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**SPECIAL REPORT**

# LABOR MARKET – 2021 THERMOMETER

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- In this report we explore the outlook for the Brazilian labor market. We expect the coming years to be challenging for employment after the end of the fiscal stimulus and given the more severe effects of the legacy of the pandemic. We believe that labor market data will be the key thermometer to measure the gradual recovery of domestic activity.

- First, we present our COVID-19 scenario, in which we see the vaccination process affecting the recovery of domestic activity and the possibility of new fiscal stimulus. Regarding the outlook for **vaccinations, we estimate that almost ~60% of the population will be vaccinated by end-2021**. **In this scenario, mobility indexes will reach pre-COVID levels only by the end of this year.**

- Second, we present a labor market overview, with the main statistics. We expect the unemployment rate to rise in 1H21 following a normalization in the labor force and in the participation rate. Our balance of risks still presents more factors on the downside than on the upside, and the unemployment rate is unlikely to reach pre-crisis levels before year-end 2022, in our view. However, **we expect the economic reopening process alone to generate over 1.5 million jobs throughout 2021.**

- Third, **we updated our estimate of the "expanded" real wage bill**. We estimate that the real wage bill rose 3.1% adjusted for inflation for full year 2020 compared to 2019, boosted by government transfers (BRL293 billion). In a counterfactual simulation (without these transfers), we calculate a 6.3% drop in the real wage bill, so that **the benefits more than offset the estimated cyclical drop caused by the pandemic in 2020 (+9.4 positive impulse).**

- **For 2021, the real wage bill should register a decrease of 6.6%**, per our forecast. In a scenario without considering the (possible) reintroduction of emergency aid in 2021 (totaling BRL25 billion), the drop in the real wage will would be 7.3% in 2021.

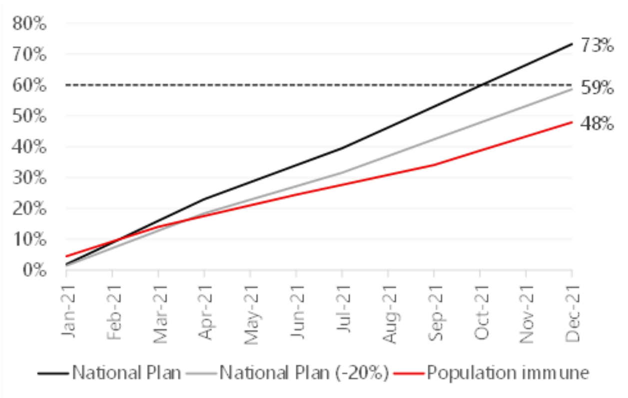
- In the fourth section, we analyze the factors affecting the activity scenario. In our view, in addition to the withdrawal of the fiscal stimulus, we will see a rollback in the economy's reopening, given the recent resurgence of the pandemic. In order to mitigate this impact, we expect a new round (smaller) of emergency aid, and as the massive vaccination campaign advances and mobility increases, the services sector should resume its recovery, in our view.

- The hypothesis presented is consistent with our view of an increase in household consumption in 2021 (+2.1%), boosted by precautionary savings and the available credit supply—not enough to offset the previous year's steep tumble (-4.3%) but positioning the economy to improve in the coming years.

## COVID-19 Outlook

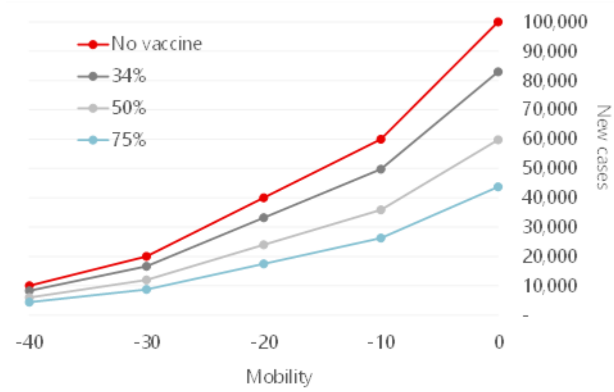
Despite the uncertain near-term outlook for the pandemic—given the emergence of coronavirus variants and the shortage of vaccines—we expect the pace of vaccinations to accelerate in 2H21, as local manufacturing partners start production and more vaccines become available. In our view, the vaccination rate will be 20% lower than the base target announced by the government in the National Vaccination Plan, a more conservative hypothesis than the government's. This means that 59% of the population will be vaccinated by end-2021 (see Figure 1). Considering an average efficacy of 60% (Butantan/Sinovac is 50% effective, while Fiocruz/AstraZeneca is 70% effective) and accounting for previous and future infection, we anticipate that 48% of the population will be immune[1] to the virus by December 2021, still below a 60% herd immunity threshold. With more people immune to the virus, a successful vaccination campaign would allow for social restrictions to be lifted. Effectively, whatever the level of social mobility, we would expect fewer cases and hospitalizations to be reported as the vaccine rollout makes progress (see Figure 2), paving the way for easing the of restrictions and a resulting resumption of economic growth.

**Figure 1 – Brazil's Vaccination Plan 2021**




Sources: Ministry of Health, Santander.

**Figure 2 – New Cases x Mobility**




Sources: Google Mobility, Ministry of Heath, Santander.

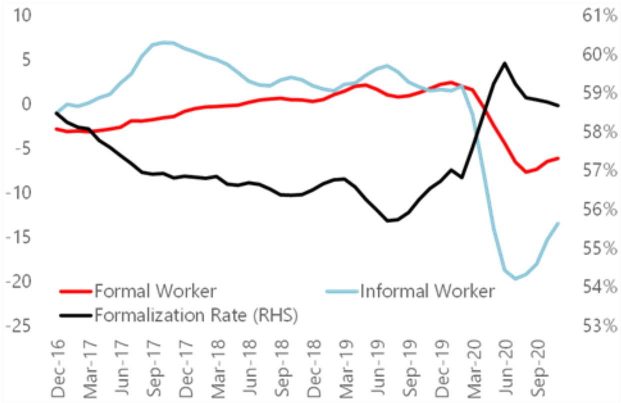
## Labor Market: 2021 Overview and Balance of Risks

We expect 2021 to be a challenging year on the labor market front. In our view, the country will likely emerge from the COVID-19 crisis with high unemployment, and with informality in the economy exceeding formality. In other words, we expect the general structure of the labor market to be more precarious. We expect the end of emergency cash transfers created in 2020 to cause a significant impact on the "expanded" real wage bill (refer to the next section), which will be a crucial factor in the behavior of economic activity in 1H21.

Figure 3 shows the recent behavior of formal and informal employment. We observe a decrease in the formalization rate, mainly affected by the COVID-19 crisis. We expect that this percentage will continue to decrease—considering that the recovery in the short run will be concentrated in the informal market—as people are likely to search for jobs and open small businesses in order to mitigate the reduction in their income (after the end of government transfers). In our view, the vaccination process will also make people more confident about returning to the labor market. Figure 4 illustrates the impact of the crisis on the level of employment.

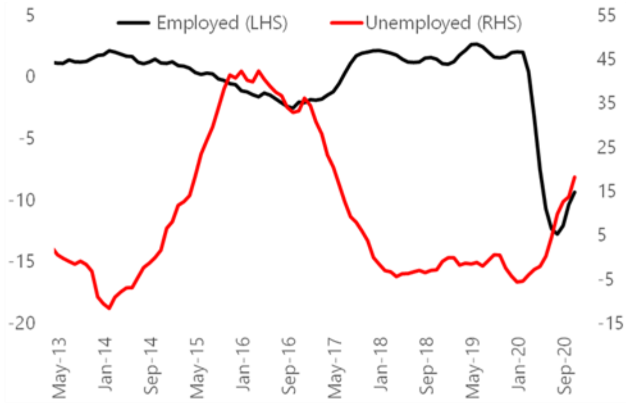
[1] Either by vaccine or previous infection.

**Figure 3 – Formal and Informal Employment – %YoY**




Sources: IBGE, Santander.

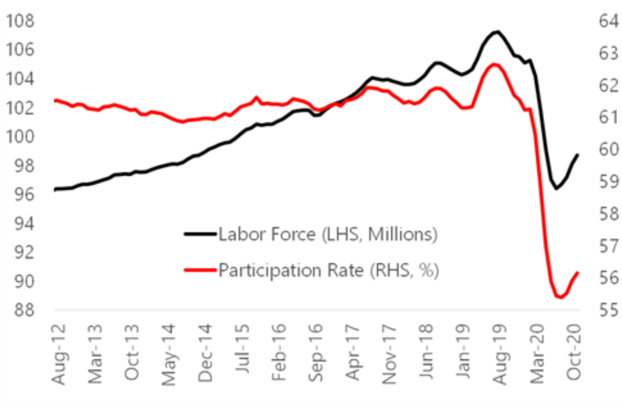
**Figure 4 – Employed and Unemployed – %YoY**




Sources: IBGE, Santander.

In our base scenario, the unemployment rate should reach a peak of 16.9% in 1H21, mainly due to the process of normalization in the labor force. The labor market participation rate reached an all-time low of 55% last July but has marginally increased since then, as shown in Figure 5. We expect this process to continue in 2021: the main questions are what path it will take and how fast. Figure 6 illustrates a counterfactual exercise, where the unemployment rate would have reached a peak close to 20% in 3Q21 if the labor force had remained at its February level. We expect the labor force to recover to the pre-crisis level in April 2021, and, since the employed population should experience a slower recovery than the labor force, the unemployment rate will rise, in our view.

**Figure 5 – Labor Force and Participation Rate – s.a.**



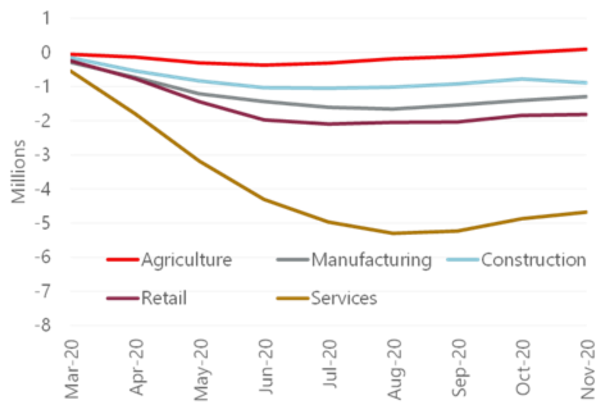

Sources: IBGE, Santander.

**Figure 6 – Unemployment Rate – % s.a.**


Sources: IBGE, Santander.

As shown in our mobility scenario, 1Q21 should be hit by higher restrictions, with a low level of cash transfers (refer to the next two sections), which will imply more people searching for jobs and a slight decrease in the employed population, following the negative effects on many labor-intensive sectors. Considering our trajectories for mobility and services to families for 2021, however, we estimate the reopening process alone will generate over 1.5 million jobs, considering both formal and informal relations. As shown in Figure 8, we expect the employed population in services with a higher level of social integration to recover from 2Q21 onward, regaining more than half of the jobs lost during the pandemic.

**Figure 7 – Post-Pandemic Accumulated Job Losses – s.a.**



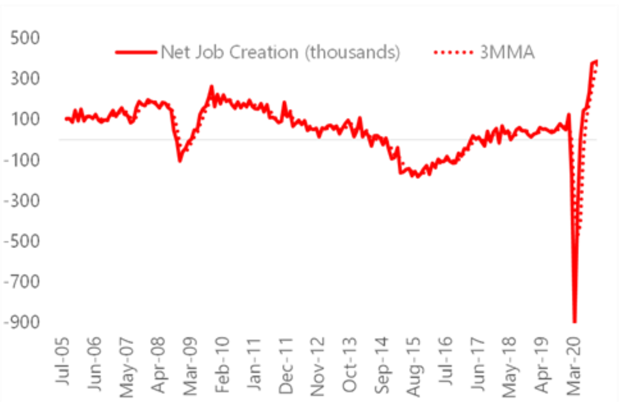

Sources: IBGE, Santander.

**Figure 8 – Employed Population in Domestic, Food and Accommodation Services (millions) – s.a.**


Sources: IBGE, Santander.

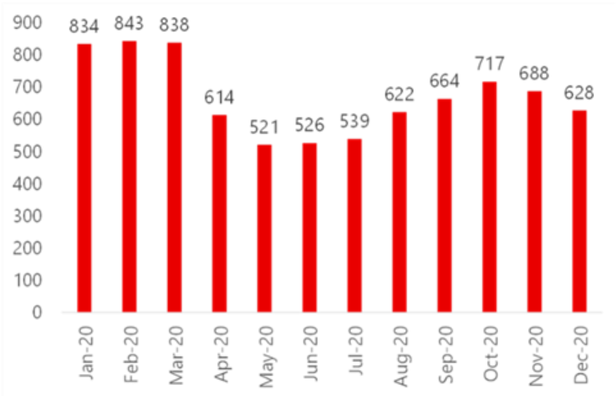
Recent data have pointed to better results for the Brazilian labor market. October PNAD (IBGE's national household survey) results showed a decrease in the unemployment rate in 3Q20, mainly due to growth in the employed population. As for the CAGED survey of formal job creation, November posted an all-time high in the seasonally adjusted series, with the fourth consecutive positive result, as shown in Figure 9. However, the low number of establishments responding—illustrated in Figure 10—casts doubt on recent results, since there is a possibility that a fraction of the layoffs related to firms closing down may not have been registered in the past few months.

**Figure 9 – CAGED Net Formal Job Creation – s.a.**




Source: Ministry of Labor, Santander.

**Figure 10 – CAGED: Number of Responding Firms – thousands**

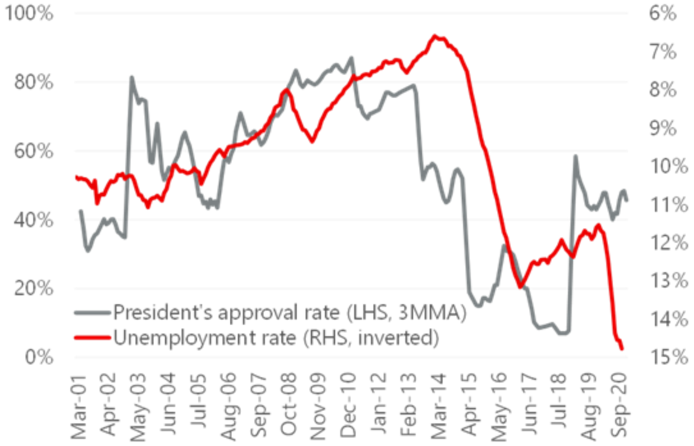



Source: Ministry of Labor, Santander.

In our view, the current job market situation presents some downside risks to our hypothesis for the expected trajectory of the employed population. The end of BEm (Emergency Employment and Income Maintenance Program) could have a higher than expected impact in terms of layoffs in 1H21, in our view, as a fraction of the individuals benefiting from the program may have their job contracts terminated. Another uncertainty factor is the COVID-19 pandemic's evolution in Brazil. The initial difficulties in the implementation of the national vaccination plan, which could lead to a slower than expected reopening process, would have a significant impact on many labor-intensive sectors, such as most socially integrated services, resulting in a slower overall recovery for the labor market.

Furthermore, the recent acceleration of new COVID-19 cases and deaths has led to another round of tighter pandemic-related restrictions, although less stringent than the ones observed in 2020. In the medium term, a change in the fiscal regime and new delays in economic reforms are additional downside risks to our labor market scenario. In that sense, the relationship between unemployment and the government's approval ratings (shown in Figure 11) should be carefully followed, in our opinion, as the expected increase in unemployment in 1H21 may be an additional factor creating pressure in the debate over fiscal and social policies.

**Figure 11. Unemployment Rate and Government Approval Rate**




Sources: Ibope, Poder 360, Datafolha, CNT, IBGE, Santander.

Apart from that, one key hypothesis of our base scenario is that the pandemic will generate neither widespread bankruptcies nor a labor market collapse, leading to no major breakdown in supply and keeping the economy relatively well positioned for a continued recovery amid a socially stable environment. See the link below[2].

At the same time, we see some factors mitigating these risks. We highlight the rapid household credit recovery, which could ease the negative effects related to the end of the emergency programs. In our view, another factor that could mitigate the impact of the reduction in the expanded real wage bill is the possibility that households have increased their savings during the worst period of the crisis. Additionally, the recent upside surprises in labor market data should be monitored, as well as the services sector recovery rate. However, none of these factors is likely to be large enough to eliminate the negative effects expected for 1Q21, in our view.

Our balance of risks for the labor market is shown in Figure 12. There are substantial uncertainties regarding the development of each aspect, which is why we consider the labor market an important thermometer—considering that it will probably respond to both the positive and negative risks.

**Figure 12. Balance of Risks for the 2021 Labor Market Scenario**

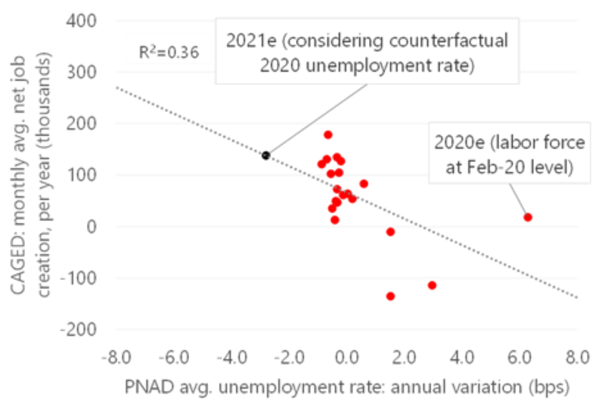
| Downside risks | Mitigating factors |
|---|---|
| End of BEm could cause layoffs | A more consistent recovery in formal job creation |
| Slower than expected vaccination | Further increase of household credit |
| New wave of Covid-19 cases/deaths | Faster than expected vaccination |
| Tighter pandemic related restrictions | Recovery in labor intensive sectors |
| Informality surpassing formality of the economy | Possibility of higher savings during 2020 |
| Precariousness of the general structure of the labor market | Approval of economic reforms |
| Change in fiscal regime | Improvement in the legal labor framework |
| Further delays in economic reforms | |

Source: Santander.

Considering the historical correlation between CAGED and PNAD data retroactive to 2000, pictured in Figure 13, our baseline unemployment scenario is compatible with average monthly net formal job creation of 120k to 150k in 2021. We expect the unemployment rate to end 2021 at 13.5% s.a. and to reach 13.1% s.a. at 2022 year-end, following the scenario of a gradual economic reopening and mobility increasing from 2Q21 onward. As we consider the factors in our labor market balance of risks, if the downside factors outlined outweigh the mitigating factors, the year-end unemployment rate could reach 14.9% in 2021 and 15.1% in 2022. On the other hand, if the mitigating factors prove to be stronger than the downside risks, we expect the year-end unemployment rate to reach 12.1% in 2021 and 12.2% in 2022. These scenarios are shown in Figure 14.

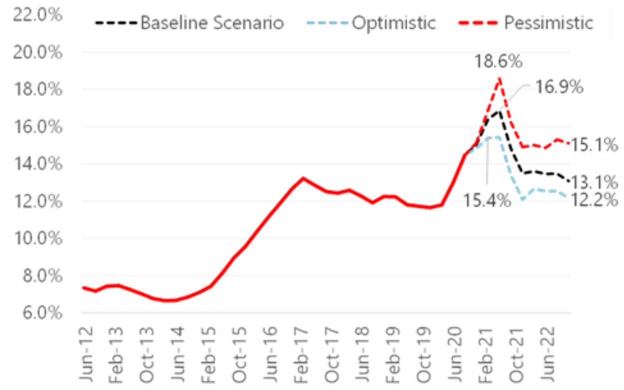
[2] **Santander Brazil - Macroeconomic Scenario:** ***"(Another) Challenging Year Ahead"*** **–** December 17, 2020- Available on: https://bit.ly/Sant-Scenario-Rev-Dec-20

**Figure 13 – PNAD and CAGED Correlation**




Sources: Ministry of Labor, IBGE, MCM, Santander.

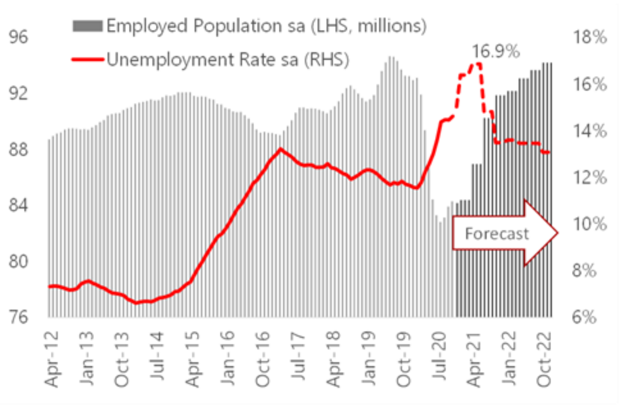
**Figure 14 – Unemployment Rate Scenarios**




Source: IBGE, Santander.

Our baseline scenario trajectories for unemployment rate and employed population are illustrated in Figure 15. Figure 16 shows more details of our unemployment estimates. In the event of an alternative scenario in which we observe a change in the fiscal framework, the labor market recovery is likely to be delayed, and the country could end 2021 with a full year average unemployment rate above 16%, in our view.

**Figure 15 – Unemployment Rate and Employed Pop.**




Sources: IBGE, Santander.

**Figure 16 – Unemployment Rate Scenarios**

| | 2019 | 2020e | 2021e | 2022e |
|---|---|---|---|---|
| **Unemployment Rate *** | | | | |
| Average | 11.9 | 13.2 | 15.4 | 13.4 |
| End of Period (s.a.) | 11.7 | 15.0 | 13.5 | 13.1 |
| **Unemployed Population **** | | | | |
| Average | 12.6 | 13.2 | 16.0 | 14.4 |
| End of Period | 12.3 | 14.9 | 14.3 | 14.2 |

* in %
** in Millions

Sources: IBGE, Santander.

## The Real Wage Bill and the Impact of Emergency Aid – An Update

In this section, our objective is to update the "expanded" (including social benefits) real wage bill (total wages from work) that was explored in our report dated September 16, 2020 (*The Real Wage Bill and the Impact of Emergency Aid*). See the link below[3].

The main points in our update are: (i) updated labor and fiscal data for 2020; (ii) impact of the increase in the inflation index that affected both the income and the deflator; and finally (iii) lower level of benefits—with a lower total disbursement of the last four instalments of BRL300 per beneficiary in the emergency aid and the (possible) reintroduction of the government transfer in 2021, which we are including in our scenario.

The "expanded" real wage bill is the product of the employed population and the real effective average income from work. The series is seasonally adjusted (published in the *PNAD contínua*), adding the government benefits (i.e., pensions, unemployment insurance, and entitlements such as pension benefits—BPC and *Bolsa Família*).

We estimate the "expanded" wage bill rose +3.1% adjusted for inflation for full year 2020 compared to 2019. Our updates lower the level that we considered in our September estimate of +3.9%. The main reason for this was the lower amount of emergency aid, which we briefly explore later in this section. In the

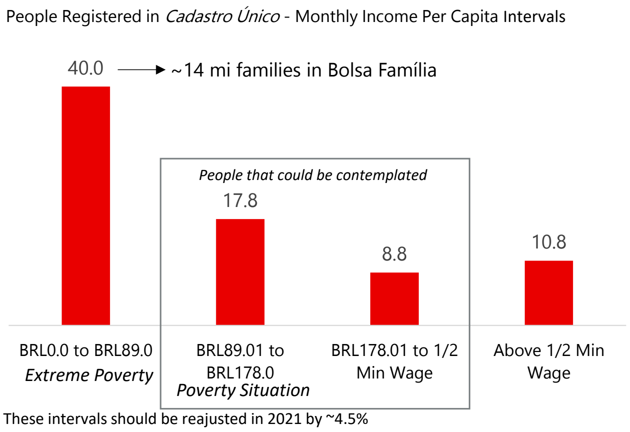
[3] **Santander Brazil Activity and Fiscal Policy– *"The Real Wage Bill and the Impact of Emergency Aid"* –** September 16, 2020 - Available on: https://bit.ly/Sant-rwb_Sep20

counterfactual simulation, without considering the government transfers, we calculate a 6.3% drop in the real wage bill, so that the benefits more than offset the estimated cyclical drop caused by the pandemic, with an increase of 9.4 p.p. of positive impulse. This fact helped the recovery of domestic activity, especially boosting the growth of the retail sector (core retail sales are 7.3% above the pre-pandemic level).

For 2021, based on the deterioration in the COVID-19 outlook in 1H21, we think the government is likely to temporarily resume the emergency aid, conditional on the deterioration of the pandemic. We expect this to be done by extraordinary credit (a mechanism for adjusting Brazilian budgetary execution—and not included in the spending cap). We project a total amount of BRL25 billion for four months. This amount is below the difference between the total disbursement last year and the total budget for the program (BRL28.9 billion).

We project that the benefit will reach ~30 million people included in the *Cadastro Único*[4] and not included in the current welfare program Bolsa Familia, which is mostly people with informal work or unemployed (see Figure 17). We expect this extension to have as a counterpart (very important, in our view) the approval of fiscal trigger measures to offset the increase in expenses and not affect the debt trajectory—offsetting the spending, and with the possibility of complying with the spending cap rule by 2024. We believe the government will continue to comply with the spending cap rule in 2021 (with severe discipline) and in 2022.

**Figure 17 – *Cadastro Único* – Government Registry Database**




Sources: Federal Government, Santander.

We are also including an assumption that the government will allow an emergency FGTS withdrawal, totaling BRL12 billion, in 2Q21. Even with this new fiscal stimulus, we anticipate a decline of 6.6% for the "expanded" wage bill (see Figure 18). In a scenario without considering the reintroduction of emergency aid in 2021 (totaling BRL25 billion), the drop in the real wage bill will would be 7.3% in 2021 (0.7 p.p. lower).

**Figure 18 – Annual Growth in "Expanded" Real Wage Bill (average% in the period)**

| | 2020(E) | 2021(E) |
|---|---|---|
| Wage Bill (Without Fiscal Aid) | -6.3% | +2.1% |
| Wage Bill (With Fiscal Aid) | +3.1% | -6.6% |

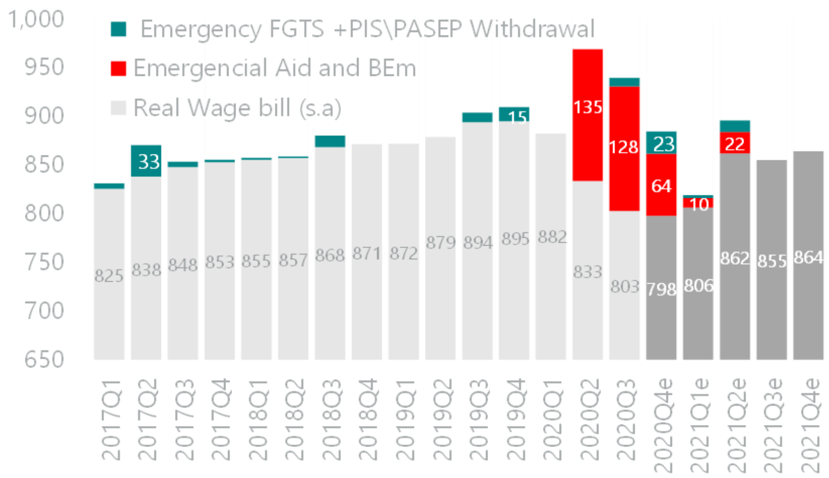
Sources: National Treasury, IBGE, Ministry of Economy, and Santander.

[4] *Cadastro Único* is a registry database with of information about Brazilian families in situations of poverty and extreme poverty. This information is used by the Federal Government, the States and the municipalities to implement public policies capable of promoting an improvement in the lives of these families.

Figure 19 presents our estimate of the evolution of the real seasonally adjusted wage bill and the welfare programs. In this new update we also consider that the government will anticipate the social benefits bonus and the wage bonus (*Abono Salarial*) from 4Q21 to 2Q21. This does not change the outlook for the year, but it increases the “expanded” real wage bill in 2Q21—as we show in Figure 19—and will partially offset the effect of stricter social distancing measures, as we discuss in the next section.

To get an idea of the impact of the benefits, in 2Q20 transfers represented 16.2% of the effective income bill from all sources, an increase of 10.0% QoQ (+10.3% YoY). The counterfactual scenario without transfers would result in a 5.1% QoQ drop (-5.3% YoY) in the “expanded” real wage bill in 2Q20. For 2021, in looking at Figure 19, the dark grey bars show a gradual recovery, with a more consistent increase in 2H21. In our simulation, the drop in the real wage bill in 1Q21 will be BRL66 billion compared to 4Q20, BRL121 billion compared to 3Q20, and BRL150 billion compared to 2Q20.

**Figure 19 – “Expanded” Real Wage Bill and Social Benefits (in real terms, BRL billion)**




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

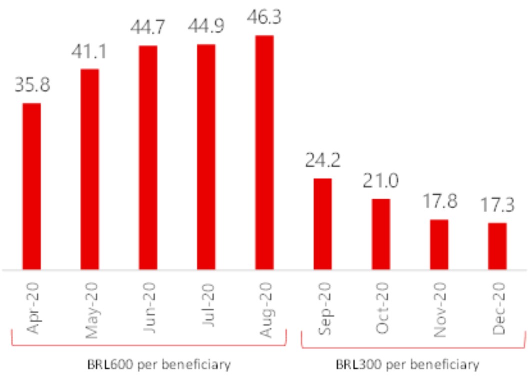
Now to explore briefly the main factors in our revision in the real wage numbers. We observed a lower than expected employed population in 3Q20, which totaled 82.5 million workers (2.0 million below our September estimate), which caused a downward impact on total income. Another factor was the increase in inflation; in our September report, our 2020 forecast for the consumer price index (IPCA) was 2.3%, compared to the final number of 4.5%. See the link below [5]

Finally, the most important factor was the lower than expected amount of emergency spending related to the pandemic, especially in the emergency aid stipend, which we think possibly reflects a more conservative government approach to the execution of the budget at the end of last year. We were anticipating that the last four additional installments of BRL300 each would total BRL25 billion per month, but it was BRL20 billion on average, implying a lower real wage bill for 2020 (see Figure 20).

Another important program that helped the labor market in 2020 was the Emergency Employment and Income Maintenance Program (BEm), a government stimulus to maintain the number of formal jobs by reducing hours of work and temporarily suspending formal labor contracts. According to the federal government, over 10 million jobs have been secured by BEm, and thus the end of the BEm program could be an additional driver for job losses. The total disbursement was BRL33.5 billion, lower than the total budget of BRL51.6 billion; the monthly stipend is shown in Figure 21. For 2021, the government is expecting to use an additional BRL8.1 billion that was not used last year (this amount is not included in the spending cap for 2021, as it is a rollover of payment—"*restos a pagar”*). We consider this in our real wage bill numbers.

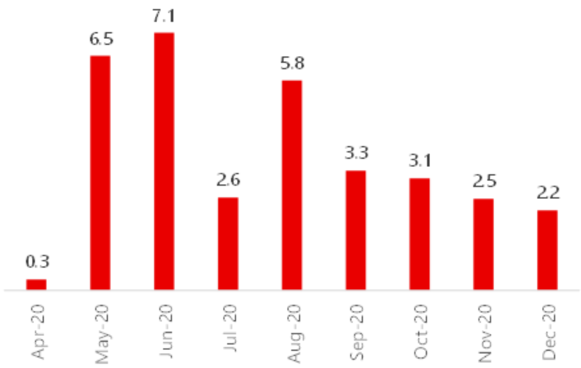
[5] **Santander Brazil - Macroeconomic Scenario: *“(Another) Challenging Year Ahead”* –** December 17, 2020- Available on: https://bit.ly/Sant-Scenario-Rev-Dec-20

**Figure 20 –Emergency Aid Stipend – BRL billion**




Sources: National Treasury and Bloomberg.

**Figure 21 – BEm* Stipend – BRL billion**




*Emergency Employment and Income Maintenance Program (BEm)
Sources: National Treasury and Bloomberg.

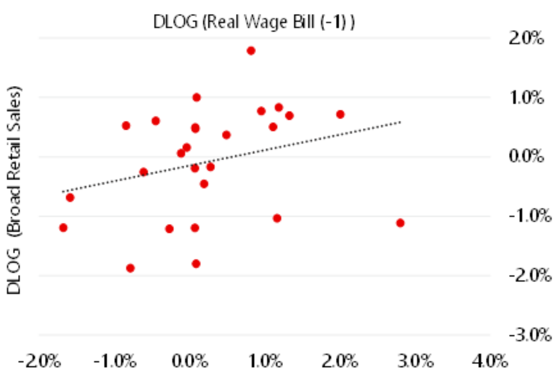
**Impact of the Fiscal Cliff on Household Consumption**

Examining the impact of the withdrawal of emergency aid at the end of 2020 will be essential in tracking household consumption in 2021, and, consequently, economic activity in general. We perform an analysis of the historical relationship between the real wage bill and broad retail sales, which was especially significant in 2020 due to the massive government income transfers.

The effects on retail sales were meaningful, with the monthly indicator reaching multi-year highs, clearly mitigating a likely sharp drop in retail sales in the counterfactual scenario without the government transfers. Despite that, in our view, a contraction of retail sales in 2020 is unavoidable, especially due to the second quarter's result, which has a greater weight in the full year figure.

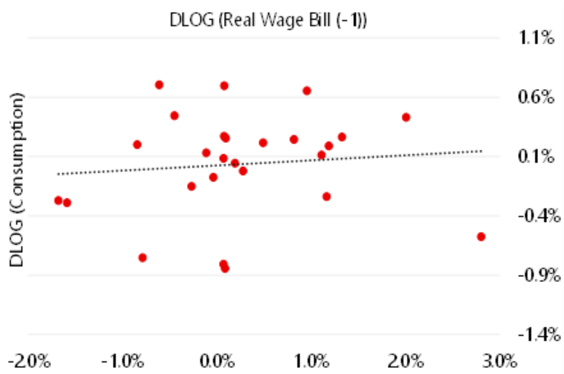
Figure 22 illustrates the positive relationship between broad retail sales percentage changes and one-quarter lagged real wage bill changes. We estimated a model with data from 2013 to 2019 and projected retail sales for 4Q20 onward, and the results were in line with our expectations: the fiscal cliff led to sequential quarterly contractions, with retail sales returning to readings close to the pre-crisis level in 3Q21. Given the depressed basis of comparison (-2.5%), we calculate a 1.7% full year expansion in 2021, not enough to offset the previous drop and leading to a contraction in the years 2020-21.

**Figure 22 –Retail Sales and Real Wage Bill (% s.a.)**




Sources: IBGE and Santander.

**Figure 23 – Consumption and Real Wage Bill (% s.a.)**

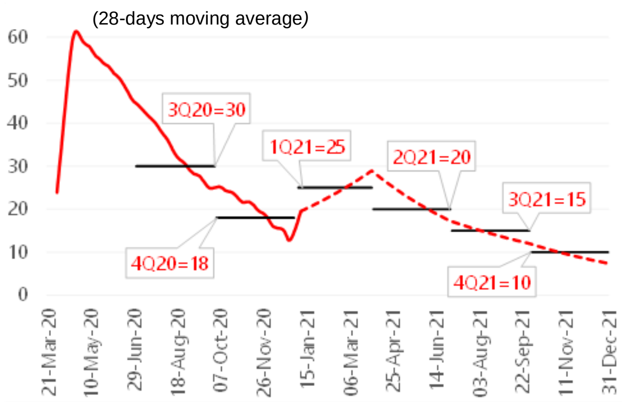



Sources: IBGE and Santander.

The other branch of household consumption is services provided to families, which were hard hit due to the social isolation measures adopted to avoid the spread of COVID-19. The gradual easing of social distancing and improving mobility indexes reinforce the likelihood of a recovery of services to families in 2021, in our view, but possibly not enough to offset the 30% drop expected for 2020. This is consistent with our forecast of an increase in household consumption in 2021 (+2.1%), not enough to offset the previous year's steep tumble (-4.3%) but positioning the economy to experience a resumption of growth in the coming years.

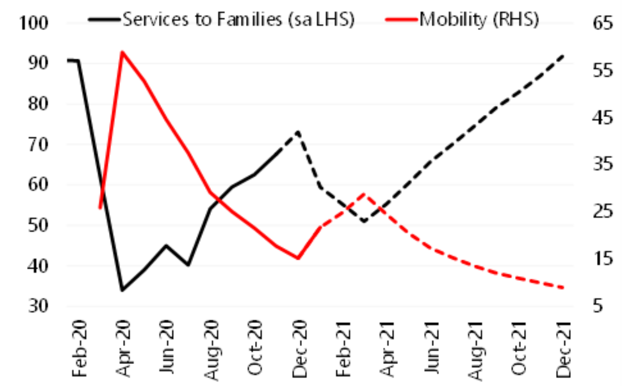
Our hypothesis about the evolution of mobility in the next few months is an essential component of our baseline scenario for economic activity in general. The upsurge in the pandemic observed in recent weeks will likely lead to a rollback in the economy's reopening process; we assume that a deterioration in mobility relative to 4Q20 is unavoidable, but not reaching the levels seen in the worst periods of the crisis. From 2Q21 onward, as the massive vaccination campaign advances, we expect mobility to return to a pace of sequential increases, returning virtually to the pre-crisis reading by the end of 2021, consistent with the recovery of services to families described above. Moreover, a recovery in confidence may induce spending of the precautionary savings accumulated in 2020, in our view, helping to accommodate the impact and foster the resumption of economic activity.

**Figure 24 – Mobility Scenario**




Sources: Google, Santander.

**Figure 25 – Services to Families x Mobility**




Sources: Google, IBGE, Santander.

## Conclusion

We consider that the behavior of the labor market will be a key factor in our scenario of a gradual recovery in domestic economic activity. The progress of the vaccination campaign will be crucial, in our view, and it is important to monitor it closely. We expect that the economy will return to pre-COVID levels of mobility only at the end of 2021, when ~60% of the population should be immunized for COVID-19. In light of this, in 1H21 we anticipate a deterioration in mobility relative to 4Q20, but not reaching the levels seen in the worst moments of the crisis. From 2Q21 onward, as the massive vaccination campaign advances, we expect mobility to resume a pace of sequential increases, returning virtually to the pre-crisis reading by the end of 2021.

The employment outlook for 2021 shows some headwinds for a recovery in economic activity. Although there have been some recent positive developments in employment and credit data, we believe the balance of risks for employment still presents more factors on the downside. In this context, we do not expect the labor market to reach pre-crisis conditions before year-end 2022. We expect the year-end unemployment rate to reach 15.6% s.a. in 2021 and 12.7% s.a. in 2022.

On the income side, considering the massive government cash transfers in 2020, we forecast that the "expanded" real wage bill will register a 6.7% decline in 2021, even also considering the (possible) reintroduction of emergency aid (BRL25 billion) in 2021. In our simulation, the drop in the real wage bill in 1Q21 will be BRL66 billion compared to 4Q20, BRL121 billion compared to 3Q20, and BRL150 billion compared to 2Q20. We believe the drop in total income ("fiscal cliff"), even with new government transfers, will affect consumption, an impact that should be partially offset by the gradual reopening of the economy (benefiting the services sector). We take these factors into account in our GDP projections.

The withdrawal of fiscal stimulus concomitant with the decrease in mobility will have a significant negative impact on economic activity in 1Q21, in our view, especially for services related to social interaction, which were expected to be the main drivers of the recovery. From 2Q21 onward, in order to mitigate this effect, we believe a new round (smaller) of emergency aid will possibly be available, and as the massive vaccination campaign advances and mobility increases, the services sector should return to a pace of gradual recovery. The available credit supply, a recovery in confidence, and the spending of precautionary savings should also contribute positively to a resumption in economic activity, in our view. Considering this scenario, we estimate household consumption to grow 2.1% in 2021, not enough to offset the 4.3% drop of 2020, but resulting in favorable conditions for the continuation of the recovery in the coming years.

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