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SPECIAL REPORT - COMMODITY AND FISCAL

OIL GLOBAL OUTLOOK AND IMPACT ON FISCAL SCENARIO

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- In this report we explore the global oil outlook. In our view, low inventories, coupled with underinvestment in
 recent years, mean that oil prices will remain pressured in the short term. This was our view before the
 Russia-Ukraine crisis, but the conflict has contributed to clouding the oil outlook with a new price shock and
 led us to further raise our oil price estimate.
- Following a fracking revolution in the past decade that made the U.S. the world's biggest oil supplier, the oil shock from the pandemic forced companies to restrain spending, cut debt, and boost shareholder value.
 U.S. oil production is currently at 11.6 million barrels, still down 11% from the pre-pandemic level.
- Furthermore, we show that this shock in oil prices boosted public revenue in Brazil, improving the short-term fiscal result. Oil revenue, whether from royalties or dividends, posted robust results in 2021, and we expect it to remain strong in 2022 and 2023. The increase in revenue occurred both for the central government and for regional governments. Both reported all-time-high oil-related revenue in 2021.
- We see the commodity shock causing a structural increase in revenue of around 0.5 p.p. per year. The strong impulse from commodities should continue in the short term, yet we believe that this effect will gradually diminish in the medium term. In addition, the disinflation process and the worsening of the nominal result (with a higher Selic rate) still make the fiscal consolidation process challenging. In the short term, fiscal stimulus measures to contain the effects of higher fuel prices represent one of the main risks, in our view, as giving up revenue could potentially more than offset the gains from the increase in prices.

In this report we briefly explore our oil outlook and the recent impact of oil prices on public accounts. In our scenario, before the Russia-Ukraine conflict we already estimated a higher oil price (\$95/bbl) due to the fundamentals of supply and demand: low inventories, underinvestment in recent years, and growing demand following the reopening of the economy post-COVID. Adding to this bullish scenario for oil, the conflict between Russia and Ukraine pushed the Brent oil price surpassed US\$130/bbl; although it retreated with the prospects for peace talks, prices remain above US\$100/bbl. While we recognize the massive uncertainty regarding this geopolitical shock, it has a significant impact on our inflation and fiscal scenario.

From the point of view of Brazilian public accounts, we have seen a boost in revenue from commodities and also from the inflation-effect. Thus, oil revenue has been important in improving the fiscal result, and we expect this effect to continue in 2022 and 2023.

On March 22, the government unveiled the first bi-monthly budget review. The 2022 official central government primary deficit forecast dropped to BRL66.9 billion (0.7% GDP), from to BRL79 billion (0.8% of GDP). The highlight was oil revenue, with the exploitation of natural resources reaching BRL135 billion (+BRL38 billion). The increase in the total revenue official estimate rose and ~50% is directly related to oil. In the parameters, the oil price average for the year rose to USD103/bbl, from USD77/bbl.

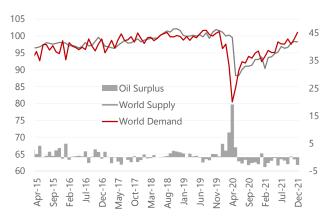


i) Oil Balance

Global market deficit. As the economy recovers from the coronavirus pandemic and as major oil producers' output falls, the global balance of supply and demand for oil has been consistently running at a deficit (Figure 1). As a result, global inventories are the tightest in at least seven years: U.S. crude inventories are already below 2011-15 levels, when Brent crude oil stayed above US\$100/bbl. Similarly, OECD inventories are the lowest in seven years (Figures 2 and 3).

Underinvestment by OPEC+. After taking nearly 10 million barrels per day out of the market early in 2020, OPEC+ has been gradually increasing its production quota on a monthly basis. However, the organization has failed to meet its target due to production shortfalls for several members, owing to low investments before and during the pandemic (Figure 4).

Figure 1 - World Oil Supply x Demand (mbd)



Sources: Bloomberg, Santander.

Figure 3 – OECD Oil Stocks (million barrels)



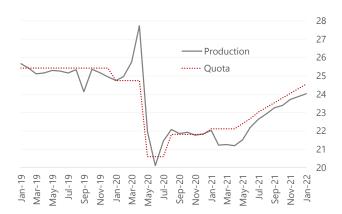
Sources: Bloomberg, Santander.

Figure 2 – U.S .Total Oil Crude Stocks¹ (million barrels)



Sources: Bloomberg, Santander.

Figure 4 – OPEC Production (members with quota) (mbd)

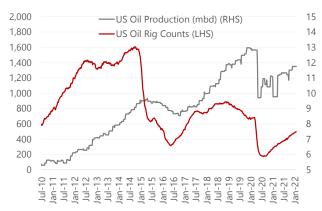


Sources: Bloomberg, Santander.

¹ strategic petroleum reserves + commercial stocks.

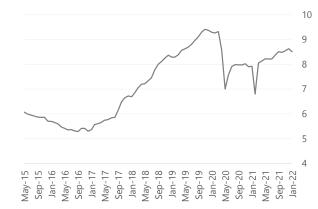
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Figure 5 - US Oil Production



Sources: Bloomberg, Santander.

Figure 6 - US Shale Production (mbd)



Sources: Bloomberg, Santander.

Underinvestment by shale producers. Following a fracking revolution in the past decade that made the U.S. the world's biggest oil supplier, the oil shock from the pandemic forced companies to restrain spending, cut debt, and boost shareholder value. U.S. oil production is currently at 11.6 million barrels, still down 11% from the pre-pandemic level (Figure 5). This approach — to prioritize investors' returns rather than output growth — has so far continued even with higher oil prices (Figure 6).

Limited downside risks for prices. While recent news² suggests that negotiations over the Iran nuclear deal are close to reaching an agreement (which would supply the globe with additional barrels), the Russia-Ukraine war could mean continuing geopolitical risk in the market, limiting some of the downside for prices.

Geopolitical shock from Russia-Ukraine war. Oil prices climbed to a 14-year high amid fears of a global disruption of supply due to Russia's invasion of Ukraine. The U.S. banned Russian oil imports, while Britain said it will phase them out by year-end 2022. While there is significant uncertainty as to where the conflict is heading, it is another shock at a time when oil market conditions were already tight.





Sources: Bloomberg, Santander.

² https://www.independent.co.uk/news/uk/politics/iran-nuclear-simon-coveney-oil-b2039498.html



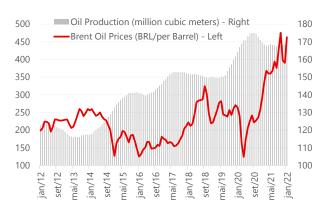
ii) Oil and Fiscal Accounts

For public accounts, oil revenue has been a notably positive factor, especially in 2021, and we expect this revenue to continue to help government revenue. As shown in Figure 8, oil production in Brazil has been increasing, especially pre-salt oil production. In 2021, a depreciated FX rate coupled with higher international oil prices (Brent) led to a robust revenue increase. For 2022, owing to the factors mentioned above, we expect revenue from oil to continue to be strong, leading to better primary balance numbers.

Currently, according to the national oil agency (ANP), Brazil has 16.2 billion barrels of oil equivalent in proved reserves and daily production of 2.2 million barrels. The agency's forecast is that daily production will double by 2025. We have already included this forecast in our fiscal revenue projections, and this should help the country reach a primary surplus by around 2025-26, according to our estimates.

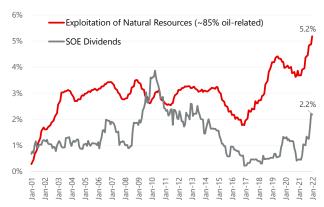
Last year, the fiscal result was better than expected due to the price effect (inflation, commodities, and terms of trade). Figure 9 shows that revenue related to the exploitation of natural resources reached an all-time high, with a share of 5.2% of total revenue, rising more than the total revenue that registered a robust recovery in 2022. In addition, the government began to receive more dividends from state-owned companies, and a good part of this was from industries associated with the oil sector.

Figure 8 - Brazilian Oil Prices and Production



Sources: MCM, ANP, Bloomberg, Santander.

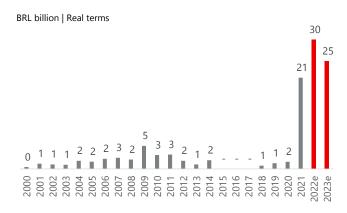
Figure 9 – Federal Tax Revenue (% of total revenue)



Sources: National Treasury, Santander

Oil-related dividend income jumped to BRL21 billion in 2021, and according to our estimates the amount could reach BRL30 billion in 2022, with an upward bias, according to our latest tracking. For 2023, the trend is still positive, albeit with a gradual reduction. In addition, revenue from exploration of natural resources, of which ~85% is related to oil royalties, should reach BRL140 billion in our latest tracking. That follows a 54% YoY rise in 2021, in real terms. Our expectation is that this revenue will rise slightly more than 20% in 2022.

Figure 10 - Federal Government: Oil-Related **Dividends**



Sources: National Treasury, Santander.

Figure 11 - Revenue from Exploitation of Natural Resources (~85% oil-related)



Sources: National Treasury, Santander.



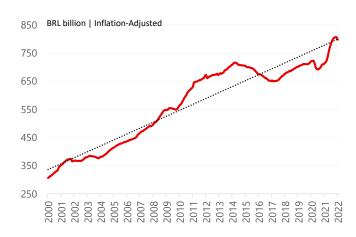
In addition, it was not just the federal government that benefited from the increase in revenue. The regional governments also had an exceptional result owing to the increase in revenue due to the price effect, and with expenses contained during the last year. The primary result reached record levels, as can be seen in Figure 12. ICMS revenue has recovered, reaching close to the historical trend, after staying below that level since the 2015-16 recession.

Figure 12 - Regional Governments - Primary Result



Sources: Brazilian Central Bank, Santander.

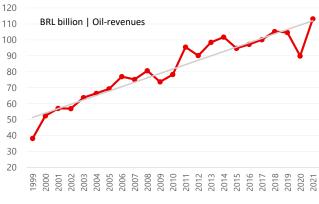
Figure 13 - Regional Governments - Tax Collection (ICMS)



Sources: Brazilian IRS, Santander.

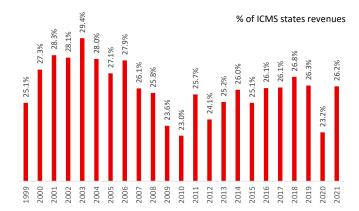
The evolution of oil prices was a key element of this improvement in the public accounts of regional governments. ICMS tax collections related to oil were up 26% in 2021, in real terms. In other words, the states registered a strong recovery after the loss of revenue in 2020. We highlight that oil revenue corresponds to more than 20% of total ICMS, historically. Revenue from the sale of fuel and electricity revenue was the main driver of the recovery of regional public accounts.

Figure 14 - Regional Governments - Revenue



Sources: Confaz, Santander.

Figure 15 – Regional Governments – % total

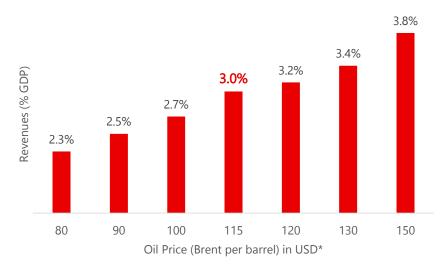


Sources: Confaz, Santander.

In this context, we see oil-related direct revenue at around 3.0% of GDP in 2022 considering the consolidated public sector. We estimate oil revenue elasticity by an error correction model at around 0.8. In Figure 16, we explore the different scenarios for international oil prices, keeping the exchange rate at BRL5.40/USD. If oil prices rise further, the fiscal result tends to be even more favorable, with the possibility of recording a primary surplus, as occurred in 2021.

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Figure 16 - Consolidated Public Sector Oil Revenue - 2022



FX rate maintained at BRL5.40 for 2022

Sources: National Treasury, Santander.

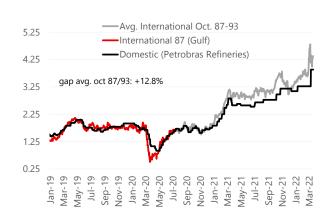
Despite the improvement in public accounts, the oil shock has increased inflationary pressures. The government has taken steps to mitigate the effects of rising fuel prices. Congress has approved legislation to change states' VAT levied on fuel. On March 10, the Senate approved (by 52 votes) the PLP 11/2020 bill, and on the same day the Lower House approved it by 414 votes (out of 513 deputies). The legislation changes the calculation of the states' VAT (ICMS) on fuels such as diesel, biodiesel, LNG, and kerosene. The tax rates would be levied on units of fuel instead of on an average price, keeping tax rates unchanged amid global oil and FX rate variations. It is worth noting that the average price of fuel for state ICMS calculations has been frozen by governors since mid-4Q21. In the same legislation, the text reduces to zero the federal tax (PIS/Cofins) on diesel through the end of 2022. The fiscal impact (revenue) would be BRL24 billion in 2022 (BRL16.5 billion to the federal government and BRL7.5 billion to regional governments), without any compensation expected (or required) in order to comply with the fiscal responsibility law.

In addition, the Senate approved the bill PL 1472/2021, which creates a stabilization fund for oil prices backed by the government. However, in our view, there is limited fiscal space under the spending cap to finance the fund. Beyond that, the text of the bill foresees an increase in the welfare program to finance LNG purchases (*Auxílio Gas*), reaching 11 million families (double the current number of beneficiary families). This increase will represent a fiscal impact of BRL2 billion, financed by the Transfer of Rights revenue (BRL3.4 billion) and could be implemented in 2022. The Senate also included higher welfare spending, totaling BRL3 billion in aid to rideshare and taxi drivers (BRL300 benefit per month), subject to the constitutional spending cap. However, as the fiscal margin is limited for 2022, even if this bill is approved, it is expected to be enacted only in 2023. This piece of legislation now heads to the Lower House for final approval.

Fuel price increases continue to be a key issue in the short term. As a result of the intensifying conflict between Ukraine and Russia, the price of oil has soared. To cover part of the gap between international fuel prices and those in Brazil, we believe that the government is likely to implement measures to maintain the gap of recent months (gasoline 10%, diesel 14%). In light of this, Petrobras has increased recently fuel prices at its refineries. Gasoline prices rose 18.7%, GLP has increased 16%, and diesel is up 24.9%. As a result, the gap with international prices dropped to ~12% for gasoline. If the government decides to implement a fuel price subsidy, we estimate the following elasticities to fiscal accounts for each BRL0.10/liter reduction in fuel prices: (i) gasoline: BRL0.35 billion per month; (ii) diesel: BRL0.5 billion per month. There is considerable uncertainty about whether such a subsidy will be enacted, especially after Petrobras's fuel price increases. All of this debate also depends on international prices and the evolution of the conflict in Eastern Europe. However, if oil prices remain high, we believe that the government is likely to take measures to contain them. In addition, if the government decides to reduce the PIS/Cofins to gasoline the fiscal impact will be ~BRL28 billion in the revenue drop.

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Figure 17. Gasoline Gap with International Prices



Sources: Bloomberg, Santander.

Figure 18. New Legislation: Fiscal Impact

BRL bn			
ed			
-7.5			
-16.5			
PLP 1472/2021 - Approved in Senate			
?			
(No Fiscal Margin)			
3.0			
2.0			

Sources: National Congress, Santander.

In general terms, we still see the effects of the rise in oil prices on public accounts as positive, especially given a larger boost to short-term revenue. We see the commodity shock causing a structural increase in revenue of around 0.5 pp per year. The short-term trend is for this strong impulse to come from prices of commodities and oil. However, the disinflation process and the worsening of the nominal result (with a higher Selic rate) still make the fiscal outlook challenging. In the short term, fiscal stimulus measures to contain the effects of higher fuel prices represent one of the main risks, as giving up revenue could potentially more than offset the gain from the increase in prices.



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