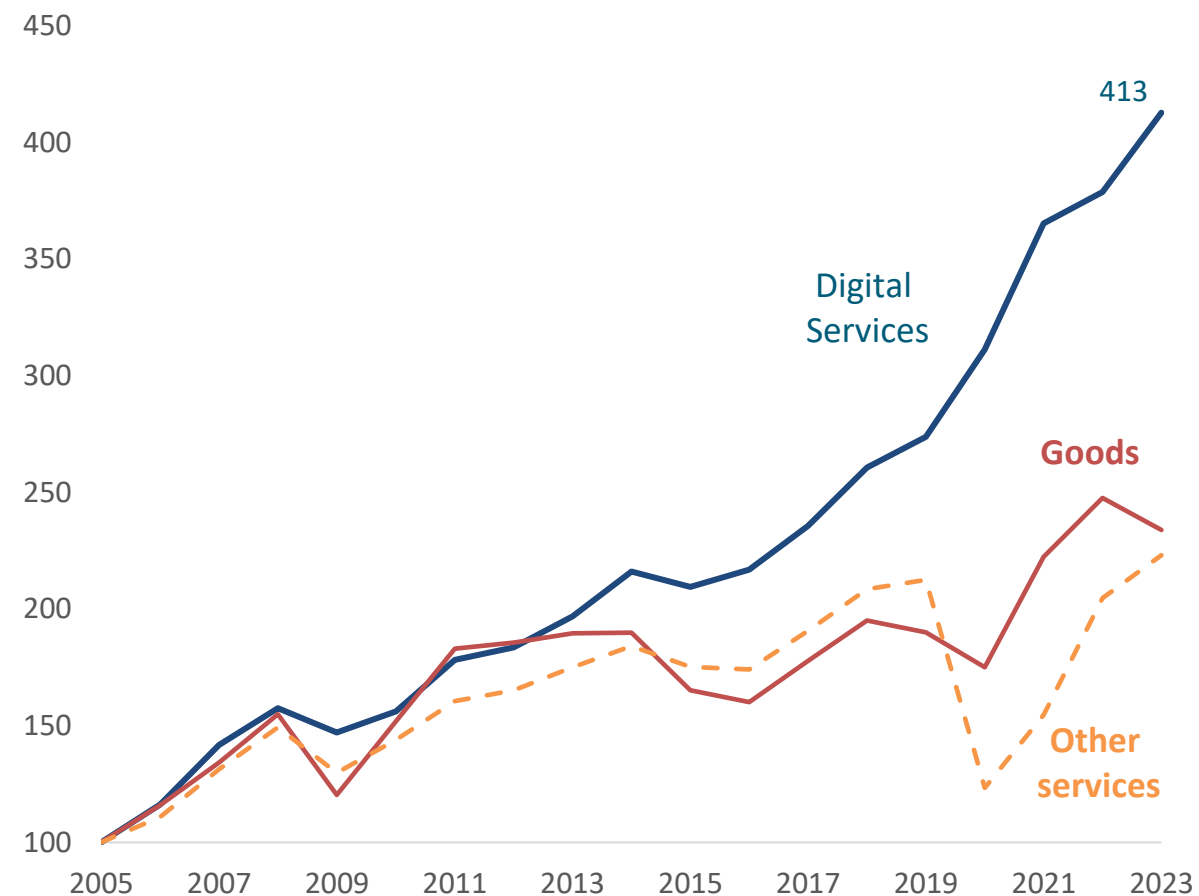
Trade between different geopolitical blocks

(Index Jan/2022 = 100)



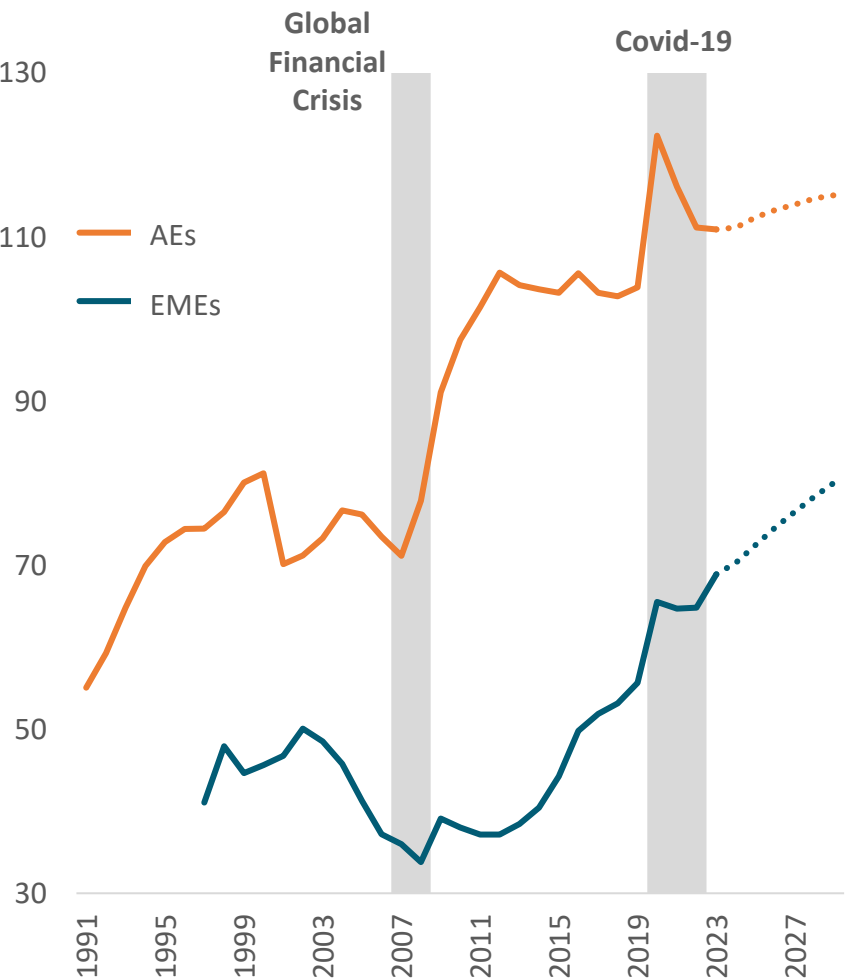
Global exports

(Index 2005 = 100)



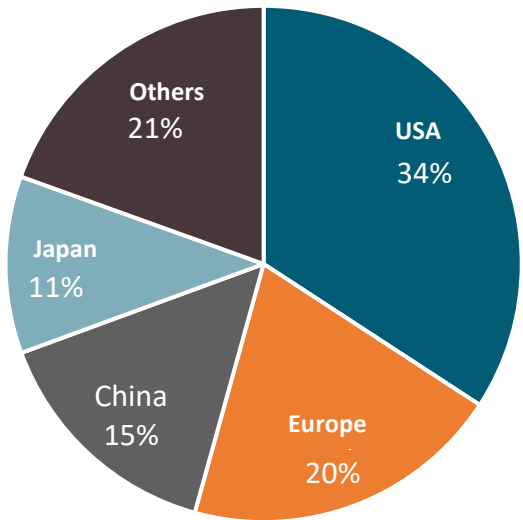
Rising debt and debt service demands ever more resources.

Country groups: public debt
(% of GDP)

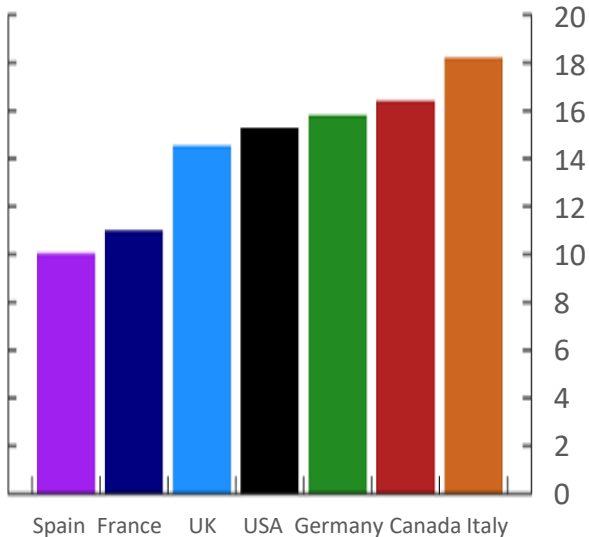


Sources: FMI.

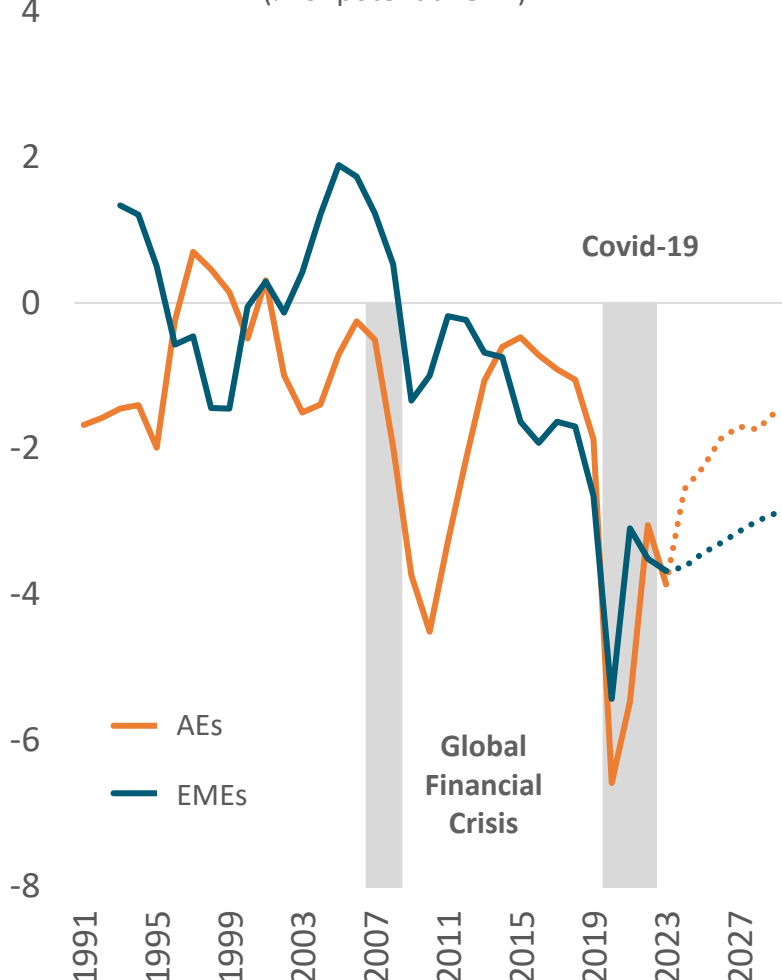
Global public debt
(Percentage of countries)



Accumulated public deficit
(% of GDP, deviation from the pre-crisis average)

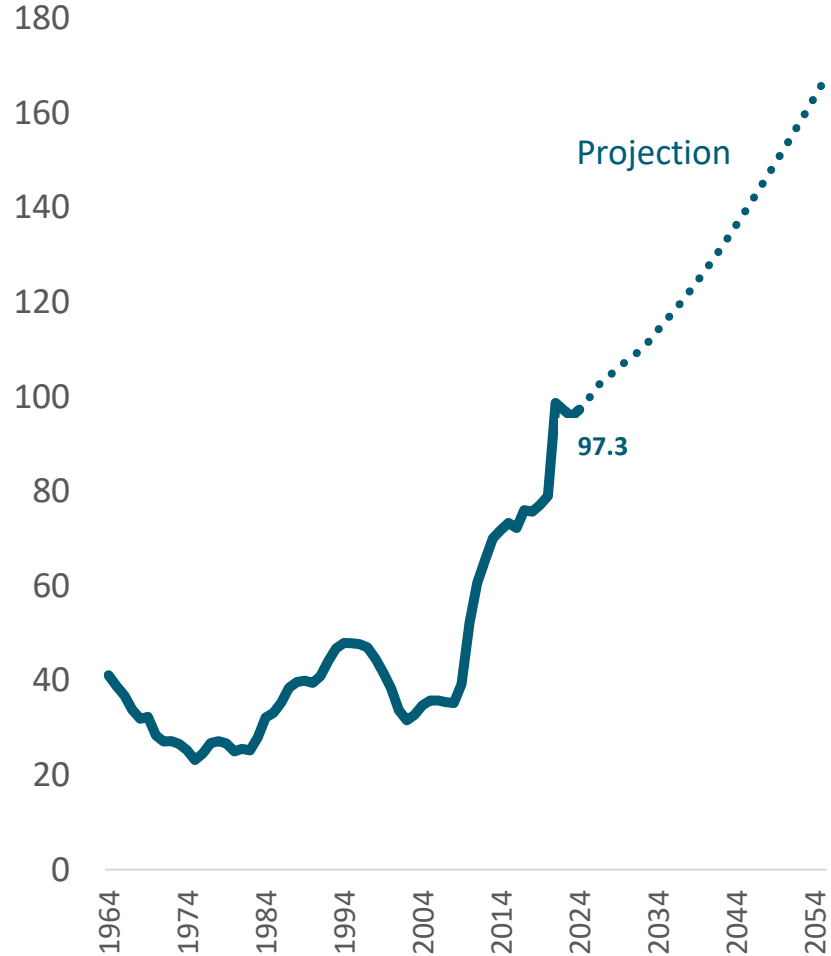


Country groups: adjusted primary result
(% of potential GDP)

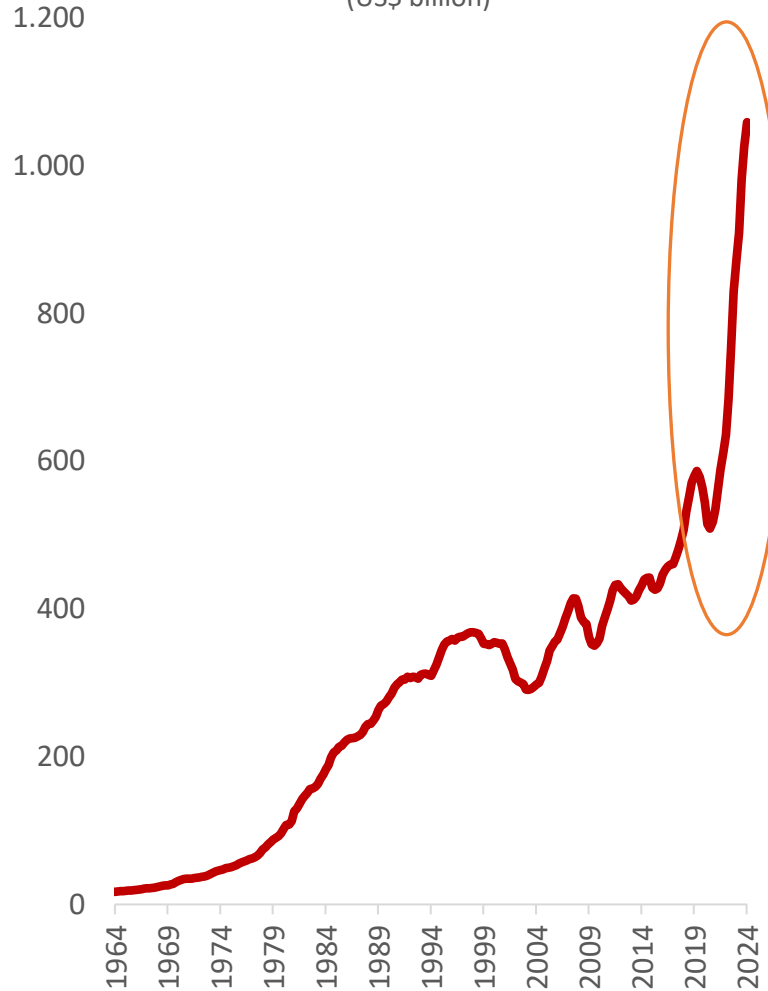


Rising US debt and debt service demands ever more resources.

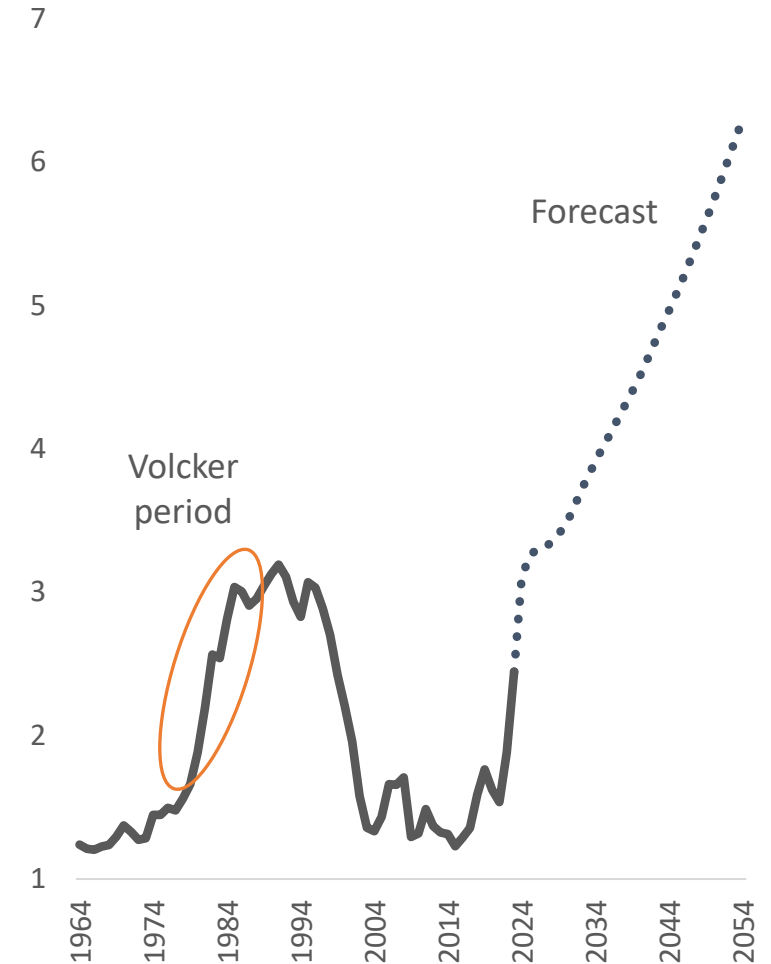
US: Public debt
(% of GDP)



US: Interest payments
(US\$ billion)



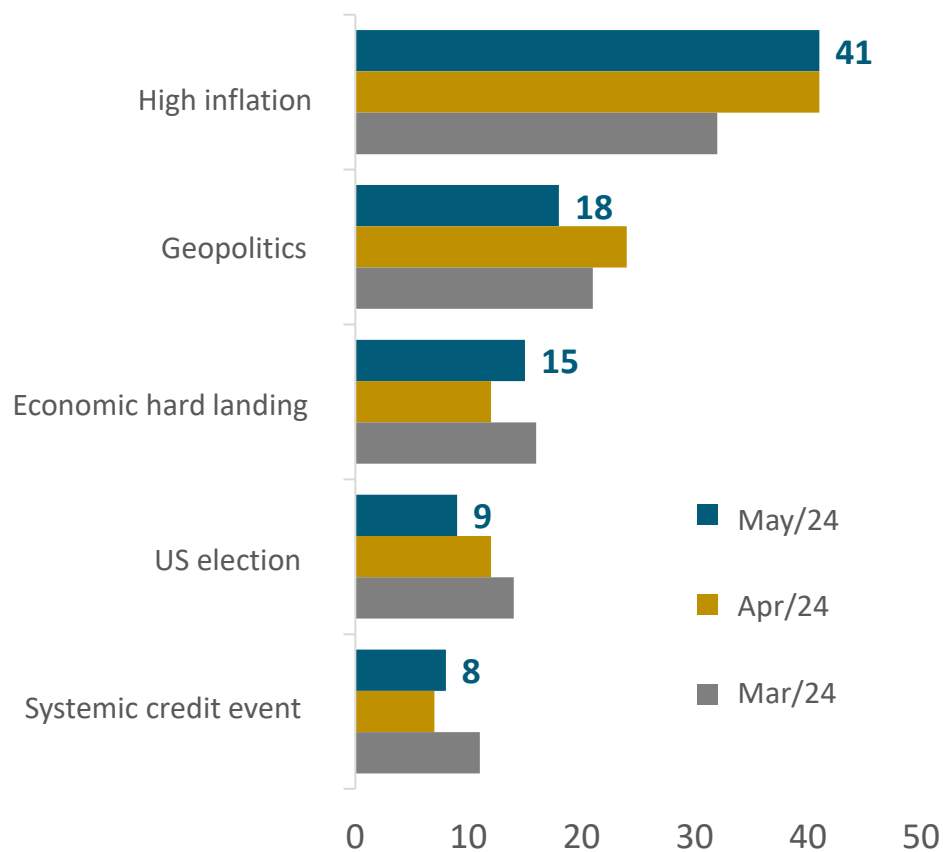
US: net interest payments
(% of revenues)



Inflation remains the main source of risk for the global economy.

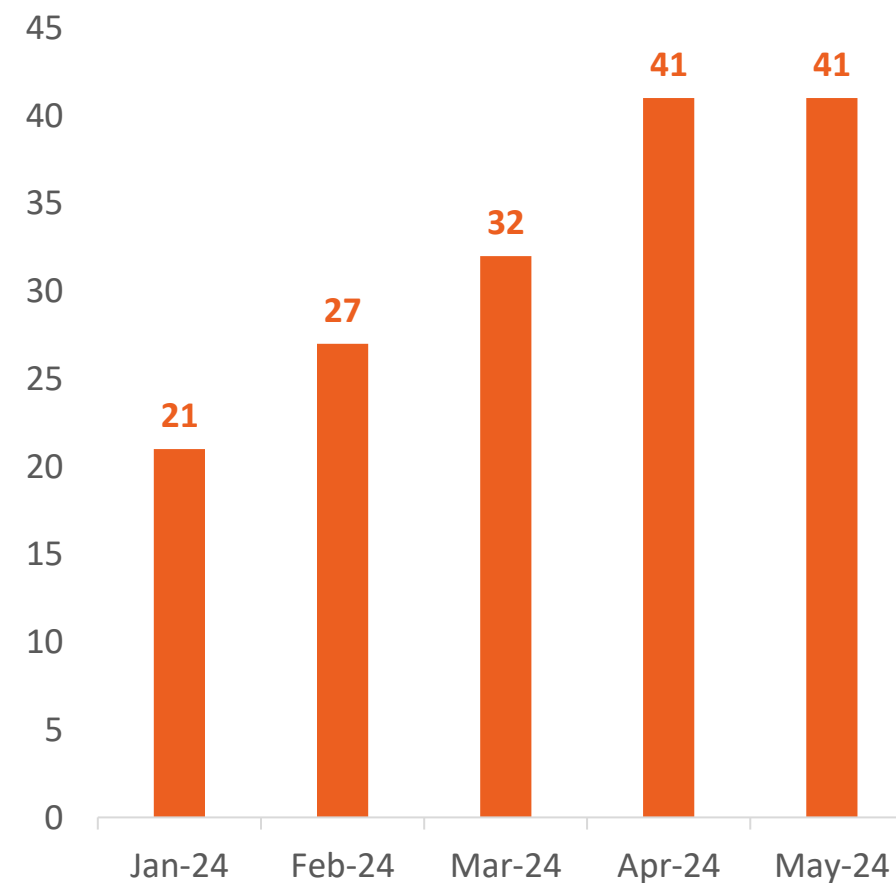
Tail risks (%)

What do you consider the biggest 'tail risk'?

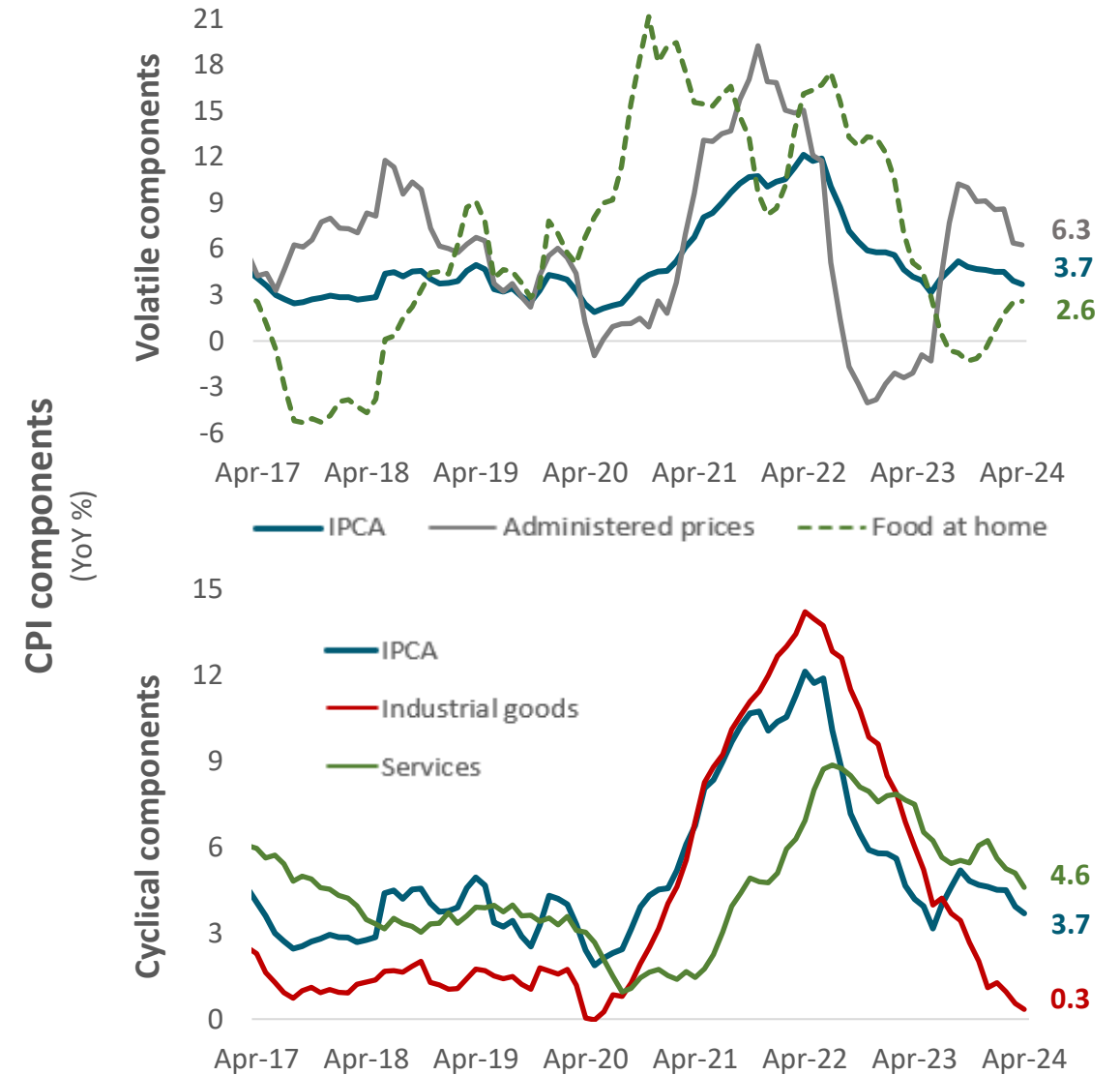
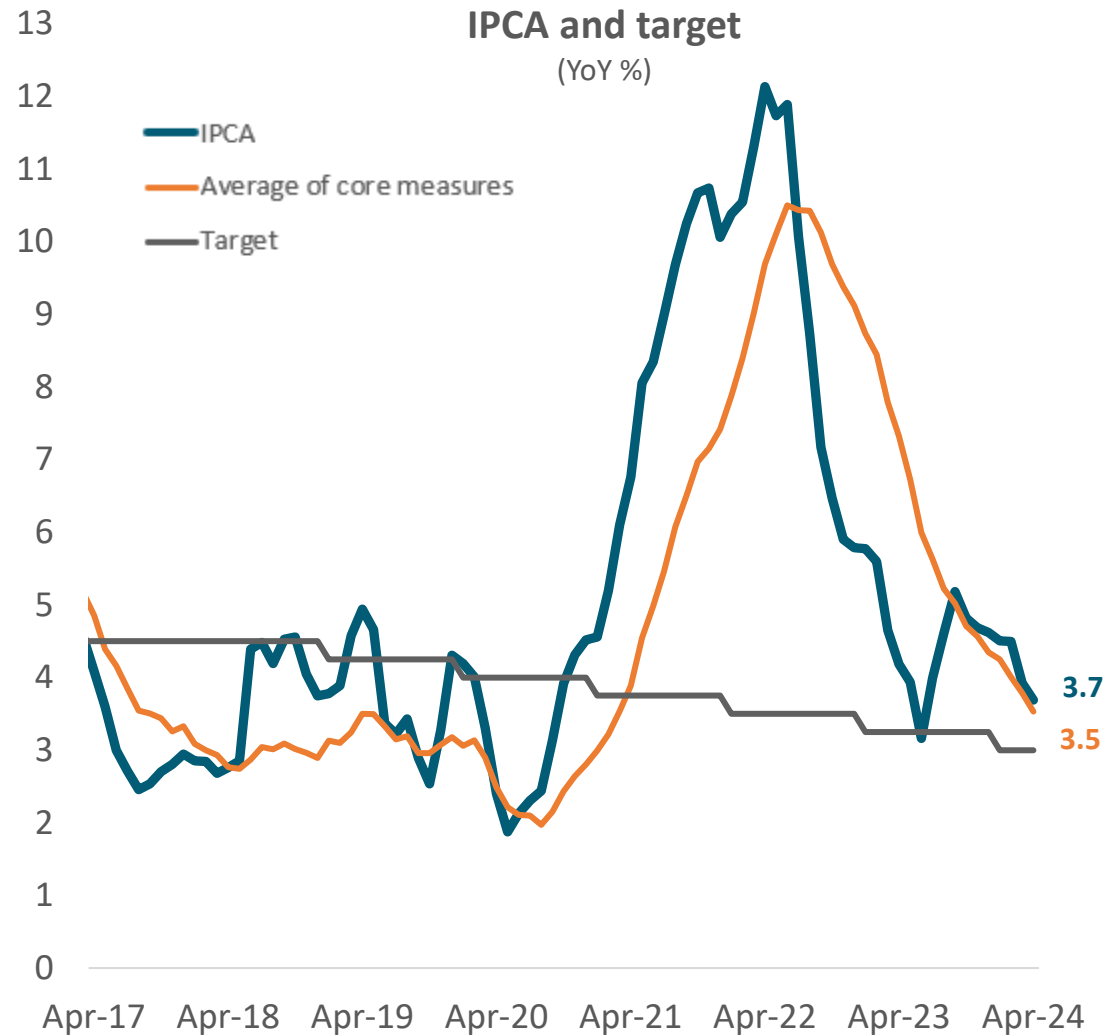


Inflation as a tail risk (%)

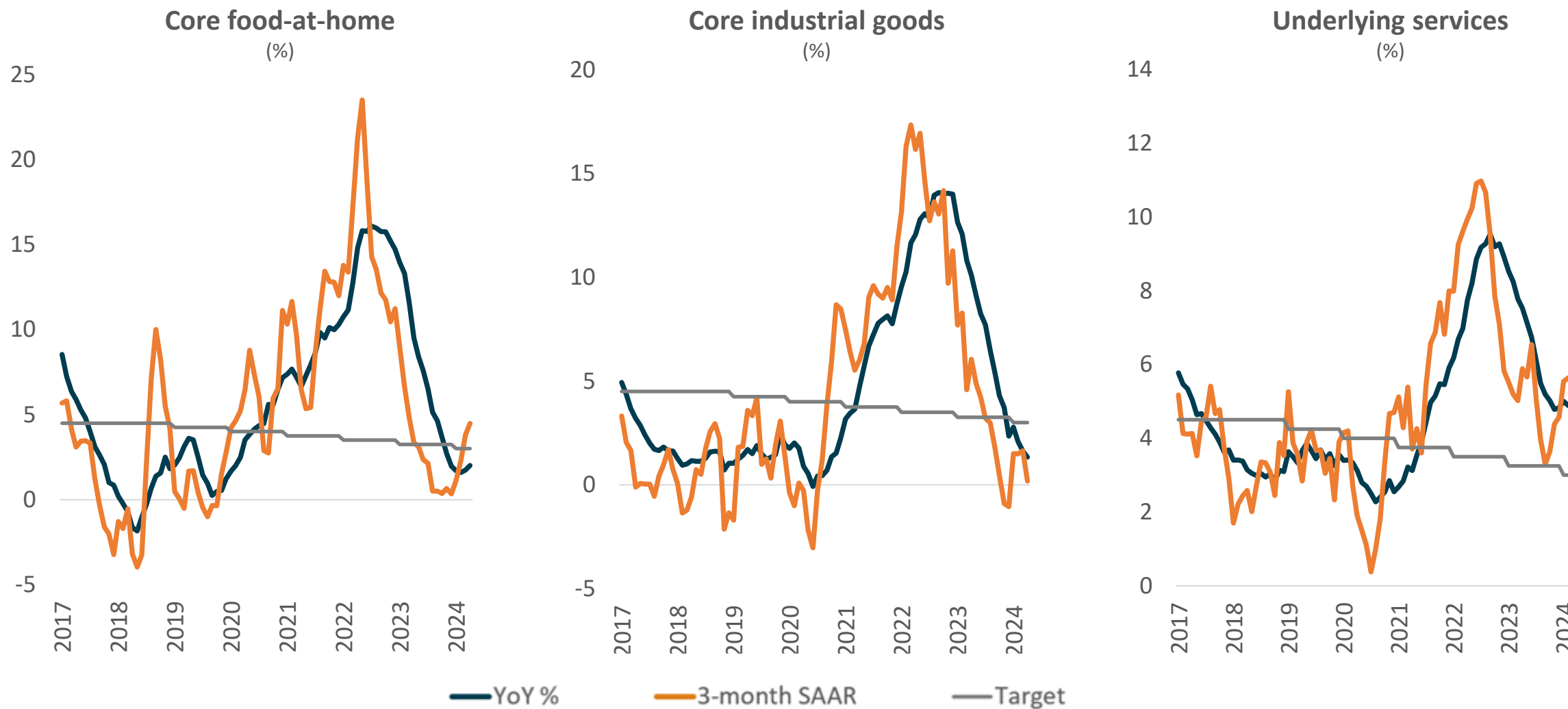
What do you consider the biggest 'tail risk'?



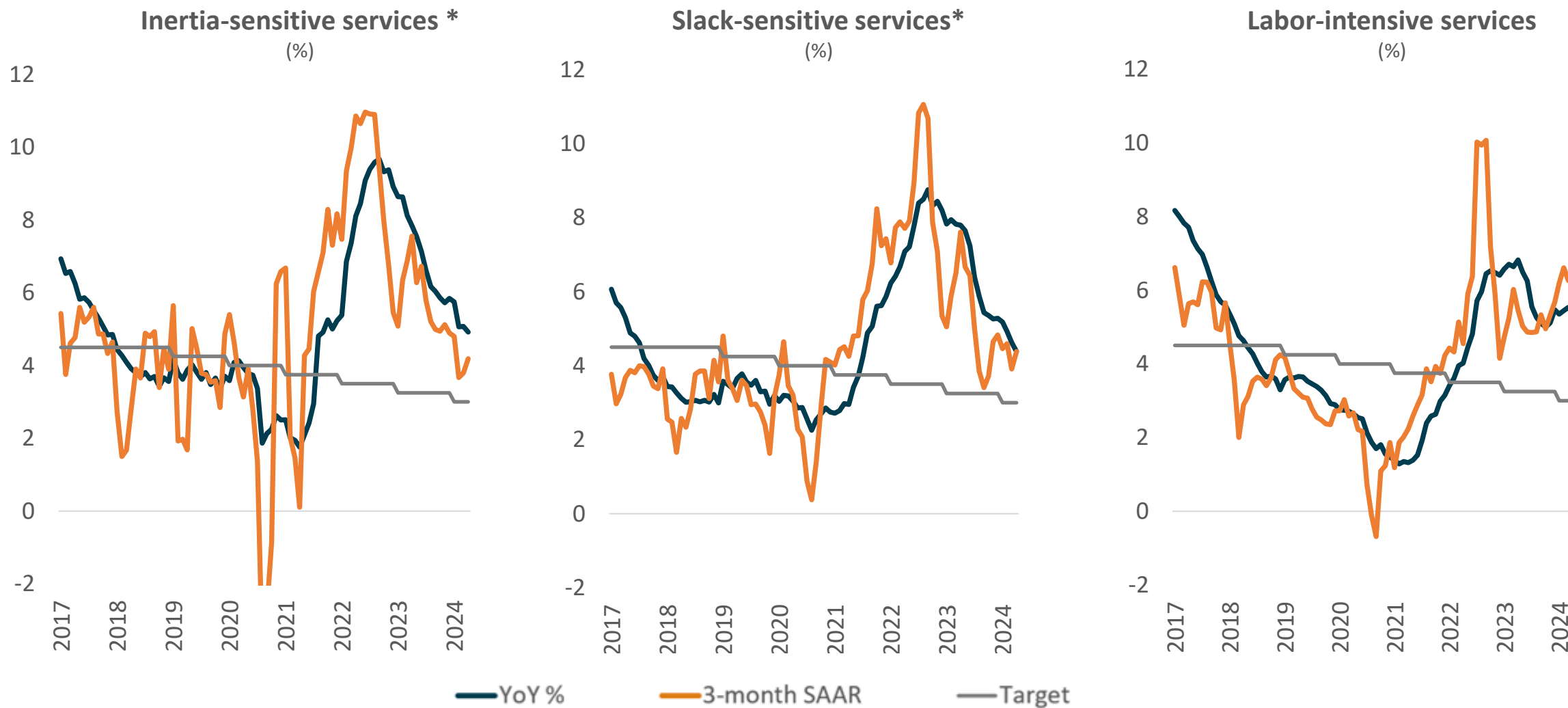
Headline and core inflation maintained a disinflationary trajectory, although they are still above the target.



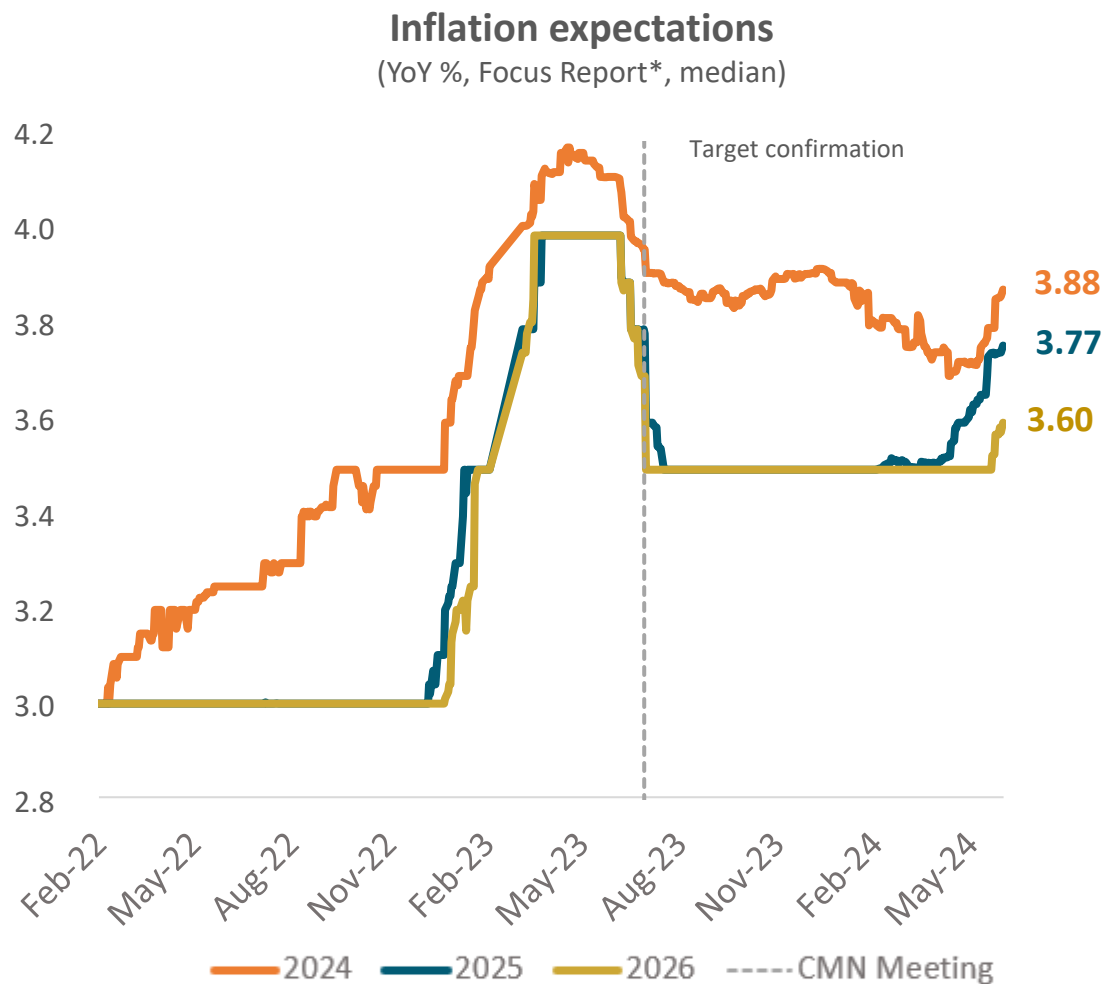
Underlying services slowdown, albeit at above-target levels.



Services inflation is more resilient in items more closely linked to the labor market.

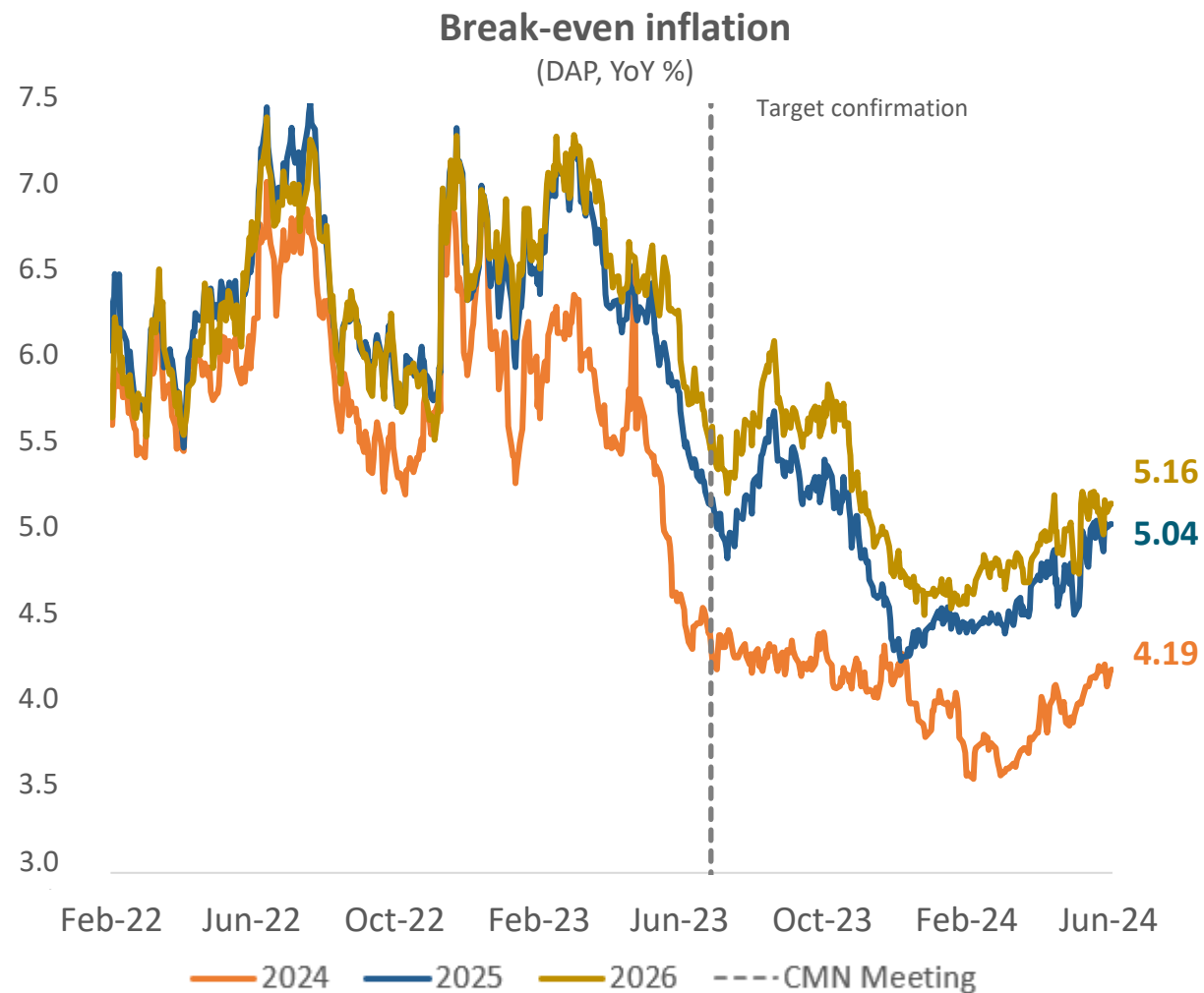


Unanchored inflation expectations, and break-even inflation rising.



Sources: BCB

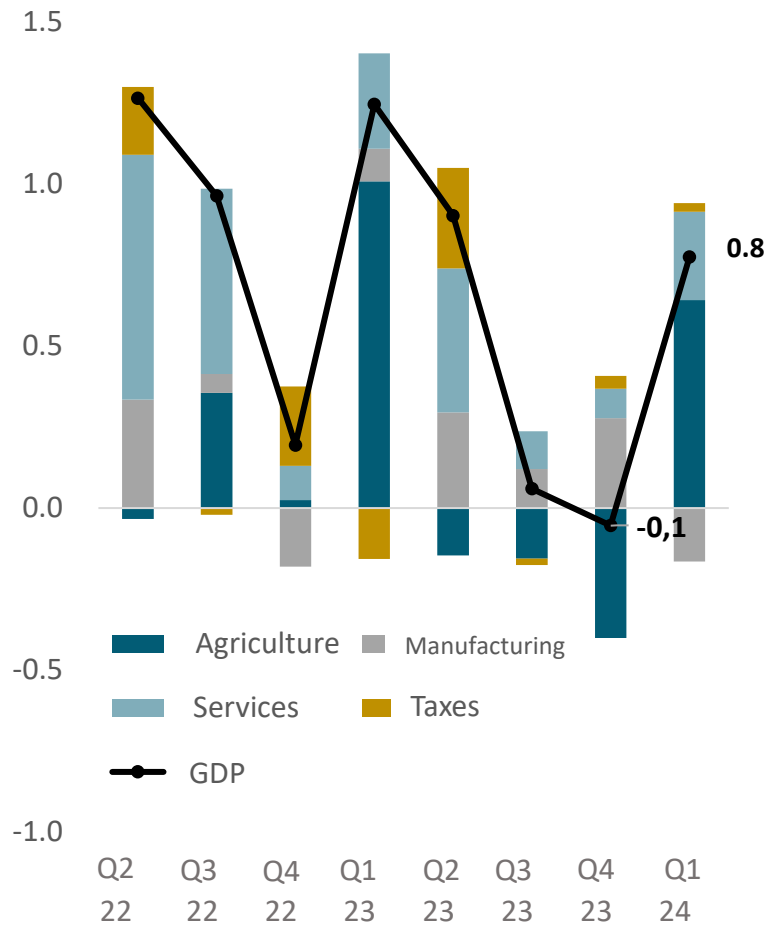
* Updated until 05/31/2024



* Updated until 06/04/2024

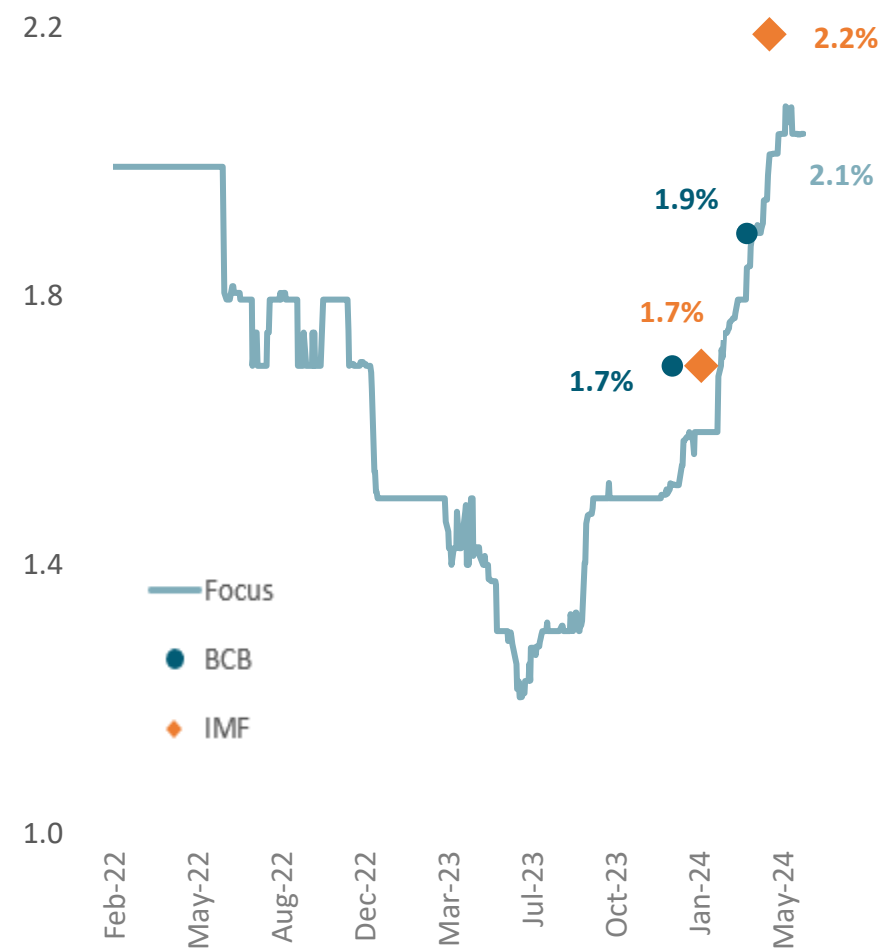
Economic activity indicators have shown greater dynamism than expected.

GDP and contributions
(% Q/Q, s.a. and p.p.)



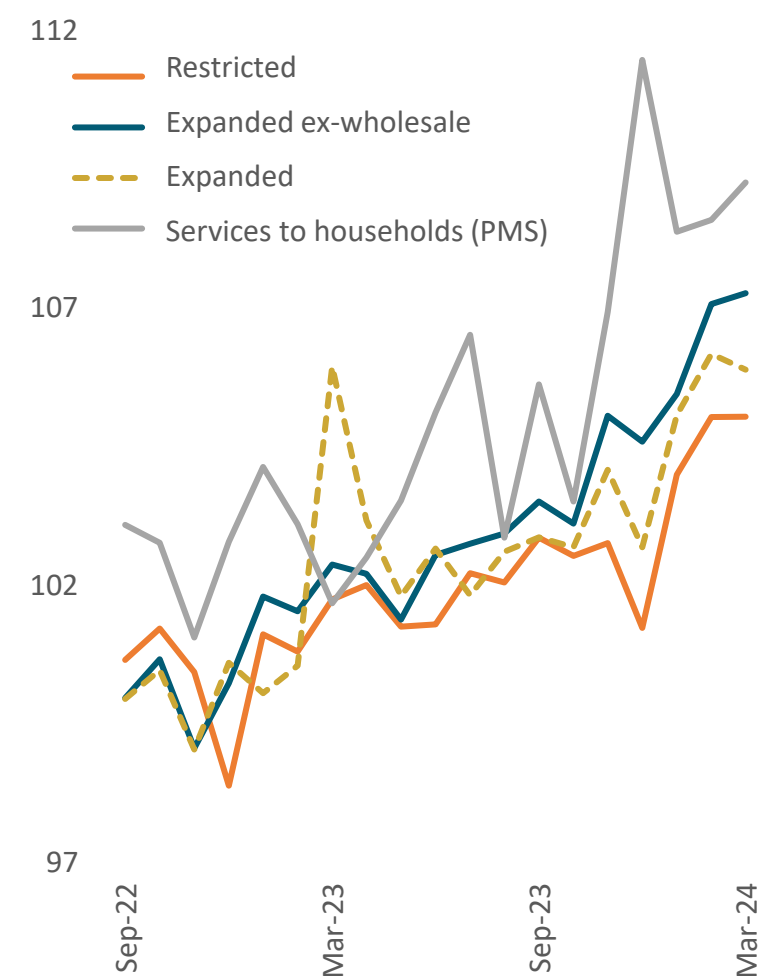
Sources: IBGE, Focus.

2024 GDP expectations*
(median, %)

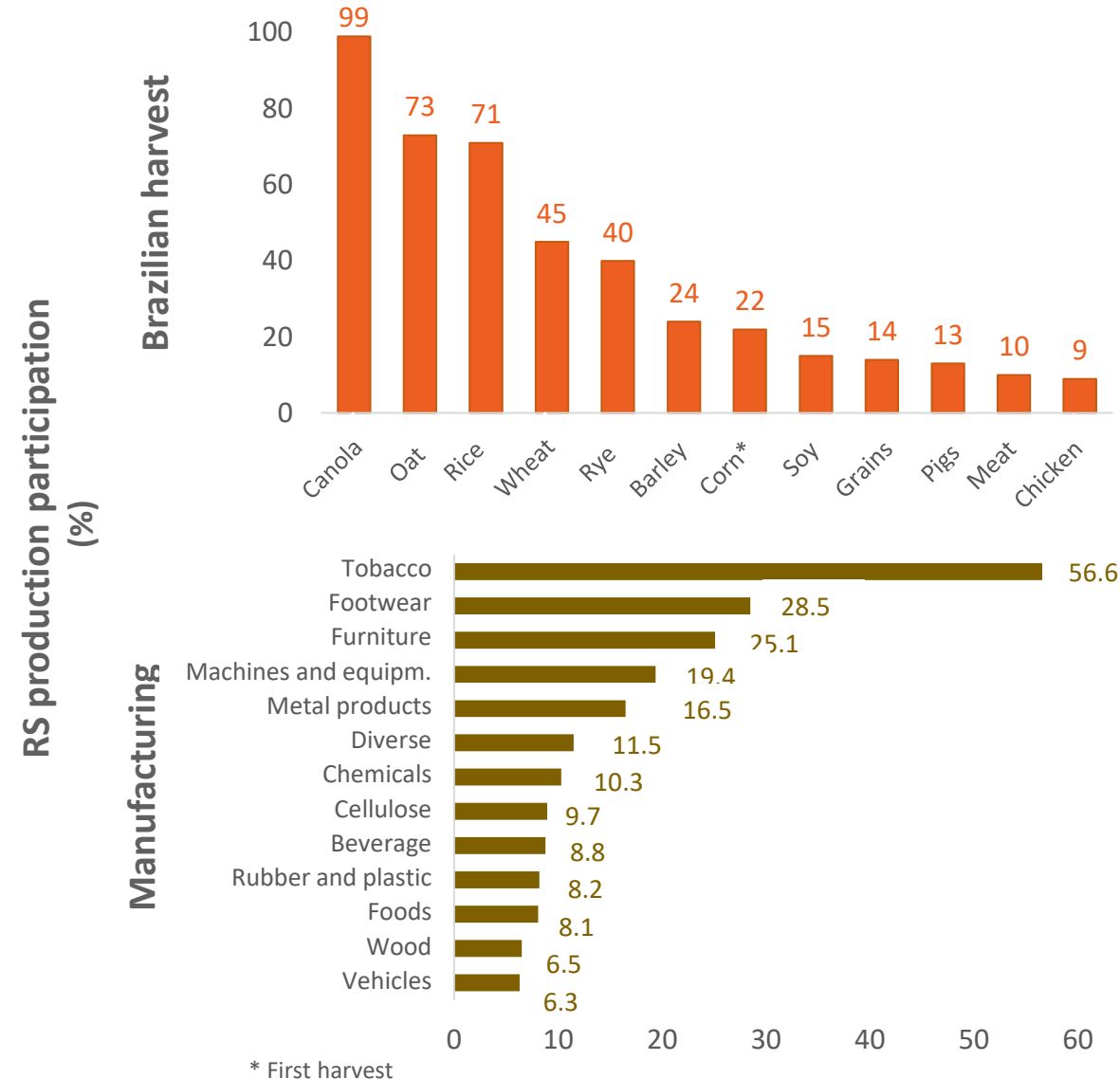
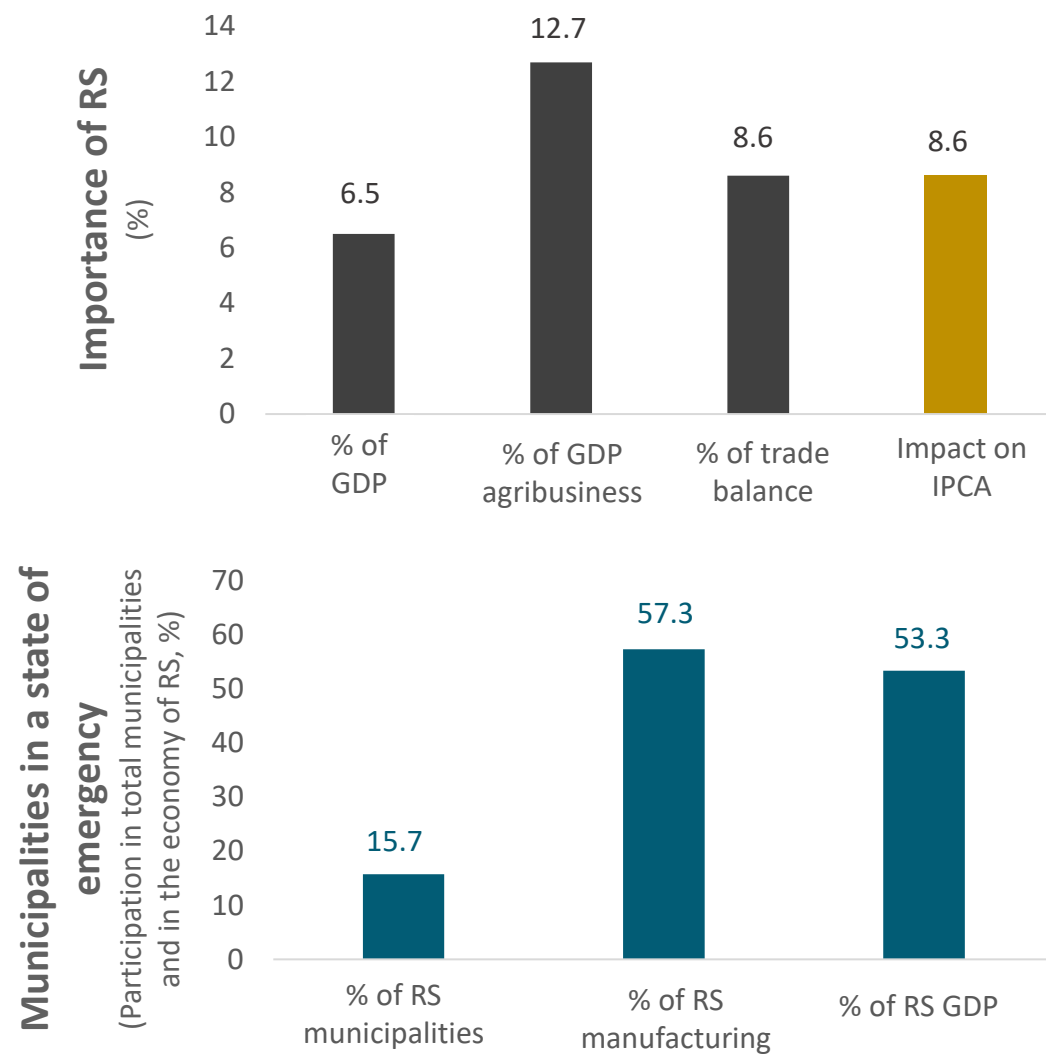


* Updated until 05/31/2024

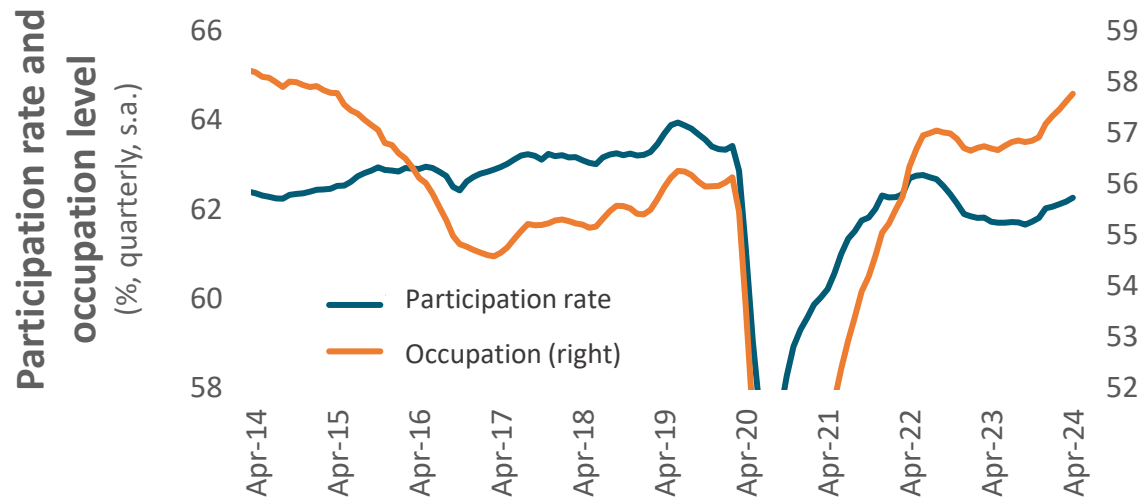
Retail and services to households
(PMC and PMS, 2022=100, s.a.)



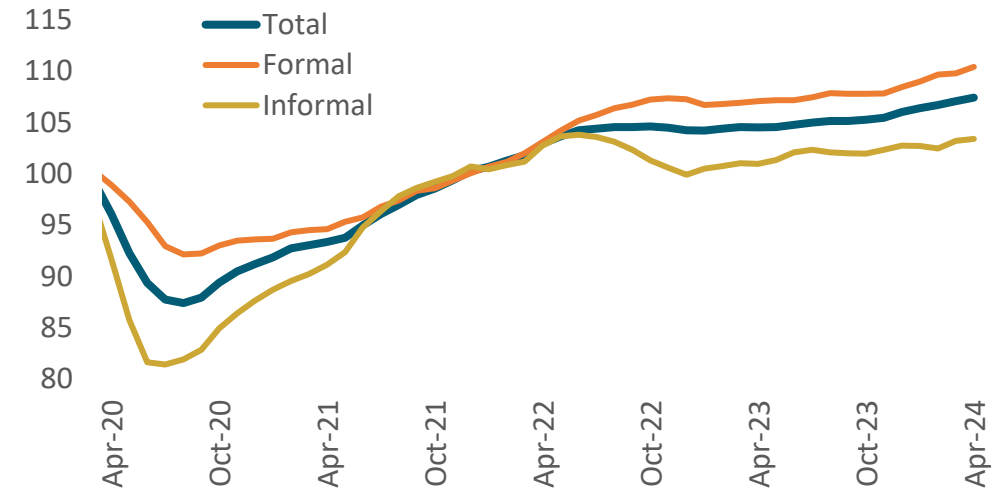
The tragedy in Rio Grande do Sul, in addition to its humanitarian impacts, will also have economic repercussions.



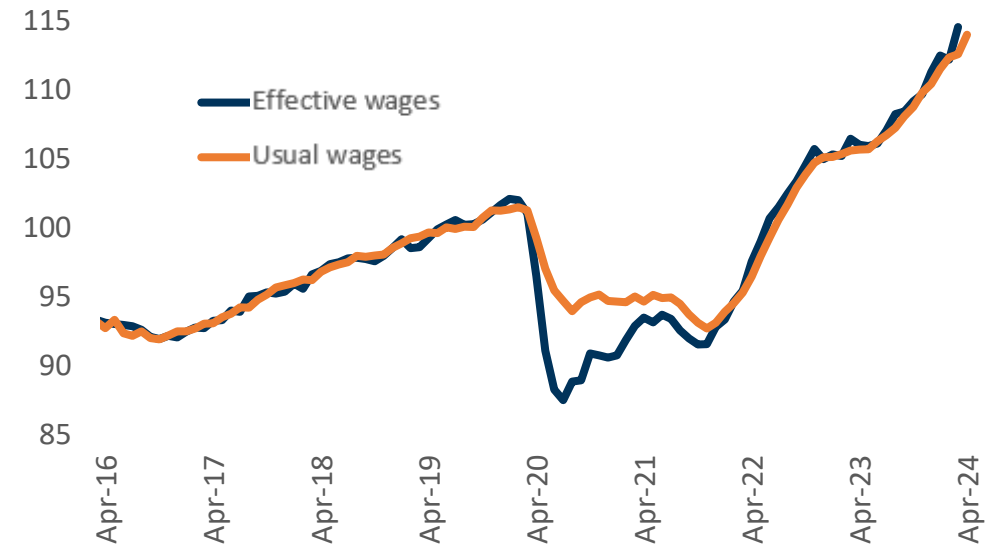
High dynamism in the labor market, which manifests itself in multiple dimensions.



Formal/informal employed population
(dec/19=100, s.a.)



Aggregate real earnings
(2019 = 100, quarterly, s.a.)



262nd Copom meeting – May 2024

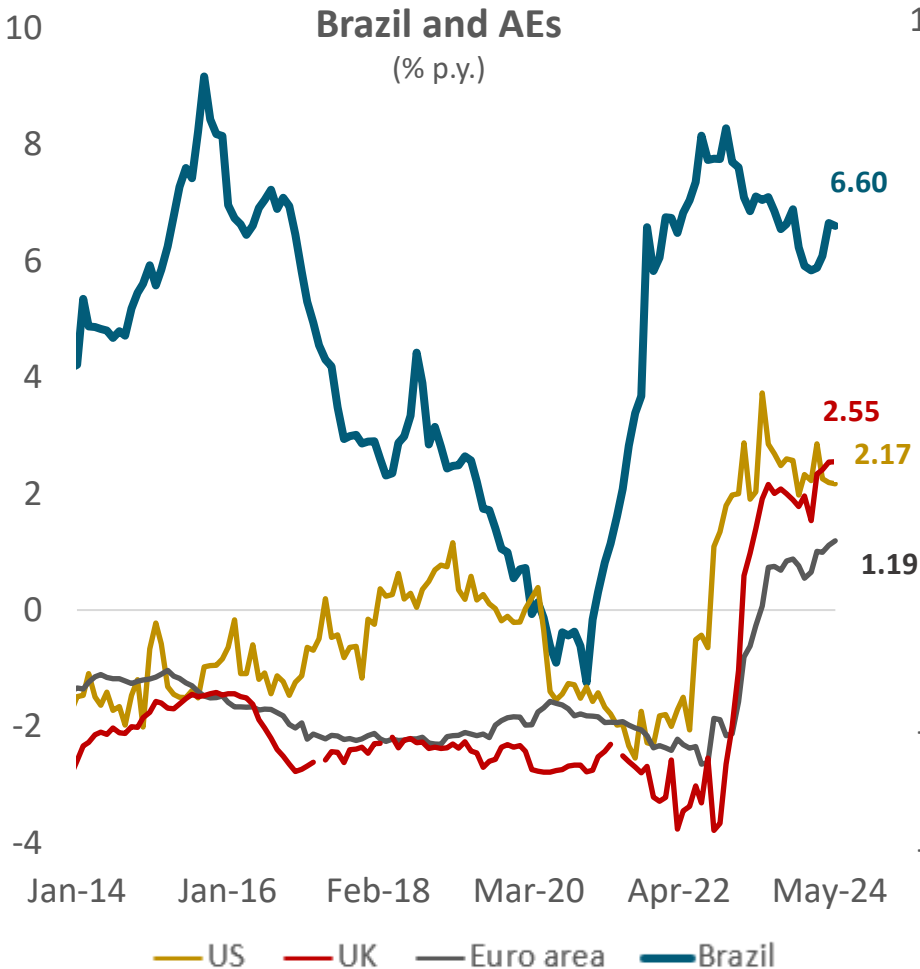
- Considering the evolution of the disinflationary process, the assessed scenarios, the balance of risks, and the broad array of available information, Copom decided to reduce the Selic rate by 0.25 percentage points, to 10.50% p.a., and judges that this decision is consistent with the strategy for inflation convergence to a level around its target throughout the relevant horizon for monetary policy, which includes 2025.
- The Committee unanimously judges that the uncertain global scenario and the domestic scenario, marked by resilient economic activity and deanchored expectations, require greater caution.
- The Committee also stresses that monetary policy should continue being contractionary until the consolidation of both the disinflation process and the anchoring of expectations around the targets.
- The Committee also reinforces, with special emphasis, that the extension and adequacy of future changes in the interest rate will be determined by the firm commitment of reaching the inflation target in the relevant horizon.

Real interest rate has fallen in Brazil relative to its peers.

Ex-ante real interest rates:

Brazil and AEs

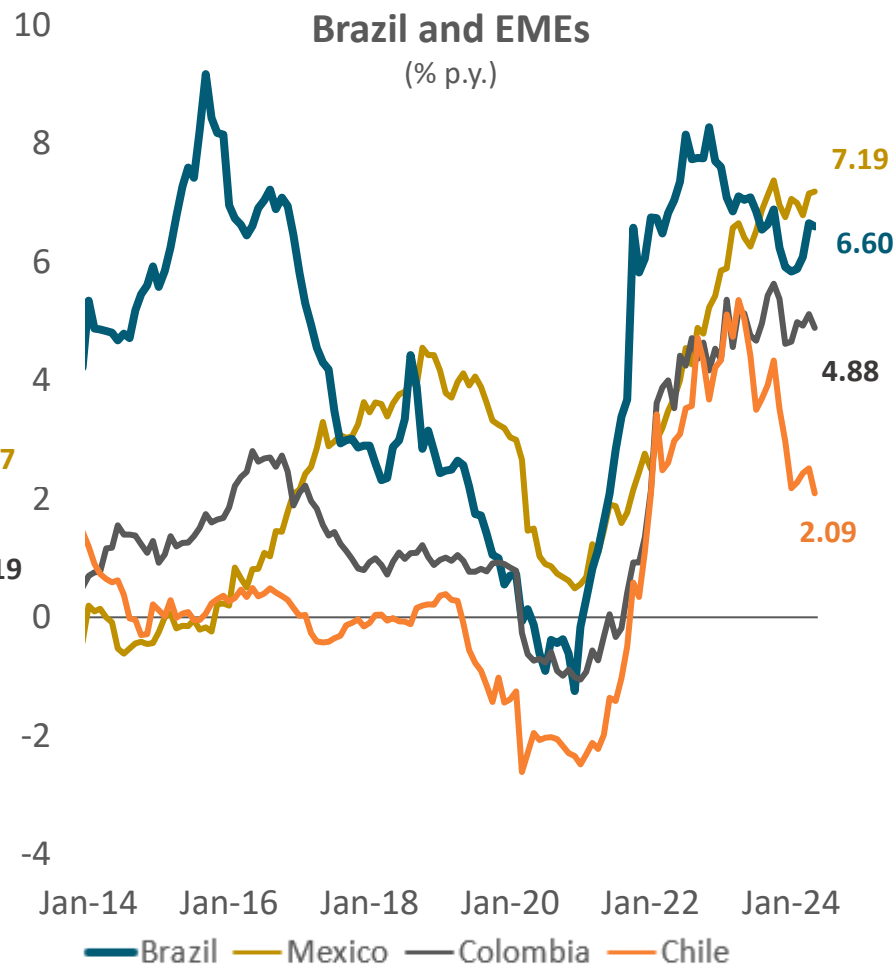
(% p.y.)



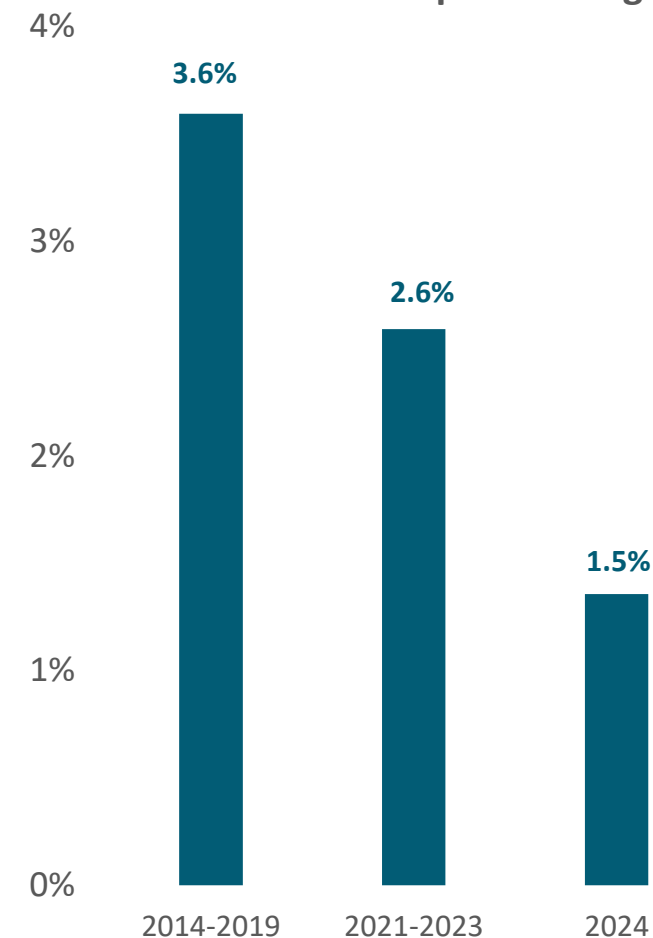
Ex-ante real interest rates:

Brazil and EMEs

(% p.y.)



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

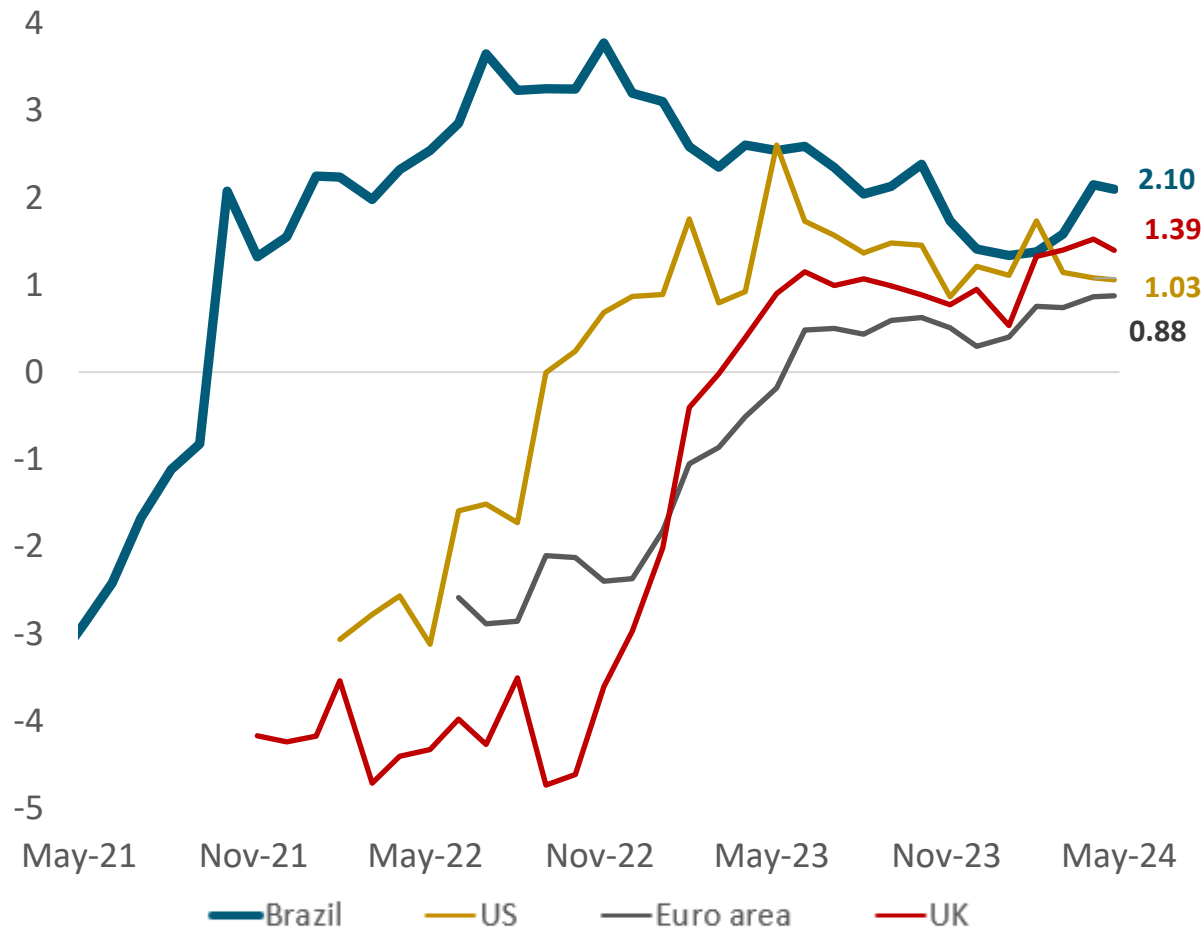


Difference between the real interest rate and the neutral rate is lower in Brazil than in its peers.

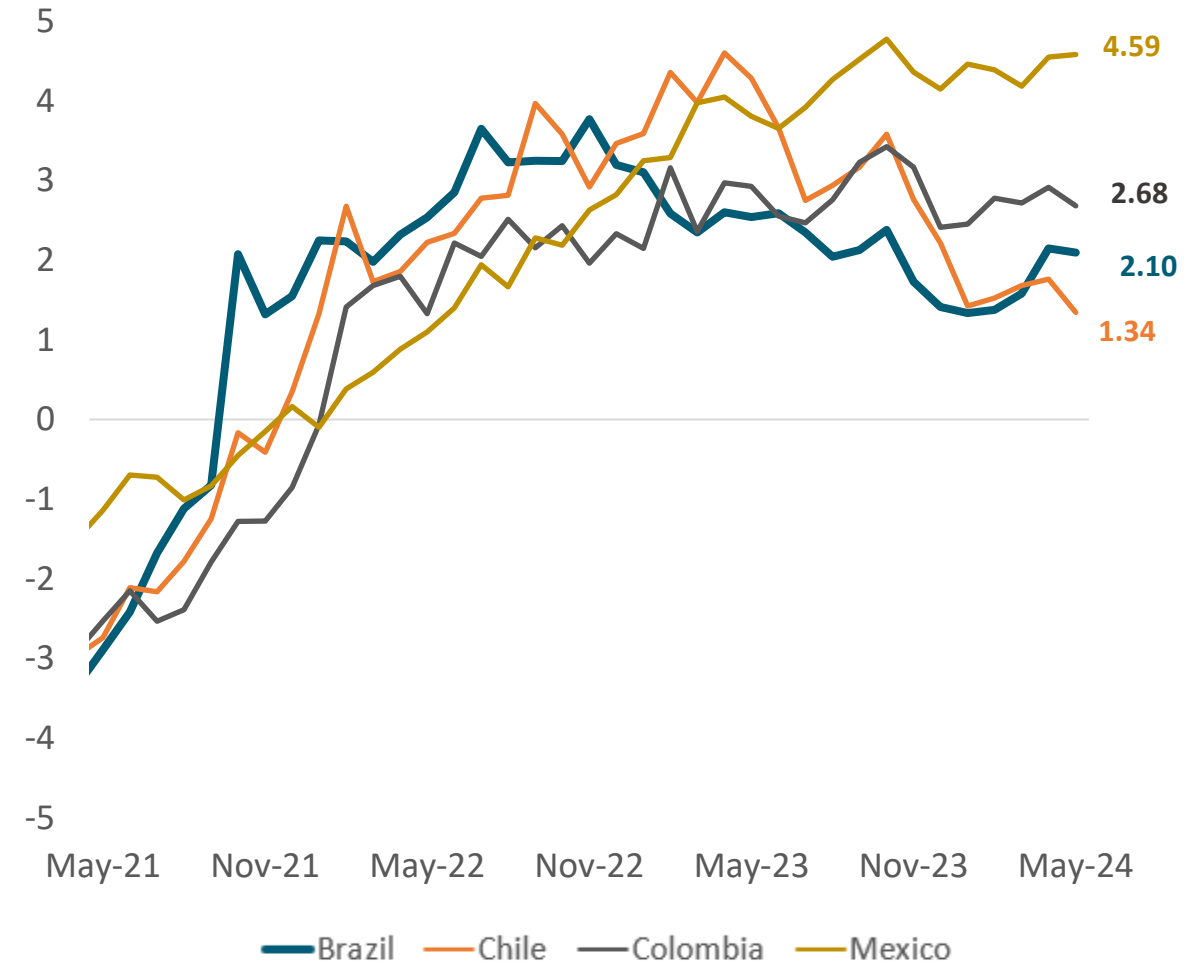
Monetary effort: 1-year real interest rate minus real neutral rate

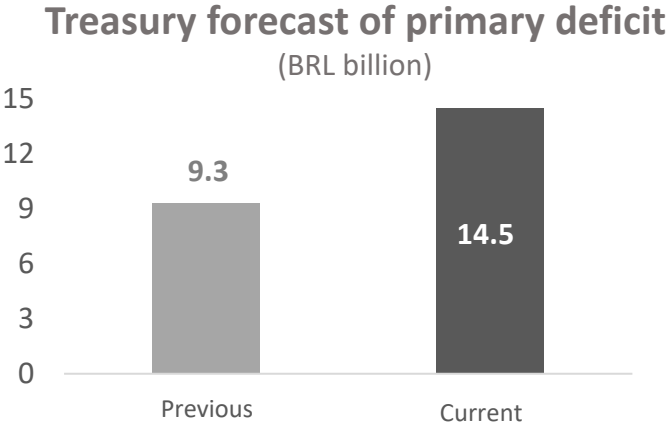
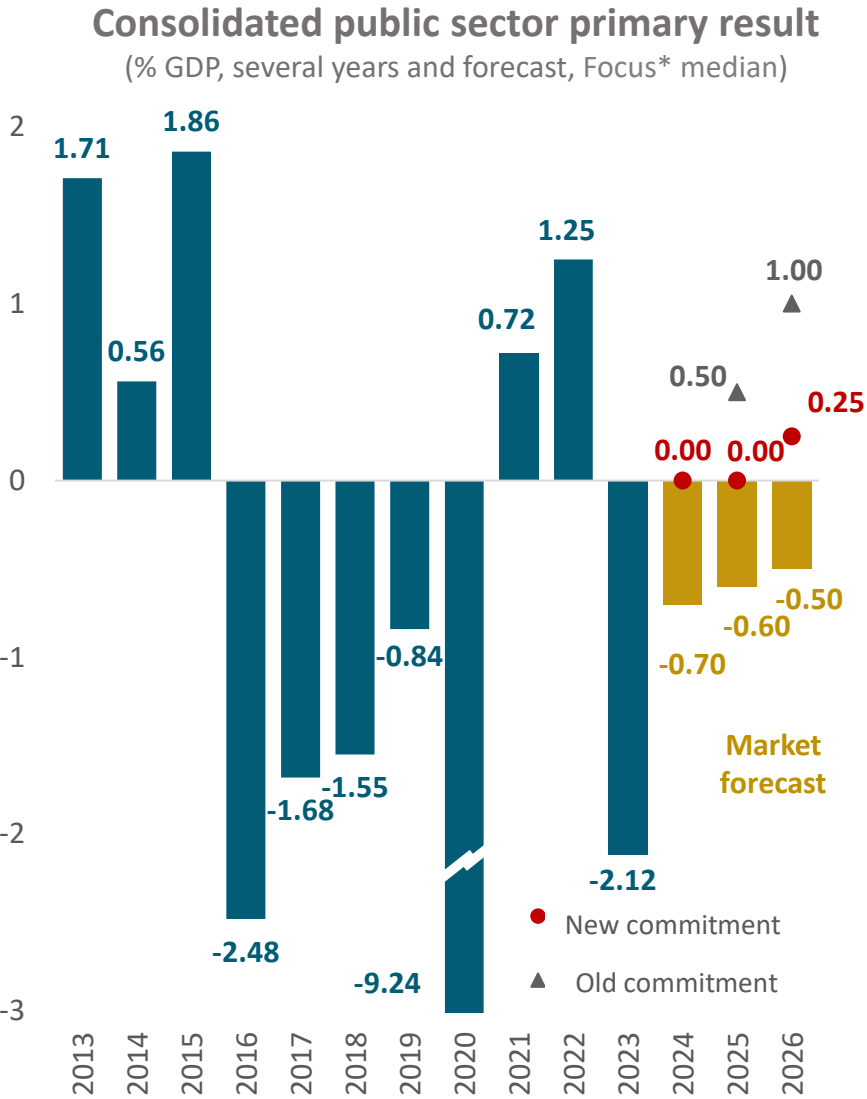
(p.p.)

Brazil and AEs

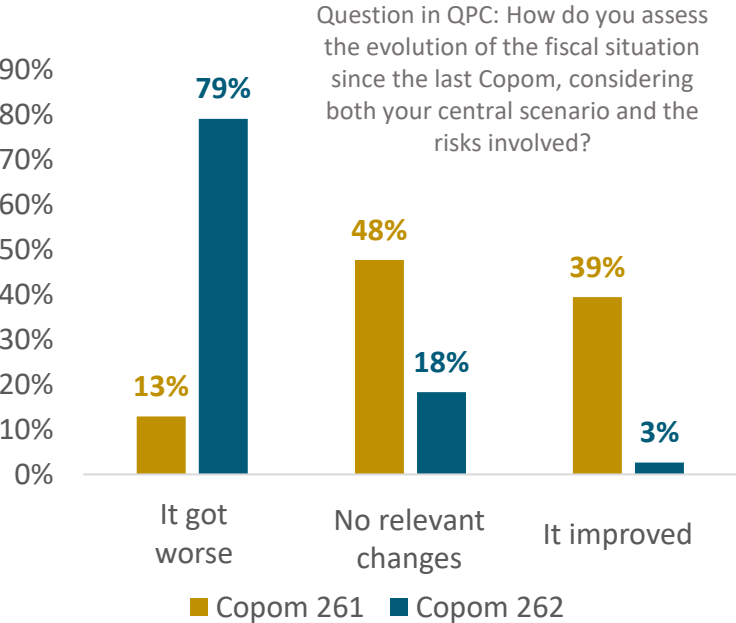


Brazil and EMEs



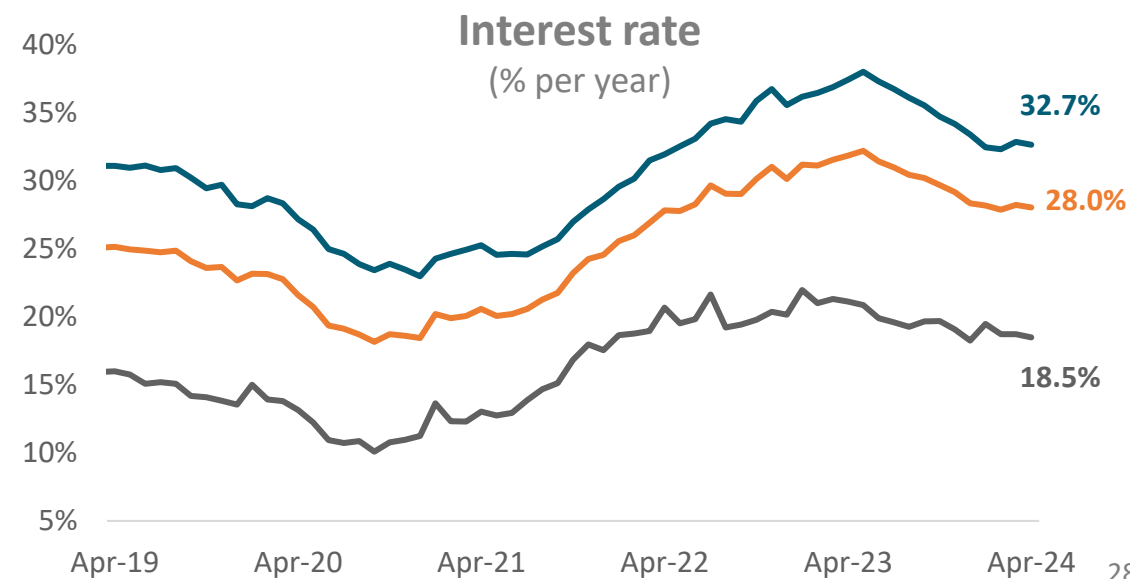
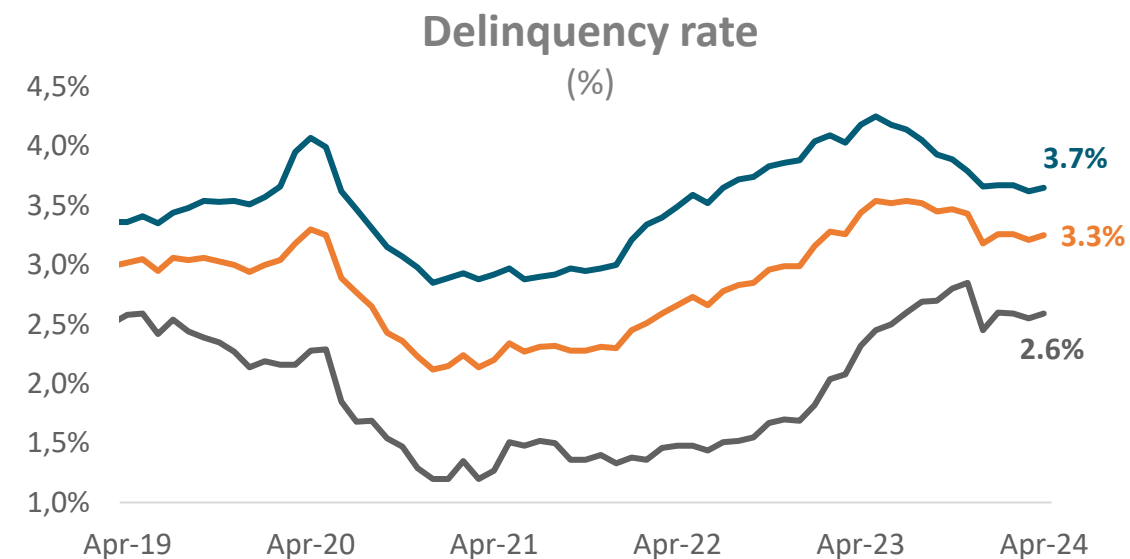
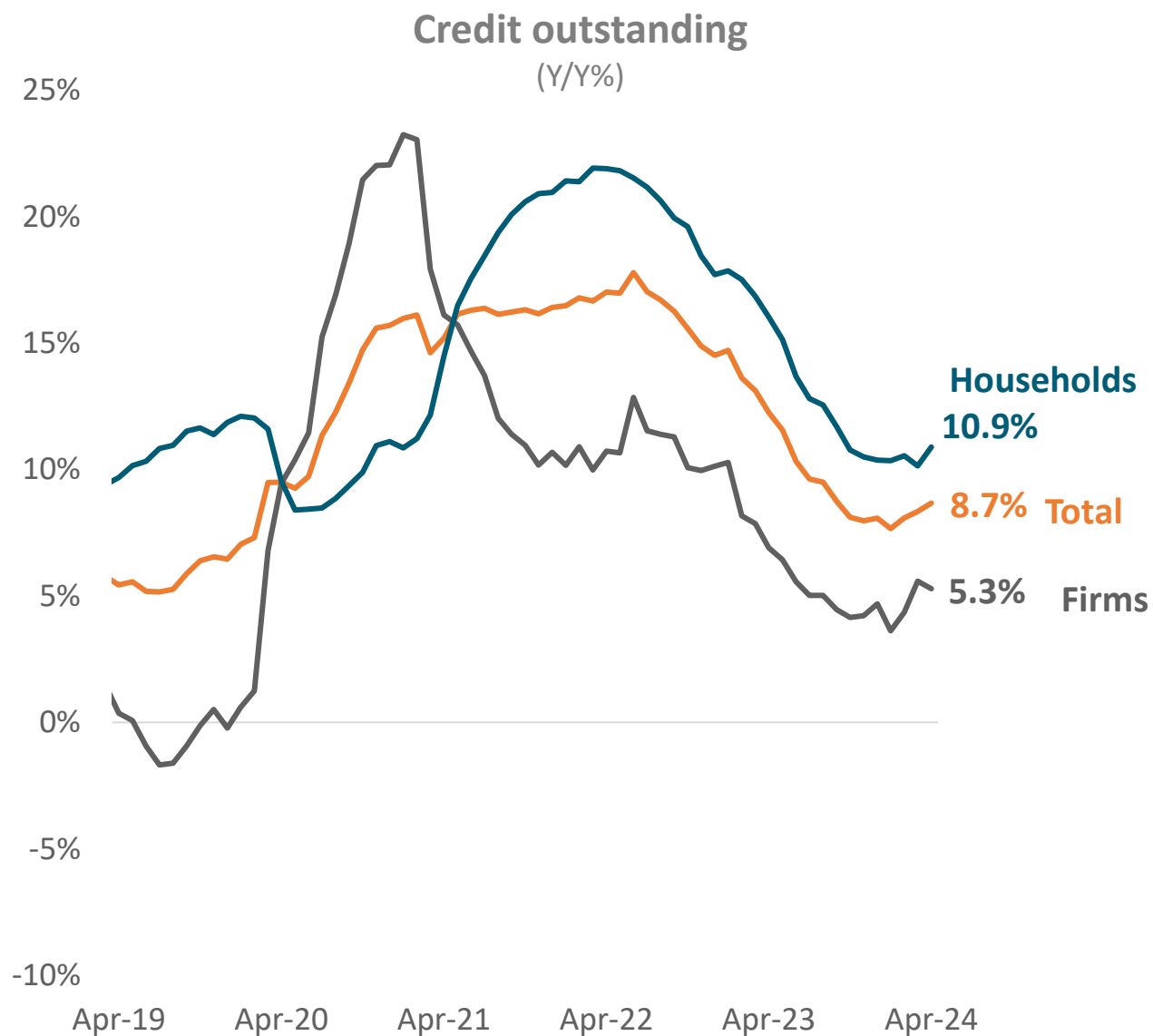


Assessment of fiscal since the last Copom



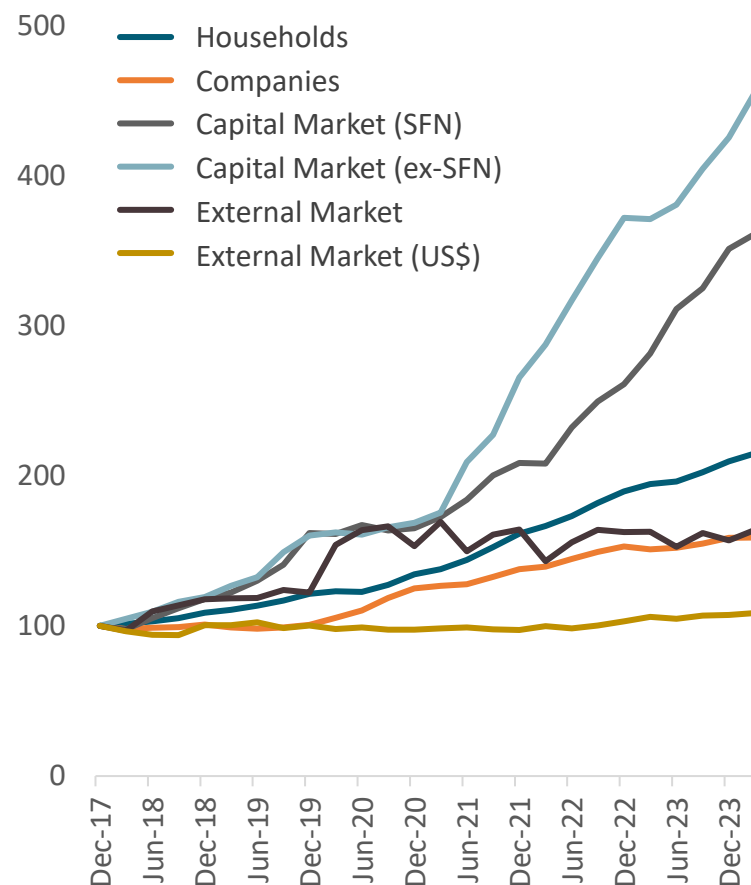
Sources: BCB (Focus Report), National Treasury and 2025 PLDO.

* Updated until 05/31/2024



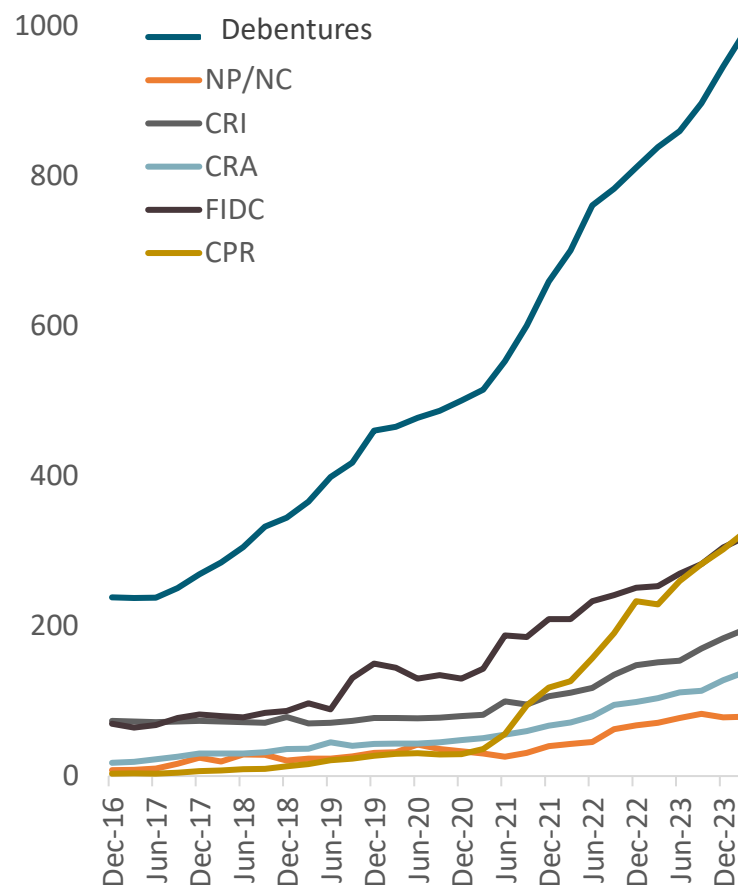
Total credit

(Dec/2027 = 100)



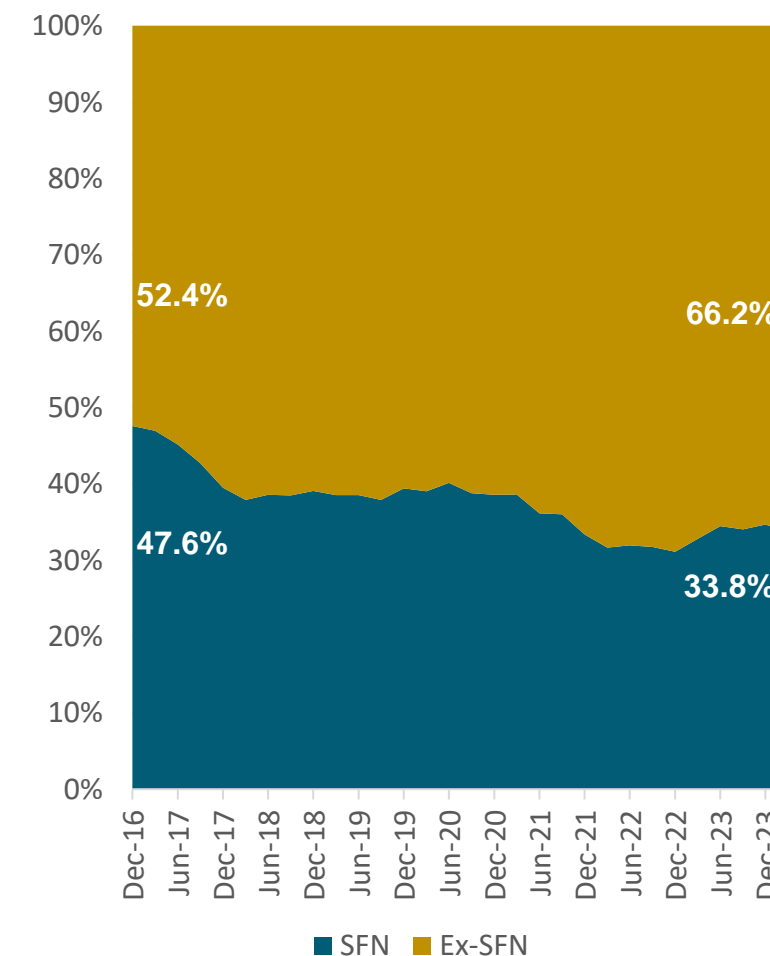
Capital markets

(credit outstanding, BRL billion)

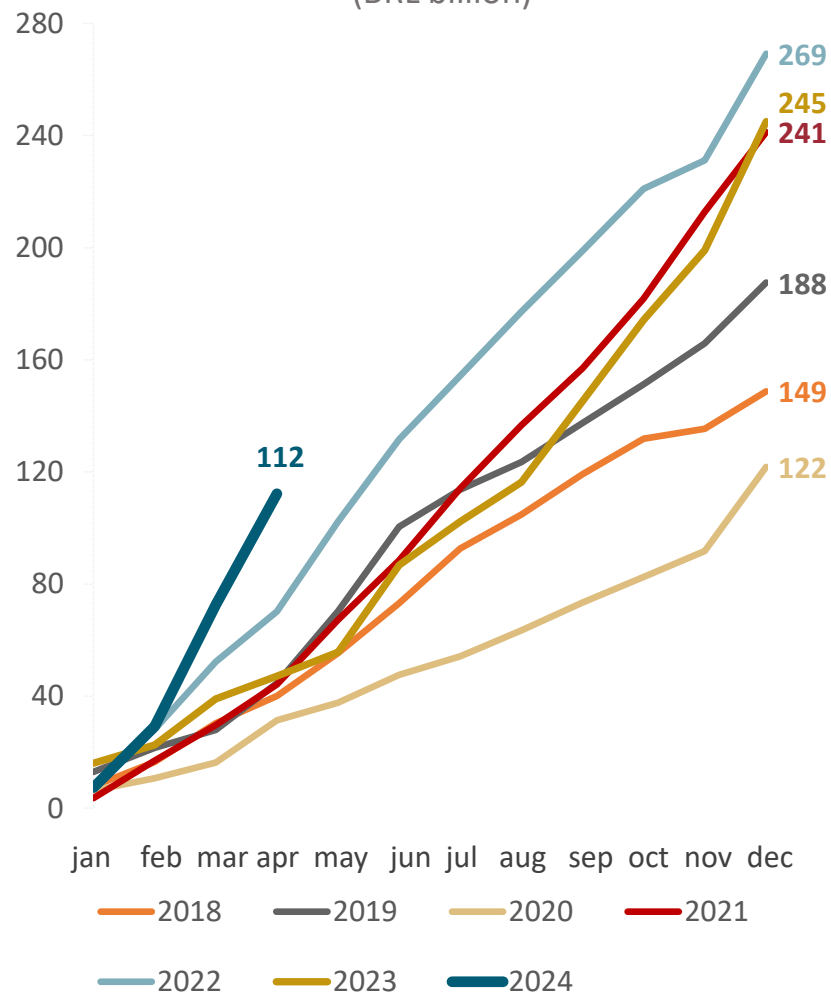


Capital markets

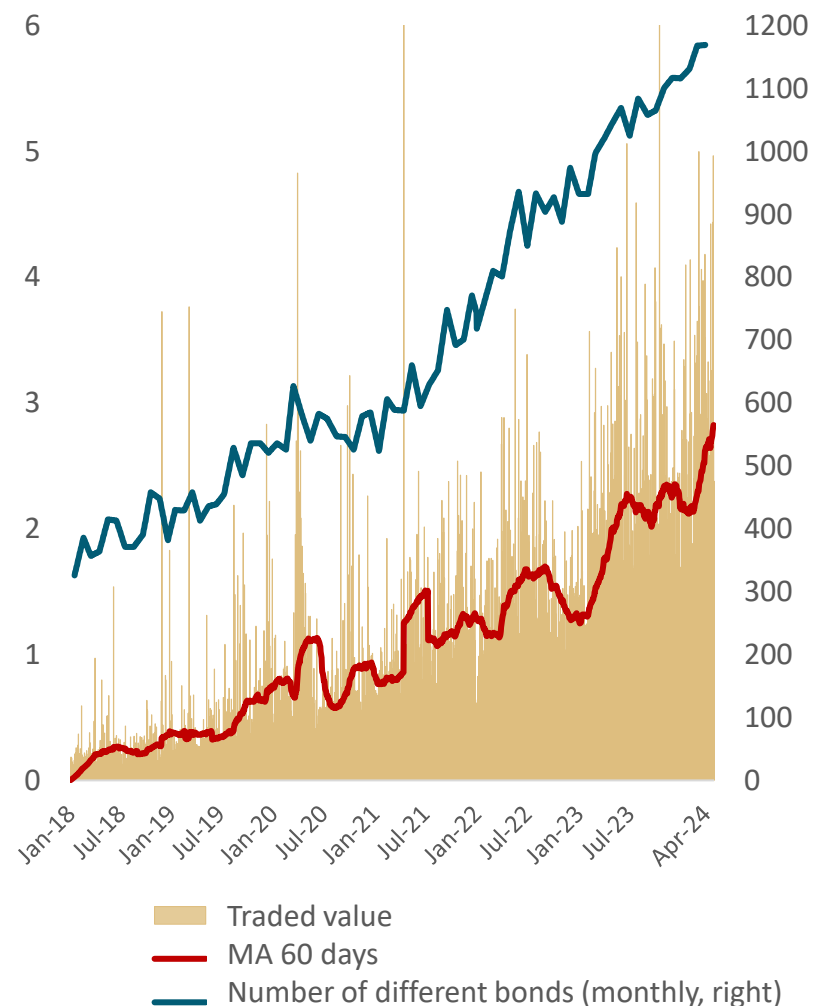
(credit outstanding, shares)



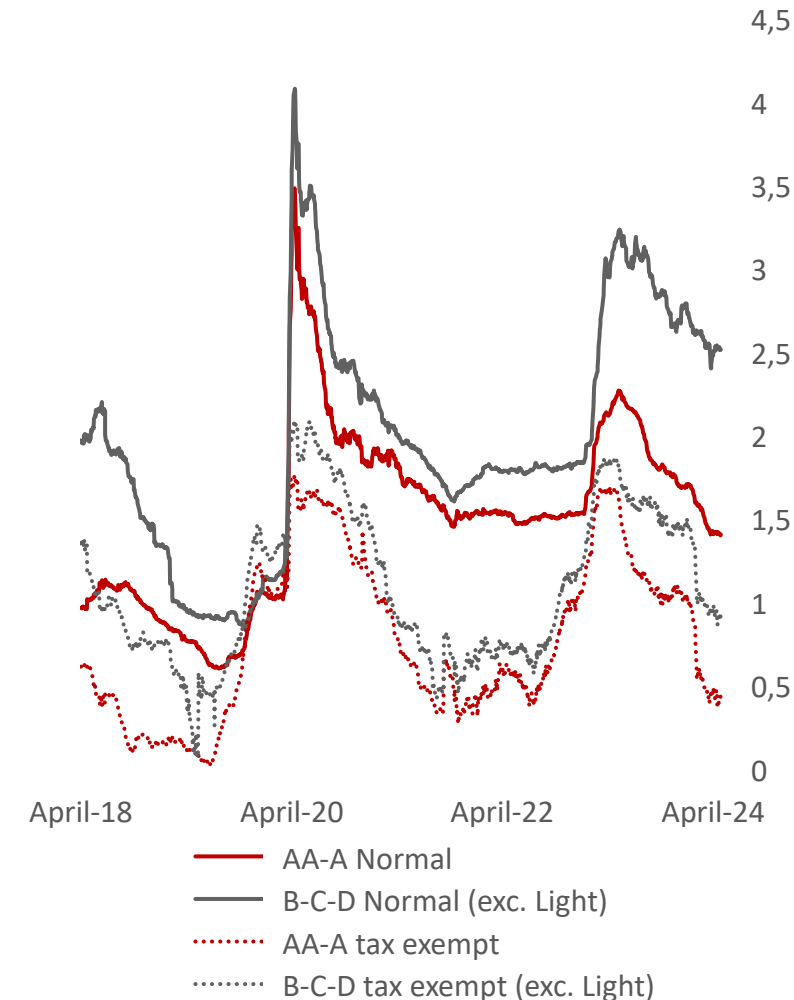
Issuance in the primary market
(BRL billion)



Secondary market – daily values
(BRL billion)



Spreads
(daily, p.p.)

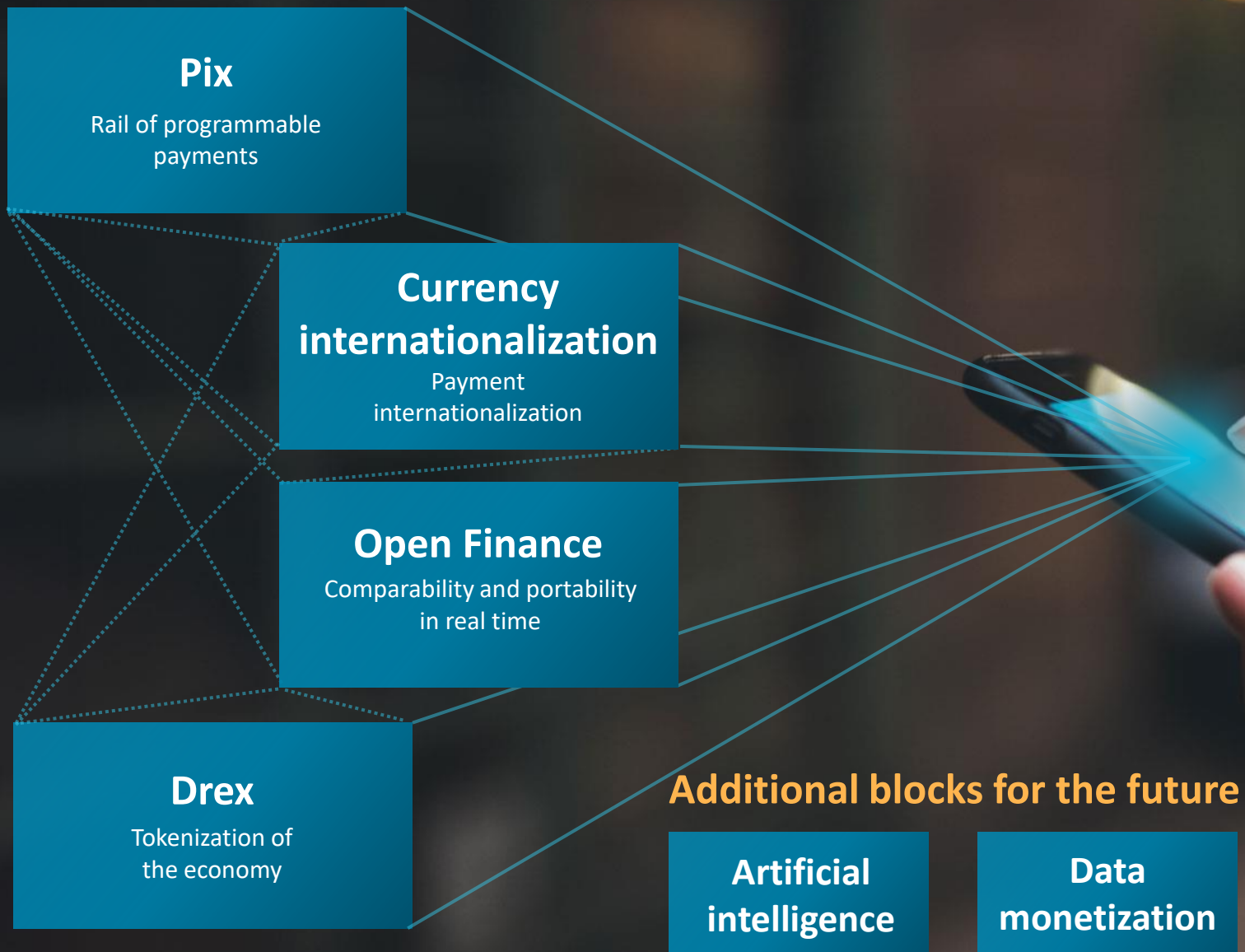


Technology Agenda

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

754 million

active Pix's keys.

150 million people and

14.5 million companies use Pix.



201.6 million operations in one day

4.9 billion transactions in Apr/24, against **3.2 billion** in May/23, **increase of 53%.**

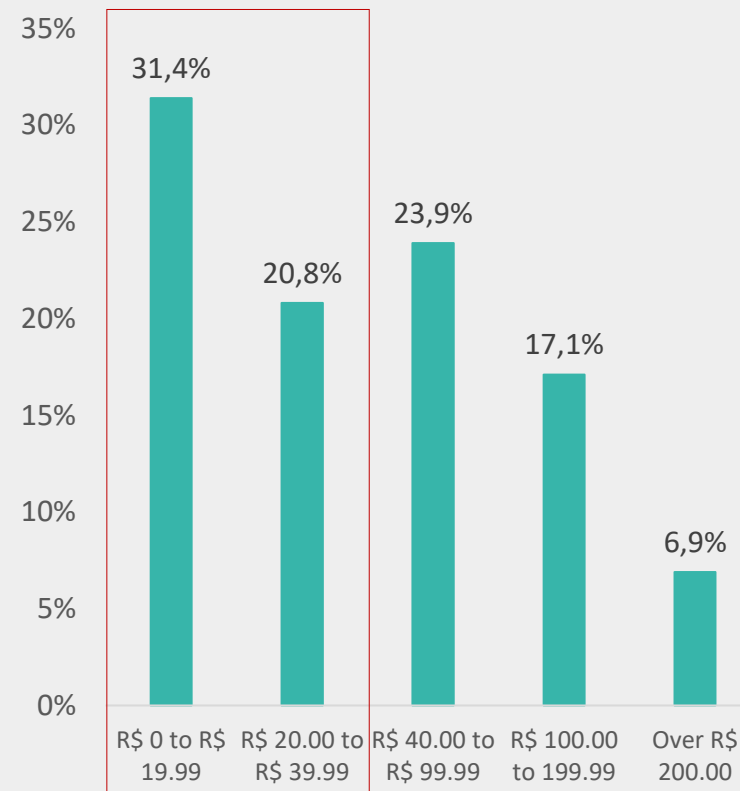
Sources: BCB, BIS.

Pix and financial inclusion

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

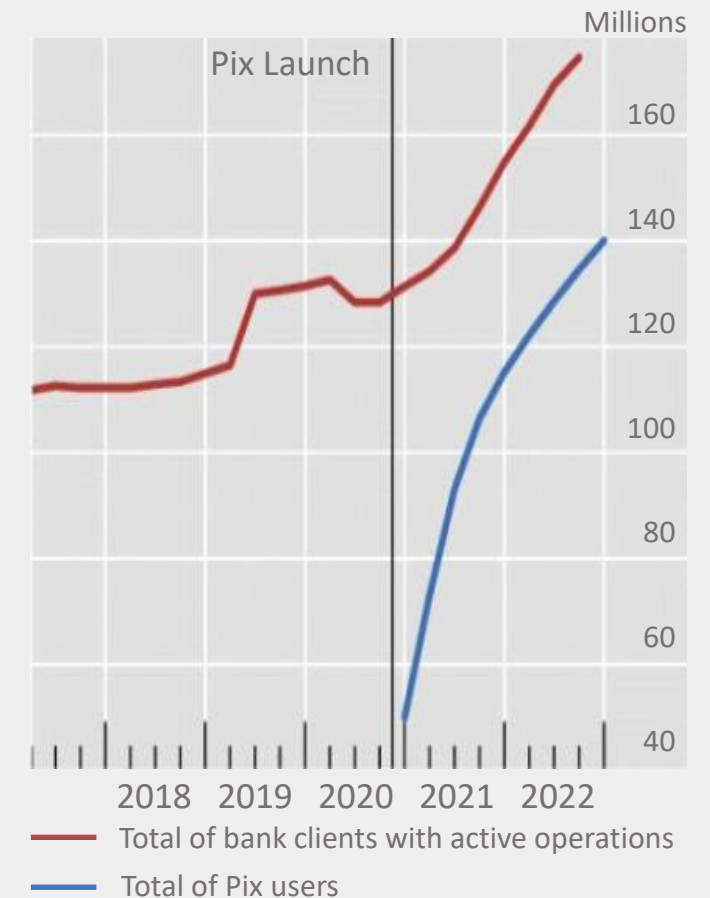
Transactions by value range

(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:

Incumbent financial institution I:

- R\$ 1 billion in credit via portability.
- R\$ 700 million increase in customer credit limit.

Incumbent financial institution II:

- R\$ 1.5 billion in more profitable investments for the client.

Incoming financial institution:

- R\$ 8 million in savings from paying overdraft interest at another financial institution in the first twelve months.
- 1.4 million customers notified that funds held at another institution could be earning interest.

Payment institution:

- Analysis of data shared via Open Finance already results in 80% of credit origination for new sellers.

Credit cooperative:

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

Evolution of Open Finance

- **Portability via Open Finance:**

- ✓ Credit
- ✓ Wages
- ✓ Investments

- **One-click payments (wallets and e-commerce).**

- **Features for companies.**

- **Credit Marketplace.**

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

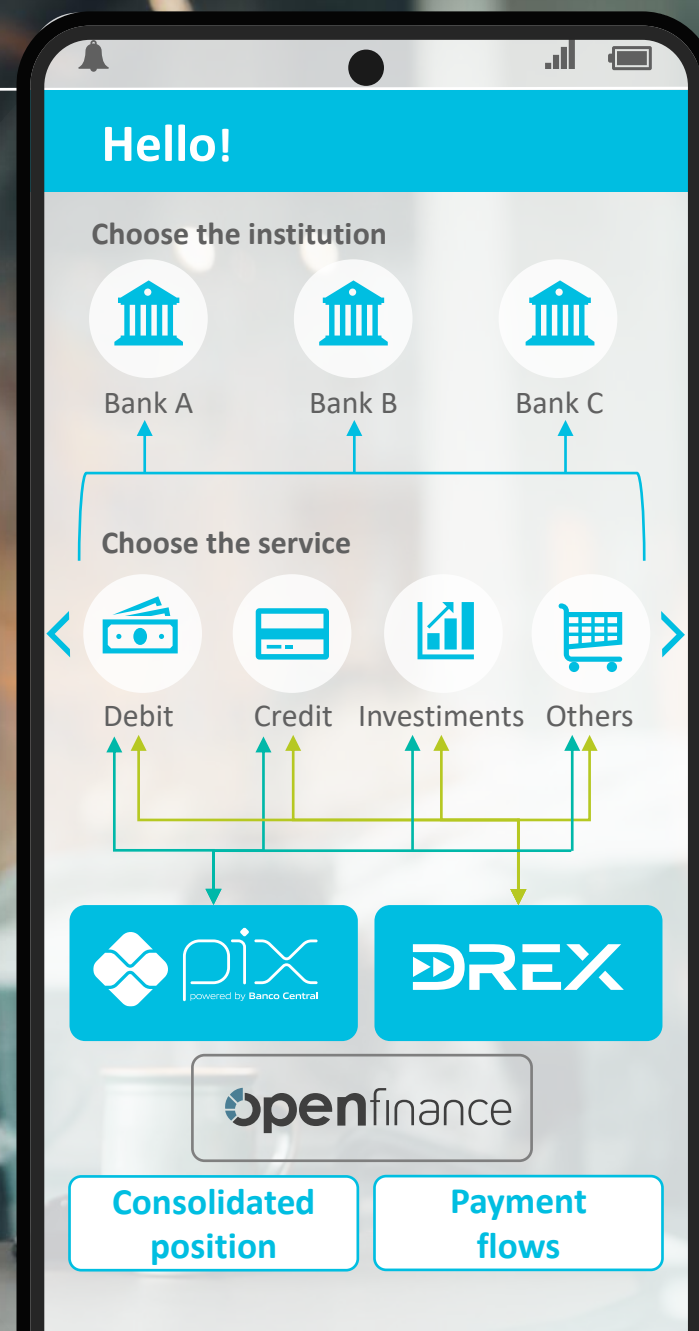
Business scope:

- 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

Artificial intelligence



- The use of AI in the Super App can transform it in a financial advisor of the future.
- With programmability, connection with marketplaces and a comprehensive dataset, AI can be used in the 4 blocks for:
 - Financial consulting
 - Financial education
 - Process optimization (software and hardware) and improvements in the user experience.

Data monetization



- Data has become a great asset.
- Users are the owners of their data, but it is currently very difficult for them to monetize it.
- With marketplaces and connection between platform and digital wallet, clients will be able to store their data and monetize it.
 - Interaction of tokens with digital wallet



G20 • 2024

TechSprint

In 2024, the G20 Techsprint aims to stimulate the development of sustainable finance, with challenges aligned with current G20 priorities.

Proposed Challenge:

- Nature-based solutions (NBS)
- Environmental, social and Governance (ESG)
- Sustainable Development Goals (SDG)

Thank you!

Roberto Campos Neto

Governor of the Banco Central do Brasil

June 10, 2024

