

3rd QTR – JUL/23

MACROECONOMIC SCENARIOS AND PERSPECTIVES ON BRAZIL 2023/2024

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Summary

- OPENING STATEMENT
- POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS
 - WORLD
 - BRAZIL
- MARKETS
- REDWOOD MACROECONOMIC FORECAST 2023 AND 2024
- CONCLUSION

OPENING STATEMENT

Brazil: a disturbing... and intriguing country!

Quantum mechanics suggests that the future can affect the past. Several non-physicists politicians who are part of that administration strongly believe in retro-causality and, with the same moral dimension that these physical systems study, work hard so that the recent history of Brazil can be rewritten soon. This determination, orchestrated to perfection, will be undoubtedly carried out as first priority. Everything else is secondary, and the efforts and resources to do so will be limitless. To achieve this goal anything goes, including narratives to defend party comrades inside and outside the country. The campaign is wide-ranging and is meant to be long-lasting. With a people who are sweet-tempered (when not apathetic) and cordial (when not cowardly), the 8th of January 2023 (day of infamy!) was anything but an attempted coup, and left a memory of savagery, lack of intelligence and stupidity. Here is the confrontation of the sides that some try to establish. The country ended the elections divided, but the winning side knows how to organize itself (in this sense) and use the public machine in its favor, while the current opposition picks up its pieces. The result of these political actions has cost the country too much, and we see no signs of any toning down of it. It is really very disturbing to see the chaos that we could enter, not to see that we should have a construction through disagreements, but with hard work, sacrifices (of course!) and services provided for the good of the country. Naïve? Perhaps. But above all, comes the determination of the Brazilian people, who chose their Representative for the third time! Politics is essentially linked to morality, and the community (far from passive!) will need to be attentive!

The Political, Economic and Financial Scenario – Brazil, presented below, results from the domestic and international landscapes assessment, wherein strong geopolitical tensions amid troubled economic and social challenges faced in several countries. The Brazilian political position, in agendas that range from the economy to the defense of the Amazon, has numerous aspects that contrast sharply with those defended and practiced in the previous term. In this study of political and economic scenarios, we present, criticize and ponder the likely combinations and trajectories of the main macroeconomic variables and opportunities. The Probabilistic Scenario, the result of holistic considerations, intends to flesh out these paths.

In this way, we spent the H1 2023 with countless breakdowns, unnecessary fights and an endless “witch hunt”. But not all was bad, or confirmed as “terrible” as expected. This is the case with the design of the New Fiscal Framework which, far from good, was not tragic either, that is, it does not indicate debt sustainability, but neither does it point to an explosive trajectory. The approval of the Tax Reform, after decades, despite its replacement with adjustments over the original proposal of PEC 45, points to a way out of this tax madhouse that we live in and which delays us so much. As the Pension Reform was not part of the Bolsonaro administration, the Tax Reform is not part of the Lula government either, but both are a State-level project for the people. It doesn't matter who will claim political paternity. But it matters a lot that the government controls its language and attitudes, so as not to repress (as it did by impacting interest rates) an expectation of improvement in the financial market seen recently. Do we foresee a euphoria in the markets? No, just cautious optimism.

Overseas, the Russia-Ukraine War (which is more like Russia-US) completes 500 days and advances without mercy, and shows Russia's command weaknesses at the same time that supplies are running out of Ukraine. Its effects on supply chains are normalized as countries find alternatives, reducing initial impacts around the world. In China, its economic growth is truly below what was expected and there is no doubt of strong government intervention in this H2 2023. In Europe and the USA, their monetary policies will continue to be tight and, although the Fed has opted out of raising interest rates in June/23, it should resume the pace - as well as the ECB. In the US and Europe: high inflation and some (low) recession risk.

Our Scenarios point out, as far as an exciting country like Brazil goes, good opportunities for better investment allocation. Count on us!

Do we foresee a euphoria in the markets? No, just cautious optimism.



**POLITICAL, ECONOMIC AND
FINANCIAL SCENARIO**

INTERNATIONAL OUTLOOK

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Overseas - World



- Growth of 1.6% is expected for 2023. There is fear of a mild recession at the end of the second half;
- Despite the cooling of inflation, the persistence of the high core may indicate resuming interest rate hikes by the Fed. Inflation in June is expected to be 3.1% yoy;
- Driven largely by the service sector, employment data in the US labor market remains strong, despite 10 consecutive increases in interest rates. In the first half, 1.67 million jobs were created. Unemployment remains at 3.6%;
- Trump's increased rejection and his issues with the justice system could make Ron DeSantis the Republican candidate in the 2024 election against Biden;
- Joe Biden reaffirms his commitment to Ukraine's security and arms, but foresees an end to the conflict before the country's entry into NATO;
- Janet Yellen visits China in an attempt to stabilize bilateral relations with the country. Despite significant disagreements, talks aim to strengthen relations;



- Despite the government's official 5% growth target for 2023, the timid result in the first half, driven by the cooling of the real estate market and strong youth unemployment, led to low consumption in the Chinese economy;
- Chinese government adopts measures to boost loans in order to strengthen the real estate market recovery. The sector corresponds to approximately 30% of the Chinese GDP;
- Deceleration of prices in June to -0.2%, projections pointed to an increase of 0.2%. Inflation is expected to be 2.15% in the year 2023;
- PBoC cut interest rate to support growth. The decision raised expectations of more monetary and fiscal stimuli;
- Chinese government reinforces request to the US not to align with Taiwan while intensifying military exercises around the island;
- Lula's trip to China, agreements and request to substitute the dollar in negotiations within the BRICS marks a new step in the bilateral relationship with Brazil;

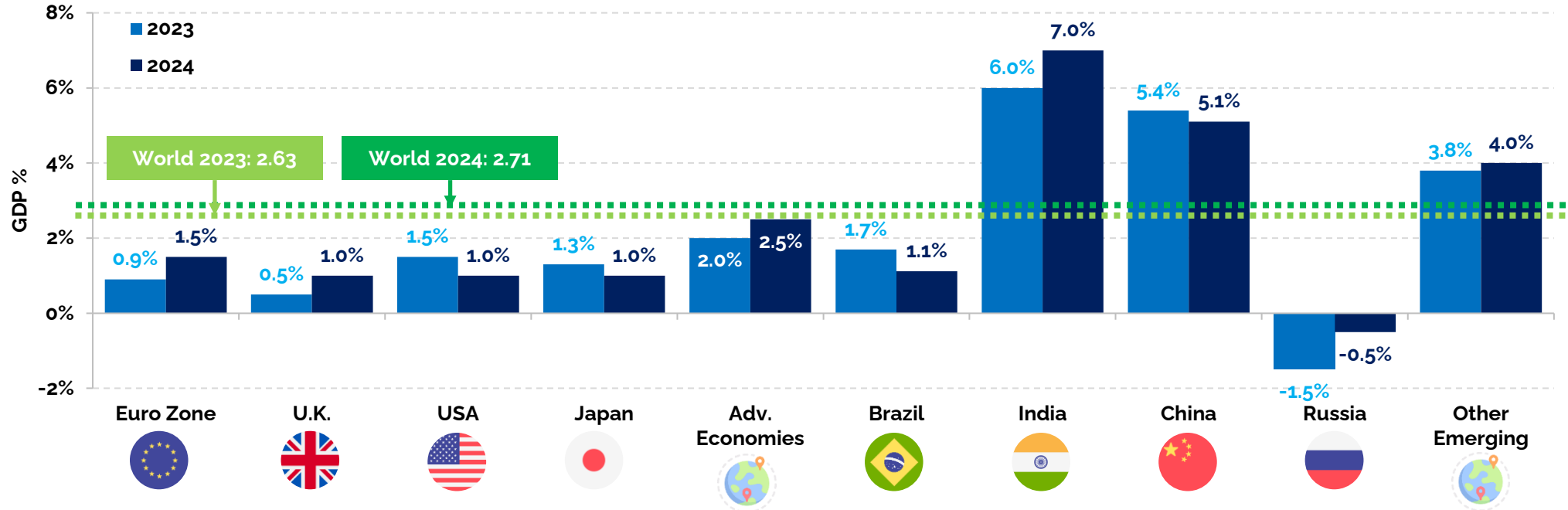


- After peaking at 10.6% in October (in the past 12 months), Euro Zone (EZ) inflation dropped to 5.5% in June. Core inflation is still persistent;
- The bloc's unemployment rate faces a downward trend, reaching 6.5% in May;
- United Kingdom: BoE focused on reducing inflation (9% in 12 months) should continue raising interest rates. Economic growth of 0.4% is expected in 2023;
- Germany: high inflation in the 12-month period (6.4% in June) and worsening economic outlook (technical recession) with increased interest rates in the EZ and weak export markets. Economic growth expected at 0.01%;
- Ukraine: uncertain outlook for growth depending on the end of the war. An estimated growth of 0.5% (WB) for 2023. Poverty stoked up from 5.5% to 24.2%;
- Russia: government expects 2% growth, the IMF revised growth forecast at 0.7% for 2023. OECD points to a contraction of 1.5%. Non-alignment of Asian countries (especially India and China) contributes to this outcome.

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Overseas – GDP Countries and World

GDP Major Countries and World
Redwood Forecast



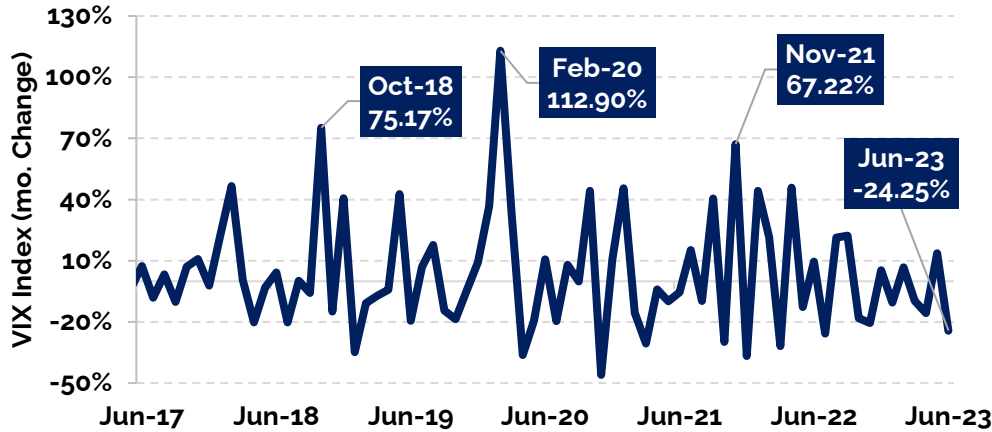
- World economic activity still very low for the 2023/2024 period
- The effects of the pandemic dissipate, while supply chain disruptions normalize
- Effects of the Russia-Ukraine war could re-intensify if it escalates to nuclear/cluster bombs
- Inflation in the major economies slows down, but far from targets and facing a significant convergence period
- Central Banks will remain hawkish despite the Fed's dovish stance in June.

Source: Redwood Forecast | Elaborated by Redwood

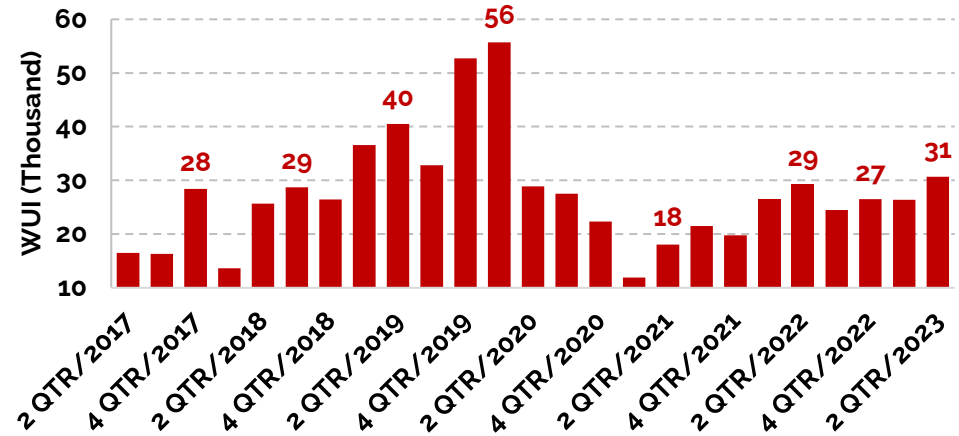
POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Overseas – Risks, Uncertainties and Inflation

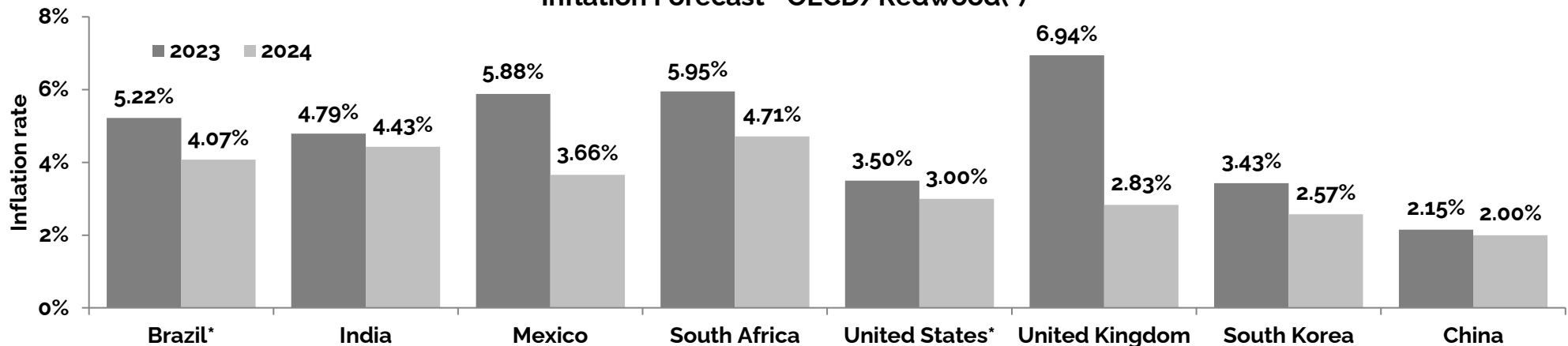
VIX Index



WUI Index



Inflation Forecast –OECD/Redwood(*)

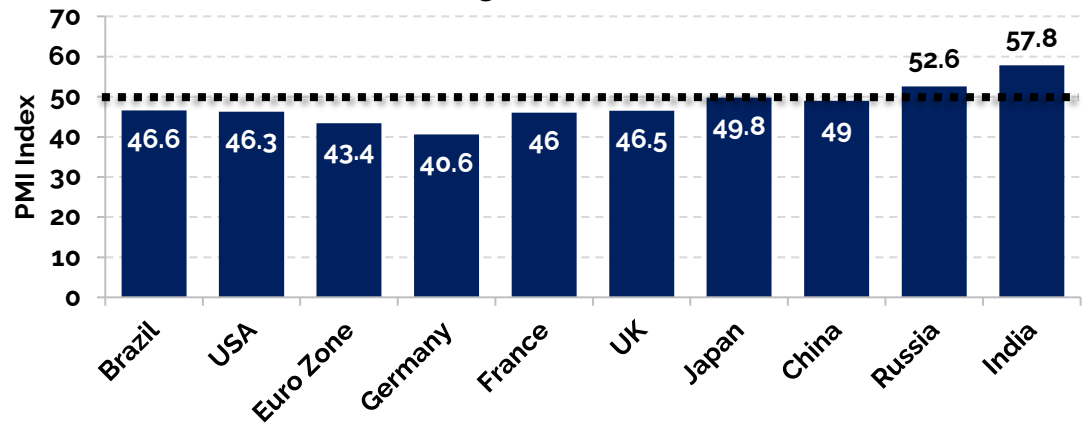


Source: Bloomberg; Worlduncertaintyindex.com; OECD | Elaborated by Redwood *Redwood Forecast

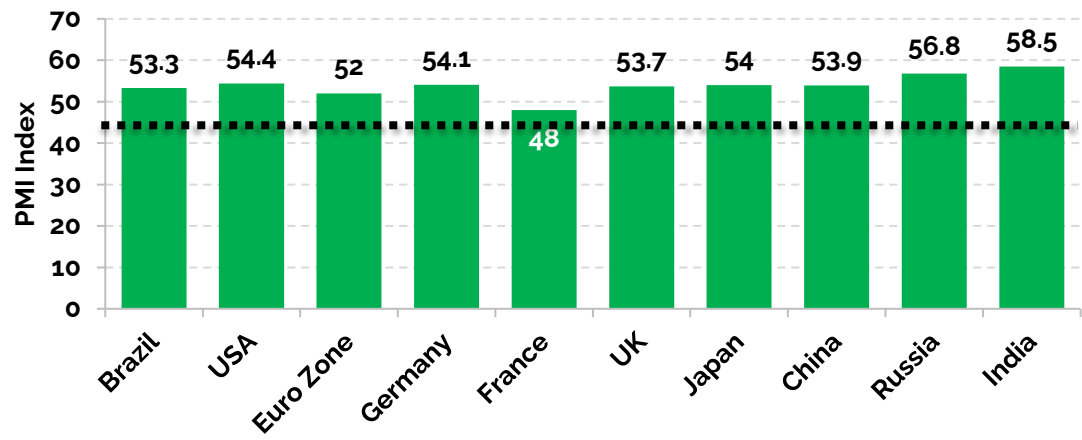
POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Overseas - PMIs Main Economies

Manufacturing PMI Index - Jun/23



Services PMI Index - Jun/23



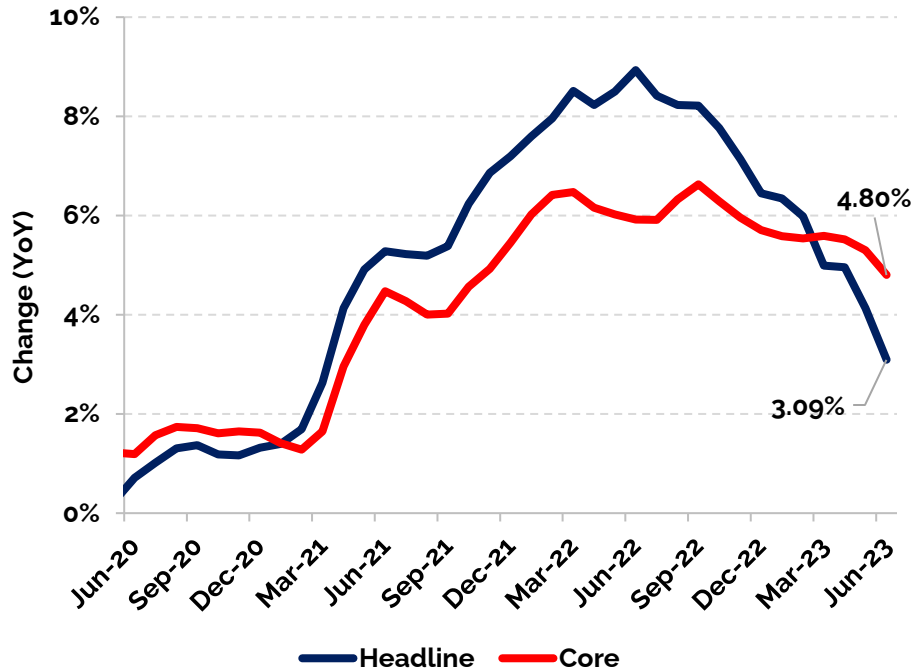
As happened with the data presented in the last scenario, the outlook did not change much. The results continue to show improvements in the service sector, while in manufacturing signs are still not encouraging, for the most part. PMIs, or Purchasing Managers' Indices (scale 0 to 100), for manufacturing and services, measure the respective sectors and, as a rule, values above 50 indicate sectoral growth and, below that figure, sectoral contraction. In Manufacturing, only Russia and India are above the threshold and, in Services, only France is below.

Source: Investing.com | Elaborated by Redwood

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Overseas – Inflation: the core of the problem

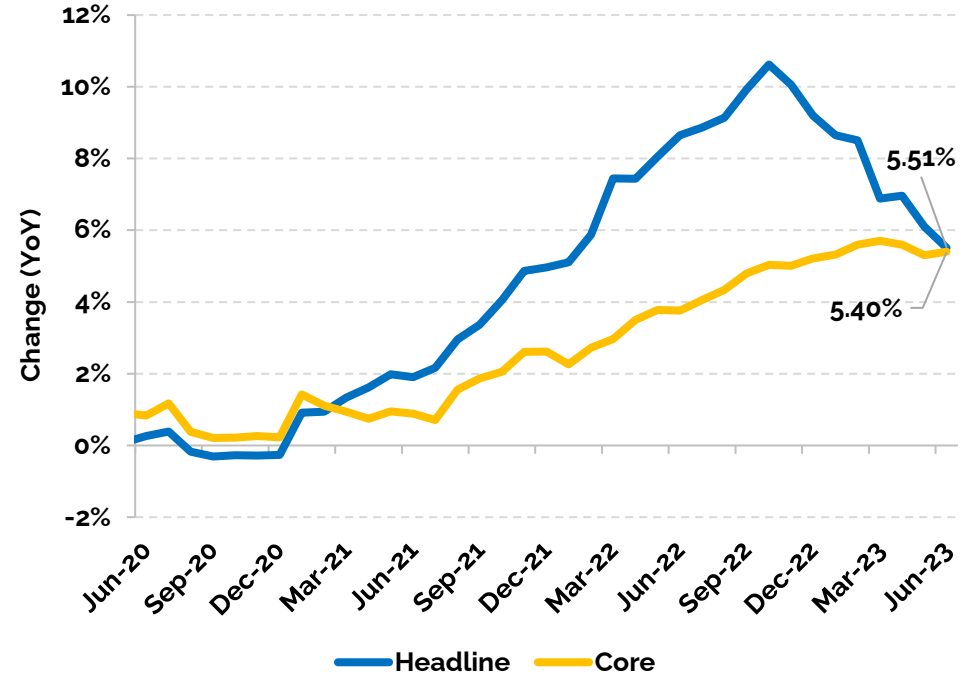
US Inflation – Headline and Core¹



¹Excluding energy and food

Source: FRED St. Louis; Eurostat; Trading Economics | Elaborated by Redwood

Euro Area Inflation – Headline and Core²



²Excluding energy, food, alcohol and tobacco

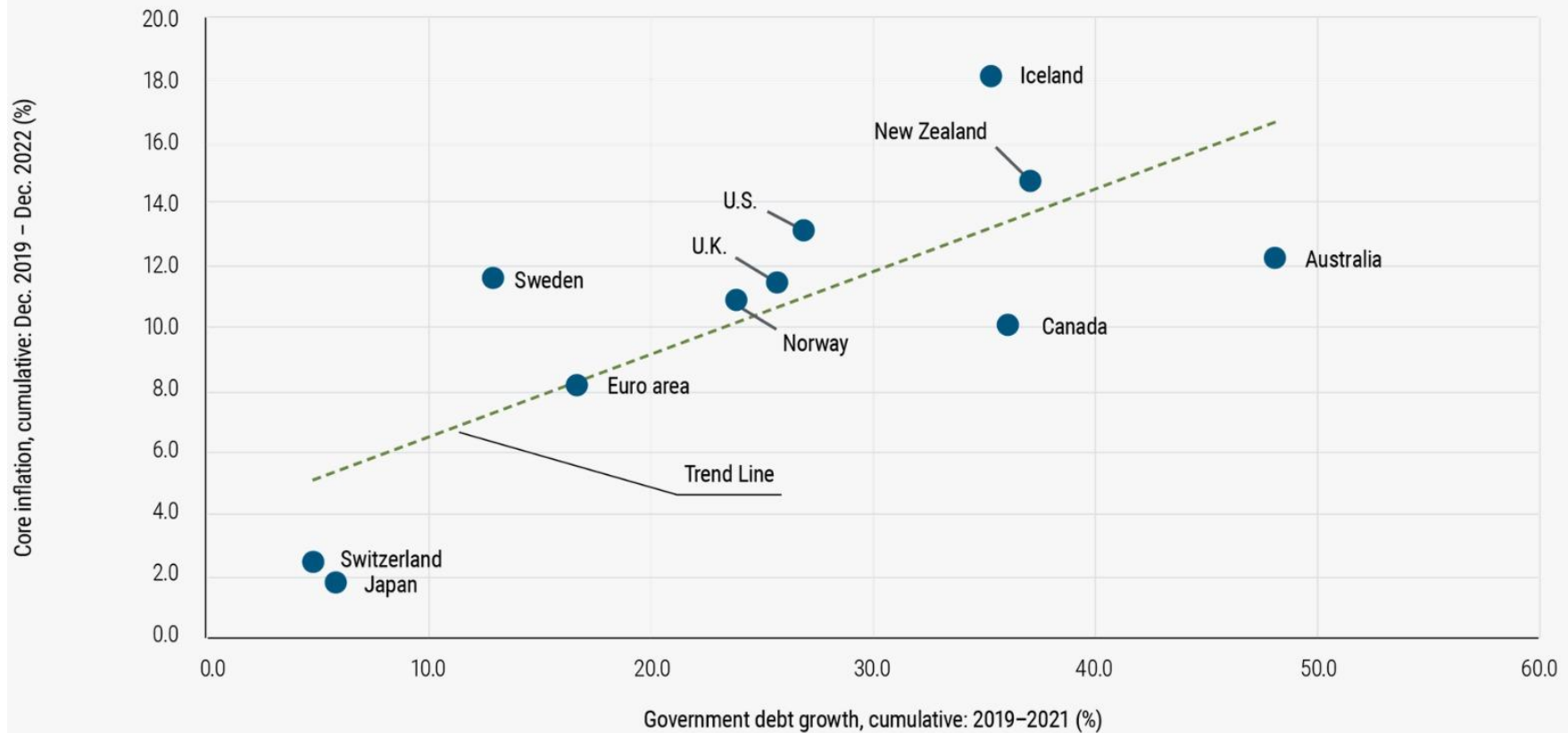
For both the FED and the ECB, core inflation is very important. There is, in theory, no way to make its policies more flexible due to the simple fact that, in essence, inflation has not been tamed. And of course, coordinating expectations is a difficult task when you have a dual mandate - or even worse - multiple mandates. You can't blame the DSGE (or any other) models or keep running recalibrations.

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Overseas – Inflation: positive correlation with public debt growth rate

Figure 1: The post-pandemic period has seen a marked correlation between rising fiscal debt and core inflation in advanced economies

Core inflation vs. government debt growth



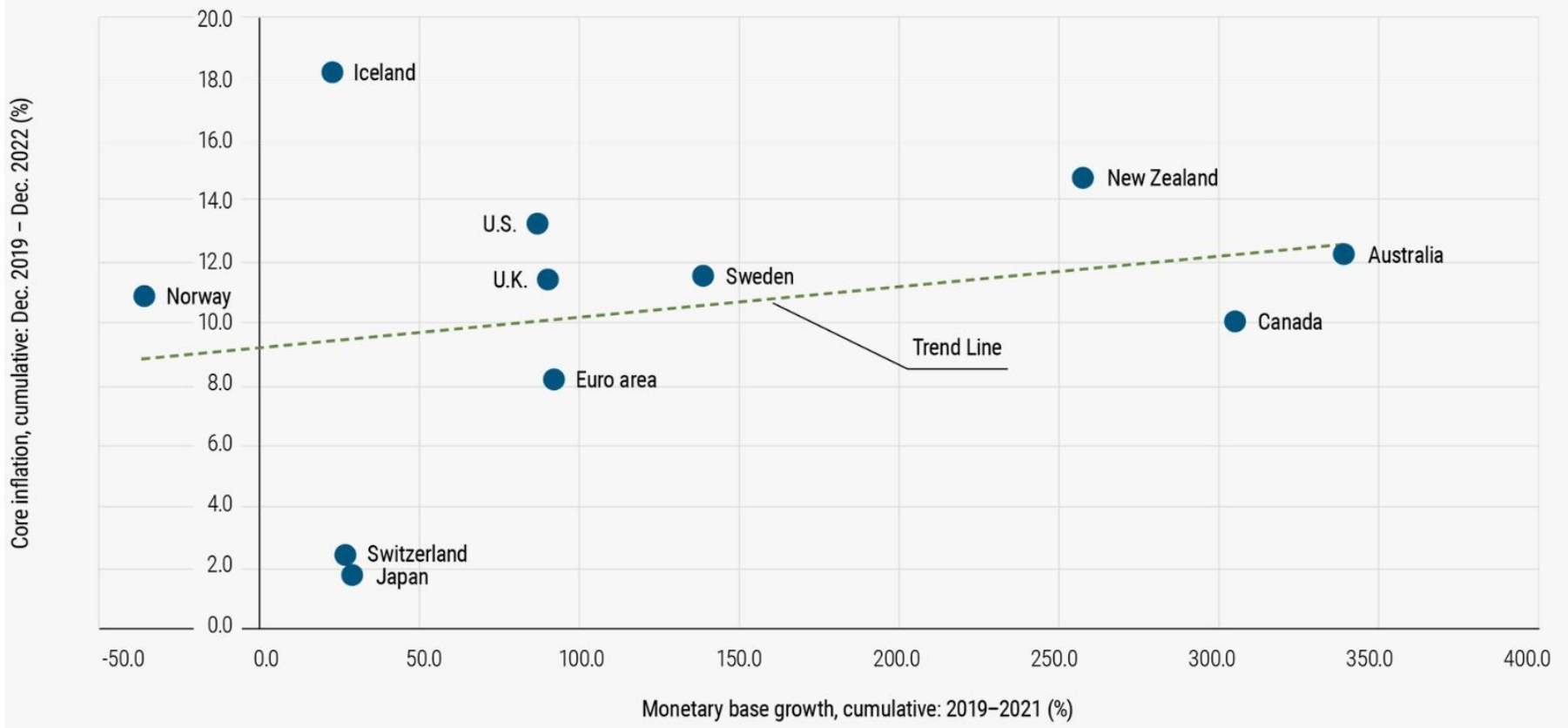
Source: Haver Analytics data from national statistics offices on consumer price indices through December 2022; OECD and Eurostat data on government debt through December 2021

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Overseas – Inflation: “limited” correlation with monetary expansion

Figure 2: The post-pandemic period has seen limited correlation between monetary expansion and core inflation in advanced economies

Core inflation vs. monetary base growth



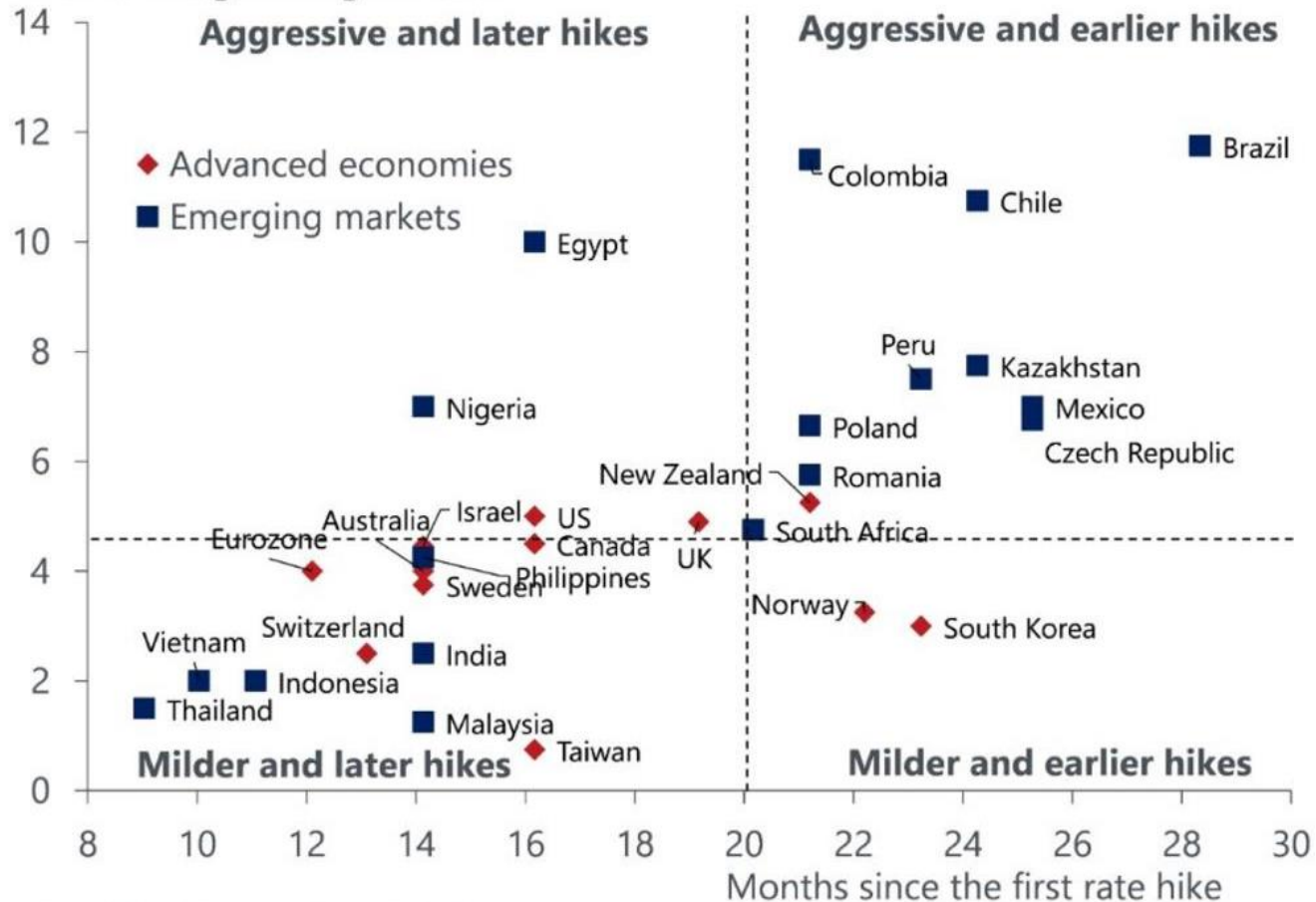
Source: Haver Analytics data from national statistics offices on consumer price indices through December 2022 and on monetary base growth through December 2021

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Overseas – Inflation: assessing reaction by Central Banks

World: Policy tightening

Peak to trough change in rates



Source: Oxford Economics/Haver Analytics

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Overseas – 500 Days of War – launching a New Stage

The outlook of the war in Ukraine

Position of military forces on July 6

- Areas controlled by Russian forces
- Official reports of advances and Russian operations
- Recovered areas and counter-offensives claimed by Ukrainians
- ✦ Explosions/bombings
- Fightings



Sources: escritórios AFP; Institute for the Study of War; AEI's Critical Threats Project; Estado-Maior ucraniano | Free Translation



The war completes 500 days without any prospect of a ceasefire nor peace agreement. More than 9,000 civilians have been killed and millions, displaced.



Several countries destined more than 165 billion Euros to Ukraine during the first year. The US was the largest donor, with more than 70 billion Euros.



The USA-Ukraine partnership further intensifies the dispute against Russia. Ukraine's alliance with NATO is the key point.



Zelensky's popularity only increases, while Putin's decreases with Russian attacks on hospitals, buildings, homes and massacres of civilians.



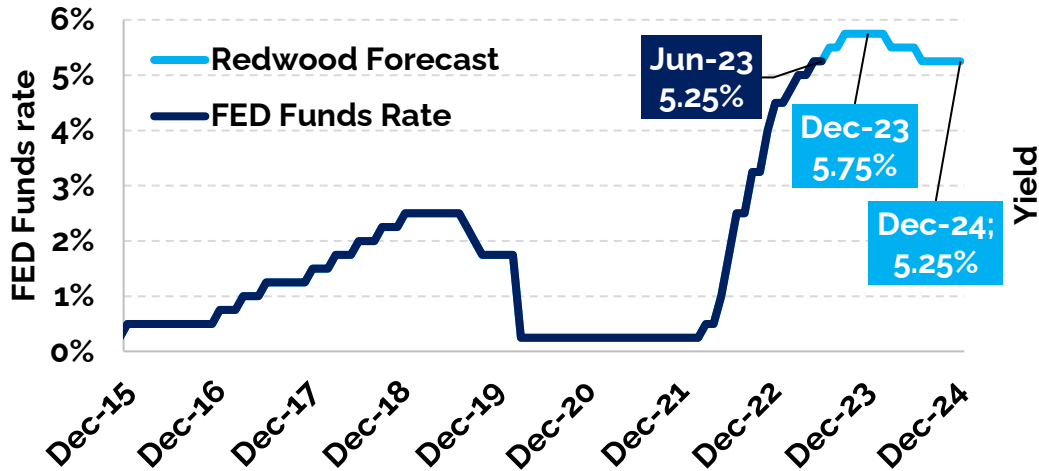
The mutiny of the Paramilitary Group Wagner exposed the lack of unity and the Russian government's difficulty in sustaining advances.

Source: various sites | Elaborated by Redwood

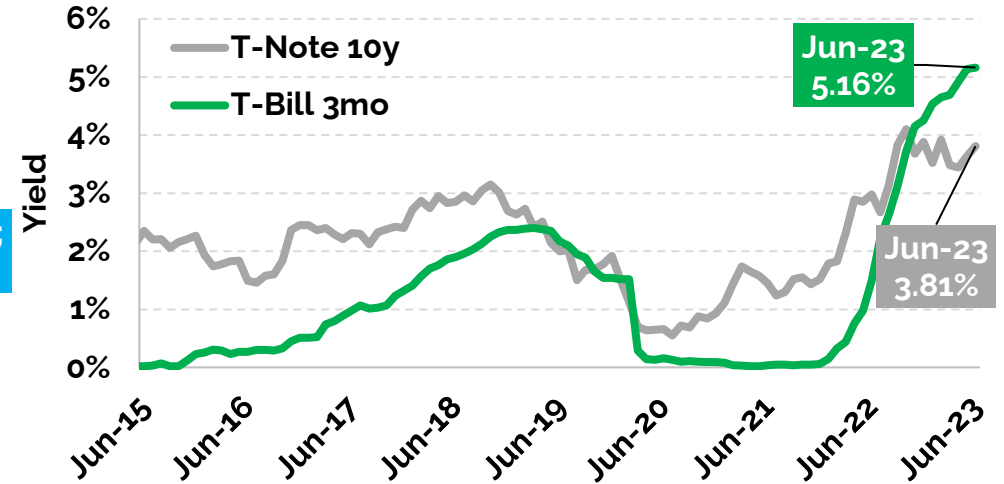
POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Overseas – FED Funds and Treasuries

Fed Funds Rate (Upper Limit)



TBill 3 mo. and T Note 10y



FED:

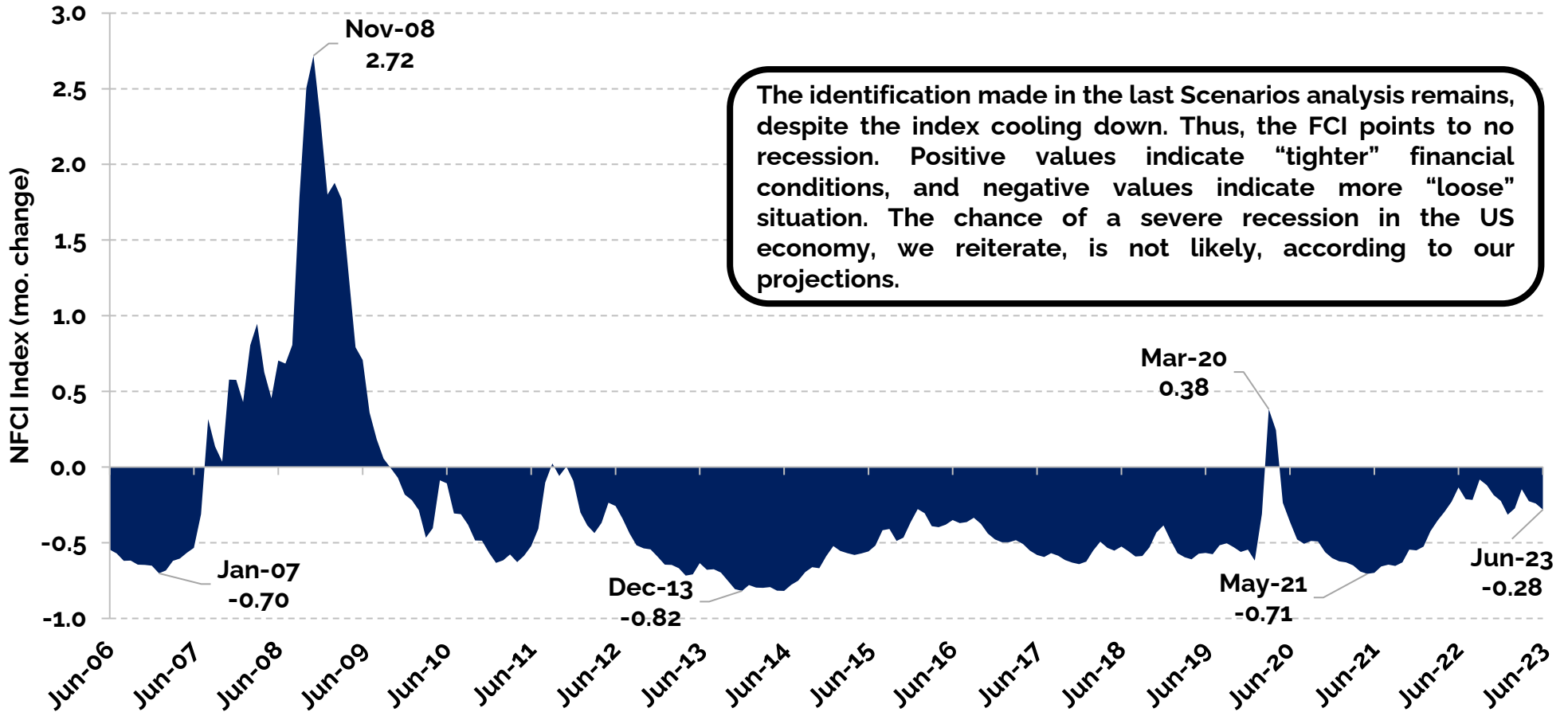
It failed miserably to stop the monetary tightening process in June. The interest rate hike started too late and tightening now “vacillates” halfway through... The outcome is straightforward: a higher cost of bringing inflation down to the 2% target. Flexibility of the US economy helps, but it doesn't “do” the whole job. Dual mandates for CBs always breed noise.

- Short-term Treasuries with higher returns than longer maturities normally point to a recession, but other indicators have ruled out this probability;
- The inversion of the curves is quite blunt, constant and at significant levels for both maturities

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Overseas – Financial Conditions Index USA

National Financial Conditions Index (NFCI)

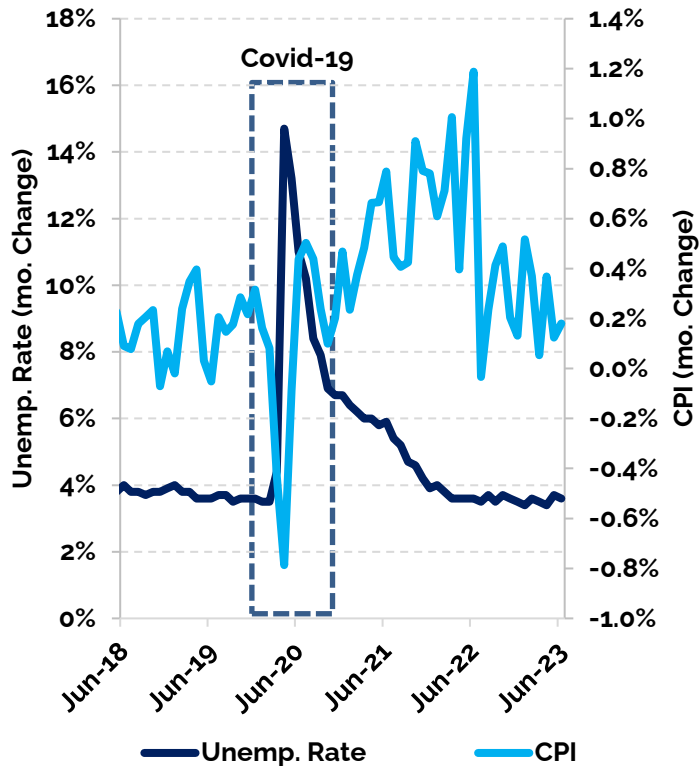


Source: FRED-St. Louis | Elaborated by Redwood

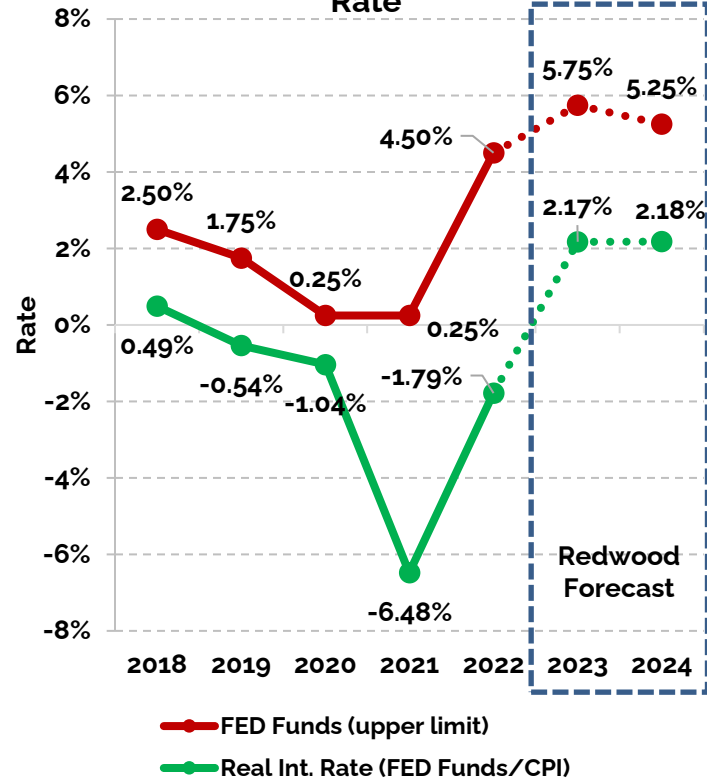
POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Overseas – FED Funds, Inflation and Unemployment

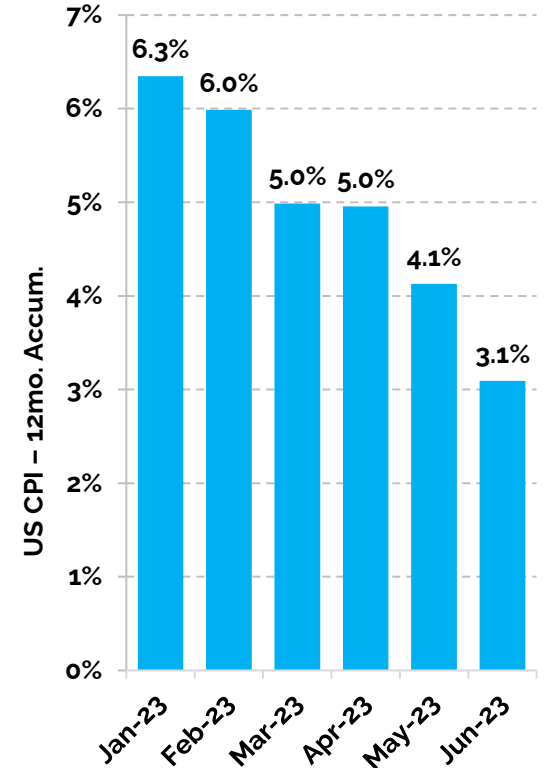
US - Unemployment Rate and CPI



US - FED Funds and Real Interest Rate



US CPI - 12 mo. Accum



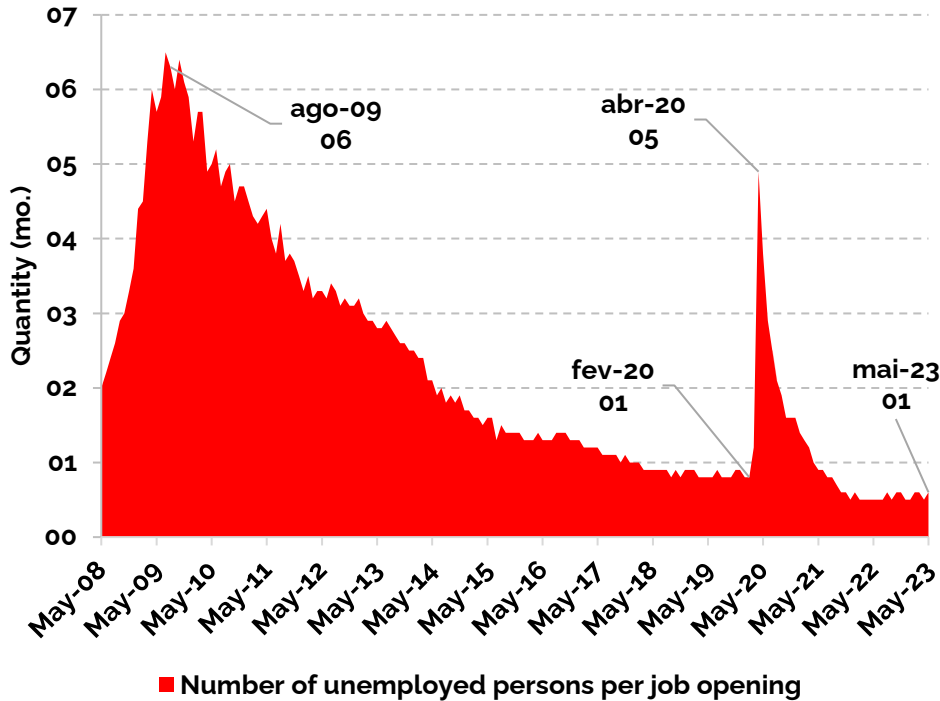
- Inflation with (virtually) full employment? How is it explained? lag? Phillips curve?;
- Interest rates will stay high for longer, because inflation is more persistent... and also because the Fed faltered!

Source: FRED | Elaborated by Redwood

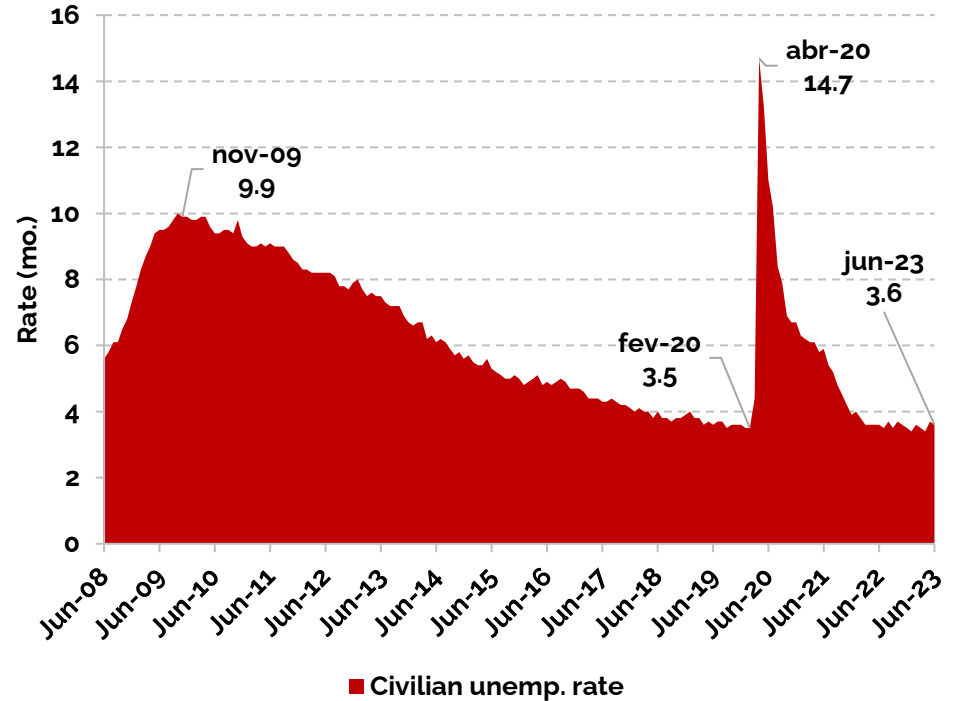
POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Overseas – JOLTS – Super-tight labor market

Number of unemp. persons per job opening – US



Civilian unemployment rate -US



- The amazing flexibility of the US economy!
- Unemployment rate at historic lows – technically at full employment;
- Inflation is certainly under pressure;
- Monitoring this market is (should be!) a strong indicator/signal of the Fed's monetary policy.

Source: U.S. Bureau of Labor Statistics - BLS | Elaborated by Redwood

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Overseas – Emerging Markets

MEXICO

- The labor market faces challenges with the highest rate of the year in May, 2.9%;
- Slower inflation led the Mexican central bank (BANXICO) to interrupt monetary tightening. Currently interest rate is at 11.25%;
- Data referring to consumption and foreign investment in the country should slow down due to the high interest rate and current inflation levels;
- Analysts indicate that the tug of war between AMLO and the judiciary branch ended up having a negative impact on Mexican politics;
- One year before the elections, AMLO has 61.8% approval and the winner of his party's primaries (MORENA) can take the presidency.
- **GDP 2023: 2.61%¹ | GDP 2024: 2.13%²**

INDIA

- Global monetary tightening and weak demand both limit the country's growth prospects for 2023. Improvement expected for 2024 when inflationary expectations tend to be anchored;
- RBI keeps the interest rate at 6.5% and signals possible cuts in the coming quarters (Target 4%);
- Prime Minister Narendra Modi enhances ties with the West on trips to the US and France. Government tries to modernize armed forces in order to withstand tensions with China;
- Unemployment is still a challenge for Narendra Modi's agenda. Driven by rural unemployment, the rate is above 8% for the third time in 2023.
- **GDP 2023: 6.00%² | GDP 2024: 7.00%²**

SOUTH KOREA

- Uncertain economic prospects for the country, which will depend on worldwide performance, especially the recovery of the Chinese economy;
- With falling inflationary pressures (2.7% in 12 months), greater easing of interest rates by the BOK is expected in 2024. Market expects four 25-bps cuts;
- Recovery in semiconductor exports is expected for the second half 2023;
- Korean President's (Yoon Suk-yeol) visit to the US displeases the North Korean government, which expresses dissatisfaction through the press.
- **GDP 2023: 1.49%¹ | GDP 2024: 2.07%¹**

SOUTH AFRICA

- Recurrent energy-supply interruptions by the state-owned company Eskom (energy company) leads the government to encourage private investment in the sector. Problems undermine GDP performance;
- Unemployment close to historic highs, 32.9%;
- SARB expects inflation to stay within the targeted range (3% to 6%) in the second half. It is currently at 6.3% in 12 months;
- President Cyril Ramaphosa acquitted of concealment charge made in 2020.
- **GDP 2023: 0.31%¹ | GDP 2024: 0.98%¹**

¹OECD forecast; ²REDWOOD forecast

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Exterior - Latam

| Country | P/E | EV/Ebitda | Risk EMBI ¹ | Exchange Rate | Interest Rate % p.a. | OBS |
|-----------|-------|-----------|------------------------|---------------|----------------------|---|
| Argentina | 16.27 | 2.27 | 2,061 | 256.70 | 97.00 | Minimun rate repurchase (CB) after 7 days |
| Chile | 5.46 | 8.00 | 136 | 802.10 | 11.25 | Overnight rate |
| Colombia | 3.98 | 4.52 | 370 | 4,187.74 | 13.25 | Overnight rate |
| Mexico | 11.57 | 5.96 | 376 | 17.15 | 11.25 | Overnight rate |
| Peru | 6.70 | N/D | 181 | 3.63 | 7.75 | CB's reference rate |
| Brazil | 6.70 | 4.59 | 230 | 4.82 | 13.75 | Selic rate |

Politics and economics in the region

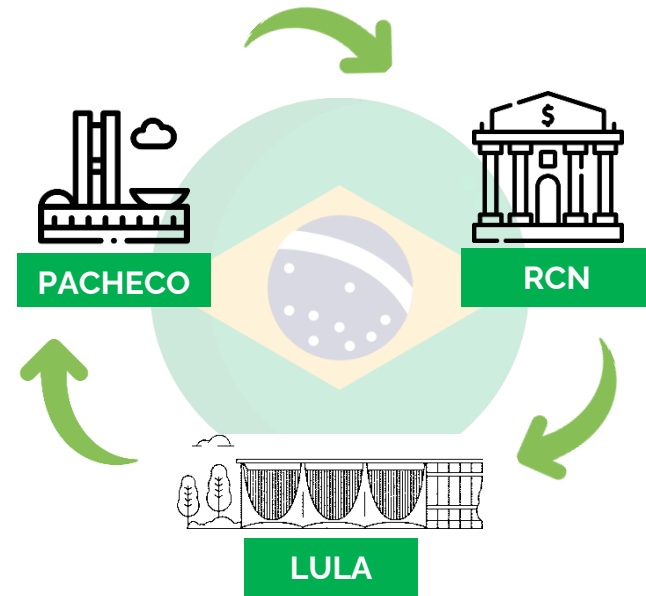
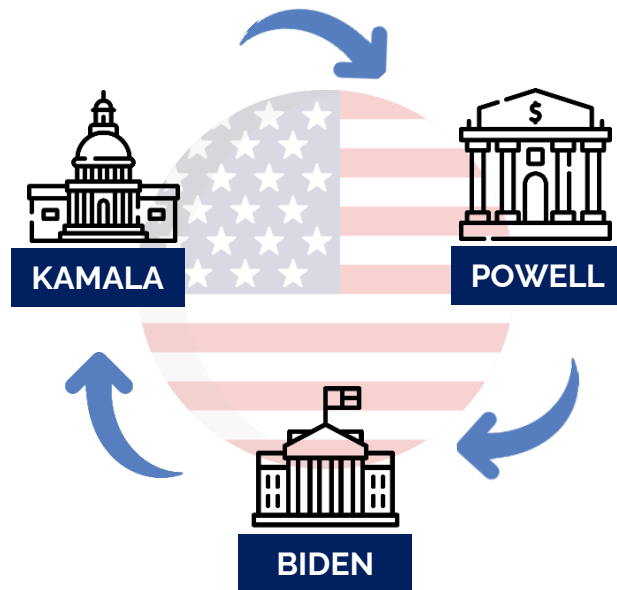
- Argentina: nearly broken, Brazil seems to be its lifeline – directly AND indirectly! Our “aid” from the IMF and BRICS is already on the way
- Gabriel Boric's administration's fragility is exposed. The ultra-conservative Republican Party won 22 seats on the Constitutional Council – Right-wing parties will lead the drafting of the new Constitution;
- Colombia: Pres. Gustavo Petro manages to sign a temporary ceasefire agreement with the National Liberation Army (ELN) – six months. Finally, good news exchanged several of his ministers for disagreements in the healthcare reform plan;
- Brazil renewed its “vigorous” plans for the region and naturally seen as a regional leader, aims at a new round of reunification and rescue of ideas for the continent.

Source: Bloomberg; Central Bank of Brasil | Elaborated by Redwood | Date: 30th, Jun. 2023

¹Various sites: Argentina – Ámbito; Chile – Central Bank of Chile; Colombia and Mexico – Invenómica; Peru – Central Bank of Peru; Brazil - IPEA

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Institutions: each one in its rightful place



DATA/PROJECTIONS US 2023

Target: 2%
Interest Rate: 5.75%
GDP: 1.5%
Unemployment Rate: 3.5%
Inflation: 3.5%

Is it all the same or does it boil down to ideological bias?

Criticisms deployed from an ideological standpoint are always the same; they undermine technical assessment and distort outcomes.

CONCLUSION: we should strive for a country supported by autonomous and independent, strong and impartial institutions with strict focus on its goals.

DATA/PROJECTIONS Brazil 2023

Target: 3.25%
Interest Rate: 12.5%
GDP: 1.70%
Unemployment Rate: 9.91%
Inflation: 5.22%

A Brazilian flag is shown waving against a blue sky with scattered white clouds. The flag is green and yellow with a blue globe in the center. A red rectangular box is drawn around the flag. The text "POLITICAL, ECONOMIC AND FINANCIAL SCENARIO" is overlaid in white, bold, uppercase letters.

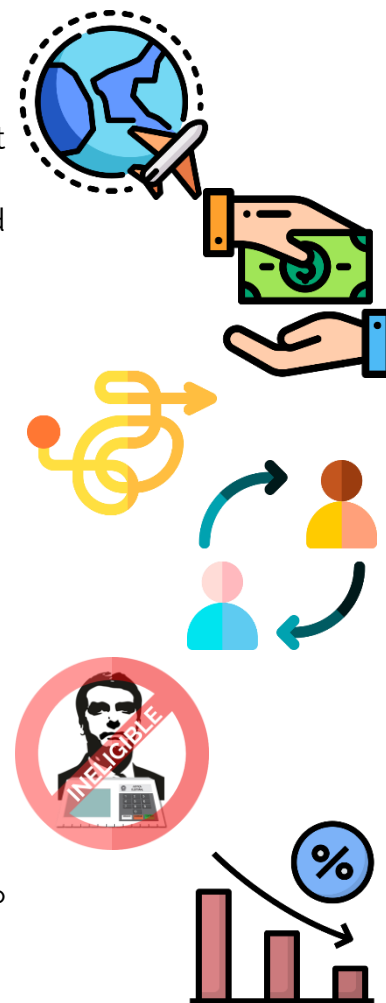
**POLITICAL, ECONOMIC AND
FINANCIAL SCENARIO**

BRAZIL

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Political Aspects – 1H/23: accommodations and head-banging

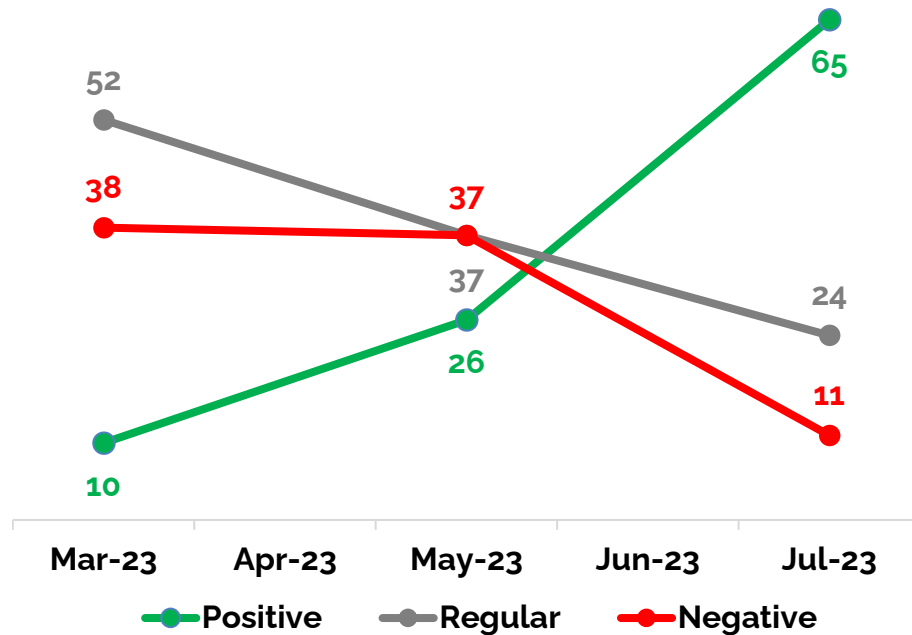
- ✓ President Lula: He promised, he delivered! Really? In what way?
 - Focus on trips overseas
 - CB: harsh criticism and “beating around the bush” – altogether now!
 - Political articulation = Release of funds. Changed “Secret Budget” to “Amendment by Budget Rapporteur”
 - Outcome: may have had a positive effect on the approval of the New Fiscal Framework and Tax Reform
- ✓ Executive
 - Ministries: accommodation process has friction and territorialist behavior. What a mess!
 - Haddad: for now, serene. Until when? The DNA is the same as the others
 - Administrative reform... the most important... depends on the Executive, will it deliver?
 - After New Fiscal Framework and Tax Reform, here comes change of Ministers;
- ✓ National Congress: Lira “is the man” and rules the roost
- ✓ Supreme Court is off the scene. Is the judicial-political activism over?
- ❖ *Brazil in highlights – Summary:*
 - Bolsonaro ineligible.
 - Is the Right done with or will it rise up stronger?
 - Opportunity to unite the Center with the Far-Right
 - Financial markets can improve, but the economy cannot
 - High interest rates will start to fall, but effects on the real economy will take time
 - Still high inflation and sluggish expectation-anchoring process under political attacks
 - The bunch is fixed on expanding spending and increasing consumption as “engines” of GDP growth
 - CB: slow and definitive change of the Board of Directors
 - External scenario: still very challenging, and open a chance to stand out.



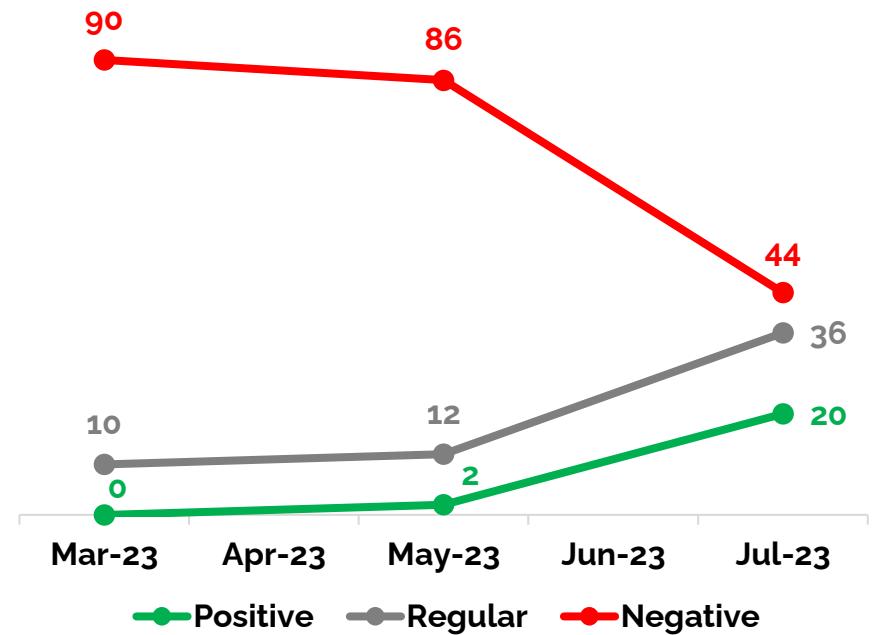
POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Political Aspects - From "know-it-all" to "know-nothing" Minister?... and the "indifferent".

Assessment - Fernando Haddad



Assessment - Lula



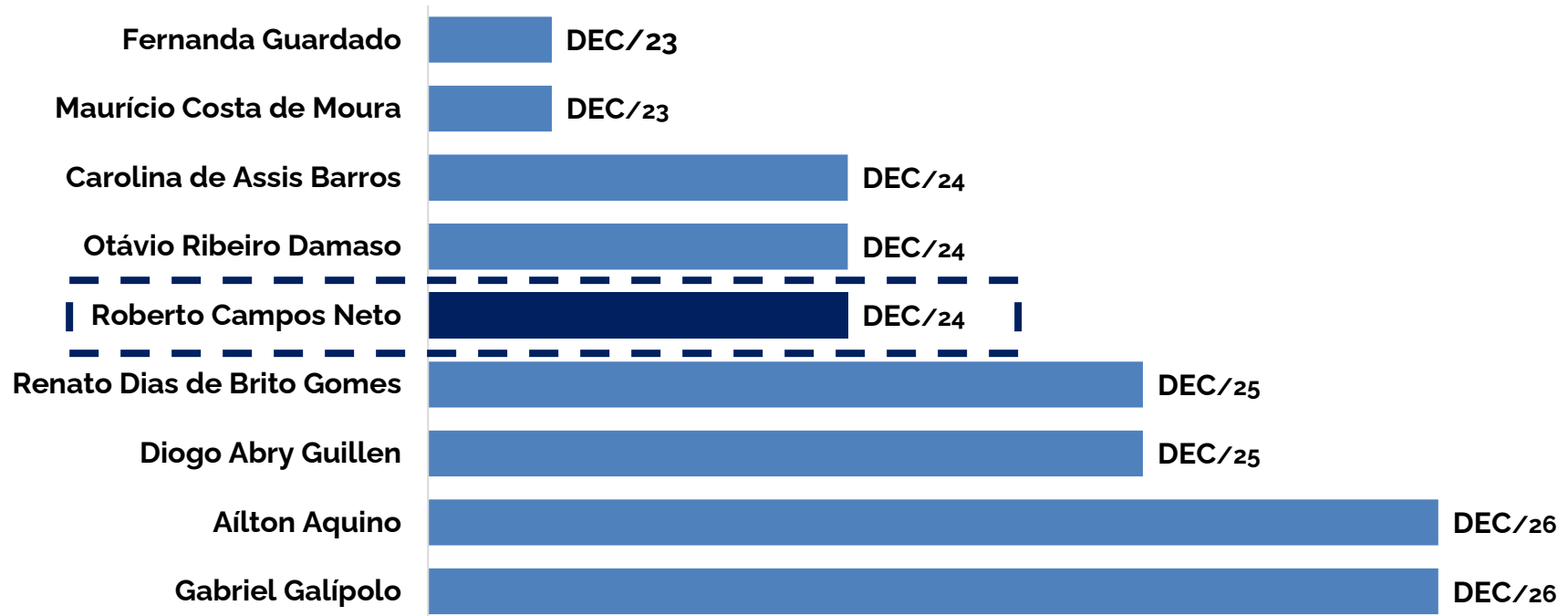
Source: Pesquisa Quaes | Elaborated by Redwood

Even if Haddad clearly lacks technical knowledge, he was right in moving away from the harshest criticisms of the President (and his assistants) to CB, taking a serene and polite stance. This behavior has rendered him a good assessment and credibility for dealing with very difficult topics. On the other hand, if the President also improved, the differences between the two are evident, but while the former seems to be enjoying the surge in popularity, the latter does not seem to care much.

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Political Aspects – Slow and objective change in the Central Bank

Board of Directors Tenure

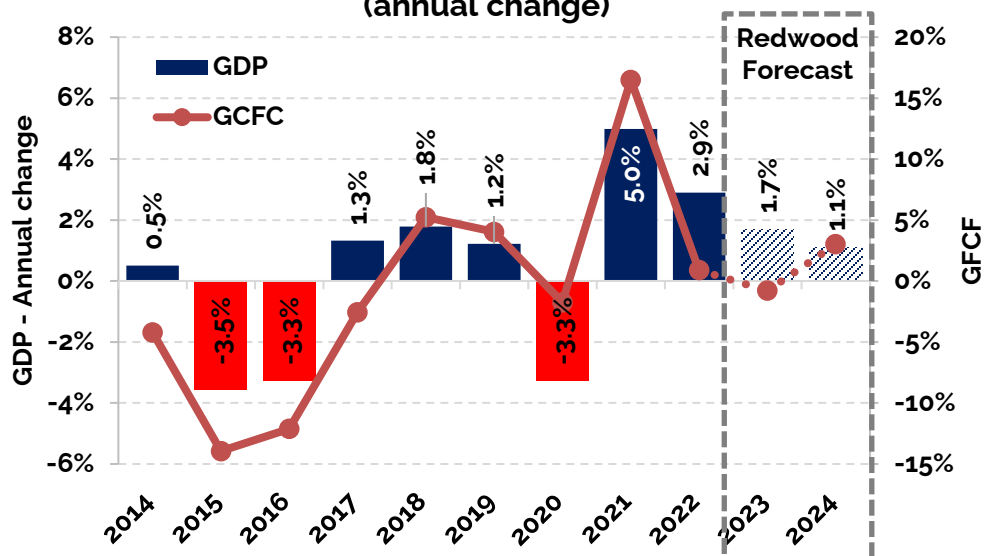


The ongoing substitutions at the Central Bank of Brazil could completely change the way we see and understand the rationale of its monetary and exchange rate policy today. That is the dynamic we choose.

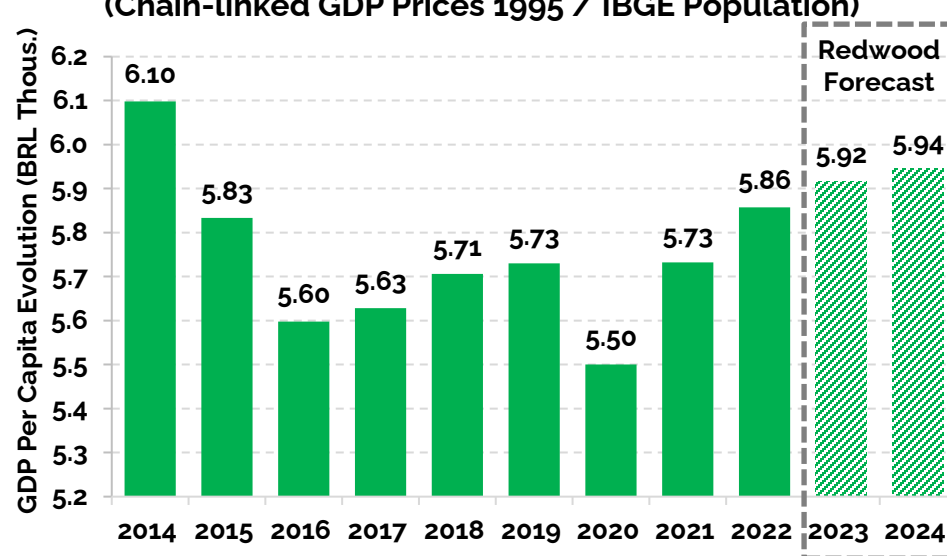
POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

GDP Brazil

GDP and GFCF Evolution
(annual change)



GDP Per Capita Evolution
(Chain-linked GDP Prices 1995 / IBGE Population)



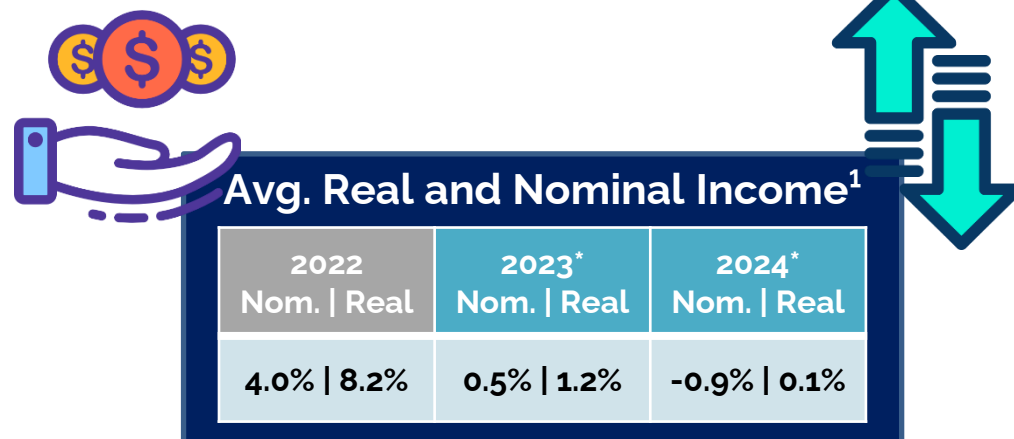
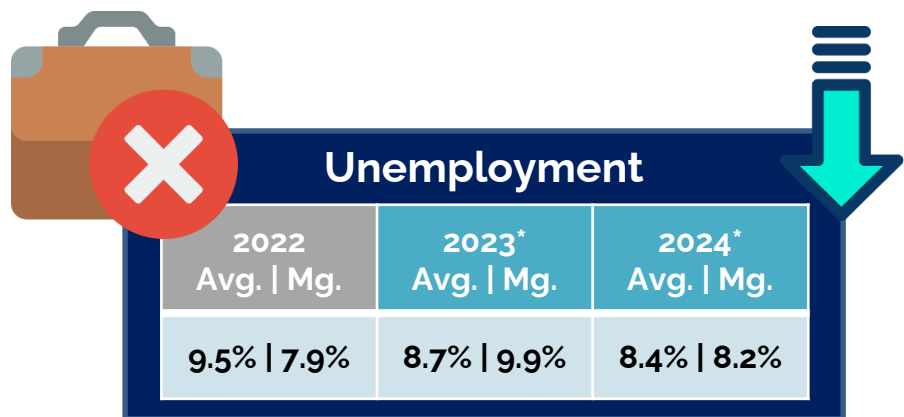
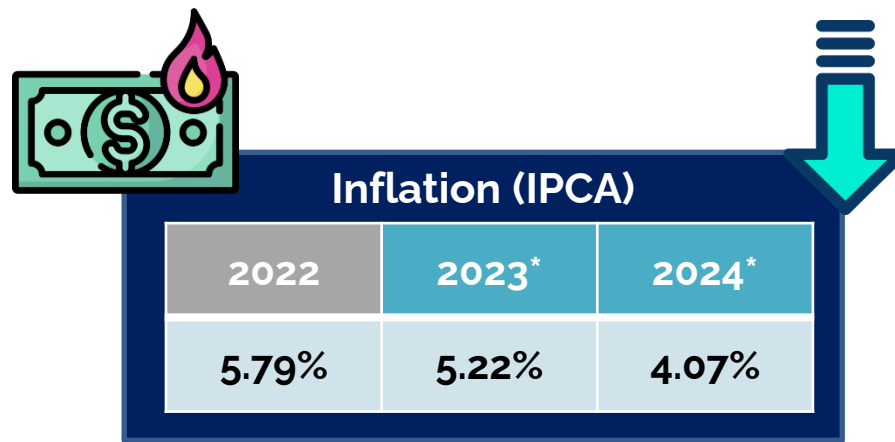
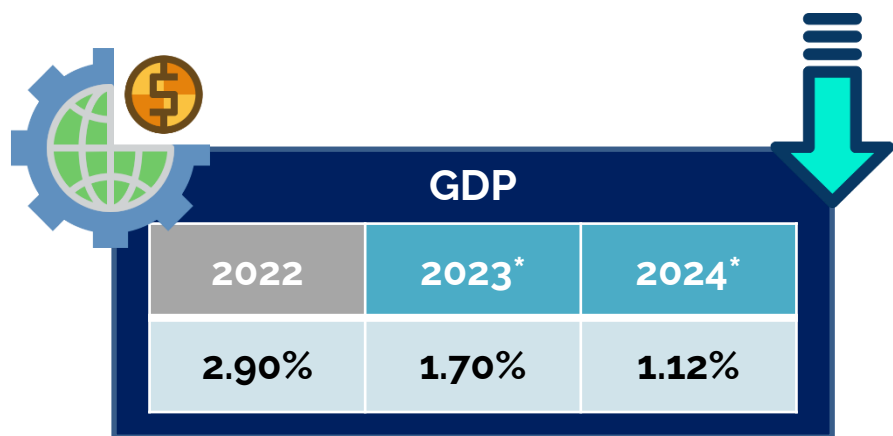
A Mona Lisa smile to the economy

Growth projections for 2023, especially by big players, have improved significantly and today, very few forecast an advance lower than 2%. In fact, the real growth rate is around 2.2%. Our projection has also improved, but it will remain near 1.7%, that is, at the level of our Potential GDP. Justifications are rampant in explaining this mediocre outcome, especially when compared to the market's assessment. In addition to the bad external scenario, our loans are stagnated, income shows no signs of great improvement, high interest rates act like a drag, and the political landscape does not promote appeasement and frictions remain high. The ongoing reforms and the better-than-expected Fiscal Framework, as well as the process of re-anchoring inflation expectations, could help, but this will still take some time. The mechanism and major impacts of the ongoing monetary policy will still greatly affect the year 2024, which in turn will suffer even more than 2023: we will grow approximately 1.1%.

Source: IBGE; Redwood Forecast – 2023/2024 | Elaborated by Redwood

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

GDP Brazil - Poor growth and other indicators still unsatisfactory

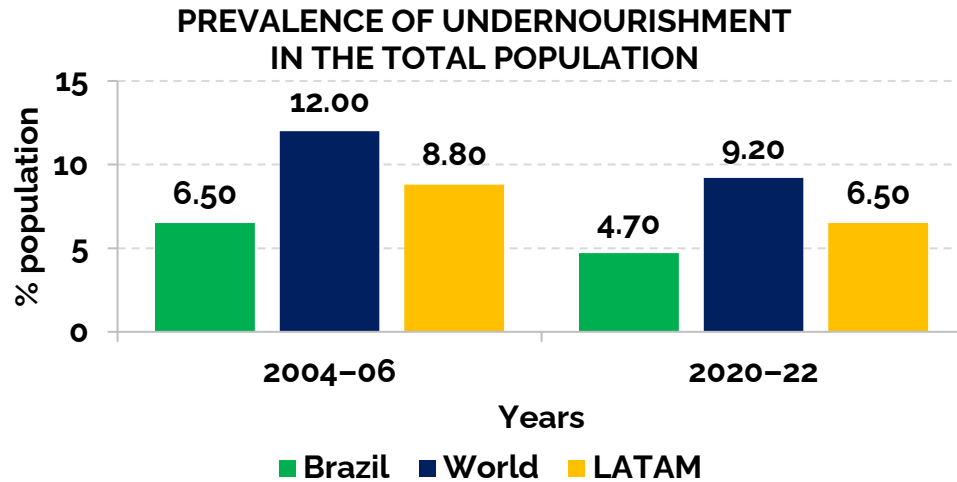


Source: IBGE; *Redwood Forecast | Elaborated by Redwood

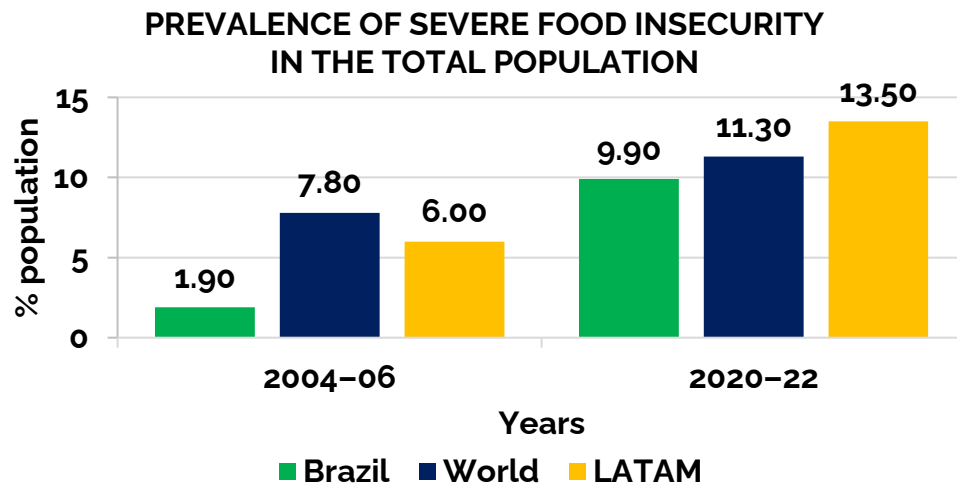
¹ Real and Nominal Values subject to timely change

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Hunger map - malnutrition and food insecurity



**One in ten Brazilians experienced
severe food insecurity between
2020-22**



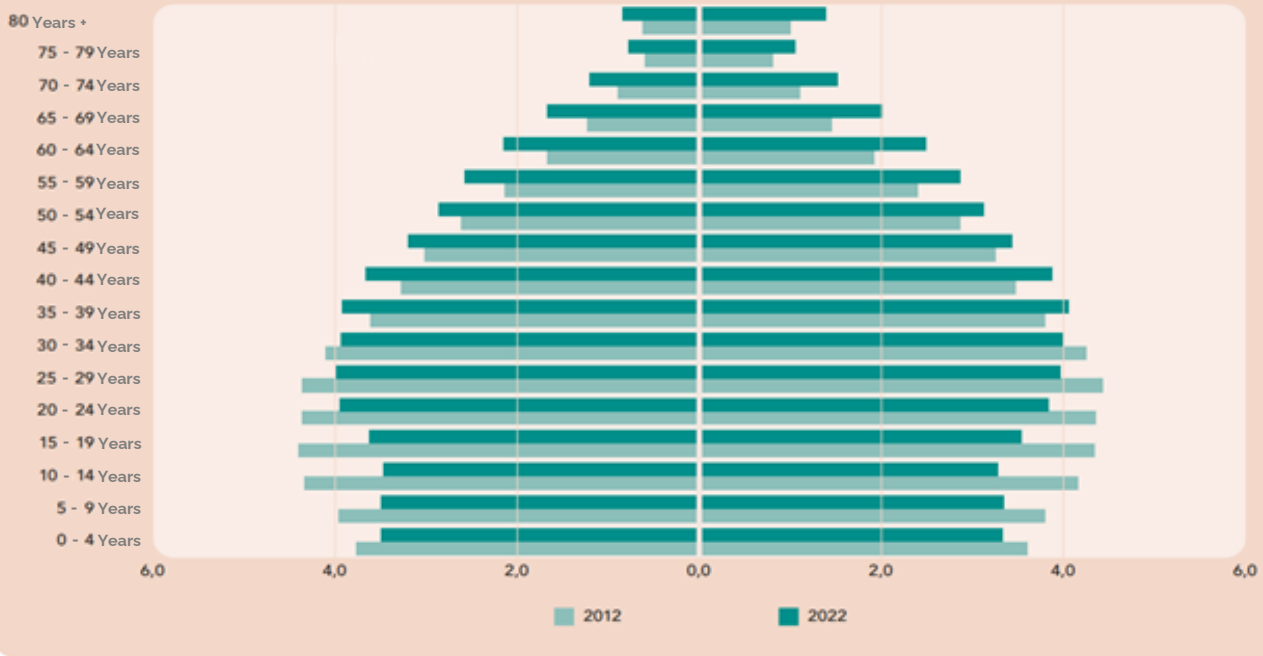
**Almost a third (32.8%) of Brazil's population
is included in the severe or moderate food
insecurity categories, which is equivalent to
70.3 million Brazilians (between 2020-22)**

Source: UN Report; Agencia Brasil

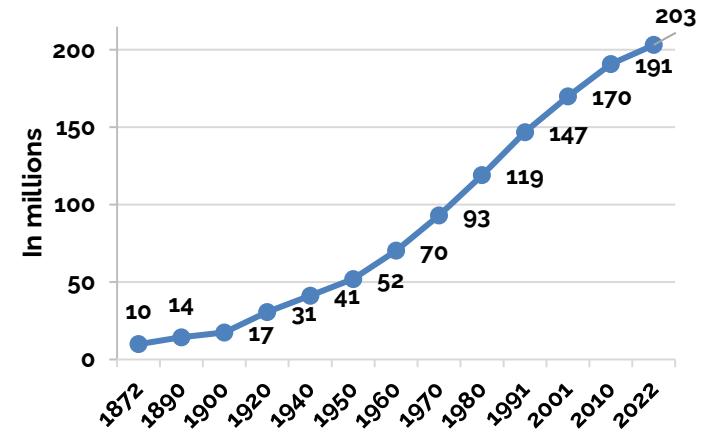
POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Demographic census: the fundamental knowledge

Resident population - by sex and age groups (%)

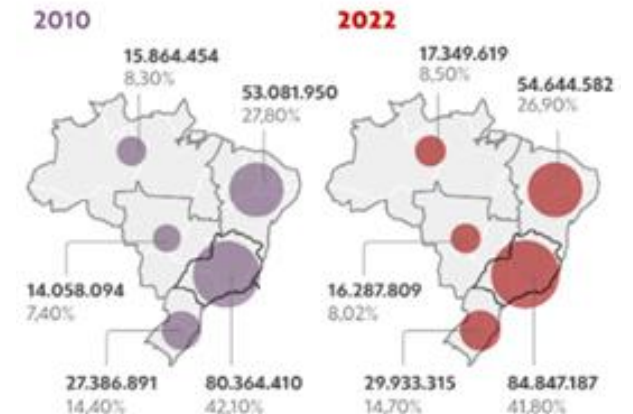


Brazilian population in each Census data collection



Residents in each region

And share of Brazil's overall population

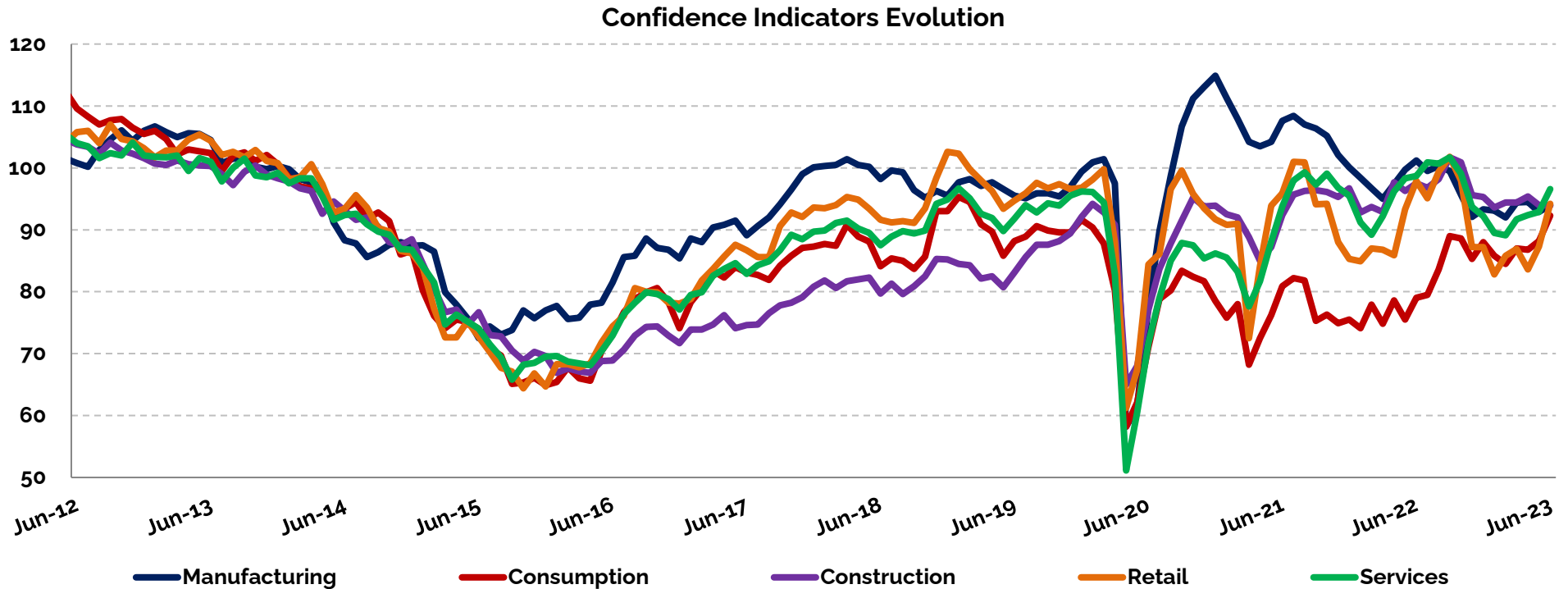


Source: Censo IBGE 2022; Globo | Elaborated by Redwood

The demographic bonus is wearing off... and sooner than expected. The consequences are huge and long-lasting – economically and socially very challenging (GDP growth will require higher productivity, adjusted value of pensions). Brazil will get “old” before it gets “rich”. Population grows, but it grows less and less, and in twenty years we will be a country of elderly people. Several public policies need to be adjusted now to better face this future.

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Confidence Index

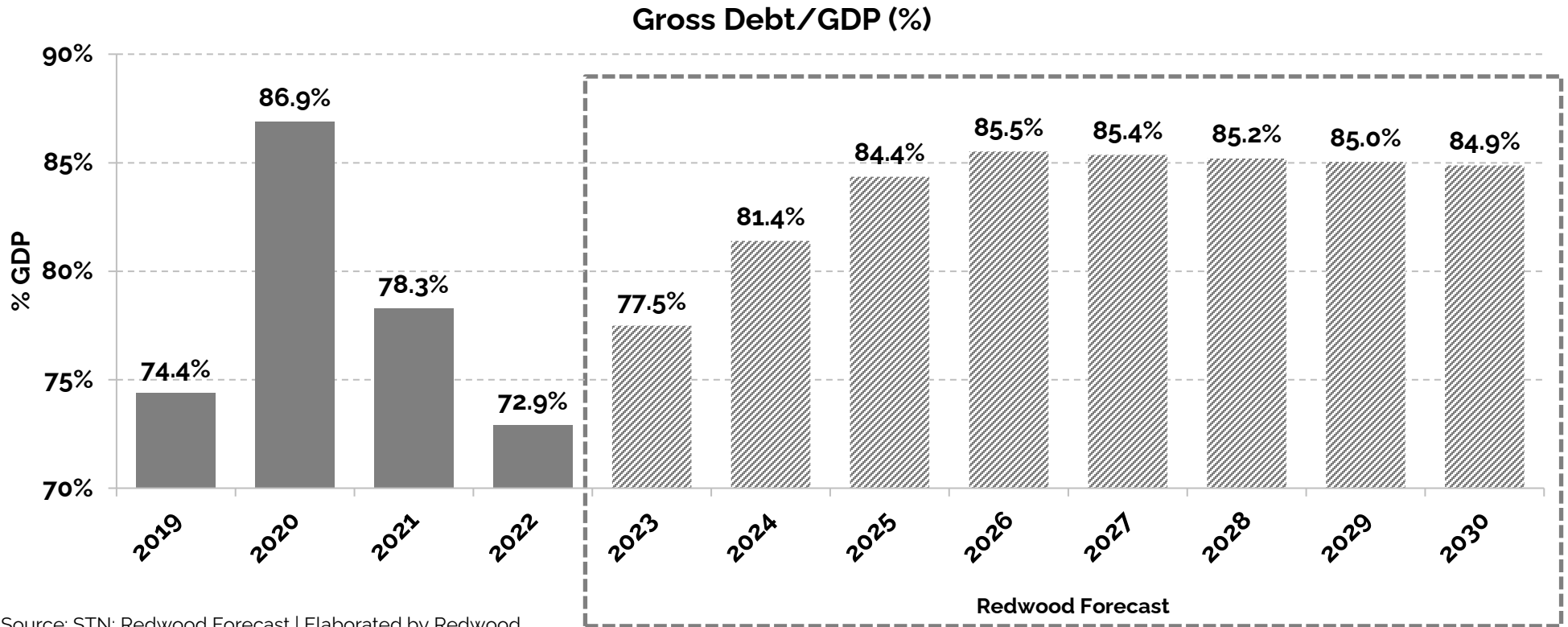


Source: FGV | Elaborated by Redwood

Confidence indicators fare slightly better, especially for Consumer, Commerce and Services, but overall are still very poor. The economic prospects, rising household debt, high interest rates and a lot of uncertainty do not help. This lack of confidence affects companies and families that hold back investments in productive projects, job openings, etc., and curb the consumption of goods and services, respectively. It is an indicator that signals opinions and expectations, which results in rational decision-making. It is about the optimism or pessimism of the current and future economy. Quite powerful!

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Fiscal – Economic policy must recognize its importance



Source: STN; Redwood Forecast | Elaborated by Redwood

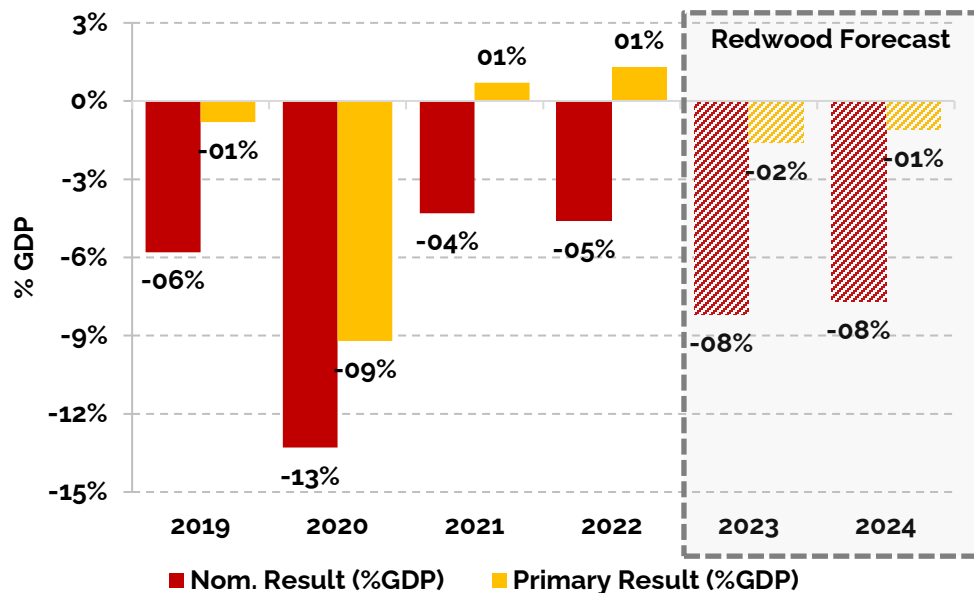
Absolute priority should be given to debt stabilization

- Debt stability is not attainable in the short-run, perhaps later on;
- Current economic team defends GDP growth must drive spending;
- Useless dichotomy: economic x social balance;
- Spending Cap x Spending Floor.

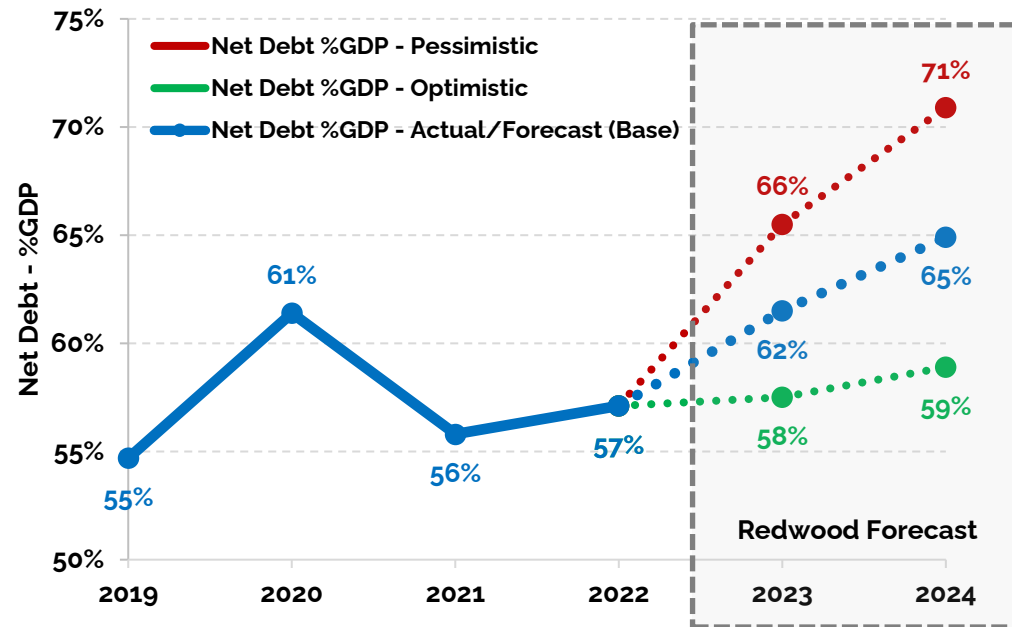
POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Fiscal – Has fiscal consolidation faded into the background?

Primary and Nominal Result -%GDP



Net Debt - %GDP



Paulo Guedes is gone... and with him...

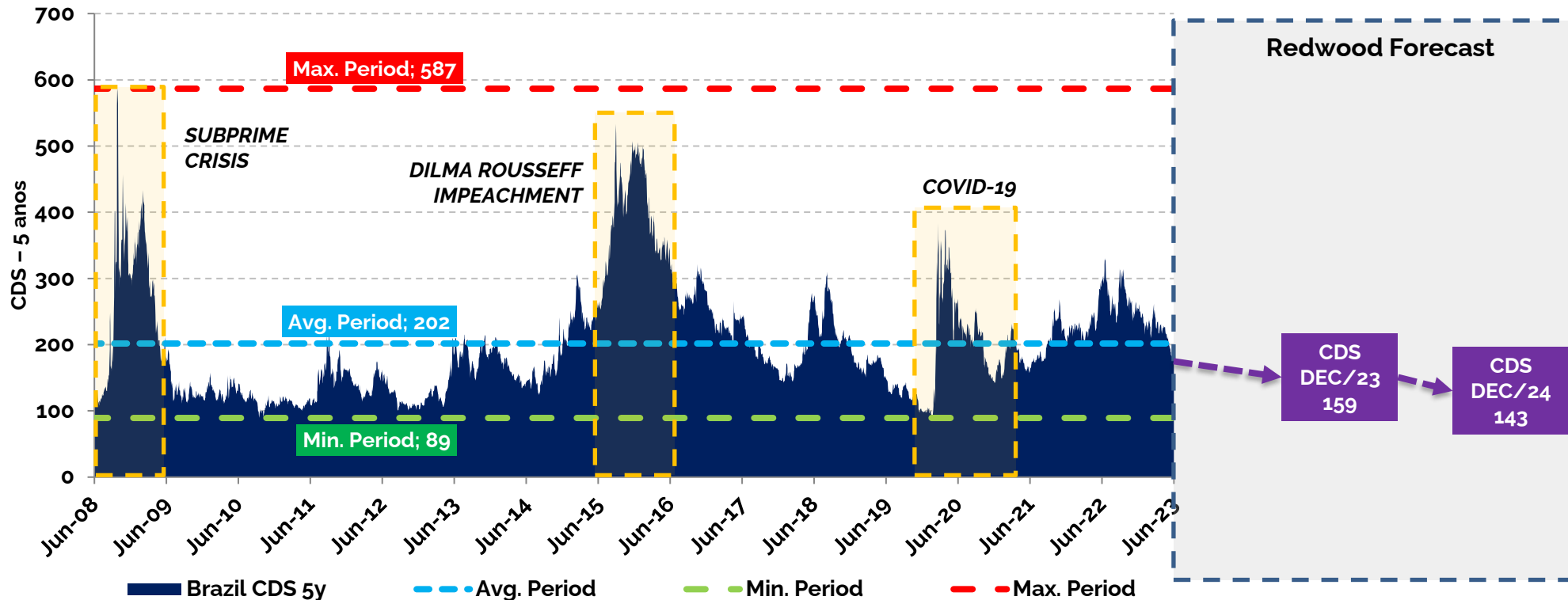
- Fiscalism as a consistent goal no longer exists... not like this...
- The 2023 primary surplus will be between BRL 130 and BRL 150 billion;

Minister Tebet says that "cards up the sleeve" will help eliminate primary deficit in 2024, but...

- The government's wit and the Legislature's thirst for spending do not seem to endorse greater savings in 2024 either;
- Worst case scenario: according to the Minister, we would have a 0.25% deficit to GDP – ranging from BRL 25 billion to BRL 30 billion;
- And the Framework must be definitively approved, recompose revenues and arrange others to sustain the intended expenditure.

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Credit Default Swap (CDS) – 5 years



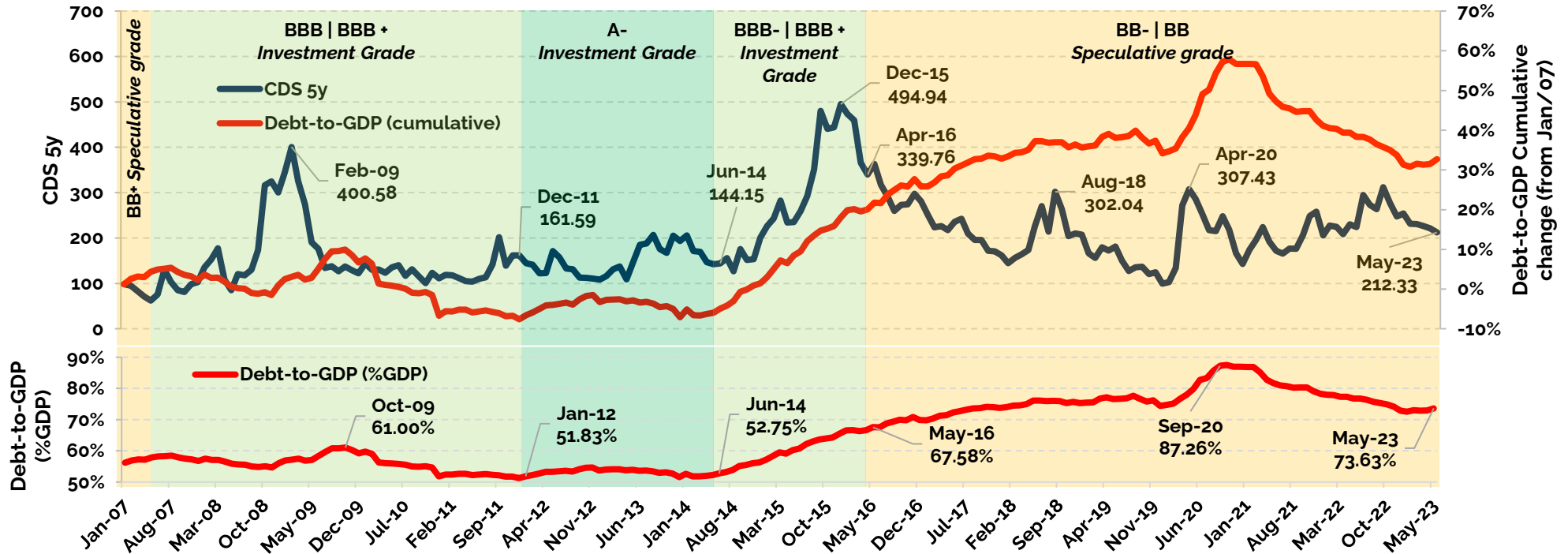
- Risk perception decoupled from obstacles and political clashes;
- Upgrade of Brazil's credit outlook raised by Standard & Poor's (S&P) was a determining factor;
- Country risk relative to its peers seems to be adjusting;
- General pessimism has subsided;
- The "backdrop" is of a better-than-expected environment

Source: Bloomberg | Elaborated by Redwood

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Characteristics, requirements and limitations of Investment Grade

5-Year CDS, Debt-to-GDP (cumulative) and S&P Rating

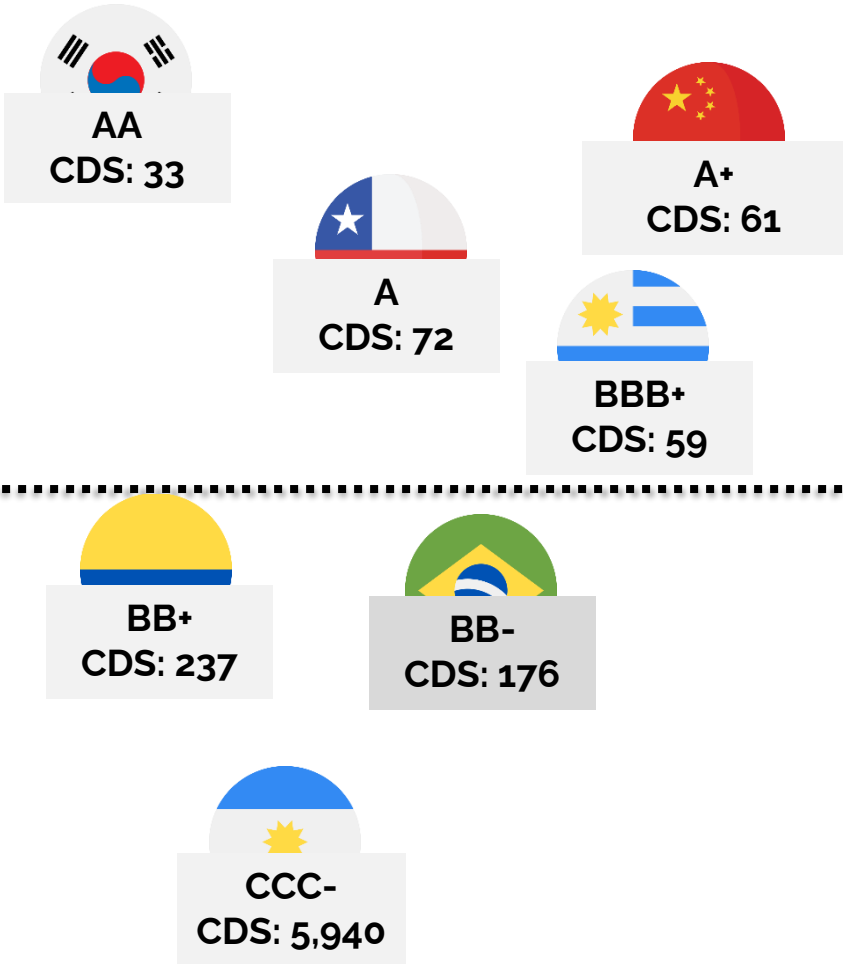


- CDS below 200 points does not seem to be mandatory all the time – momentary peaks are “allowed”;
- The level of Debt-to-GDP is a great indicator of solvency, but it is incomplete;
- Debt growth trajectory (accelerating) is a very important symptom;
- The assessment of future “ability to pay” is crucial.

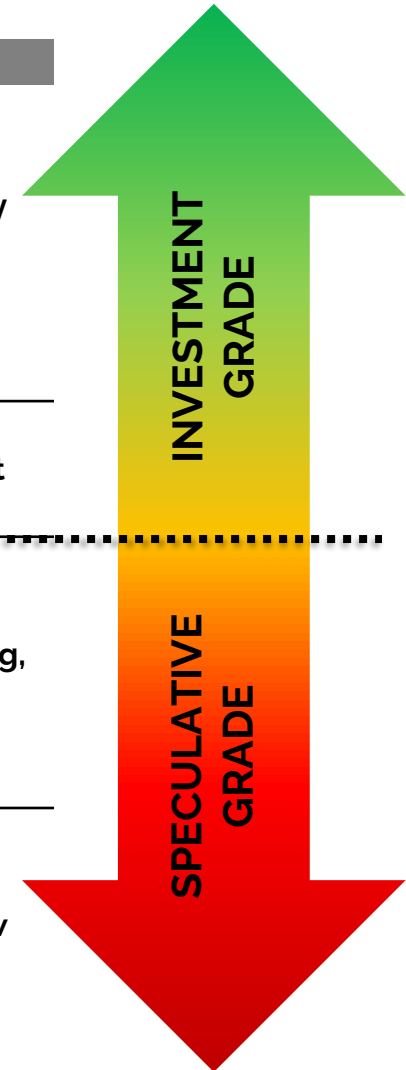
Source: Bloomberg; BACEN | Elaborated by Redwood

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Upgrade on the way?



| S&P | Description |
|------|--|
| AAA | Investment grade with very strong capacity to meet financial commitments |
| AA+ | |
| AA | |
| AA- | |
| A+ | |
| A | |
| A- | Investment grade with adequate capacity to meet financial commitments |
| BBB+ | |
| BBB | |
| BBB- | Speculative grade, low rating, moderate default risk. |
| BB+ | |
| BB | |
| BB- | |
| B+ | |
| B | High risk of default and low interest |
| B- | |
| CCC+ | |
| CCC | |
| CCC- | |
| CC | |
| C | |
| D | |



POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Tax Reform (Consumption) – 30 years waiting (approved by Lower House)

Key principles:

- * Neutrality (Value-Added Tax)
- * Equity (equitable distribution)

I. HIGHLIGHTS

Value-Added Tax – Dual VAT

- IVA Federal
CBS: PIS | COFINS | IPI
- IVA Subnacional
IBS: ICMS | ISS

II. SPECIAL CLASSES

- Zona Franca de Manaus – Remains
- Simples Nacional – Optional
- Special Classes: Fuels | Financial Services | Public Sector Administrative Functions

III. TRANSITION

- Consumers = 8 years
- Federation entities = 50 years

IV. UNION – FUNDS FOR REBALANCING AND COMPENSATION

- FNDR – Regional Development
- FCBF – Fiscal benefits

V. EXCISE (SELECTION) TAX

- For regulatory purposes, it will focus on products that are harmful to health and the environment (Executive Order).

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Tax Reform (Consumption) – 30 years waiting (approved by Lower House)

Expectation that the final approval of the bill will be in October/2023

VAT RATES

- Standard/Benchmark (Legislative Bill)
- Reduced
- Zero

OBS: states and municipalities will have autonomy in defining tax rates
Basic goods will have ZERO rates.

Some long-term benefits:

- Improved economic environment
- Formalization of the economy
- Fosters future tax cuts
- Cost reduction
- Investment attraction
- Transparency and competitiveness
- Less litigation, etc..

OTHER HIGHLIGHTS

- Creation of a Federation's Tax Council (IBS)
- Non-cumulativeness
- Sole rate, but with exceptions such as: basic consumption bundle, cigarettes, alcoholic beverages etc.
- Reduced rates:
 - Public transportation (exempt)
 - Some foodstuffs (50%)
 - Medication (50%)
 - Health Services (50%)
 - Education Services (100%)
- Changes to other taxes:
 - IPVA (extending to nautic/airborne vehicles)
 - Tax on Inheritance and Donations - ITCMD (progressive)
 - Tax on Urban Property - IPTU (potential change in tax-incidence base)

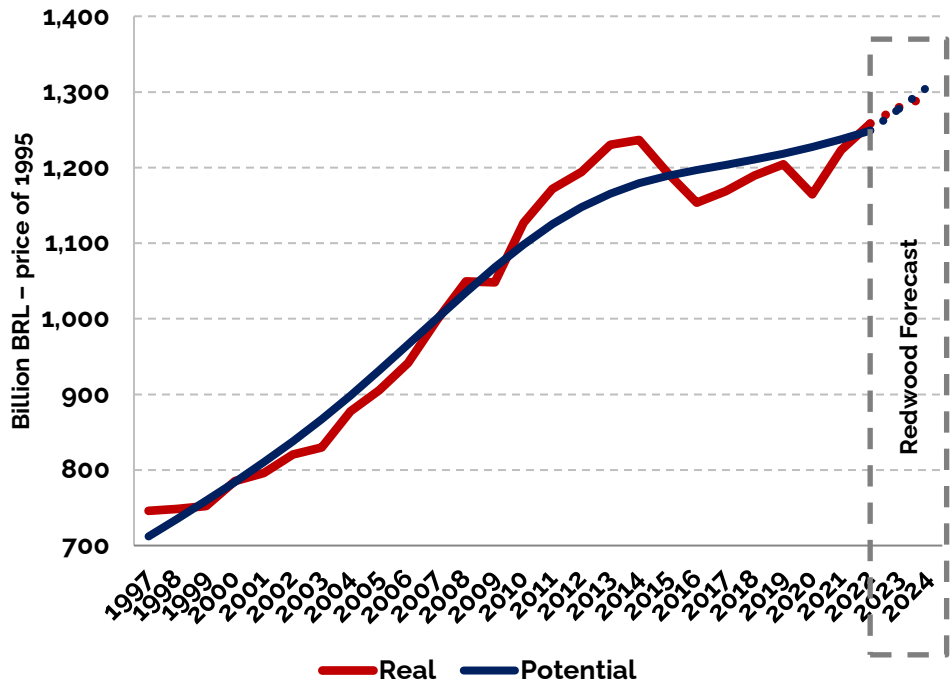
Attention!!!

- Too many exceptions to the rule
- Definitions in Complementary Legislative Bills

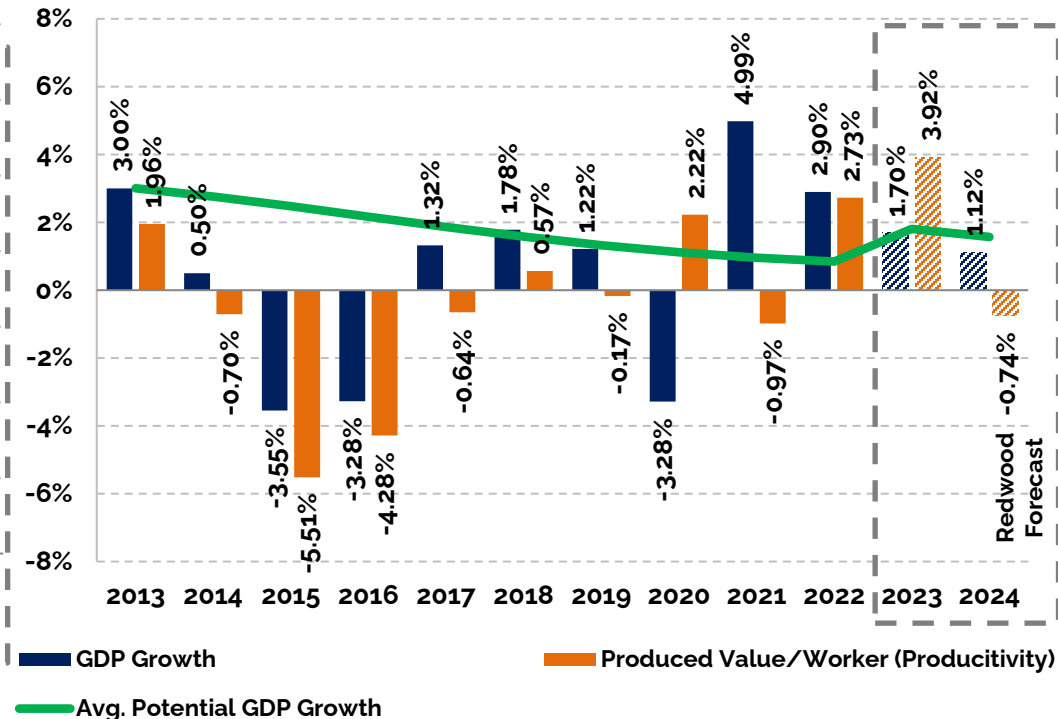
POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Economic Activity and Productivity

GDP –Real and Potential (HP Filter)



Growth of GDP, Potential GDP and Productivity



Source: IBGE | Elaborated by Redwood

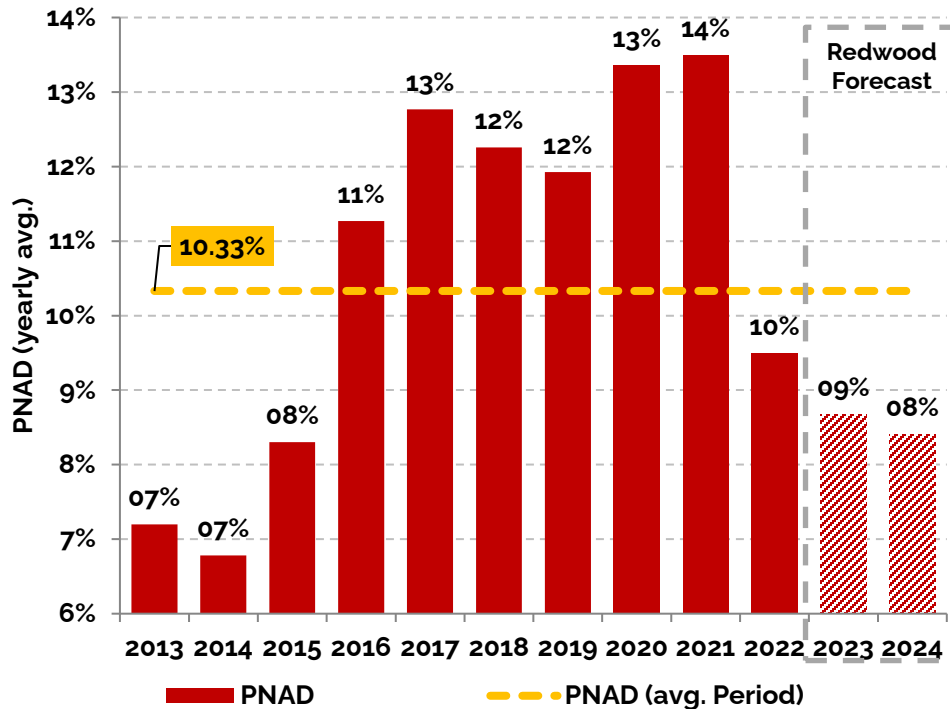
Repeated crises and deteriorated environment adversely impact GDP growth (chained values), with repercussions on employment and the value generated/labor.

- Significant reduction HP-Filtered series: Trend and cycles affect forecasts
- Potential GDP adjusted (Short Term breeds asymmetry on “true” Output Gap) by 10-year moving averages
- Productivity under statistical effects does not “hide” underinvestment in education, the advancement of the informal economy and low competitiveness... as The Economist Magazine would say (for LATAM): “ A land of useless workers”.

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

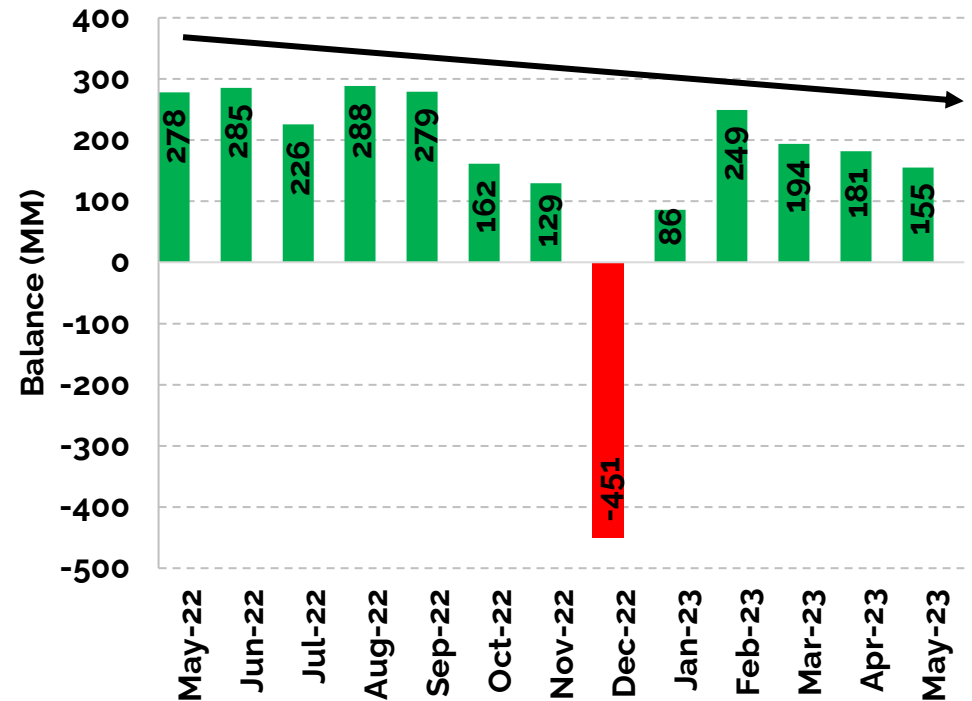
Labor market from different - but complementary - perspectives

Unemployment Rate (PNAD)



Source: PNAD; IBGE | Elaborated by Redwood

CAGED (Formally Registered Employment Balance - adjusted)



Unemployment Rate:

The Brazilian economy has proven quite resilient in terms of the unemployment rate. SELIC and slower economic activity may compromise the projections above, but federal government stimulus measures are expected.

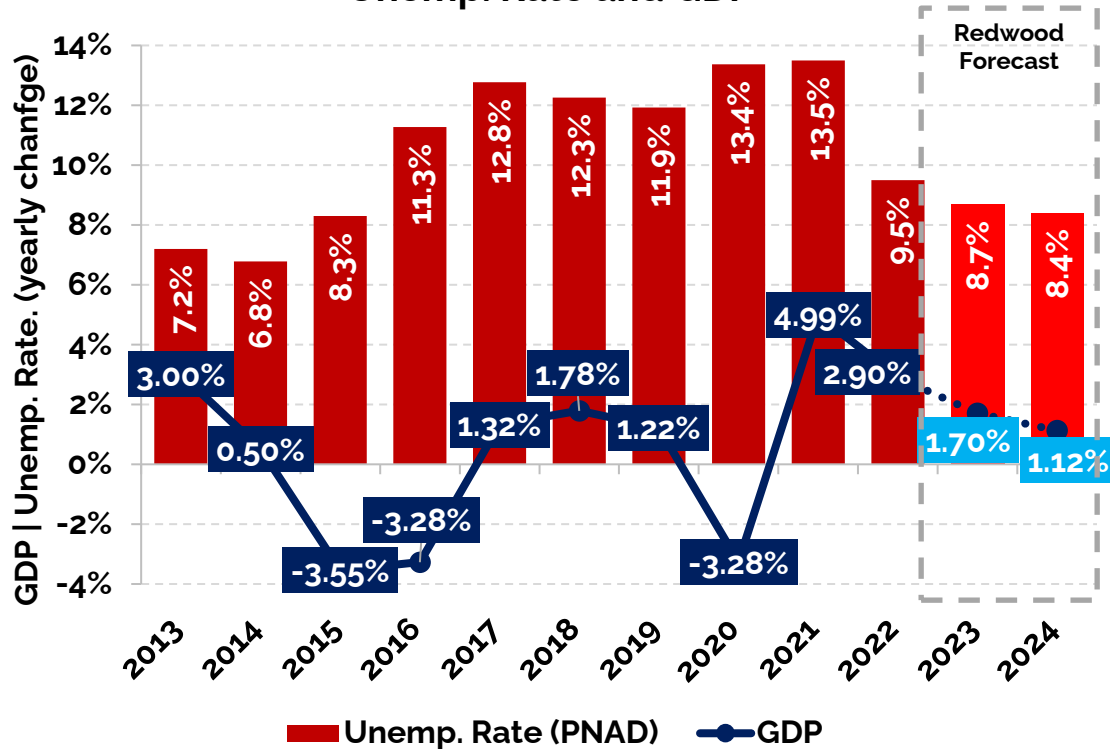
New CAGED:

- Downward trend in the past 12-month period;
- Vis-a-vis the positive correlation with GDP, this slowdown still points to a reasonably resilient labor market (seasonal effects matter);

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Unemployment and GDP: Okun's law

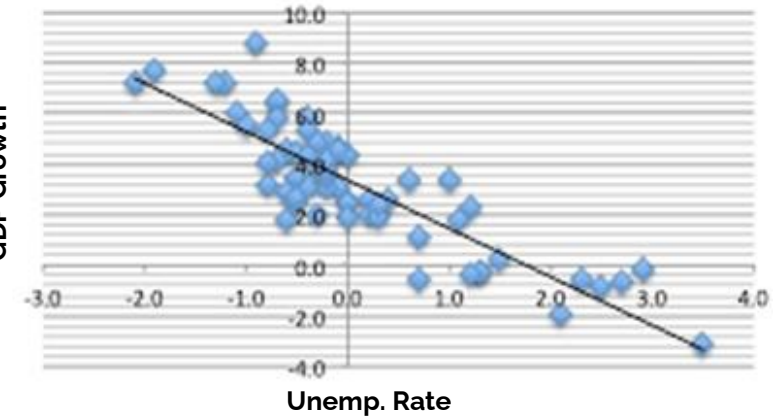
Unemp. Rate and GDP



Source: PNAD; IBGE | Elaborated by Redwood

- What is the NAIRU (*Non-Accelerating Inflation Rate of Unemployment*) in Brazil?
- What is the unemployment gap (unemployment rate – NAIRU)? Estimates show that it is (still) positive, which makes it consistent with a decrease in inflation.
- But what is the impact on GDP? Theory indicates an inverse relationship between unemployment and GDP.

Okun's Rate



Okun's Law (Gap Method Equation)

Output Gap Okuns Coef. Unemployment Gap

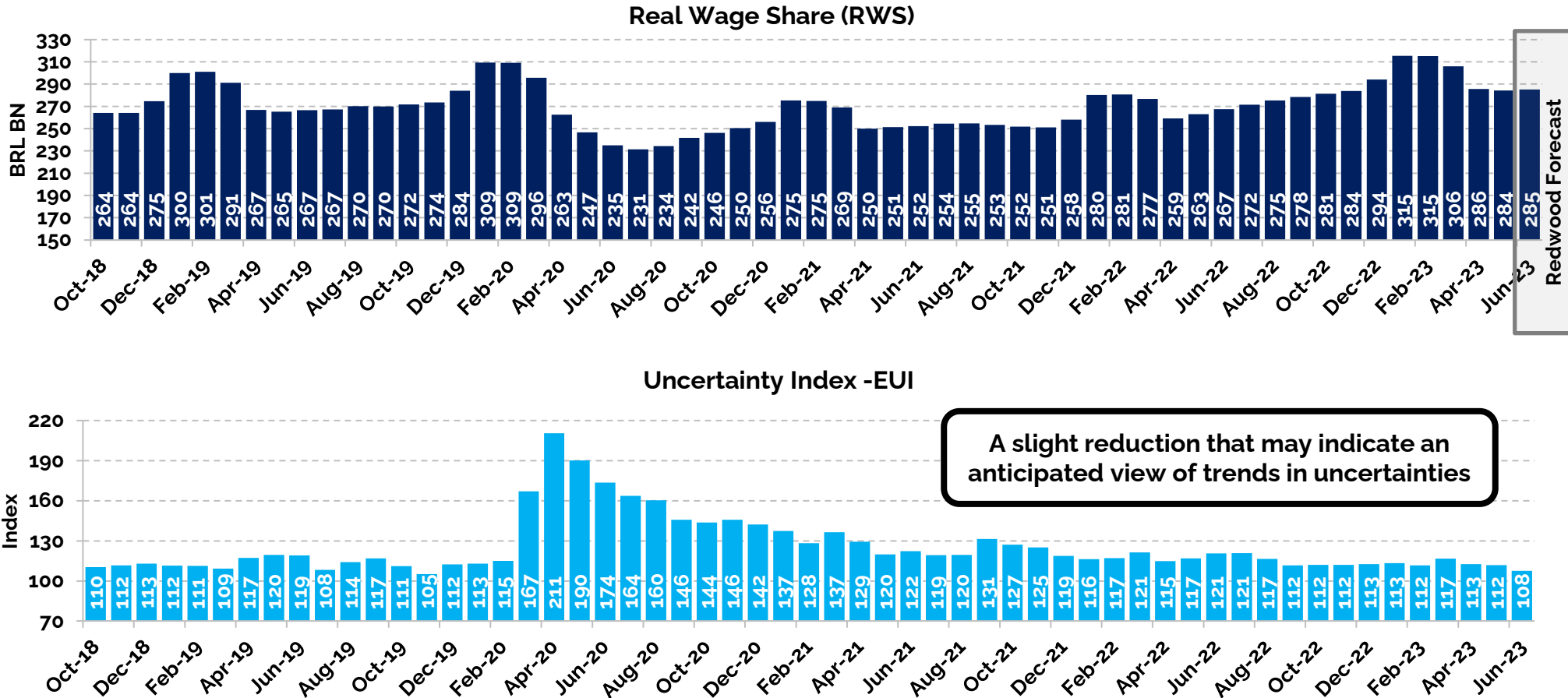
$$Y_t - Y_t^* = \alpha + \beta(U_t - U_t^*) + \varepsilon_t$$

Intercept
Nat. Rate of Unemployment

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Real Wage Bill (RWB) x Economic Uncertainty Index (EUI)

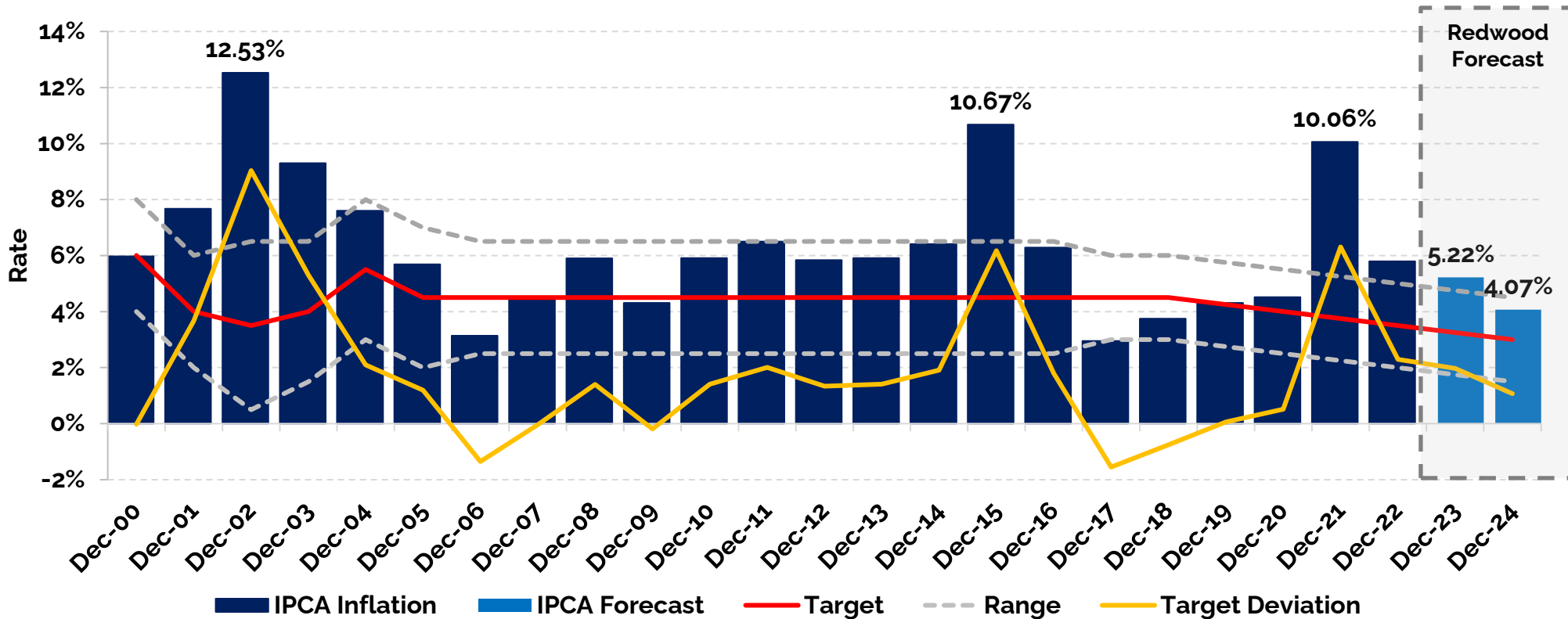
Wage bill = (Average earnings of workers) x (Employed labour force)



Source: IBGE; FGV | Elaborated by Redwood - Redwood Forecast RWS JUN/2023

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Evolution of Headline IPCA, Inflation Targets and Deviation from Target



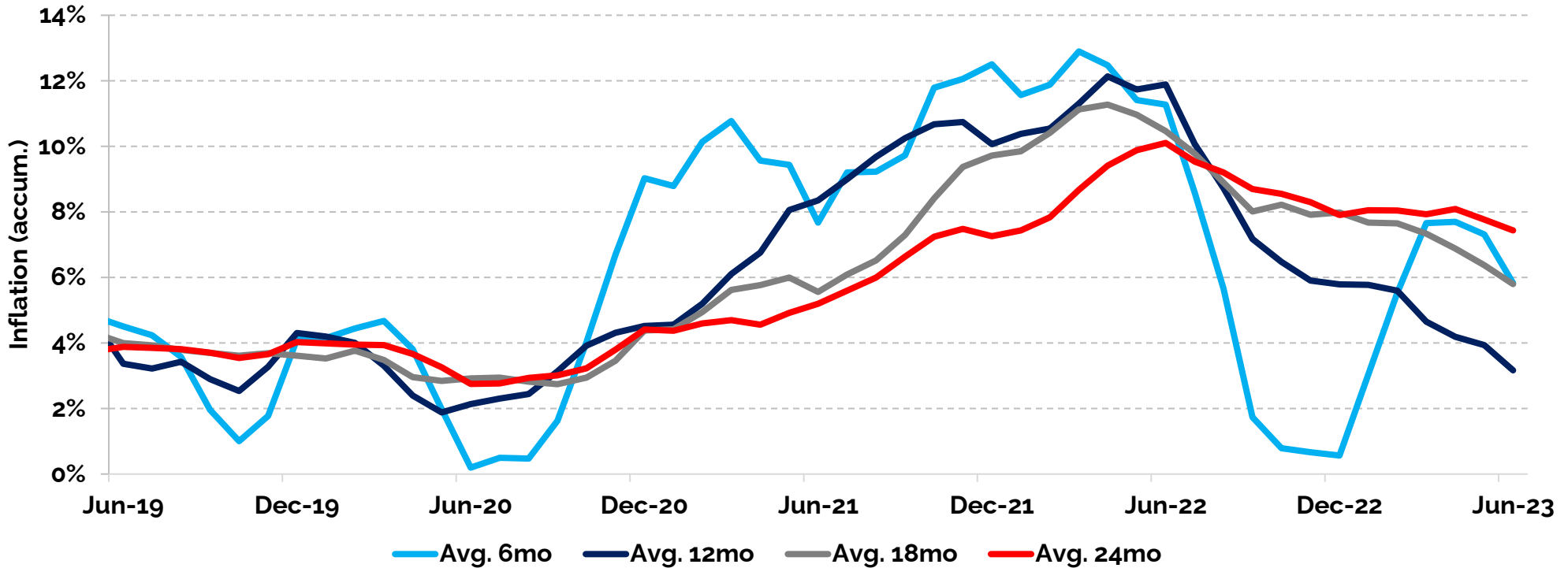
- Inflation Target was maintained at 3% yearly: reason prevailed. credibility maintained;
- Political attacks on CB jeopardized the normal course of interest rate cuts (futures and consequently the SELIC);
- Switching from calendar-based target to a continuous inflation target: limited practical effect
- High interest rates are relentless... Inflation drops!

Source: IBGE; BACEN | Elaborated by Redwood

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Monetary Policy – Continuous target

IPCA (yearly change - average)

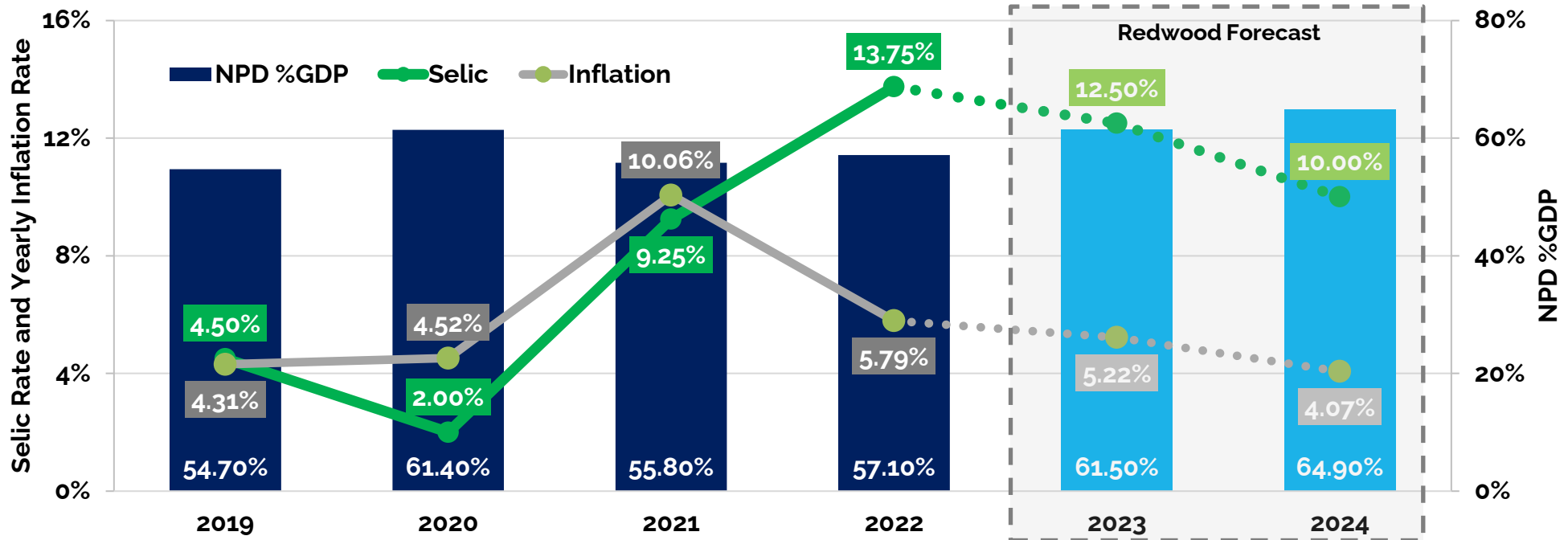


- Inflation target compliance rule: calendar-year or continuous, which one is better?
 - In practice, it already does when extending the relevant horizon (current system already “adjusted” – no efficiency gains);
 - Justification statement for not meeting the target? When? 12 month average? Other parameters;
- The decision to maintain the 3% target was correct, strengthens trend and “lowers” interest rates;
- Government changes inflation targeting system: the dynamics will not change.

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Inflation: Do debt growth dynamics matter?

Net Public Debt (NPD % GDP), Inflation and Selic



Source: BACEN | Elaborated by Redwood

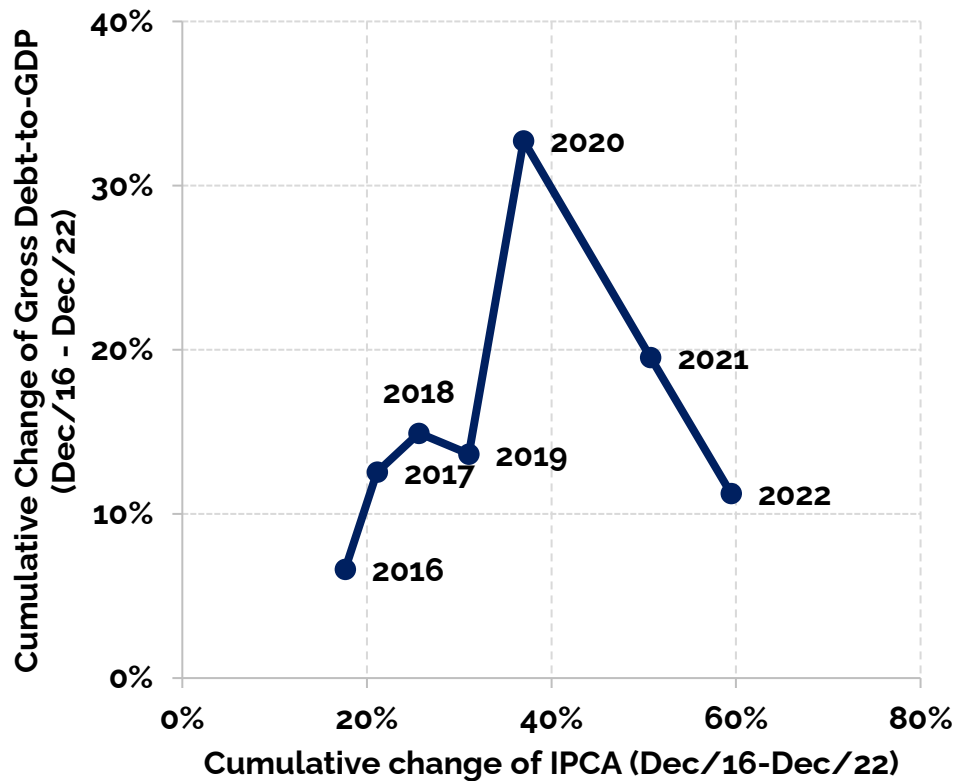
- **Net Public Debt (DLSP), a Brazilian singularity (jaboticaba)...**
- **According to the Treasury Secretary: DLSP refers to the total obligations of the non-financial public sector minus its financial assets with non-financial private entities, public and private. Here, unlike other countries, it considers the CB's financial assets and liabilities, including international reserves (assets) and the monetary base (liabilities). Simple and useful, isn't it?**
- **With this definition, the DLSP will advance more than the gross public debt (DBGG)... one more indicator of things not going well.**

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

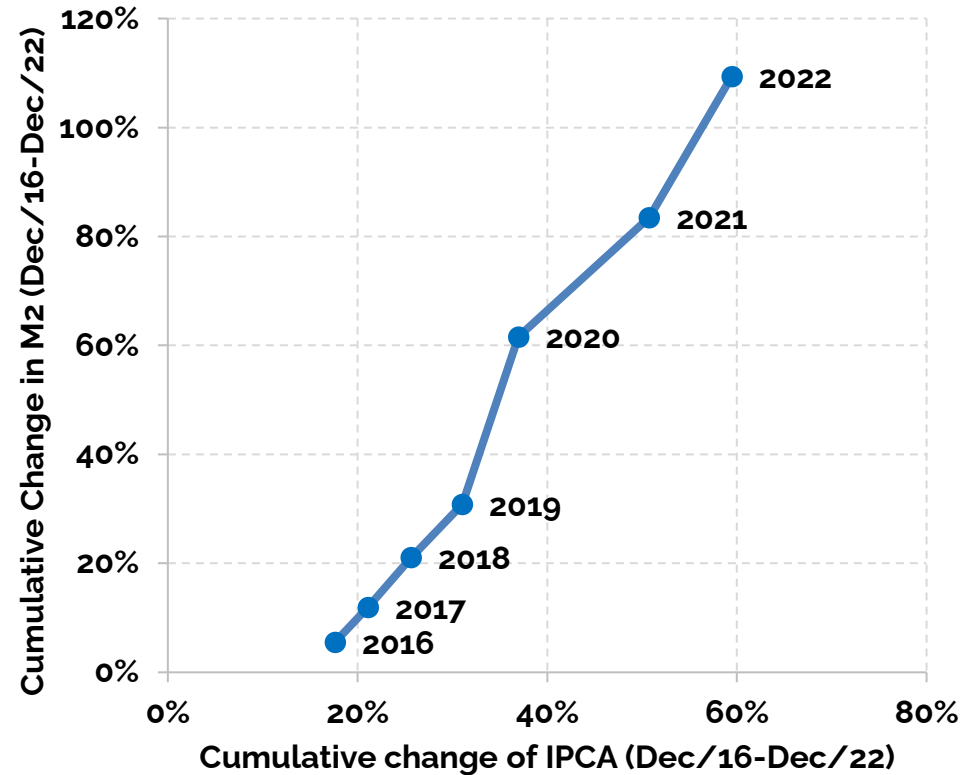
Inflation: Monetarists and fiscalists... an irrelevant discussion?

Inflationary impacts (Brazil)

Gross Debt-to-GDP and Inflation



M2 and Inflation

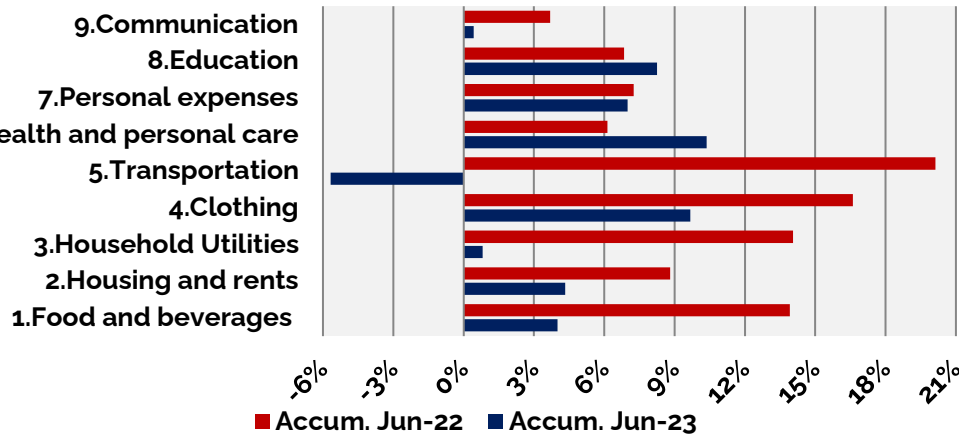


Source: BACEN; IBGE | Elaborated by Redwood

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

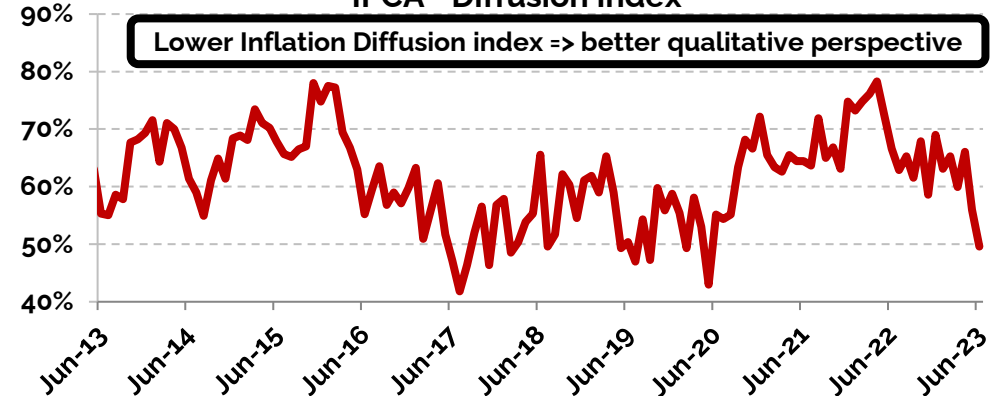
IPCA - Decomposition

IPCA -Accum. Change in 12m. by Group

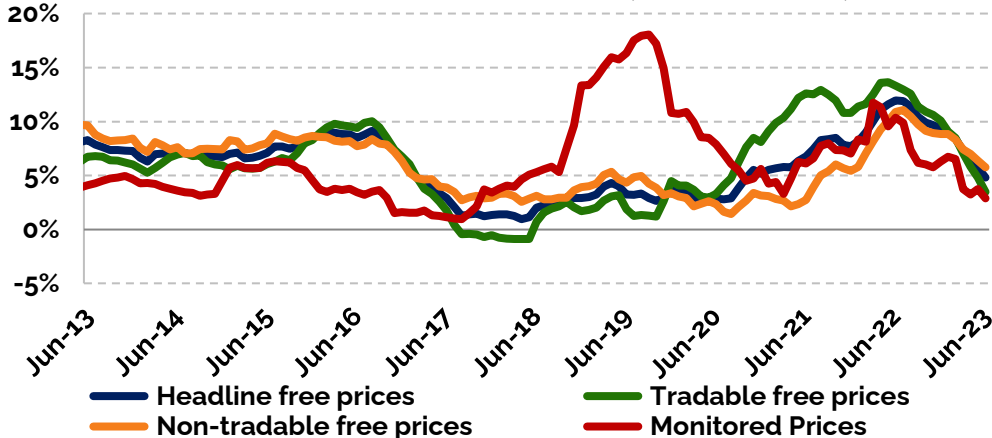


Inflation: favorable winds
 The medicine for fighting inflation is bitter, and the costs are very high. We are paying the price, and hopefully we will have learned the "lesson" that monetary expansion is definitive force behind inflation. Moreover, that the only one responsible for it is the government. Always good to remember in the face of populist governments.

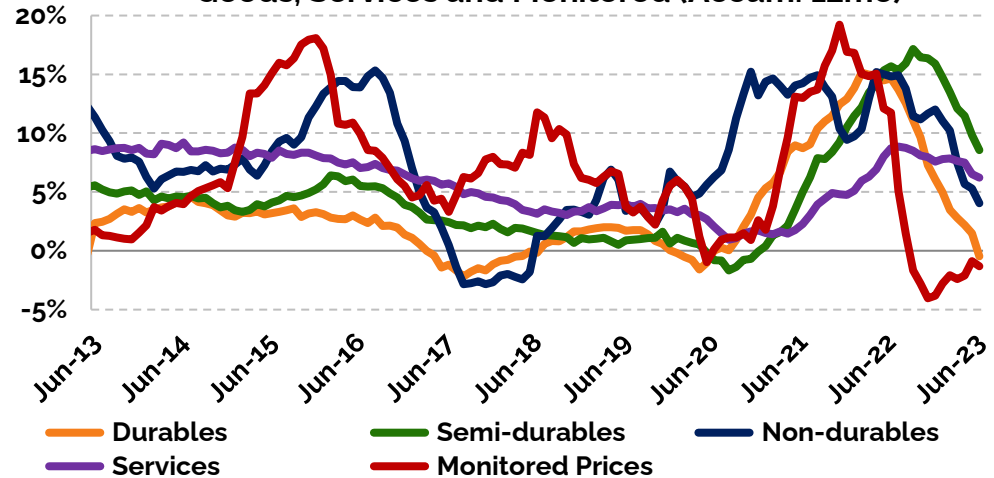
IPCA -Diffusion Index



Free and Monitored Prices (Accum. 12mo)



Goods, Services and Monitored (Accum. 12mo)

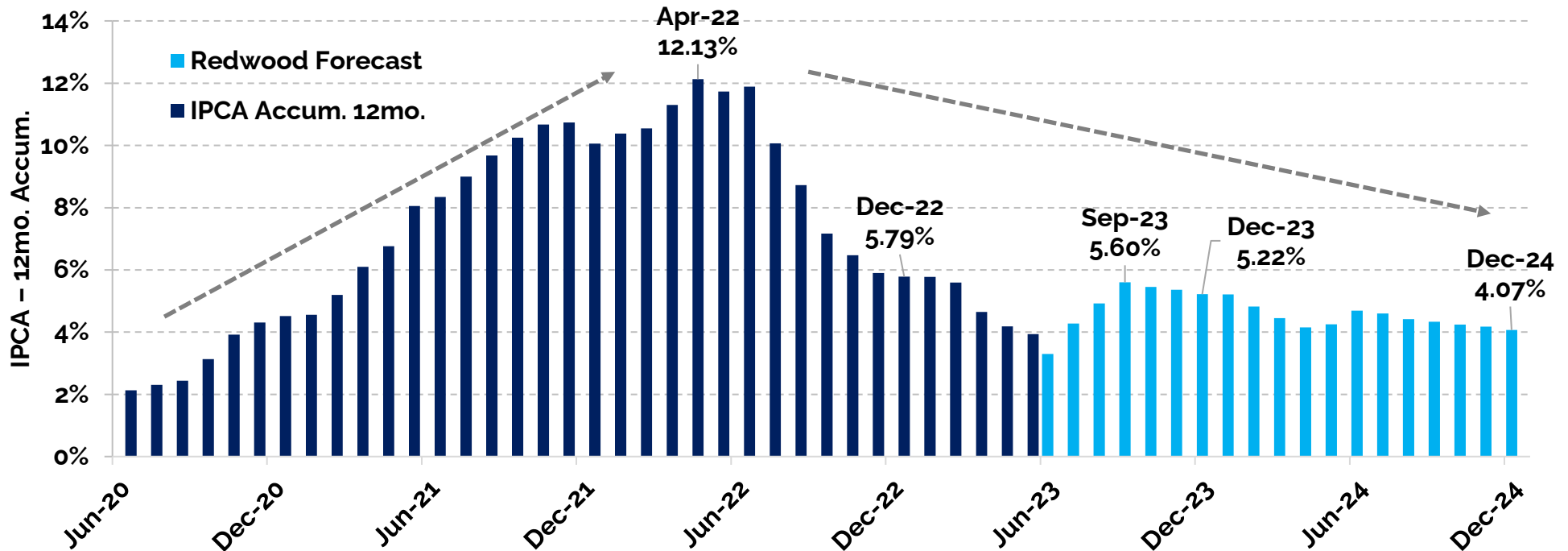


Source: IBGE; BACEN | Elaborated by Redwood

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

IPCA – “Definitive” downswing in sight?

IPCA –12mo. Accum.



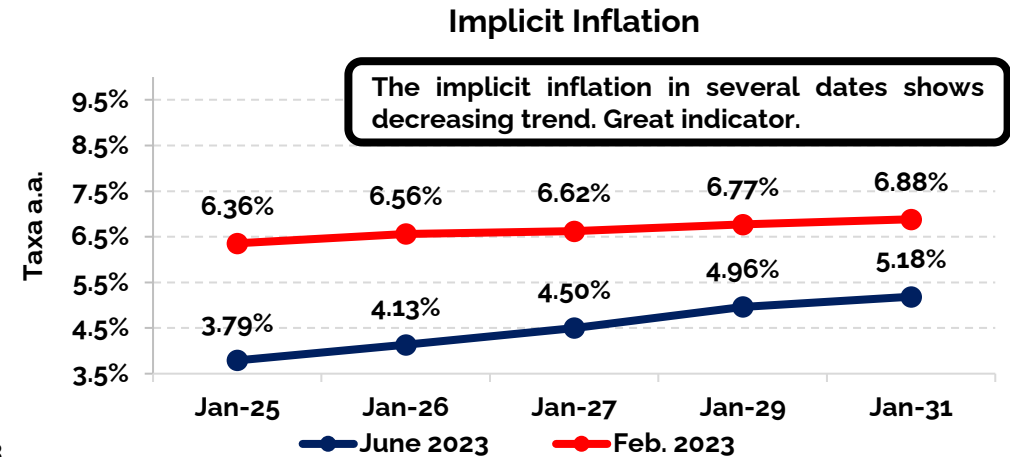
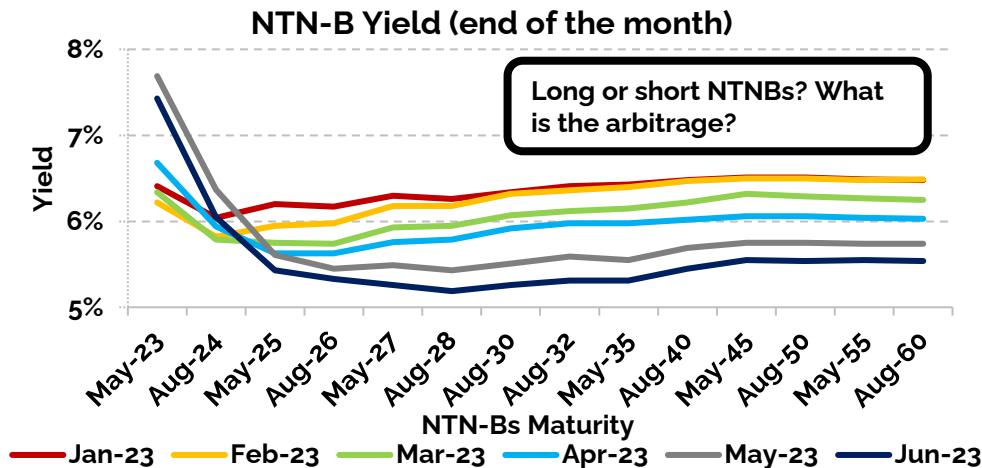
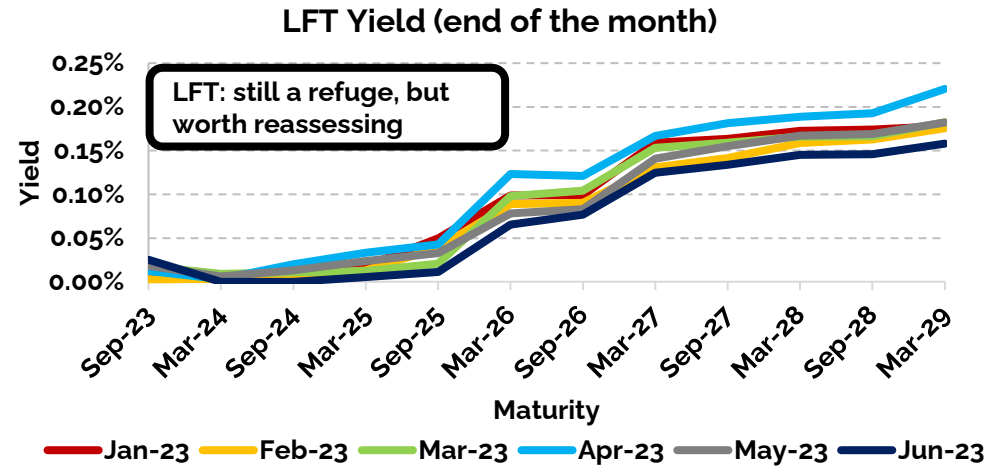
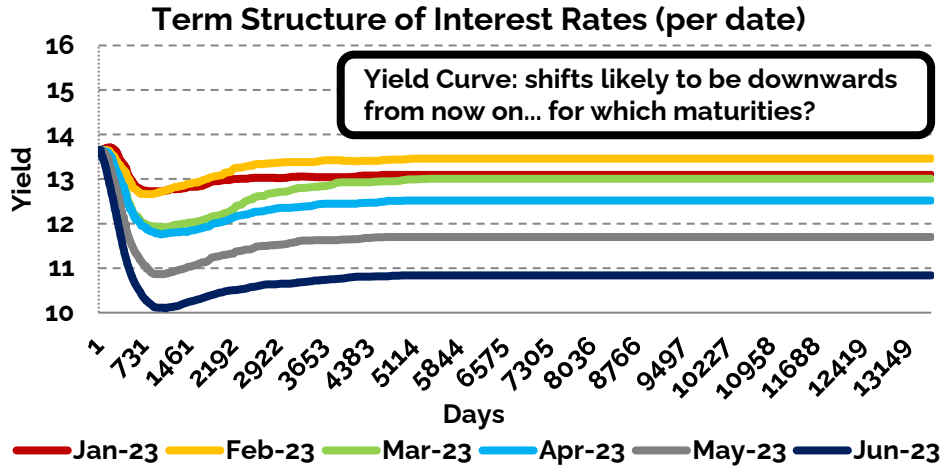
Source: IBGE; BACEN | Elaborated by Redwood

Inflation shows signs of gradual improvement

- Inflation “went up by elevator and took the stairs down”;
- In due course, inflation is highly likely to be within the 2024 target range
- Less disseminated price rises (Inflation Diffusion index), but mind those regulated prices

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

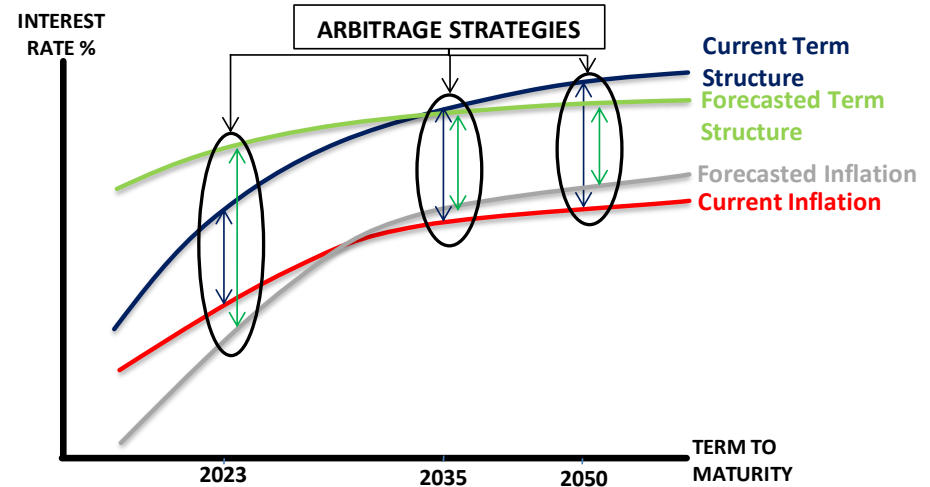
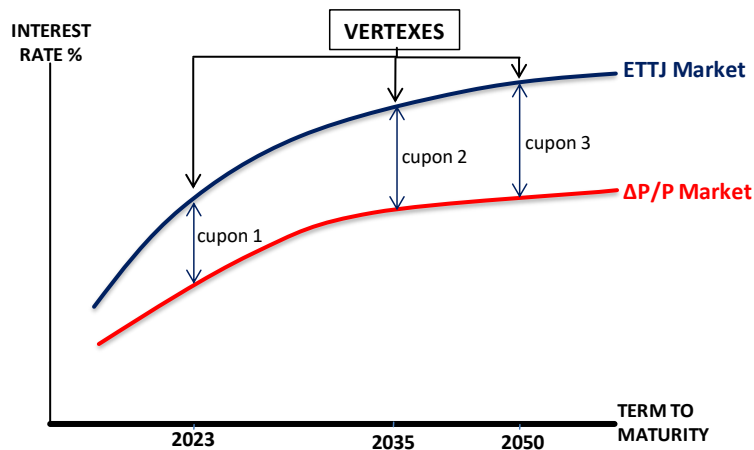
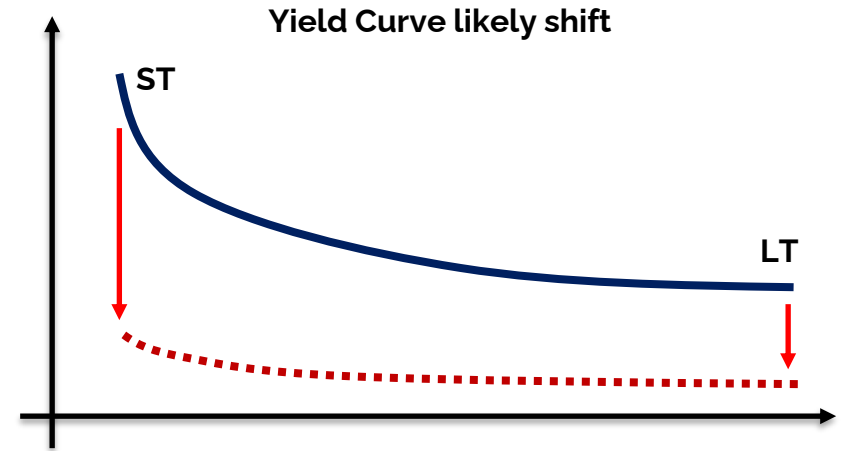
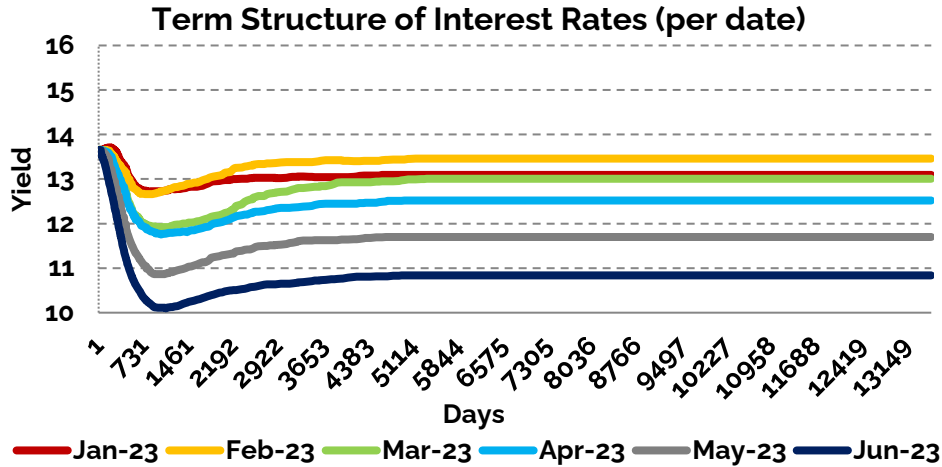
Interest rate - what to expect from the Yield Curve and real interest rates



Source: B3; Anbima; Redwood Forecast| Elaborated by Redwood

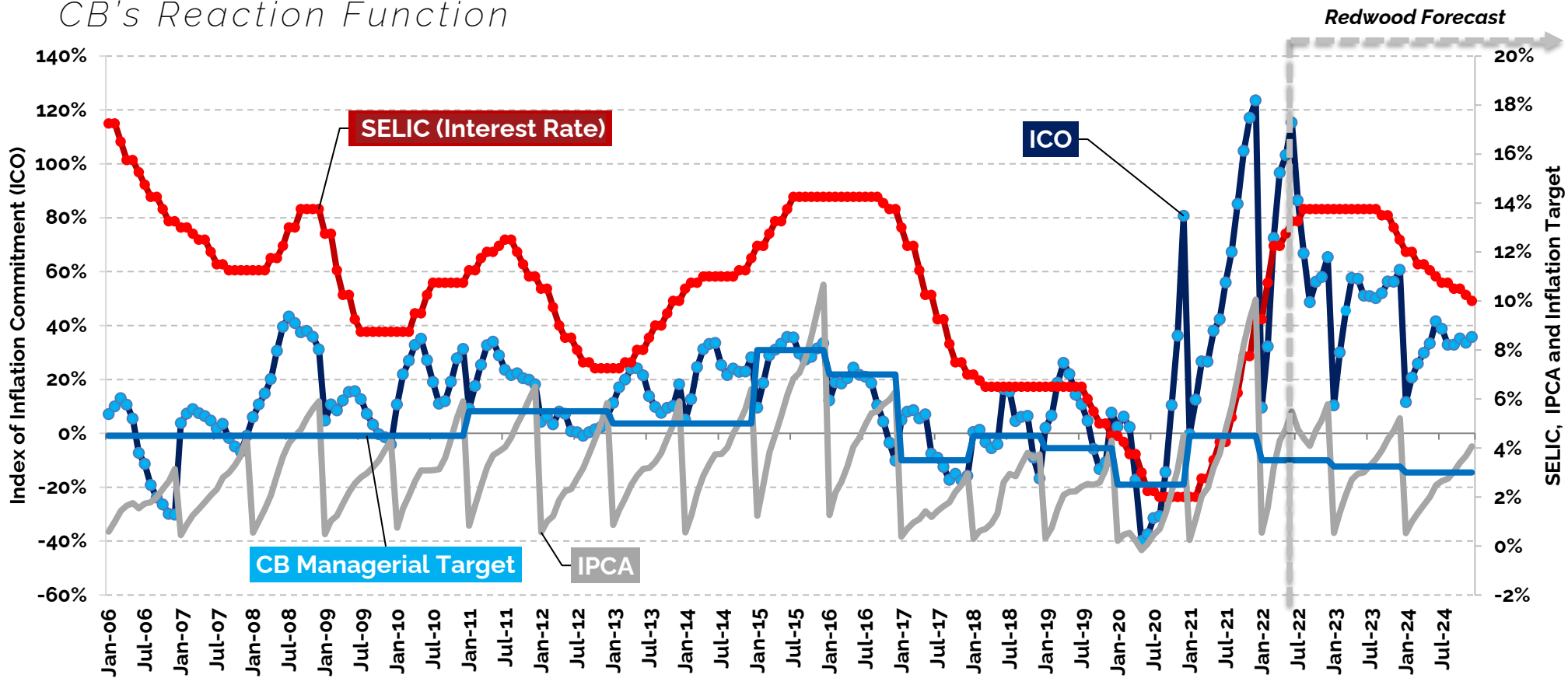
POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Interest rates - Fixed Income Opportunities (TPF)



POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

CB's Reaction Function



Sources: IBGE; CB Brazil | Elaborated by Redwood (projections Redwood starting Jun/23)

Redwood's CB Reaction Function Model is based on the annual inflation budget, and has been very useful.

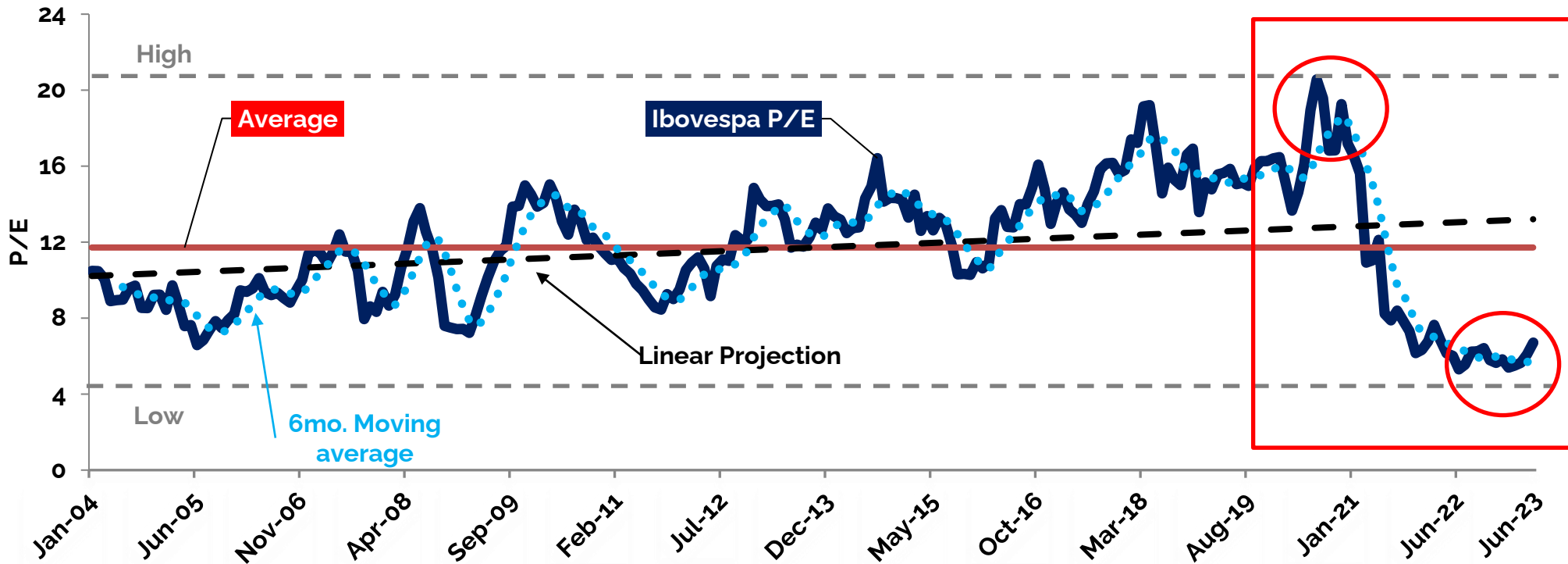
- CB's independence "strengthened" the model's performance;
- Combination of ICO (above 20%) and Inflation (near target), as well as ICO acceleration (point spread) triggers CB reaction;
- The new methodology approved by the CMN for a continuous target, from 2025 onwards, will require adjustments for proper interpretation;
- The Managerial Target used in the model should also be adjusted to reflect this dynamic.



MARKETS

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Markets - Assessment Ibovespa - Price-to-Earnings Ratio

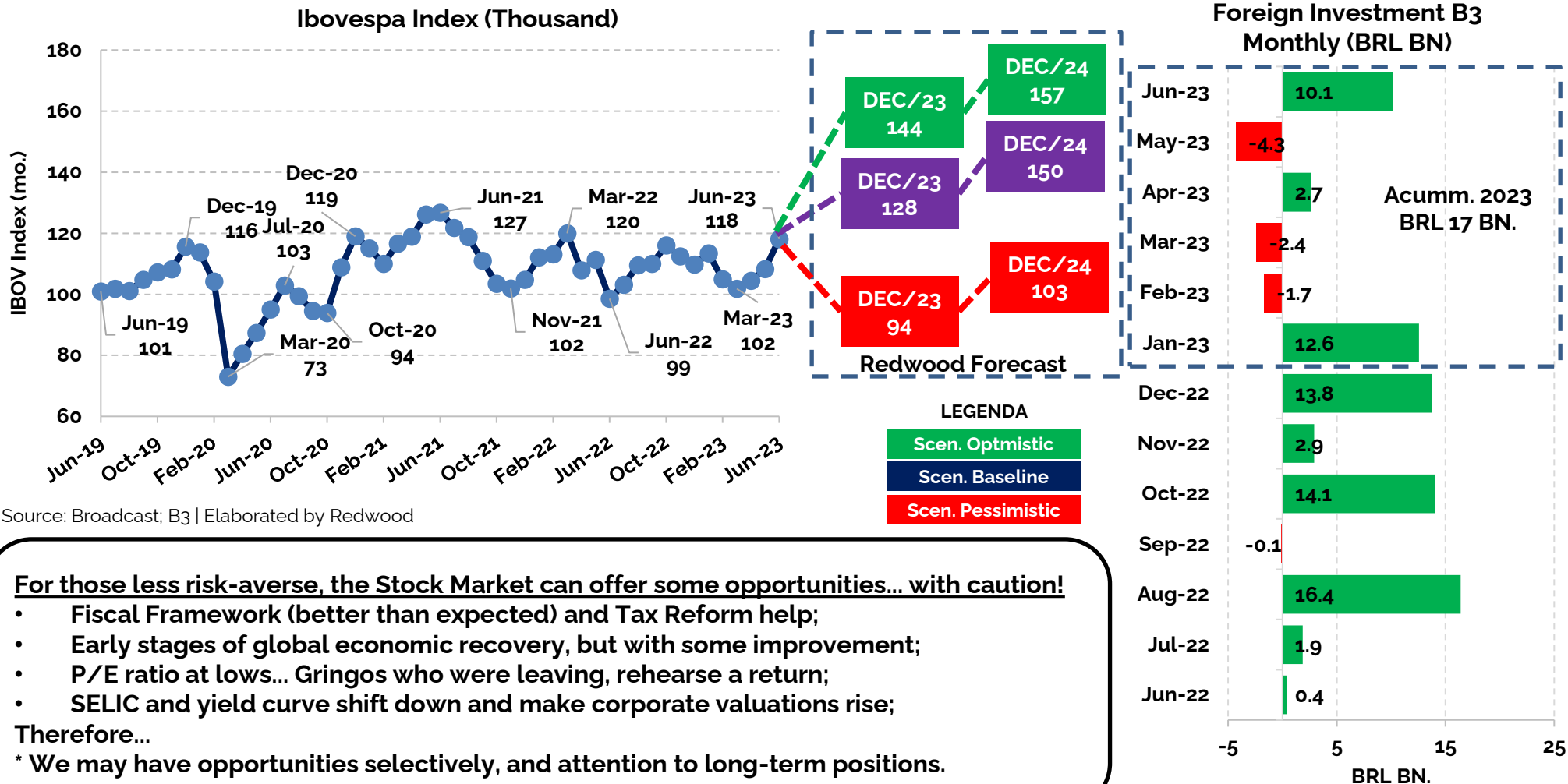


Period: 18,8 years
Source: Bloomberg
Elaborated by Redwood

According to the Price/Earnings (P/E) ratio, the Ibovespa has been quite “cheap” for a long time. We are below the Historical Average, the Linear Projection and Peaks. However, we passed the six-month average and, with lower interest rates across the yield curve in the coming months, some progress is likely. At this moment, it still doesn't reflect a strong and steady recovery. Selectivity matters.

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Markets - Assessment Ibovespa - Comparative Projections



For those less risk-averse, the Stock Market can offer some opportunities... with caution!

- Fiscal Framework (better than expected) and Tax Reform help;
- Early stages of global economic recovery, but with some improvement;
- P/E ratio at lows... Gringos who were leaving, rehearse a return;
- SELIC and yield curve shift down and make corporate valuations rise;

Therefore...

* We may have opportunities selectively, and attention to long-term positions.

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Markets - Ibovespa Evolution in USD

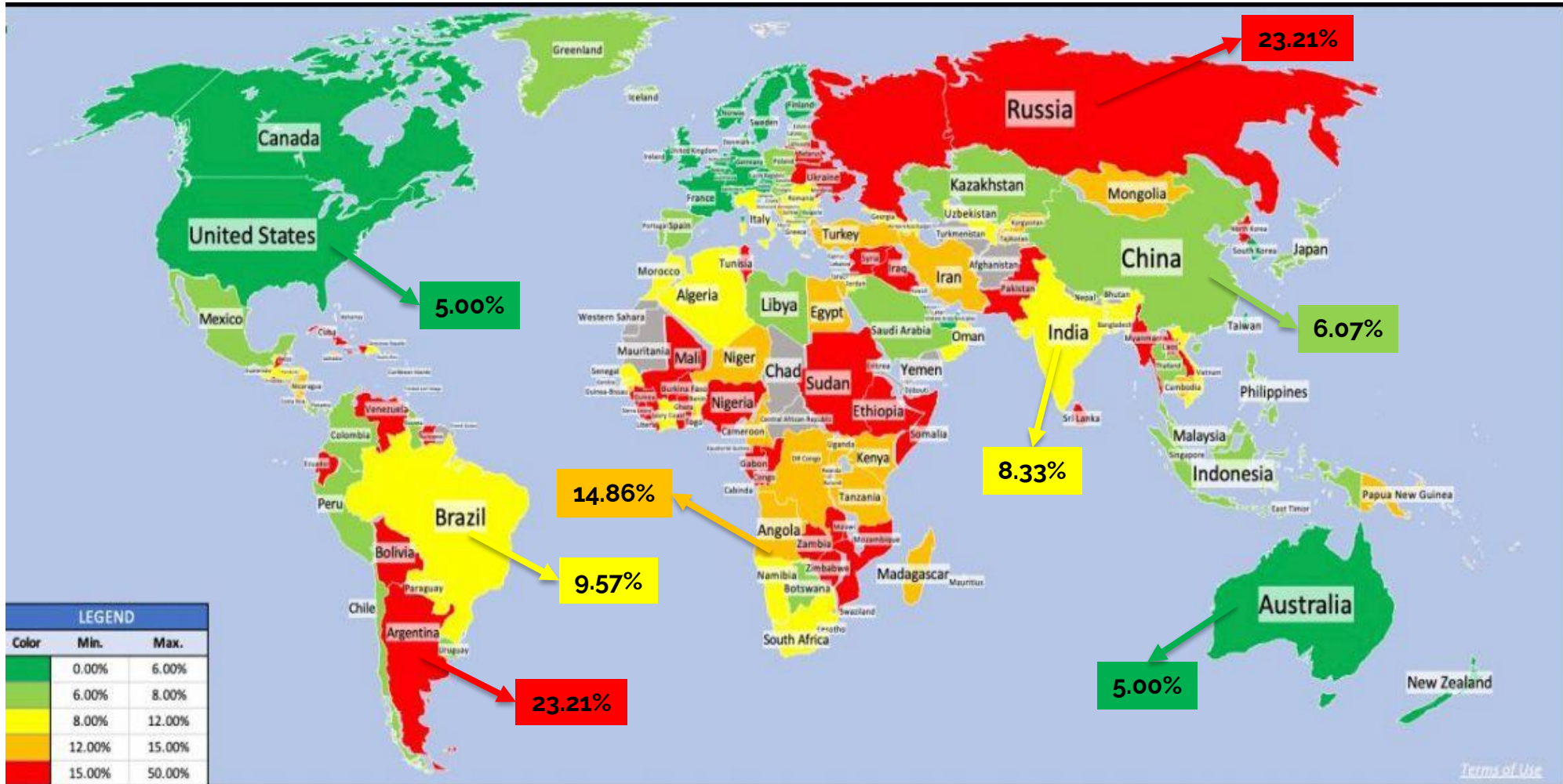


Monthly Candles - Base.30th, Jun. 2023

Source: Broadcast | Elaborated by Redwood

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

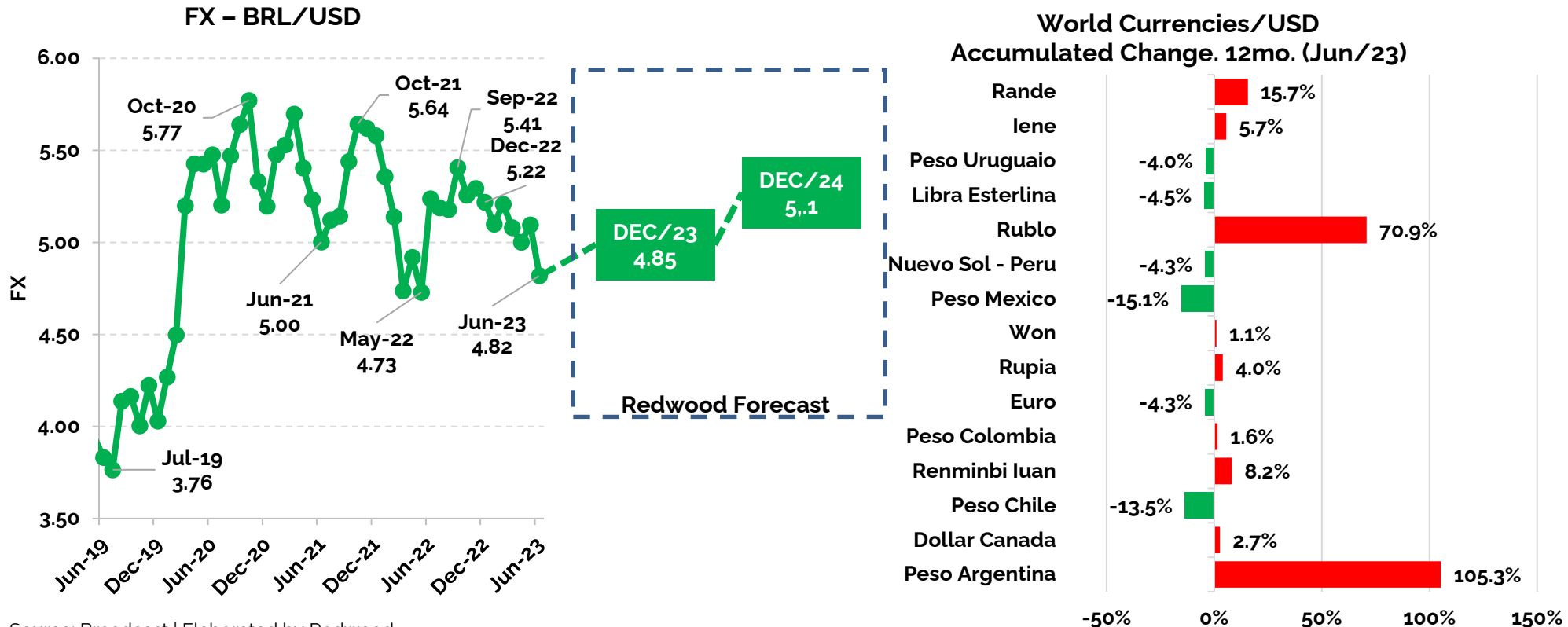
Markets – Equity Risk Premiums (ERP)



Source: damodaran.com | <https://bit.ly/3DeqxCW> | Final elaboration: Redwood

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Markets – Exchange rate evolution: could we be any more valued?



Source: Broadcast | Elaborated by Redwood

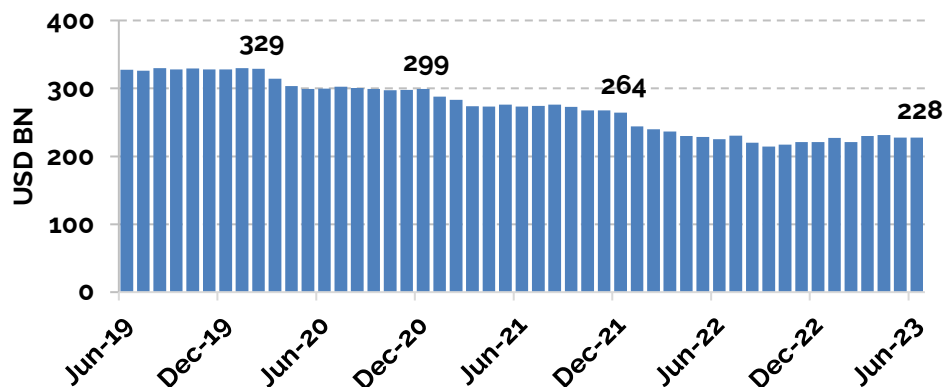
- The Dollar did not advance as expected at the beginning of the year, but also retreated by 7.64% against the Real;
- The S&P agency's perception of Brazil had a positive impact on our currency
- Currency volatility also toned down, possibly because of less uncertainty than the market priced in;
- Interest Rate Differential (Domestic vs Foreign), will be ever lower from now on... important effects;
- Brazilian Real has a chance of (some) further strengthening this year, with reversion expected for 2024.

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

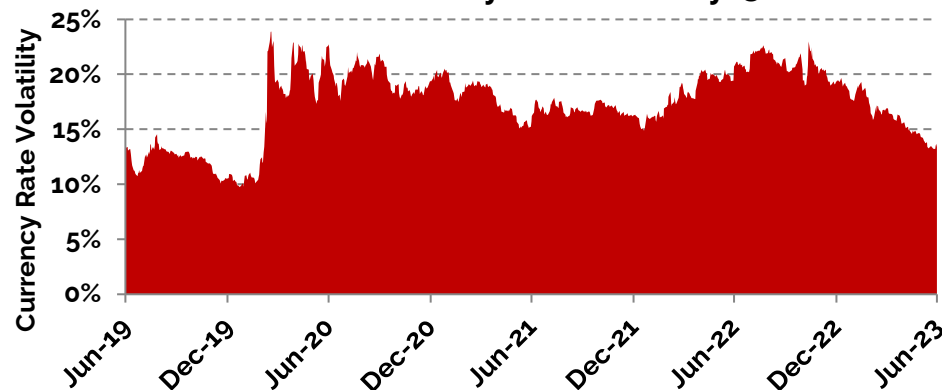
Markets - Evolution of interest rates - Brazil x USA and parity condition

- Highlights:**
- **Currency Swap:** systematic operations with no change;
 - **Volatility:** unforeseen and relevant reduction;
 - **Foreign Reserves:** maintained, for now;
 - **Quotes:** in the short-run can give in some more, but in the medium- and long-run trend is moving up;
 - **CDS 5 years:** S&P helped... waiting for the other agencies.

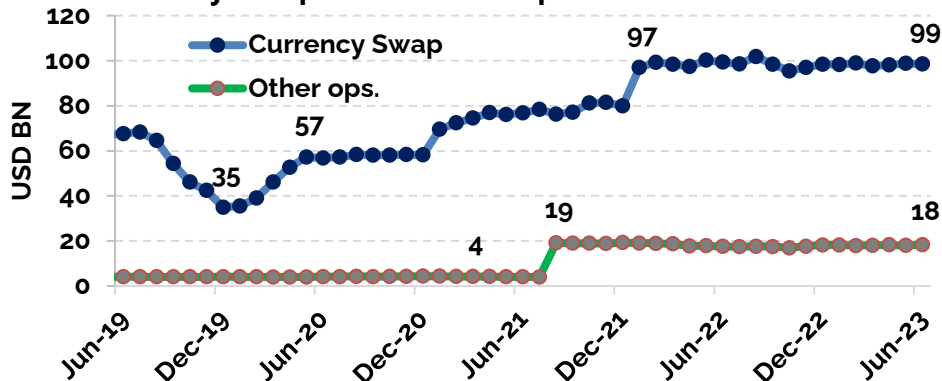
Foreign Reserve Position –Bacen (USD BN)



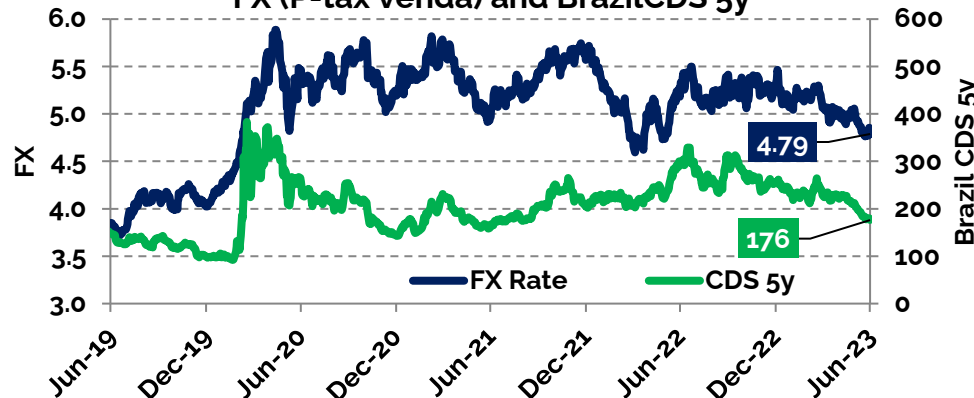
USD BRL Currency Rate Volatility (3 mo.)



Currency Swaps¹ and Other Ops.² BACEN (USD BN)



FX (P-tax venda) and BrazilCDS 5y



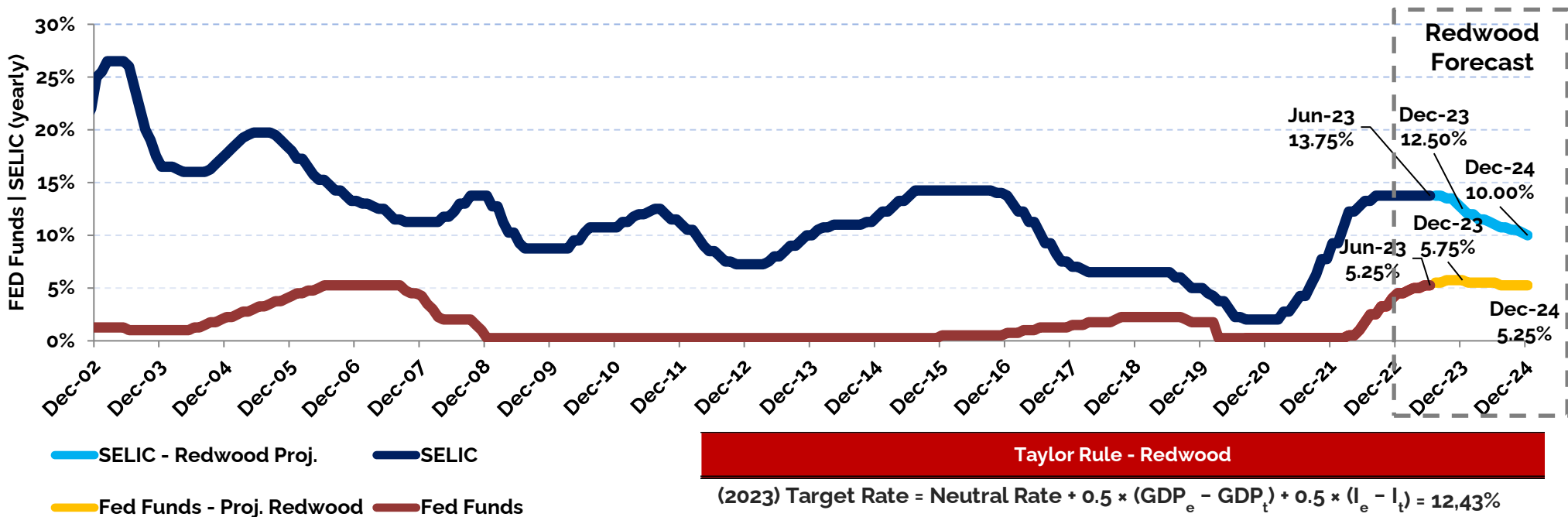
Source: BACEN; Bloomberg | Elaborated by Redwood

¹Transactions carried out through open market auctions and registered at BM&F/B3 S.A. Notional value of debtor position assumed by CB converted at the end-of-period purchase rate of currency. ²Assets and liabilities recorded in the CB balance sheet, except international reserves and stocks of repo lines and loans in foreign currency.

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Markets - Evolution of interest rates - Brazil x USA and parity condition (Cont.)

FED Funds and SELIC



Source: Bloomberg; IBGE | Elaborated by Redwood

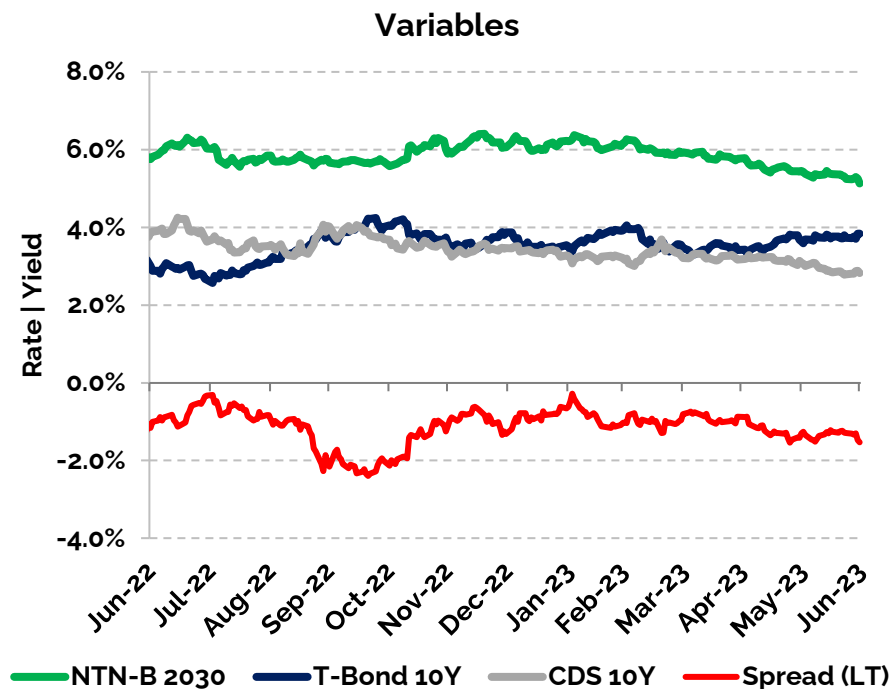
The FED having lost the timing and, even more, the intensity and pace of interest rate hikes, was not enough! Now they opted for a “strategic” halt, but with inflation still outside the target and inflation core measures under pressure. With a soft landing in mind, they toy with a dangerously tight job market. There is no mystery, the chance of the tightness returning and for a longer time gained strength and likelihood. Central Banks around the world do not seem to follow on such “mistake”, and continue in the same vein of successive interest rate hikes. Our CB, although under harsh and constant political pressure, can (but shouldn't!) initiate monetary normalization and cut the Selic rate in August.

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Markets - Evolution of interest rates - Brazil x USA and parity condition (Cont.)

International Interest Rate Parity - Redwood

| | NTN-B | T-Bond | CDS | Spread |
|--------------------|-------|--------|-------|--------|
| Average | 5,83% | 3,45% | 3,43% | -1,09% |
| Standard Deviation | 0,28% | 0,39% | 0,29% | 0,44% |
| Jun-23 | 5,13% | 3,84% | 2,82% | -1,53% |
| Low stress 2023 | 5,10% | 4,09% | 2,54% | -1,53% |
| High stress 2023 | 6,30% | 4,34% | 2,54% | -0,65% |
| Low stress 2024 | 4,54% | 3,59% | 2,29% | -1,34% |
| High stress 2024 | 5,58% | 4,09% | 2,29% | -0,84% |

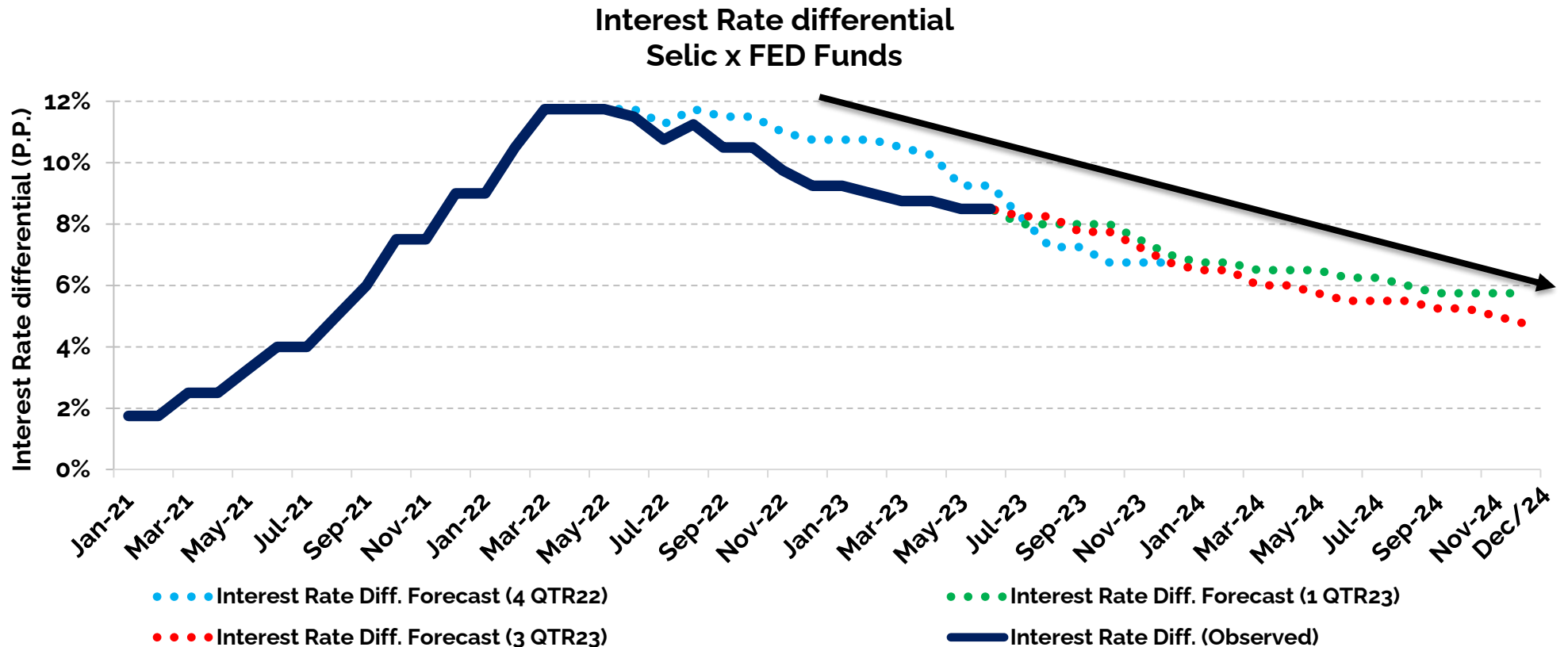


Source: Bloomberg; Economatica | Elaborated by Redwood

Inflation "surprised" the FED, but fears of recession have held back its more aggressive stance in hiking rates. They should not exceed 5.75%, and will hold for longer until inflation touches the 2% target. This stance has direct consequences on our assets, here in particular in the interest paid by NTNBs.

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Markets – Carry trade tends to decrease. What are the consequences?

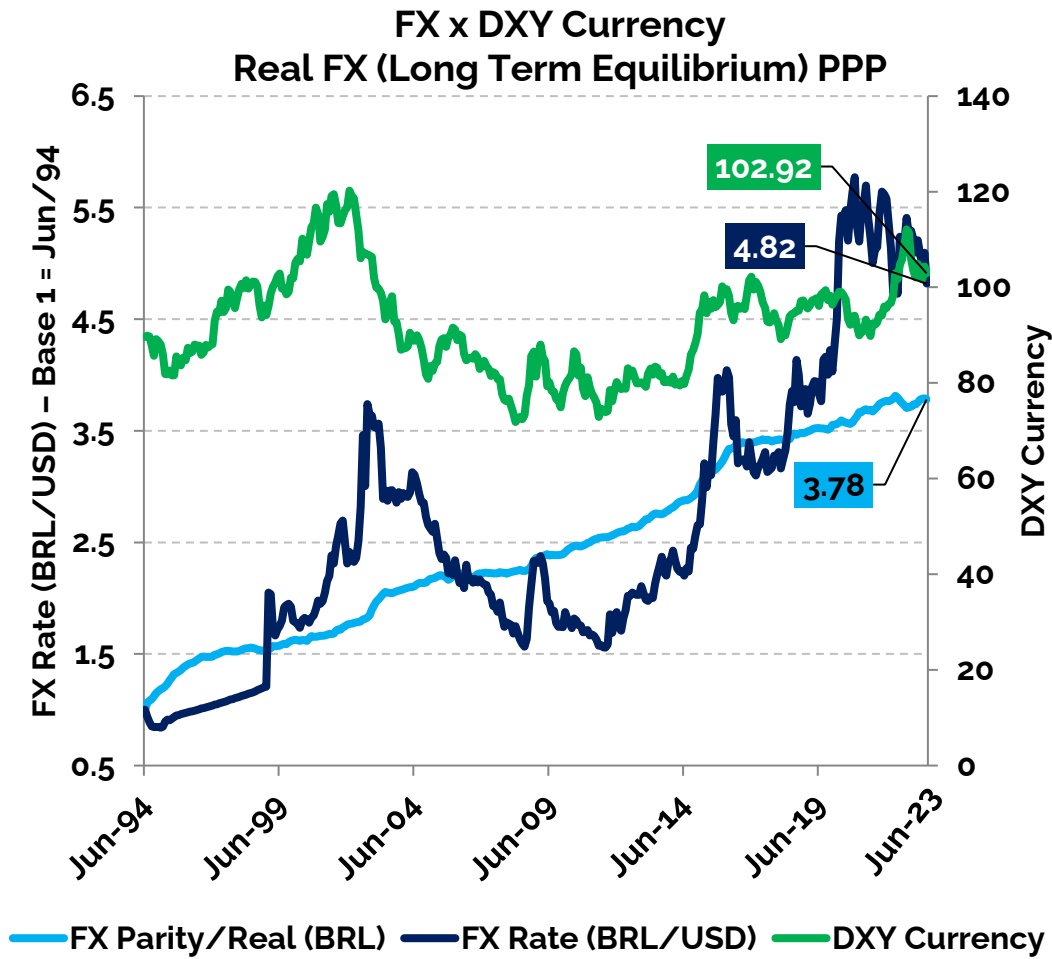


Source: Bloomberg; IBGE | Elaborated by Redwood

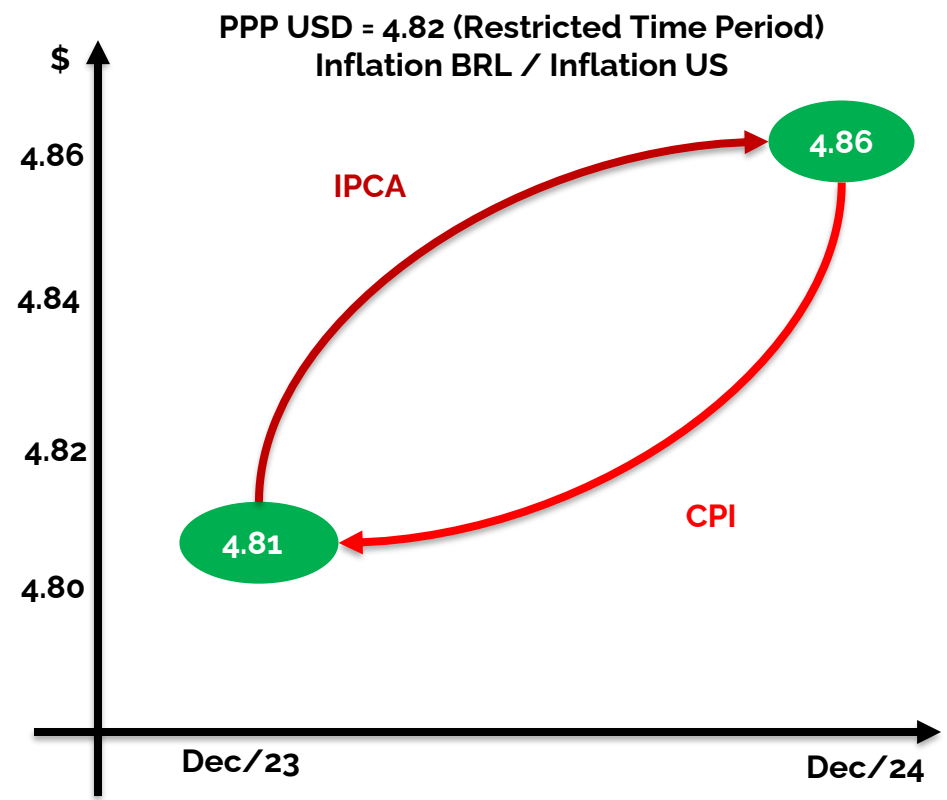
In the last Scenarios, the analysis claimed we had gone from a peak (March/22) at 11.75% to an estimated 5.75% for Dec/24. The terminal value for this difference is now even higher, at 4.75%. Carry-trade will be even lower and, all else constant, we could see capital outflows... But *coeteris paribus* is something not to be expected in Brazil.

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Markets - Evolution of interest rates - Brazil x USA and parity condition (Cont.)



Both projections point to a Brazilian Real stronger in the long run. Other variables do influence.

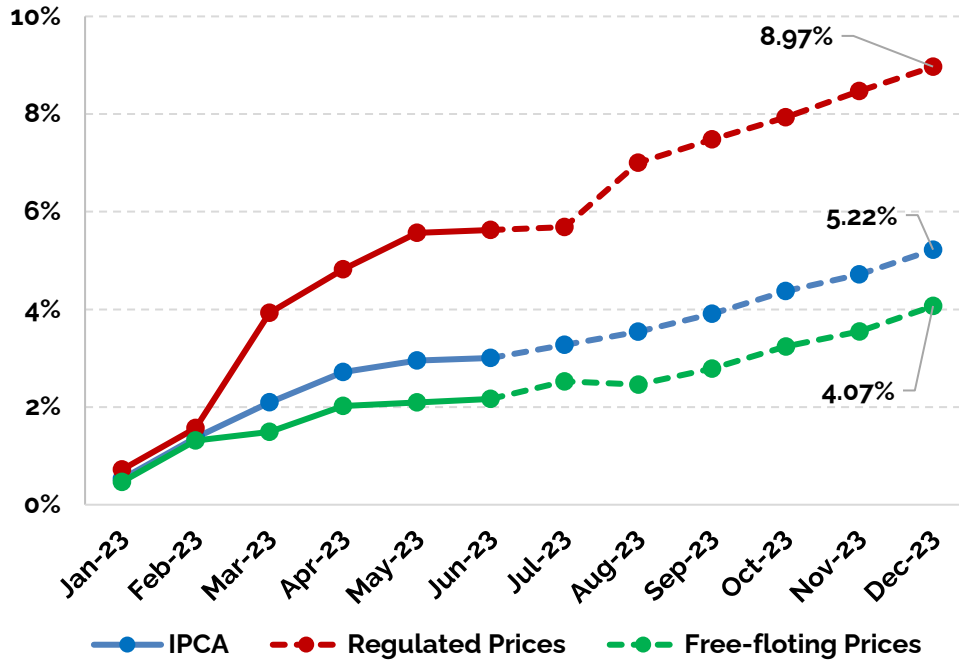


Source: FRED - St. Louis; Bloomberg | Elaborated by Redwood

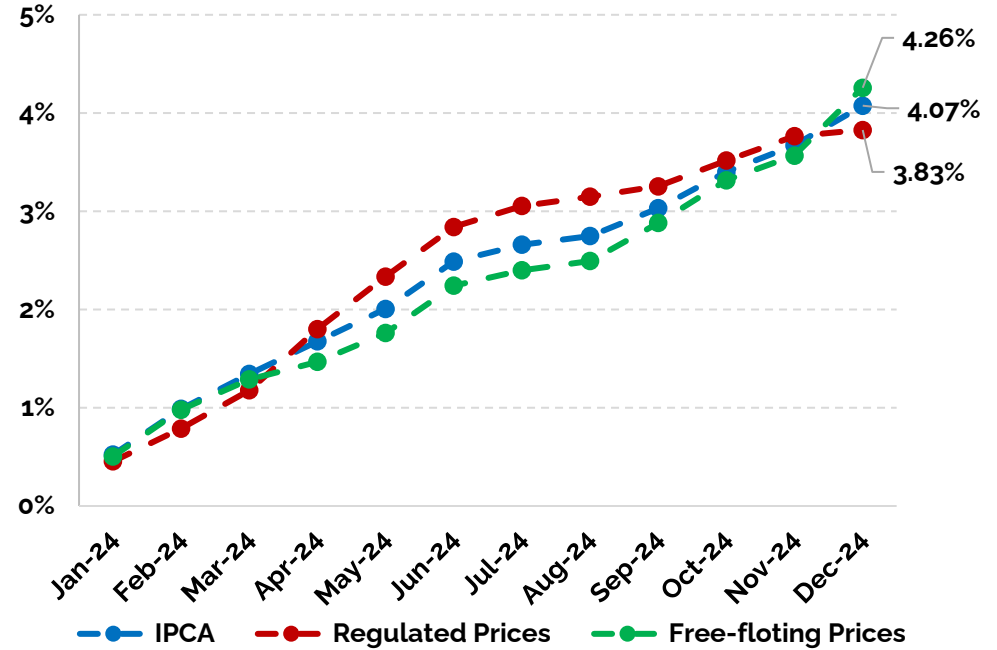
POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Markets – Inflation by IPCA Headline, Regulated and Free-floating Prices

IPCA, Regulated and Free-Floating Price Inflation
Accum. 2023 - Redwood Forecast from Jun/23



IPCA, Regulated and Free-Floating Price Inflation
Accum. 2024 - Redwood Forecast



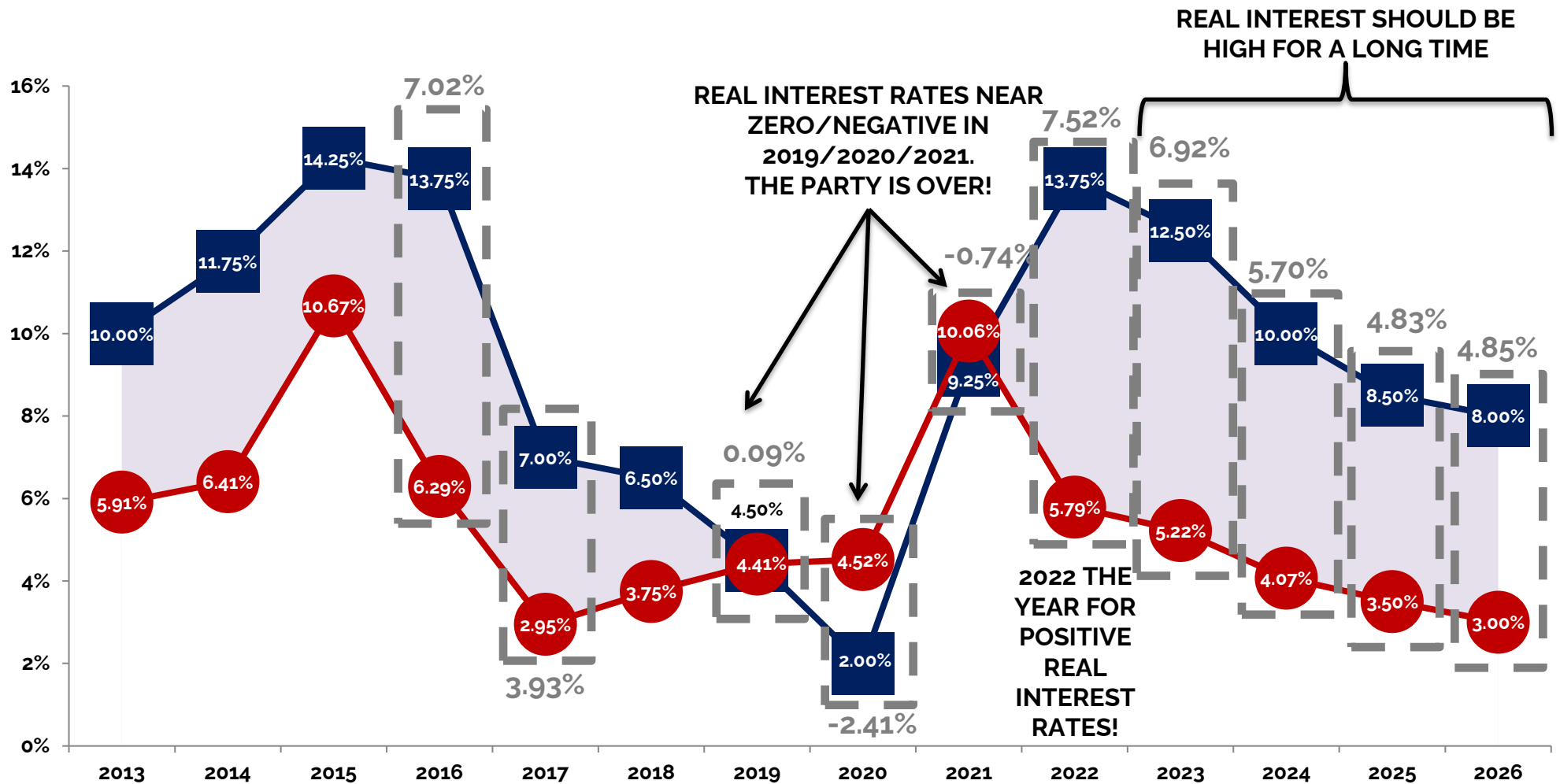
The composition and behavior of administered and market-set prices diverge in a two-year window

As anticipated in the last Scenarios, regulated prices in 2023 will “suffer” adjustments in view of the effects of 2022... so far without major interference market-set and regulated prices will be above target in 2023, but in 2024, notably as a result of the effects of current monetary policy, we may have both within the range of the inflation target.

Source: IBGE | Elaborated by Redwood

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Markets - Evolution of interest rate and inflation in Brazil



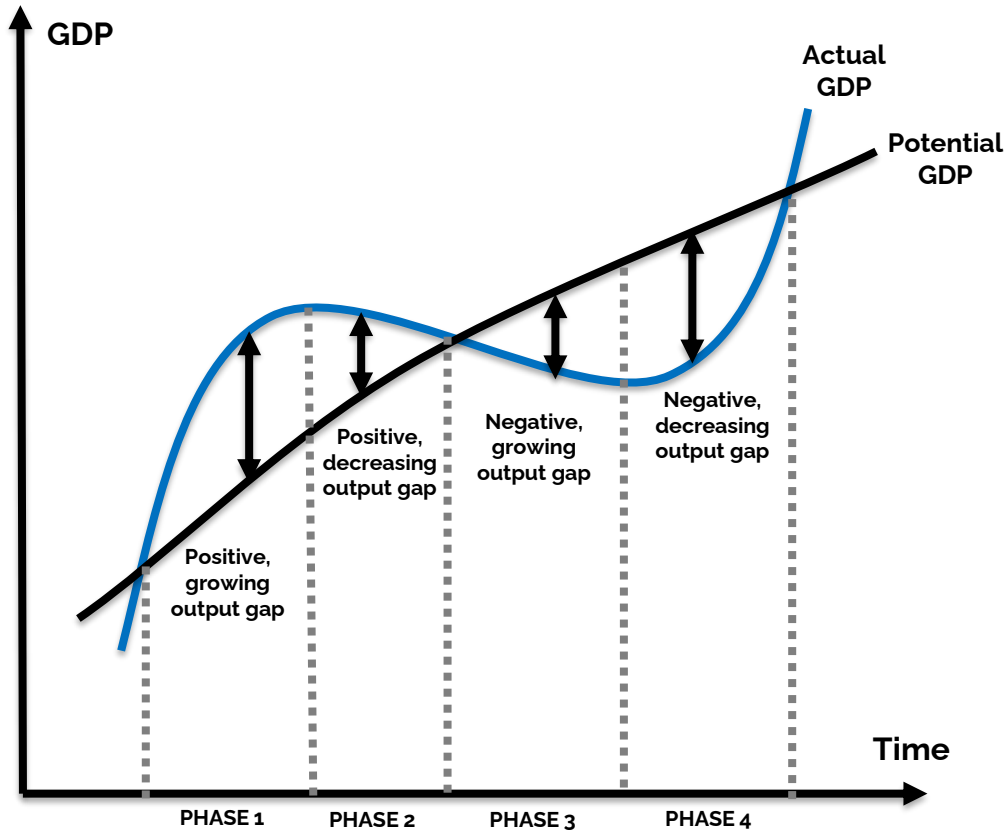
Source: BACEN; IBGE | Elaborated by Redwood - Obs: Redwood forecast for IPCA and SELIC - 2023-2026

Real Interest Rate SELIC IPCA

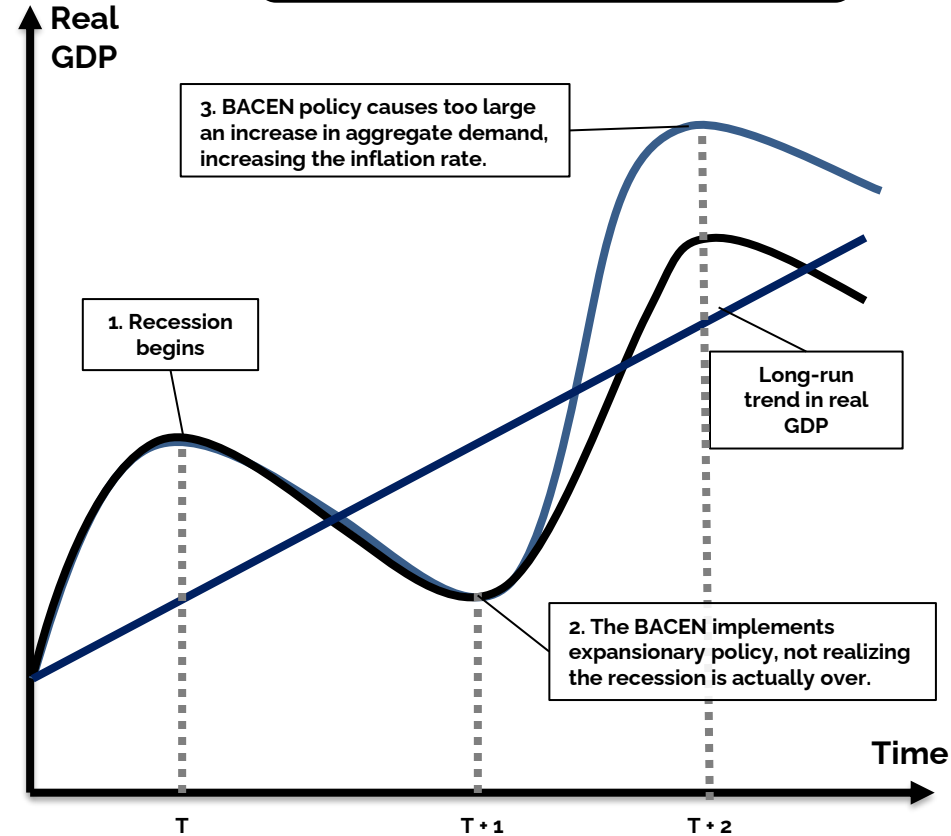
POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Markets - Economic cycles and Central Bank performance

The four phases of an economic cycle

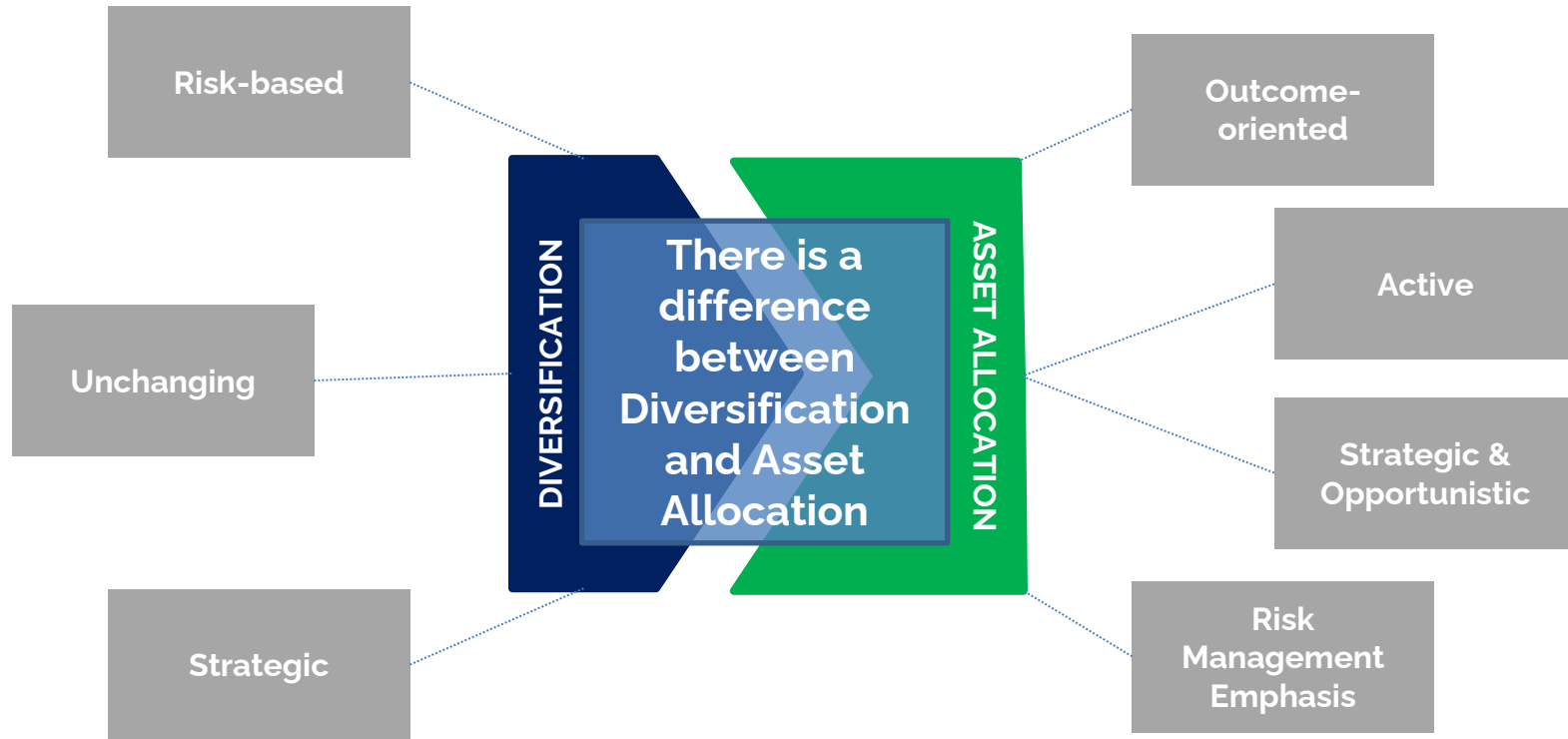


Independence and technique (robust models) make the difference!



POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Markets - Economic cycles and asset macro-allocation

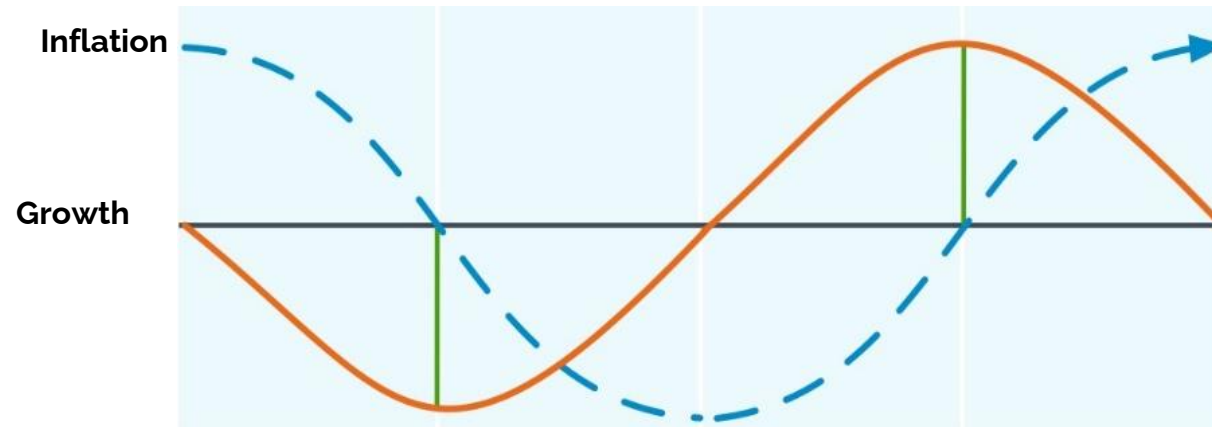



POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Markets - Economic cycles and performance along the market cycle

Performance during a market cycle

| Cycle phase | Disinflationary | | Inflationary | |
|-----------------------------|-----------------|----------|--------------|-------------|
| | Reflation | Recovery | Overheat | Stagflation |
| Best performing asset class | Bonds | Equities | Commodities | Cash |





REDWOOD MACROECONOMIC FORECAST 2023 AND 2024

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Probability-based Prospect 2023 and 2024 – 3rd QTR 2023

| INDICATORS | | 2019 | 2020 | 2021 | 2022 | 2023 (Base/Prob.) | 2024 (Base/Prob.) |
|--|-------------------|-------|-------|-------|-------|----------------------|----------------------|
| Economic Growth | | | | | | | |
| GDP Growth | % | 1.20 | -3.90 | 4.60 | 2.91 | 1.70 | 1.12 |
| Investment Rate | % GDP | 15.47 | 16.56 | 19.17 | 18.82 | 17.92 | 18.01 |
| Labor Markets (PME-IBGE) | | | | | | | |
| Average Rate of unemployment (yearly rate) | % | 12.1 | 13.4 | 13.5 | 9.5 | 8.68 | 8.41 |
| Real Average Wages* | R\$ const | 2,880 | 2,952 | 2,634 | 2,850 | 2,884 | 2,885 |
| Exchange, Interest and Inflation Rates | | | | | | | |
| Exchange Rate (December) | BRL/USD | 4.03 | 5.20 | 5.58 | 5.22 | 4.85 | 5.31 |
| Headline Inflation (IPCA) | Var. % yearly | 4.31 | 4.52 | 10.06 | 5.79 | 5.22 | 4.07 |
| Nominal Interest (Selic) - (December) | Var. % yearly | 4.50 | 2.00 | 9.25 | 13.75 | 12.50 | 10.00 |
| Real Interest (Selic/IPCA) | Var. % yearly | 0.18 | -2.41 | -0.74 | 7.52 | 6.92 | 5.69 |
| CDS Brazil – 5Y (end of year) | Percentage points | 99 | 143 | 242 | 254 | 158 | 143 |
| Balance of Payments | | | | | | | |
| Exports | USD Billions | 221.1 | 209.2 | 280.8 | 340.7 | 333.2 | 316.5 |
| Imports | USD Billions | 185.9 | 158.8 | 219.4 | 296.3 | 281.2 | 267.1 |
| Trade Balance | USD Billions | 35.2 | 50.4 | 61.4 | 44.4 | 52.0 | 49.4 |
| Current Account Balance (new methodology starting in 2019) | USD Billions | -65.0 | -24.5 | -27.9 | -55.7 | -52.9 | -55.5 |
| Current Account Balance | % GDP | -3.47 | -1.69 | -1.74 | -2.70 | -2.57 | -2.69 |
| Public Finances | | | | | | | |
| Primary Result | % GDP | -0.8 | -9.2 | 0.7 | 1.3 | -1.6 | -1.1 |
| Nominal Result | % GDP | -5.8 | -13.3 | -4.3 | -4.6 | -8.2 | -7.7 |
| Net Debt Stock | % GDP | 54.7 | 61.4 | 55.8 | 57.1 | 61.5 | 64.9 |
| Gross Debt Stock | % GDP | 74.4 | 86.9 | 78.3 | 72.9 | 77.5 | 81.4 |
| World & US Economies | | | | | | | |
| World GDP Growth Rate | % | 2.76 | -3.40 | 5.70 | 3.00 | 2.63 | 2.71 |
| US Growth Rate | % | 2.2 | -3.5 | 5.7 | 2.0 | 1.50 | 1.00 |
| CPI | Var. % yearly | 2.3 | 1.3 | 7.1 | 6.4 | 3.50 | 3.00 |
| Nominal interest rate (Fed Funds) | Var. % yearly | 1.75 | 0.25 | 0.25 | 4.50 | 5.75 | 5.25 |

Elaborated by Redwood | Forecast in red

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Variables Chart – Summary Exchange Rate/Inflation/SELIC – Proj. 2023/24

| Summary - 2023/2024 | | | | | | |
|-----------------------------------|----------------------------|-------------|------------------|--------------|---------------|---------------|
| Scenarios ¹ | Exchange Rate ² | | Inflation (p.a.) | | SELIC (p.a) | |
| | 2023 | 2024 | 2023 | 2024 | 2023 | 2024 |
| Optimistic | 4,47 | 4,40 | 4,50% | 3,25% | 11,25% | 8,50% |
| Baseline | 4,85 | 5,31 | 5,22% | 4,07% | 12,50% | 10,00% |
| Pessimistic | 6,23 | 6,73 | 7,00% | 5,50% | 14,00% | 12,25% |
| <i>Probability-based Scenario</i> | <i>4,85</i> | <i>5,31</i> | <i>5,22%</i> | <i>4,07%</i> | <i>12,50%</i> | <i>10,00%</i> |

¹Tax and Administrative Reform 2023/2024;

²December Quotes

| GDP | 2023 | 2024 |
|-----|-------|-------|
| | 1.70% | 1.12% |

| Unemployment | Ave. Rate | | Dec. Rate | |
|--------------|-----------|-------|-----------|-------|
| | 2023 | 2024 | 2023 | 2024 |
| | 8.68% | 8.41% | 9.91% | 8.22% |

POLITICAL, ECONOMIC AND FINANCIAL SCENARIOS

Conclusions - Brazil: macroeconomic scenario - A Mona Lisa Smile

❖ ***Politically still very troubled, with the President giving no relief to the country's polarization, quite the contrary, the "disorder" advances towards a pinnacle of political imbalance. Furthermore, he lives an elaborate fantasy, in a sensory deprivation that mixes the most rudimentary understandings, full of illusions, and intends to impose some pace on his administration as he did in his 1st term, without convincing himself that that environment no longer exists. Disconnected from the real world and drowned in daydreaming, he despises risks, placing almost insurmountable obstacles for his Ministers (economic area) in a daily struggle for wishful-thinking. The end purpose is, as always, an intervening State with endless incentives for consumption. Thus, we foresee a "decoupling", namely: relaxed financial conditions improve the environment, but with delayed effects for the real economy – which slows down. The external scenario remains bleak (geopolitical confusion and low growth). The time has come to review the "total hedge" stance.***

- Monetary Policy: The start of easing, but with caution;
 - Fiscal Policy: The new Fiscal Framework and the Tax Reform are necessary, but not sufficient conditions;
 - Brazil Risk: S&P assessment helped a lot in the perception of Brazil risk. Confirmation from other agencies will be important;
 - Exchange Rate Policy: CB has not enough "strength" in the medium and long term...but it does damage in the short term;
 - External scenario: The Russia-Ukraine War may take new directions with the launch of cluster bombs by the US. Those who have a nuclear arsenal will never accept losing a war without using their resources – bad timing. FED "faltered" by stopping the monetary tightening and will pay the price for it, but other developed countries' BCs focused on the interest rate hiking process;
 - Privatizations: The ghost of reviewing and/or canceling privatizations is true. It has a name;
 - Stock Market: In a possible "new" environment of relaxed financial conditions, it is convenient to evaluate opportunities;
 - Structured and Alternative Investments: The project and the horizon need to be expanded, and the attention here redoubled;
- Unemployment rate: short-run Phillips curve "explains", but the overall 2023 scenario will see some increase in unemployment and, for 2024, a likely improvement.



Expectations (and decisions!) tend to change in a revised assessment, but for that, reality needs to be shared and accepted. For the Commander-in-Chief, this record has not yet sunk in, and he insists on living in an alternative reality, which means that we will see the relaunch of all past actions – with or without optimizations. Attention! Investors: there could be no possibility of better arbitrage.

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