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Markets Research

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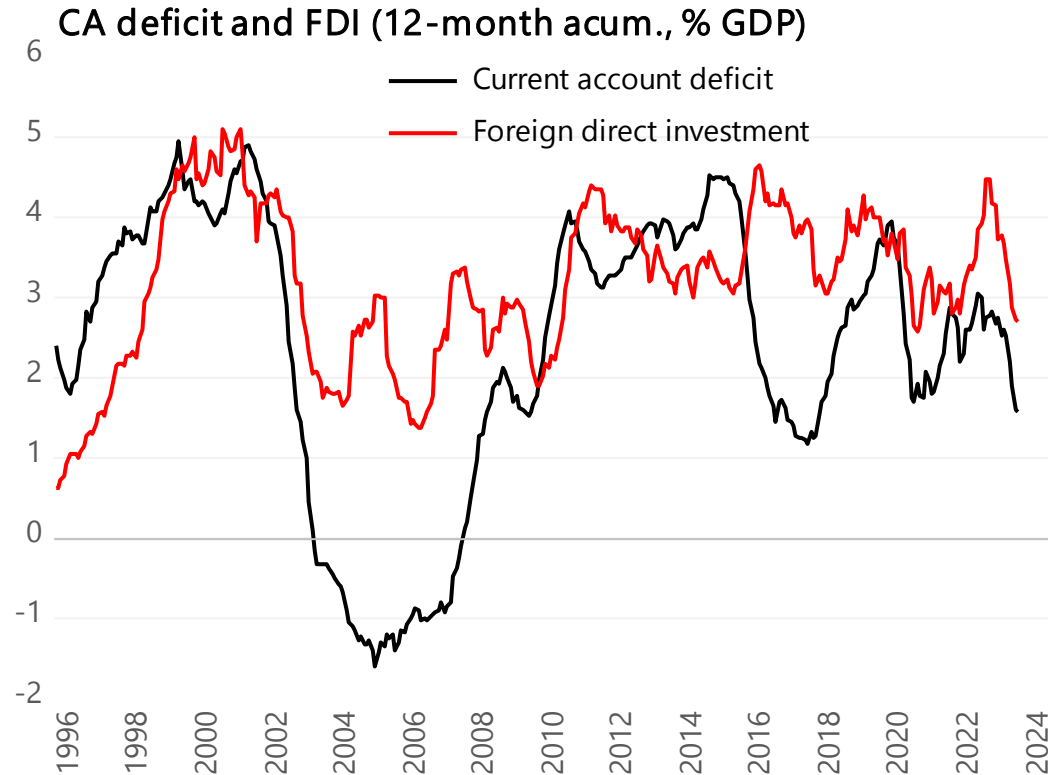
Debugging the Brazilian BoP:
Structural changes vs. Dynamics
at the margin and Possible Impacts
for the Currency

Sum up

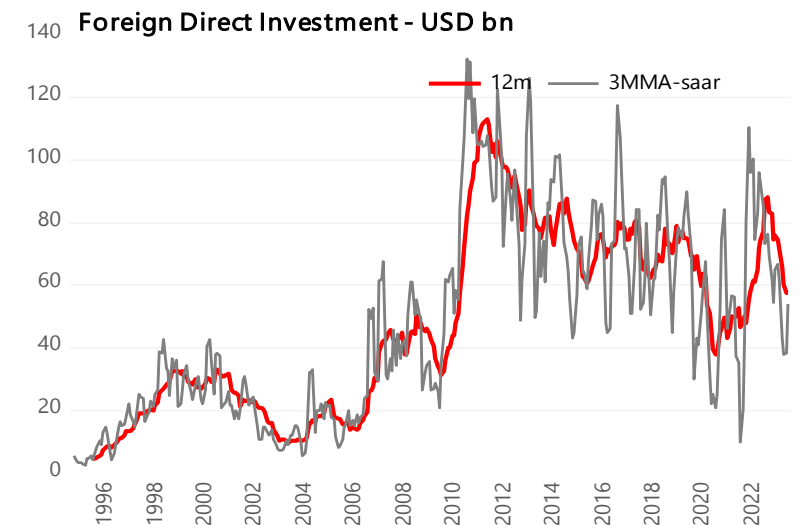
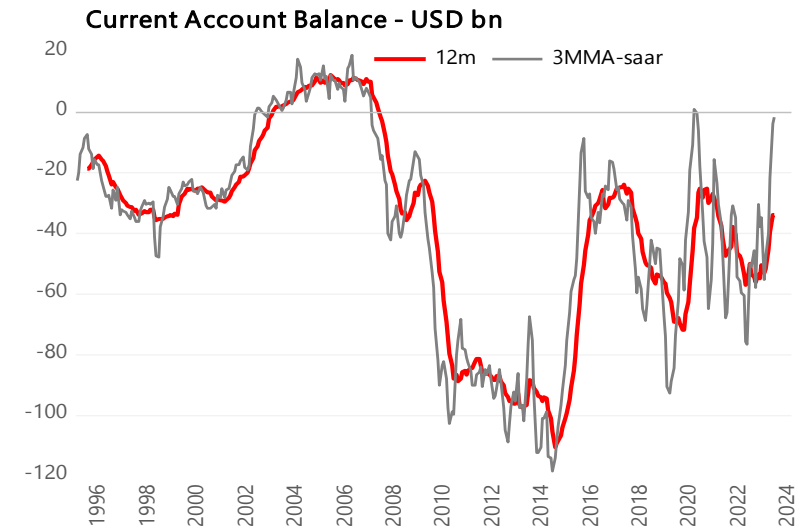
- Recently, there has been a widespread narrative in the markets that the BRL could appreciate considerably in 2024, due to a structural improvement in the Brazilian balance of payments.
- In this study we do a deep dive into the details of most of the lines of the balance of payments to investigate not only if a structural improvement indeed happened, but, more importantly, if the balance of payments is going to improve considerably more at the margin.
- In other words, we study if the drivers of the so-called structural improvement (in the trade balance) when compared to other drivers of the BoP are going to be enough to increase the dollar inflow for 2024.
- Among many interesting insights, we conclude that we don't see many drivers for the BoP to improve considerably in 2024, hence we see a small space for a BRL appreciation (at least in nominal spot terms) this year.
- However, we show that indeed the BoP seems to be passing through a structural change via the trade balance which is good news for the BRL in the long-term—if not through a straightforward appreciation, at least by bringing more stability to the currency (lower volatility); worth noting, other features, as a countercyclical (and stable) financing through FDI and the countercyclical behavior of exporters' decision in bringing back money to the country, also work as buffers to protect the currency.
- PS: as a positive “byproduct” of the in-depth analysis, we were able to provide some probable (we cannot be 100% sure...) explanations for the trade balance flows' gap, a conundrum that many market participants have been trying to understand for many years now.

BoP: FDI decreasing, but deficit in CA also reducing, so the external sector is still strong

- FDI is falling from a high of almost USD 100 bn 3mma-saar at the beginning of 2022 to around USD 50bn now
- But the CA deficit is reducing from USD -60 bn to USD 0 at the margin

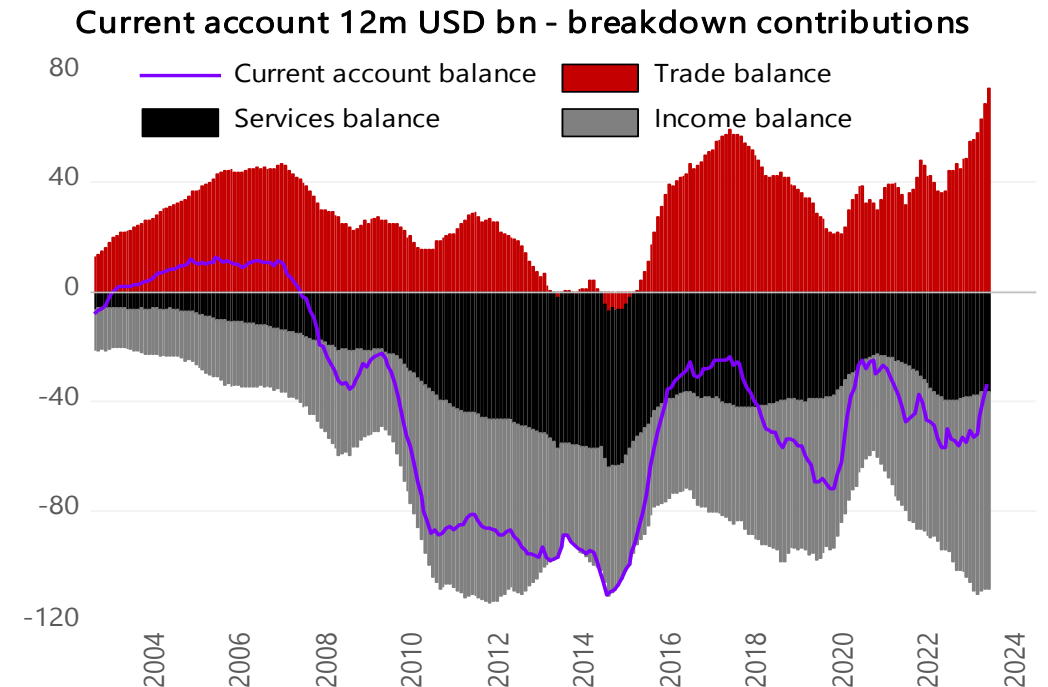
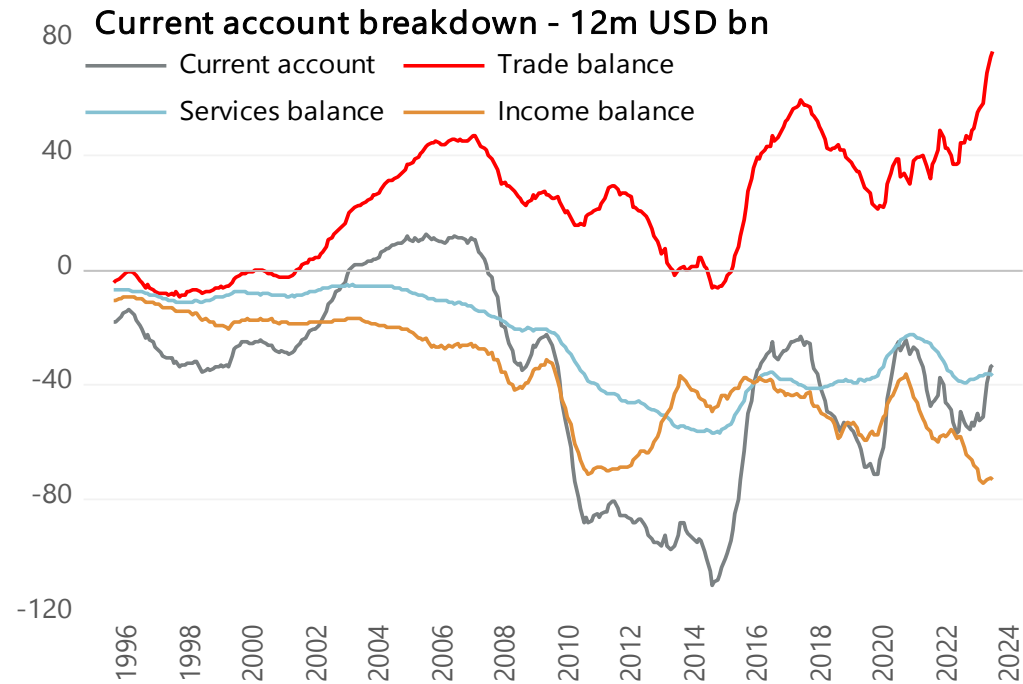


Sources: BCB, Santander



Debugging the current account

- Income deficit increasing, services deficit stable, trade surplus skyrocketing
- Trade balance positive dynamics are overshadowing all of the other accounts and improving the CA

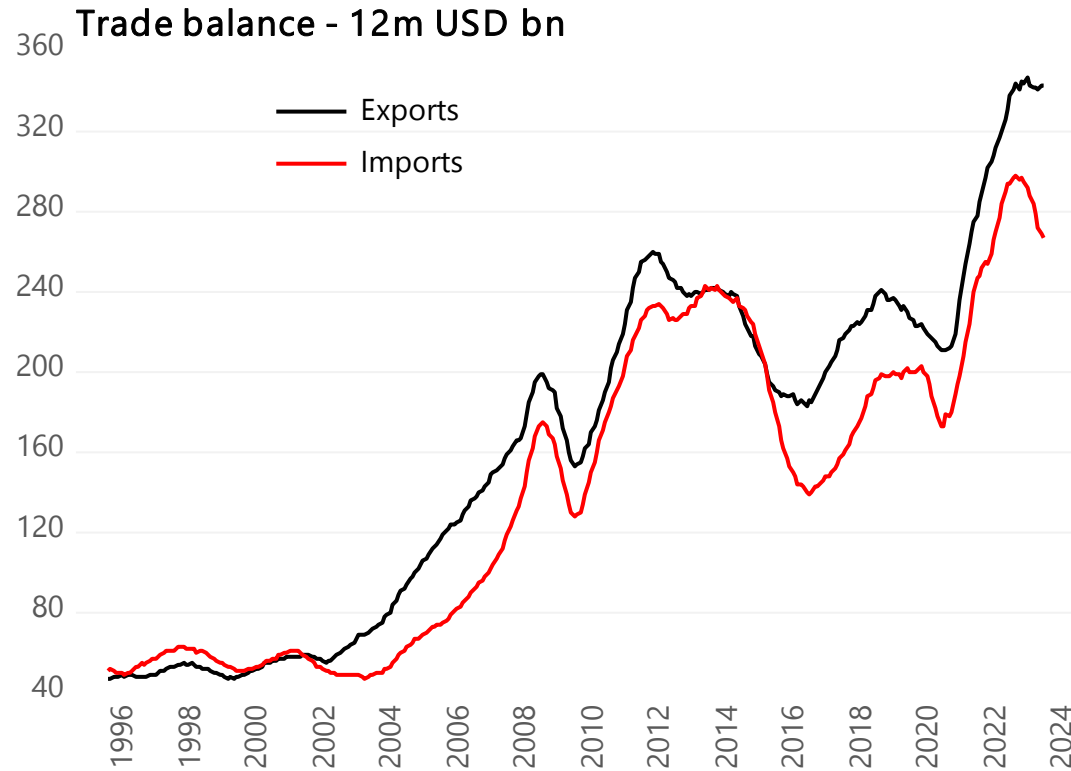


Sources: BCB, Santander

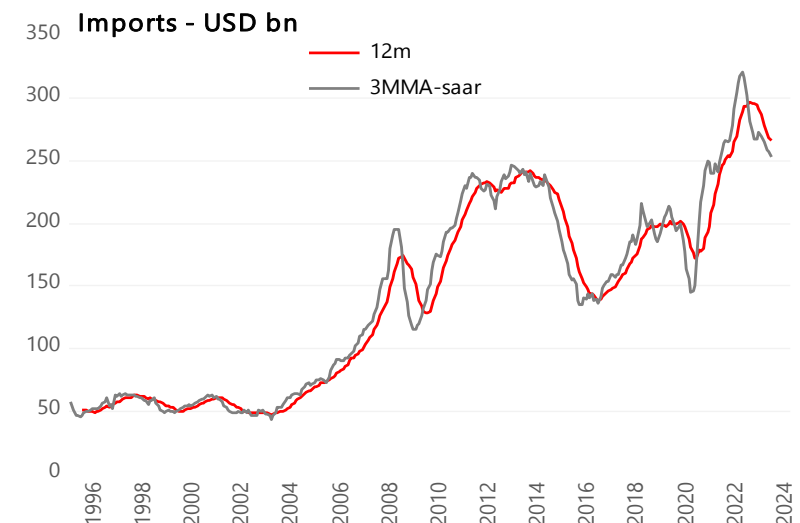
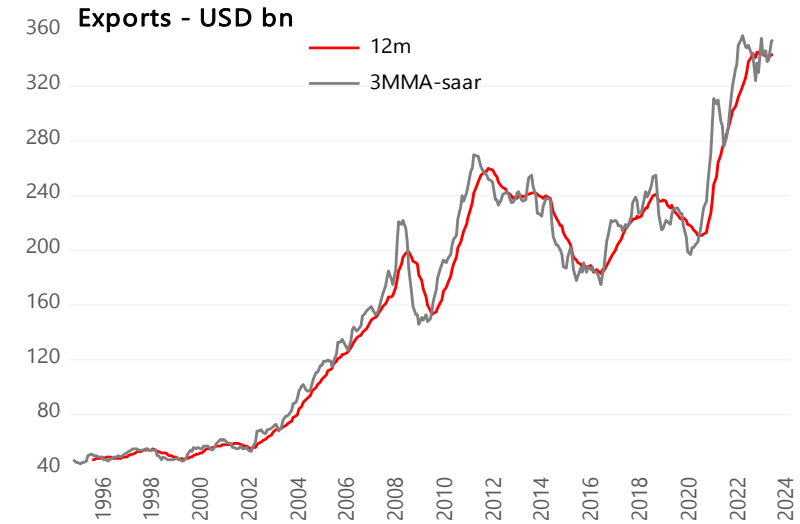
First conclusion:
CA deficit reducing due to
increase in trade surplus

Trade balance: exports are extremely high, but at the margin what's helping is the fall in imports

- Exports are stable at a very high level, close to USD 350 bn, but stable for more than a year now
- While imports fell from a peak of 300bn to USD 265bn now

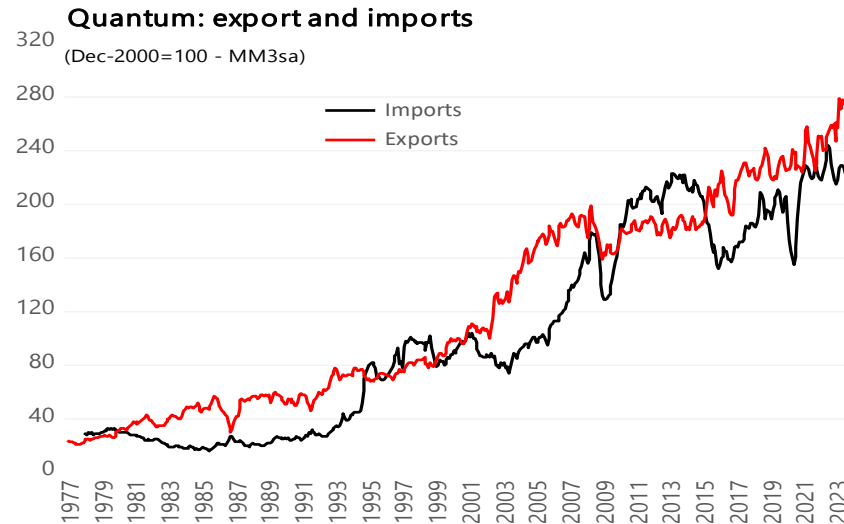
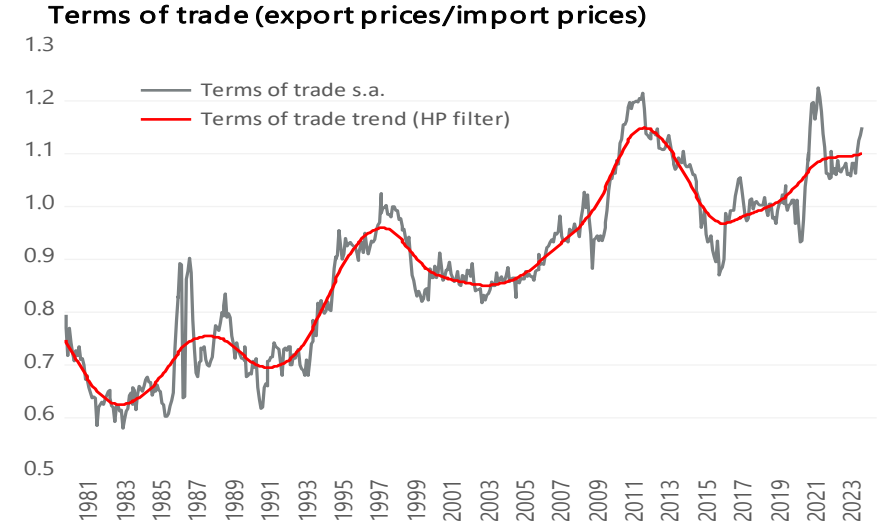
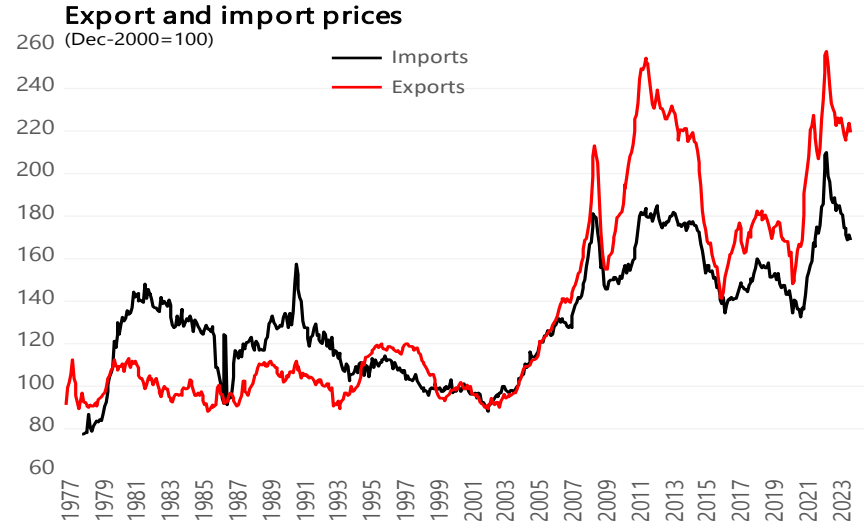


Sources: BCB, Santander



ToT improving; X/M Quantum relation also getting better

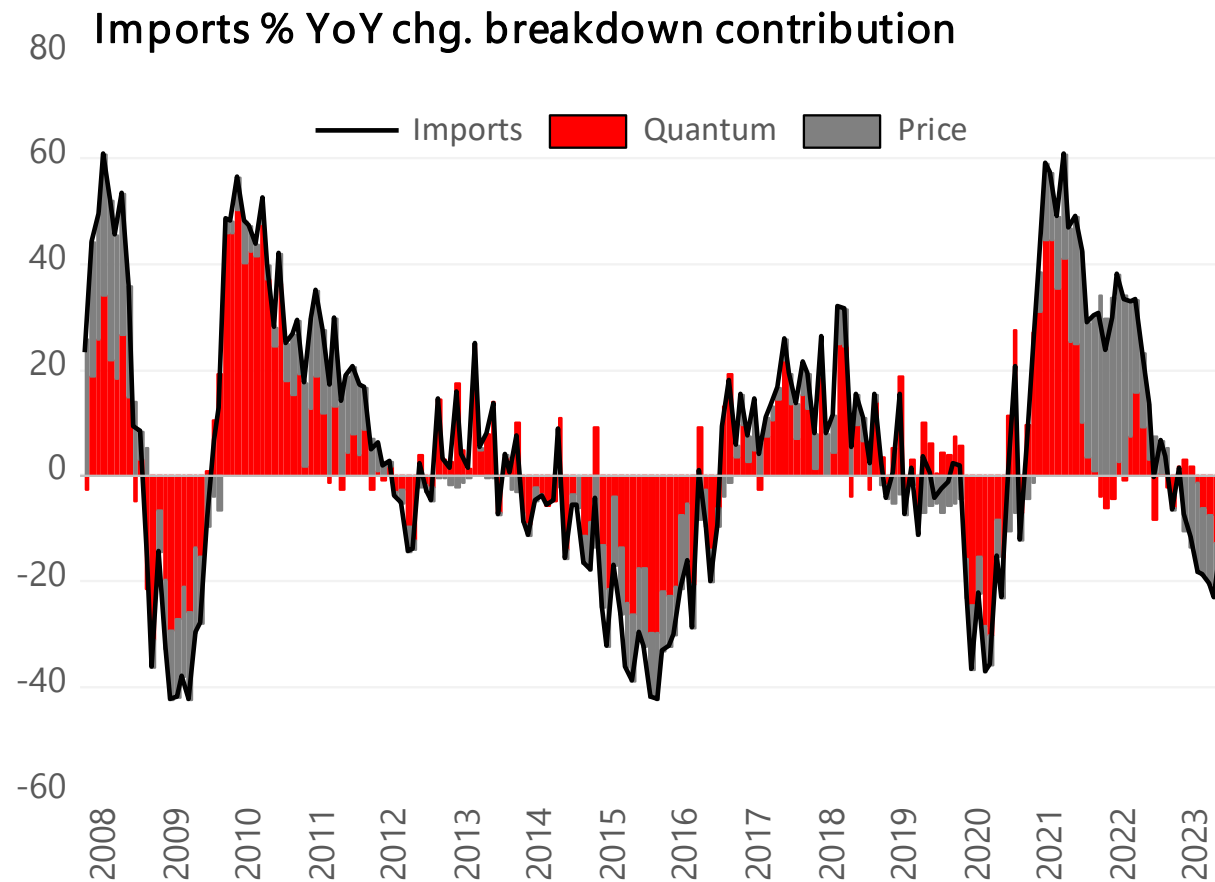
- Both terms of trade and exported quantum seem to be improving structurally (long-term upward trend), but...
- At the margin, what seems to be really helping: a decline in import prices and a stabilization of import quantum



Sources: Funcex, Santander

Imports: usually quantum is much more important, but at the margin, prices have been relevant

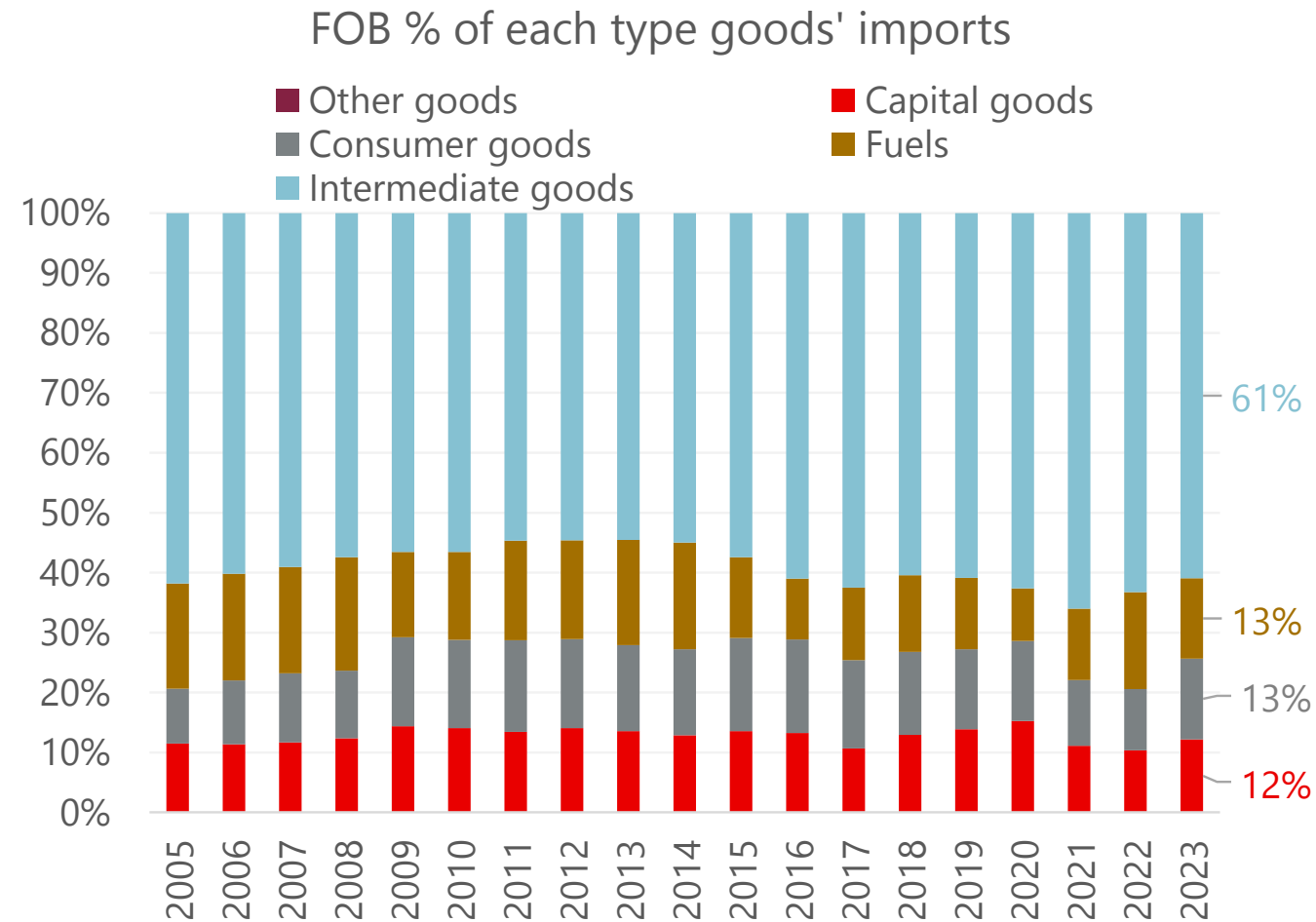
- Usually, imports volumes are more driven by quantum, meaning the domestic economic cycle is what drives more the imports
- However, the impact of prices on imports has been more relevant since 2022; first upwards, now downwards



Sources: Funcex, Santander

What do we import?

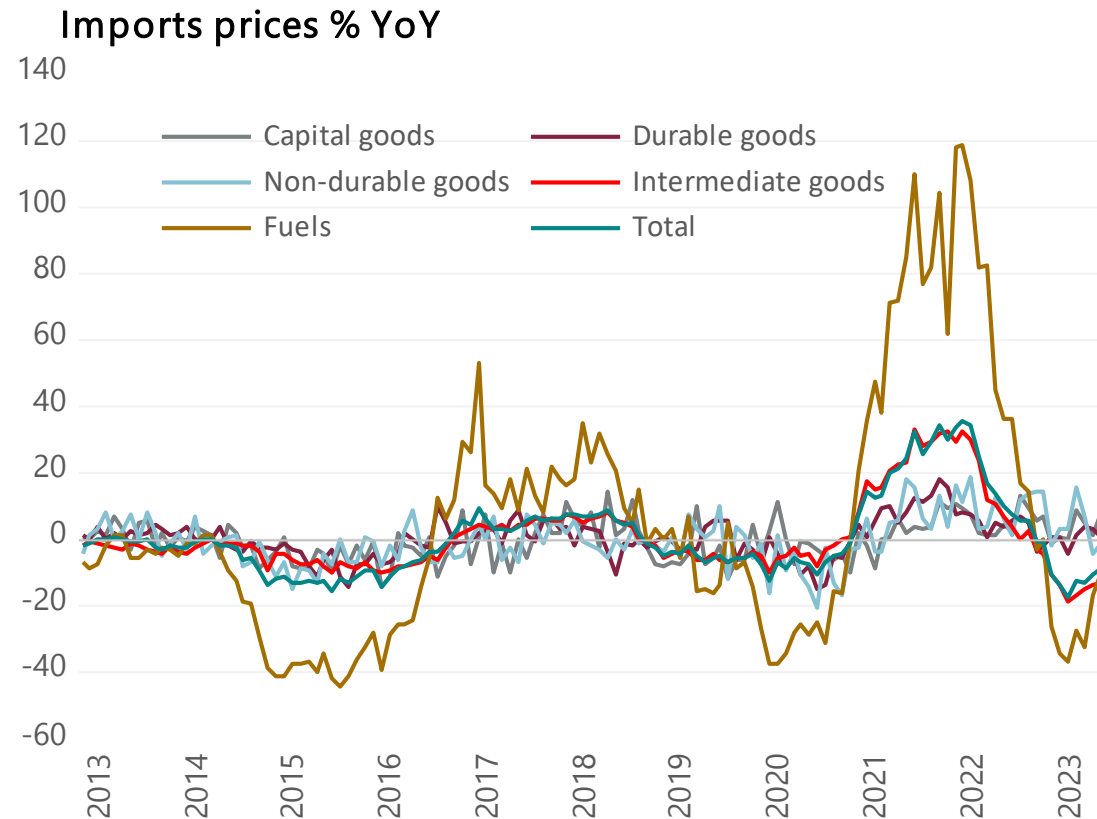
- Mostly intermediate goods



Sources: MDIC, Santander

And intermediate goods are indeed the ones pushing prices down

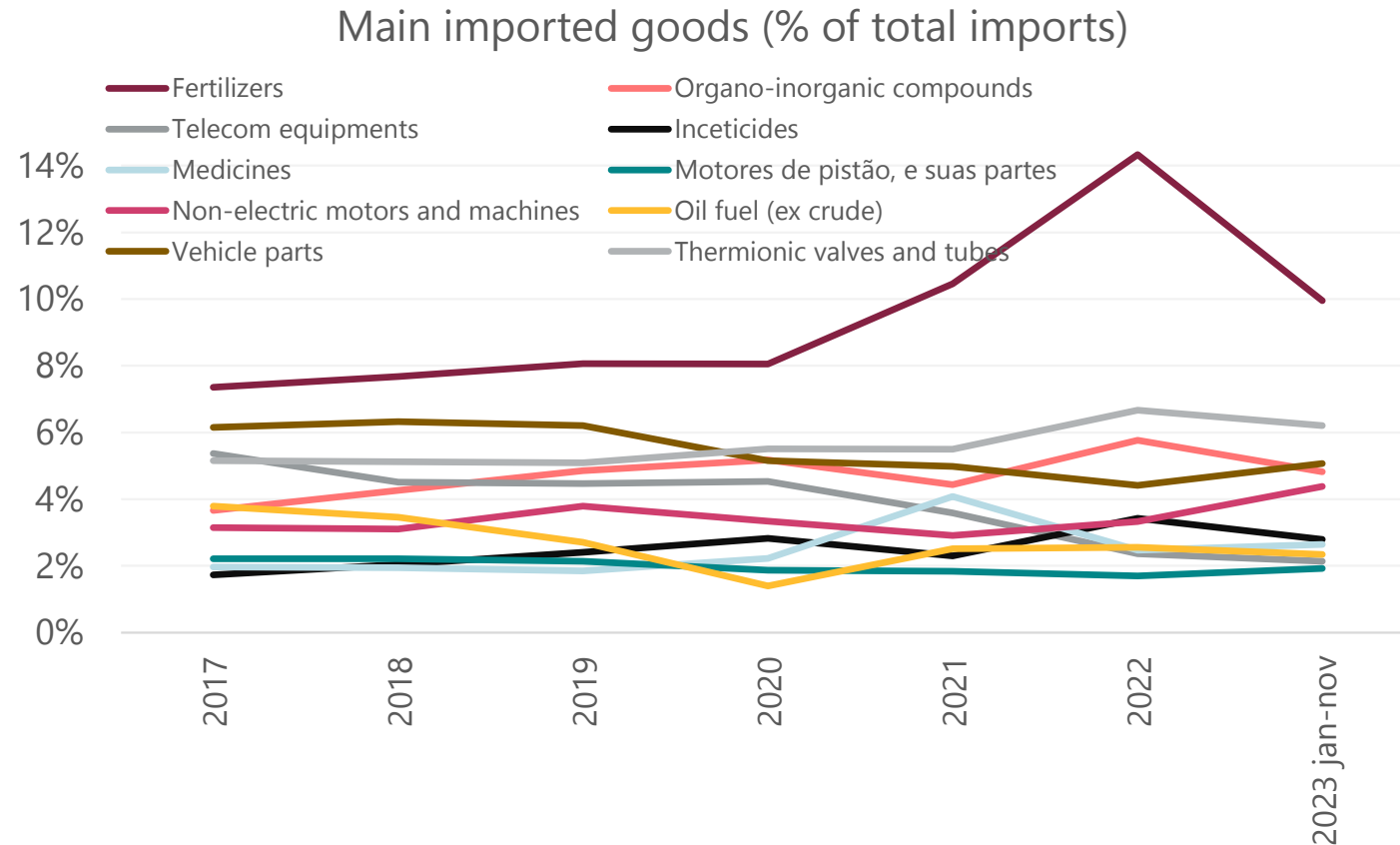
- Intermediate goods (red line in the chart) walk hand-in-hand with the total import price change (green line)
- Although less relevant in terms of % of FOB imports, fuels' prices volatility is high and also helped push import prices down



Sources: Funcex, Santander

In intermediate goods, fertilizers is the most important component

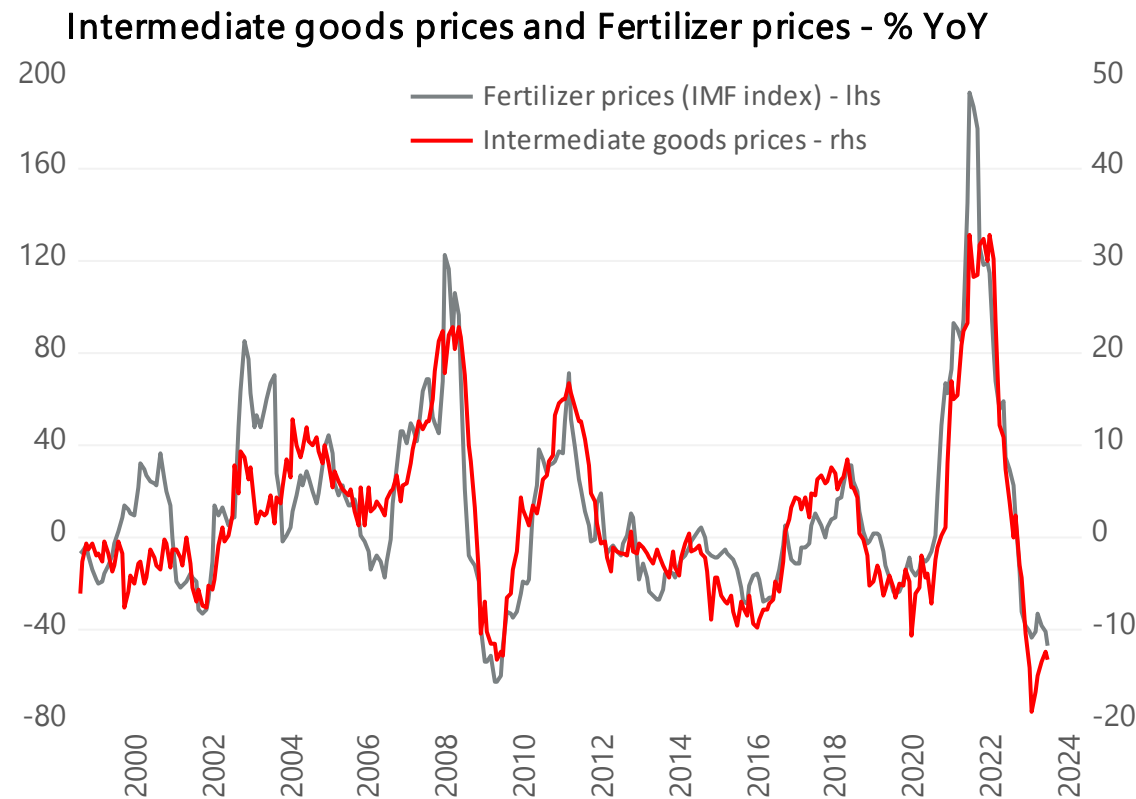
- More than 10% of intermediate goods imports are fertilizers



Sources: MDIC, Santander

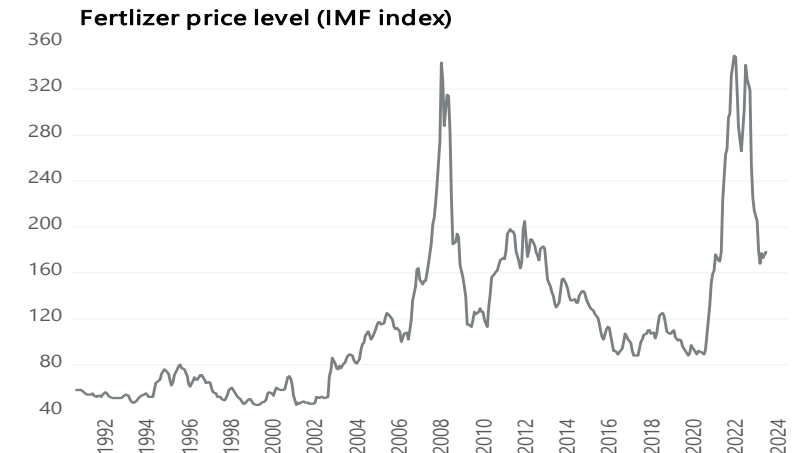
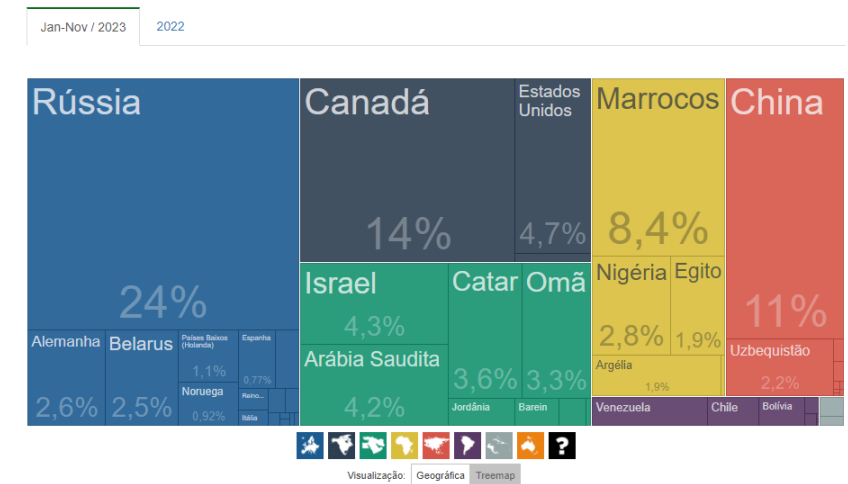
Intermediate goods' prices correlate almost perfectly with fertilizer prices

- Indeed, when looking at import prices and comparing it to fertilizer prices the changes correlate almost perfectly
- Fertilizer prices were really impacted by covid/Russia-Ukraine war, but more recently reversed around half of the increase. Given that the war is still ongoing and that we import a big part of our fertilizers from Russia, outlook for further price declines is uncertain



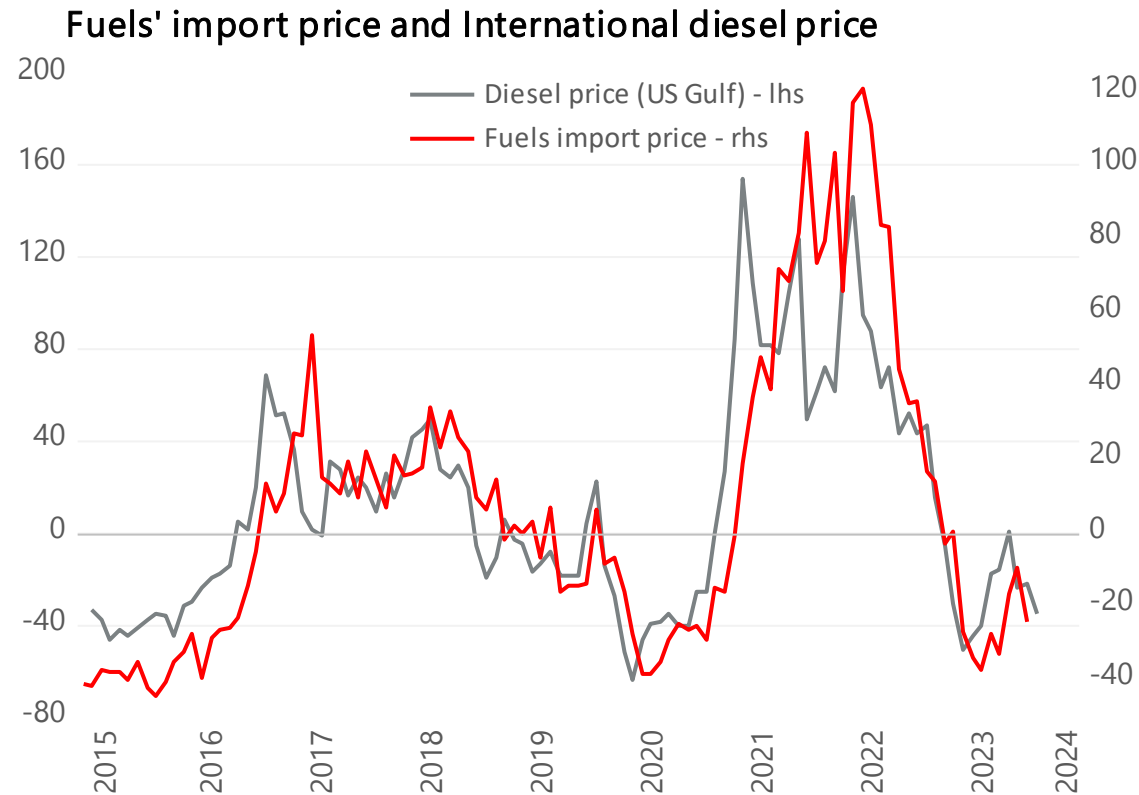
Sources: Funcex, Bloomberg, MDIC, Santander

Origens do produto



In fuels, we import mostly diesel, the price of which has been muted recently

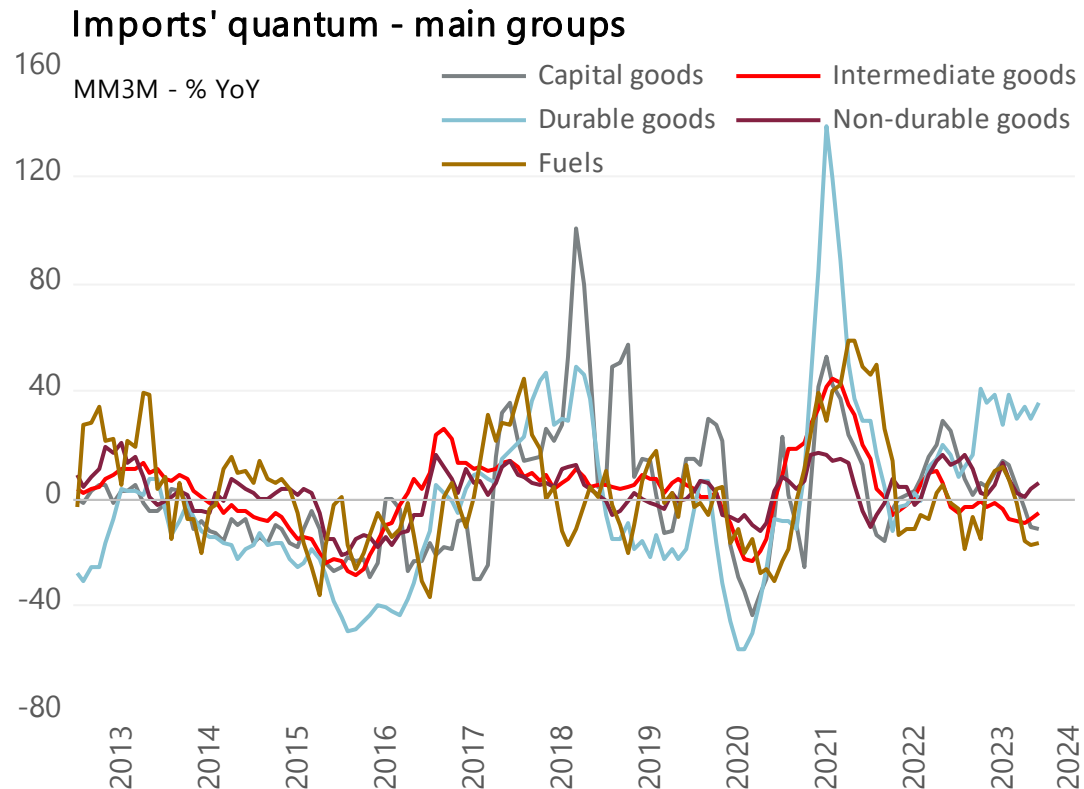
- However, we could see a pick up in fuel prices throughout the year, as we forecast oil prices to rise



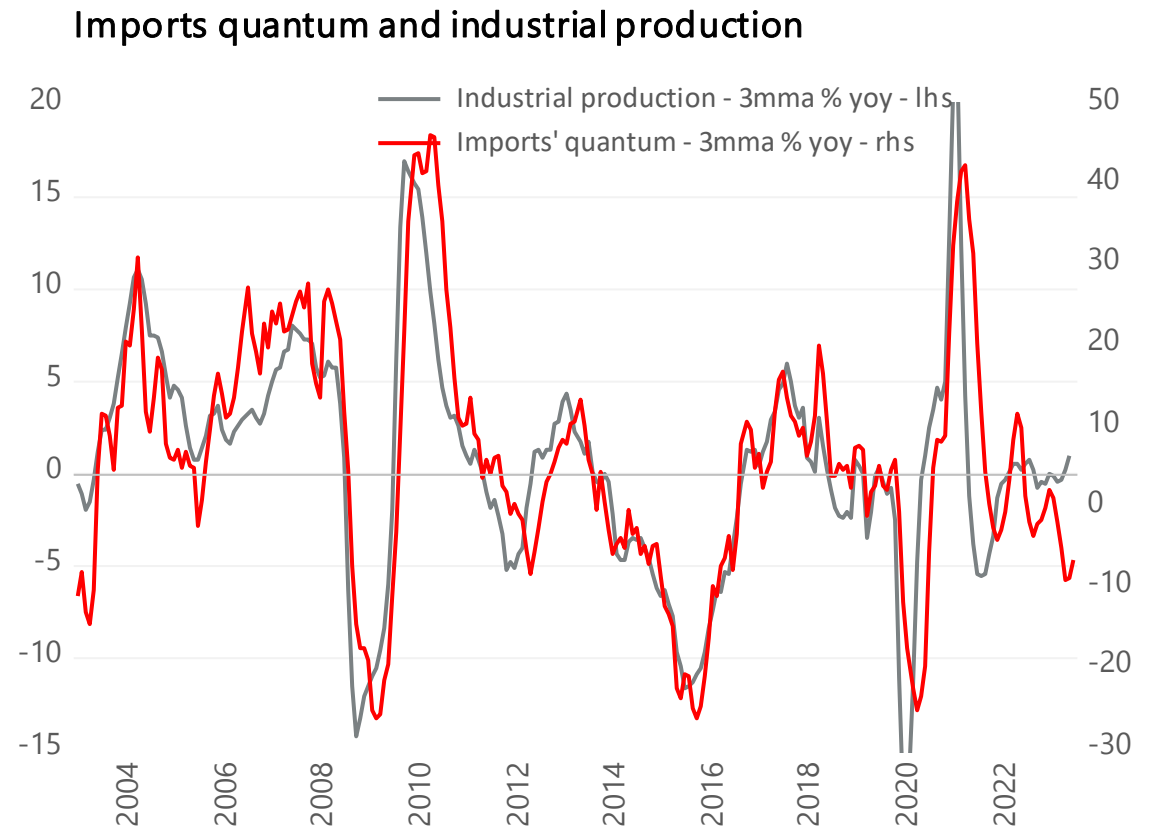
Sources: Funcex, Bloomberg, Santander

Quantum is also falling marginally and it correlates with domestic industrial production

- Usually imports lag industrial production and at the margin there seems to be space for a recovery of quantum imports
- However, as we expect the manufacturing to remain muted, it doesn't seem like a big risk



Sources: Funcex, IBGE, Santander

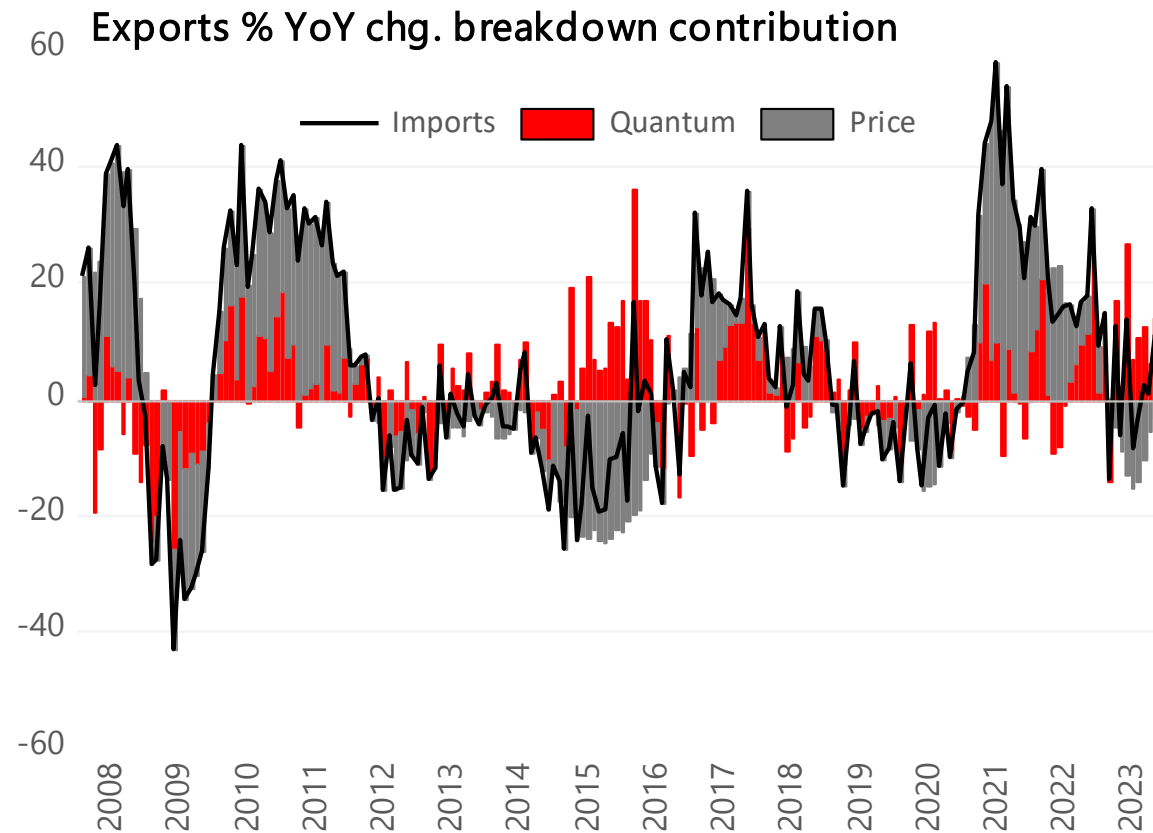


Second conclusion:

The last leg of the trade balance improvement was more because of fall in imports related to a fall in prices (fertilizers/fuels) that we cannot say is certain to continue. Quantum also fell a bit and seems to have space to increase, although a deceleration of the economy could reduce this space. **Bottom-line: the space for further decline in imports seems limited**

Exports: usually prices are more important, but quantum has been relevant at the margin

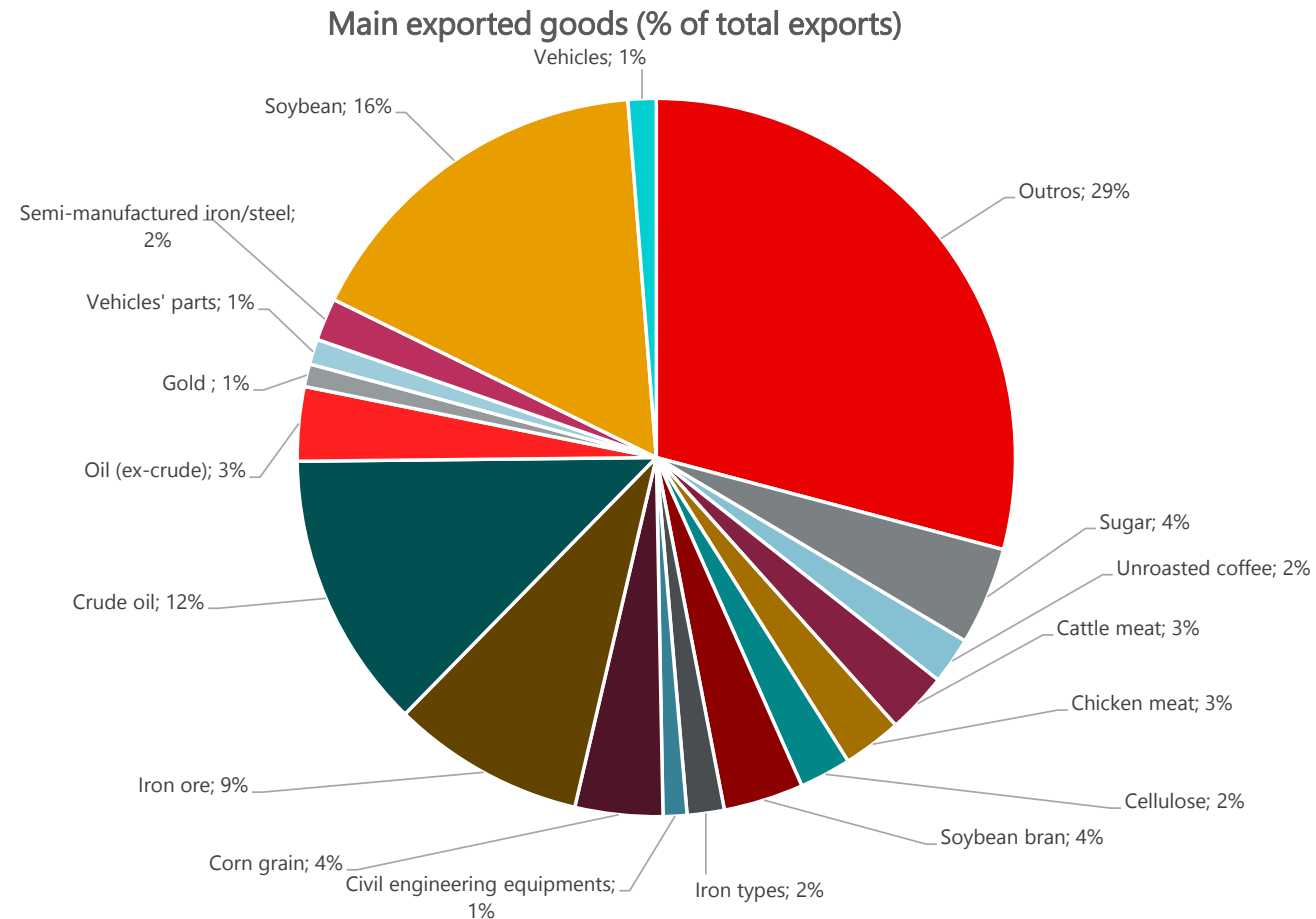
- Usually, prices drive most of the exports' volume changes, but at the margin, the increase in quantum has also been also important; particularly because it is compensating for the decline in prices



Sources: Funcex, Santander

What do we export?

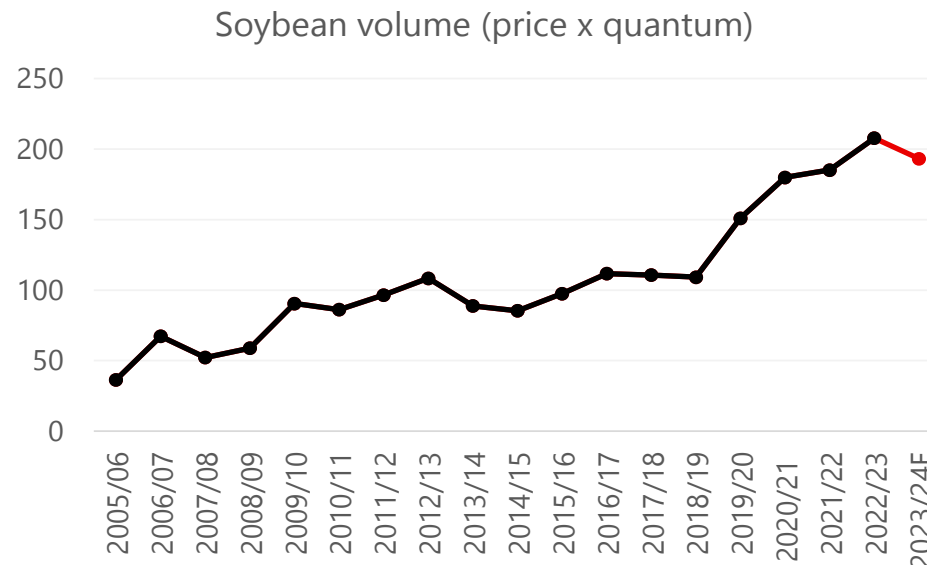
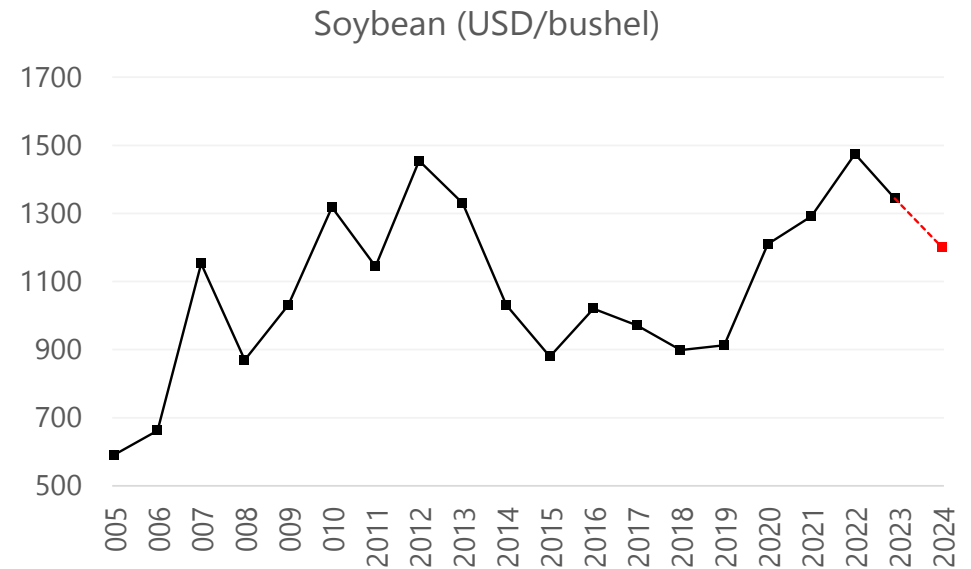
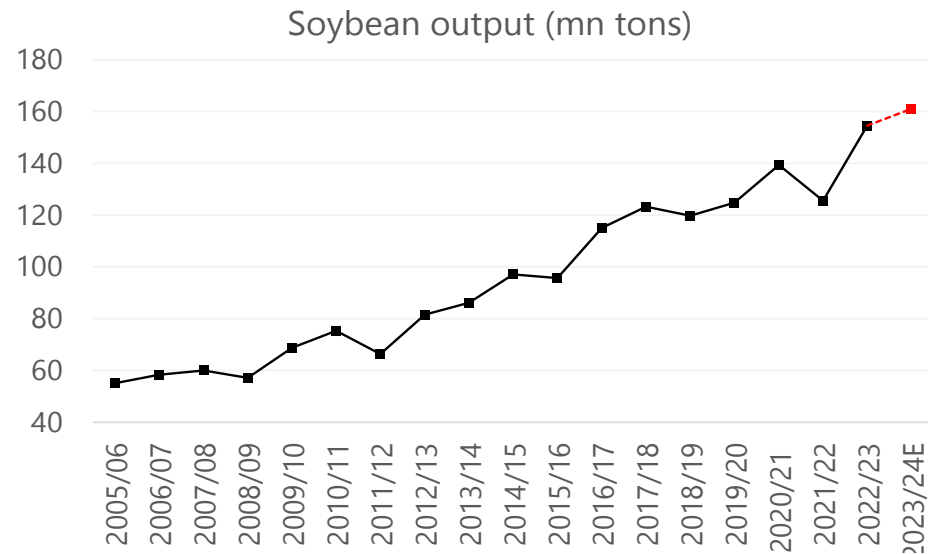
- Mostly commodities 24% grains, oil 15%, iron ore 11%, 12% sugar+coffe+meat; main commodities total ~62%



Sources: MDIC, Santander

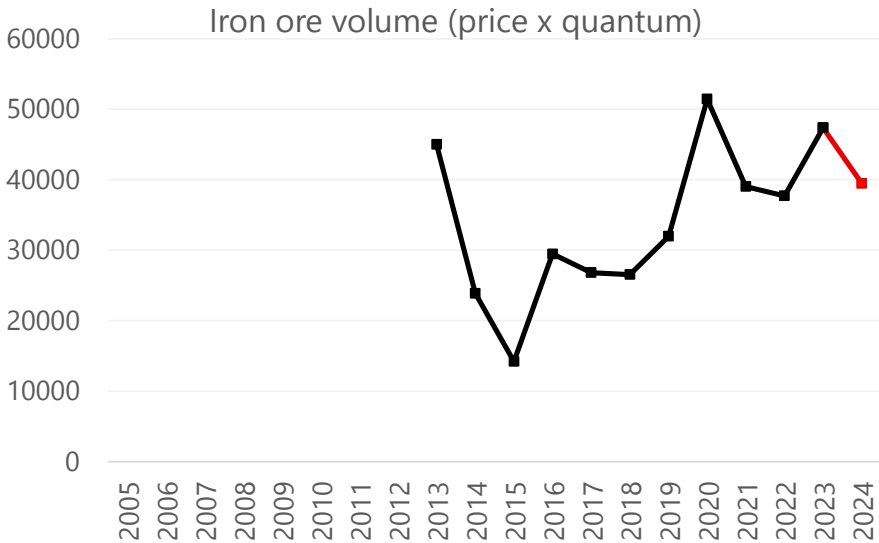
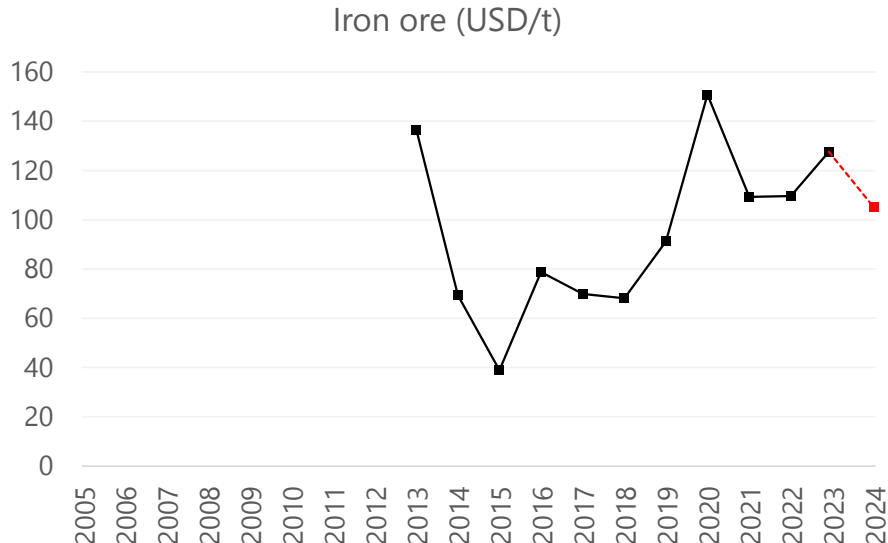
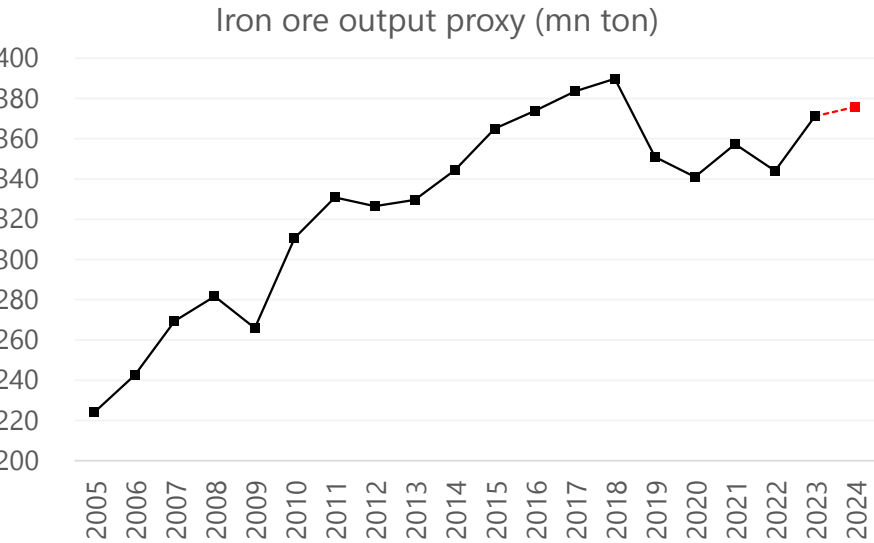
Scenario for grains: forecast of proxy of exports' volume -7%

- It is worth while highlighting that grain output as a whole (including corn) has a downward risk because of recent weather shocks, so our estimate has a downward bias



Sources: Bloomberg, Conab, USDA, Agroconsult, Dataagro, Santander

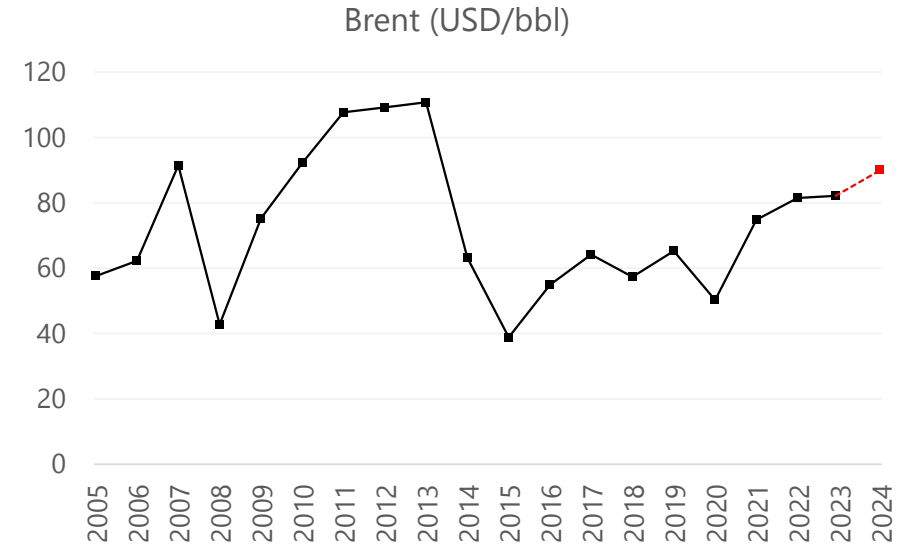
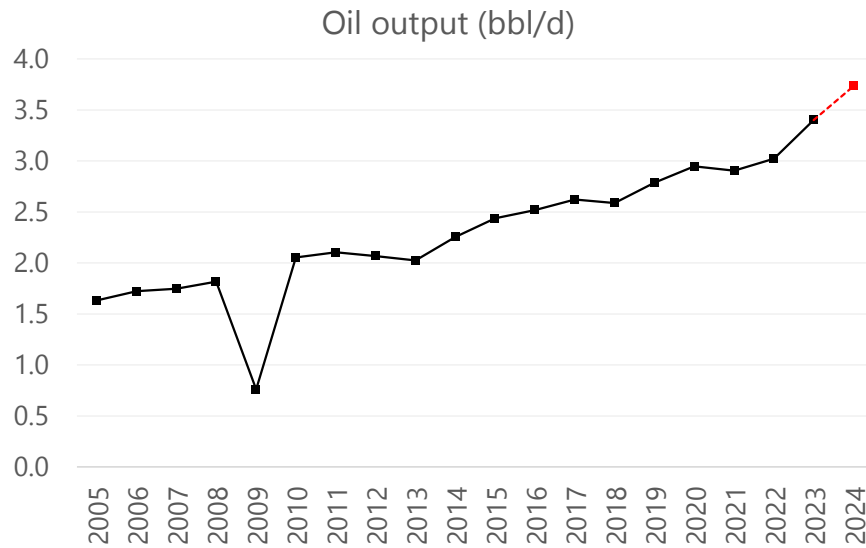
Scenario for iron ore: forecast of proxy of volume -16%



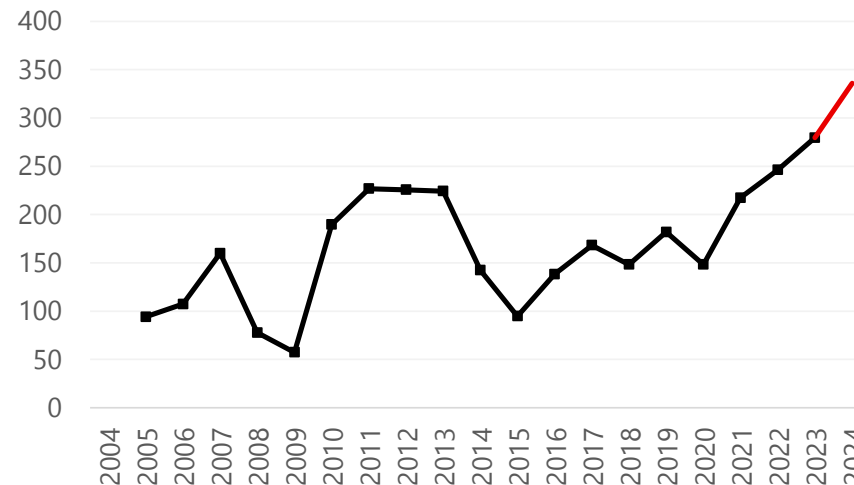
Sources: Bloomberg, MDIC, Santander

Scenario for oil: forecast of proxy of volume +20%

- It is worth while highlighting that we forecast an increase of brent oil prices to USD 90/bbl, which seems a bit stretched from today's point of view



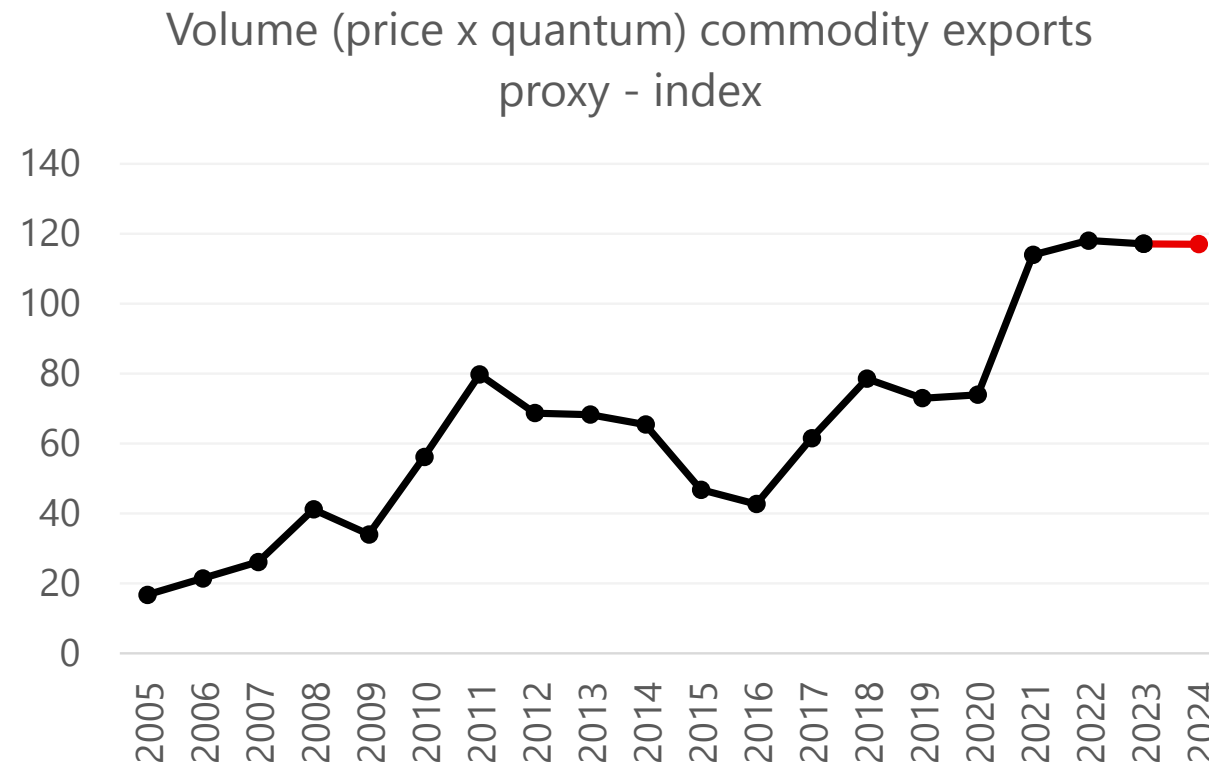
Oil volume (price x quantum)



Sources: Bloomberg, ANP, EPE, IEA, Santander

Combining the main commodities: exports should stabilize at a high level

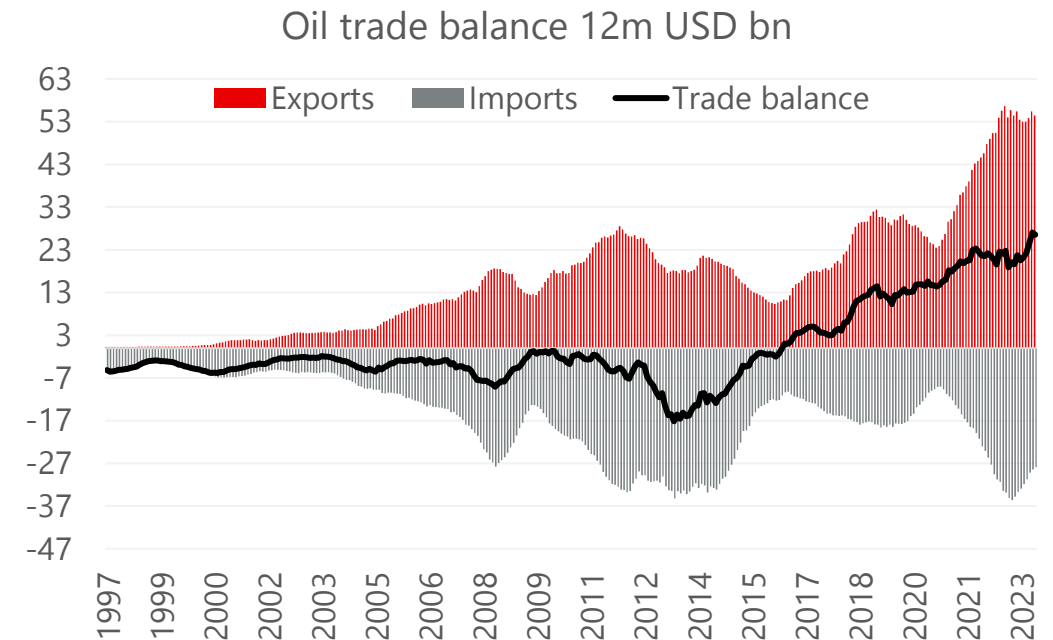
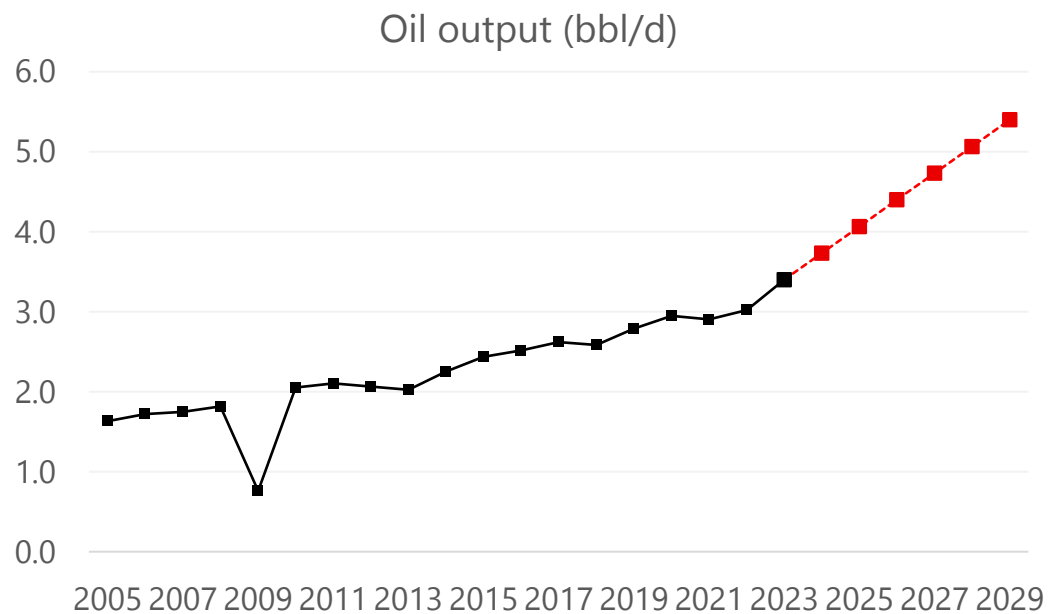
- Assembling the forecasted changes of volume for each commodity into a proxy of commodity exports, we arrive at a stable forecast for 2024
- **The idea that oil alone can bring in many more dollars this year seems to us like an overstatement**



Sources: MDIC, Santander

What about the long-term? Oil will indeed help, a lot

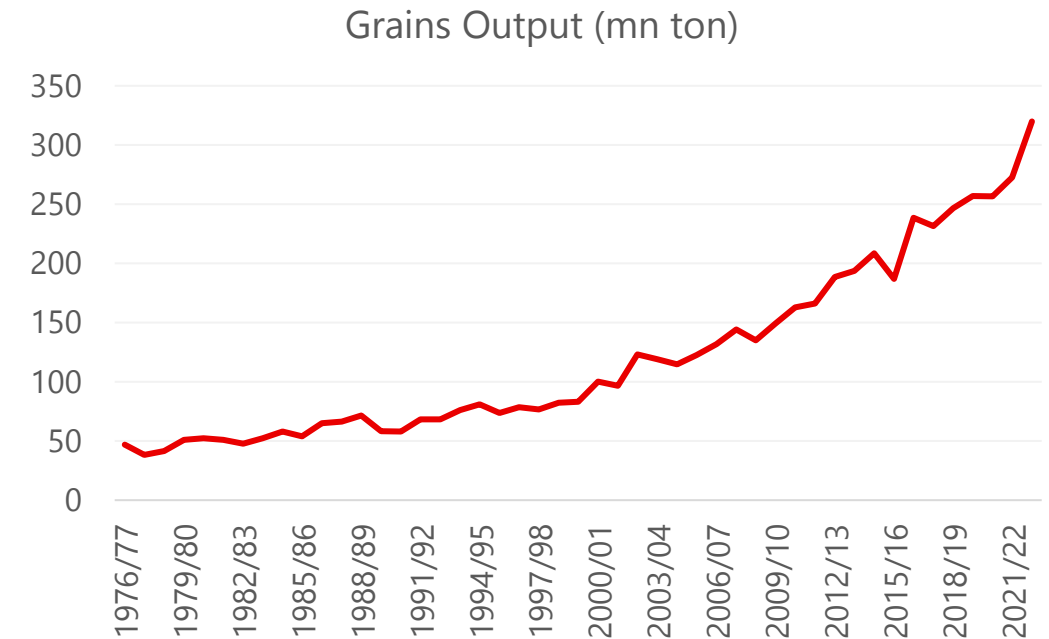
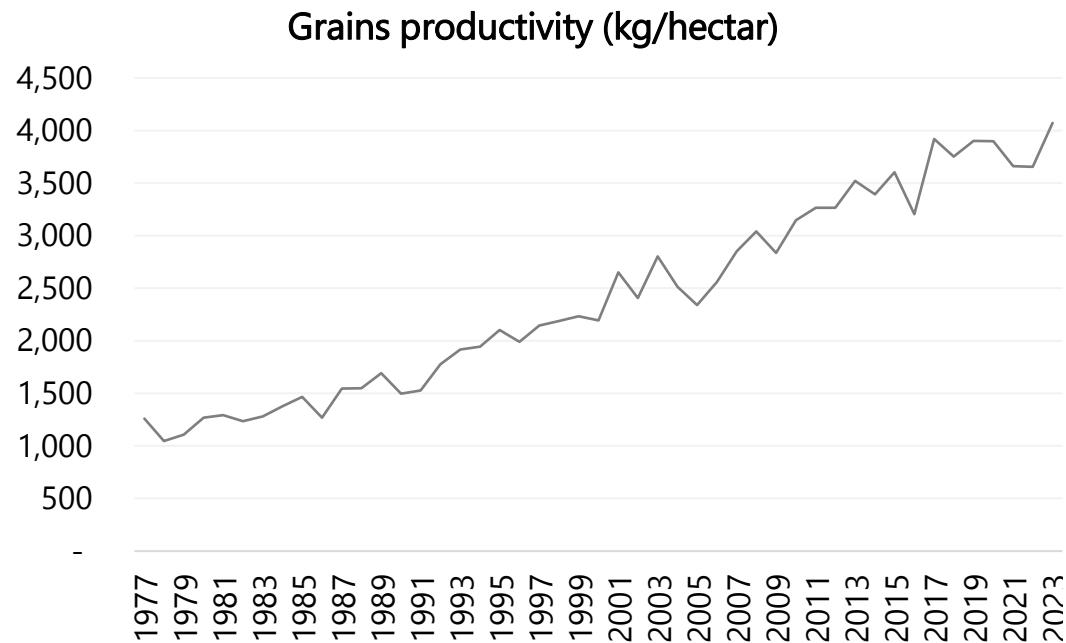
- We expect the oil output to increase 60% until 2029 (avg. of 8%/year), which will help to maintain the total trade balance at the (much) higher level structurally—specially because Brazil has been a net oil exporter since ~2017, with an increasing surplus
- The increase of quantum is highly important in the sense that it makes the economy less exposed to price fluctuations, making the BoP even more robust and likely making the currency less volatile



Sources: ANP, EPE, IEA, MDIC, Santander

What about the long-term? Grains are already helping a lot

- Grains productivity increases almost monotonically in Brazil, making the grains output less subject to weather shocks, as from year-to-year farmers have been able to deliver more output per planted area
- This is another source of stabilization of the Brazilian BoP and consequently the currency, also making the country less exposed to commodities' prices fluctuations



Sources: Conab, Santander

Third conclusion:

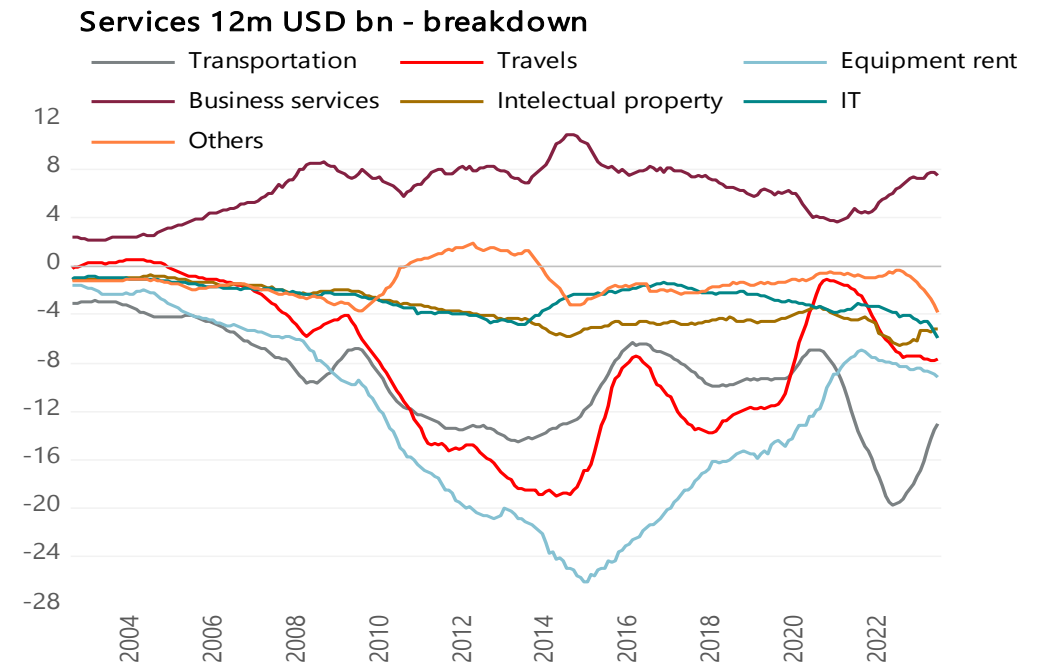
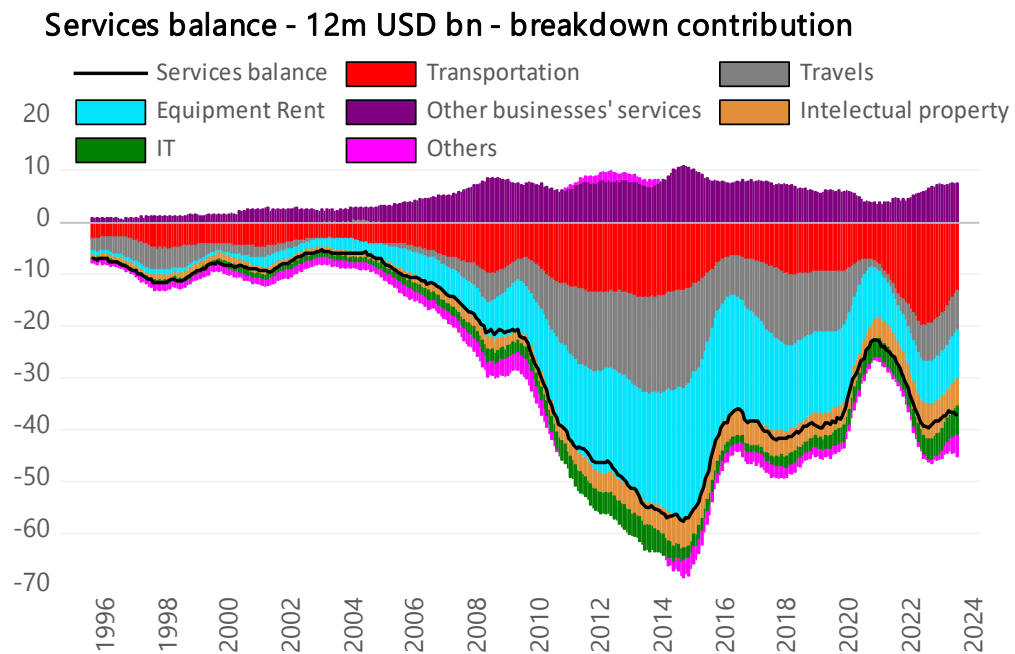
Oil is indeed increasing the importance in the trade balance in a structural way and this will happen again in 2024. But with grains and iron ore falling at the margin, the rise in oil will only compensate the fall in the other two items. **We should not expect many more dollars coming in right now just because of oil, although in the long-term it will improve the quality of the trade balance, providing more stability for the currency (together with grains)**

Fourth conclusion → trade balance:

The level of the trade balance is likely increasing in a structural way, which is good for the currency in the long-term (bringing more stability and curbing depreciation pressures). However, at the margin, we expect imports to stop falling and exports to continue stable at a very high level, meaning the trade balance should remain relatively stable at a historical high level, but not improve at the margin. That is, it should continue being a strong defense for the currency, but not a marginal driver for further appreciation in the BRL

Services balance: Transportation is the highlight

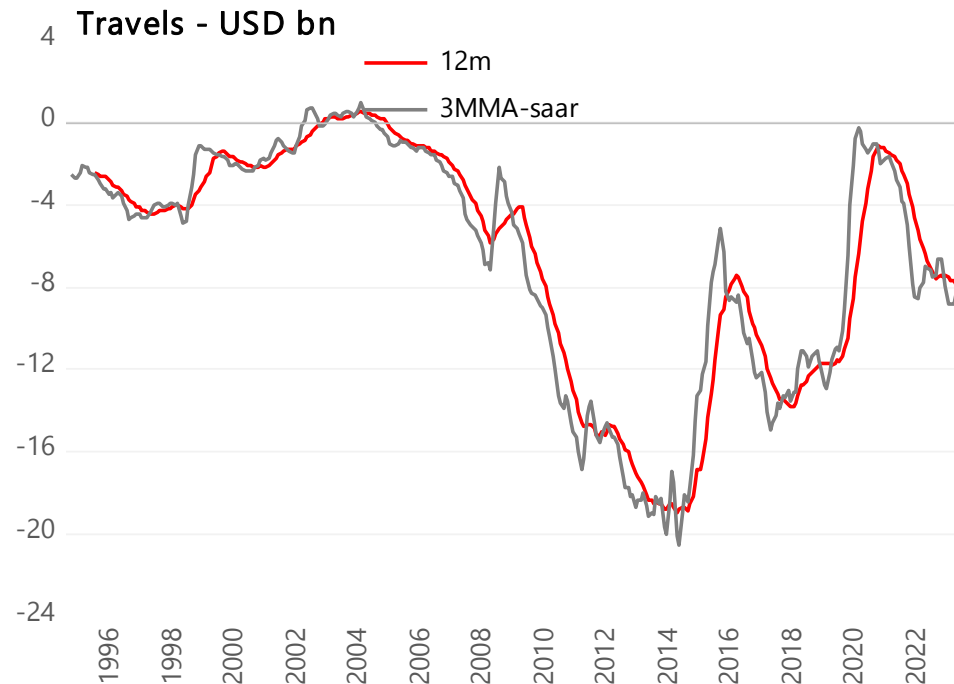
- Travel and “others” accounts are seeing an increase in the deficit, but the highlight is transportation (and business services) reducing the deficit and being able to stabilize services balance
- Equipment rent was important in the past, but with the end of Repetro it is not changing much at the margin



Sources: BCB, Santander

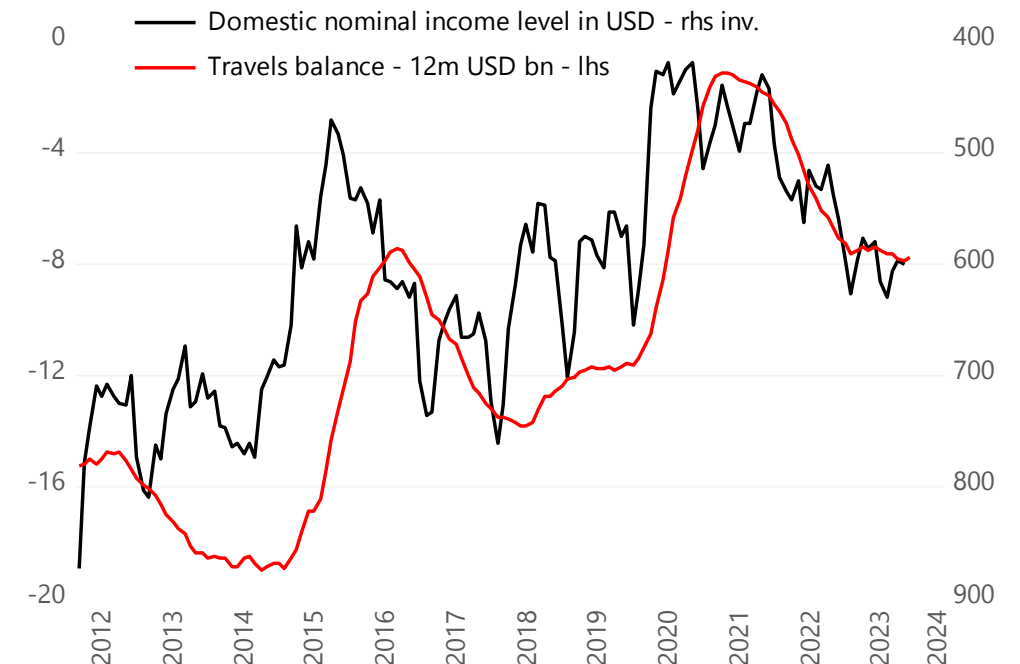
An increase in travel deficit is related to the increase in the domestic income in USD terms

- After a strong reduction of the deficit during the pandemic (it basically zeroed), the social distance restrictions ended, the BRL appreciated and domestic income increased, widening the travel account deficit
- Worth noticing, the deficit is still much smaller than 2010-2019 period and, more importantly, it seems to be stabilizing at the margin, as domestic USD income is also not growing anymore



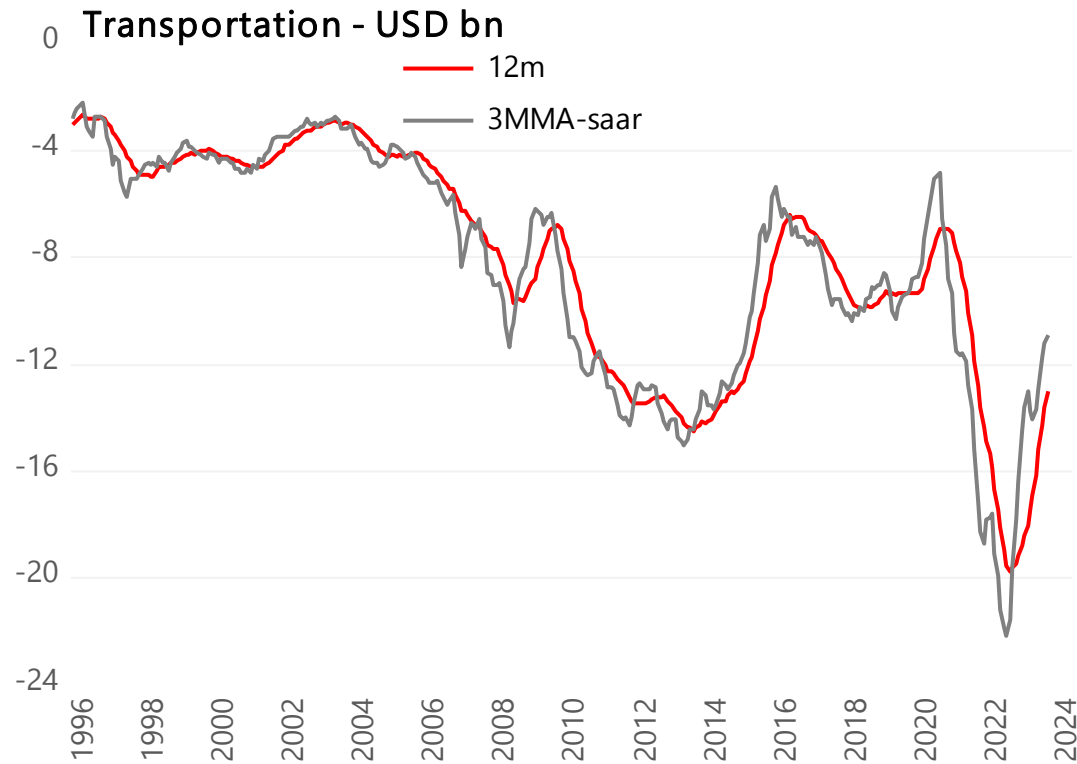
Sources: BCB, IBGE, Santander

Travels balance and Domestic nominal income level in USD

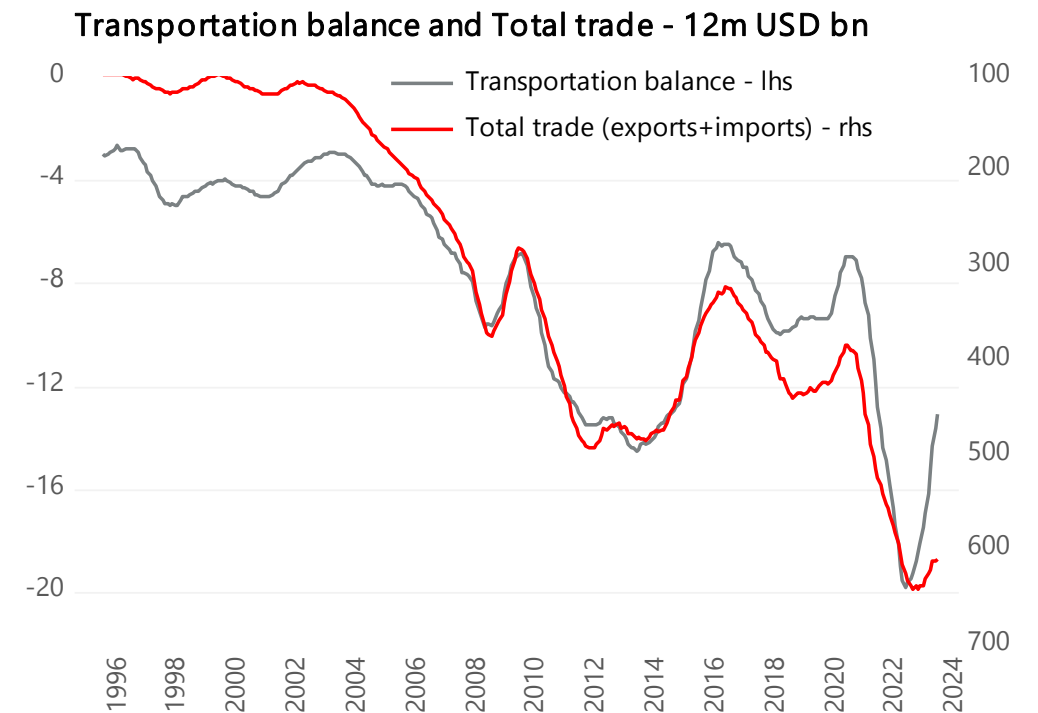


Reduction of the transportation deficit is surprising

- Usually this line correlates with the total transactions (exports + imports), but at the margin the transactions stabilized while the Transportation deficit continues to shrink



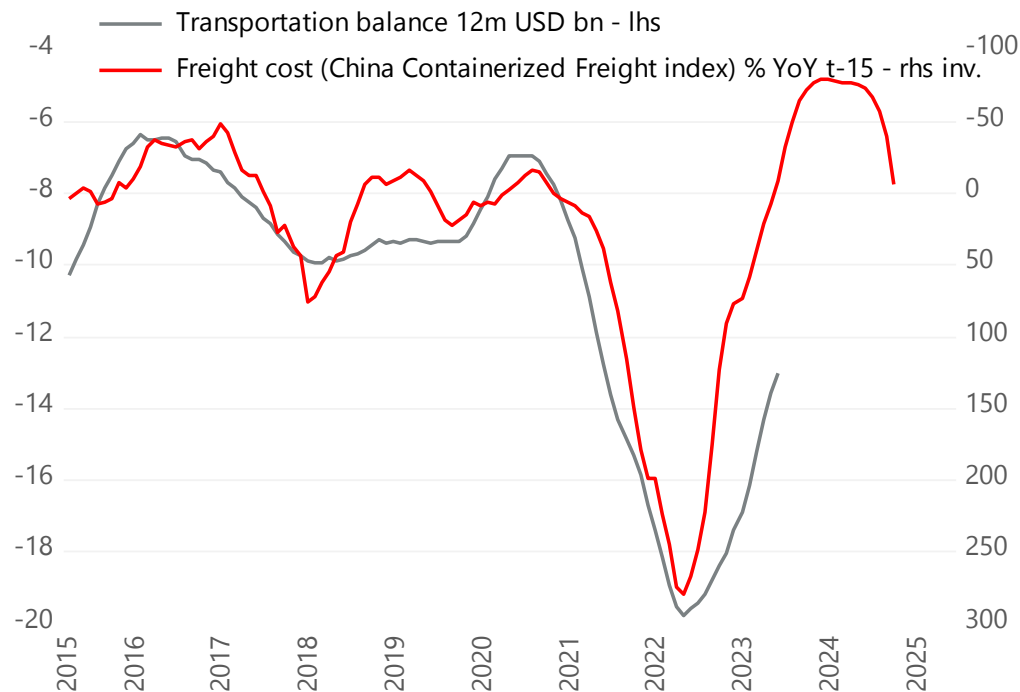
Sources: BCB, Santander



Could freight prices be the explanation?

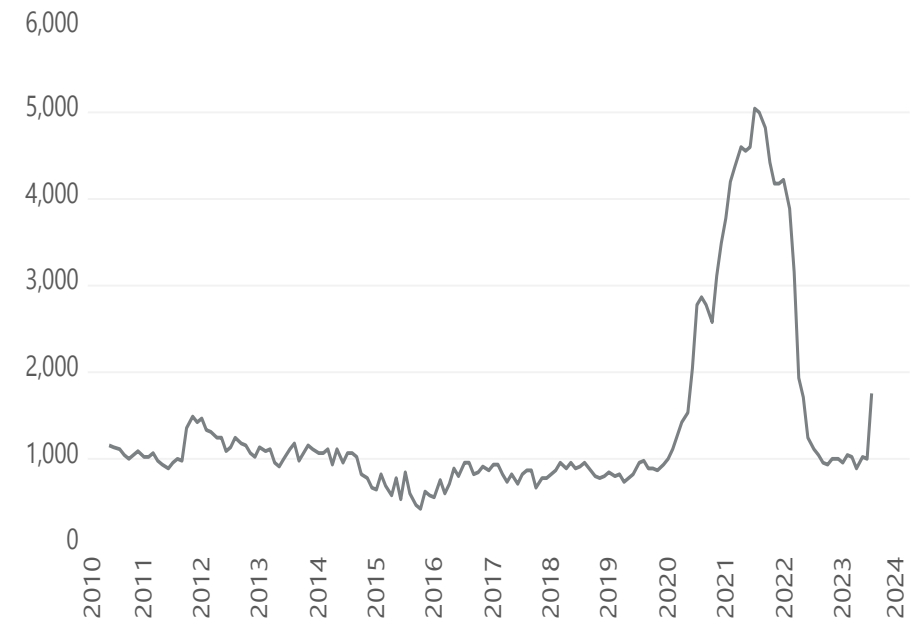
- Transactions are accounted as FOB (free on board), so the major fall in freight prices after the pandemic shock could explain why the deficit in transportations is reducing much more than the transactions correlation would suggest
- One problem: the recent noise in the Red Sea is pushing freight prices up, so it is a risk to monitor, although there seems to be a significant lag between prices and the travels deficit that still suggests a relevant space for a reduction of the deficit

Transportation balance and Freight costs chg.



Sources: BCB, Bloomberg, Santander

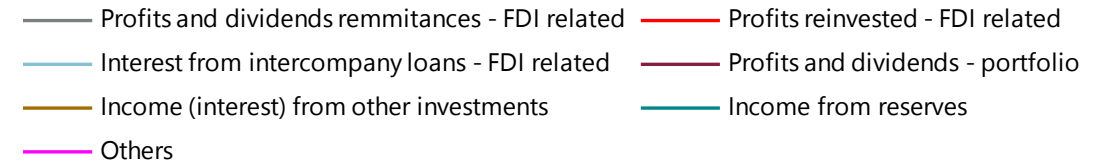
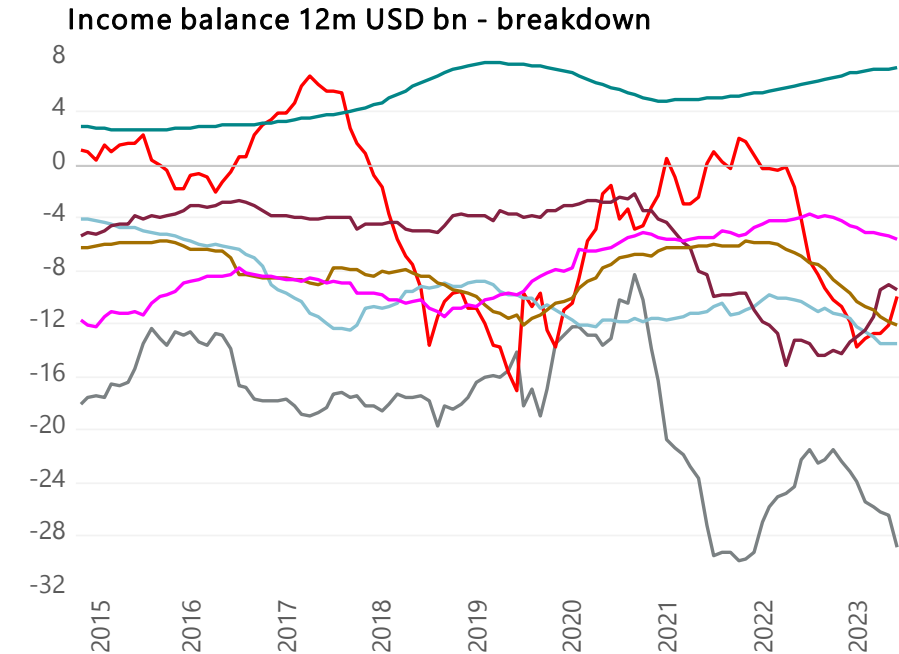
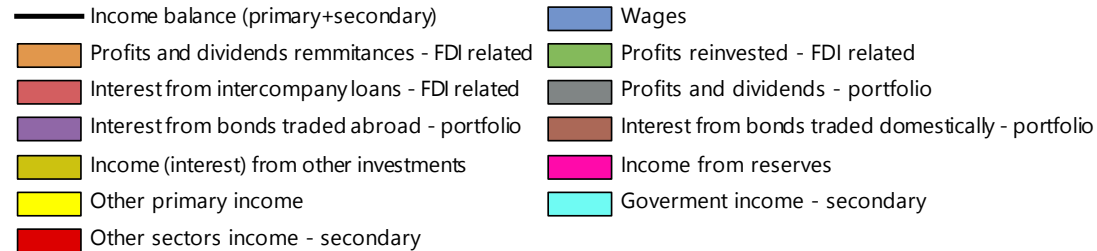
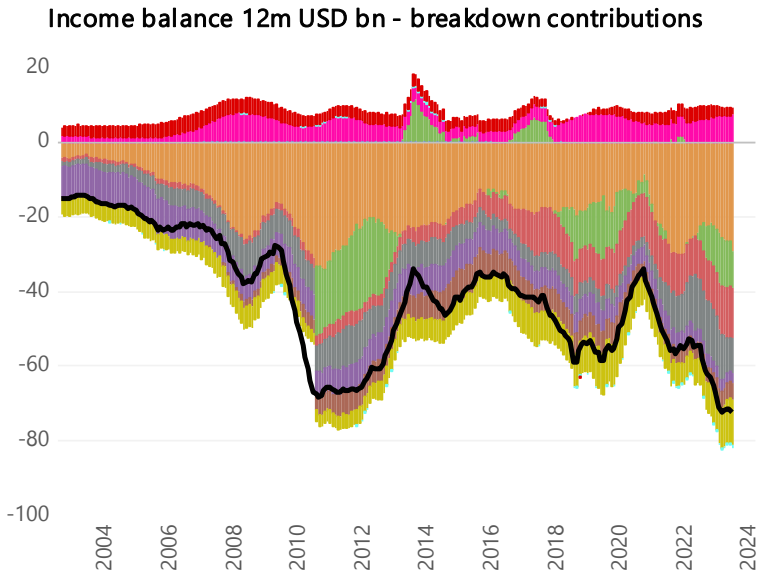
Shanghai Shipping Exchange China (Export) Containerized Freight Index - level



Fifth conclusion:

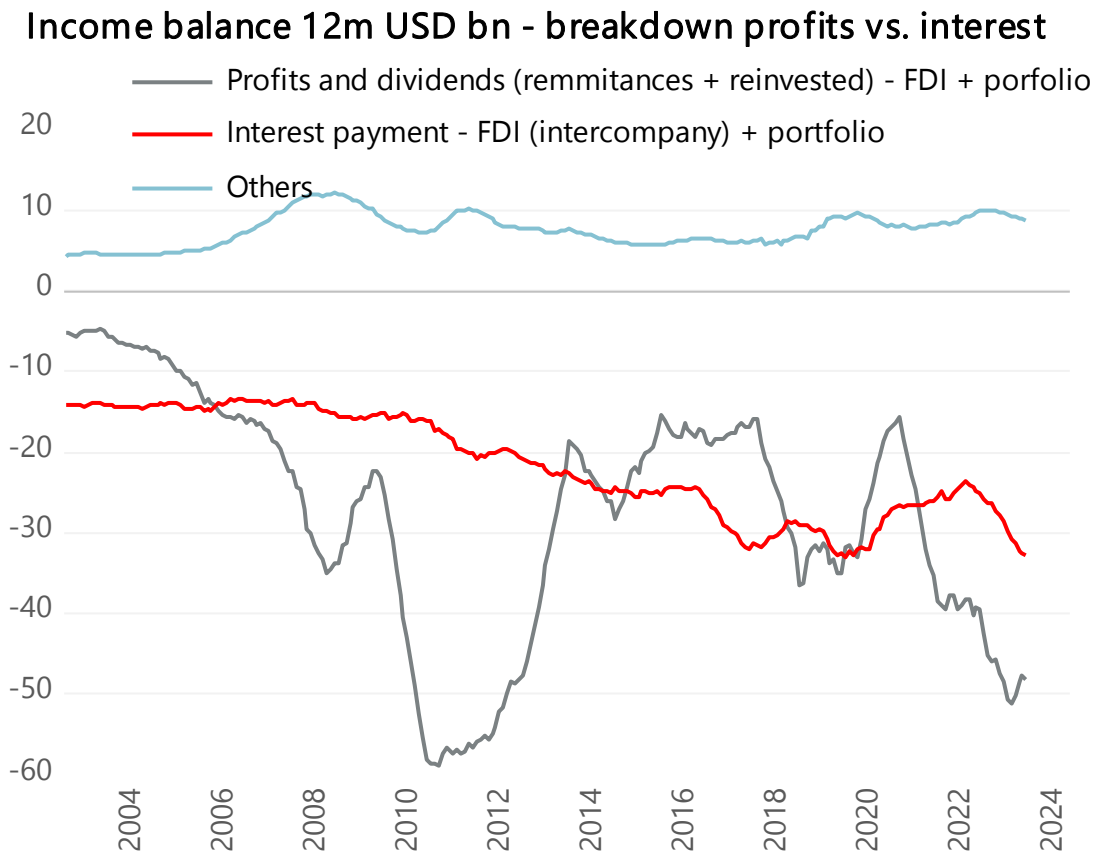
Services outlook: stability/slight reduction of deficit. Services balance is stable, with reduction of transportation deficit compensating the increase of deficit in other lines. Transportation deficit could continue shrinking for some more months, given that the decrease in freight costs has not fully reached the line yet, but the recent rise in freight prices and the expectation of stable external trade limit the space for a stronger reduction of transportation's deficit.

Income: remittance of profits and dividends is the main driver



Sources: BCB, Santander

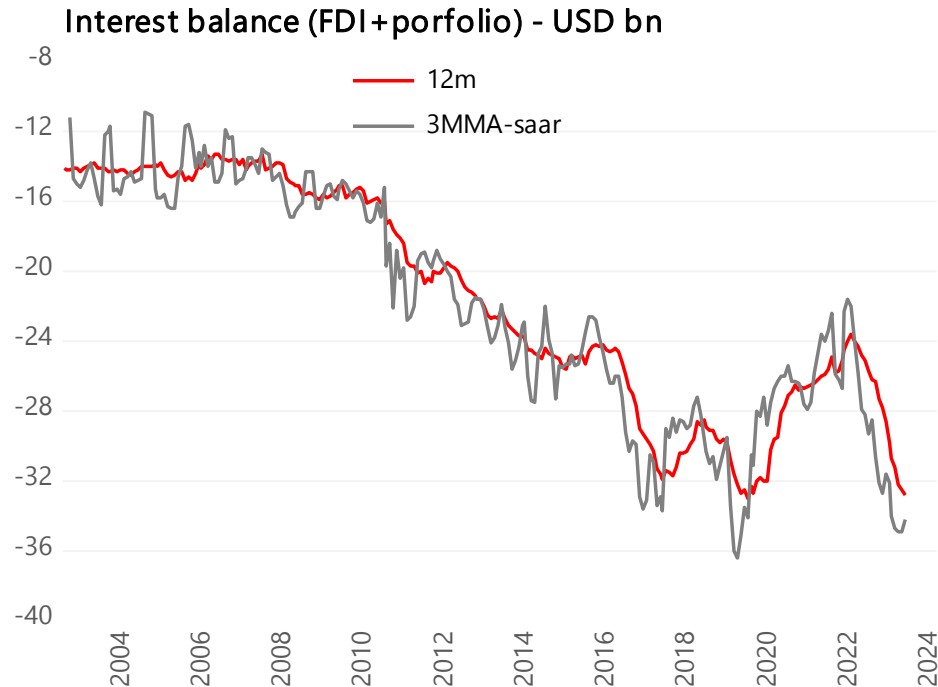
Profits and dividends deficit is the line increasing the most, but interest payment is also increasing



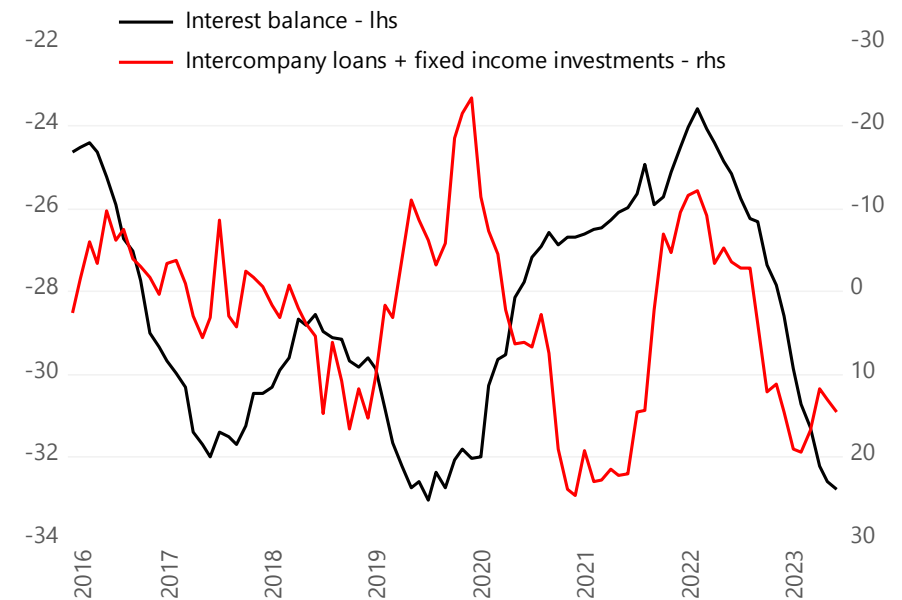
Sources: BCB, Santander

On interest payments, the increase of the deficit seems to be ending

- Usually, interest deficit follows (not as much as we expected) the flows on the financial account related to intercompany loans and fixed income investments, which are pointing to a reduction in the interest deficit



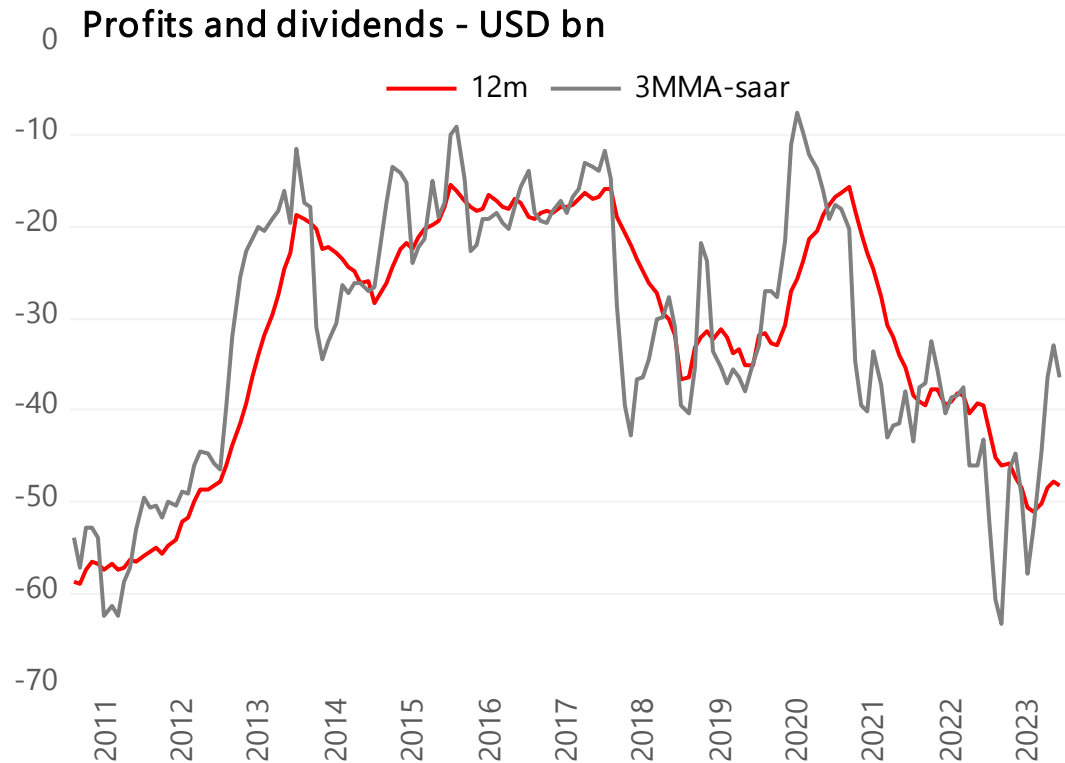
Interest balance and Intercompany + fixed income flows - 12m USD bn



Sources: BCB, Santander

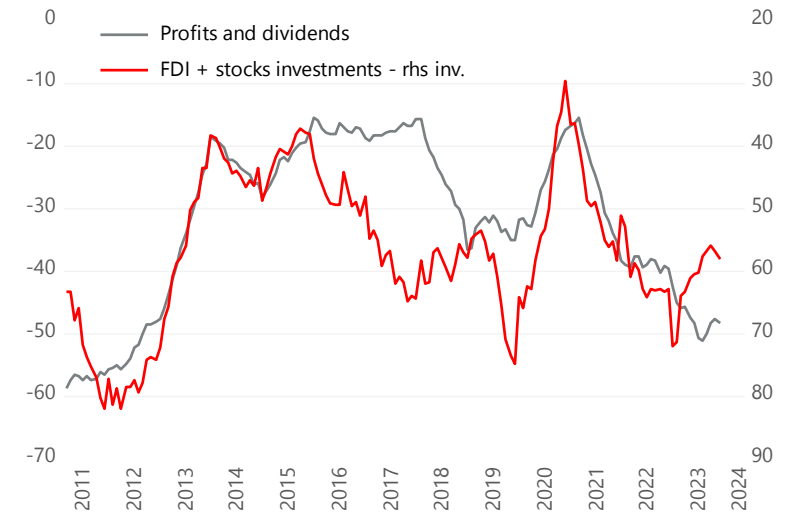
In profits, we expect the deficit to shrink, as FDI+stocks investments are shrinking

- In addition, companies' profitability is also falling

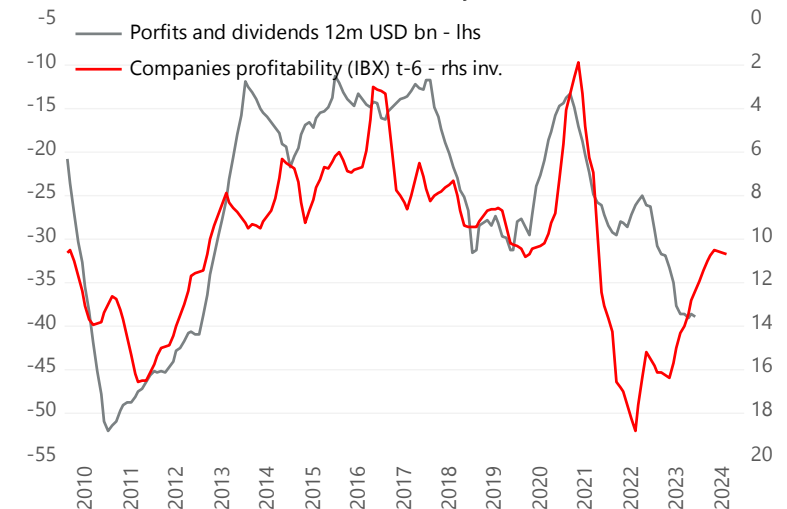


Sources: BCB, Bloomberg, Santander

Profits and dividends balance and FDI + stocks - 12m USD bn

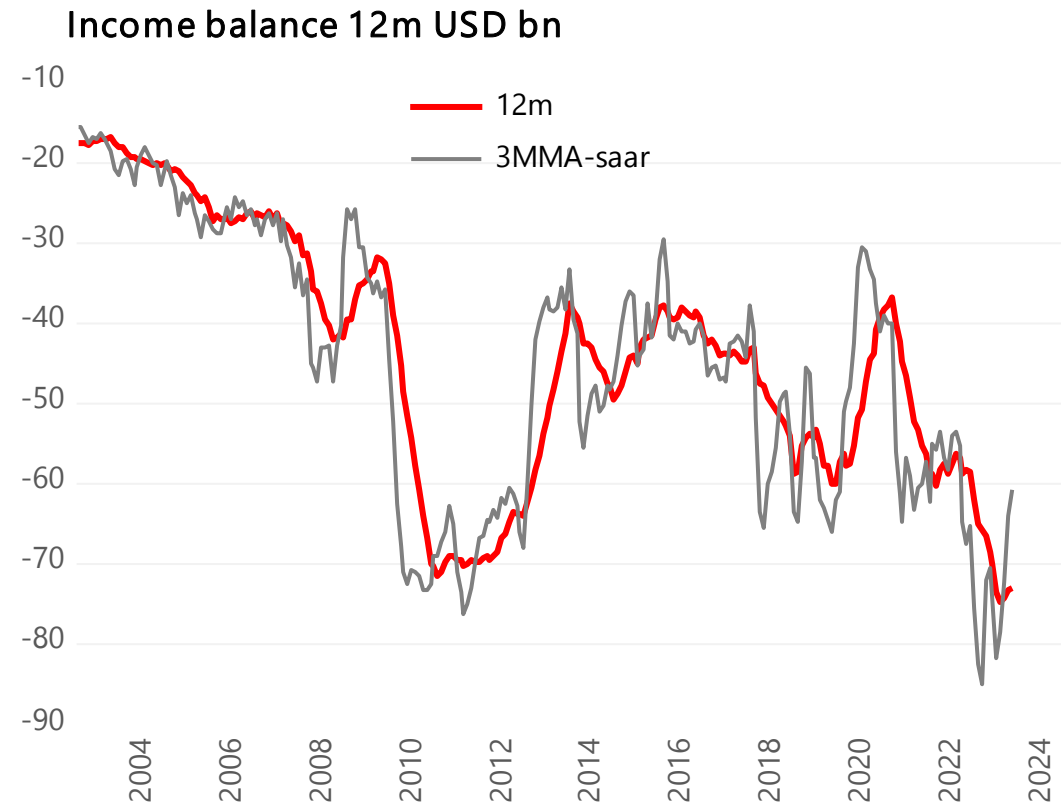


Profits and dividends vs. Profitability



Therefore, income deficit should decrease, as the recent data already suggests

- The 3mma-saar gauge already shows that the income deficit is heading towards USD 60 bn (coming from USD ~75bn) in the short-term, but the drivers suggest it could be reduced even more



Sources: BCB, Santander

Sixth conclusion:

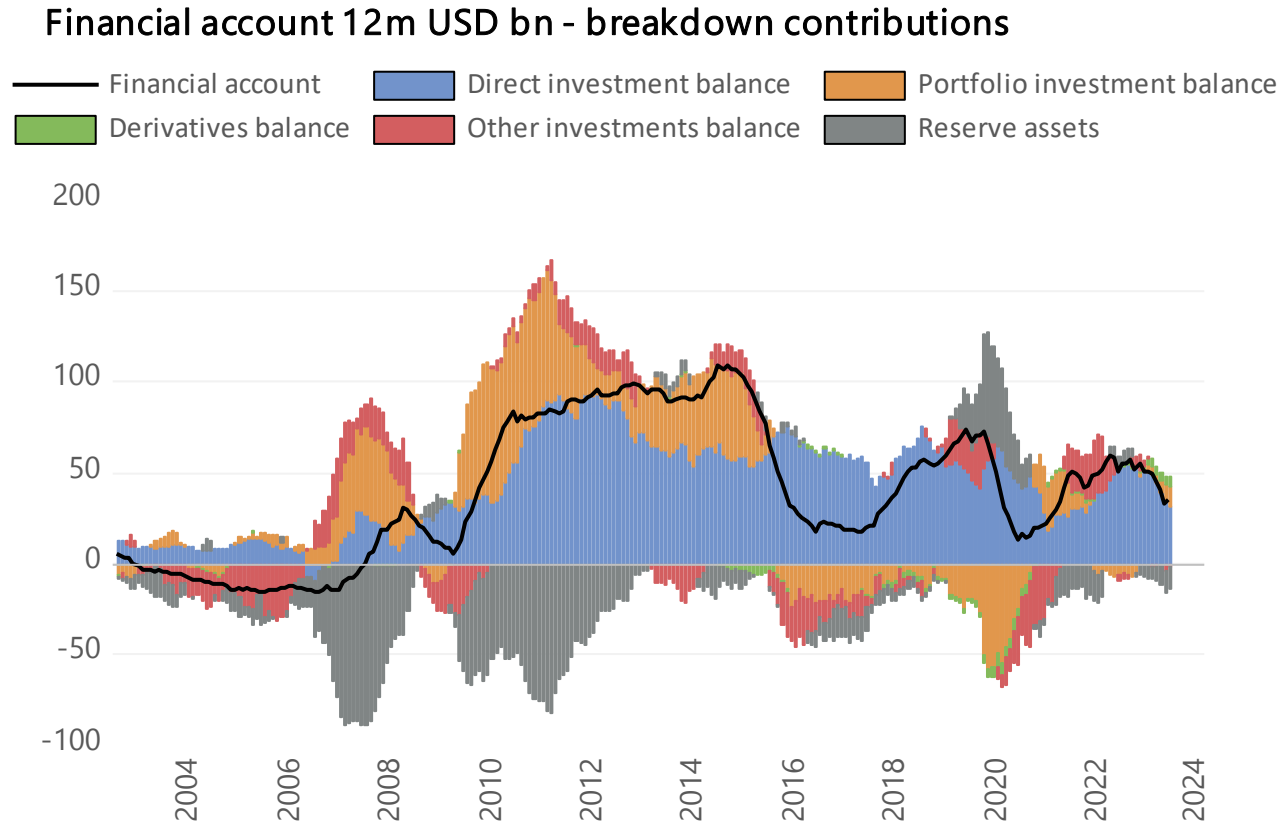
The increase in income deficit seems to be close to an end. On interest rates, the major part of the cycle was already anticipated. In profits/dividends, the reduction of FDI and profitability suggests the deficit should start shrinking. **Therefore, income deficit should be reduced.**

Seventh conclusion → current account:

Trade surplus stable (at high level), services deficit stable/shrinking slightly, income deficit shrinking. Hence, current account balance should improve a bit, but not at the rapid pace it's been improving at recently. For the long-term, the improvement in the trade balance should help to reduce the CA deficit

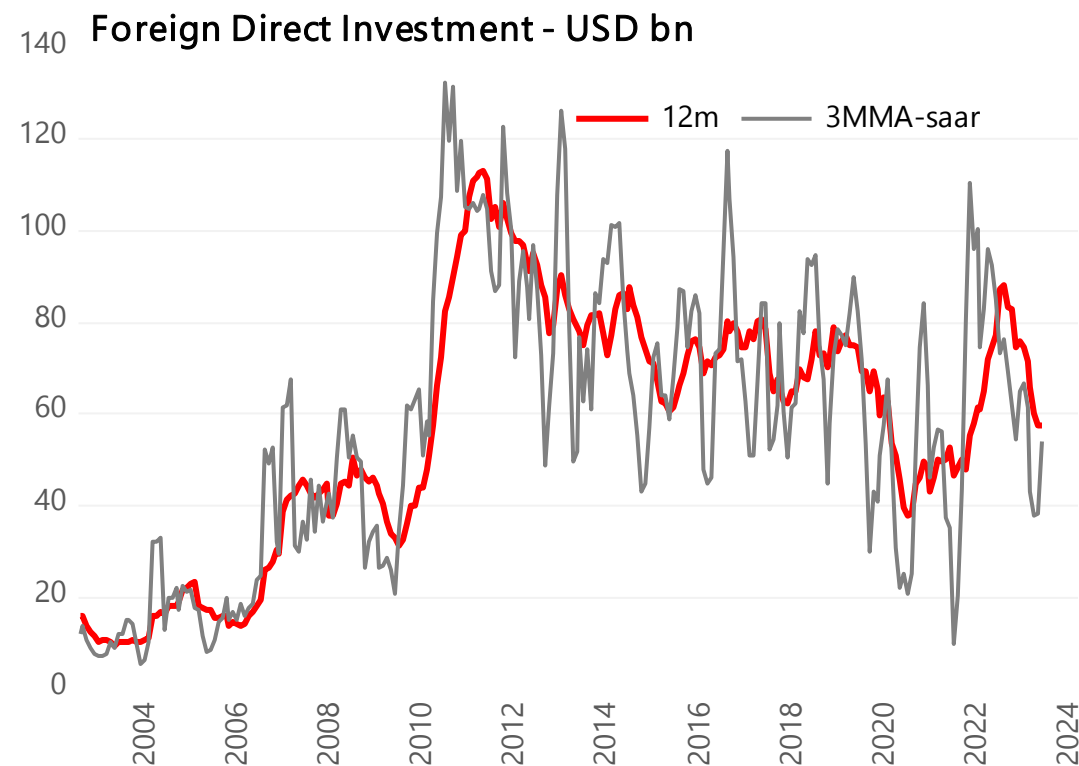
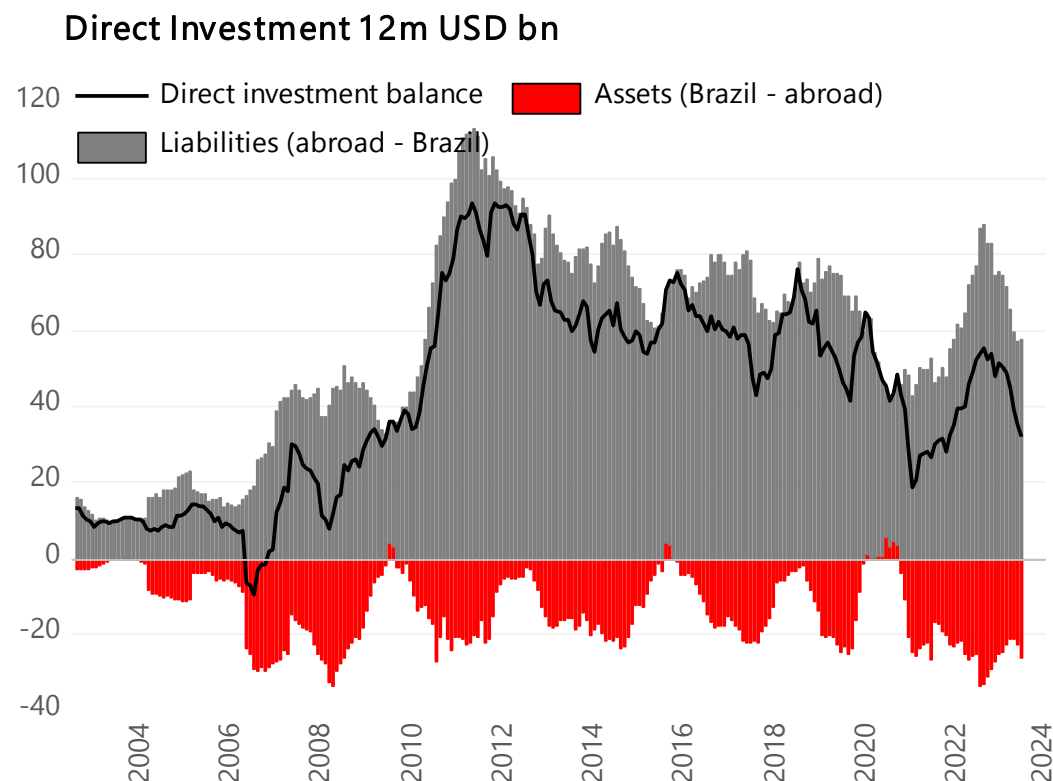
Financial account: direct investment is the main source of financing of the CA deficit

- Other lines that had been important in the past (portfolio and “others”) are mostly muted recently



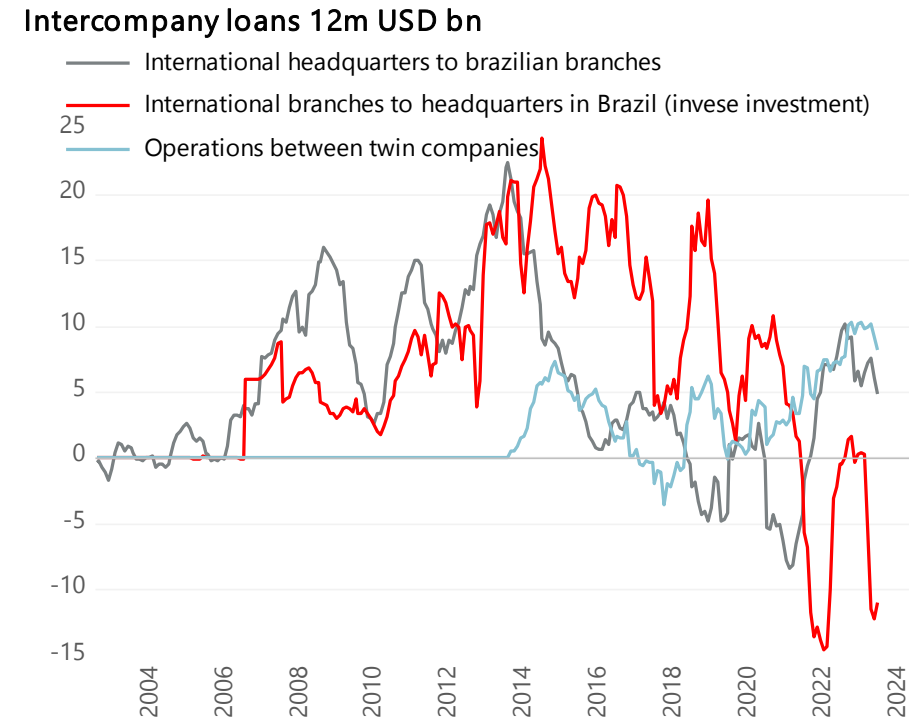
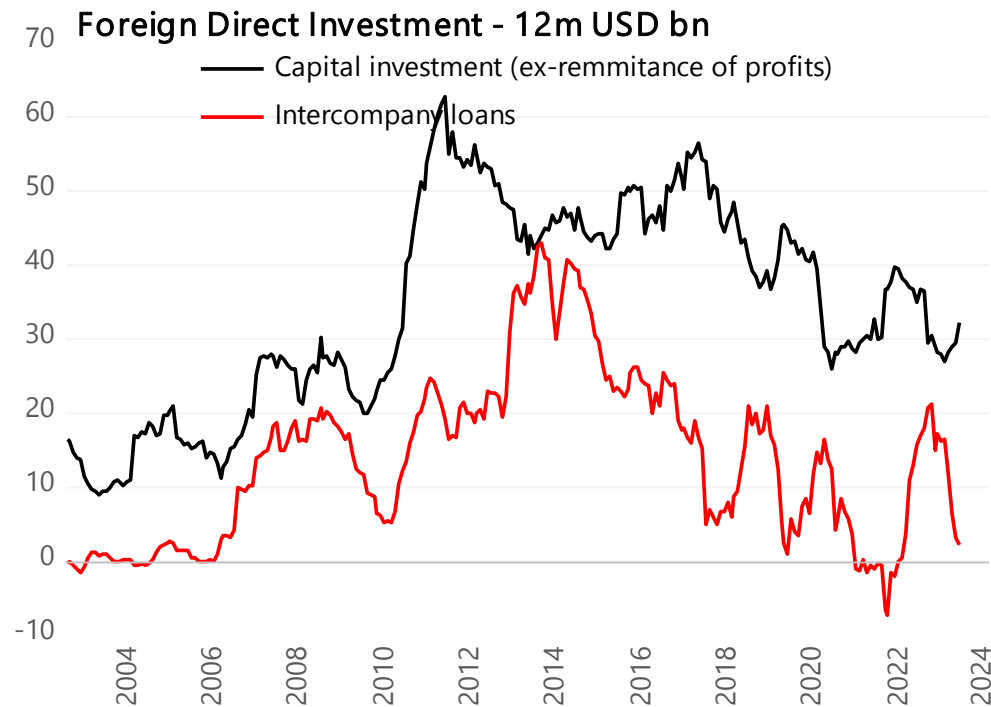
Sources: BCB, Santander

FDI is falling, but Brazilian Investments abroad is also helping to reduce the direct investment surplus



Fall in FDI is mostly due to decline in intercompany loans, hence less important “qualitatively”

- Worth remembering: having a lot of FDI makes the composition of the liabilities favorable, as it makes the deficit more cyclical. That is, if the economy decelerates the FDI’s “service” also cools down, by a reduction of remittances of profits and dividends. This cyclical pattern makes Brazil less vulnerable to BoP crisis (if our liabilities were concentrated in debt, for example, the interest payments would have to be done independently of the macro performance).
- In intercompany what is reducing the flow is that international branches of Brazilian companies are not sending money to Brazil anymore (or Brazilian headquarters are sending money abroad to their branches)

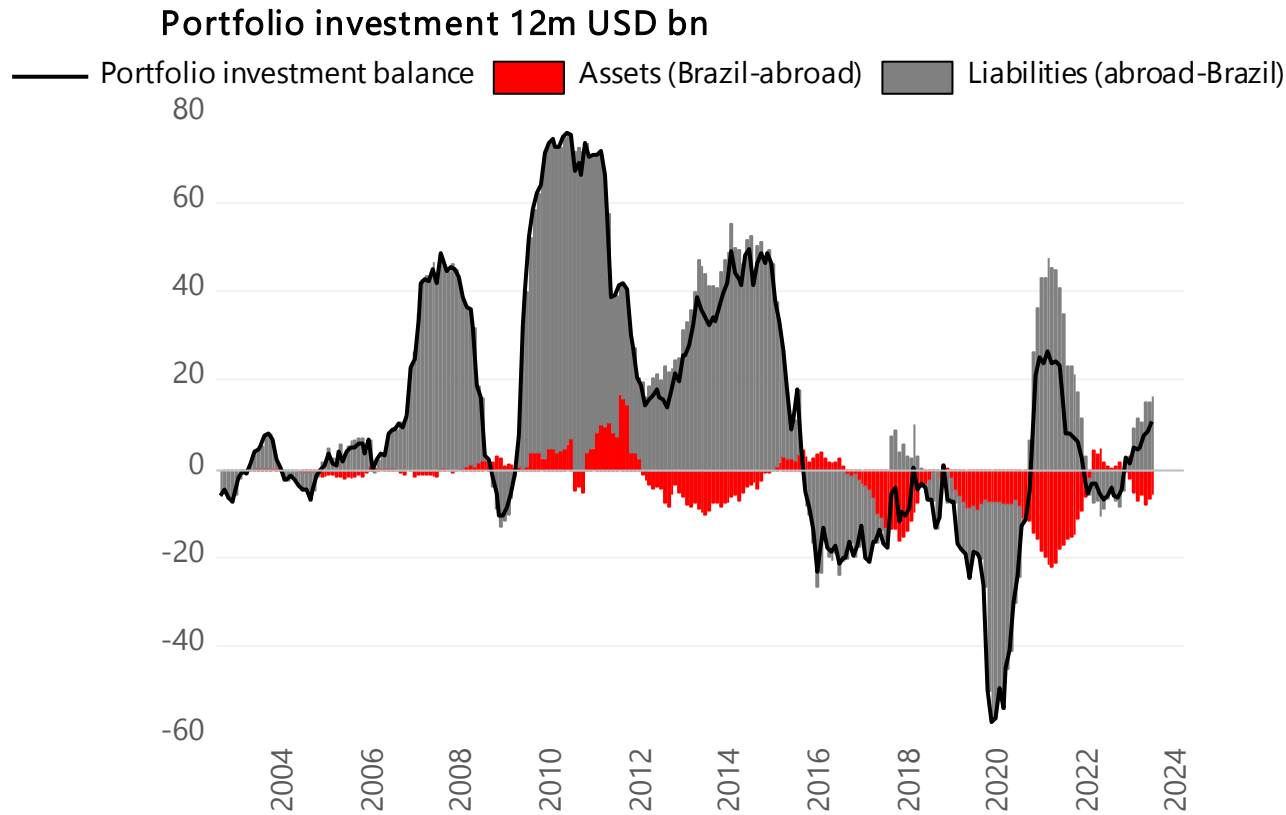


Eighth conclusion:

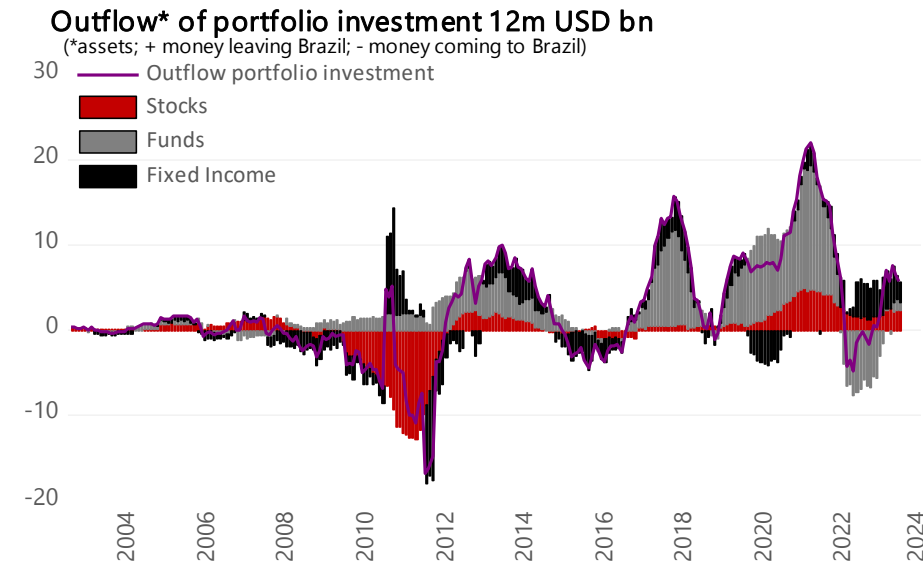
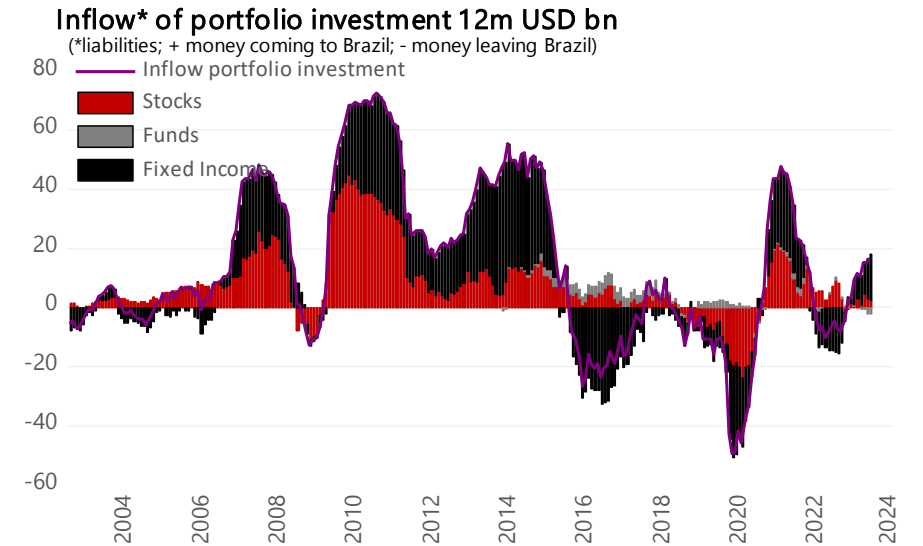
FDI is still high and robust, although falling. The pipeline of privatizations/concessions done recently should **support the FDI in the short-term, but these drivers are not present at the margin anymore, so we do not foresee further improvement.** For the medium-term the tax reform could be a source of attraction, but the fiscal risk as a whole needs to be reduced.

Portfolio: Brazilians are sending money abroad again, but foreigners are bringing more than enough to compensate this outflow

- Brazilian outflow directed to stocks and fixed income
- Foreigners' inflow concentrated in fixed income

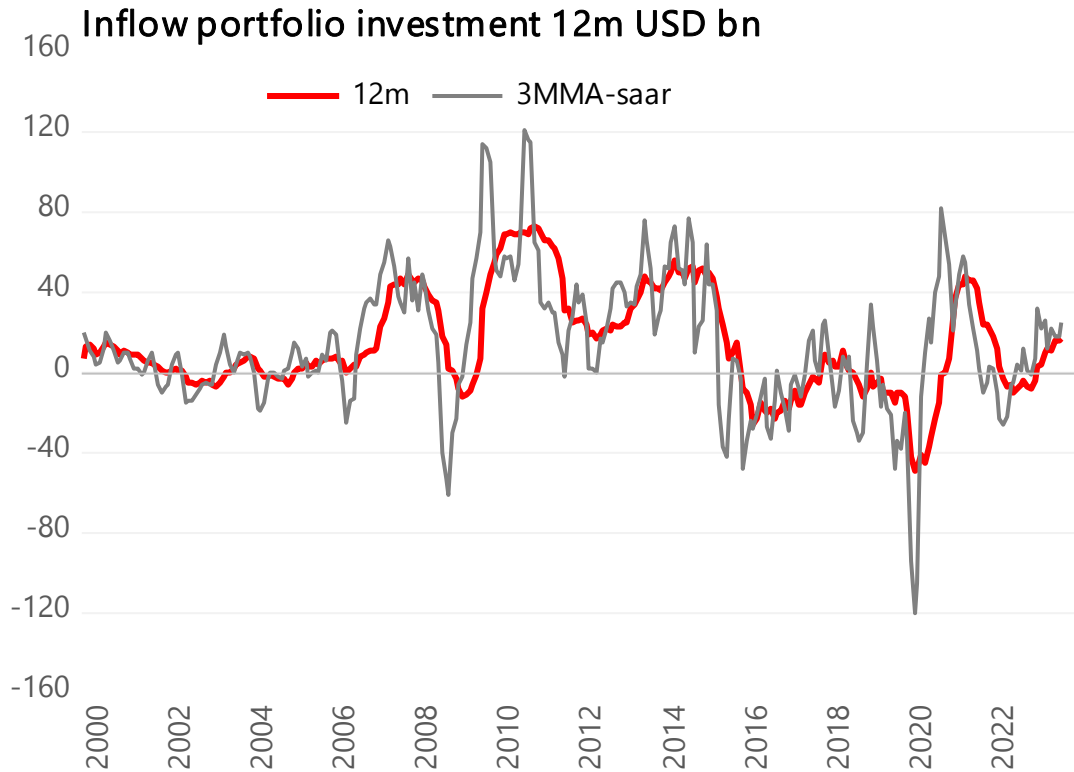


Sources: BCB, Santander

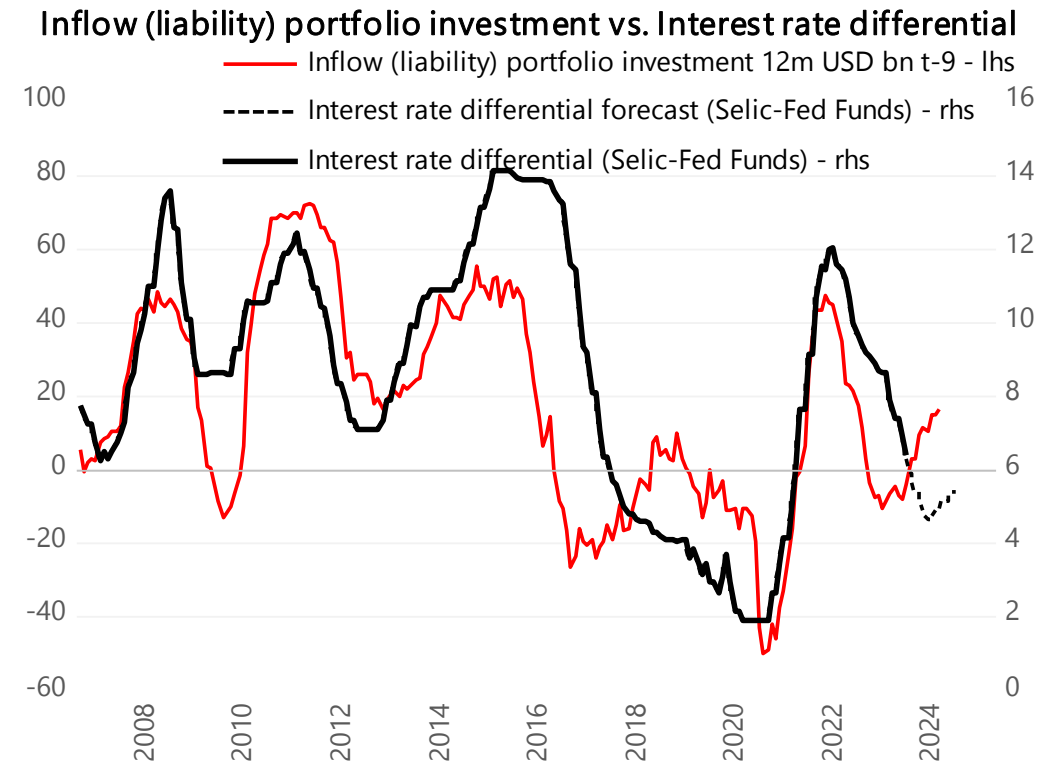


Foreigners inflow is happening despite the decrease in the interest rate differential

- It seems that usually the portfolio investment anticipates changes in the interest rate differential
- However, at the margin, flows keep coming despite the expectations of a continuity of a low interest rate differential

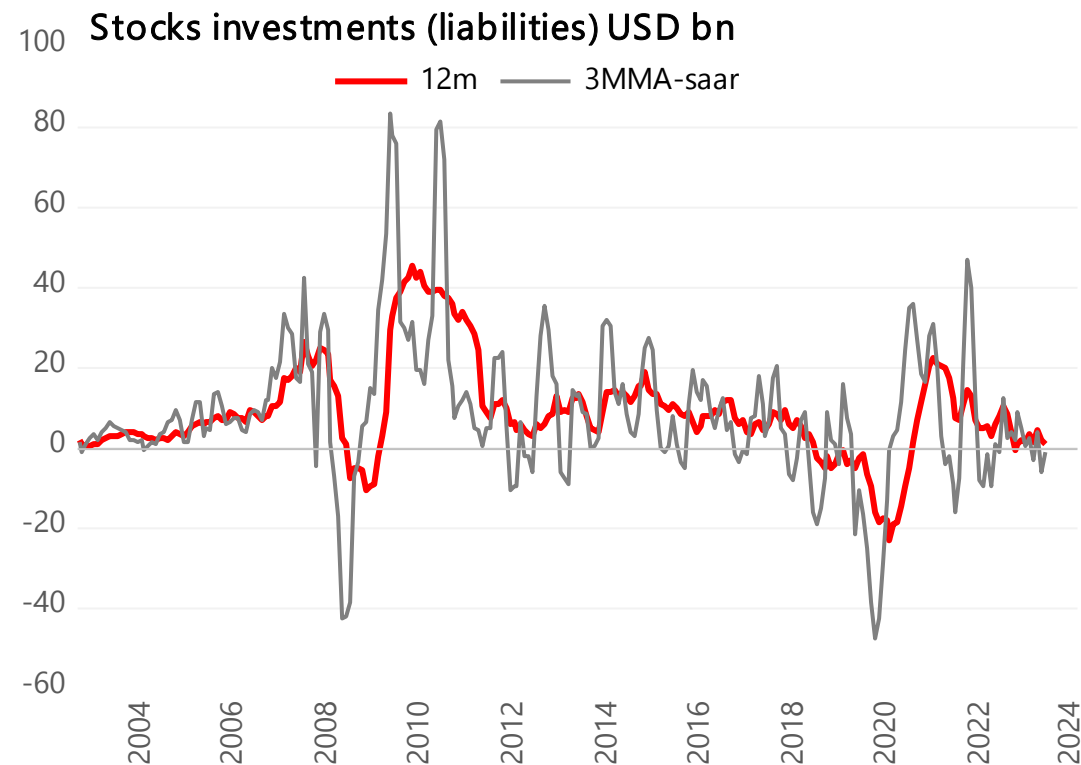
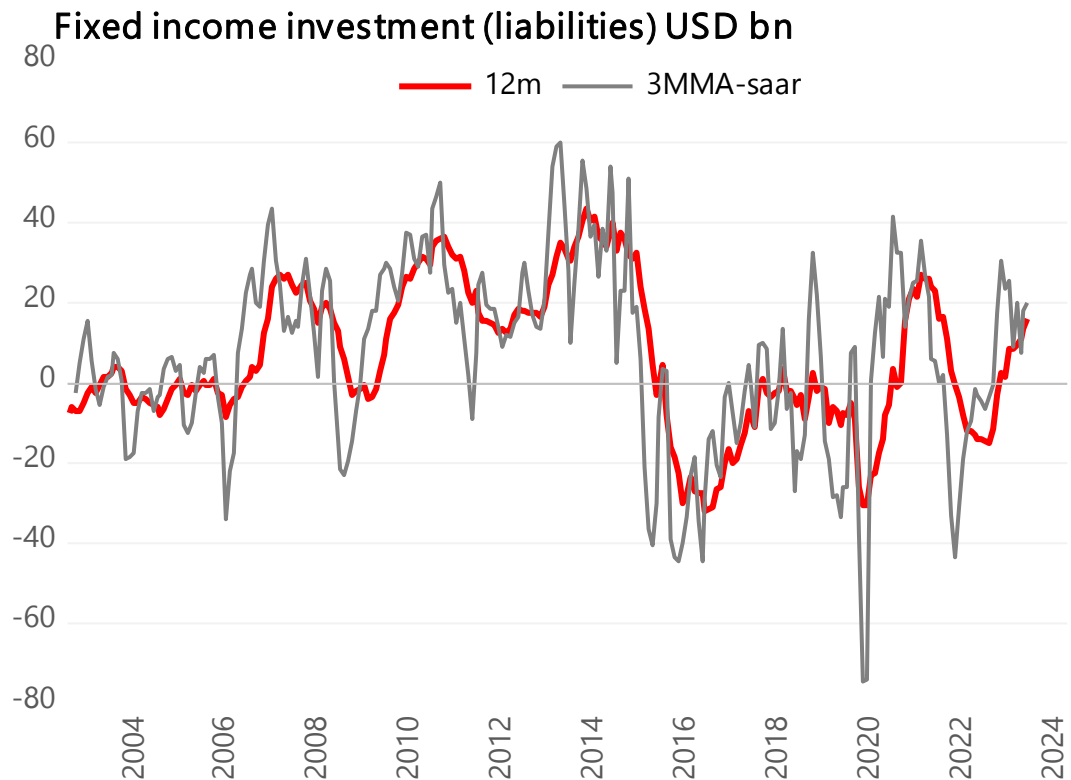


Sources: BCB, Santander



And indeed foreigners keep coming to fixed income, not stocks

- In particular, most of the flows are coming to bonds traded domestically



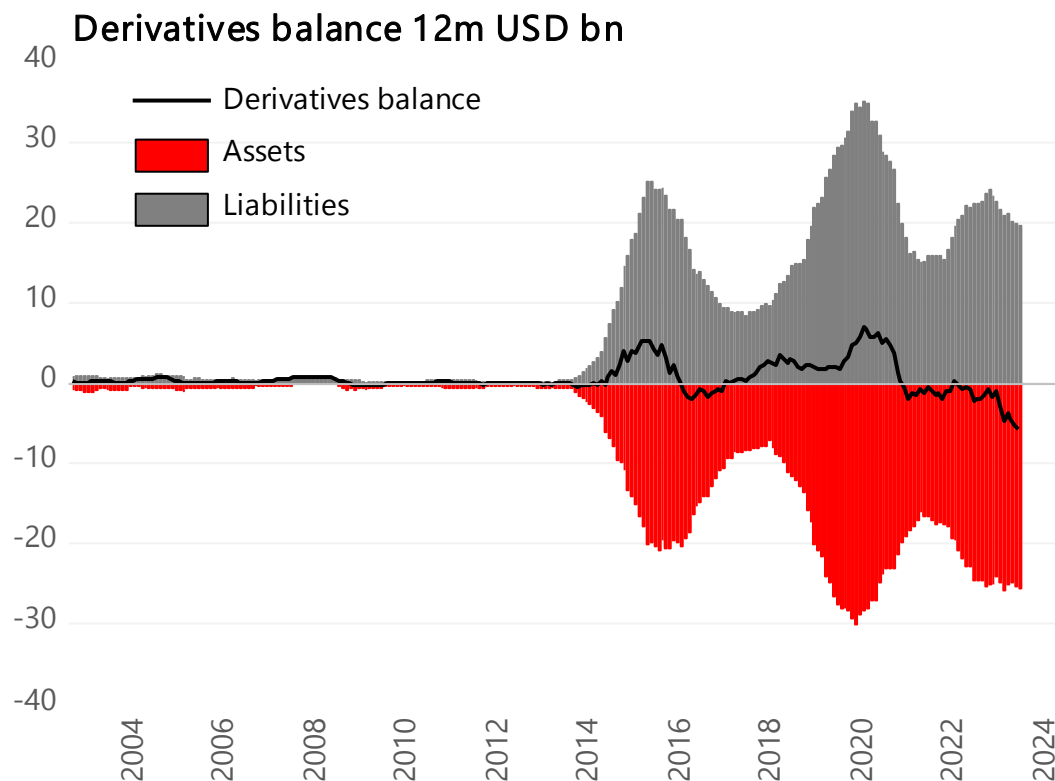
Sources: BCB, Santander

Nineth conclusion:

Portfolio recovering, even with rates differential reducing. Without an increase in the interest rate differential and/or a reduction of the fiscal risk, an increase of growth, etc., we do not foresee much more flows at the margin. For the long-term, without investment grade it seems difficult to reach past levels

Derivatives: usually net 0 (hedges), but it is a bit negative now

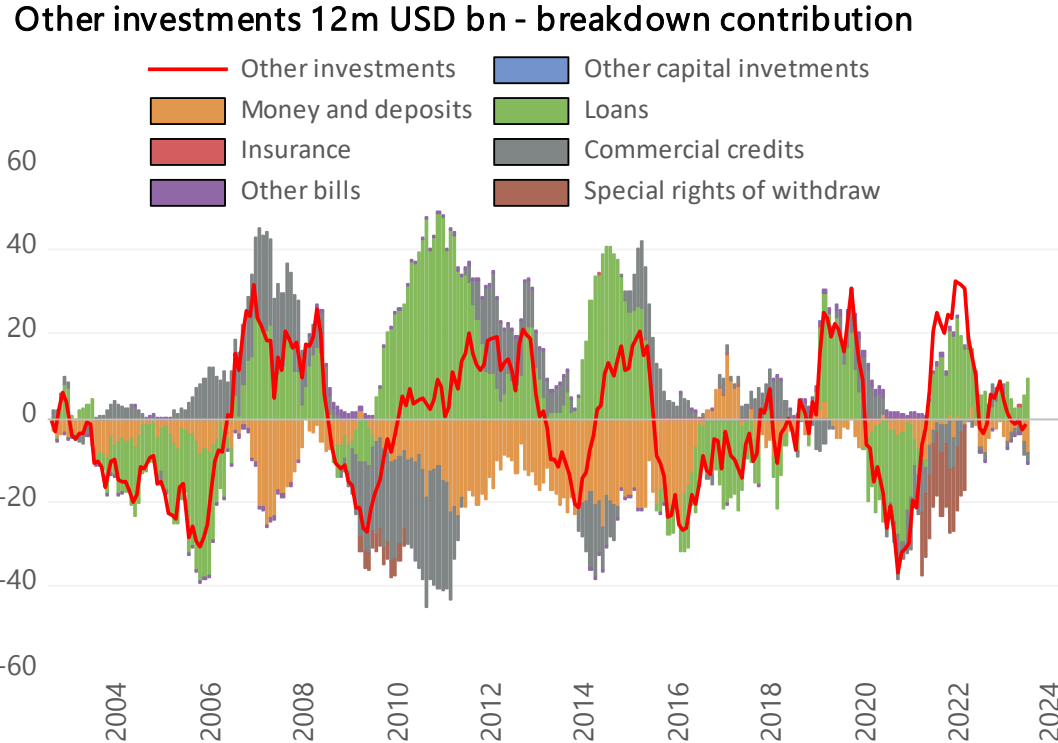
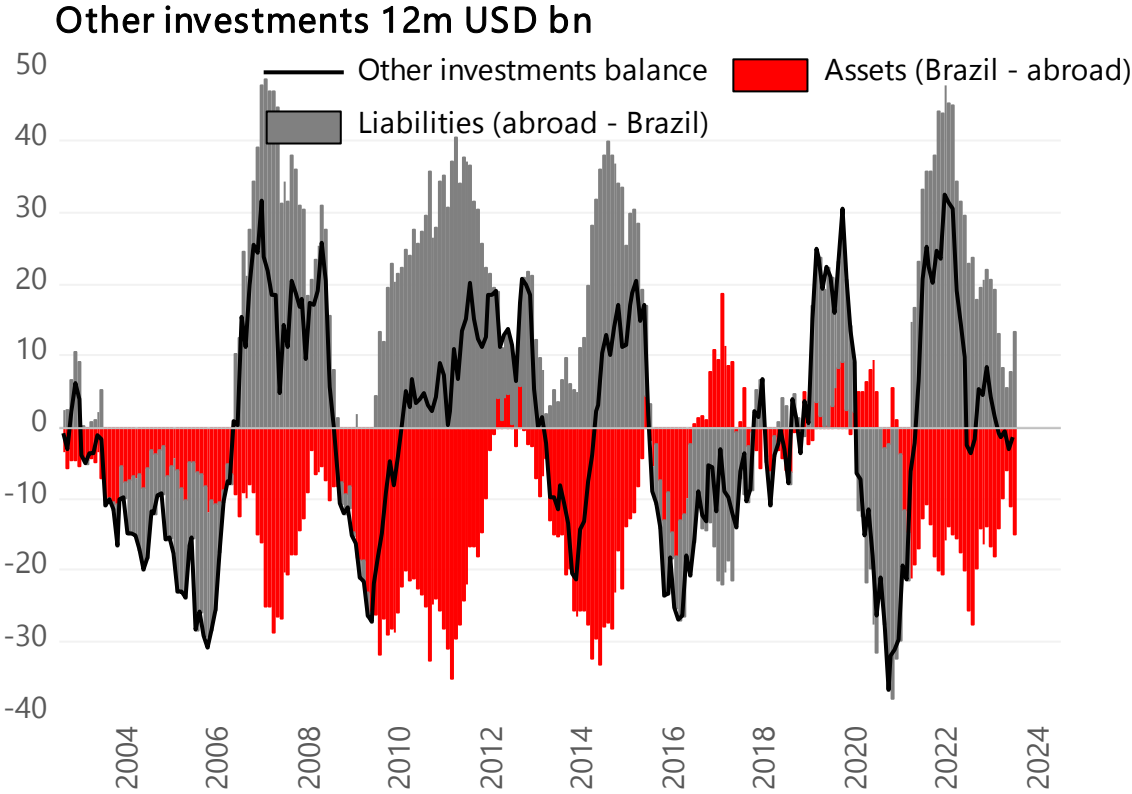
- Brazilian money trading derivatives abroad is a bit higher than foreign money trading derivatives here



Sources: BCB, Santander

Other Investments: zeroed, but usually it is quite important

○ .

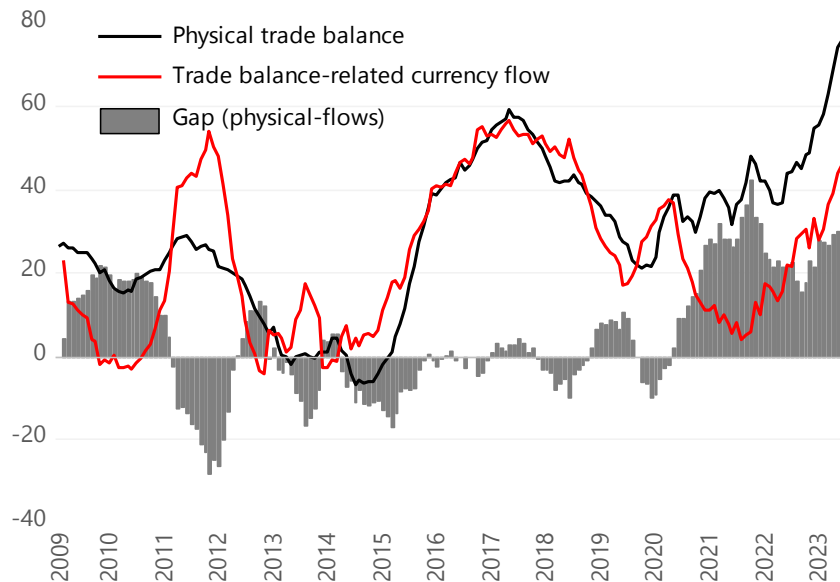


Sources: BCB, Santander

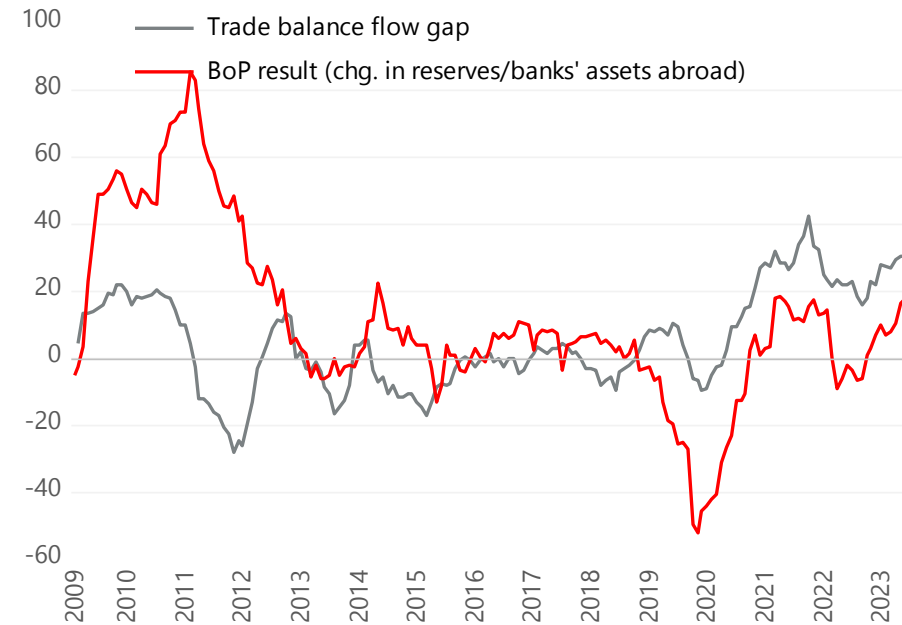
Why “Other Investments” are important? First let’s look at the infamous gap between the physical trade balance and the trade balance-related currency flow

- If this gap is increasing it means exporters are leaving money abroad, so it should appear in some line of the financial account/BoP result, either increasing the amount of assets abroad/or reducing debt or becoming a change in reserves/banks’ assets abroad, because at the end of the day, the BoP result has to match the total currency flow data (and it indeed matches)
- From the second chart, we see that for many periods, in particularly at least since 2020, the gap is not matching the level of the BoP result (change in reserves/banks’ assets abroad), although it correlates, so the money should be going to other lines of the financial account. Let’s try to find it

Trade balance vs. Trade balance-related currency flows 12m USD bn

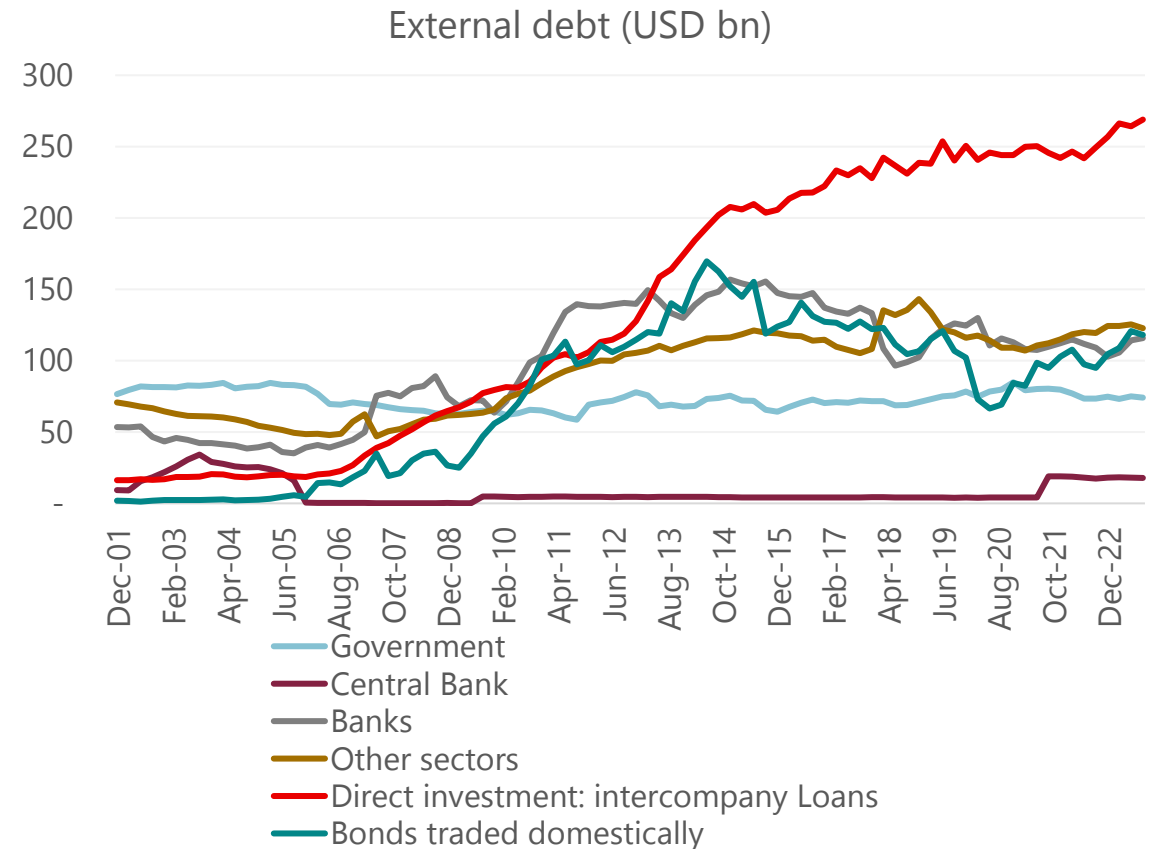
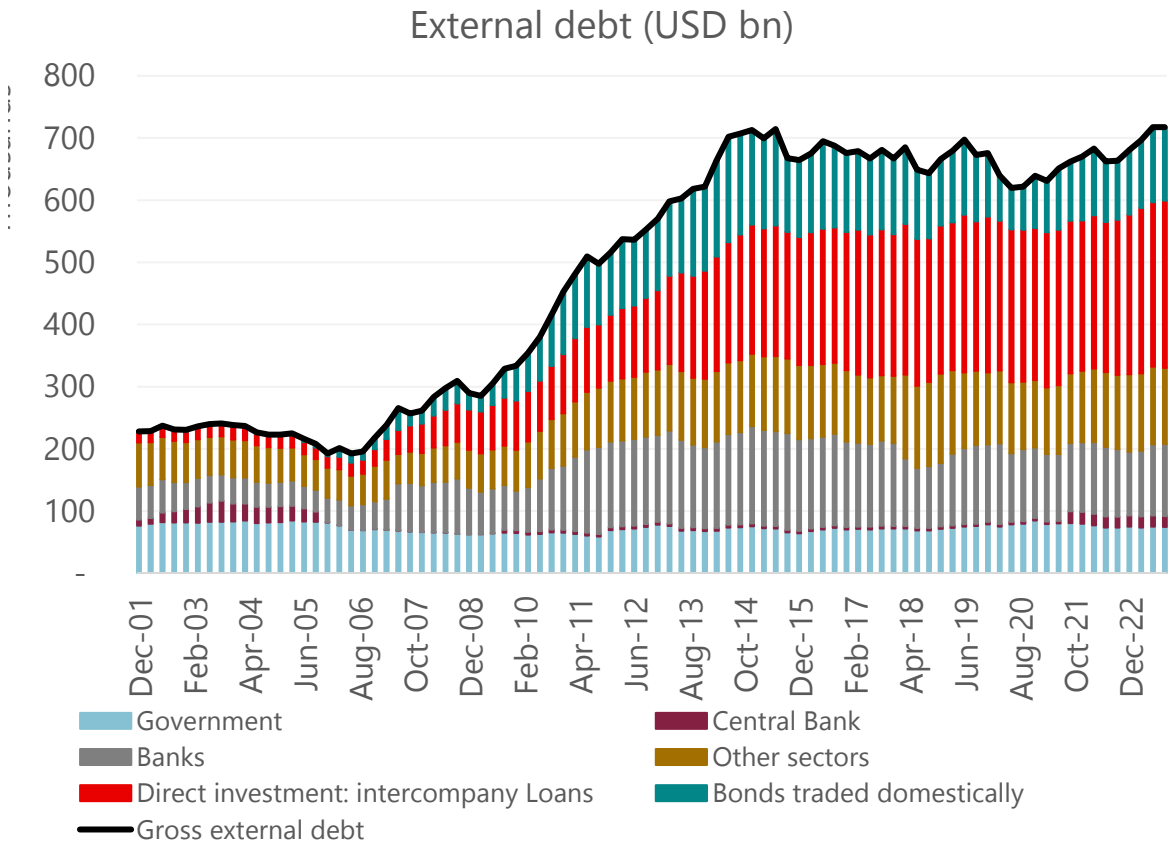


Trade balance flow gap and BoP result 12m USD bn



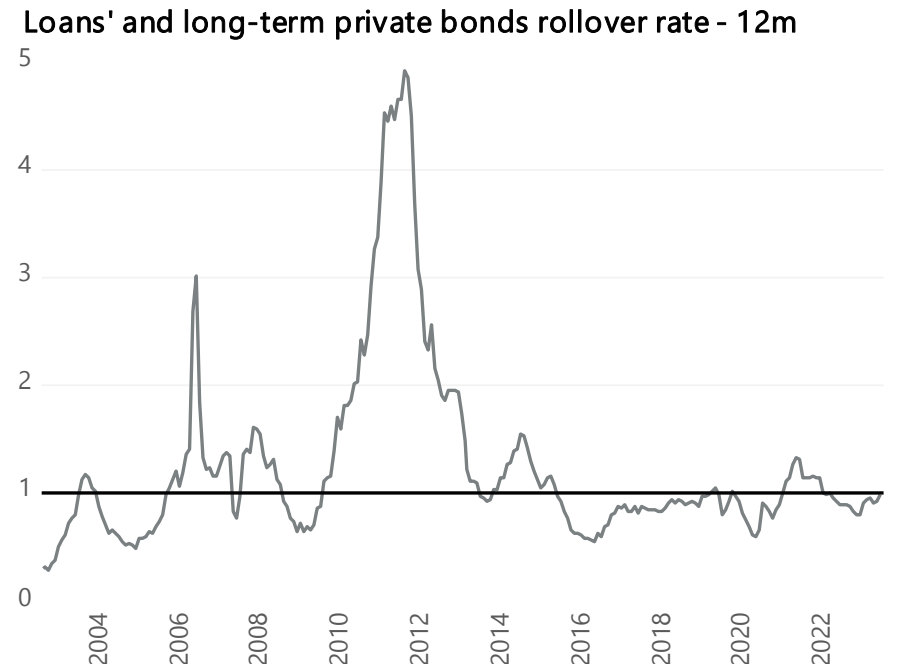
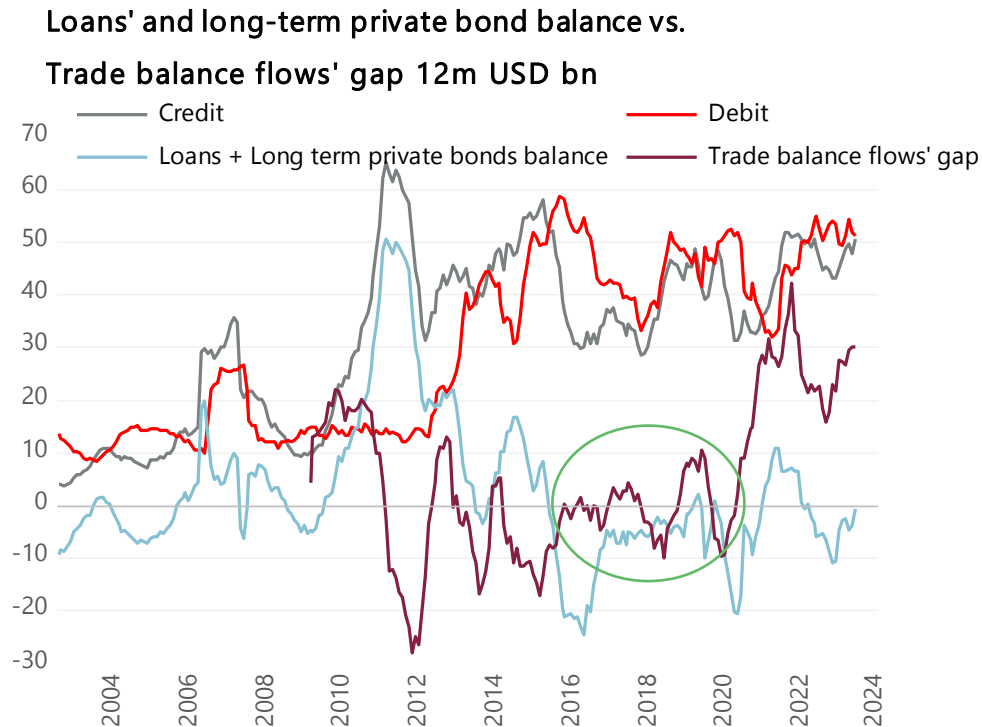
Sources: BCB, Santander

Was the money used to pay debts? Maybe partially, but not in a significant way



Was the money used to pay debts? Maybe partially, but not in a significant way

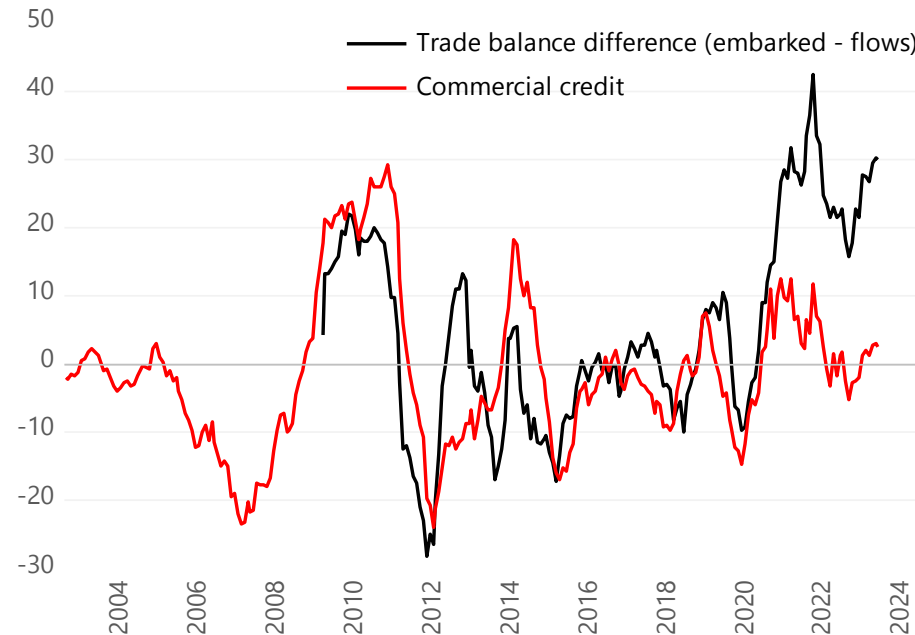
- Through most of the 2016-1H2021 period, the rollover rate of loans + long-term private bonds was below 1, meaning that part of the Money left abroad could have been used to reduce debt
- But we can see that the money borrowed was also increasing, which reduced the deleveraging. Moreover, during 1H2021-1H2022 the rollover ran above 1 and now is close to 1, meaning the deleverage process seems to have ended and, indeed, the private debt balance is not correlating well with the trade balance flows' gap anymore



Hence, the importance of the commercial credit account in “Other Investments”

- If the money was not being fully used to pay debts (a common narrative in the markets to explain the trade balance gap), we have to look elsewhere and a good candidate is the commercial credit line because of its definition*
- The trade balance flows' gap correlates considerably well with the commercial credit line in the financial account over many periods. Although we are not certain, this could mean that exporters were leaving money abroad in that line, which makes sense by the definition of commercial credit
- However, it also does not explain the gap from 2020 onwards, so the money should be “leaking” to another line more recently

Trade balance embarked-flow difference vs. Commercial credit - 12m USD bn

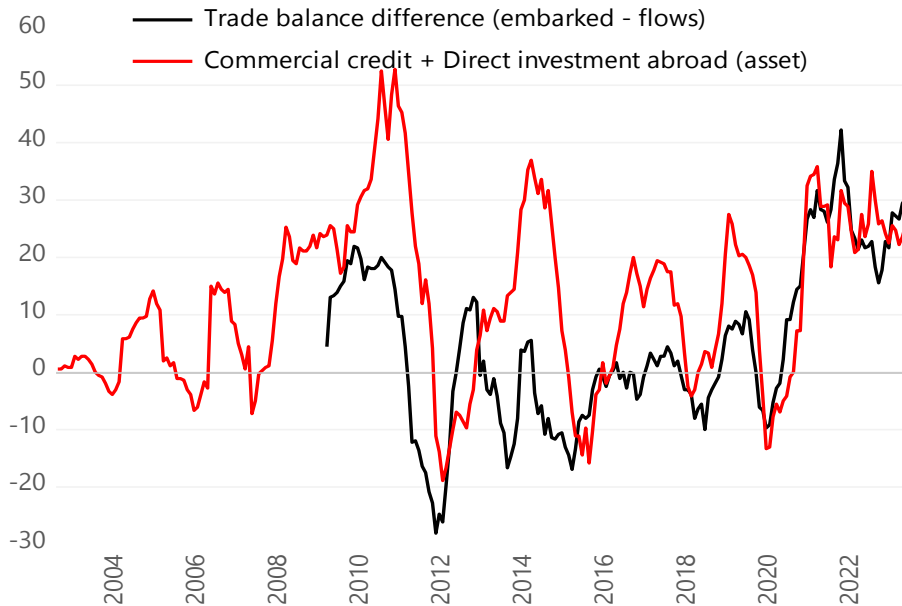


Could companies be increasing their direct investments abroad?

- Using the trial-and-error approach, we arrive at the direct investment abroad (which is separate from the “Other Investments” line)
- When we add the direct investment abroad to the commercial credit line, we lose correlation before 2020, but post 2020, it matches almost perfectly, which could mean exporters are using their money to increase their Investments in companies abroad
- Using a chained series of commercial credit up until 2020 and then direct investment abroad, we are able to fit the trade balance flow gap almost perfectly

Trade balance embarked-flow difference vs.

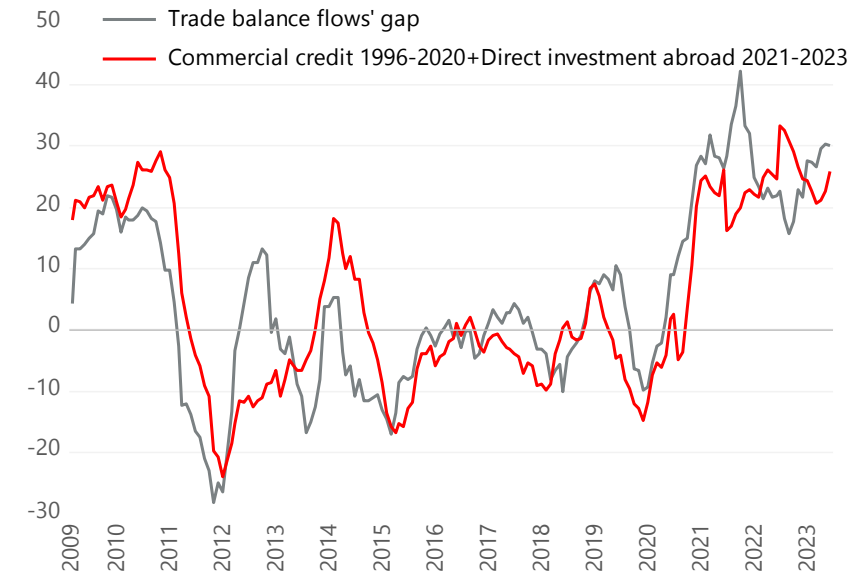
Commercial credit+Direct investment abroad - 12m USD bn



Trade balance embarked-flow difference vs.

Commercial credit 1996-2020 chained to Direct investment abroad 2021-2023

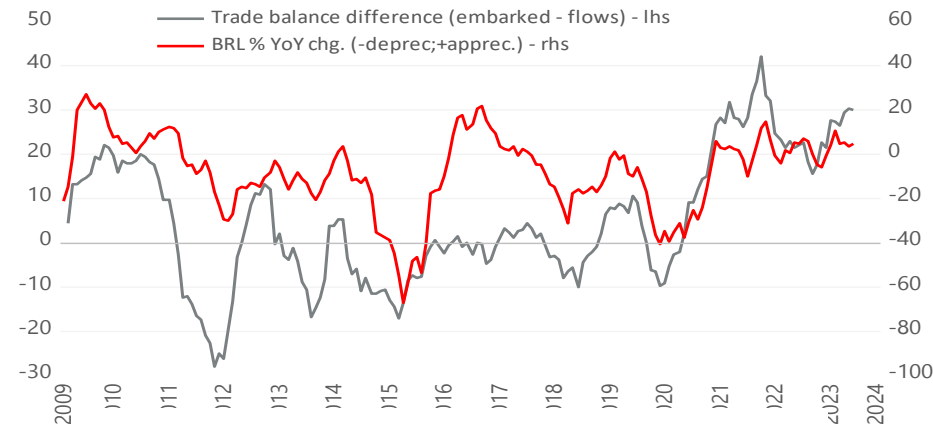
12m USD bn



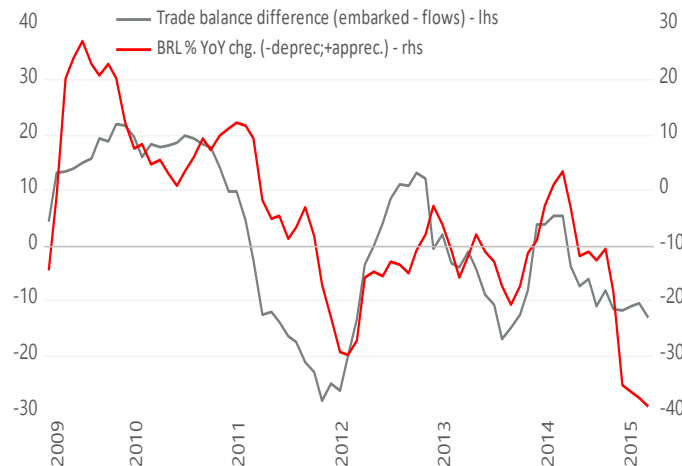
Correlation between FX changes and money left abroad

- Exporters tend to leave more money abroad when the currency is appreciating and take advantage of depreciations to bring money back—which is an important benefit since the BoP is acting as a buffer against stronger depreciations
- Of course there is an endogeneity problem here, but as we don't see many reasons for the currency to depreciate, this could mean the recent USD 30 bn trade balance gap will not come back now

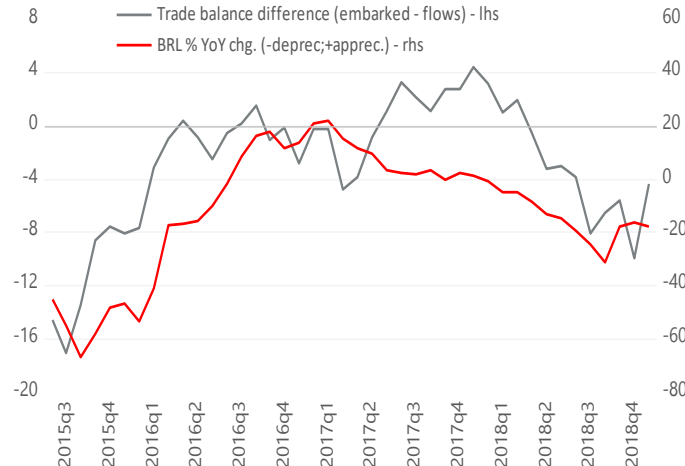
Trade balance embarked-flow difference vs. BRL chg.



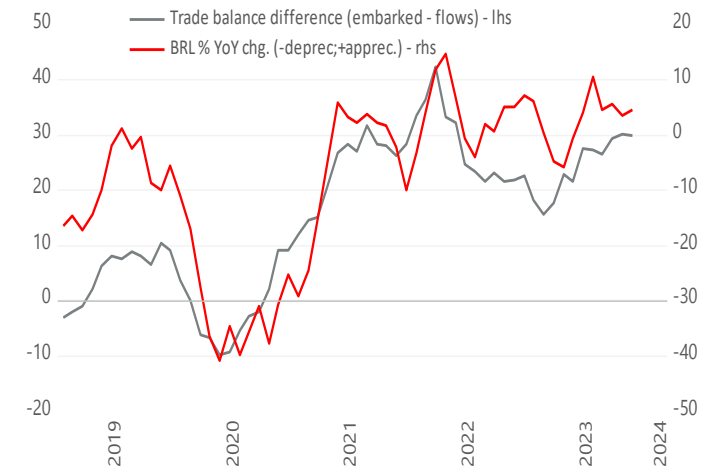
Trade balance embarked-flow difference vs. BRL chg. - 2009-2015m6



Trade balance embarked-flow difference vs. BRL chg. - 2015m7-2018



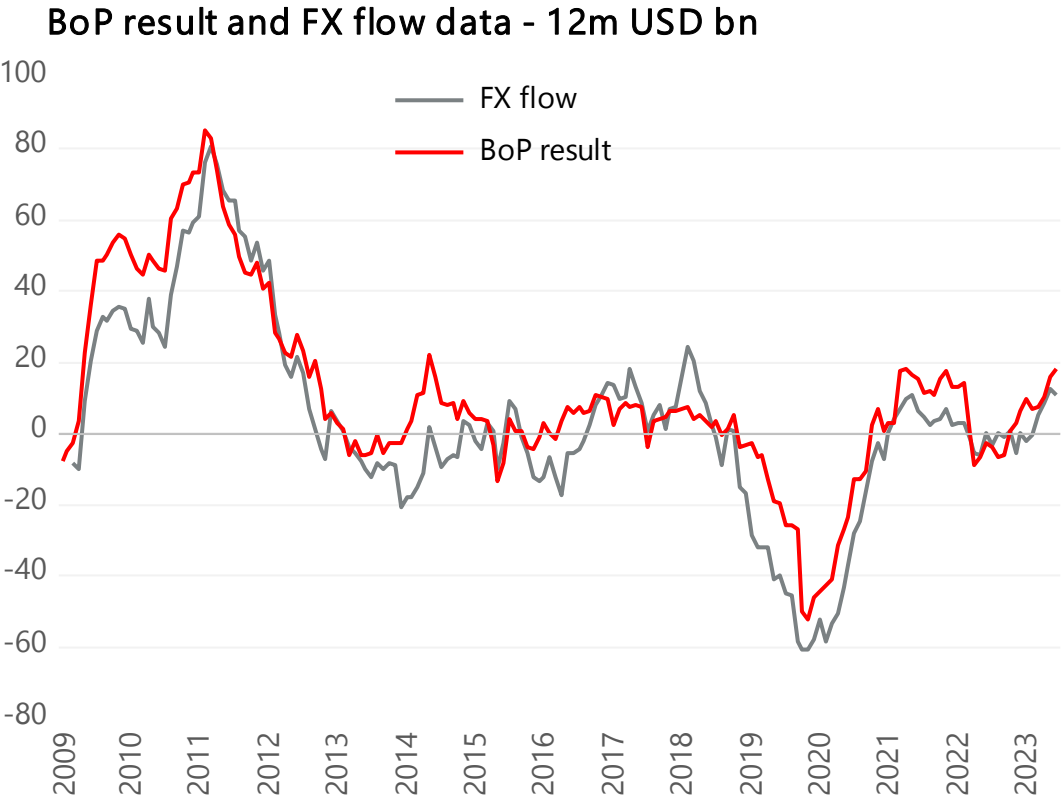
Trade balance embarked-flow difference vs. BRL chg. - 2019-2023



Tenth conclusion:

A high probability that money left abroad from exporters was ending at the commercial credit line and now at investment abroad. Debt was not reduced significantly because the rollover ratio increased and because direct investment is an asset abroad. We don't see the dollars sitting abroad coming back now, but it should work as a buffer during turmoils as exporters tend to bring the money back when the currency depreciates

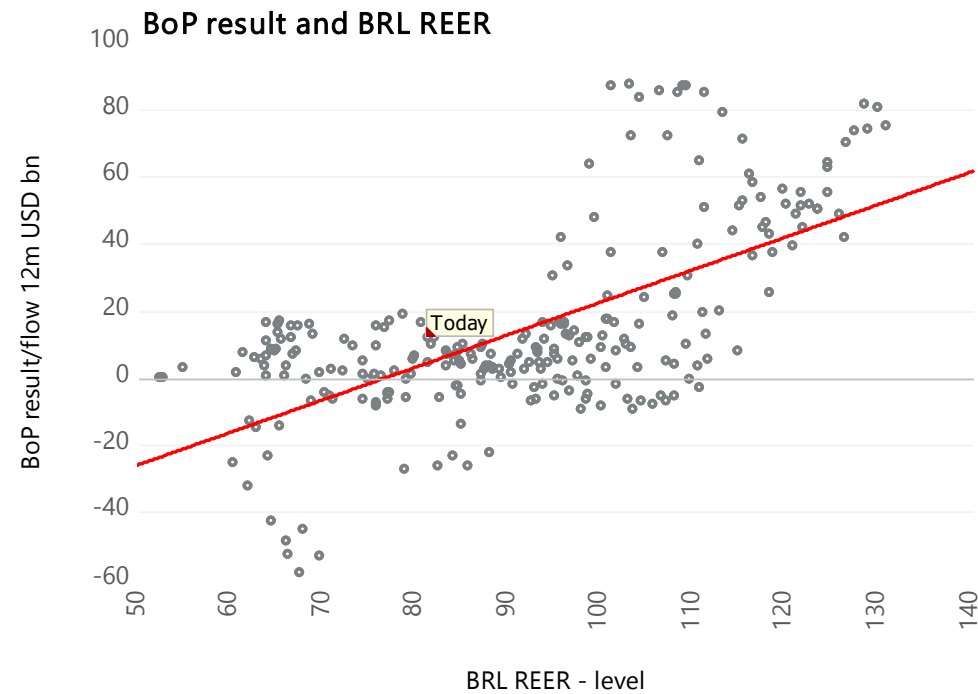
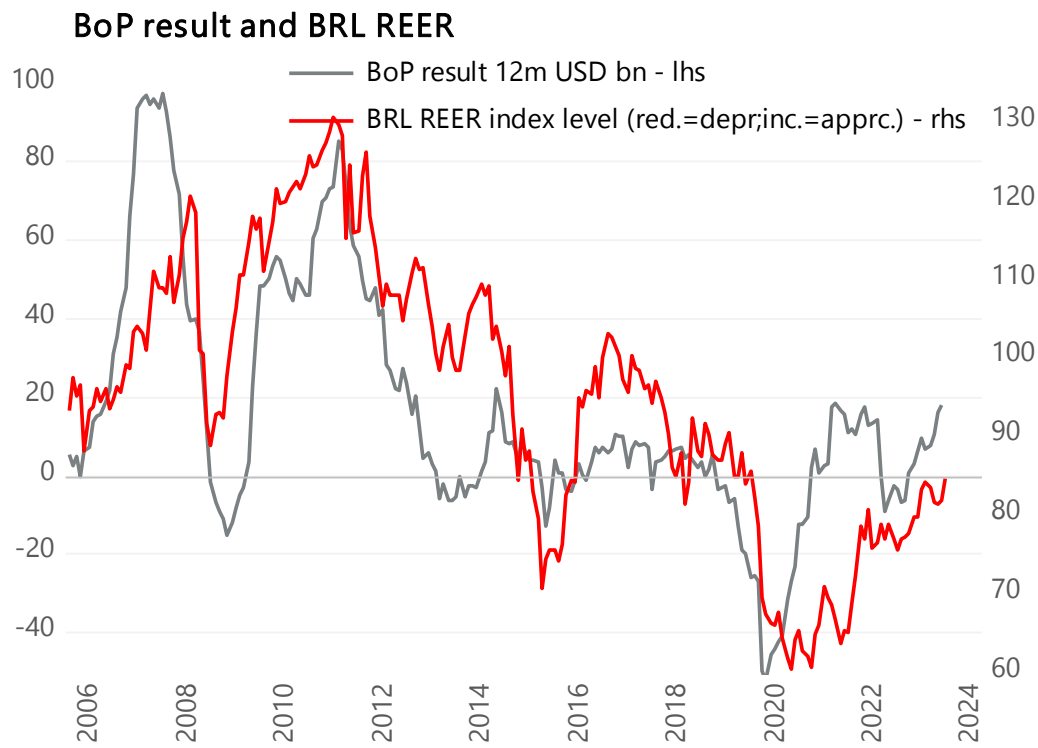
Reconciling flow data with the BoP result



Sources: BCB, Santander

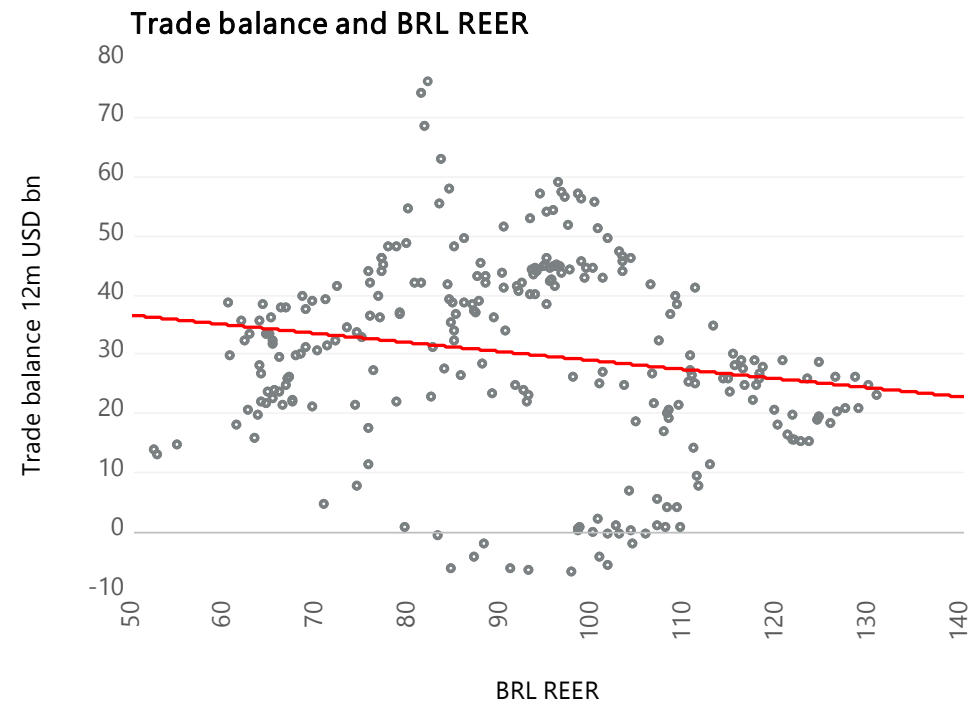
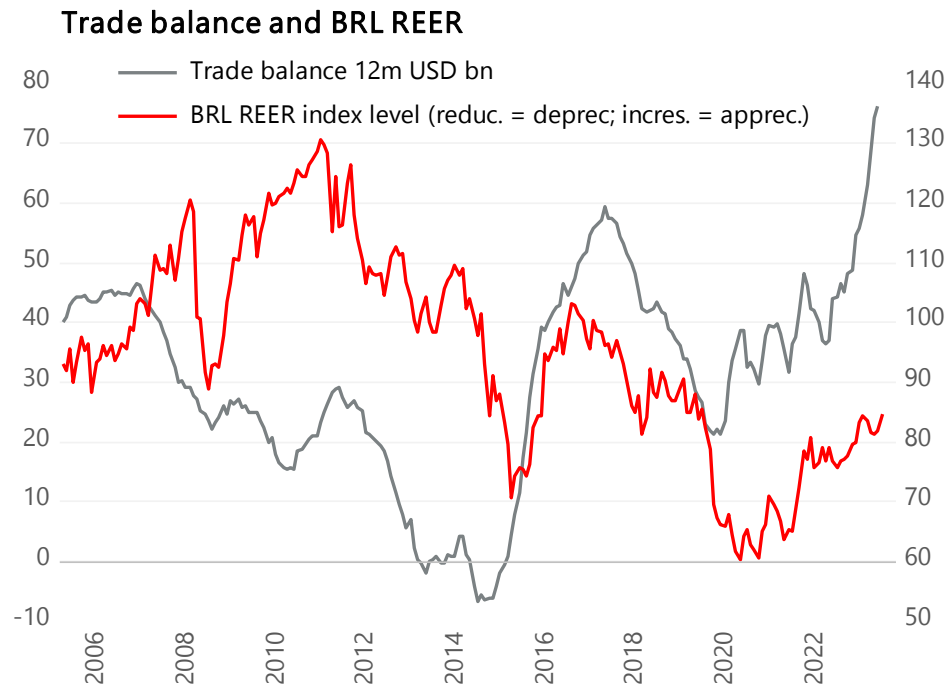
BoP result and BRL REER (real effective exchange rate)

- BRL REER seems relatively well adjusted to the BoP result
- Detachments are usually associated with periods of major changes in idiosyncratic risk or unusual levels of interest rate differential
- But more importantly, from all of the points made in this presentation, it seems unlikely that we are going to see USD 80-100bn flows that we've seen through 2006-2012, when the drivers were: continuously increasing commodity prices, high real rates, outperformance of domestic growth, weak US dollar, strong fiscal results/decreasing idiosyncratic risks



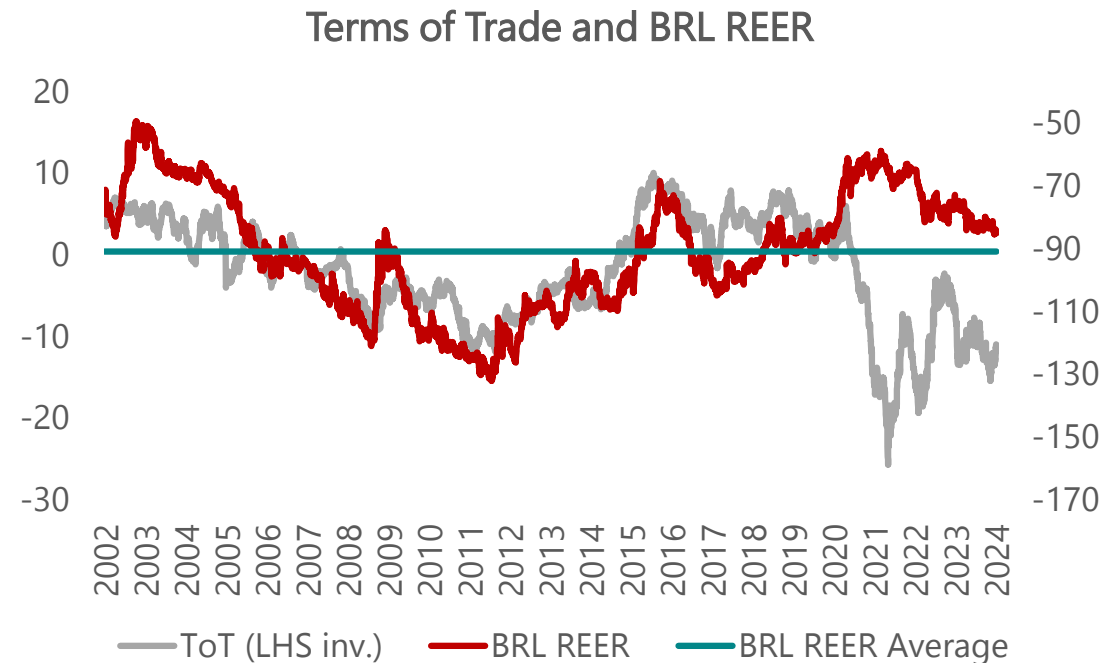
Trade balance and BRL REER

- Trade balance alone does not correlate well with BRL REER
- Therefore, it reinforces our view that the narrative of relying solely on the increase of oil's and grains' quantum to argue for a strong BRL appreciation is not compelling



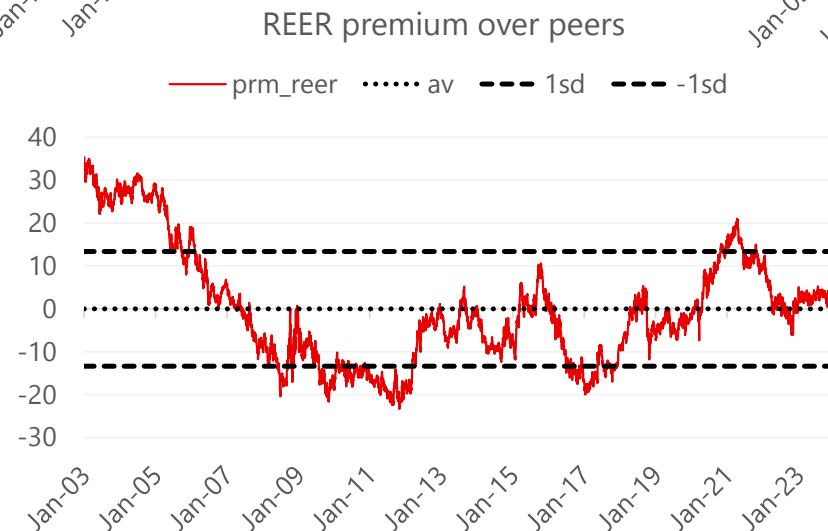
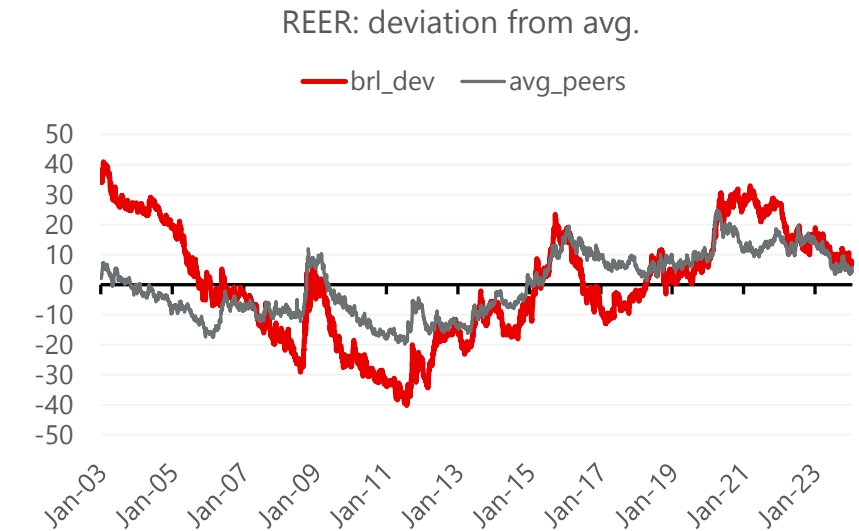
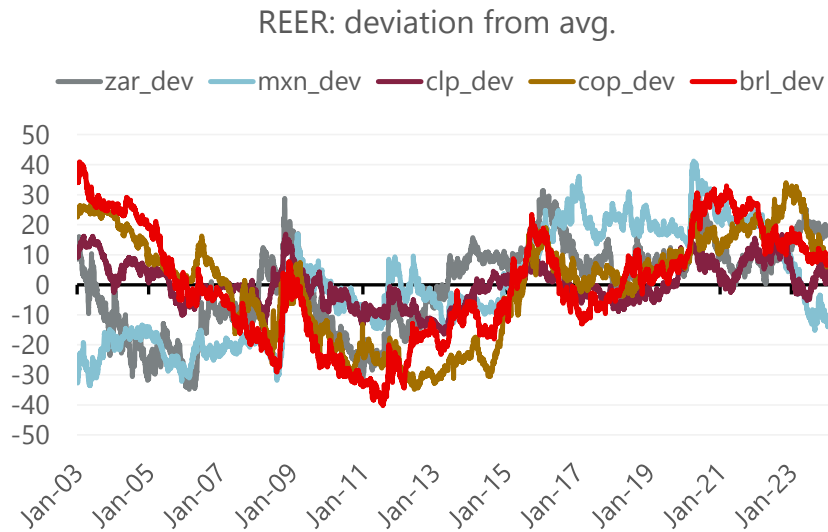
BRL REER: deviation from average and terms of trade

- Looking at the terms of trade indeed there seems to be space for a BRL appreciation, but when looking at the deviation from average BRL REER, the space is much smaller (~7%)
- Also, when comparing to the average of peers, BRL REER doesn't strike as an outlier
- Finally it is also worth remembering that long-term convergence can come through higher inflation



BRL REER: comparison with peers

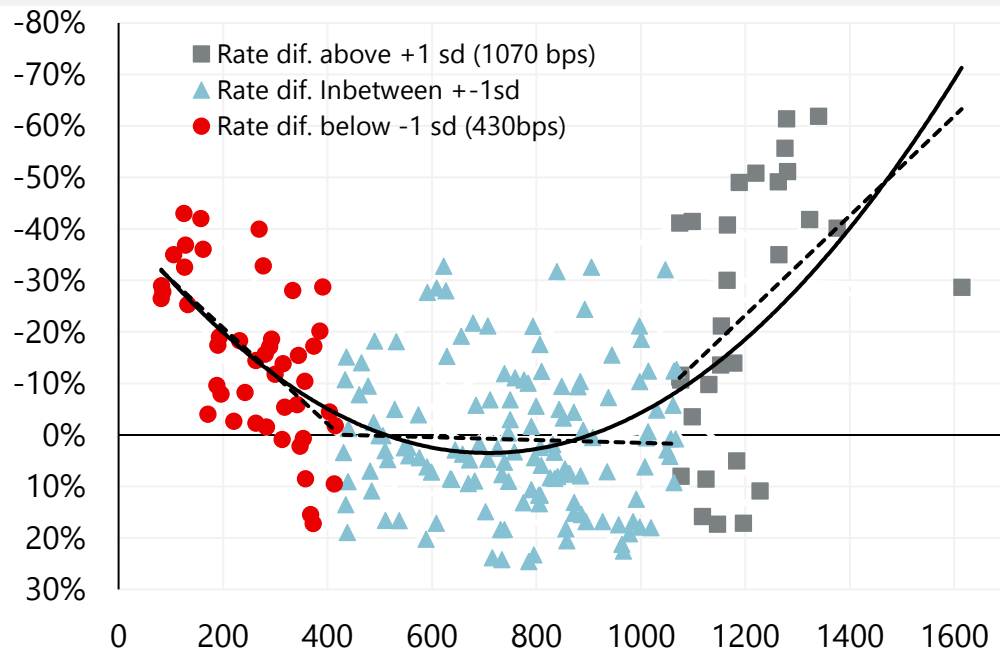
- MXN is the only peer trading considerably better than the others and in appreciated levels
- BRL deviation from long-term average is equal to its peers → not many space for an appreciation from this relative perspective



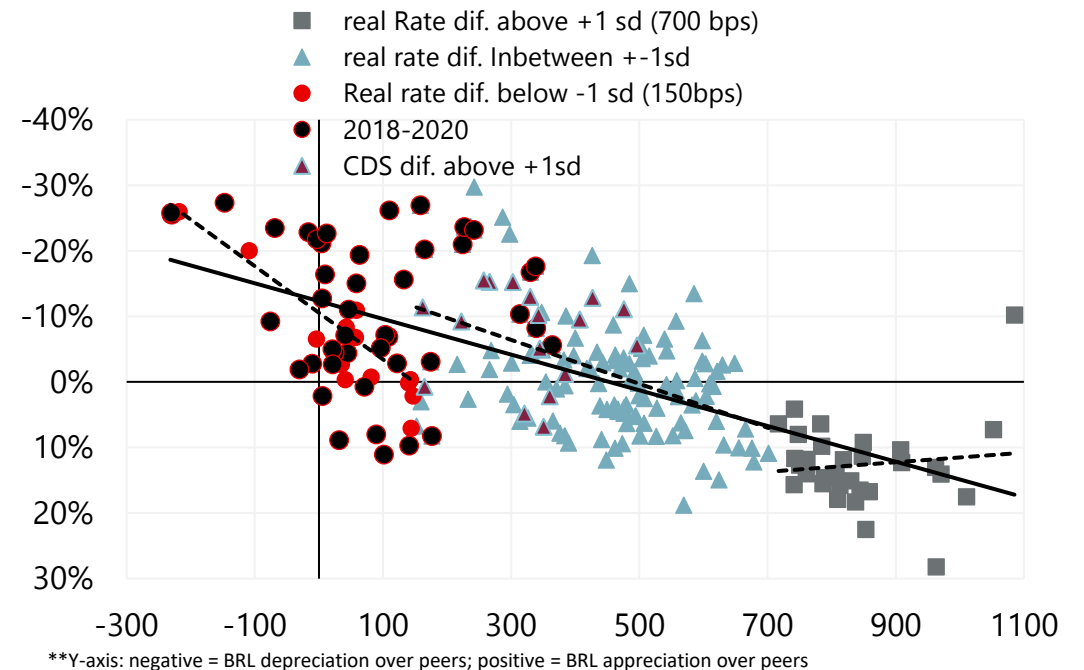
Short-term nominal BRL moves and the recent 2018-2020 depreciation

- The recent 2018-2020 depreciation was likely driven by unusually low interest rate differential (red dots, first chart); particularly, too low real rates differential (black dots, second chart). Periods with high rate differential in nominal terms (grey squares, first chart) that coincided with significant depreciations were associated with high idiosyncratic risk
- In periods of “normal” interest rate differential and “normal” idiosyncratic risk the BRL moves are basically 50-50 between appreciation and depreciation (blue triangles, in both charts)

Empirical rates-BRL relationship

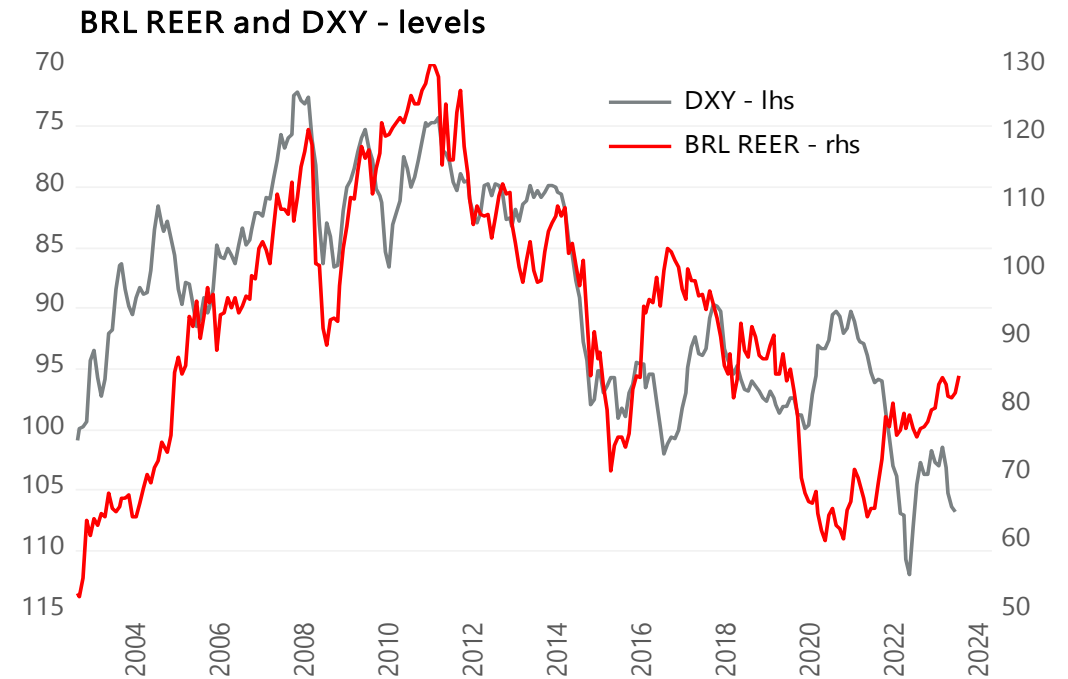
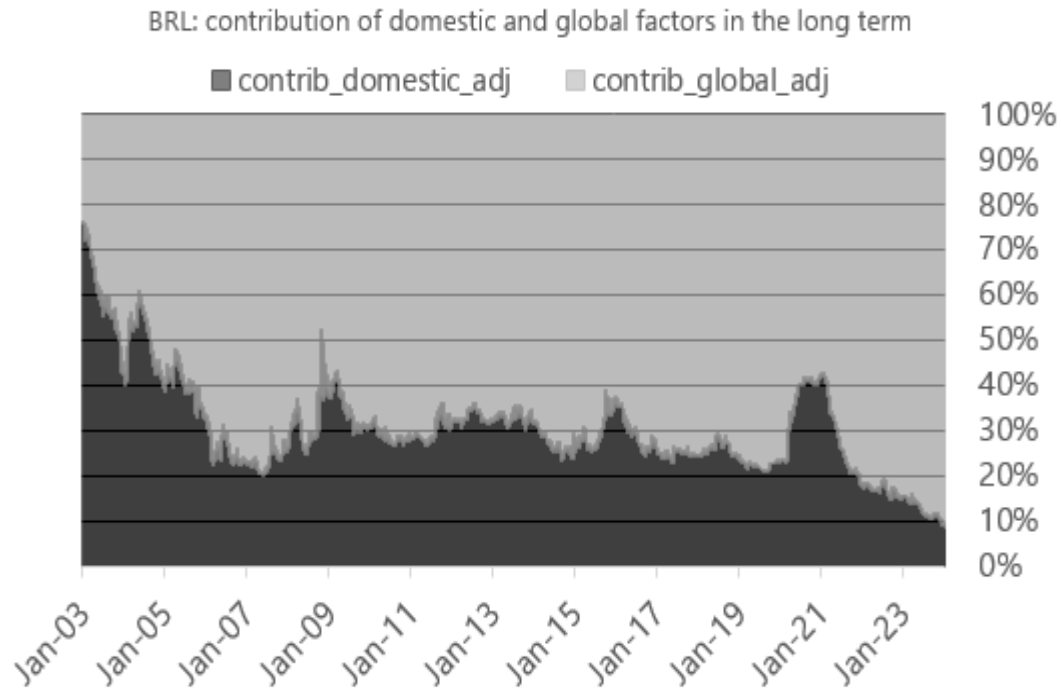


BRL change over peers (y-axis) vs. real rates differential (x-axis)



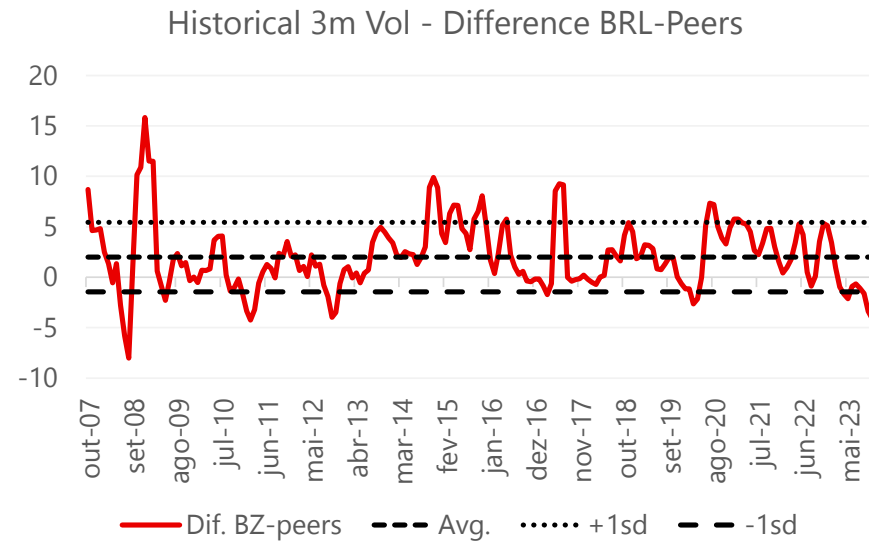
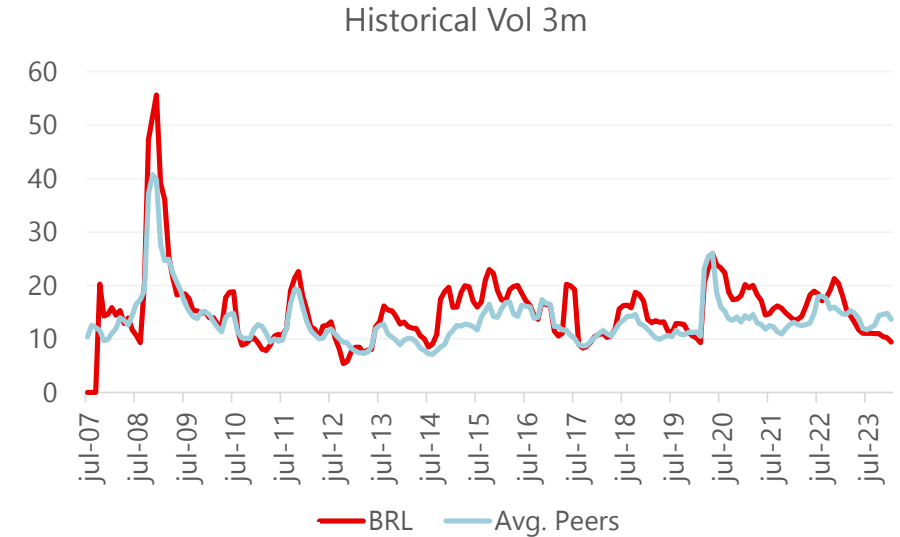
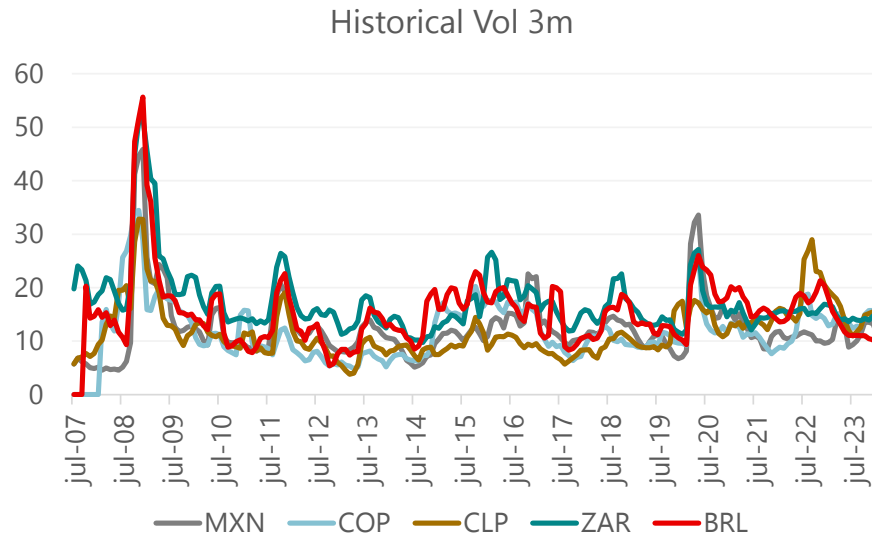
What usually drives the BRL then?

- After a major discussion on the BoPxBRL, we arrive at a well known result: in periods of “normality” what drives the Brazilian currency is actually the US dollar...
- Therefore, in our view, all of the positive arguments for the BoP in the long-run serve more as a cushion for the currency, reducing volatility and making the currency less subject to idiosyncratic factors (fiscal risk or low interest rate differentials, for example) and maybe pushing for a slow appreciation in real terms, but it does not serve as a reason for us to expect a big appreciation in the short-term, as the US dollar tends to rule more



Maybe one of the main impacts of a stronger BoP perception could be vol reduction

- Indeed, volatility has been decreasing consistently since the end of 2020 and now we are running below our peers and below 1 standard deviation of the vol spread



Eleventh conclusion:

BRL does not seem considerably depreciated in real terms and its relation to the BoP result seems well adjusted. There is no clear BRL-trade balance relation, so the argument of a structural increase in the trade balance alone being able to generate a major appreciation of the currency doesn't seem compelling. In periods of "normality" (mostly in terms of idiosyncratic risk and interest rate differential), global drivers—mainly the dollar—are much more important to determine the BRL changes

Sum up: BoP indeed improved structurally being a strong defense against currency volatility and depreciations in the future, but we see a small space for marginal increments in 2024's BoP and, hence, little room for the BRL to appreciate (in nominal terms) this year

- In this study we showed the structural improvement in the BoP (via trade balance) seems to be true as oil and grain outputs are consistently increasing in a permanent way, making the external sector result more stable and less subject to commodities' price shocks, which are well-desired properties.
- On top of that, despite sizeable and lasting swings, the terms of trade seems to be on an upward long-term trend, also suggesting the trade surplus should continue increasing in a structural way.
- In addition, on the financial side, the financing of the CA deficit via FDI (which is not new) is qualitatively favorable, meaning it acts countercyclically, as when the economy decelerates so does the remittances of profits and dividends (while a financing relying on portfolio flows would be much more subject to recessions, as interest has to be paid in any economical scenario).
- Moreover, the fact that exporters keep leaving money abroad (now likely in the form of direct investments abroad) are not an issue, as their behavior (usually) is to bring money when the currency depreciates, acting as one more stabilizer for the currency in the future.
- Therefore, one could argue that there are relevant drivers for the currency to be more stable than in the past (lower volatility) and more immune from depreciation pressures coming from other drivers (or even more prone to a long-term appreciation).
- However, for the short-term we've showed that the trade balance should not improve more at the margin and considering all of the other accounts, the BoP final result should not increase in a significant way at the margin, meaning the argument for a strong short-term BRL appreciation is not compelling.
- Finally, we show that the BRL doesn't seem considerably depreciated right now and we arrive at (a not new) conclusion that during "normal" times (in terms of idiosyncratic risk and interest rate differential), what tends to be more important for the currency is the US dollar movements.

Thank you.

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