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BRAZIL MACRO SPECIAL REPORT

Resilience Factors for GDP Growth: What Has Changed Since January?

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- In our special report released at the beginning of the year, we highlighted some key factors that could support the Brazilian economy this year despite the delayed effects of a tight monetary policy.
- As first-quarter activity data were released, positive surprises pointed to a better-than-expected start
 of year and prompted analysts to upwardly revise their forecasts for 2022 GDP growth, with market
 consensus reaching our baseline scenario of 0.70% at the time (April 28, 2022). The aim of this report
 is to assess which elements surprised to the upside and which elements came in line with our
 expectations set at the start of year. We also highlight how our outlook has changed for the remaining
 quarters of the year.
- From a demand standpoint, we note a continued boost in household consumption, likely reflecting
 (as the economy gradually reopens) the spending of savings accumulated during the worst periods
 of health crisis, along with the expansion of the real wage bill (a byproduct of labor market recovery's
 concomitant with increasing government transfers) and support in credit granting. We had expected
 government spending to benefit from a resumption of regular (non-Covid-related) health procedures,
 education and public administration services, but that component disappointed, kicking off the year
 tepidly.
- Regarding investments, despite the weak start of year, as well as the delayed effects of a tight
 monetary policy and shaky financial conditions, we maintain our view of resiliency this year
 considering the two-digits growth rate seen in 2021, stemming mainly from the building sector's robust
 contributions and higher raw material prices cycle (considering a positive commodity shock after the
 outbreak of the war in Ukraine), historically correlated with gross fixed capital formation.
- From a supply standpoint, confirming our expectations, mobility-related services activities have been
 playing a major role in the economic recovery since our January overview release, in the wake of
 advances in the economy's reopening process. We also attribute the positive performances of goodsrelated sectors to these advances and to increased disposable income. As for farm output, the
 scenario remains quite uncertain. After starting the year with a bright recovery outlook, 2022 grain
 production projection have been downwardly revised several times.
- For 2023, however, a gloomy outlook is becoming increasingly plausible. Once the benefits of the economy's reopening fade, raw material prices cool down and the impact of monetary policy prominently materializes, we likely will not avoid a recessionary outlook for domestic activity in the forthcoming year in the absence of additional drivers. All in all, we expect +1.2% GDP growth for 2022 and a 0.6% retreat for 2023.

IMPORTANT DISCLOSURES/CERTIFICATIONS ARE IN THE "IMPORTANT DISCLOSURES" SECTION OF THIS REPORT. U.S. investors' inquiries should be directed to Santander Investment at (212) 350-0707. *Employed by a non-US affiliate of Santander Investment Securities Inc. and is not registered/qualified as a research analyst under FINRA rules, is not an associated person of the member firm, and therefore may not be subject to FINRA Rules 2241 and 2242 and incorporated NYSE Rule 472 restrictions.

¹ Santander Brazil Economic Activity - "Special Report: Resilience Factors for 2022 GDP Growth" – January 14, 2022 - Available on: https://bit.ly/Std-special-011422

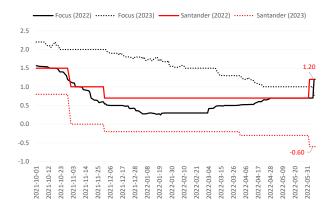
Touching up the Picture of Resilience Painted at the Start of 2022

The final months of 2021 and the first months of 2022 were marked by widespread downward 2022 GDP growth revisions by professional forecasters, with Focus (the Brazil Central Bank's [BCB] forecast survey) market consensus sharply declining from +1.5% (on October 1, 2021) to +0.36% (December 30, 2021), and reaching the bottom, at +0.25% (on January 20, 2022). These revisions took place mainly after the assessment that monetary conditions had entered a restrictive stance, and the general outlook at the time assumed tepid figures in 1H22, followed by a more prominent contraction of broad activity in 2H22, as the delayed effects of a restrictive monetary policy materializes.

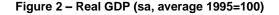
Considering this scenario of heterogeneity for the two semesters, in our scenarios we have always supported a resilient view for domestic activity. Indeed, in the special report released in the beginning of the year we highlighted some key factors to support the Brazilian economy this year, despite the delayed contractionist effects of a tight monetary policy, as follows: (i) the consolidation of the economy's reopening process (mainly benefitting the services sector); (ii) the real wage bill expansion (a byproduct of labor market recovery, along with increasing in government transfers); and (iii) the strengthening of commodity-related sectors, notably farm output.

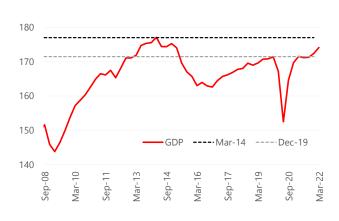
As first-quarter activity data were released, positive surprises pointed to a better-than-expected start of year and prompted analysts to upwardly revise their forecasts for 2022 GDP growth, with market consensus reaching our baseline scenario of 0.70% at the time (on April 28, 22). Despite our already optimistic scenario for domestic activity, data releases also topped our expectations, prompting us to upwardly revise our forecast to +1.2%² (from +0.7%). In the wake of 1Q22 GDP strong data release³, we saw widespread further upward revisions, with market consensus reaching +1.2% for 2022 GDP growth (on June 6, 2022).

Figure 1 – GDP Forecasts Evolution (% Full-Year) *



Sources: BCB, Santander. * Owning to a federal strike, BCB's Focus survey release was interrupted by the end of April, with a partial release done by the start of June.





Sources: IBGE. Santander.

The aim of this report is to assess which elements surprised to the upside and which elements came in line with our expectations set at the start of year. We also highlight how our outlook for the remaining quarter of the year has changed.

Positive Surprises in 1Q22 Were Widespread

At the beginning of the year, we expected the services sector to play a major role in domestic activity's resilience, as the reopening process advances and mobility consolidated a recovery. Indeed, cyclical (e.g., services provided to families) and non-cyclical (e.g., public administration, health and education) mobility-

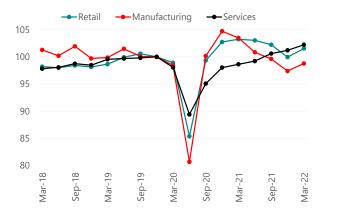
² Santander Brazil – Scenario Review: "A Bittersweet Scenario" – June 02, 2022- Available on: https://bit.ly/Std-scenreview-jun22

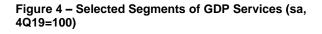
³ Santander Brazil Economic Activity - "All in All, Strong 1Q GDP Data (Again)" – June 02, 2022 - Available on: https://bit.ly/Std-GDP-1Q22

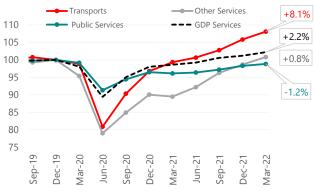
related services activities were seriously affected by the lockdown measures adopted to address the public health crisis in 2020, and the maintenance of this weakened mobility contributed to a slower resumption for the services sector from 2H20 onward. On the heels of major advances in the consolidation of the economy's reopening process (though the Omicron outbreak delayed this consolidation), the services sector climbed +1.0% QoQ-sa in 1Q22, and among the supply sectors contributed the most to GDP's solid figures, topping our already optimistic expectations.

Regarding goods-related sectors (e.g., industry and retail sales), the surprises were also positive. In 2H20, generous government stipends and household demand's shift toward goods from services boosted results; however, these sectors suffered from persistent weakening in 2H21, as service consumption recovered, supply-chain global hurdles lingered and inflationary pressures appeared (eating into household income). At the start of the year, we had expected these sectors to experience short-term relief/stability, as the labor market recovered, government transfers increased, and disinflation occurred. In contrast, however, we saw a partial bounce back from the previous drops, with manufacturing and retail strengthening at the margin and breaking a gloomy streak of four weak prints.

Figure 3 – Selected Segments of GDP (sa, 4Q19=100)







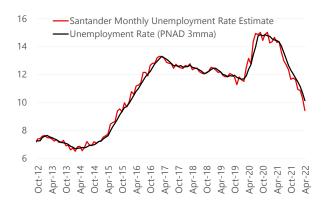
Sources: IBGE, Santander.

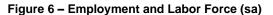
The stronger-than-expected results in supply-side indicators also reflected positively on the labor market, as all the main indicators in the PNAD household survey now point to a better-than-anticipated scenario. Regardless of an intense but relatively limited impact from the Omicron variant outbreak in January, the labor market has surpassed pre-pandemic levels for the employed population, labor force and the participation rate. As a result, we now see the lowest unemployment rates in almost seven years. Our monthly unemployment rate estimates (since the PNAD survey is based on three-month moving averages) are in single-digit territory for the first time since December 2015, in the first leg of labor market deterioration following the 2015-16 recession. As a result, we have significantly downgraded our unemployment rate estimates. We now expect a 12.0% seasonally adjusted unemployment rate for YE2022 (our projection was at 14.0% in January), but we acknowledge that the risks are to the downside, especially considering a surprisingly strong labor market result in April⁴.

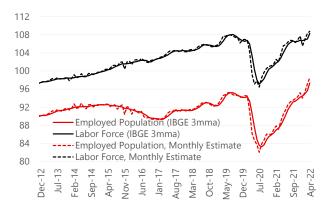
Sources: IBGE, Santander.

⁴ Santander Brazil Labor Market: "Monthly Unemployment Rate Estimate Back to Single-Digit Territory" – May 31, 2022 – Available on: https://bit.ly/Std-labor-053122

Figure 5 – Monthly Unemployment Rate (sa)







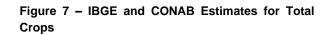
Sources: IBGE, Santander.

Sources: IBGE, Santander.

Compared to our overview in January, the agricultural sector saw the biggest downward revision. In January, we were expecting a year of strong growth for farm output (+5.0%), as the main forecasts from both CONAB⁶ and IBGE's LSPA⁶ pointed to a record year in grains production, following a weak result in 2021 due to several climatic problems for the main winter crops, especially corn. The livestock sector was also expected to contribute positively, especially due to the recovery in meat exports, as the embargo on Brazilian meat in China (which was put in place due to suspected cases of the mad cow disease in some producing areas in 2H21) was lifted.

On the agriculture side, a very dry summer in some grain producing regions (especially in southern Brazil) has led to lower production volume for both soybeans and summer corn crops. The dry weather has also affected some of the winter corn crops that have yet to be harvested, though some losses have already been incorporated in 2022 forecasts. As for the livestock sector, both slaughter and export data indicate that the strong recovery outlook is materializing.

We highlight that the agricultural sector is accounted for in GDP as a seasonal distribution of IBGE's estimate of the output of each product, based on the monthly Agricultural Survey. The livestock sector is accounted based on cattle, poultry, and hogs slaughter, but it only accounts for around 30% of total farm production. All in all, our proxy based on this methodology still indicates a large YoY growth in 3Q22 (8-10%) due to the low basis of comparison, but our full-year farm output growth estimate has been reduced to around 1%.







Sources: IBGE, CONAB, Santander,

Sources: IBGE. Santander.

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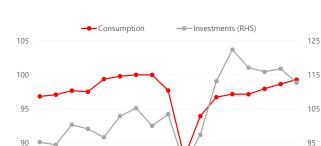
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⁵ National Agricultural Supply Company, in the Portuguese acronym.

⁶ Levantamento Sistemático da Produção Agrícola (LSPA), released monthly by the IBGE, with estimates for the full-year output of Brazil's main agricultural products.

Comments on Activity from a Demand Standpoint

The breakdown of the most recent GDP prints highlights strengthening demand supporting growth, which still is suggesting a sustainable pace since it was not driven by inventory replenishment. On the domestic front, we note a continued boost in household consumption (+1.0% QoQ-sa in 1Q22), likely reflecting the spending of savings accumulated during the worst periods of health crisis (as the economy gradually reopens), along with the expansion in real wage bill (a byproduct of labor market recovery concomitant with increasing government transfers). In comparison with our January overview, the aforementioned stronger-than-anticipated recovery of the labor market supported income's recovery and justified the positive surprise, notwithstanding our already optimistic expectations. We foresee weak prints for the remaining categories of domestic demand. We had expected government spending to benefit from a resumption of regular (non-Covid-related) health procedures, education and public administration services, but the component disappointed, kicking off the year tepidly (+0.1% QoQ-sa) and likely reflecting some impact from the Omicron variant outbreak and the subsequent delay in the economy's reopening consolidation. Investments also disappointed and shrank at the margin (-3.5% QoQ-sa), owing to worse-than-expected capital goods absorption that was reinforced by the building sector (with a longer economic cycle and benefitting from historically easy financial conditions), which performed less dynamically than previously anticipated.



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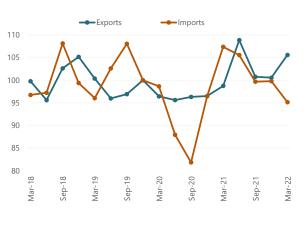
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Figure 9 – Domestic Demand (sa, 4Q19=100)





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On the external front, after the continued weakening seen in 2H21, net exports boosted activity at the start of the year, on the heels of rising commodity-related exports (+5.0% QoQ-sa) along with a steep decline in imports (-4.6% QoQ-sa) due to retreating investments. It is worth mentioning that if it were not for the continuous downward revision of IBGE's soybean output estimates for the period, the result could have been even better.

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Mar-22

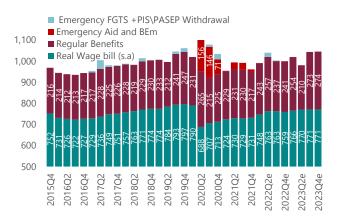
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Looking ahead, we see the continued recovery of real wage bill boosting household consumption in 1H22 and playing a major role to support (domestic) demand. However, there are no major changes in our current scenario compared to our January projection. If, on the one hand, employment performed better than we had expected, on the other hand, inflationary surprises have corroded real income even further than our scenario considered initially. All in all, we still expect 3.1% growth in the "expanded" real wage bill in 2022, a partial rebound from last year's tumble, but probably the largest growth rate until at least 2024. Completing the analysis for the household consumption outlook, in our January overview we anticipated that credit granting to families would play a neutral role for consumption amid rising interest rates, and despite the better start of year, we still expect credit to decelerate ahead.

Sources: IBGE, Santander.

Sources: IBGE, Santander.

Figure 11 – "Expanded" Real Wage Bill (BRL billion)



Sources: National Treasury, IBGE, Ministry of Economy, Santander.

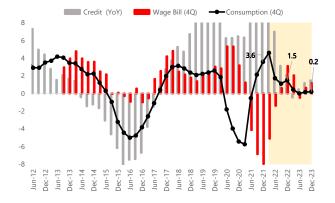


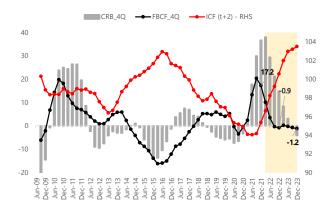
Figure 13 – Household Consumption and Drivers

Figure 12 – "Expanded" Real Wage Bill (% fullyear)

	2021	2022(E)	2023(E)	2024(E)
Real Wage Bill	+0.6%	+4.1%	+1.5%	+1.8%
Real Wage Bill (With Government Transfers)	-8.0%	+3.1%	+0.8%	+1.2%

Sources: National Treasury, IBGE, Ministry of Economy, Santander.

Figure 14 – Investments and Drivers



Regarding investments, despite the weak start of year and the delayed effects of a tight monetary policy and shaky financial conditions, we maintain our view of resiliency this year considering the two-digits growth rate seen in 2021, stemming mainly from good contributions from the building sector and the higher raw material prices cycle (considering a positive commodity shock after the outbreak of war in Ukraine), historically correlated with gross fixed capital formation. Indeed, the income on the agriculture sector is at historical highs, despite considerably higher costs, especially due to the sharp increase fertilizer prices. Although the increase in fertilizer prices was proportionally larger than the increase in grain prices, the former is only a small fraction of the total production cost of the latter, and activity remains with highly profitable. The agriculture sector usually reinvests a considerable share of its profits, and we expect this year will be no different.

Sources: IBGE, BCB, Santander.

Sources: IBGE, BCB, Bloomberg, Santander.

Figure 15 – Grains Exports and Commodity Prices (Jan-21=100)

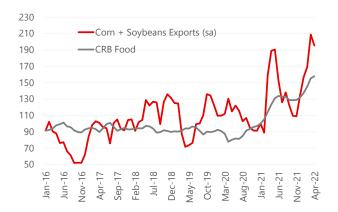
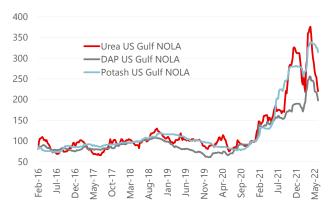


Figure 16 - Fertilizer Prices (Jan-21=100)



Sources: Secex, Bloomberg, Santander.

Sources: Bloomberg, Santander.

All in all, we continue to see elements for a strengthening of domestic demand in full-year 2022 despite rising interest rates. The expansion of real wage bill, high commodity prices and the building sector's resiliency are the major factors supporting this view, along with an expected mechanical recovery of government spending, as public services provision gradually normalizes.

Comments on Activity from a Supply Standpoint

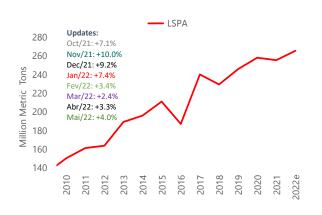
Confirming our expectations, mobility-related service activities had been playing a major role in the economic recovery since our January overview release, in the wake of advances in the economy's reopening process. Service segments, which showed at the time wide idleness relative to their pre-pandemic levels, has posted continued strengthening since then, even with Omicron variant outbreak delaying the reopening consolidation, with other services (services provided to families, mercantile health and education services) and public services (public administration, non-mercantile health and education services) as the highlights. Indeed, the former surprised to the upside by integrally filing its gap already in 1Q22 (we expected it to happen throughout 1H22), while the latter, despite a continued resumption, remains idled, which leaves room for further contribution from services to overall activity.

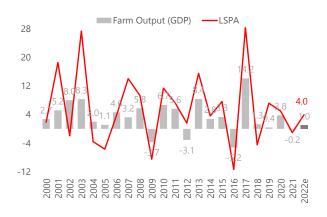
Retail (included in the services sector in the national accounts) and transports also marked positive prints, topping our already optimistic expectations, while manufacturing expanded and broke a gloomy string of continued weakening seen since 2H21. We assign these positive performances of goods-related sectors to advances in the reopening process and the aforementioned increase in disposable income.

As for farm output, the scenario is still quite uncertain. After starting the year with a bright recovery outlook, the grains production projections for 2022 have been revised several times. First, because droughts in different producing regions led to a lower production of summer crops, especially soybeans and the first corn crop. Now, drier-than-expected weather throughout autumn and winter is leading to downward revisions in the second corn crop. The outlook is still of a full-year growth in farm output, especially considering the low basis of comparison of 2021, when drought and frost episodes led to significant losses in winter crops. However, new downward revisions in the agriculture output for 2022 cannot be ruled out for now.









Sources: IBGE, CONAB, Santander.

Sources: IBGE, Santander.

Looking ahead, we see the services sector being benefited from the reopening process consolidation (expected to occur in 2Q22), and should play an important role to cushion the delayed effects of a tight monetary policy on more cyclical activities in 2H22 onwards. Conversely, following an expected positive print in 2Q22, we expect cyclical industrial activities to be stifled by these effects, being partially offset by some resilient performance expected to commodity-related sectors (in the wake of the raw materials prices shock seen after the war outbreak). All in all, we recognize the improvement in activity outlook for 2022, but the picture painted continues to highlight a heterogeneity for the two semesters.

Updating Projections to 2022 and 2023

As highlighted above, before 1Q22 GDP data was released, we raised our 2022 GDP growth forecast to +1.2% from +0.7%, and our tracking to 2Q22 GDP growth currently stands at +0.4% QoQ-sa (official forecast: +0.2% QoQ-sa), which implies upside risks to our annual projection this year. From a supply standpoint, in January's overview, we expected GDP growth to be driven by services sector recovery with a hand lent by farm output strengthening, while industry would weigh on broad activity amid tepid performance of goods-related sectors. Currently, we improved our positive outlook for the services sector, at the same we see industry weighing less on activity; conversely, following the continued downward revision in IBGE's estimates for the main crops in 2022, we see farm output with virtual null-contribution to growth this year. From a demand standpoint, we improved our already bright outlook for household consumption and government spending, supporting domestic demand strengthening, at the same time we see investments showing resilience (slight decrease) and posting virtual null-contribution to the full-year growth, following the previous two-digit growth rate. Regarding the external sectors, we have no relevant changes and still expect positive contribution from net exports, on the heels of boosting in commodity-related exports.

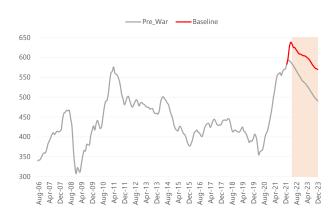
For 2023, however, we believe that a gloomy outlook is increasingly plausible. Once the benefits of the economy's reopening fade, raw material prices soften and the effects of monetary policy prominently materialize, we likely will not avoid a recessionary outlook for domestic activity in the forthcoming year in the absence of additional drivers. In the last scenario review we lowered our GDP growth forecast to -0.6% (from an already weak -0.3% figure), well below the current market consensus of +0.76% and stemming mainly from a worsening in 1H23 outlook as the restrictive monetary policy stance effects materializes lead to negative GDP prints.

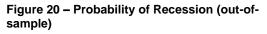
To support this view, we released a special report aiming to assess the probability of recession⁷ (in 2022 and 2023) for the Brazilian economy through a Probit framework and given our assumptions for two relevant vectors

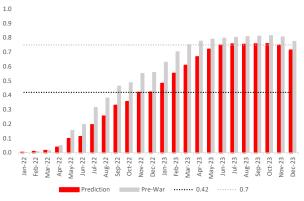
⁷ Santander Brazil Special Report: "A Model to Forecast Probability of Recession in Brazil" – June 08, 2022 – Available on: https://bit.ly/Std-special-060822

of domestic activity: monetary conditions and commodity prices. Our first finding is that the upward shock in raw material prices due to the conflict in Eastern Europe downwardly shifted recession's probability path, likely postponing the first recessionary prints from 3Q22 to 4Q22 onward (albeit with higher inflation). Our second finding is that, amid a hypothetical scenario with a flat CRB path at current high levels, this positive commodity shock could thwart a recession in 2022 but hardly avoid a serious recessionary picture in 2023, as the delayed effects of a tight monetary policy materialize and prevail.

Figure 19 – CRB Index Scenarios







Sources: IBGE, CONAB, Santander.

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Sources: IBGE, Santander.

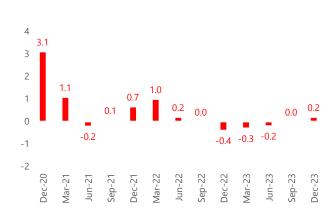
All in all, we expect +1.2% GDP growth for 2022 and a 0.6% retreat for 2023. Our GDP path is as follow: for 2022, we officially forecast for 2Q22 a +0.2% QoQ-sa (tracking currently at +0.4% QoQ-sa), while we see 0% QoQ-sa in 3Q22 and -0.4% QoQ-sa in 4Q22, which implies a -0.2% carryover to the next year. Regarding 2023, we see GDP retreating -0.3% and -0.2% in the first two quarters of the year, followed by stability in 3Q23 and a slight growth of +0.2% QoQ-sa in 4Q23.

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GDP Projections						
	2018	2019	2020	2021	2022e	2023e
GDP	1.8	1.2	-3.9	4.6	1.2	-0.6
Farm Output	1.3	0.4	3.8	-0.2	1.0	0.5
Industry	0.7	-0.7	-3.4	4.5	-0.7	-0.5
Services	2.1	1.5	-4.3	4.7	1.8	-0.6
Household	2.4	2.6	-5.4	3.6	1.5	0.3
Government	0.8	-0.5	-4.5	2.0	2.3	0.5
Investments	5.2	4.0	-0.5	17.2	-0.9	-1.2
Exports	4.1	-2.6	-1.8	5.8	3.9	0.4
Imports	7.7	1.3	-9.8	12.4	0.2	3.3

CDB Crowth Brookdown (% annual)

Figure 22 - GDP Growth (sa, %)



Sources: IBGE, CONAB, Santander.

Sources: IBGE, Santander. *Estimates for 2Q22 onward.

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