

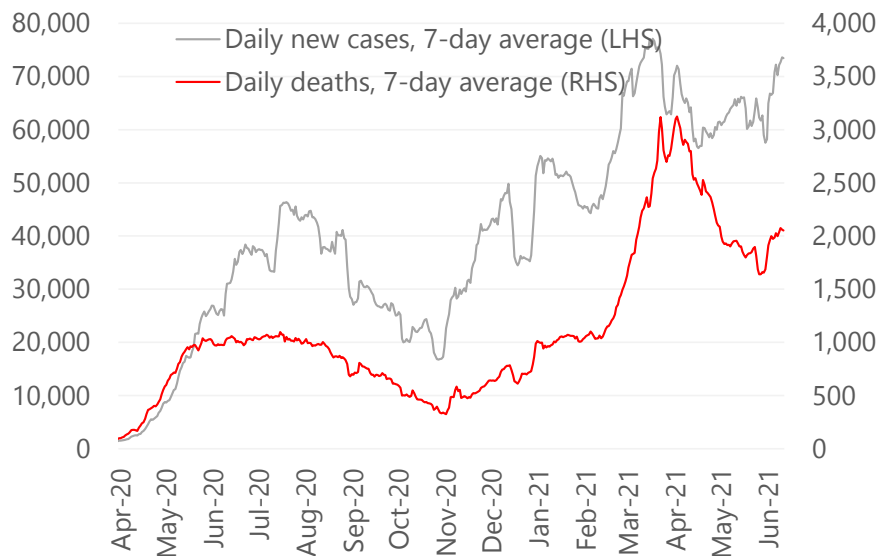
**COVID MONITOR**

**Felipe Kotinda\***

felipe.kotinda@santander.com.br  
+5511 3553 8071

- In Brazil, new COVID-19 infections and casualties remain stubbornly high. The ICU occupancy rate is above 90% in seven states (June 21), a decrease from nine states the week before (and a peak of 18 states in the worst phase). Average ICU occupancy rate decreased to 79% (June 21) from 82% (June 15).
- As state governments are expanding vaccination to the general population in the age group from 18 to 59 years old, vaccination by age criteria is pushing up the pace of roll out (Figure 13).
- In our view, this should keep the pace of vaccination above our baseline scenario of one million doses/day. Importantly, vaccine inventories are close to 37 million doses.
- Google Trends searches are still decreasing at the margin, both in São Paulo state and in Brazil.
- Microdata on hospitalizations point to some relief for the population above 60, while are increasing for the population under 60.

**Figure 1 – Daily New Cases and Deaths (June 21)**



Sources: Brazilian Ministry of Health, Santander.

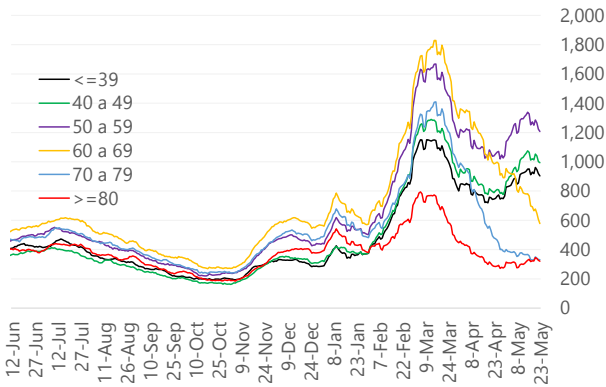
**IMPORTANT DISCLOSURES/CERTIFICATIONS ARE IN THE “IMPORTANT DISCLOSURES” SECTION OF THIS REPORT.**

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.

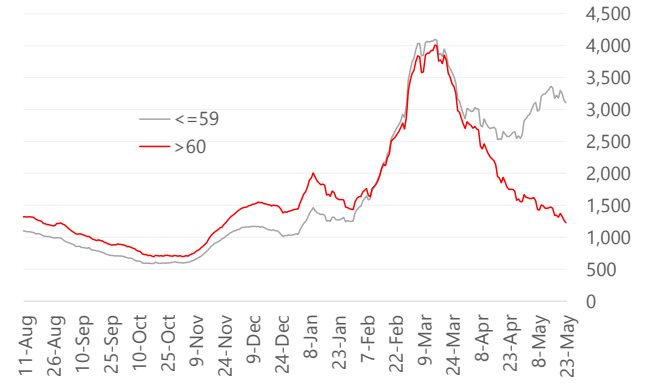


**Figure 2 – New Hospital Admissions by Age**



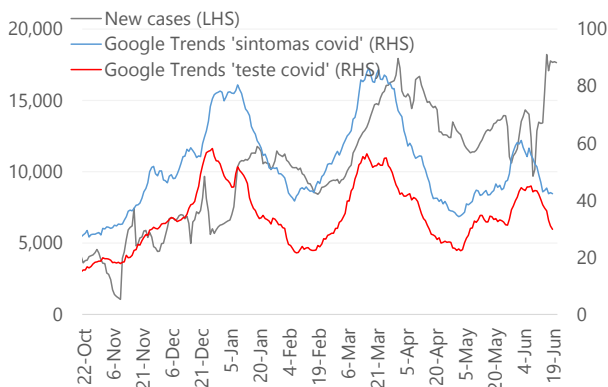
Sources: openDataSUS, Santander.

**Figure 3 – New Hospital Admissions by Age**



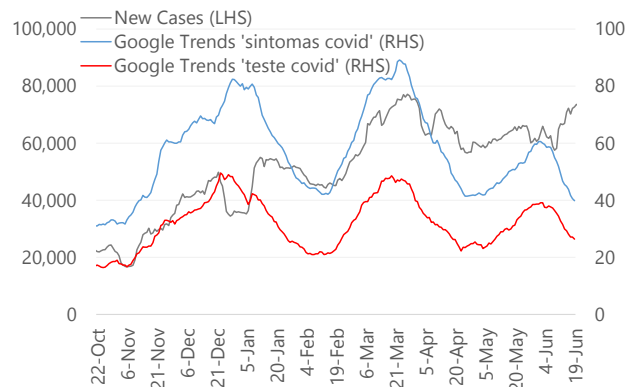
Sources: openDataSUS, Santander.

**Figure 4 – Google Trends – Brazil (June 19)**



Sources: Brazilian Ministry of Health, Google Trends, Santander.

**Figure 5 – Google Trends - São Paulo (June 19)**



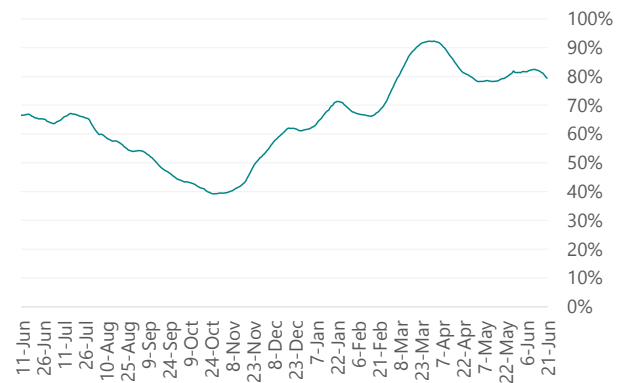
Sources: Brazilian Ministry of Health, Google Trends, Santander.

**Figure 6 – Hospital Occupancy – Brazil (June 21)**

State	7-Jun	15-Jun	21-Jun	State	7-Jun	15-Jun	21-Jun
MS	106%	103%	97%	CE	88%	82%	80%
PR	96%	97%	95%	SP	82%	81%	77%
TO	90%	97%	95%	RN	85%	79%	72%
SC	96%	94%	94%	RJ	81%	71%	71%
MT	86%	93%	93%	PI	88%	83%	71%
DF	94%	96%	91%	RO	61%	57%	69%
SE	97%	93%	90%	PB	82%	73%	67%
GO	87%	87%	88%	PA	78%	71%	64%
RS	87%	87%	86%	RR	62%	62%	62%
PE	96%	94%	86%	ES	68%	63%	61%
AL	92%	90%	85%	AM	56%	61%	52%
MA	89%	87%	84%	AP	67%	68%	49%
BA	84%	83%	81%	AC	43%	36%	38%
MG	82%	81%	81%				

Sources: @coronavirusbra1, Santander.

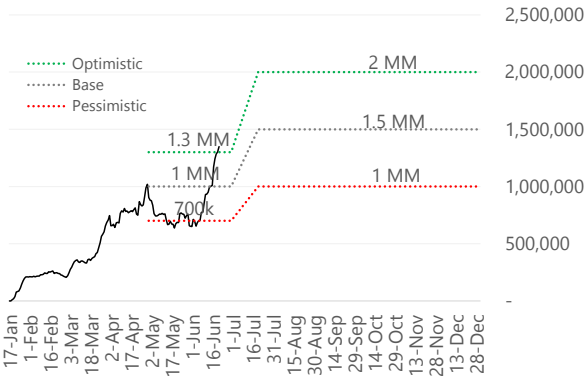
**Figure 7 – ICU Occupancy – São Paulo (June 21)**



Sources: São Paulo Government, Santander.

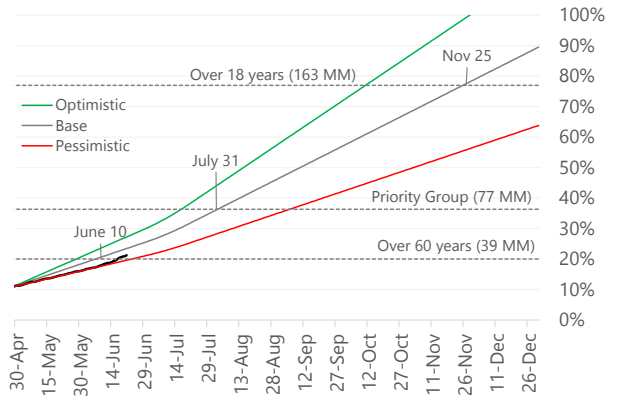


**Figure 8 – Vaccination Pace (Daily Shots 7dma)**



Sources: Brazilian Ministry of Health, Santander.

**Figure 9 – Population Fully Vaccinated (%)**



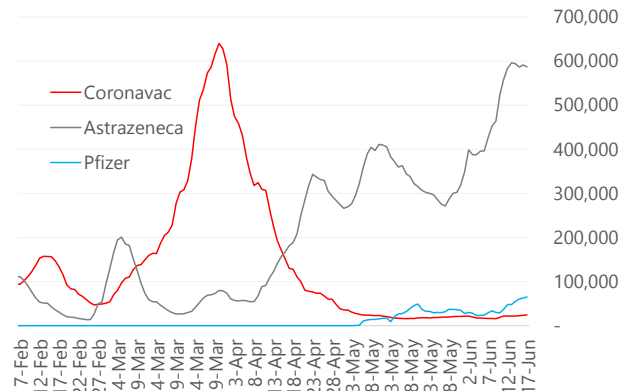
Sources: Brazilian Ministry of Health, Santander.

**Figure 10 – Vaccination by Age and Gender (June 21)**



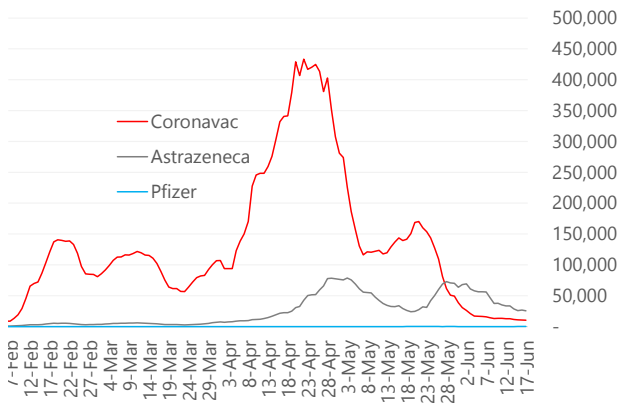
Sources: openDataSUS, Santander.

**Figure 11 – Daily shots (1<sup>st</sup> dose) by Vaccine (June 17)**



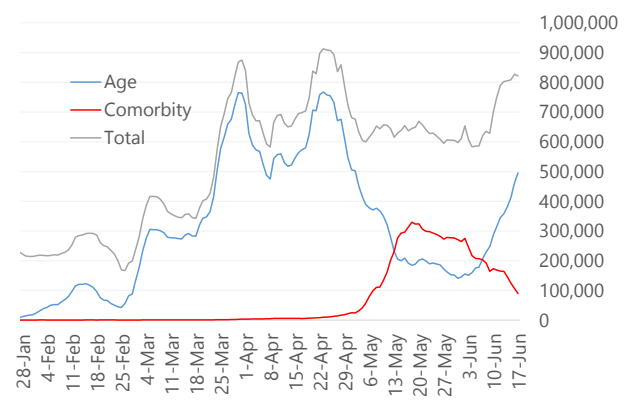
Sources: openDataSUS, Santander.

**Figure 12 – Daily shots (2<sup>nd</sup> dose) by Vaccine (June 17)**



Sources: openDataSUS, Santander.

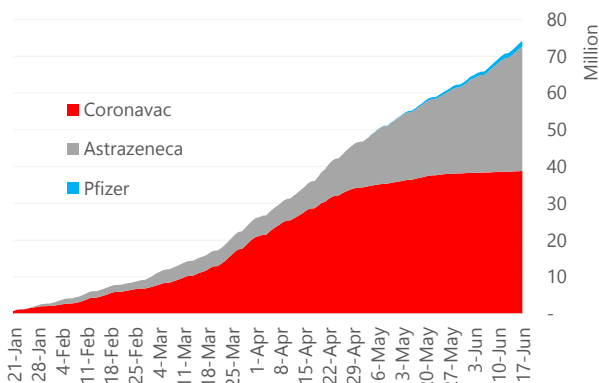
**Figure 13 – Daily shots by Criteria (June 17)**



Sources: openDataSUS, Santander.

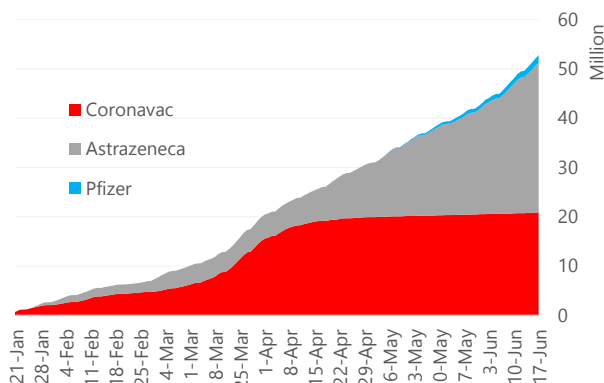


**Figure 14 – Accumulated Doses Administered (Total) by Vaccine (June 17)**



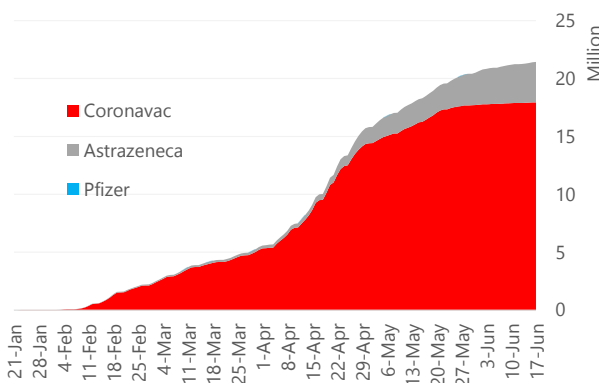
Sources: openDataSUS, Santander.

**Figure 15 – Accumulated Doses Administered (1<sup>st</sup> dose) by Vaccine (June 17)**



Sources: openDataSUS, Santander.

**Figure 16 – Accumulated Doses Administered (2<sup>nd</sup> dose) by Vaccine**



Sources: openDataSUS, Santander.

**Figure 17 - Vaccination Schedule (June 21)**

	AstraZeneca		CoronaVac		Covax		Pfizer		Sputnik V	Covaxin	Janssen	Moderna	Accum. Doses		Accum. IFA	Accum. Doses + IFA
	Expected	Actual	Expected	Actual	Expected	Actual	Expected	Actual					Expected	Actual		
Jan-21	2,000,000	2,000,000	8,702,348	8,702,348	-	-	-	-	-	-	-	-	10,702,348	10,702,348	-	10,702,348
Feb-21	1,999,600	1,999,600	4,853,000	4,853,000	-	-	-	-	-	-	-	-	17,554,948	17,554,948	-	17,554,948
Mar-21	2,822,000	2,822,000	22,758,970	22,758,970	1,022,400	1,022,400	-	-	-	-	-	-	44,158,318	44,158,318	-	44,158,318
Apr-21	19,186,750	19,186,750	5,800,000	5,800,000	-	-	1,000,000	1,000,000	-	-	-	-	70,145,068	70,145,068	-	70,145,068
May-21	21,677,750	21,677,750	5,116,010	5,116,010	4,051,200	4,051,200	2,500,000	2,500,000	-	-	-	-	103,490,028	103,490,028	-	103,490,028
Jun-21	18,000,000	11,000,000	5,000,000	5,000,000	2,916,000	842,000	12,000,000	7,202,000	1,000,000	4,000,000	1,500,000	-	146,406,028	127,534,028	8,045,250	135,579,278
Jul-21	15,000,000	8,045,250	10,000,000	-	1,975,200	-	15,000,000	-	23,600,000	8,000,000	-	1,000,000	220,981,228	-	-	-
Aug-21	11,656,750	-	18,884,836	-	-	-	34,741,680	-	22,400,000	8,000,000	-	1,000,000	317,664,494	-	-	-
Sep-21	11,656,750	-	18,884,836	-	-	-	34,741,680	-	-	-	-	1,000,000	383,947,760	-	-	-
Oct-21	39,333,333	-	10,000,000	-	10,845,333	-	33,333,333	-	-	-	11,666,667	-	477,459,760	-	-	-
Nov-21	39,333,333	-	10,000,000	-	10,845,333	-	33,333,333	-	-	-	11,666,667	10,000,000	592,638,427	-	-	-
Dec-21	39,333,333	-	10,000,000	-	10,845,333	-	33,333,333	-	-	-	11,666,667	-	675,305,093	-	-	-
Total	221,999,600	-	130,000,000	-	42,500,800	-	199,983,360	-	47,000,000	20,000,000	36,500,000	13,000,000	-	-	-	-

Available doses  
In production (API in the country)

Sources: Brazilian Ministry of Health, Santander.

**CONTACTS / IMPORTANT DISCLOSURES****Brazil Macro Research**

Ana Paula Vescovi*	Chief Economist	anavescovi@santander.com.br	5511-3553-8567
Mauricio Oreng*	Head of Macro Research	mauricio.oreng@santander.com.br	5511-3553-5404
Jankiel Santos*	Economist – External Sector	jankiel.santos@santander.com.br	5511-3012-5726
Ítalo Franca*	Economist – Fiscal Policy	italo.franca@santander.com.br	5511-3553-5235
Daniel Karp Vasquez*	Economist – Inflation	daniel.karp@santander.com.br	5511-3553-9828
Tomas Urani*	Economist – Global Economics	tomas.urani@santander.com.br	5511-3553-9520
Lucas Maynard*	Economist – Economic Activity	lucas.maynard.da.silva@santander.com.br	5511-3553-7495
Felipe Kotinda*	Economist – Credit	felipe.kotinda@santander.com.br	5511-3553-8071
Gabriel Couto*	Economist – Special Projects	gabriel.couto@santander.com.br	5511-3553-8487
Gilmar Lima*	Economist – Modeling	gilmar.lima@santander.com.br	5511-3553-6327

**Global Macro Research**

Maciej Reluga*	Head Macro, Rates & FX Strategy – CEE	maciej.reluga@santander.pl	48-22-534-1888
Juan Cerruti *	Senior Economist – Argentina	jcerruti@santander.com.ar	54 11 4341 1272
Ana Paula Vescovi*	Economist – Brazil	anavescovi@santander.com.br	5511-3553-8567
Juan Pablo Cabrera*	Economist – Chile	jcabrera@santander.cl	562-2320-3778
Guillermo Aboumrad*	Economist – Mexico	gjaboumrad@santander.com.mx	5255-5257-8170
Piotr Bielski*	Economist – Poland	piotr.bielski@santander.pl	48-22-534-1888
Mike Moran	Head of Macro Research, US	mike.moran@santander.us	212-350-3500

**Fixed Income Research**

Juan Arranz*	Chief Rates & FX Strategist – Argentina	jarranz@santanderrio.com.ar	5411-4341-1065
Mauricio Oreng*	Senior Economist/Strategist – Brazil	mauricio.oreng@santander.com.br	5511-3553-5404
Juan Pablo Cabrera*	Chief Rates & FX Strategist – Chile	jcabrera@santander.cl	562-2320-3778

**Equity Research**

Miguel Machado*	Head Equity Research Americas	mmachado@santander.com.mx	5255 5269 2228
Alan Alanis*	Head, Mexico	aalanis@santander.com.mx	5552-5269-2103
Andres Soto	Head, Andean	asoto@santander.us	212-407-0976
Claudia Benavente*	Head, Chile	claudia.benavente@santander.cl	562-2336-3361
Walter Chiarvesio*	Head, Argentina	wchiarvesio@santanderrio.com.ar	5411-4341-1564
Daniel Gewehr*	Head, Brazil	dhgewehr@santander.com.br	5511-3012-5787

**Electronic**Bloomberg  
ReutersSIEQ <GO>  
Pages SISEMA through SISEMZ

This report has been prepared by Santander Investment Securities Inc. ("SIS"; SIS is a subsidiary of Santander Holdings USA, Inc. which is wholly owned by Banco Santander, S.A. "Santander"), on behalf of itself and its affiliates (collectively, Grupo Santander) and is provided for information purposes only. This document must not be considered as an offer to sell or a solicitation of an offer to buy any relevant securities (i.e., securities mentioned herein or of the same issuer and/or options, warrants, or rights with respect to or interests in any such securities). Any decision by the recipient to buy or to sell should be based on publicly available information on the related security and, where appropriate, should take into account the content of the related prospectus filed with and available from the entity governing the related market and the company issuing the security. This report is issued in Spain by Santander Investment Bolsa, Sociedad de Valores, S.A. ("Santander Investment Bolsa"), and in the United Kingdom by Banco Santander, S.A., London Branch. Santander London is authorized by the Bank of Spain. This report is not being issued to private customers. SIS, Santander London and Santander Investment Bolsa are members of Grupo Santander.

**ANALYST CERTIFICATION:** The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed, that their recommendations reflect solely and exclusively their personal opinions, and that such opinions were prepared in an independent and autonomous manner, including as regards the institution to which they are linked, and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report, since their compensation and the compensation system applying to Grupo Santander and any of its affiliates is not pegged to the pricing of any of the securities issued by the companies evaluated in the report, or to the income arising from the businesses and financial transactions carried out by Grupo Santander and any of its affiliates: Felipe Kotinda\*. \*Employed by a non-US affiliate of Santander Investment Securities Inc. and not registered/qualified as a research analyst under FINRA rules, and is not an associated person of the member firm, and, therefore, may not be subject to the FINRA Rule 2242 and Incorporated NYSE Rule 472 restrictions on communications with a subject company, public appearances, and trading securities held by a research analyst account.

The information contained herein has been compiled from sources believed to be reliable, but, although all reasonable care has been taken to ensure that the information contained herein is not untrue or misleading, we make no representation that it is accurate or complete and it should not be relied upon as such. All opinions and estimates included herein constitute our judgment as at the date of this report and are subject to change without notice.

Any U.S. recipient of this report (other than a registered broker-dealer or a bank acting in a broker-dealer capacity) that would like to effect any transaction in any security discussed herein should contact and place orders in the United States with SIS, which, without in any way limiting the foregoing, accepts responsibility (solely for purposes of and within the meaning of Rule 15a-6 under the U.S. Securities Exchange Act of 1934) for this report and its dissemination in the United States.

© 2021 by Santander Investment Securities Inc. All Rights Reserved.

