



MINISTRY OF ECONOMY

# Macroeconomic Outlook

December 2022

12/23/22



SECRETARIAT  
FOR ECONOMIC  
POLICY

MINISTRY OF  
ECONOMY



Macroeconomic Outlook is a report prepared by the Office of Economic Policy (SPE) of the Ministry of Economy with the most relevant economic data and forecasting about Brazil.

This report is entirely descriptive and it does not imply or suggest policy decisions neither does it limit the operational scope of the Ministry of Economy.

Data valid up to the date of the report.

# Contents

Highlights.....	4
Market Expectations.....	24
Economic Activity	
GDP and Quarterly Economic Activity.....	34
Monthly Economic Activity.....	51
Other Monthly Economic Activity Indicators.....	62
Labor Market.....	81
Inflation.....	91
Credit Market.....	106
Financial Markets.....	120
Foreign Trade.....	131
External Sector.....	149
Public Sector Accounts.....	160
World Economy.....	171

# Highlights



Macroeconomic Parameters					
Year	Gross Domestic Product				
	Nominal		Real		Deflator
	<i>BRL million</i>	<i>Chg. %</i>	<i>Chg. %</i>	<i>Per Capita chg. %</i>	<i>Chg. %</i>
2016	6,269,328	4.56	-3.28	-4.07	8.07
2017	6,585,480	5.04	1.33	0.52	3.66
2018	7,004,141	6.36	1.78	0.96	4.49
2019	7,389,131	5.50	1.22	0.43	4.21
2020	7,609,597	2.98	-3.28	-4.01	6.48
2021	8,898,727	16.94	4.99	4.22	11.39
2022	<b>9,934,396</b>	<b>11.64</b>	<b>3.10</b>	<b>2.38</b>	<b>8.26</b>
2023	<b>10,707,551</b>	<b>7.78</b>	<b>2.10</b>	<b>1.41</b>	<b>5.53</b>
2024	<b>11,493,434</b>	<b>7.34</b>	<b>2.50</b>	<b>1.84</b>	<b>4.69</b>
2025	<b>12,295,275</b>	<b>6.98</b>	<b>2.50</b>	<b>1.87</b>	<b>4.33</b>
2026	<b>13,087,849</b>	<b>6.45</b>	<b>2.23</b>	<b>1.63</b>	<b>4.09</b>

Source: SPE/ME. Macroeconomic Parameters, December-2022.

Macroeconomic Parameters						
Year	Industrial Activity - Annual chg. %					
	Manufacturing		Beverages		Vehicles	
	Production				Domestic Wholesale	
	Price	Quantity	Price	Quantity	Price	Quantity
2016	8.06	-5.98	7.60	-3.09	6.10	-17.53
2017	1.76	2.23	4.34	0.78	4.26	12.31
2018	8.35	1.11	2.67	0.87	3.30	13.05
2019	4.31	0.19	2.86	4.25	2.97	10.38
2020	9.13	-4.60	0.87	-0.19	4.15	-25.84
2021	31.85	4.32	4.14	0.28	12.62	1.04
2022	17.69	-1.01	9.77	2.63	12.69	-3.68
2023	1.09	0.19	7.45	2.58	4.07	8.59
2024	3.15	2.32	6.03	3.64	3.20	12.38
2025	4.28	2.19	5.99	3.44	2.80	8.72
2026	4.62	1.75	5.96	2.92	2.49	7.32

Source: SPE/ME. Macroeconomic Parameters, December-2022.

Macroeconomic Parameters						
Year	Labor Force	Formal Jobs in Private Sector				
		Employed Population	Earnings		Wage Bill	
			Nominal	Real	Nominal	Real
	Chg. % accum. In 4-trimesters					
2016	1.32	-4.28	7.65	-1.03	3.04	-5.27
2017	1.70	-2.76	5.90	2.36	2.99	-0.46
2018	1.20	-0.58	3.43	-0.22	2.84	-0.79
2019	1.77	1.43	3.35	-0.38	4.83	1.05
2020	-5.88	-6.91	5.84	2.55	-1.51	-4.56
2021	4.35	2.56	2.70	-5.12	5.37	-2.77
2022	3.36	9.18	8.68	-0.64	18.70	8.61
2023	2.44	3.84	7.13	2.53	11.21	6.45
2024	2.08	2.54	4.89	1.27	7.54	3.84
2025	2.15	2.47	3.98	0.95	6.55	3.45
2026	2.30	2.86	3.90	0.87	6.86	3.75

Source: SPE/ME. Macroeconomic Parameters, December-2022.

Macroeconomic Parameters						
Year	Inflation					
	IPCA		INPC		IGP-DI	
	Annual Average	Annual Accum.	Annual Average	Annual Accum.	Annual Average	Annual Accum.
	Chg. %					
2016	8.74	6.29	9.32	6.58	10.19	7.18
2017	3.45	2.95	2.97	2.07	0.96	-0.42
2018	3.66	3.75	2.87	3.43	5.81	7.10
2019	3.73	4.31	3.75	4.48	6.05	7.70
2020	3.21	4.52	3.61	5.45	13.05	23.08
2021	8.30	10.06	8.99	10.16	27.30	17.74
2022	9.28	5.75	9.42	5.81	10.30	5.25
2023	4.34	4.60	4.49	4.90	2.04	4.55
2024	3.57	3.00	3.67	3.00	4.37	4.20
2025	3.00	3.00	3.00	3.00	4.07	4.00
2026	3.00	3.00	3.00	3.00	3.86	3.70

Source: SPE/ME. Macroeconomic Parameters, December-2022.

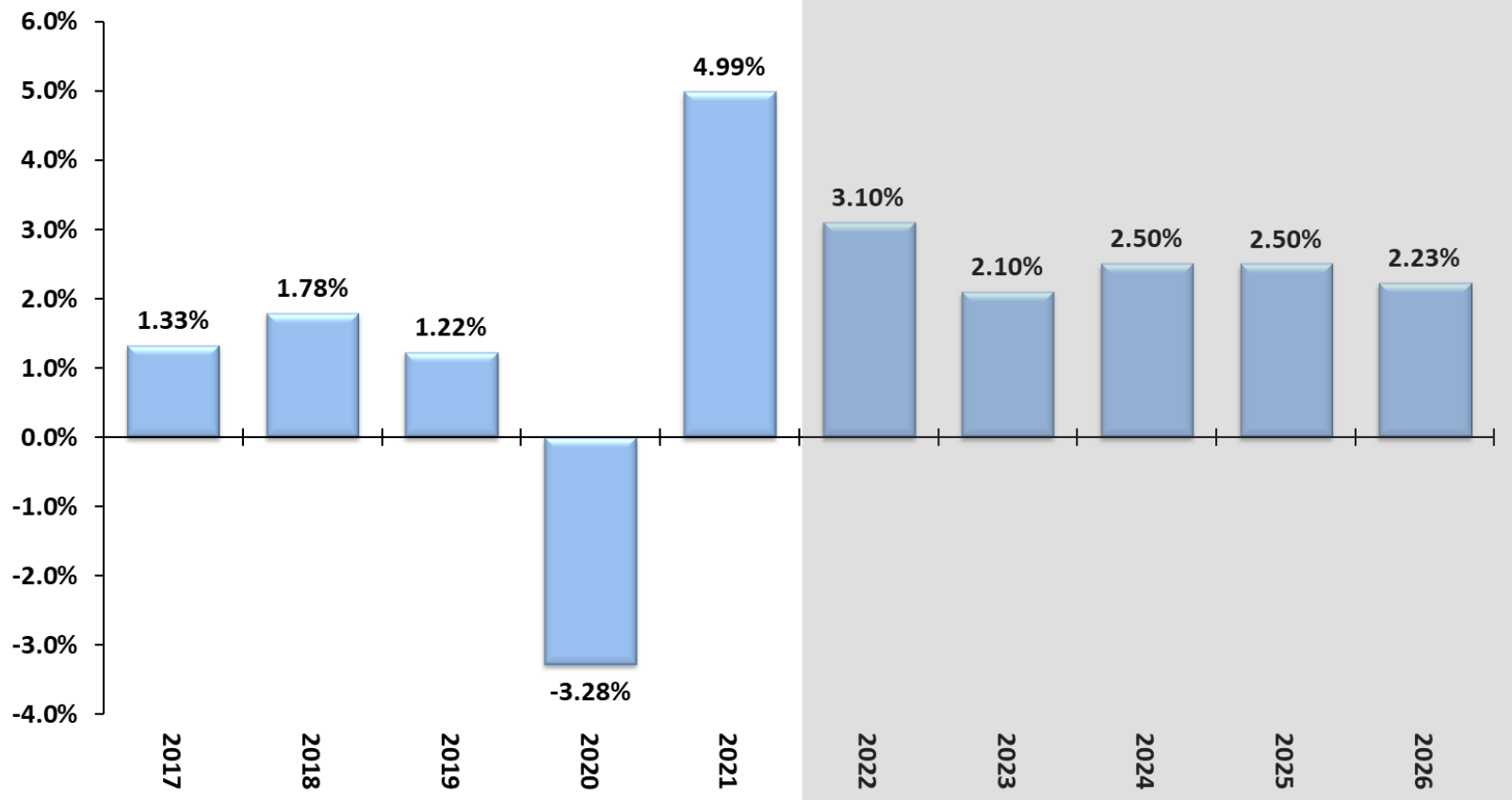
Macroeconomic Parameters								
Year	Financial Indicators							
	Selic market rate			Long term rate TJLP		Referential rate TR	Financial Savings	
	Annual Average	December	Real chg.	Annual Average	December	Annual Average	Annual Average	
	Annual chg. %						BRL million	Annual chg. %
2016	14.08	13.65	7.33	7.50	7.50	2.01	4,566,852	13.89
2017	9.87	7.00	6.72	7.12	7.00	0.60	4,992,423	9.32
2018	6.48	6.40	2.64	6.72	6.98	0.00	5,346,678	7.10
2019	5.90	4.59	1.53	6.18	5.57	0.00	5,744,064	7.43
2020	2.64	1.90	-1.80	4.87	4.55	0.00	6,367,887	10.86
2021	3.91	8.76	-5.59	4.79	5.32	0.05	7,334,662	15.18
2022	<b>12.34</b>	<b>13.65</b>	<b>6.23</b>	<b>6.76</b>	<b>7.20</b>	<b>1.63</b>	<b>8,555,787</b>	<b>16.65</b>
2023	<b>13.09</b>	<b>11.65</b>	<b>8.11</b>	<b>7.33</b>	<b>7.17</b>	<b>1.97</b>	<b>9,624,282</b>	<b>12.49</b>
2024	<b>9.65</b>	<b>8.40</b>	<b>6.46</b>	<b>6.87</b>	<b>6.64</b>	<b>0.64</b>	<b>10,513,554</b>	<b>9.24</b>
2025	<b>8.13</b>	<b>7.90</b>	<b>4.98</b>	<b>6.32</b>	<b>6.20</b>	<b>0.06</b>	<b>11,376,399</b>	<b>8.21</b>
2026	<b>7.90</b>	<b>7.90</b>	<b>4.76</b>	<b>5.93</b>	<b>5.80</b>	<b>0.02</b>	<b>12,238,531</b>	<b>7.58</b>

Source: SPE/ME. Macroeconomic Parameters, December-2022.

Macroeconomic Parameters				
Year	External Sector			
	Exchange Rate			
	Annual Average	December	Average chg. %	Annual chg. %
	Exchange Rate BRL/USD			
2016	3.5	3.3	4.8	-13.4
2017	3.2	3.3	-8.5	-1.8
2018	3.7	3.9	14.5	18.0
2019	3.95	4.03	7.95	5.78
2020	5.16	5.20	30.69	25.21
2021	5.40	5.58	4.64	9.83
2022	5.17	5.25	-4.22	-6.71
2023	5.25	5.25	1.57	-0.42
2024	5.21	5.23	-0.78	-0.62
2025	5.22	5.21	0.20	-0.13
2026	5.26	5.30	0.72	1.64

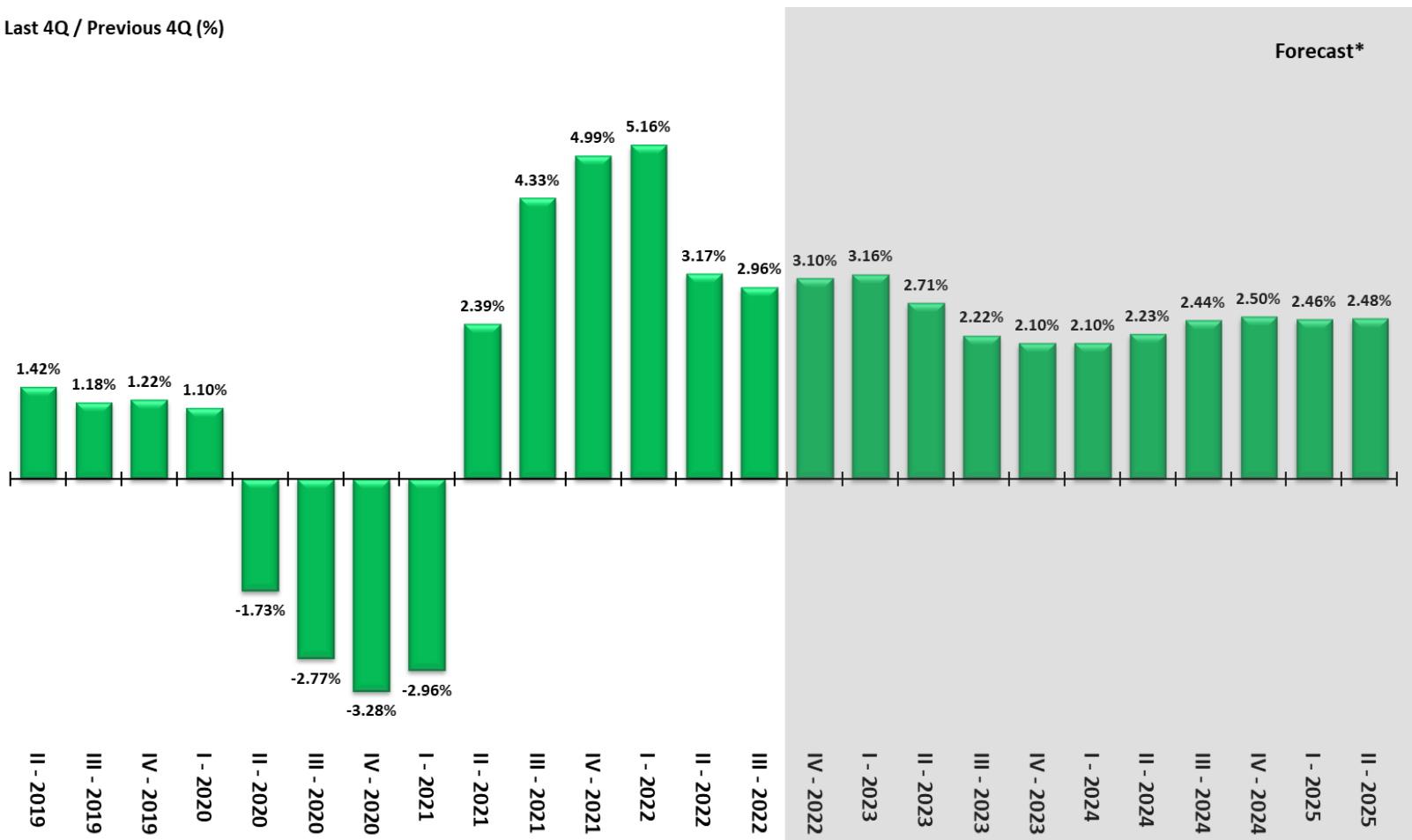
Source: SPE/ME. Macroeconomic Parameters, December-2022.

Last 4Q / Previous 4Q (%)



Source: IBGE, Quarterly National Accounts Series \*Forecast: Macroeconomic Parameters, December-2022.

Last 4Q / Previous 4Q (%)



Source: IBGE, Quarterly National Accounts Series \*Forecast: Macroeconomic Parameters, December-2022.

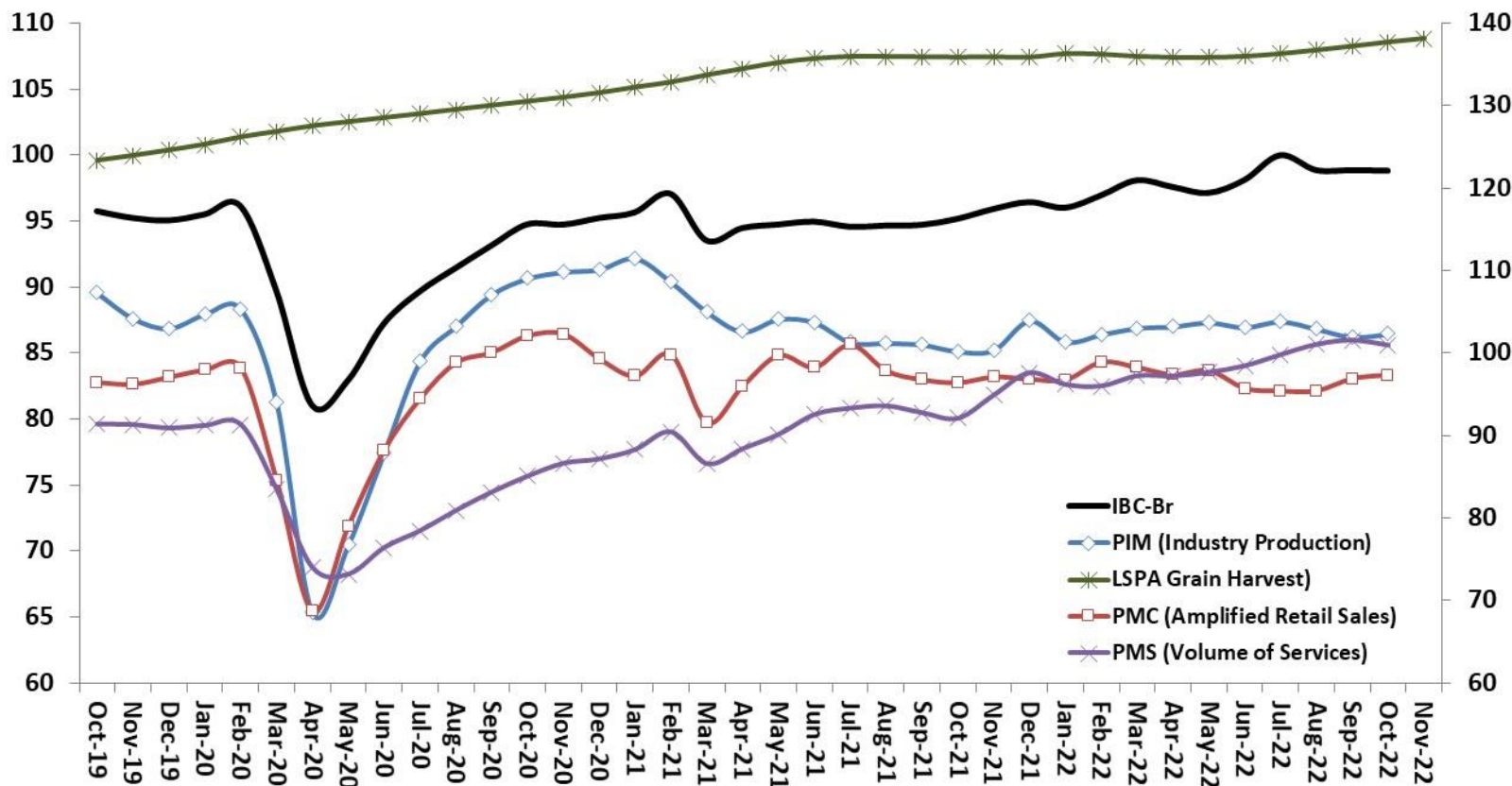


# Major Monthly Economic Activity Indicators

HIGHLIGHTS

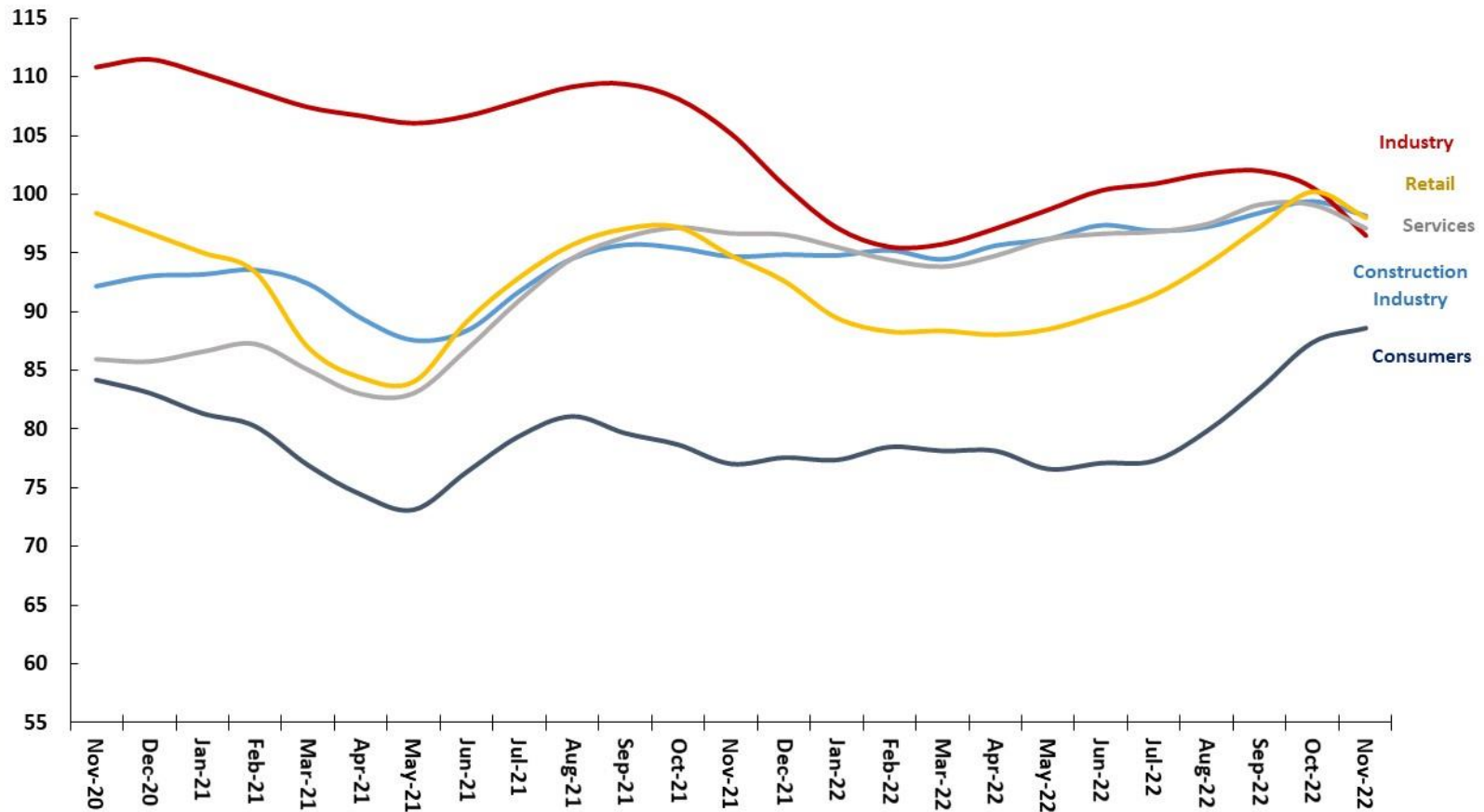
IBC-Br, Grain Harvest (12-mo MA) and Industry Production  
Seasonally Adjusted Index (2014 = 100)

Amplified Retail Sales and Volume of Services  
Seasonally Adjusted Index (2014 = 100)



Sources: Central Bank of Brazil and IBGE: Systematic Survey of Agricultural Production (LSPA), Monthly Survey of Industry (PIM), Monthly Survey of Trade (PMC), and Monthly Survey of Services (PMS).

Economic Confidence Indicators  
3-month moving average



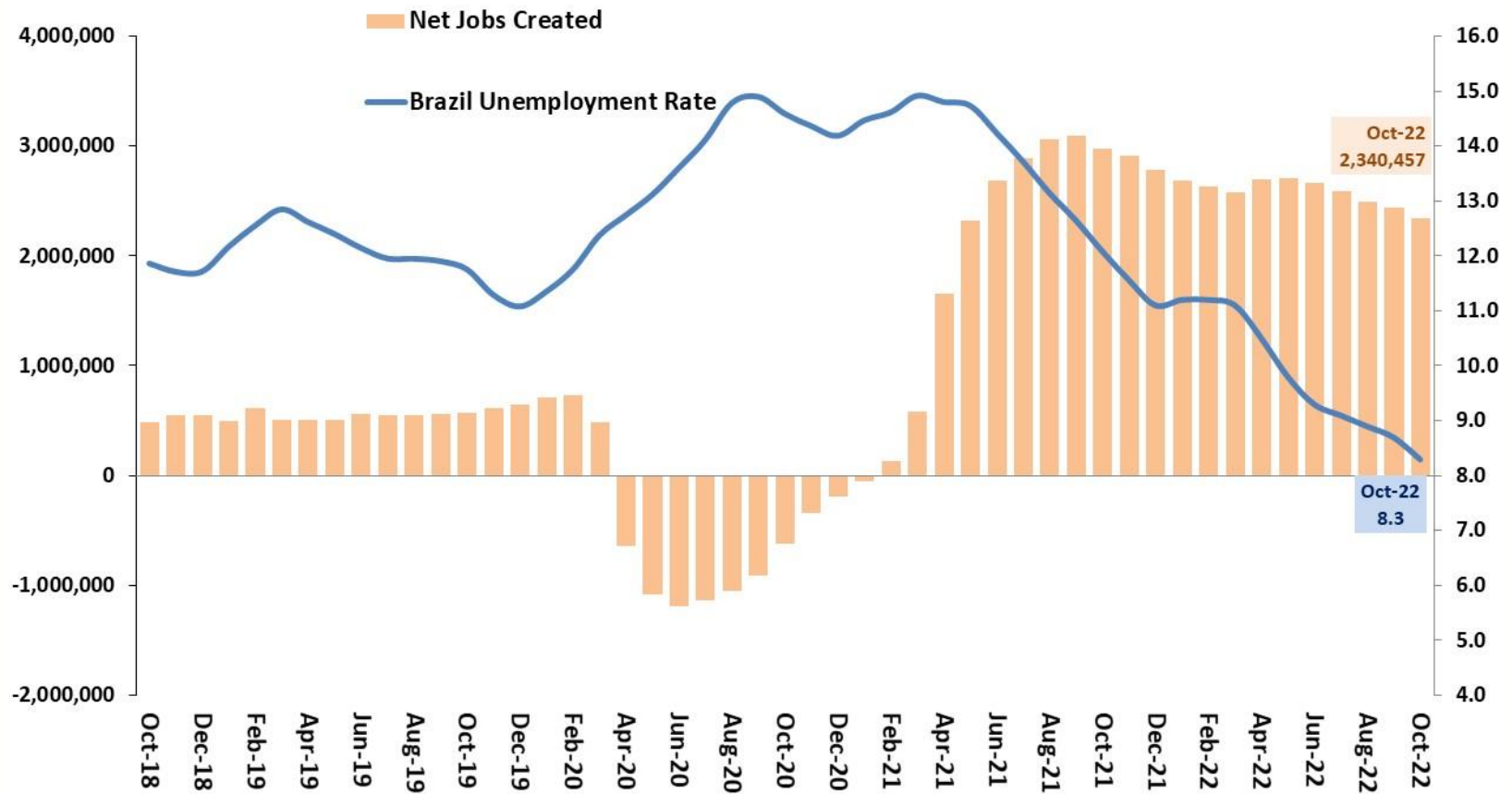
Source: IBRE/FGV.

# Unemployment Rate and Net Formal Job Creation

HIGHLIGHTS

Net Formal Jobs Creation  
12-Month Accumulated Figures

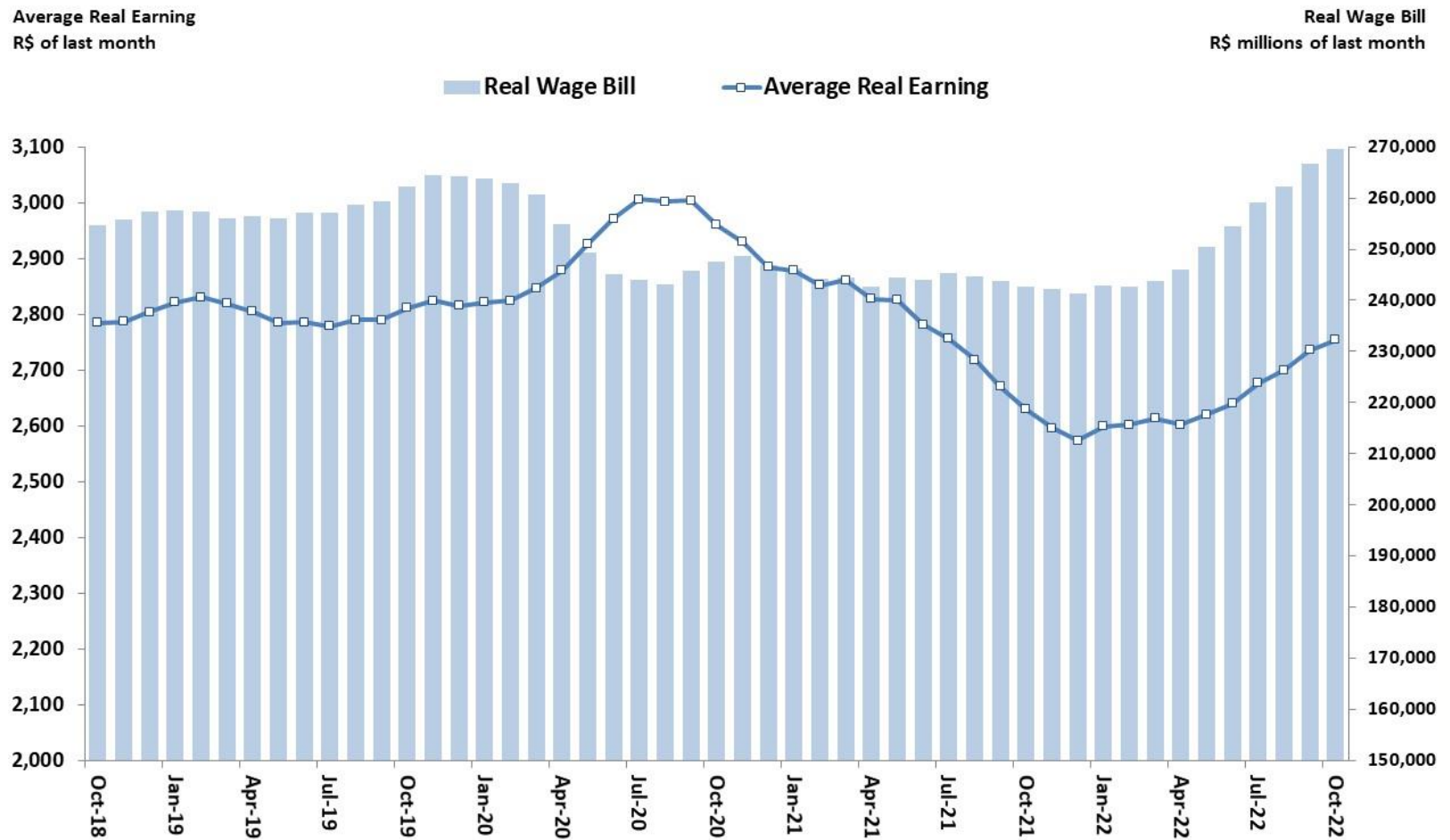
Brazil Unemployment Rate  
% of Labor Force



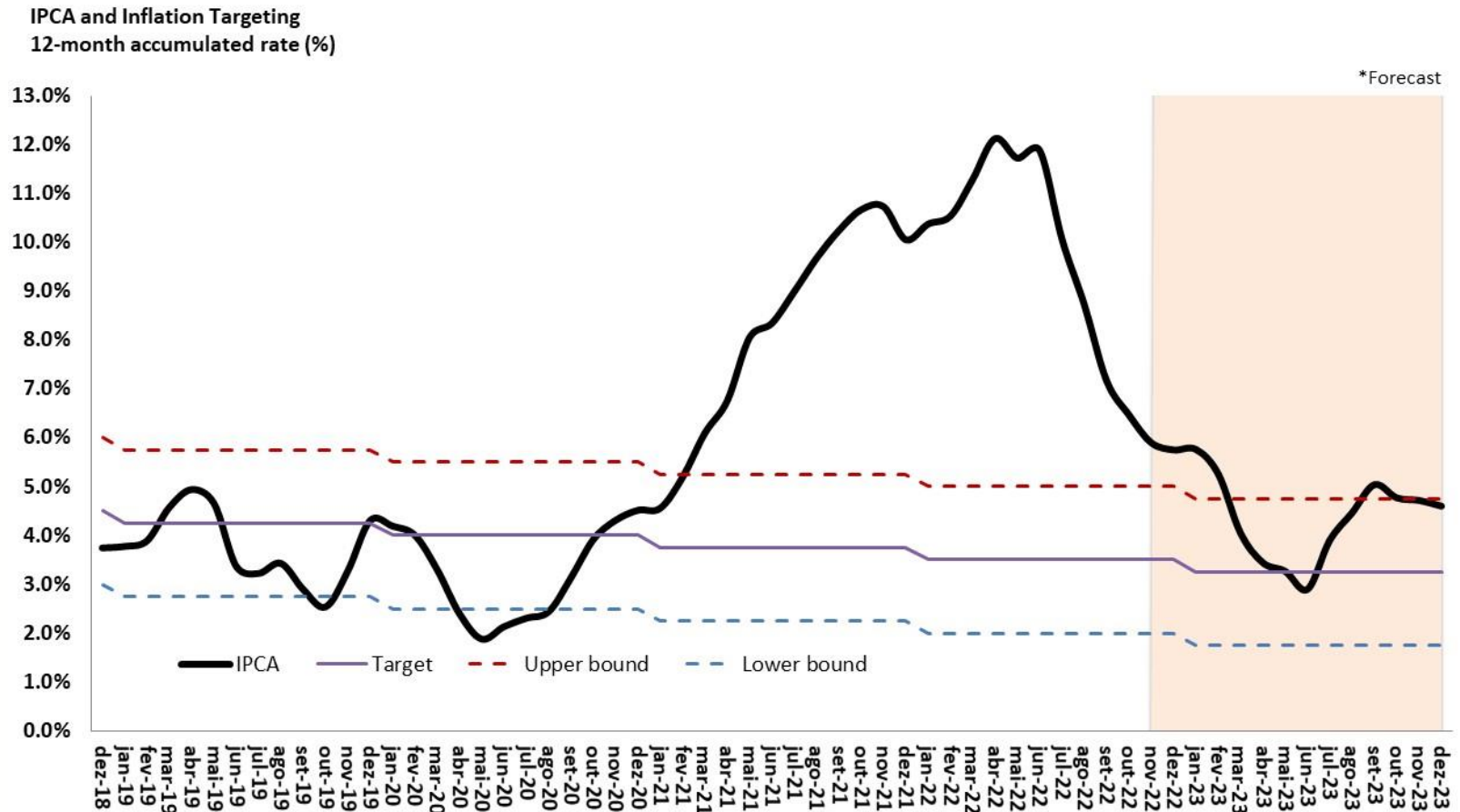
Sources: IBGE - PNADC and ME-CAGED (adjusted data).

# Real Wage Bill and Average Real Earning

HIGHLIGHTS



Source: IBGE - PNADC.

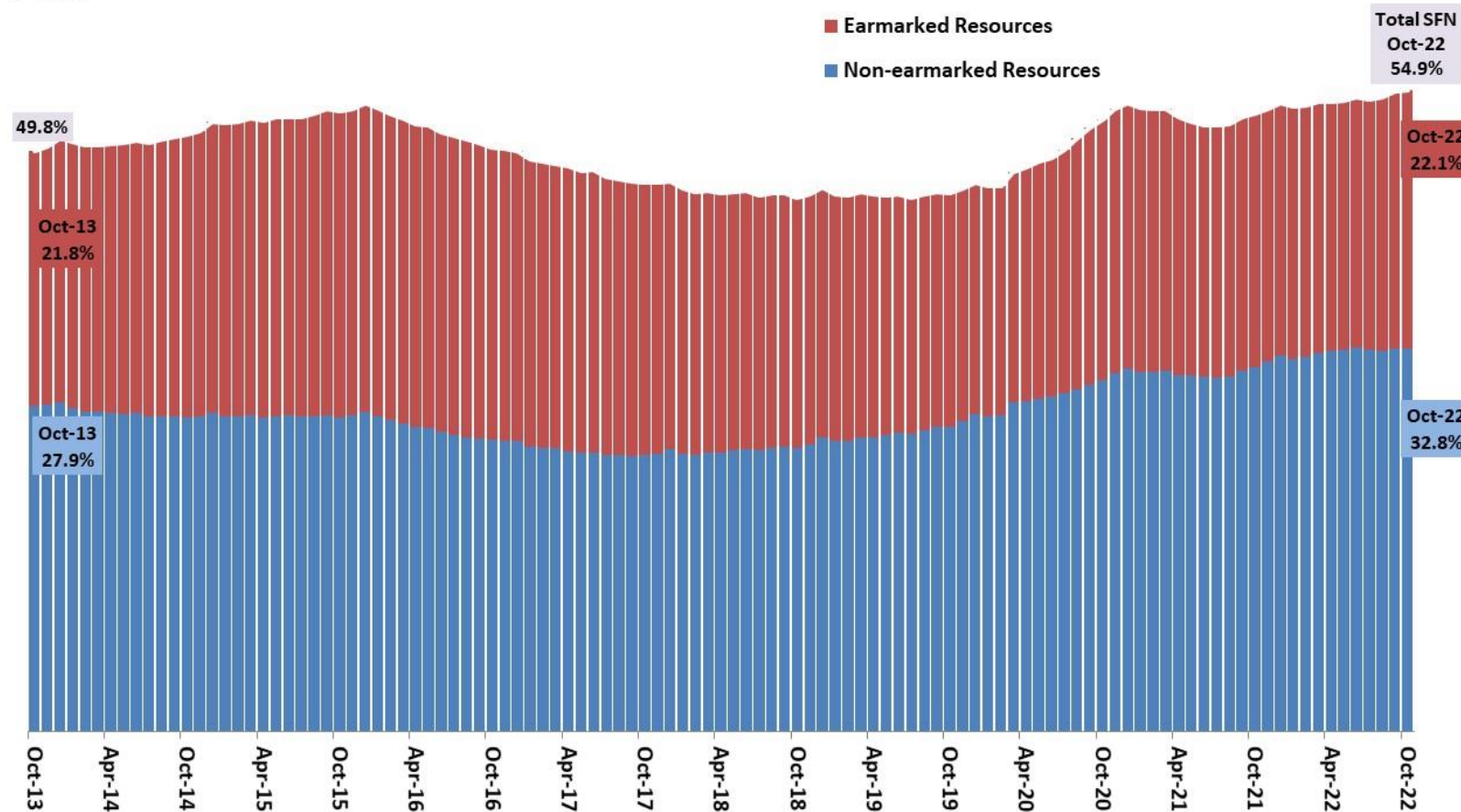


Source: IBGE and Central Bank of Brazil. \*Forecast: Macroeconomic Parameters, November-2022.

# Total Credit: Earmarked and Non-earmarked Resources

CREDIT MARKET

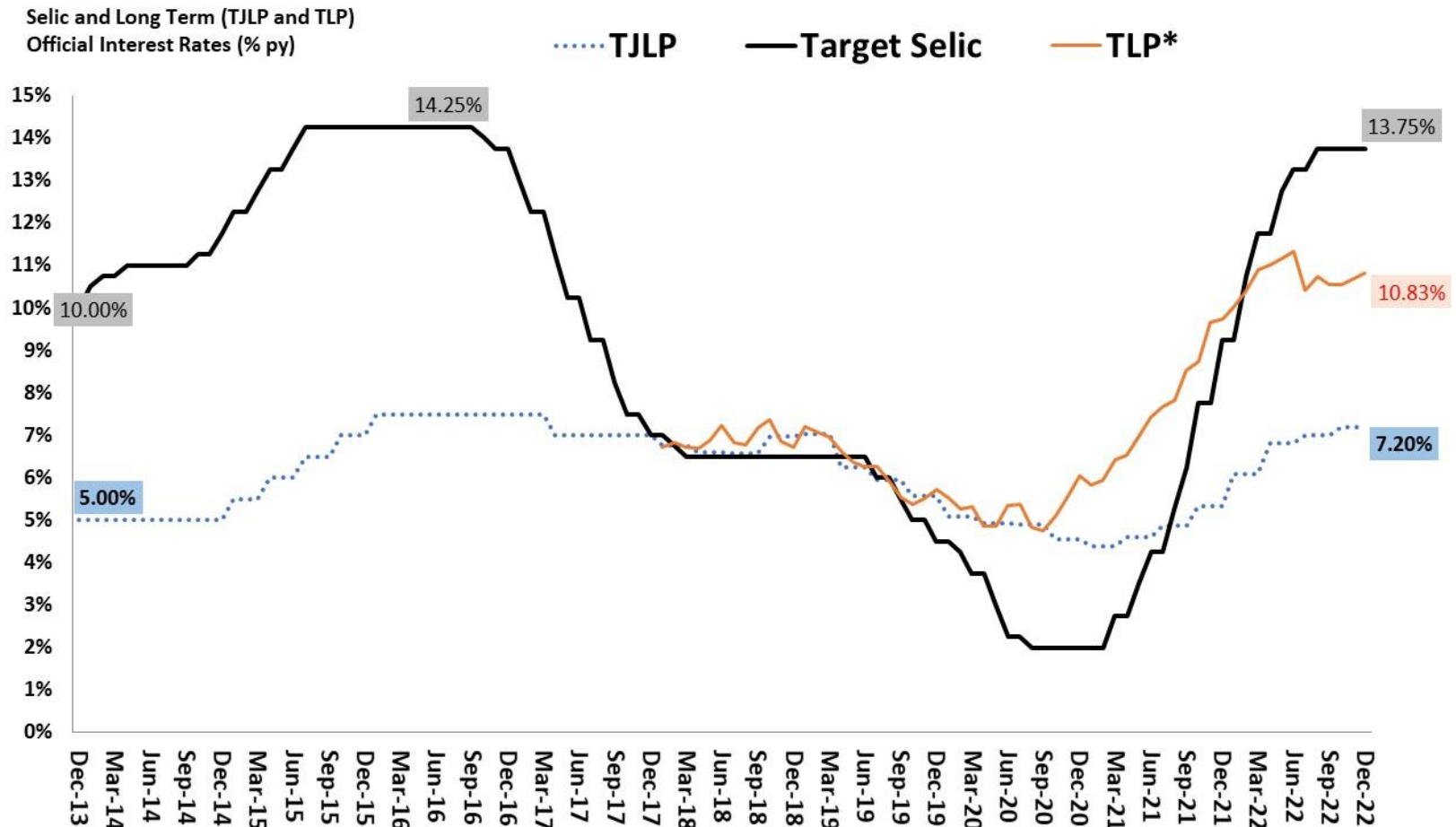
Total Outstanding Credit in National Financial System (SFN)  
% of GDP



Source: Central Bank of Brazil.

# Official Interest Rates Evolution (Target Selic and TJLP)

HIGHLIGHTS



Source: Central Bank of Brazil. \*TLP is 3-Month average of 5-Year NTN-B bonds plus IPCA Market Expectation (Focus Survey by BCB).



# Trade Balance on Goods (52 weeks daily average)

HIGHLIGHTS

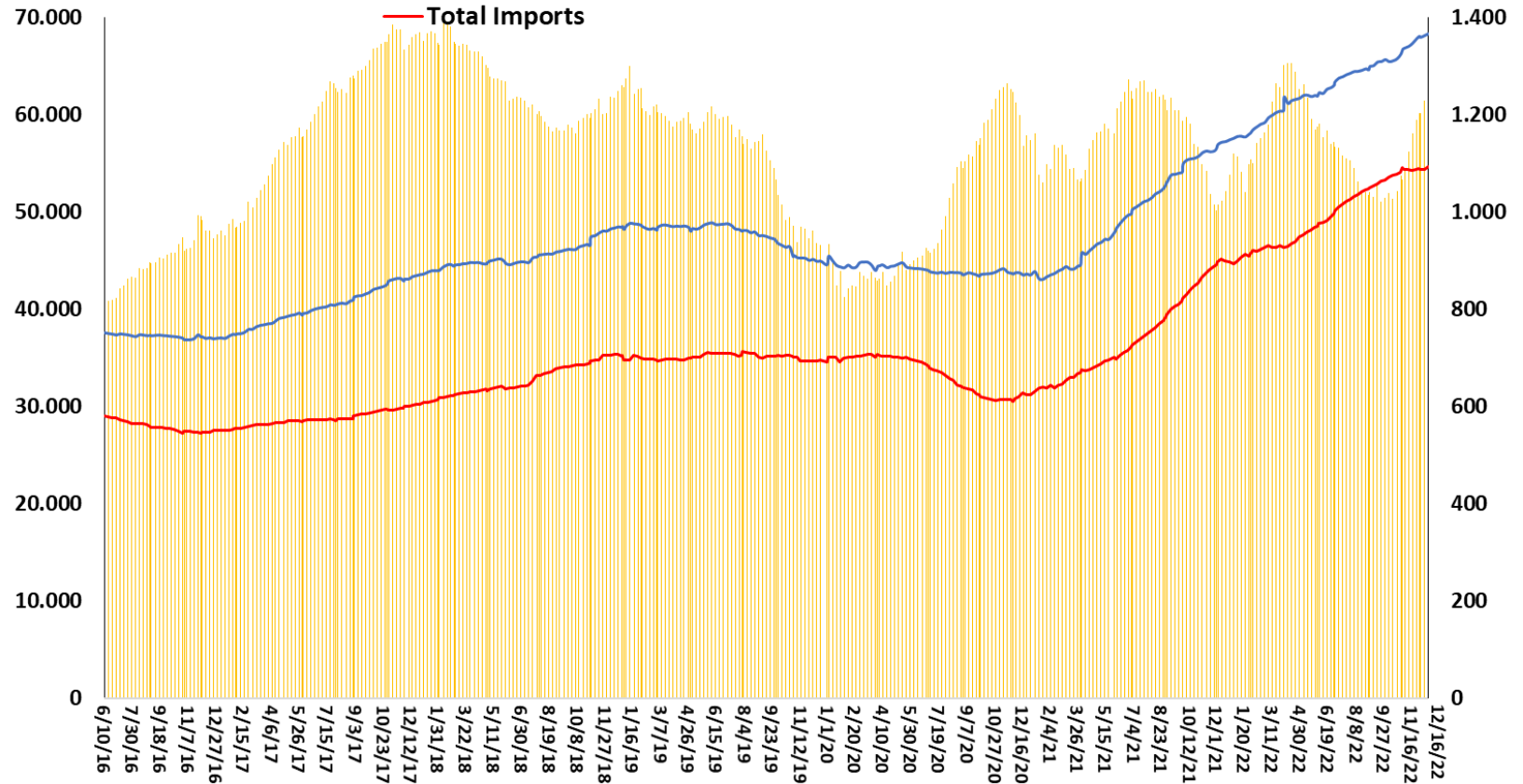
Trade Balance on Goods  
52-week Accumulated Figures  
US\$ millions FOB

Trade Balance on Goods

Total Exports

Total Imports

Total Exports and Total Imports  
52-week Moving Average  
US\$ millions FOB

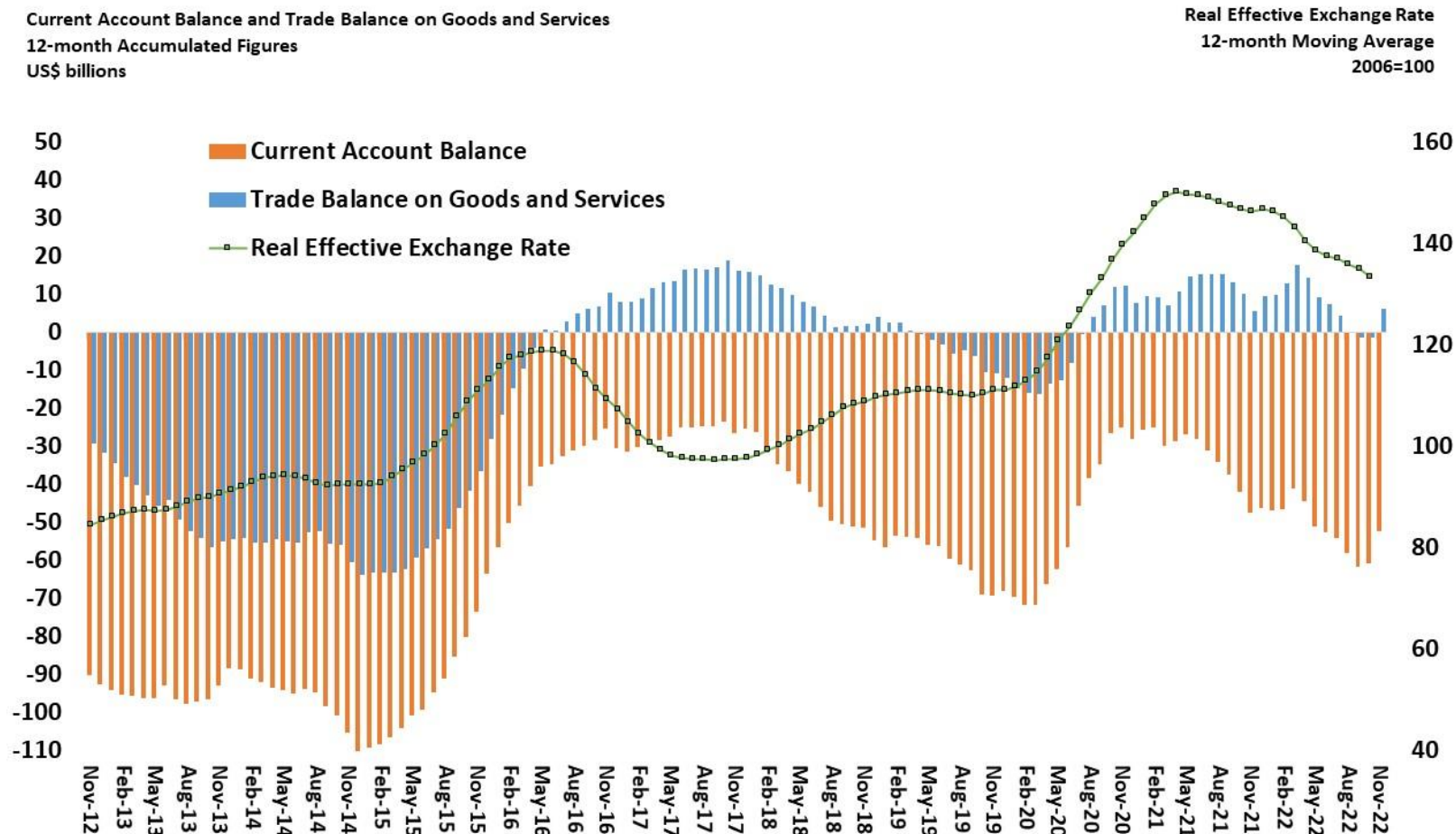


Source: SECEX.

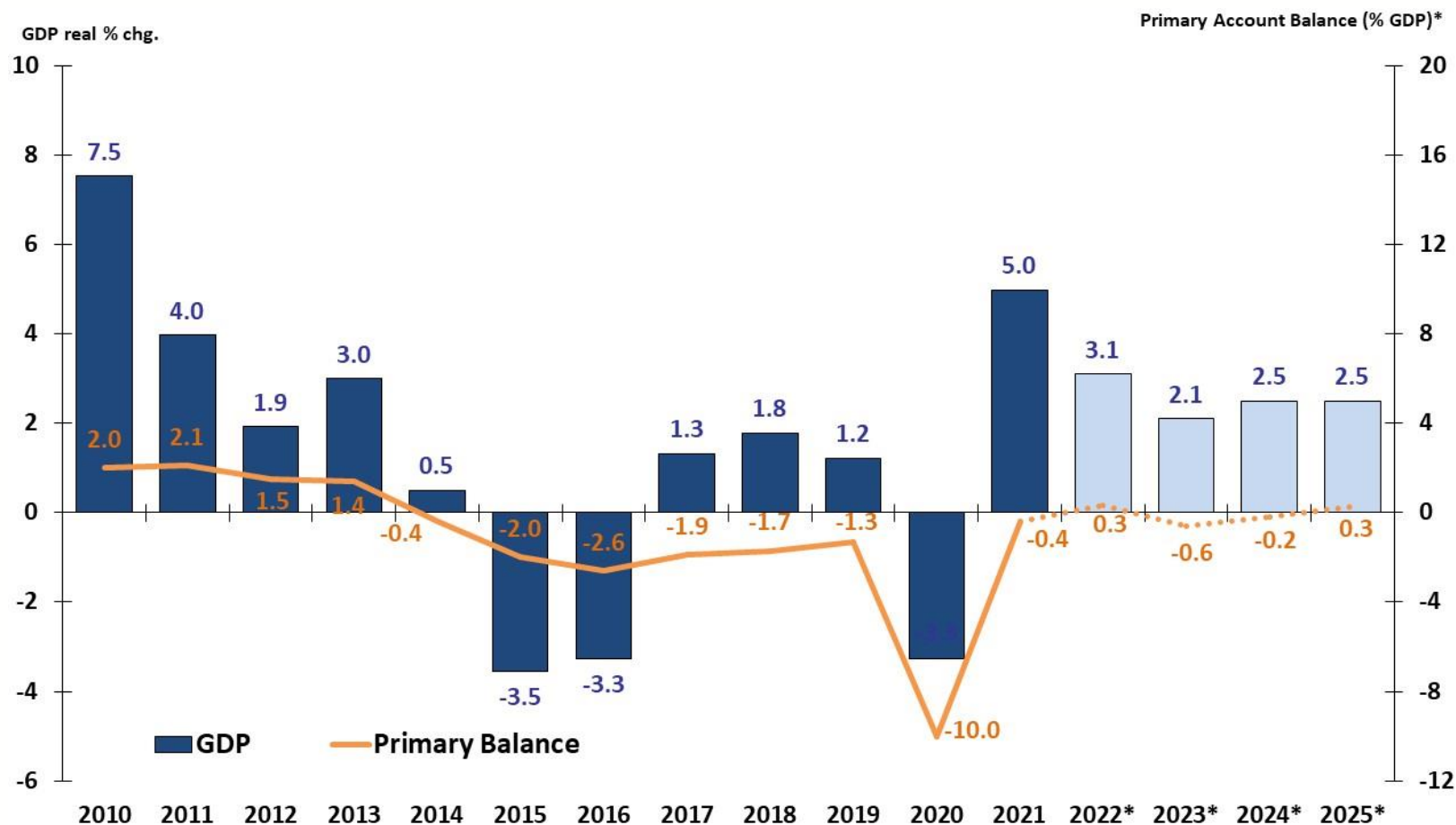


# Brazil: Real Exchange Rate and External Sector Adjustment

EXTERNAL SECTOR



Source: Central Bank of Brazil.

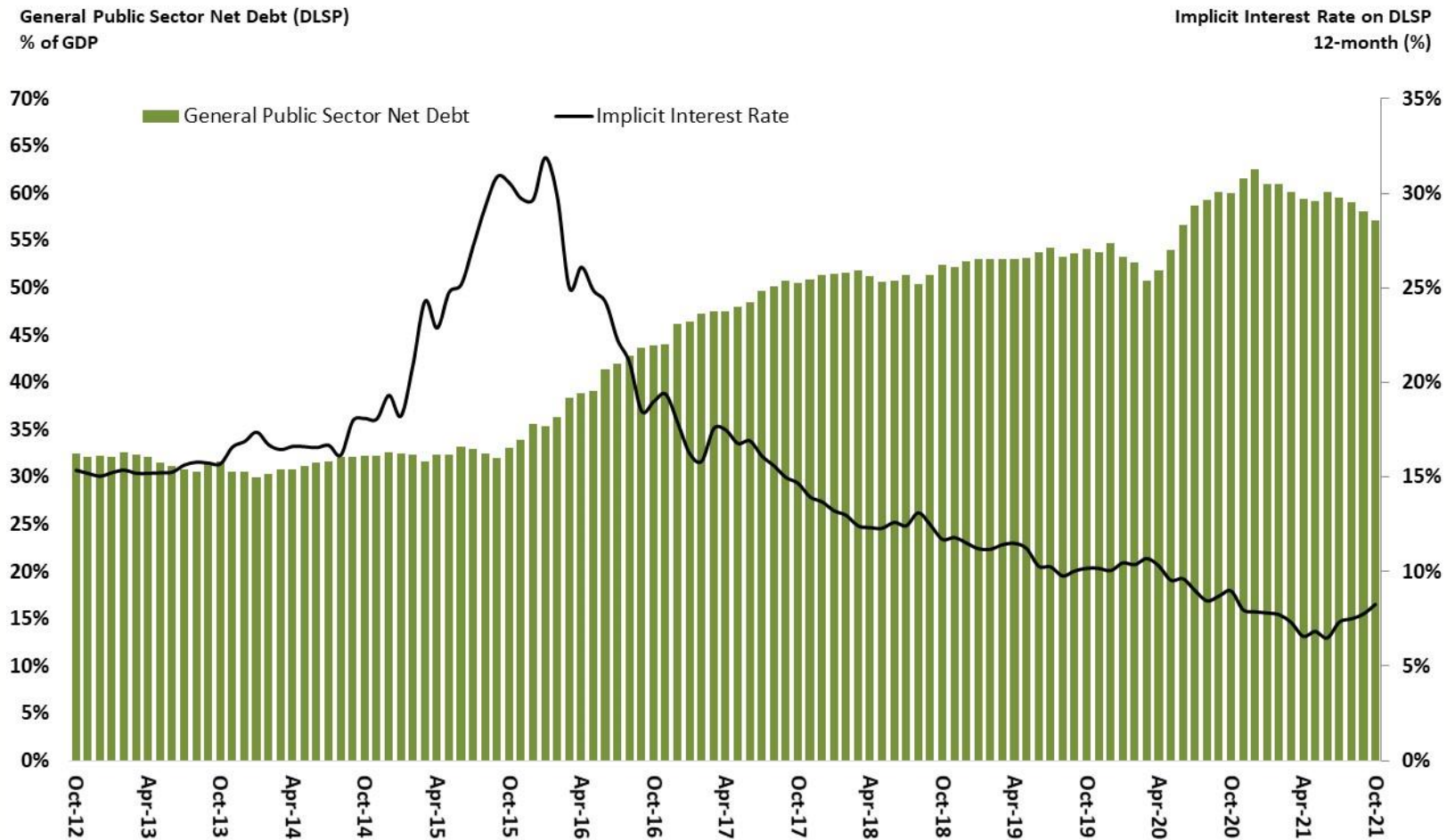


Source: IBGE, STN and Central Bank of Brazil. Primary Account Balance of Federal Government.

\* Annex-Fiscal Targets of Budgetary Guidelines Bill - PLDO 2023; and Macroeconomic Projections from SPE, December/2022.

# Public Sector Net Debt (as % GDP)

HIGHLIGHTS



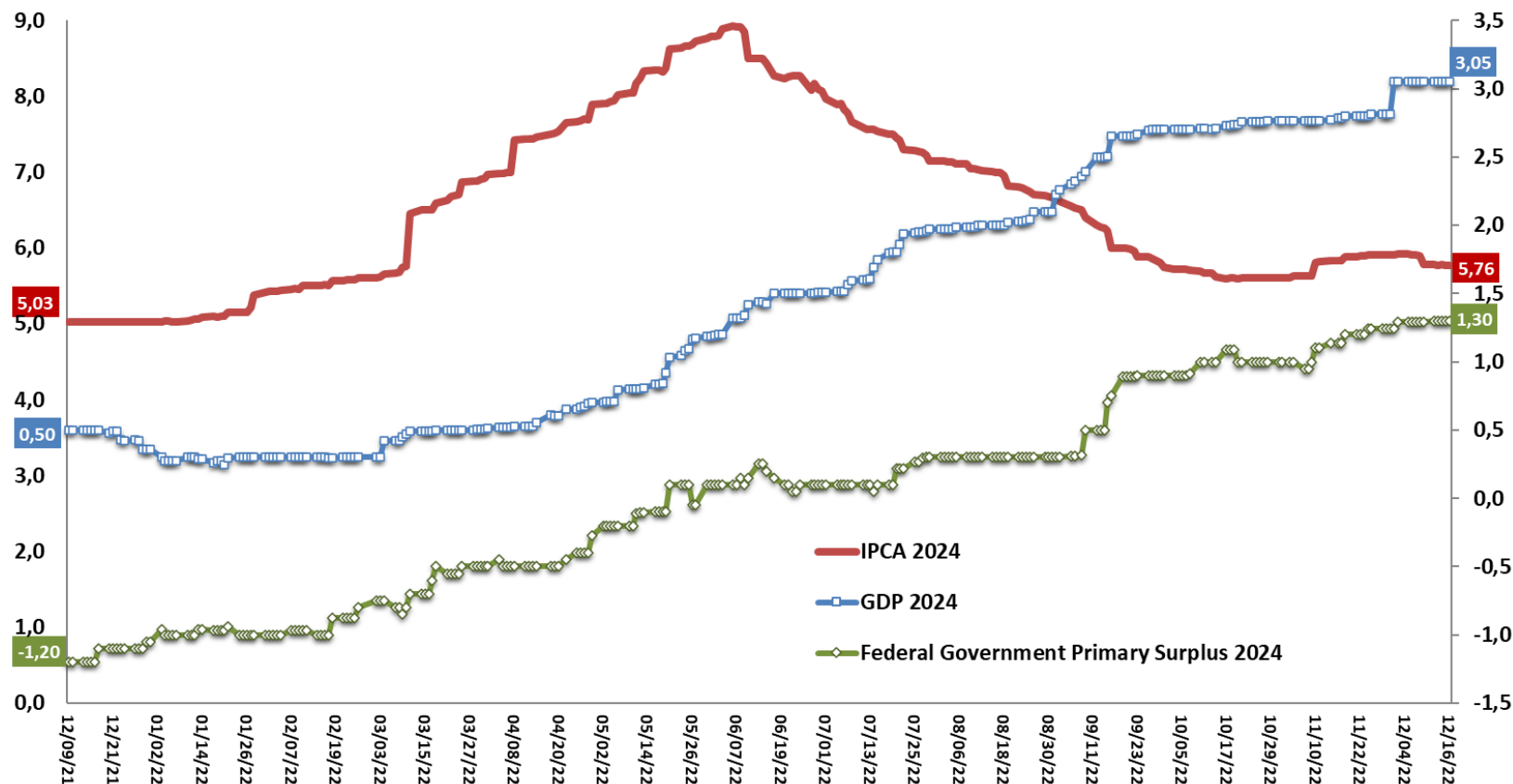
# Market Expectations

# Market Expectations for 2022

MARKET EXPECTATIONS

Median 2022 Market Forecast  
Consumer Inflation (IPCA) and GDP  
% p.a.

Median 2022 Market Forecast  
Federal Government Primary Surplus  
as % GDP



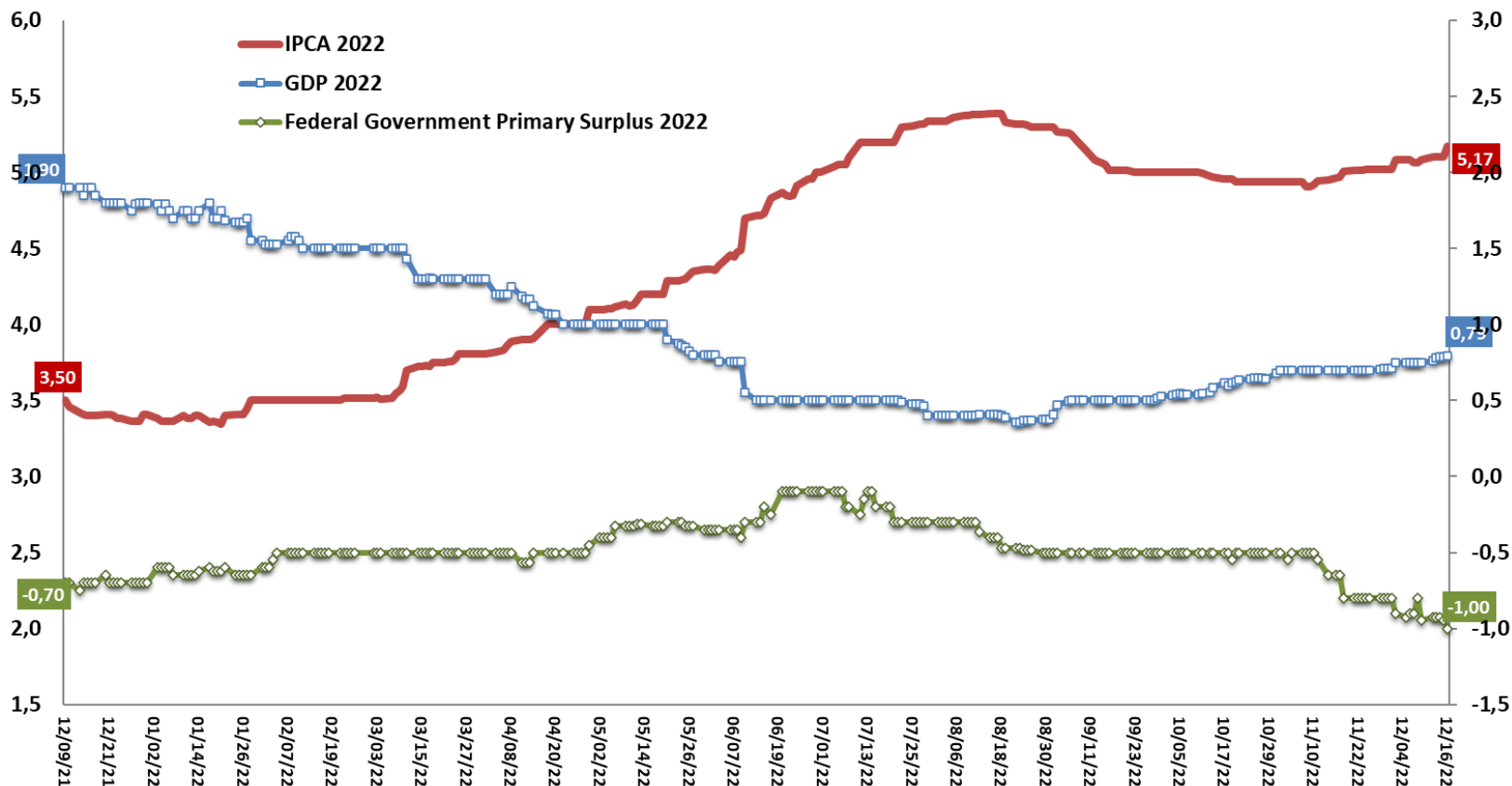
Source: Focus Survey, Central Bank of Brazil.

# Market Expectations for 2023

MARKET EXPECTATIONS

Median 2023 Market Forecast  
Consumer Inflation (IPCA) and GDP  
% p.a.

Median 2023 Market Forecast  
Federal Government Primary Surplus  
as % GDP



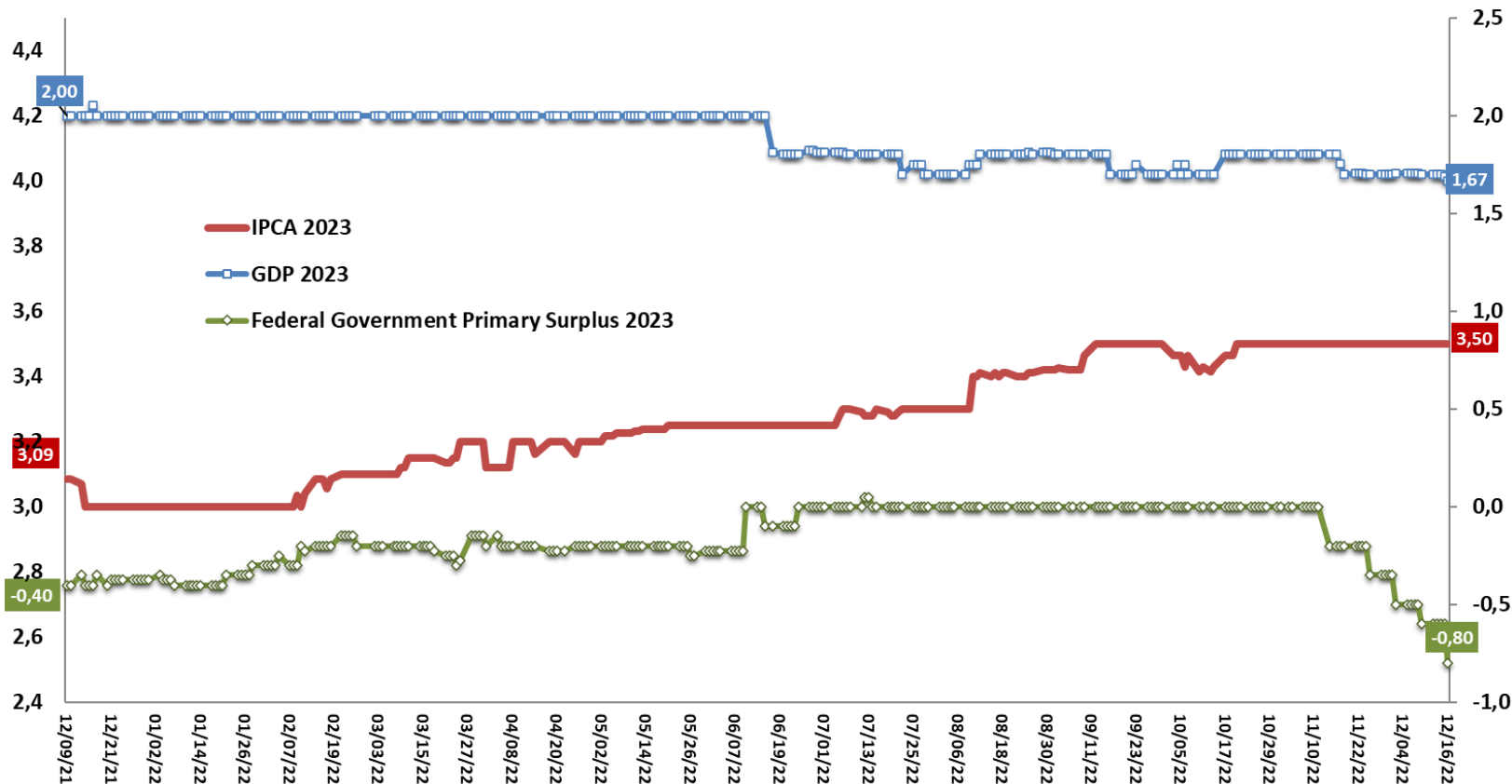
Source: Focus Survey, Central Bank of Brazil.

# Market Expectations for 2024

MARKET EXPECTATIONS

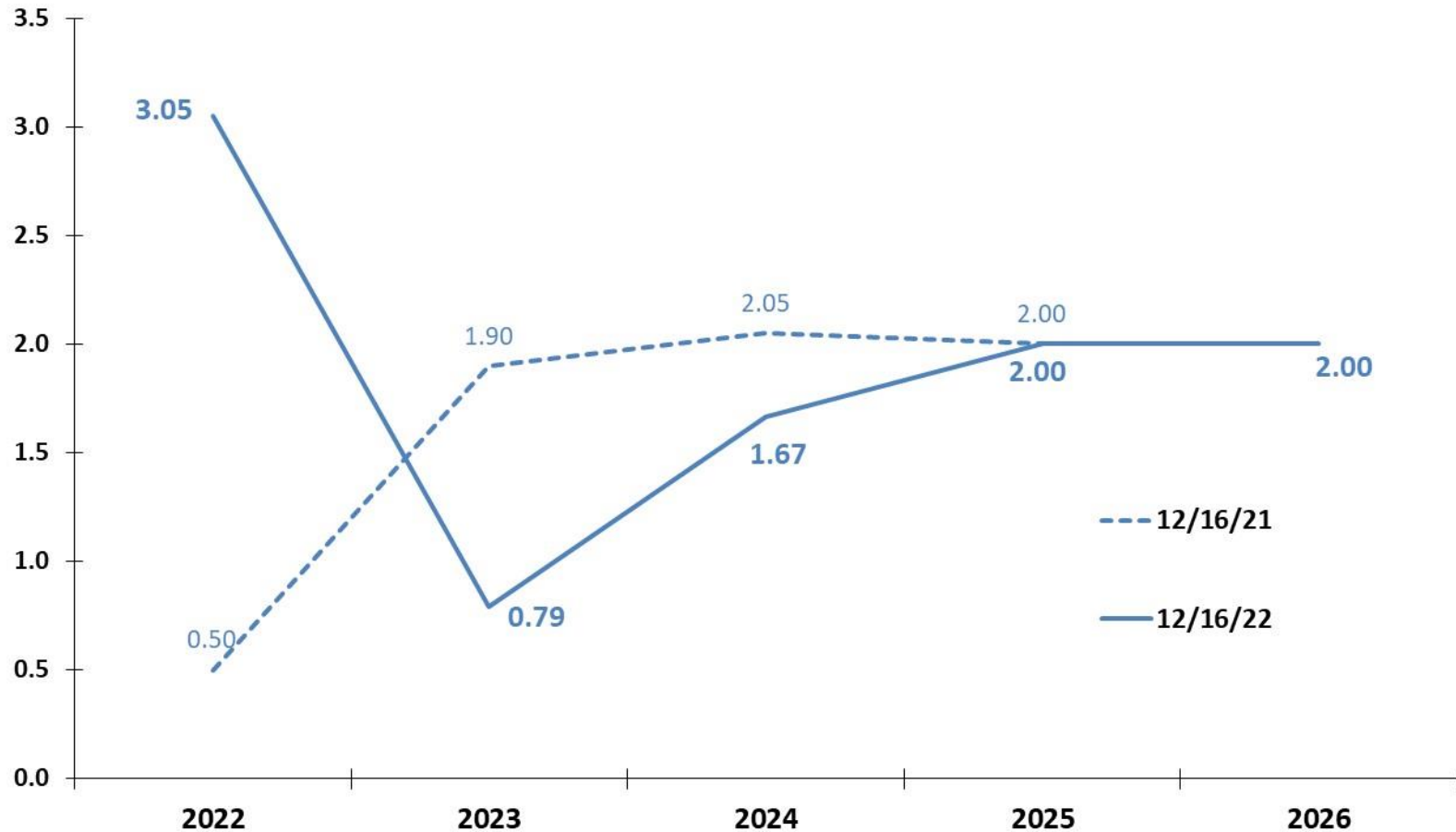
Median 2024 Market Forecast  
Consumer Inflation (IPCA) and GDP  
% p.a.

Median 2024 Market Forecast  
Federal Government Primary Surplus  
as % GDP



Source: Focus Survey, Central Bank of Brazil.

Real GDP chg. (%) - Median of Market Expectations



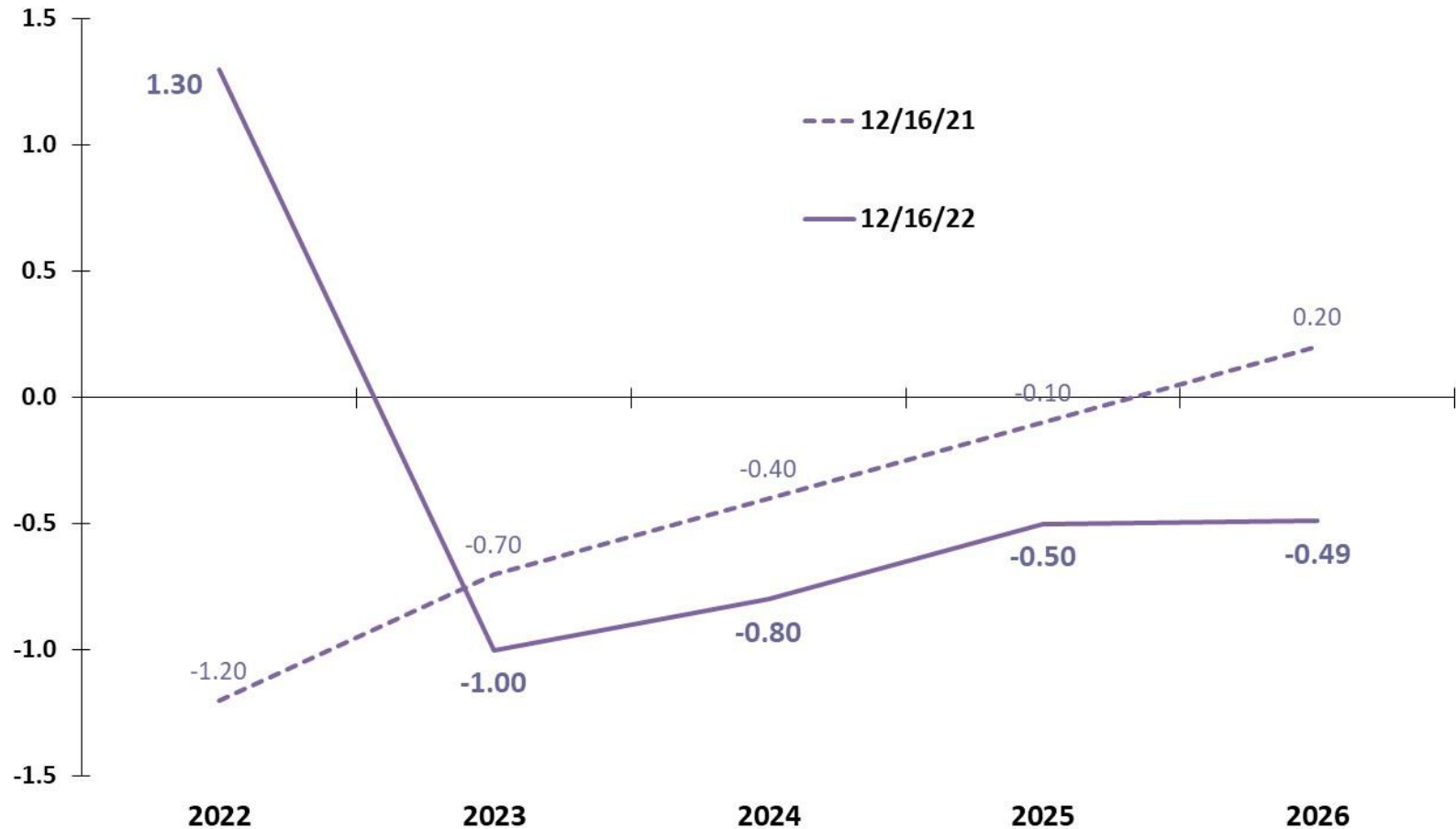
Source: Focus Survey, Central Bank of Brazil.



# Primary Surplus: Median Market Forecast

MARKET EXPECTATIONS

Federal Government Primary Surplus (%) - Median of Market Expectations

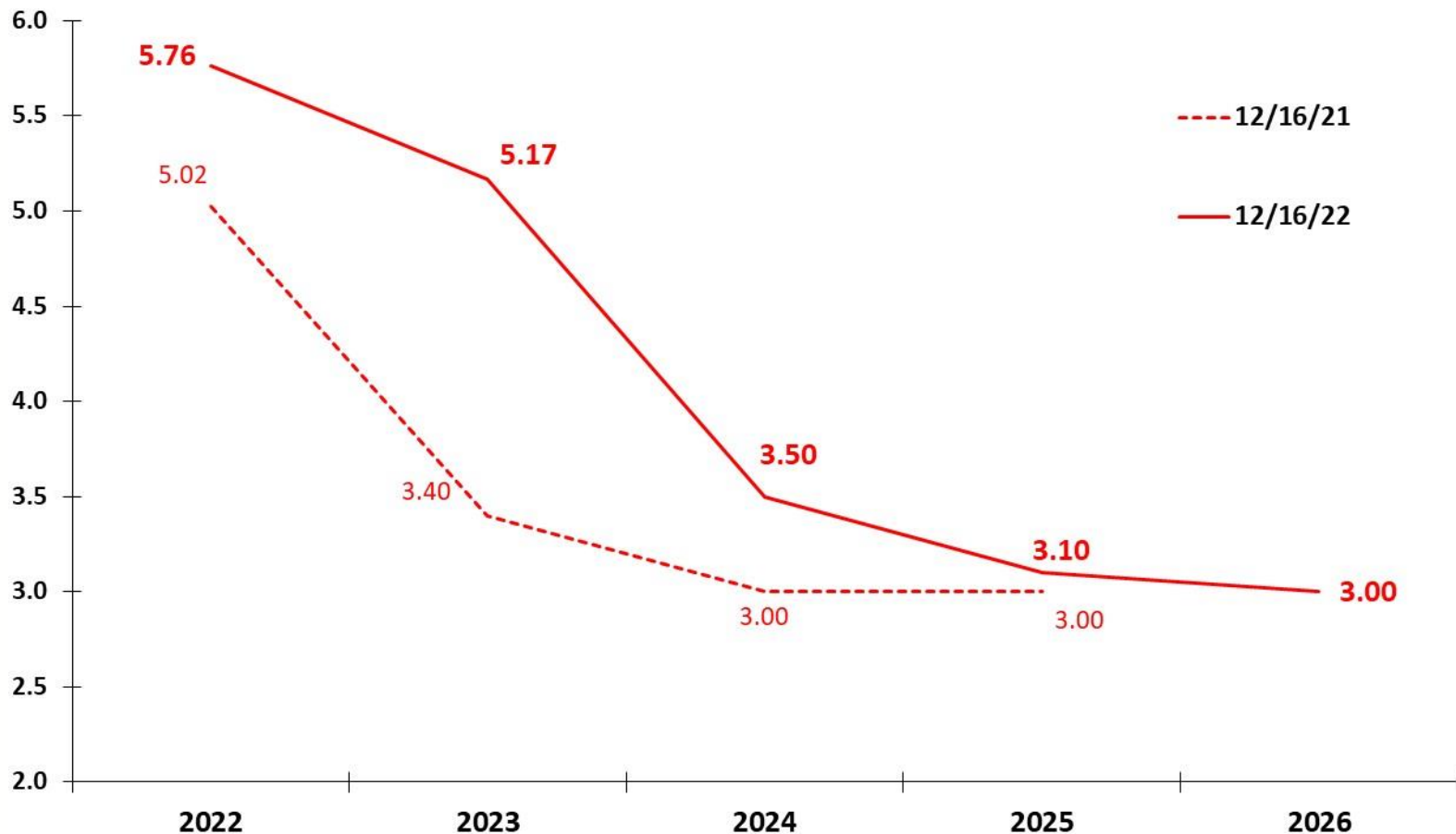


Source: Focus Survey, Central Bank of Brazil.

# Consumer Price Index (IPCA): Median Market Forecast

MARKET EXPECTATIONS

Consumer Price Index (IPCA) % p.a. - Median of Market Expectations

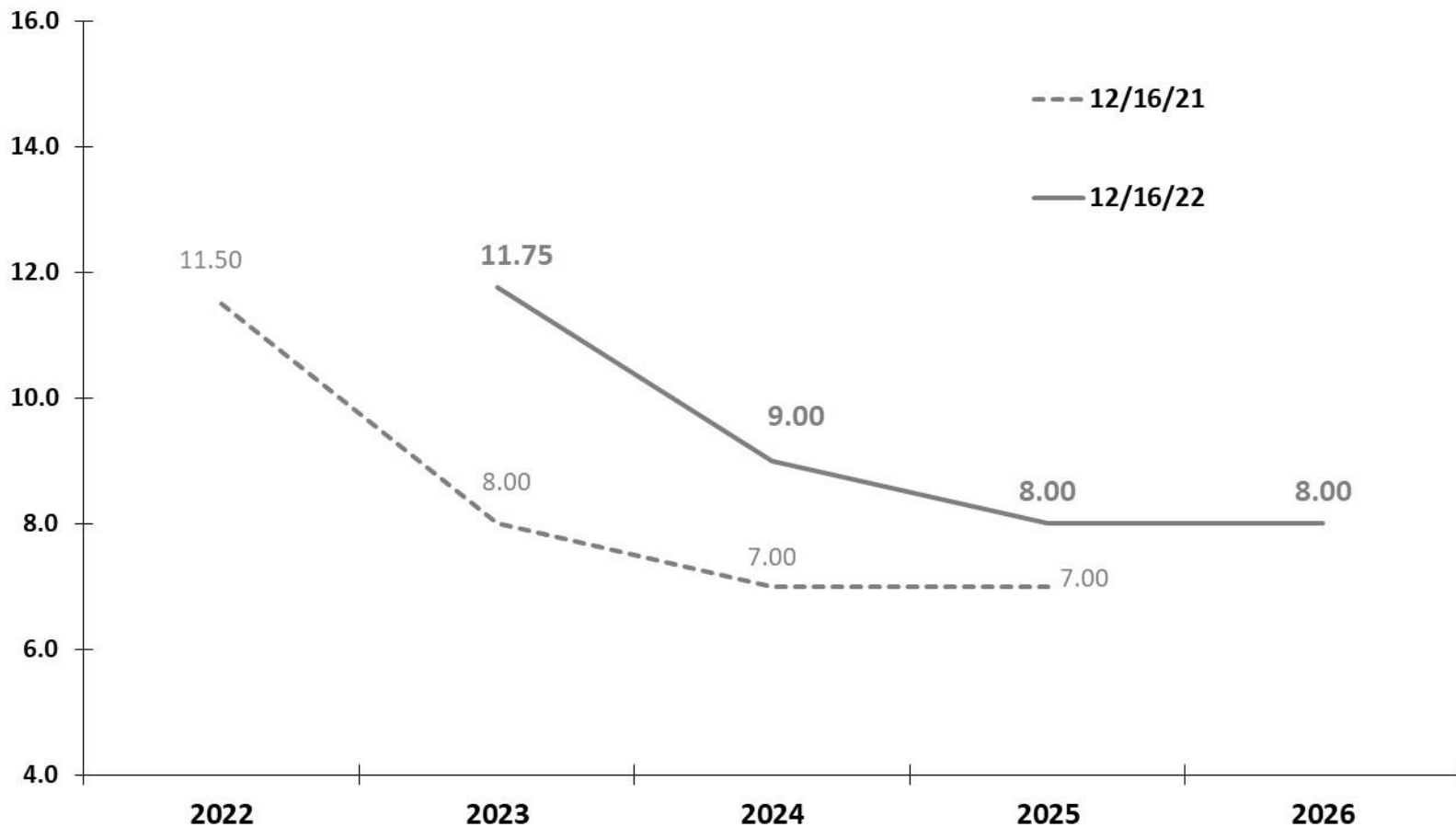


Source: Focus Survey, Central Bank of Brazil.

# Main Interest Rate (Selic target): Median Market Forecast

MARKET EXPECTATIONS

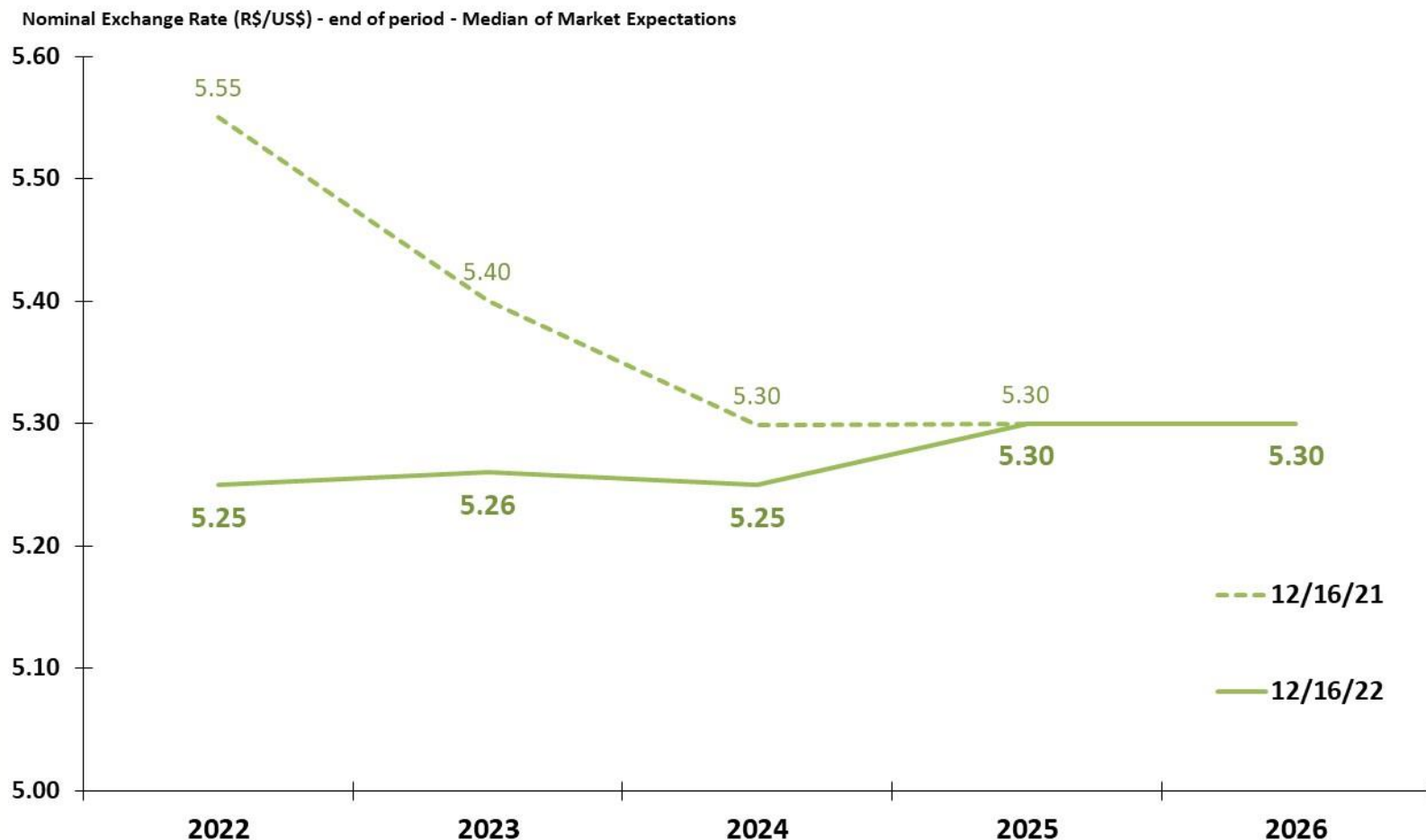
Main Interest Rate (Selic target) - % p.a. end of period - Median of Market Expectations



Source: Focus Survey, Central Bank of Brazil.

# Nominal Exchange Rate: Median Market Forecast

MARKET EXPECTATIONS



Source: Focus Survey, Central Bank of Brazil.

Economic activity

# GDP and Quarterly Economic Activity

ECONOMIC ACTIVITY

BCB/Focus: 12/16/22

Gross Domestic Product (IBGE)	Q3 2022											2022	2023	2024
	% change	2020	2021	Q2 2022 / Q2 2021	Q3 2022 / Q3 2021	Q2 2022 / Q1 2022 (seasonally adjusted)	Q3 2022 / Q2 2022 (seasonally adjusted)	Year-To-Date	Q2 2022 accum. in 4-quarters	Q3 2022 accum. in 4-quarters	carry-over 2022			
Agriculture		4.2%	0.3%	-0.9%	3.2%	0.1%	-0.9%	-1.5%	-3.8%	-1.3%	-1.0%	-0.25%	4.10%	2.95%
Industry		-3.0%	4.8%	2.1%	2.8%	1.7%	0.8%	1.3%	0.4%	0.8%	1.8%	1.52%	0.20%	1.50%
Services		-3.7%	5.2%	4.7%	4.5%	1.3%	1.1%	4.4%	4.8%	4.4%	4.2%	3.70%	0.90%	1.55%
<b>GDP (market prices)</b>		<b>-3.3%</b>	<b>5.0%</b>	<b>3.7%</b>	<b>3.6%</b>	<b>1.0%</b>	<b>0.4%</b>	<b>3.2%</b>	<b>3.2%</b>	<b>3.0%</b>	<b>2.4%</b>	<b>3.05%</b>	<b>0.79%</b>	<b>1.67%</b>
Household Expenditure		-4.6%	3.7%	5.7%	4.6%	2.1%	1.0%	4.3%	3.7%	3.7%	4.2%	0.80%	1.20%	2.00%
Government Expenditure		-3.7%	3.5%	0.9%	1.0%	-0.9%	1.3%	1.9%	3.6%	2.5%	1.4%	1.40%	0.70%	1.30%
Gross Fixed Capital Formation		-1.7%	16.5%	1.5%	5.0%	3.8%	2.8%	0.0%	3.8%	0.8%	1.0%	-1.55%	1.00%	3.10%
Exports of Goods and Services		-2.3%	5.9%	-4.6%	8.1%	-2.8%	3.6%	3.6%	2.5%	3.5%	4.6%	2.95%	2.70%	3.00%
Imports of Goods and Services (-)		-9.5%	12.0%	-1.0%	10.6%	8.7%	5.8%	-0.5%	2.1%	0.4%	2.2%	1.60%	3.30%	4.50%
Economic Activity Indicators (BCB and IBGE)	Q3 2022													
	% change	2020	2021	Q2 2022 / Q2 2021	Q3 2022 / Q3 2021	Q2 2022 / Q1 2022 (seasonally adjusted)	Q3 2022 / Q2 2022 (seasonally adjusted)	Year-To-Date	Q2 2022 accum. in 4-quarters	Q3 2022 accum. in 4-quarters	carry-over 2022			
<b>IBC-Br Economic Activity Index*</b>		<b>-4.0%</b>	<b>4.4%</b>	<b>3.2%</b>	<b>4.9%</b>	<b>0.6%</b>	<b>1.7%</b>	<b>1.9%</b>	<b>2.3%</b>	<b>2.7%</b>	<b>3.3%</b>			
LSPA: Grain Harvest		4.8%	-0.1%	-0.1%	0.3%	-0.2%	4.7%	4.4%	-0.1%	0.3%	2.0%			
PIM: Industrial Production		-4.5%	3.9%	-4.4%	-0.1%	0.5%	0.8%	-3.4%	1.8%	-2.8%	-0.6%			
PMC: Amplified Retail Sales		-1.4%	4.5%	1.4%	-0.8%	1.2%	-1.0%	-1.4%	4.5%	-0.8%	-0.7%			
PMS: Volume of Services		-7.8%	10.9%	9.5%	8.3%	1.7%	1.4%	9.1%	13.6%	10.5%	7.9%			

LSPA: Systematic Survey of Agricultural Production (IBGE)

PIM: Monthly Survey of Industry (IBGE)

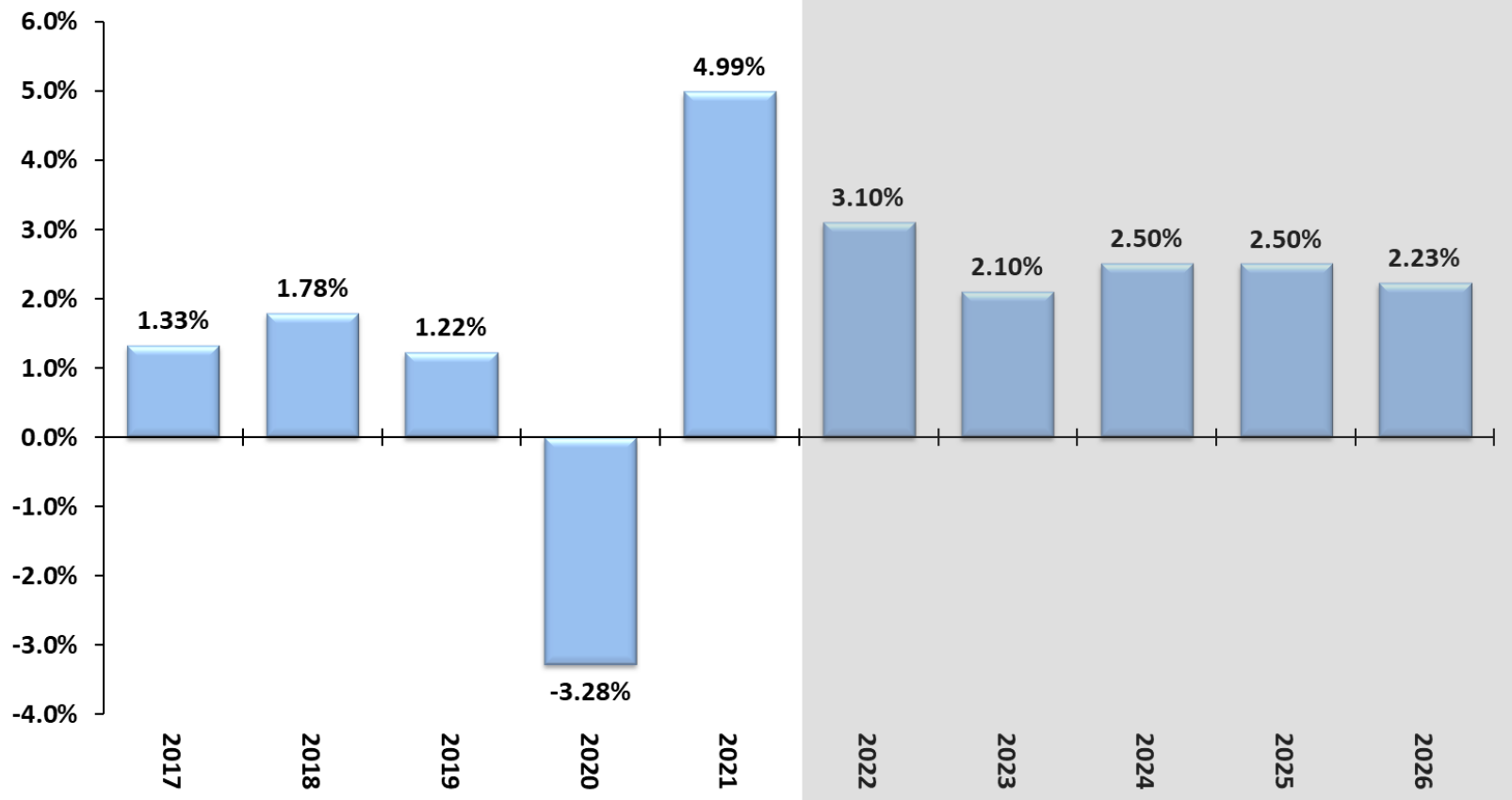
PMC: Monthly Survey of Trade (IBGE)

PMS: Monthly Survey of Services (IBGE)

Macroeconomic Parameters					
Year	Gross Domestic Product				
	Nominal		Real		Deflator
	<i>BRL million</i>	<i>Chg. %</i>	<i>Chg. %</i>	<i>Per Capita chg. %</i>	<i>Chg. %</i>
2016	6,269,328	4.56	-3.28	-4.07	8.07
2017	6,585,480	5.04	1.33	0.52	3.66
2018	7,004,141	6.36	1.78	0.96	4.49
2019	7,389,131	5.50	1.22	0.43	4.21
2020	7,609,597	2.98	-3.28	-4.01	6.48
2021	8,898,727	16.94	4.99	4.22	11.39
2022	<b>9,934,396</b>	<b>11.64</b>	<b>3.10</b>	<b>2.38</b>	<b>8.26</b>
2023	<b>10,707,551</b>	<b>7.78</b>	<b>2.10</b>	<b>1.41</b>	<b>5.53</b>
2024	<b>11,493,434</b>	<b>7.34</b>	<b>2.50</b>	<b>1.84</b>	<b>4.69</b>
2025	<b>12,295,275</b>	<b>6.98</b>	<b>2.50</b>	<b>1.87</b>	<b>4.33</b>
2026	<b>13,087,849</b>	<b>6.45</b>	<b>2.23</b>	<b>1.63</b>	<b>4.09</b>

Source: SPE/ME. Macroeconomic Parameters, December-2022.

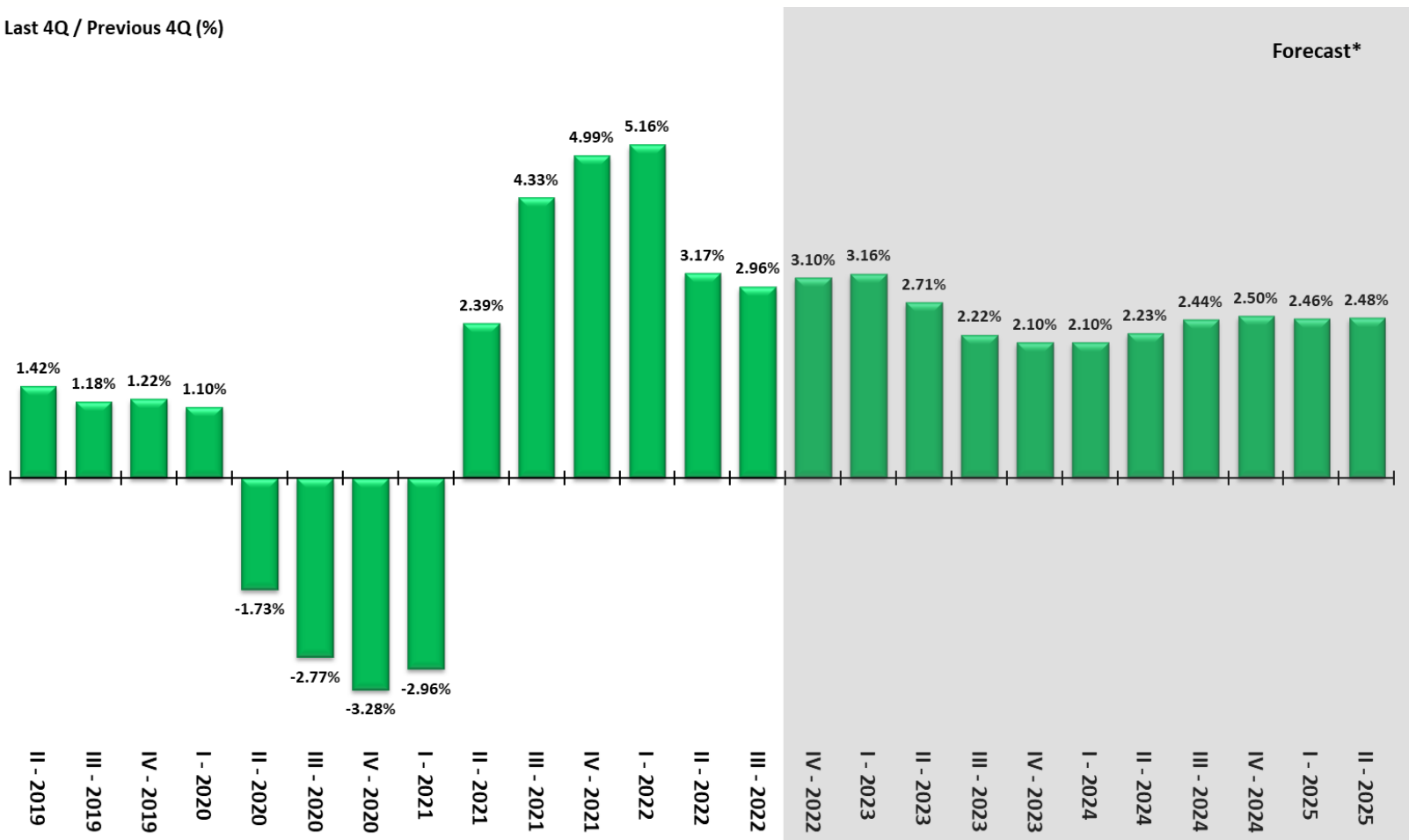
Last 4Q / Previous 4Q (%)



Source: IBGE, Quarterly National Accounts Series \*Forecast: Macroeconomic Parameters, December-2022.

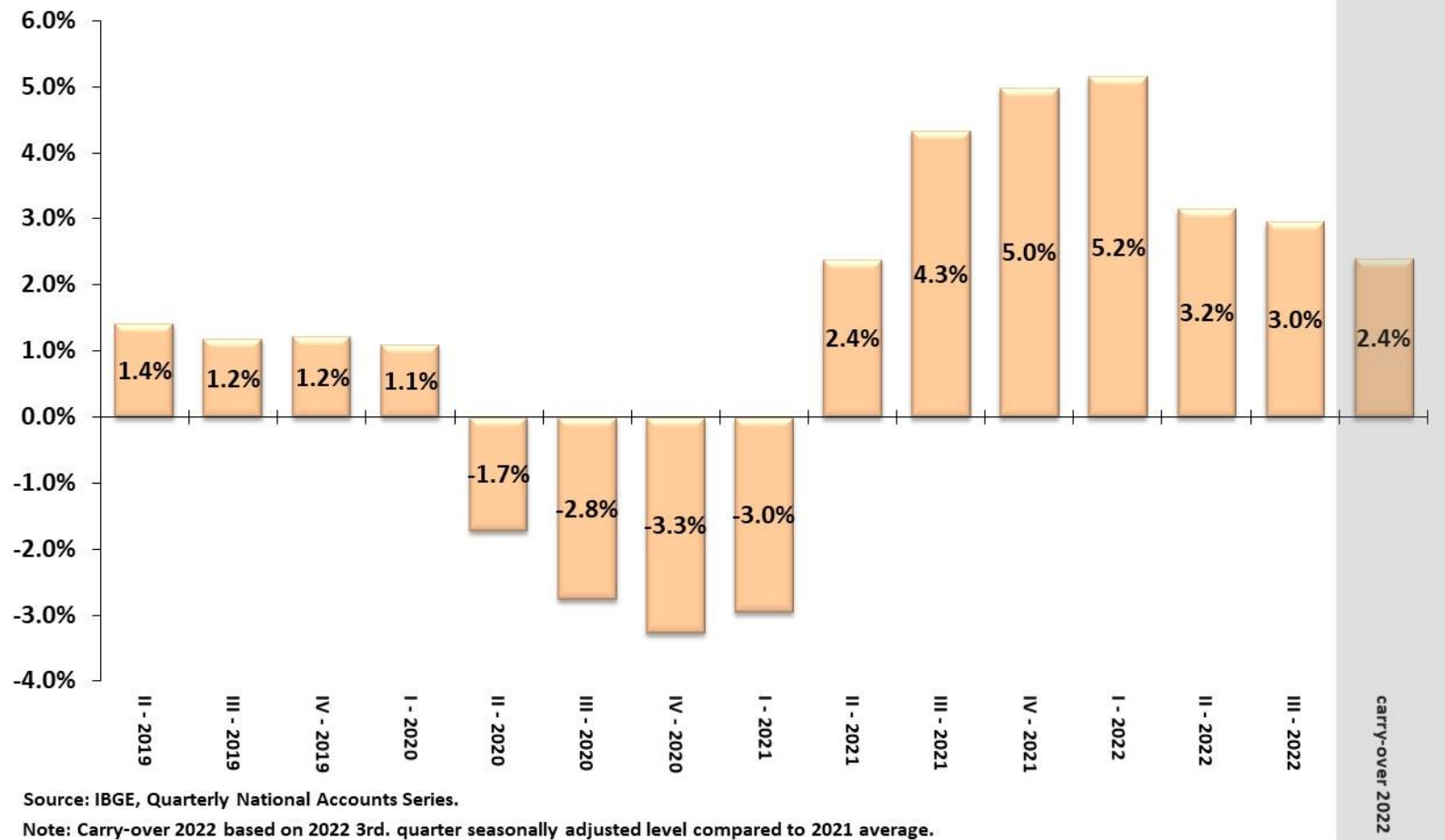


Last 4Q / Previous 4Q (%)



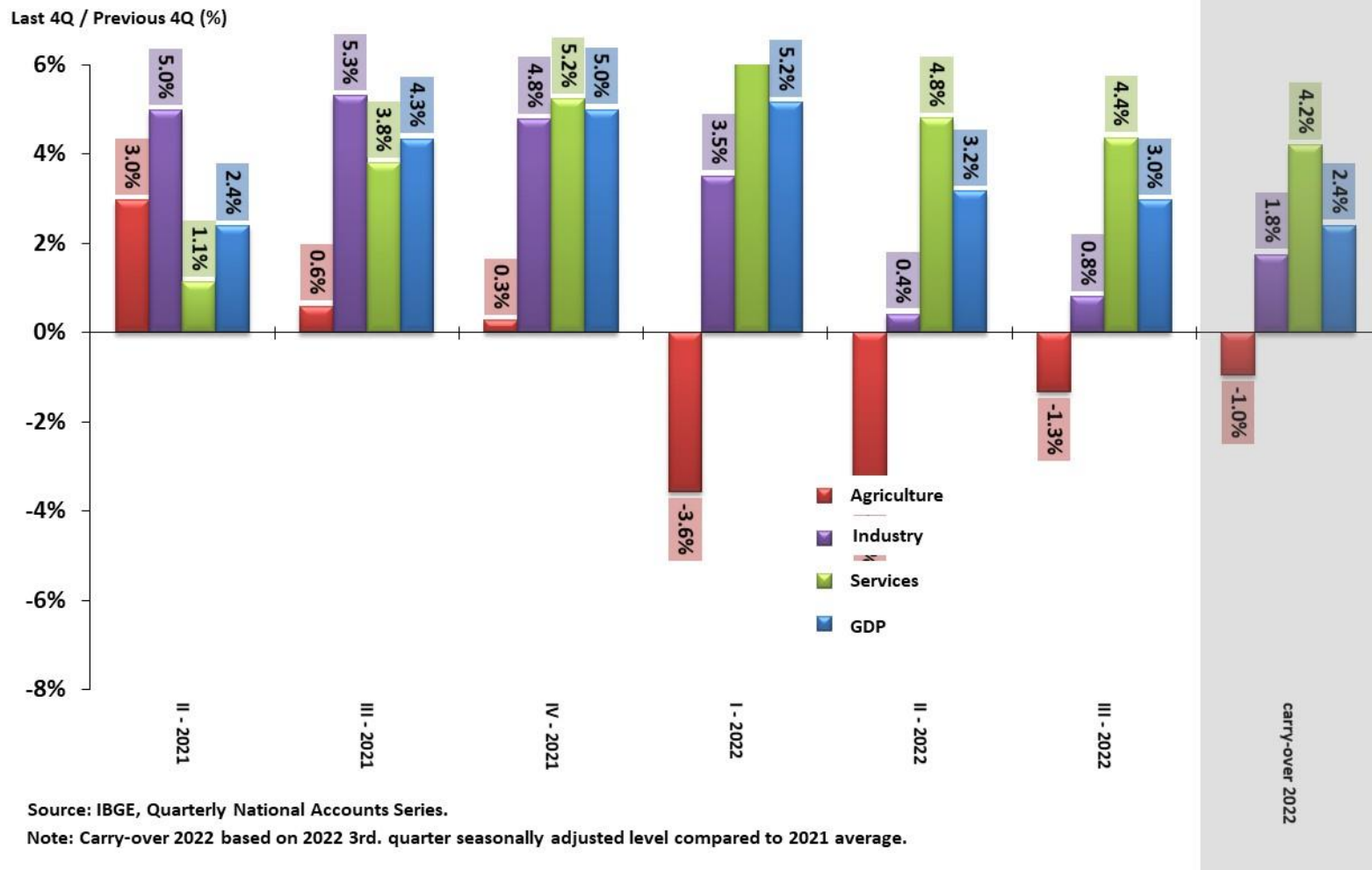
Source: IBGE, Quarterly National Accounts Series \*Forecast: Macroeconomic Parameters, December-2022.

Last 4Q / Previous 4Q (%)



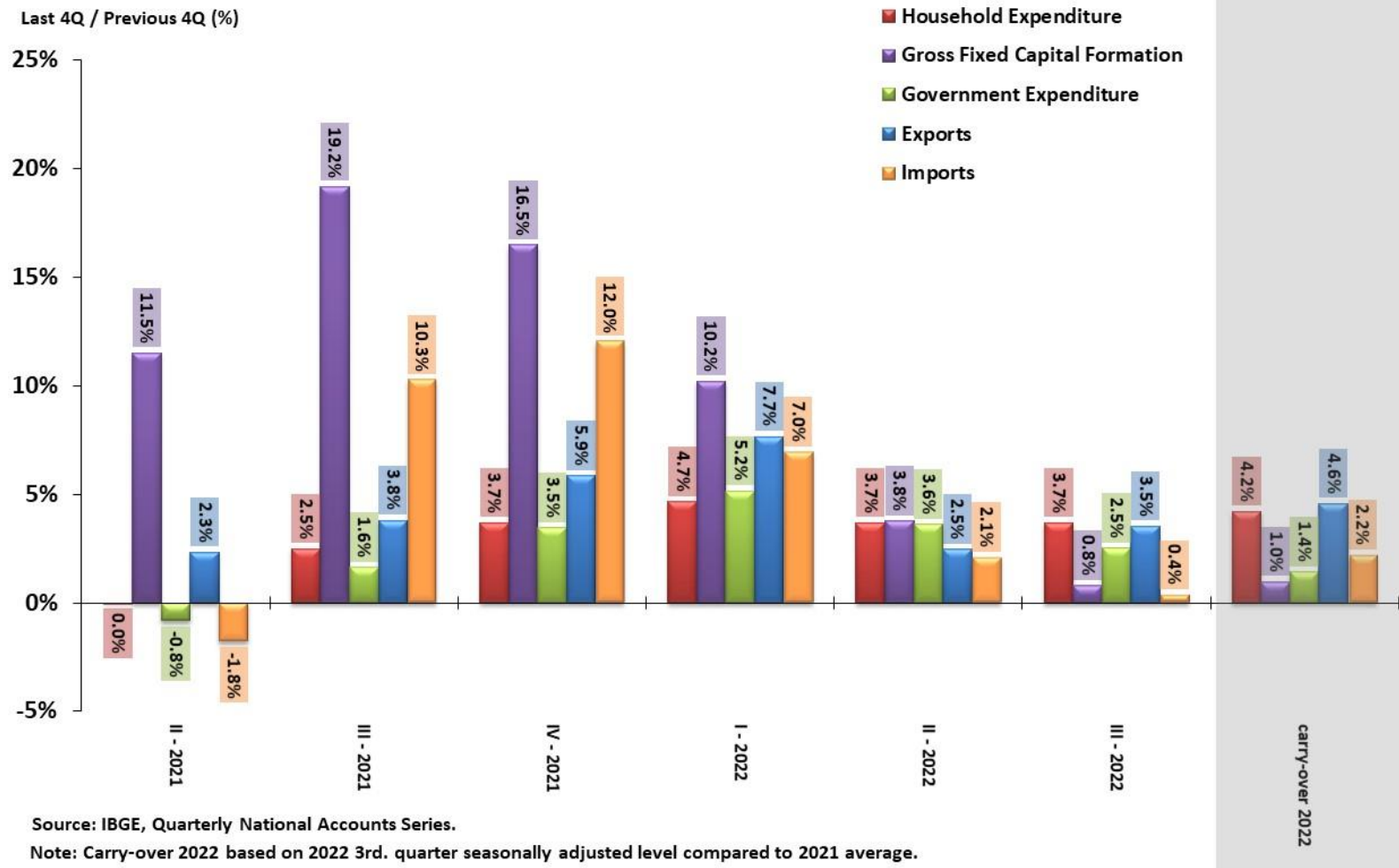
# Quarterly GDP by Activity Sector

ECONOMIC ACTIVITY



# Quarterly GDP by Expenditure

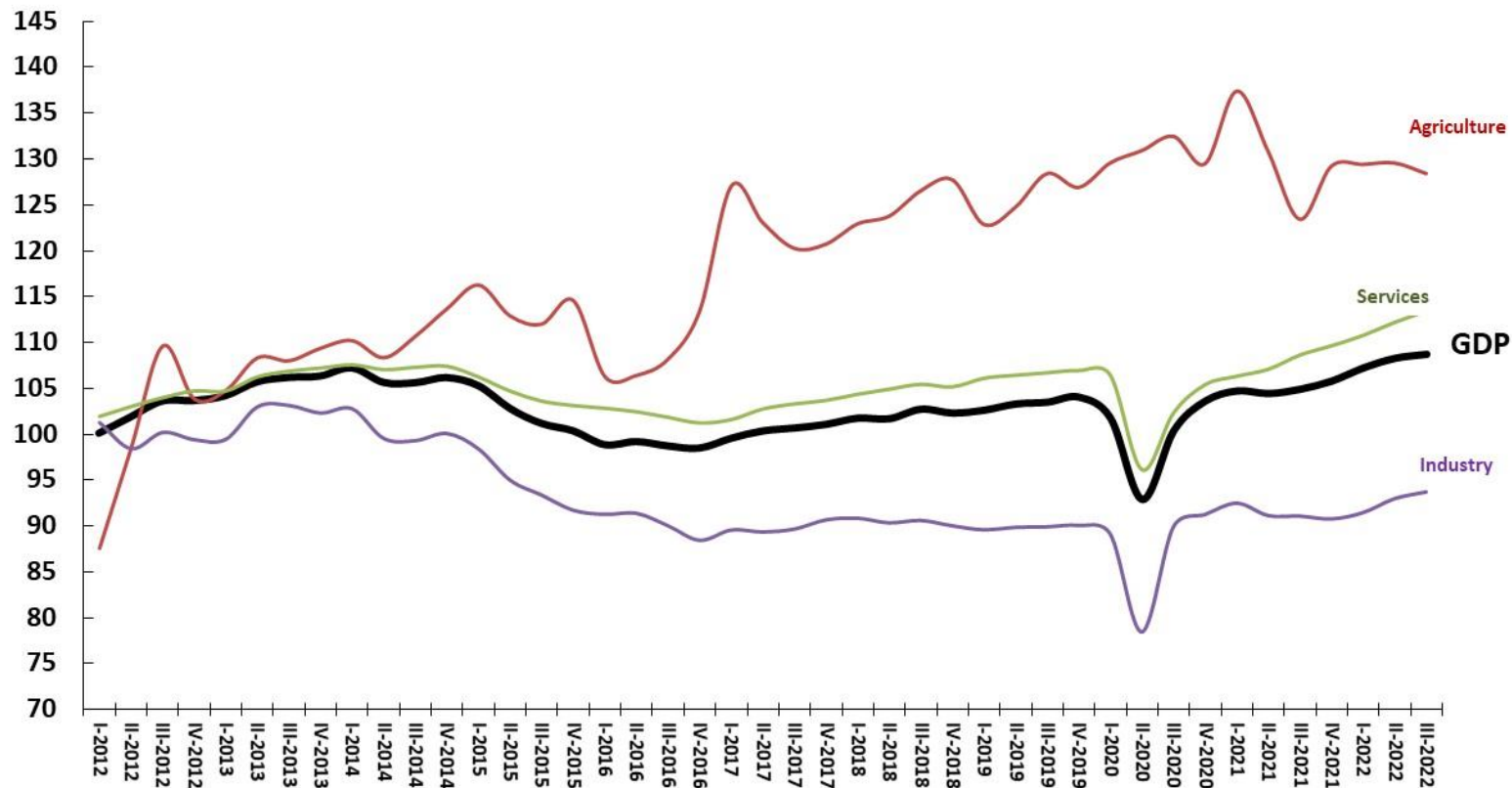
ECONOMIC ACTIVITY



# Quarterly GDP by Activity Sector

ECONOMIC ACTIVITY

GDP and Economic Sectors Quarterly Volume Indicator  
Chained Series of the Seasonally Adjusted Index: 2007=100

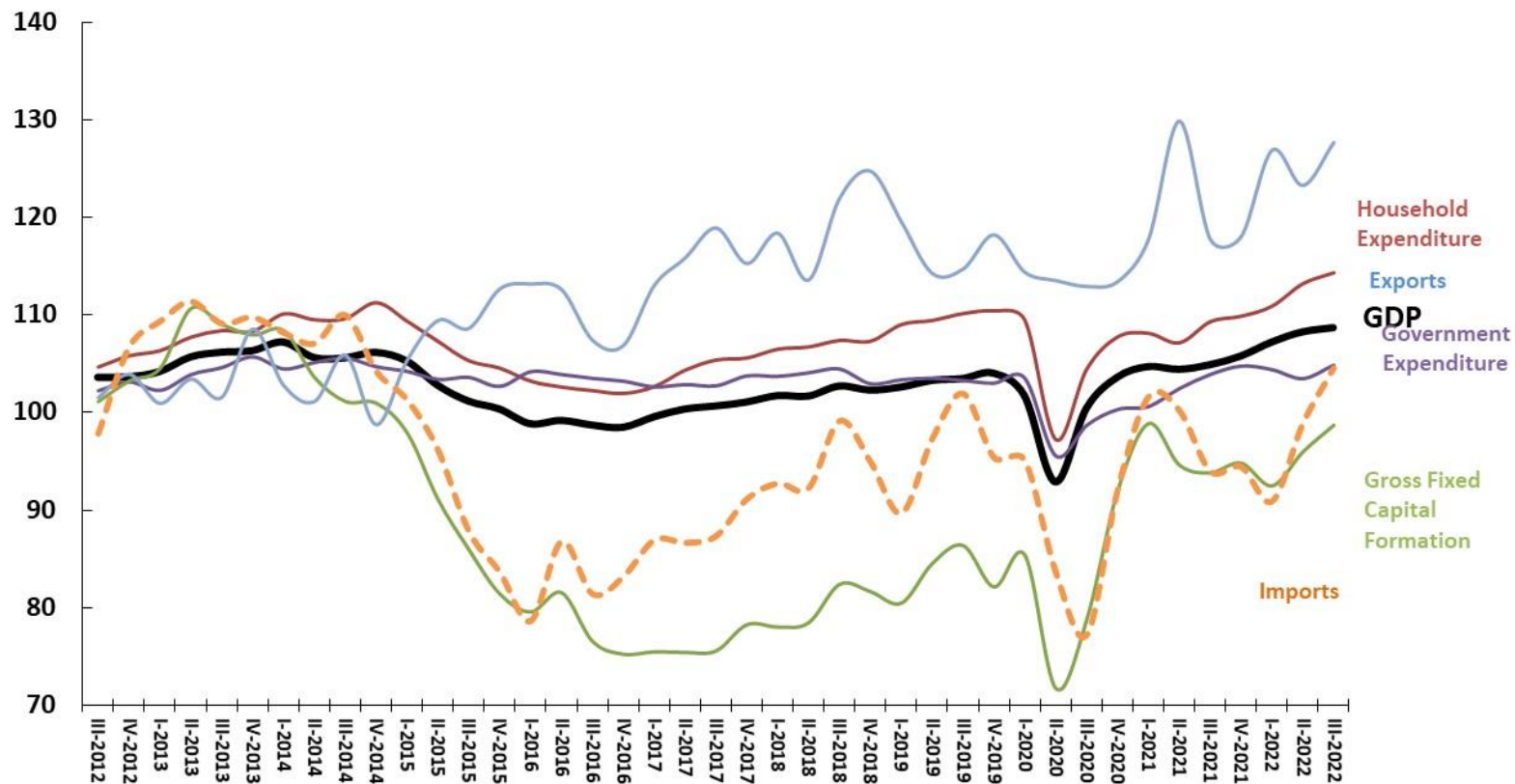


Source: IBGE, Quarterly National Accounts Series.

# Quarterly GDP by Expenditure

ECONOMIC ACTIVITY

GDP and Demand Categories Quarterly Volume Indicator  
Chained Series of the Seasonally Adjusted Index: 2007=100

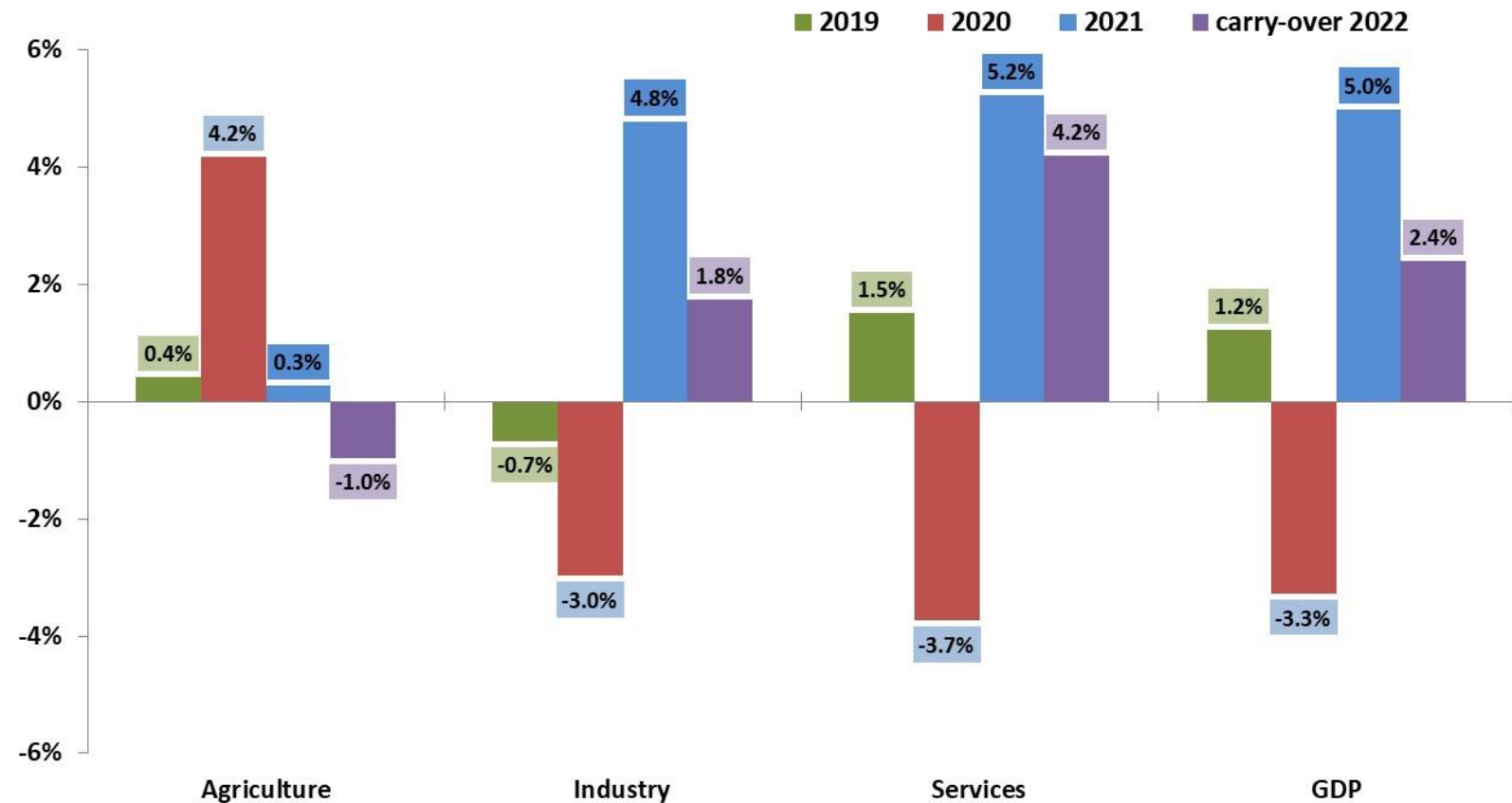


Source: IBGE, Quarterly National Accounts Series.

# Annual GDP Real Growth by Activity Sector

ECONOMIC ACTIVITY

Annual % of Change



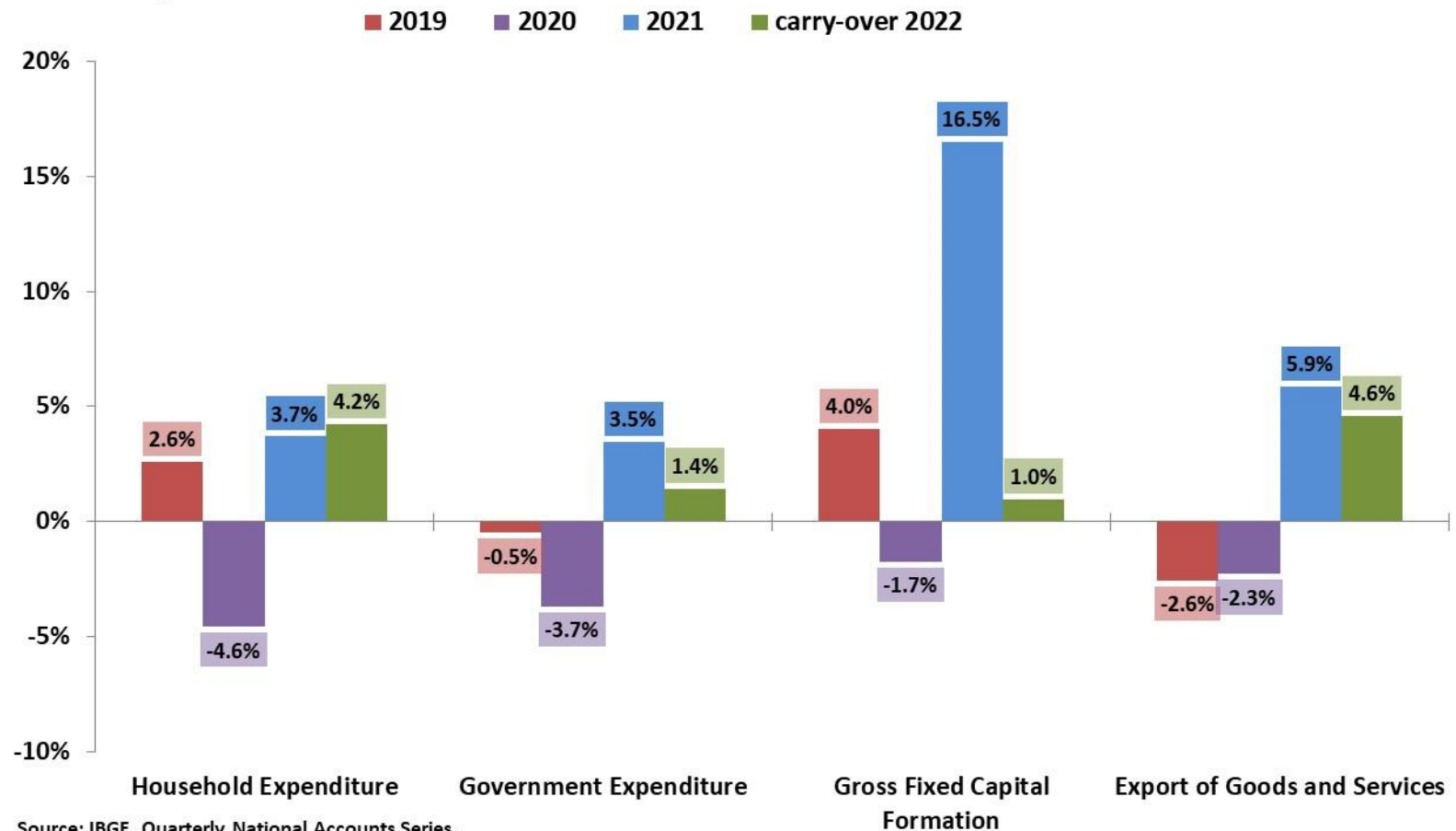
Source: IBGE, Quarterly National Accounts Series.

Note: Carry-over 2022 based on 2022 3rd. quarter seasonally adjusted level compared to 2021 average.

# Annual GDP Real Growth by Expenditure

ECONOMIC ACTIVITY

Annual % of Change



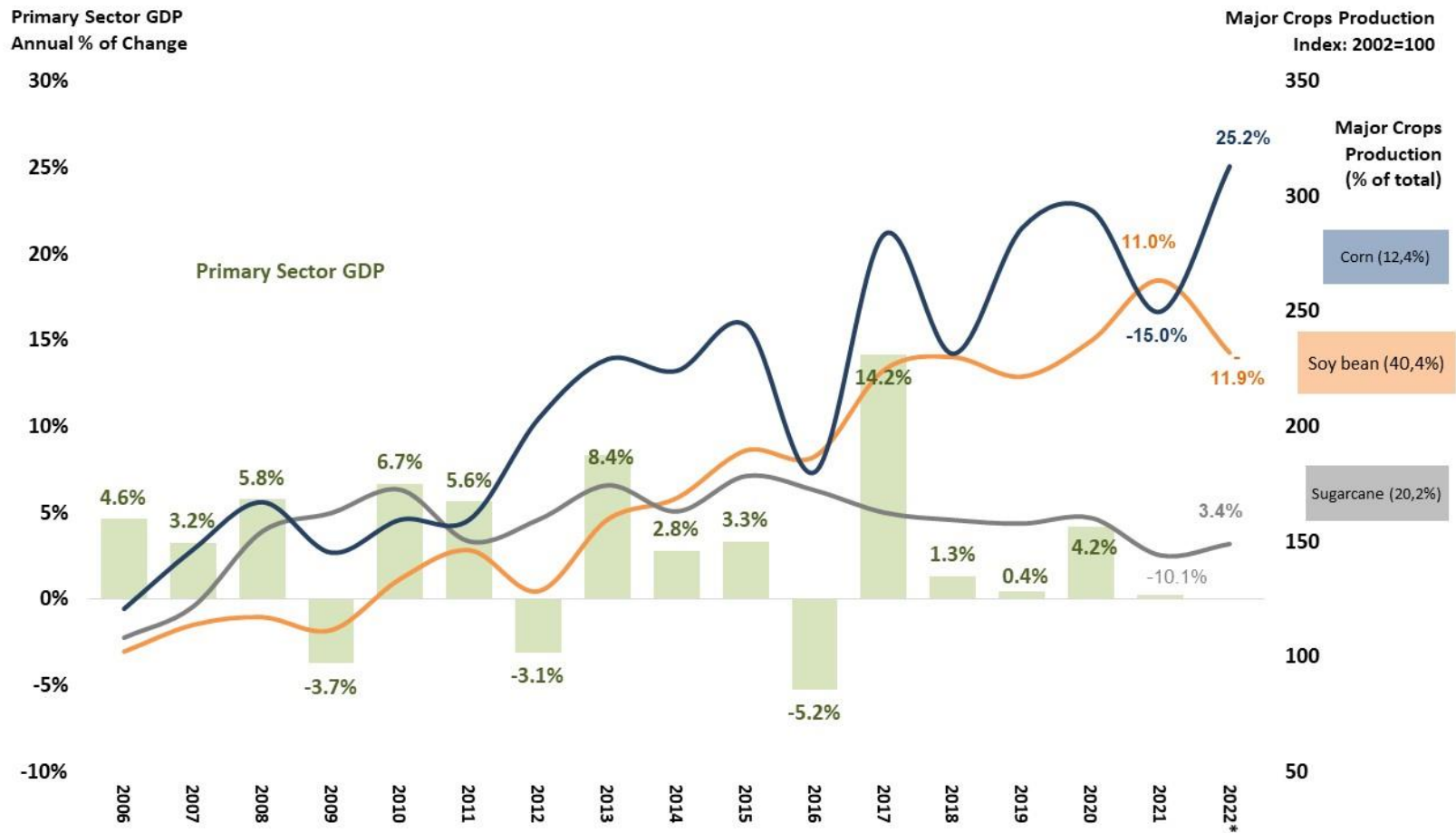
Source: IBGE, Quarterly National Accounts Series.

Note: Carry-over 2022 based on 2022 3rd. quarter seasonally adjusted level compared to 2021 average.



# Primary Sector Performance by Major Crops

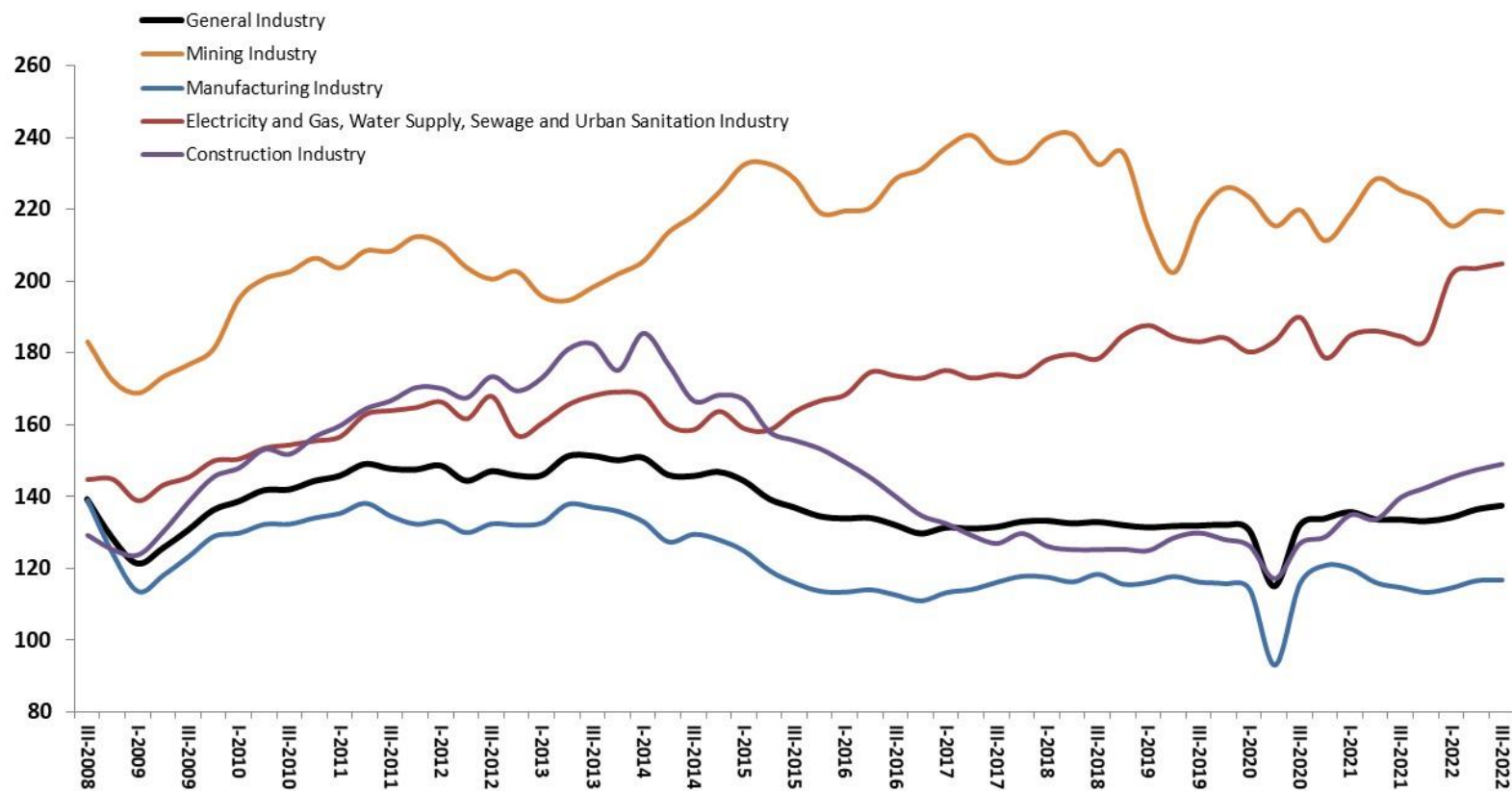
ECONOMIC ACTIVITY



Source: IBGE, Systematic Survey of Agricultural Production (LSPA) - November/2022.

## Industrial Production Indicators

Chained Series of the Seasonally Adjusted Index: 1995=100



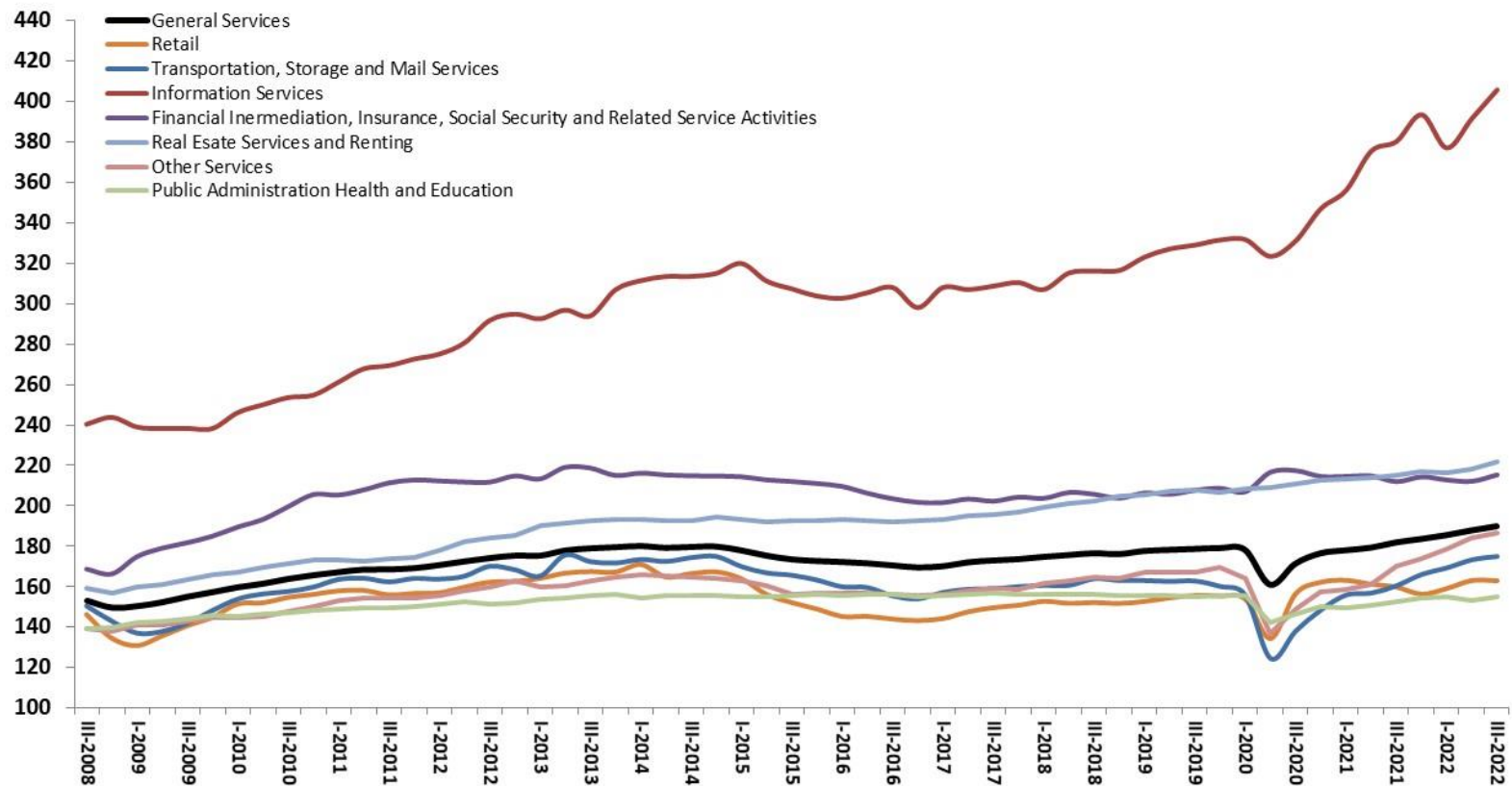
Source: IBGE, Quarterly National Accounts Series.

# Services Performance by Subsectors

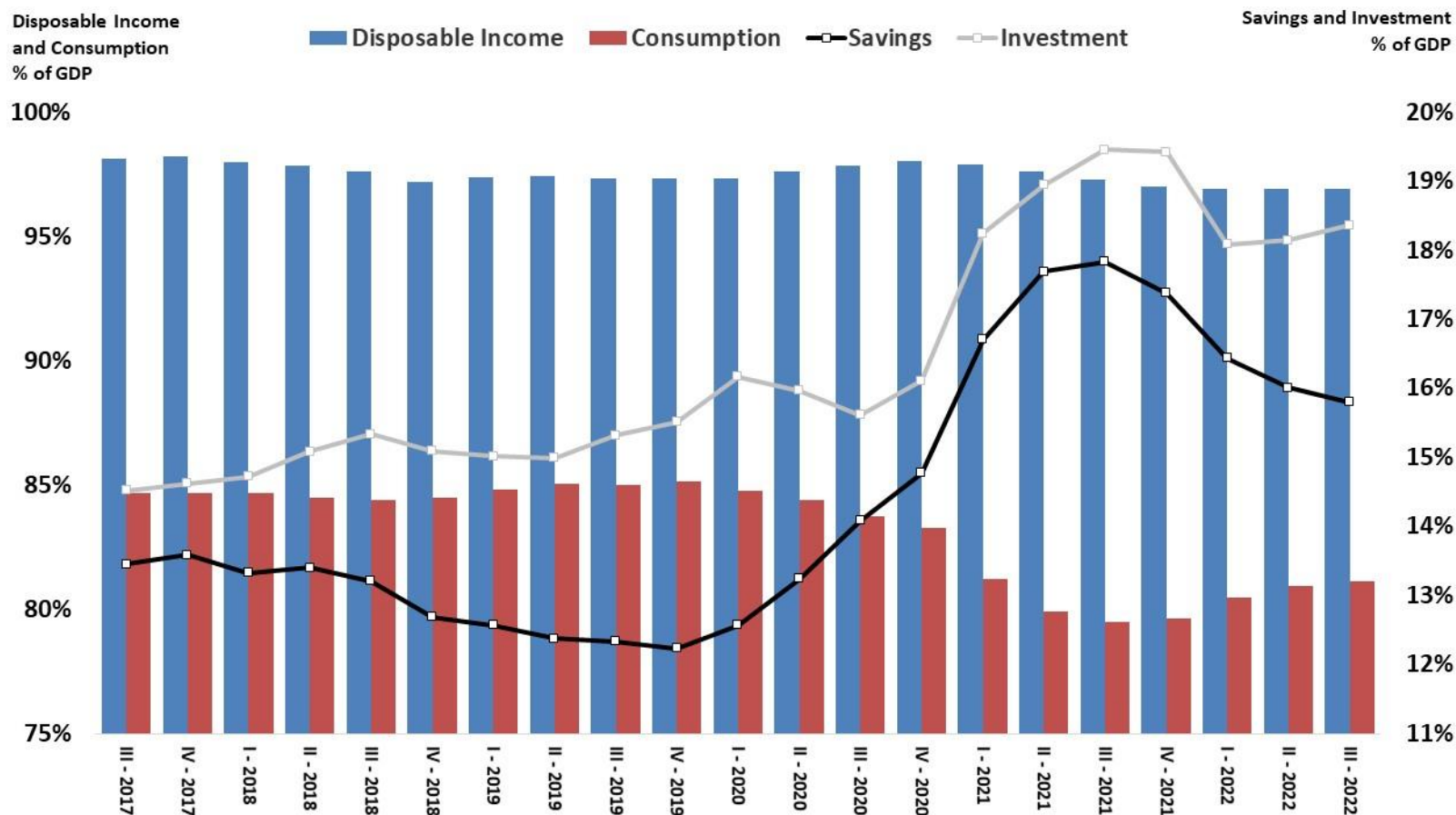
ECONOMIC ACTIVITY

## Services Provision Indicators

Chained Series of the Seasonally Adjusted Index: 1995=100



Source: IBGE, Quarterly National Accounts Series.



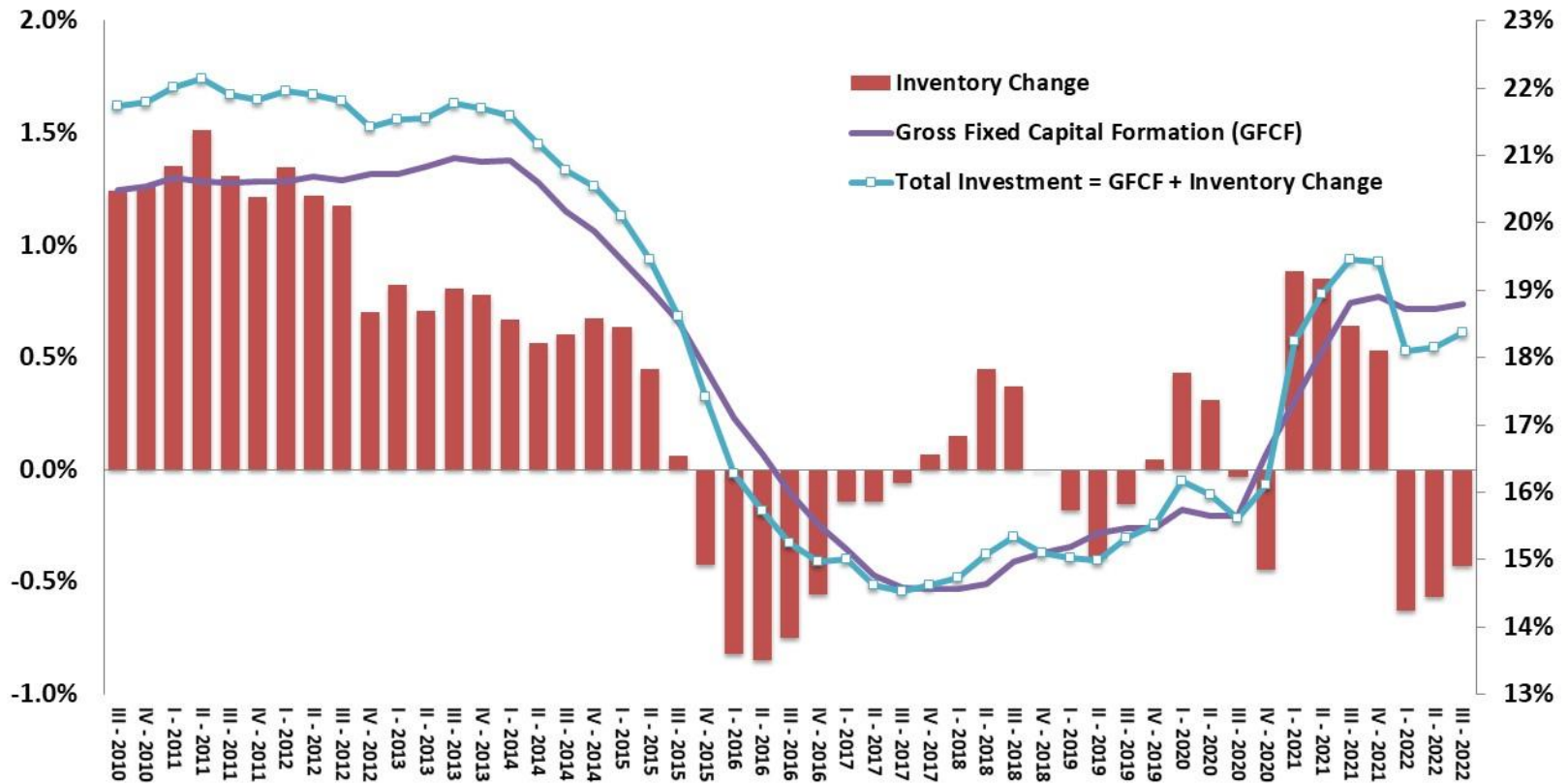
Source: IBGE, Quarterly National Accounts Series. Values accumulated in 4 quarters.

# Inventory Change and Gross Fixed Capital Formation

ECONOMIC ACTIVITY

Inventory Change (% of GDP)  
Accumulated in 4 quarters

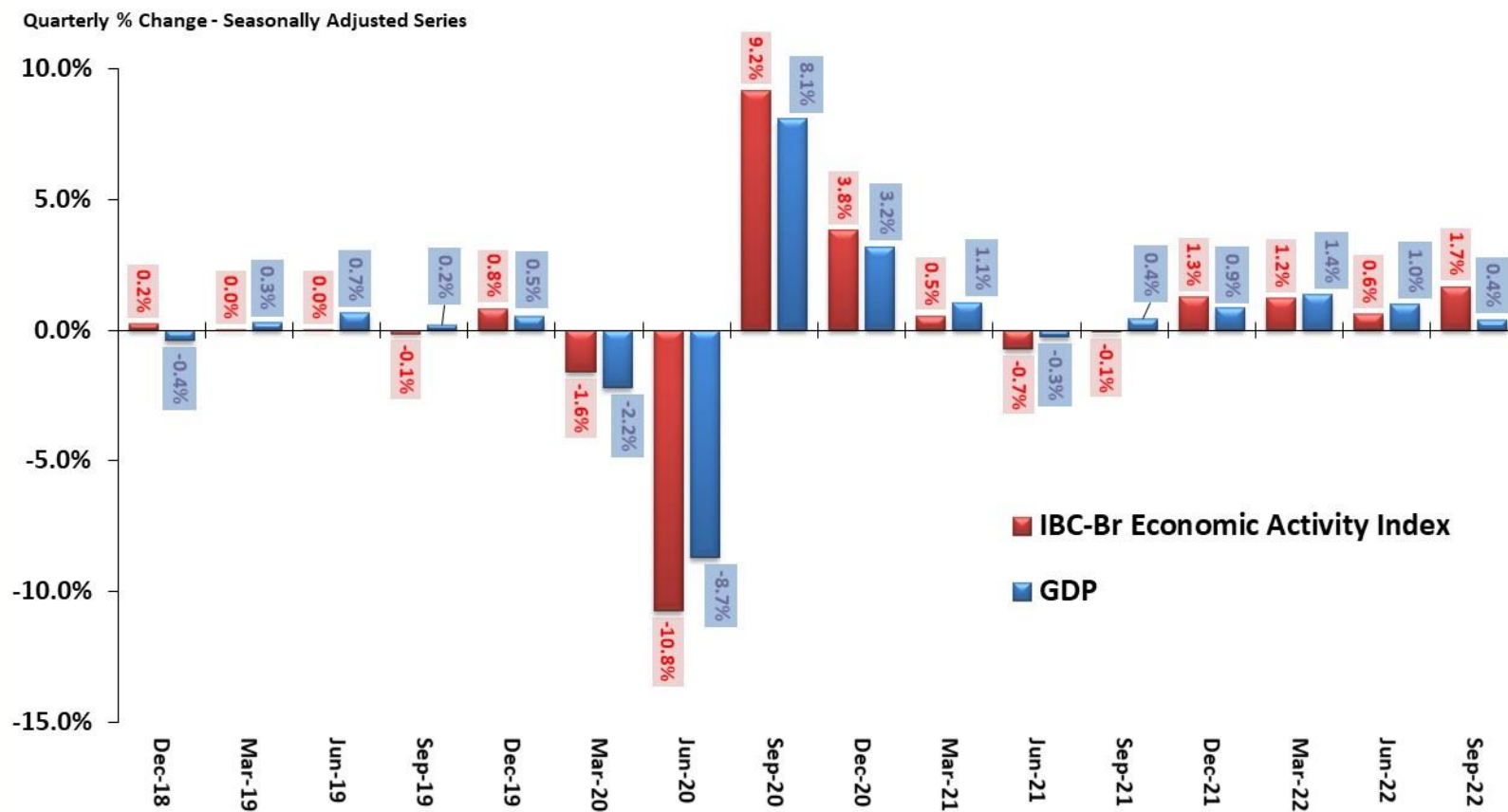
GFCF and Total Investment (% of GDP)  
Accumulated in 4 quarters



Source: IBGE, Quarterly National Accounts Series.

# Quarterly GDP Growth and IBC-Br Economic Activity Index

ECONOMIC ACTIVITY



Sources: IBGE and Central Bank of Brazil.

# Monthly Economic Activity

ECONOMIC ACTIVITY

IBC-Br Economic Activity Index	October-22 % change	2020	2021	Sep/22- Sep/21	Oct/22- Oct/21	Sep/22 - Aug/22 (seasonally adjusted)	Oct/22 - Sep/22 (seasonally adjusted)	Year-To-Date	Sep/22 accum. in 12-months	Oct/22 accum. in 12-months	carry-over 2022
IBC-Br Economic Activity Index		-4.0%	4.41%	4.5%	3.7%	0.0%	0.0%	3.4%	2.7%	3.1%	3.2%
Systematic Survey of Agricultural Production (IBGE)	November-22 % change	2020	2021	Oct/22- Oct/21	Nov/22- Nov/21	Oct/22 - Sep/22 (seasonally adjusted)	Nov/22 - Oct/22 (seasonally adjusted)	Year-To-Date	Oct/22 accum. in 12-months	Nov/22 accum. in 12-months	carry-over 2022
Grain Harvest		5.6%	3.3%	4.6%	3.9%	0.3%	0.0%	3.9%	4.6%	3.9%	2.0%
Industry Production (IBGE)	October-22 % change	2020	2021	Sep/22- Sep/21	Oct/22- Oct/21	Sep/22 - Aug/22 (seasonally adjusted)	Oct/22 - Sep/22 (seasonally adjusted)	Year-To-Date	Sep/22 accum. in 12-months	Oct/22 accum. in 12-months	carry-over 2022
General Industry		-4.5%	3.9%	0.4%	1.7%	-0.7%	0.3%	-0.8%	-2.3%	-1.4%	-0.7%
Mining Industry (weight 11,2%)		-3.4%	1.0%	-5.7%	4.5%	1.8%	0.6%	-3.2%	-2.9%	-2.2%	-2.8%
Manufacturing Industry (weight 88,8%)		-4.6%	4.3%	1.2%	1.4%	-1.4%	0.0%	-0.5%	-2.2%	-1.3%	-0.4%
Food (weight 13,9%)		4.2%	-8.2%	-0.1%	12.2%	-4.2%	4.8%	1.9%	-1.9%	1.1%	1.8%
Petroleum refinement and alcohol production (weight 10,3%)		4.4%	-0.7%	0.6%	-2.3%	-2.6%	0.2%	7.1%	6.8%	6.4%	5.6%
Motor vehicles (weight 10,1%)		-27.9%	20.1%	20.3%	12.6%	-0.1%	-6.7%	1.9%	-2.6%	-0.2%	1.8%
Capital Goods		-9.6%	27.8%	4.6%	-0.2%	-0.7%	-4.1%	-0.5%	0.9%	0.2%	-0.9%
Intermediate Goods		-1.0%	3.3%	-0.3%	1.9%	-1.0%	0.7%	-0.7%	-1.9%	-1.1%	-0.5%
Durable Consumer Goods		-19.8%	2.0%	10.5%	11.8%	-0.2%	-2.7%	-3.7%	-10.1%	-6.5%	-3.0%
Semi and Non-Durable Consumer Goods		-6.0%	-0.4%	-1.4%	0.4%	-1.4%	0.3%	-0.6%	-2.6%	-1.7%	-0.6%
Typical Construction Inputs		2.8%	-11.4%	-5.3%	-3.3%	-4.7%	0.9%	-7.0%	-8.0%	-7.5%	-15.0%
Retail Sales (IBGE)	October-22 % change	2020	2021	Sep/22- Sep/21	Oct/22- Oct/21	Sep/22 - Aug/22 (seasonally adjusted)	Oct/22 - Sep/22 (seasonally adjusted)	Year-To-Date	Sep/22 accum. in 12-months	Oct/22 accum. in 12-months	carry-over 2022
Retail Sales		1.2%	1.4%	3.2%	2.7%	1.2%	0.4%	1.0%	-0.7%	0.1%	1.5%
Amplified Retail Sales		-1.4%	4.5%	0.9%	0.3%	1.5%	0.5%	-0.5%	-1.6%	-1.0%	-0.3%
Vehicles, Motorcycles, Parts and Accessories		-13.6%	14.9%	-1.2%	-0.7%	0.1%	-1.7%	-1.3%	-1.2%	-0.9%	-1.9%
Construction Material		10.8%	4.4%	-8.2%	-12.7%	-0.6%	-3.5%	-8.6%	-8.4%	-8.2%	-9.3%
Fuel and Lubricants		-9.7%	0.3%	34.7%	34.2%	1.3%	0.4%	14.9%	7.6%	11.2%	18.2%
Hypermarkets, Supermarkets, Food, Beverage and Tobacco		4.8%	-2.6%	3.8%	2.6%	1.3%	0.2%	1.1%	0.1%	0.8%	1.4%
Textiles, Apparel and Footwear		-22.5%	13.7%	-9.5%	-14.8%	-2.2%	-3.4%	4.0%	3.5%	2.4%	1.1%
Furniture and Household Appliances		10.6%	-7.0%	-6.1%	-0.5%	-0.1%	2.5%	-8.7%	-13.0%	-11.2%	-7.4%
Volume of Services (IBGE)	October-22 % change	2020	2021	Sep/22- Sep/21	Oct/22- Oct/21	Sep/22 - Aug/22 (seasonally adjusted)	Oct/22 - Sep/22 (seasonally adjusted)	Year-To-Date	Sep/22 accum. in 12-months	Oct/22 accum. in 12-months	carry-over 2022
Volume of Services		-7.8%	10.9%	9.4%	9.5%	0.5%	-0.6%	8.7%	8.8%	9.0%	7.9%
Services Rendered to Families		-35.6%	18.2%	18.0%	10.7%	0.8%	-1.5%	27.9%	28.2%	26.7%	23.9%
Information and Communication Services		-1.6%	9.5%	6.0%	8.3%	1.8%	0.7%	3.7%	4.8%	4.9%	3.7%
Professional, Administrative and Complementary Services		-11.4%	7.4%	7.7%	8.3%	0.7%	-0.8%	7.8%	7.3%	7.6%	7.4%
Transportation, Support Activities for Transportation and Mailing Activities		-7.6%	15.2%	15.0%	12.0%	-0.3%	-1.8%	13.9%	13.9%	14.0%	13.0%
Other Services		6.8%	5.0%	-2.2%	6.5%	-3.1%	2.6%	-3.6%	-4.6%	-3.7%	-2.5%



Macroeconomic Parameters						
Year	Industrial Activity - Annual chg. %					
	Manufacturing		Beverages		Vehicles	
	Production				Domestic Wholesale	
	Price	Quantity	Price	Quantity	Price	Quantity
2016	8.06	-5.98	7.60	-3.09	6.10	-17.53
2017	1.76	2.23	4.34	0.78	4.26	12.31
2018	8.35	1.11	2.67	0.87	3.30	13.05
2019	4.31	0.19	2.86	4.25	2.97	10.38
2020	9.13	-4.60	0.87	-0.19	4.15	-25.84
2021	31.85	4.32	4.14	0.28	12.62	1.04
2022	17.69	-1.01	9.77	2.63	12.69	-3.68
2023	1.09	0.19	7.45	2.58	4.07	8.59
2024	3.15	2.32	6.03	3.64	3.20	12.38
2025	4.28	2.19	5.99	3.44	2.80	8.72
2026	4.62	1.75	5.96	2.92	2.49	7.32

Source: SPE/ME. Macroeconomic Parameters, December-2022.

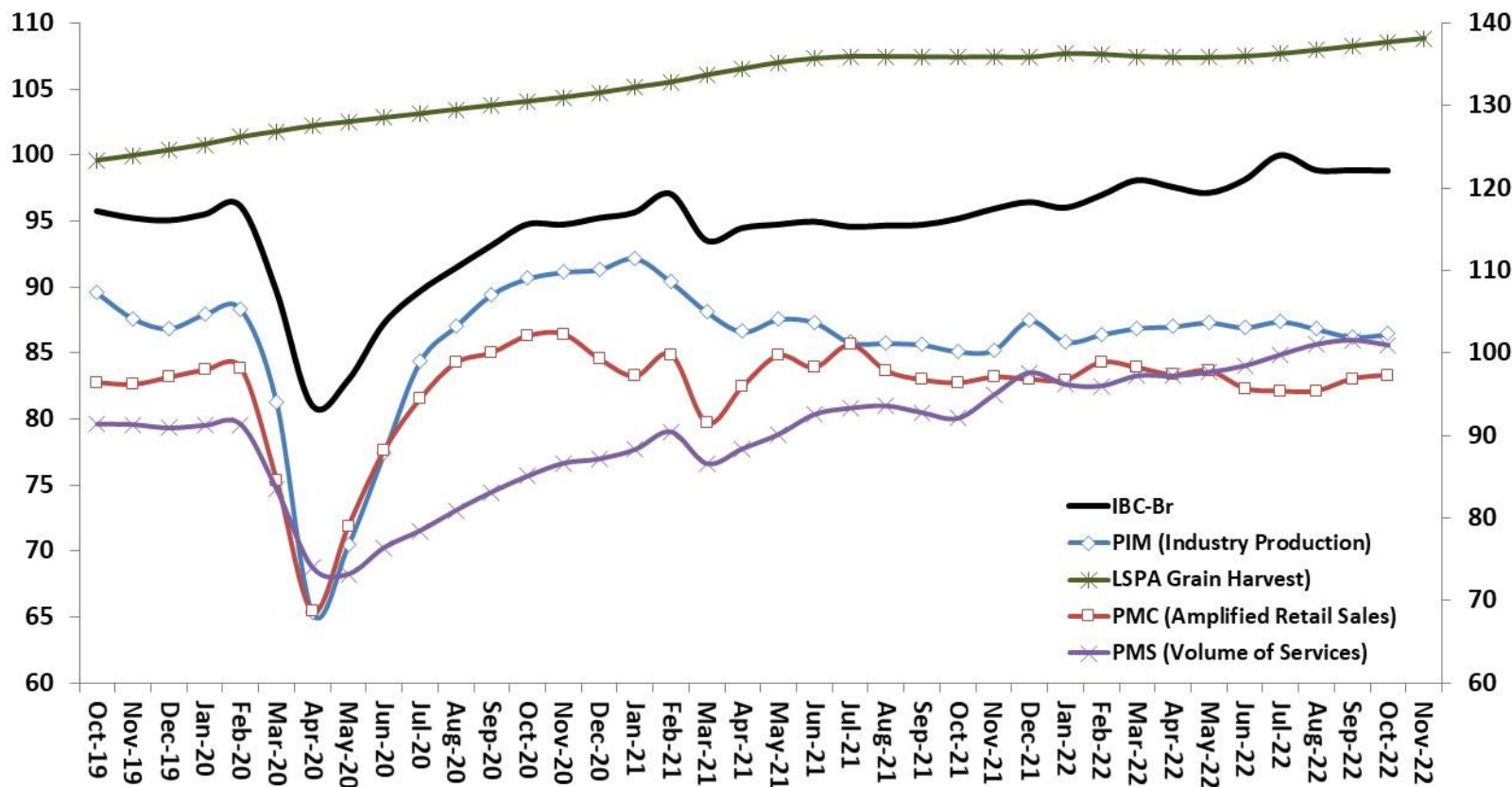


# Major Monthly Economic Activity Indicators

ECONOMIC ACTIVITY

IBC-Br, Grain Harvest (12-mo MA) and Industry Production  
Seasonally Adjusted Index (2014 = 100)

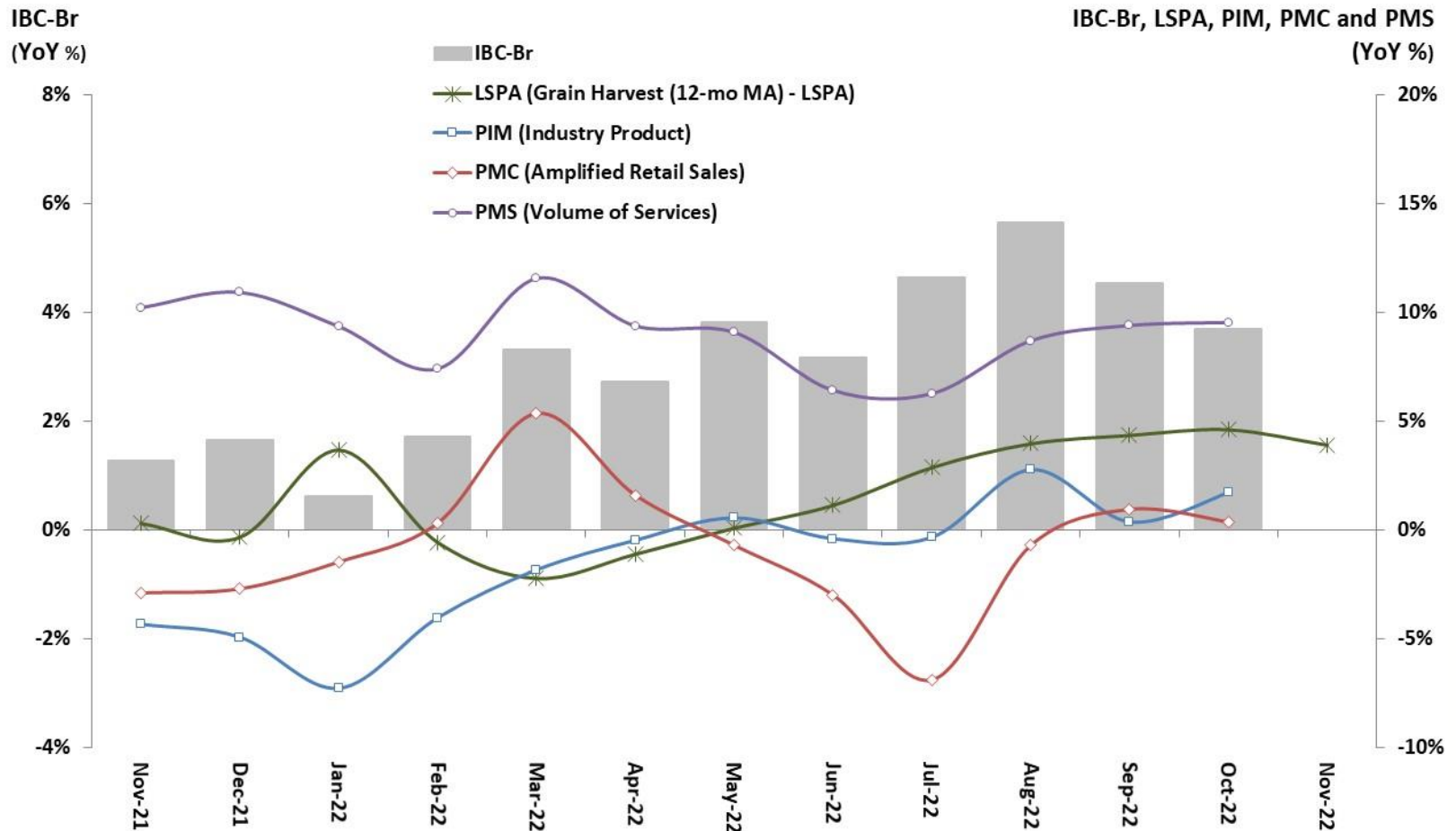
Amplified Retail Sales and Volume of Services  
Seasonally Adjusted Index (2014 = 100)



Sources: Central Bank of Brazil and IBGE: Systematic Survey of Agricultural Production (LSPA), Monthly Survey of Industry (PIM), Monthly Survey of Trade (PMC), and Monthly Survey of Services (PMS).

# Major Monthly Economic Activity Indicators

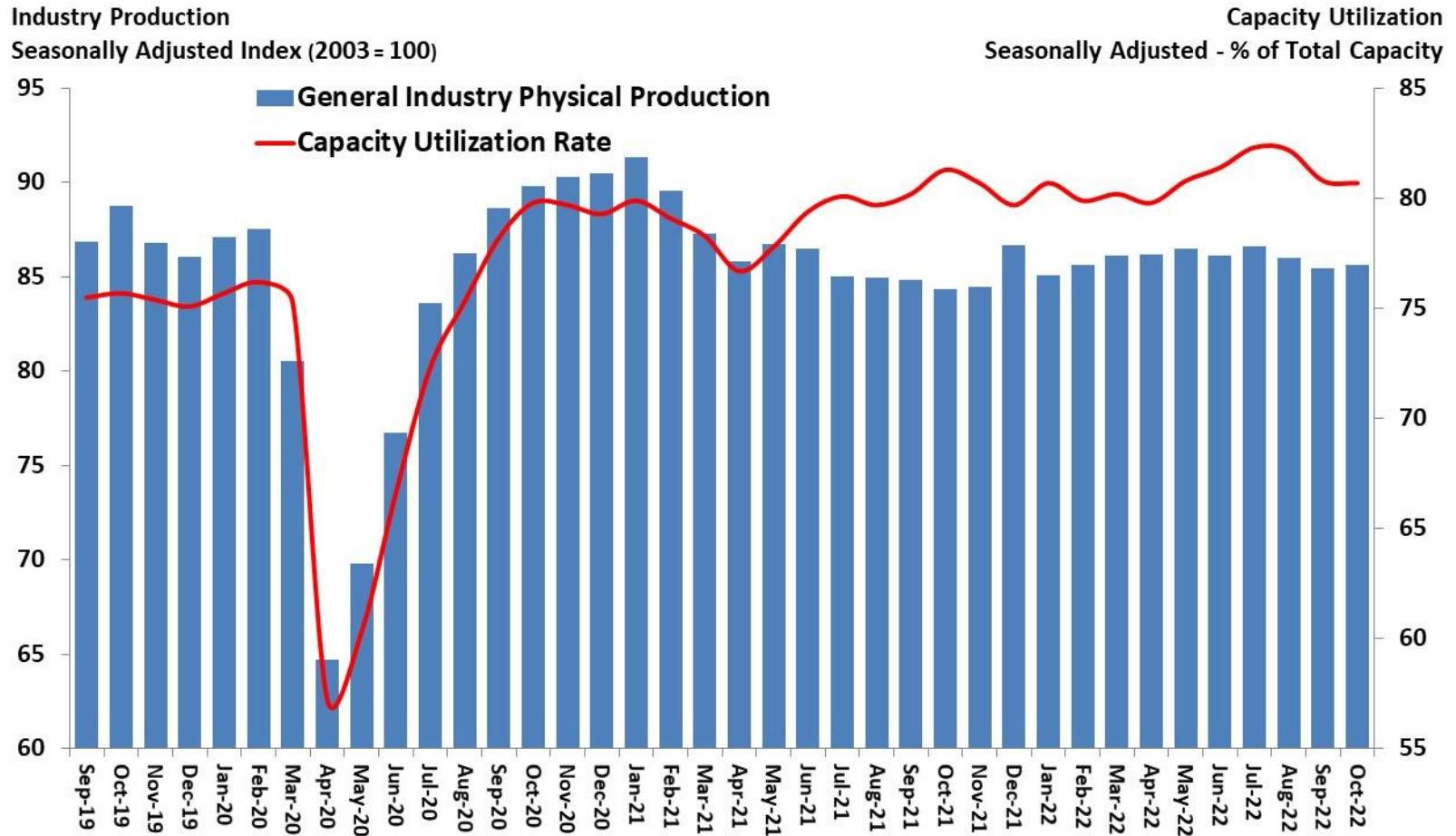
ECONOMIC ACTIVITY



Sources: Central Bank of Brazil and IBGE: Systematic Survey of Agricultural Production (LSPA), Monthly Survey of Industry (PIM), Monthly Survey of Trade (PMC), and Monthly Survey of Services (PMS).

# Industrial Production and Capacity Utilization

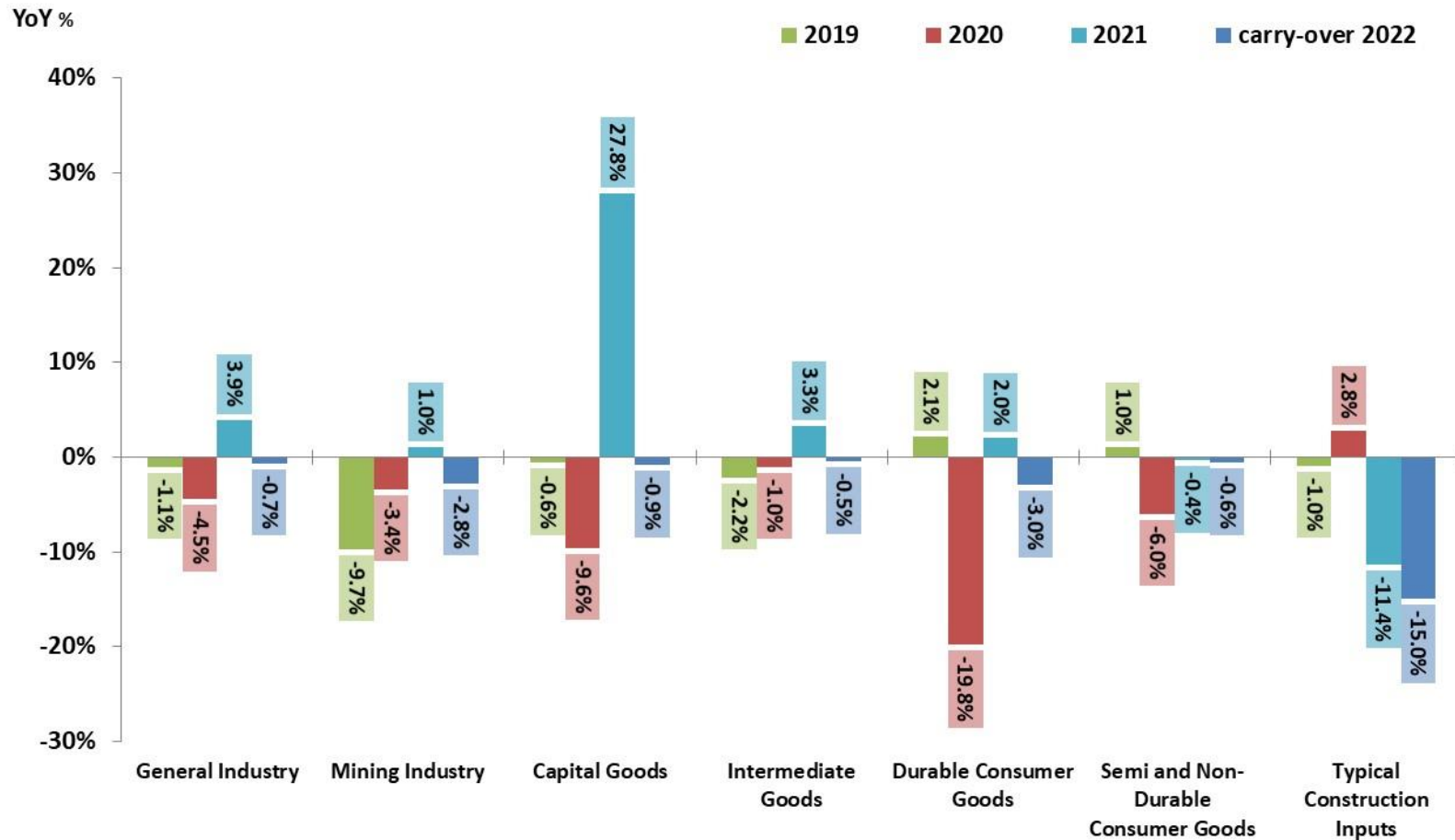
ECONOMIC ACTIVITY



Sources: IBGE and FGV.

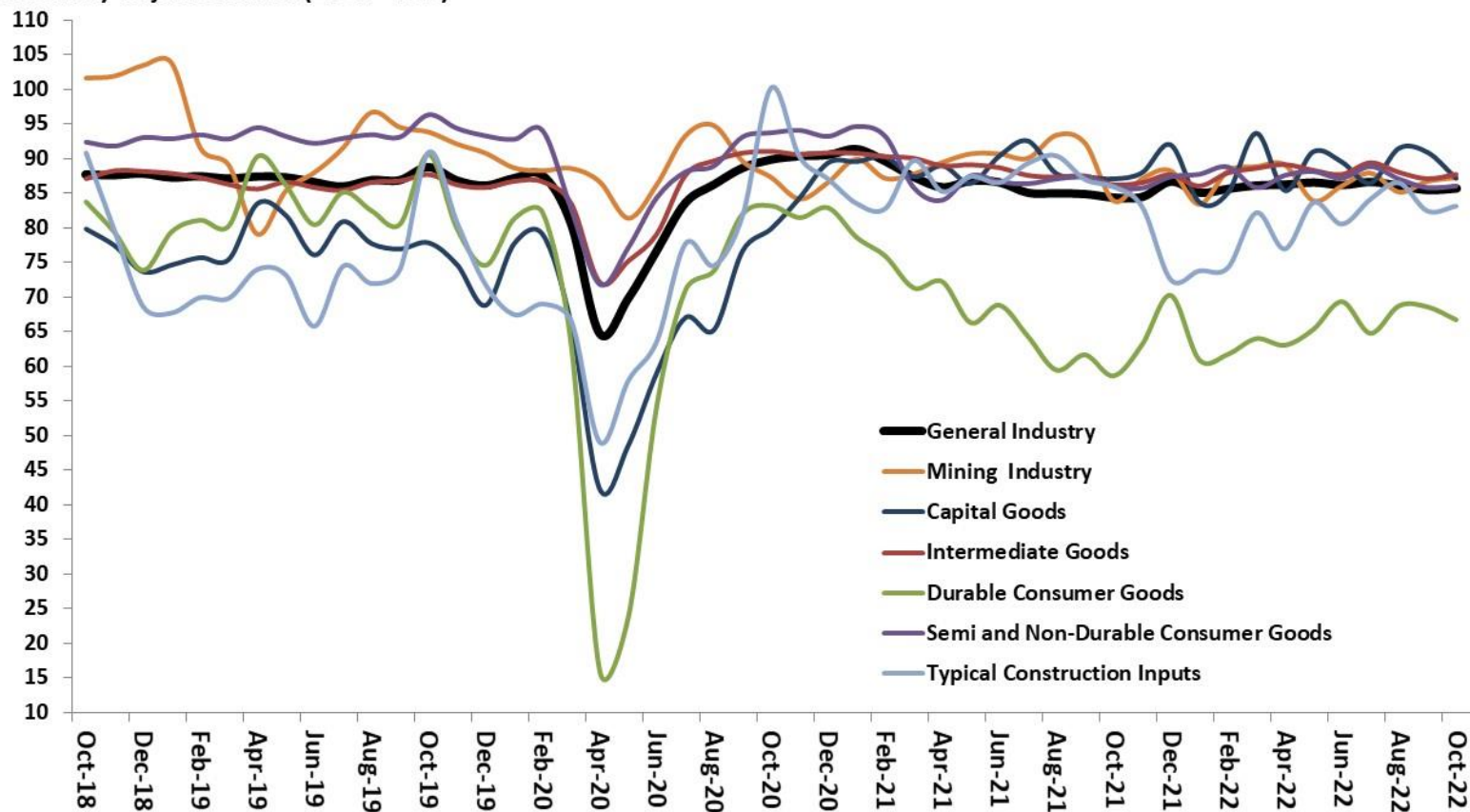
# Total Industrial Production and Economic Categories

ECONOMIC ACTIVITY



Source: IBGE, Monthly Survey of Industry (PIM). Note: Carry over 2022: based on Oct/2022 compared to 2021 average.

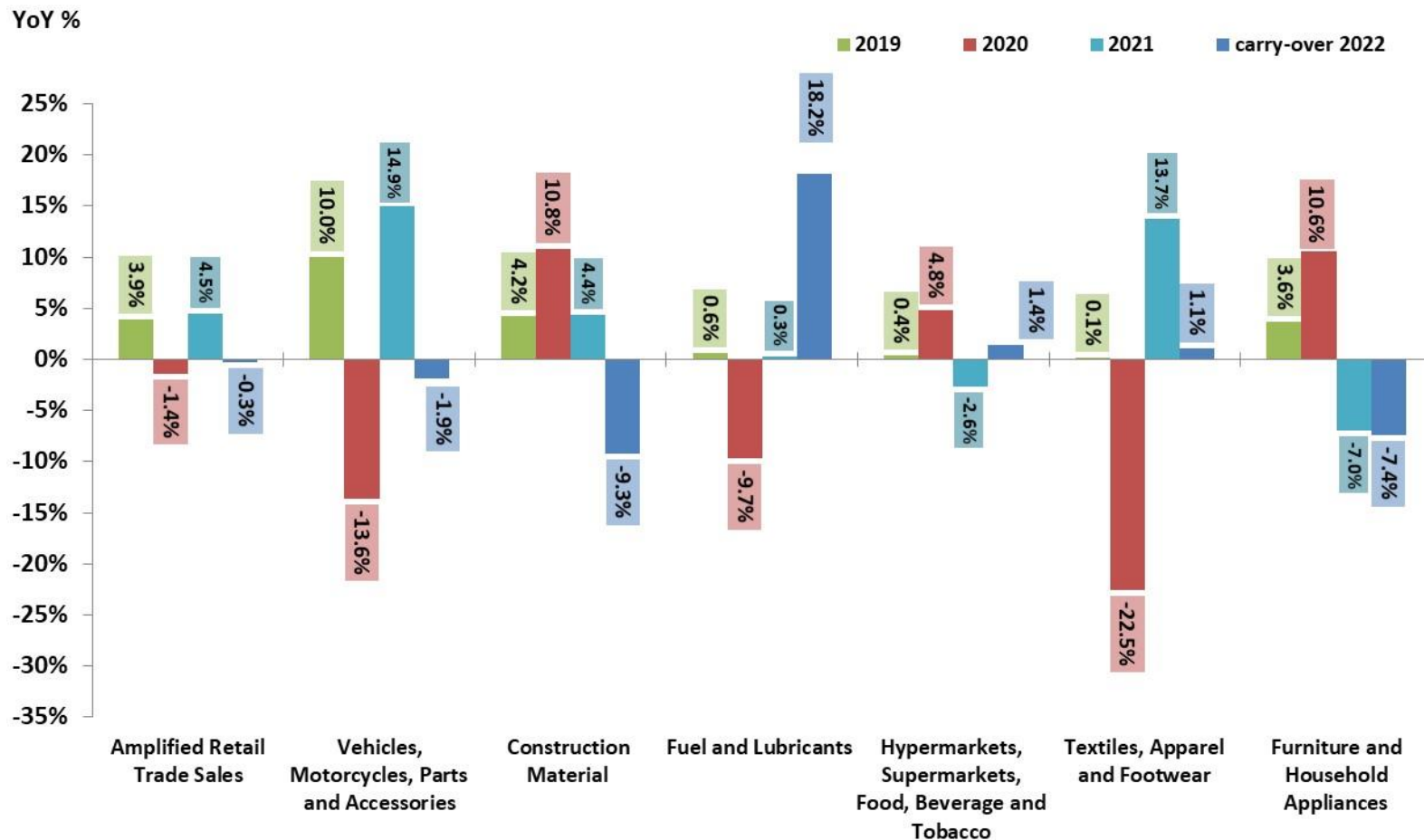
Industry Physical Production by Economic Category  
Seasonally Adjusted Index (2012 = 100)



Source: IBGE

# Total Retail Sales and Subsectors

ECONOMIC ACTIVITY

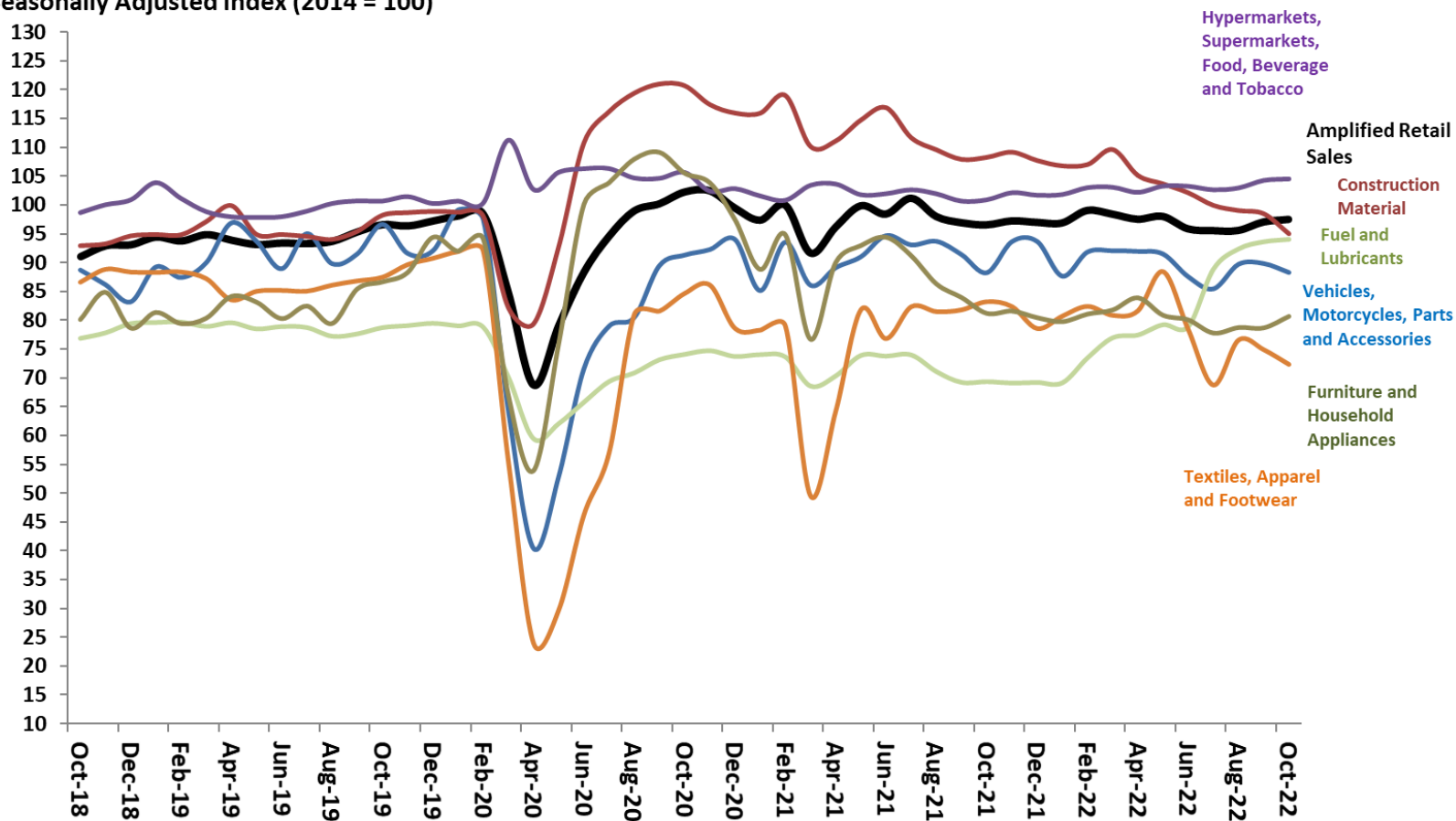


Source: IBGE, Monthly Survey of Trade (PMC). Note: Carry over 2022: based on Oct/2022 compared to 2021 average.



## Retail Sales by Subsector

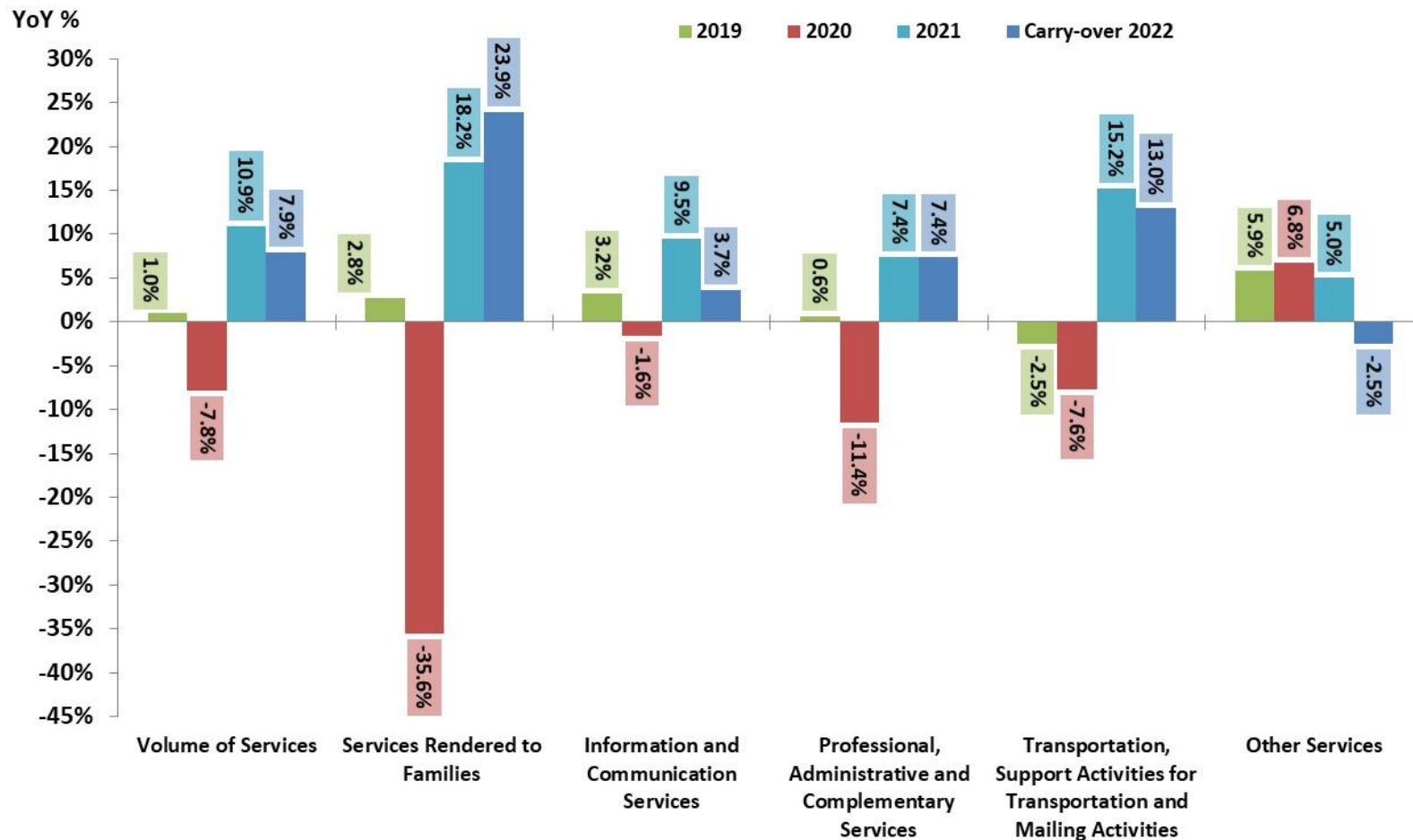
Seasonally Adjusted Index (2014 = 100)



Source: IBGE, Monthly Survey of Trade (PMC).

# Volume of Services and Subsectors

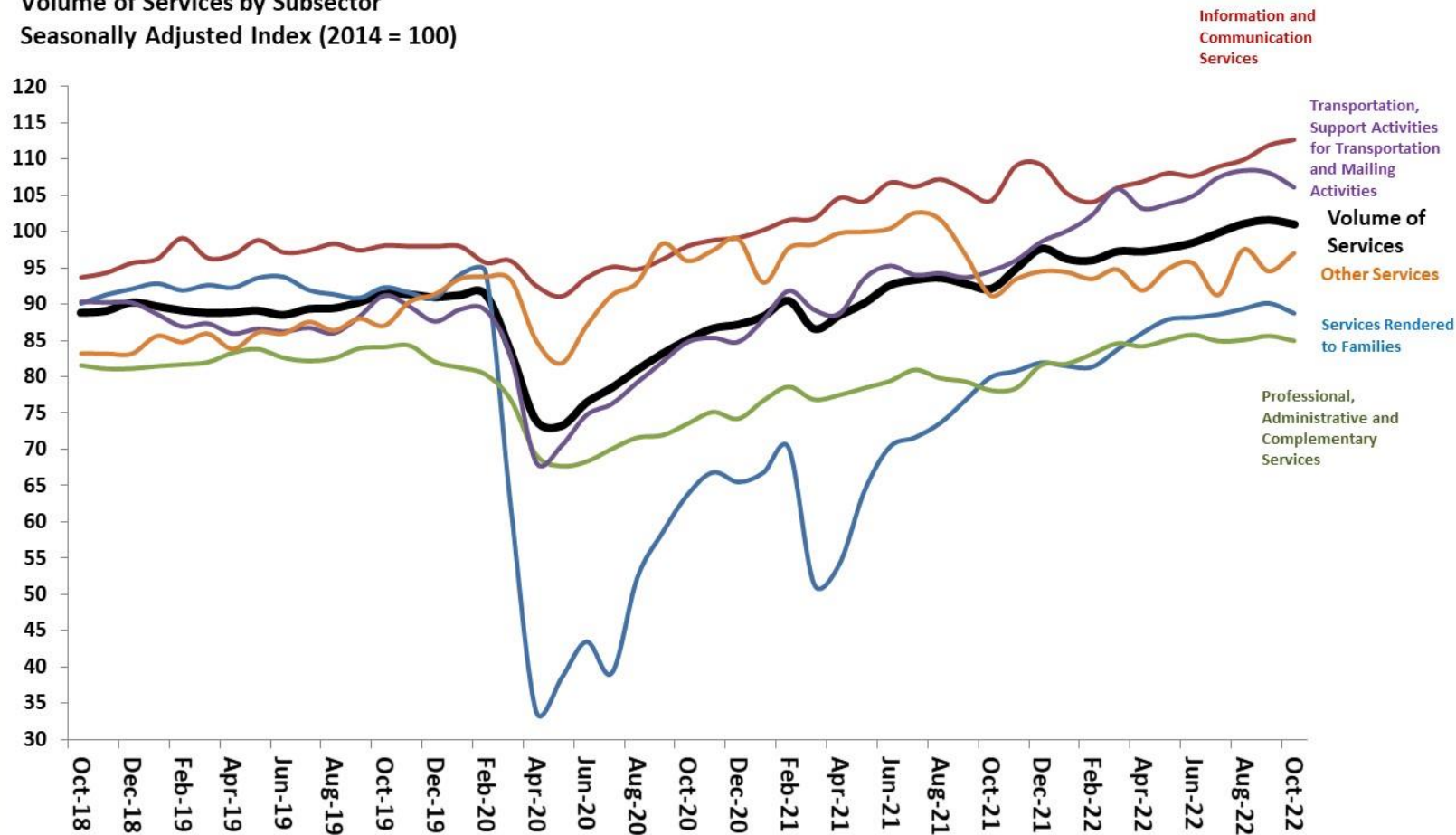
ECONOMIC ACTIVITY



Source: IBGE, Monthly Survey of Services (PMS). Note: Carry over 2022: based on Oct/2022 compared to 2021 average.



Volume of Services by Subsector  
Seasonally Adjusted Index (2014 = 100)



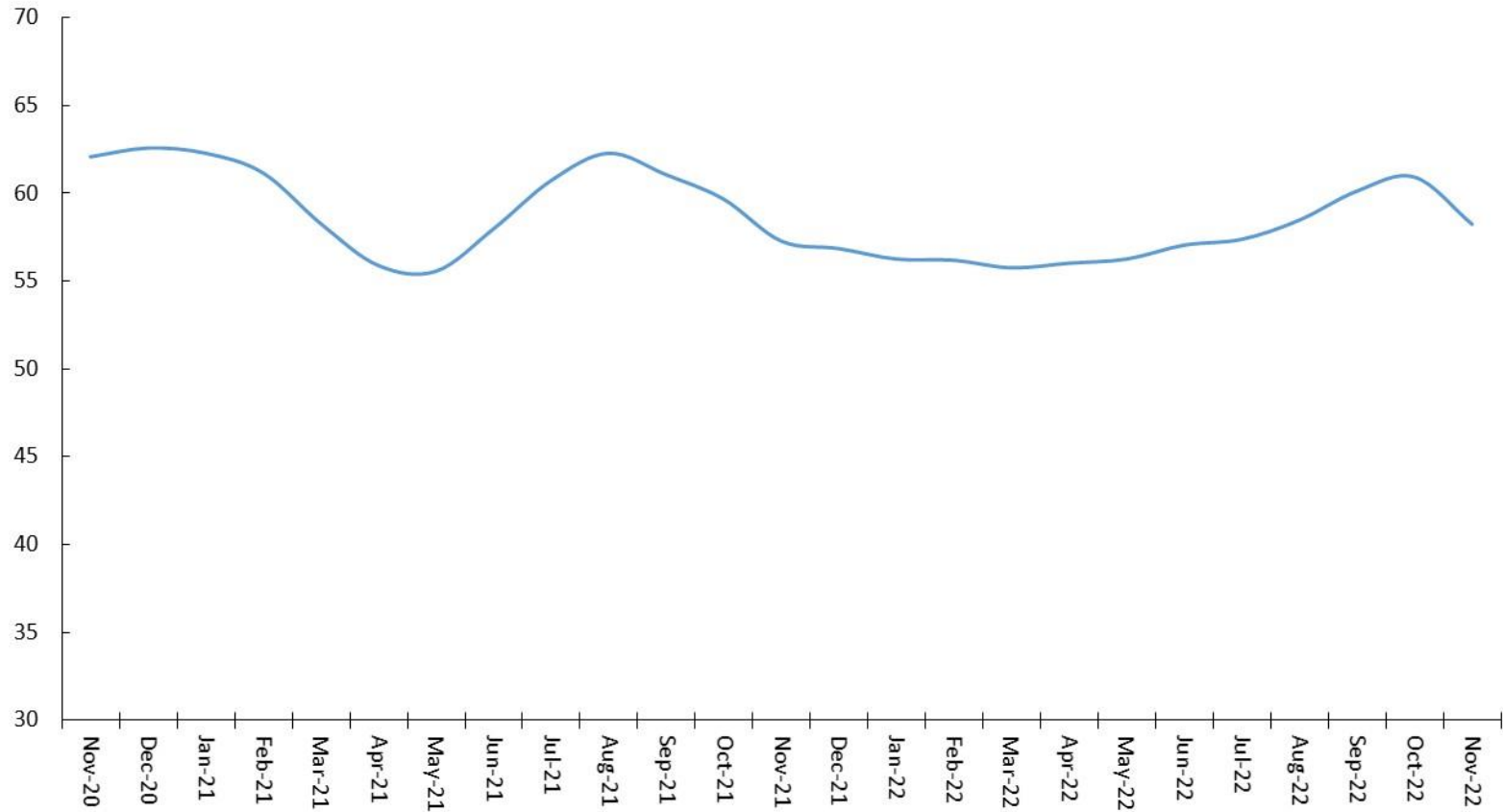
Source: IBGE, Monthly Survey of Services (PMS).

# Other Monthly Economic Activity Indicators

ECONOMIC ACTIVITY

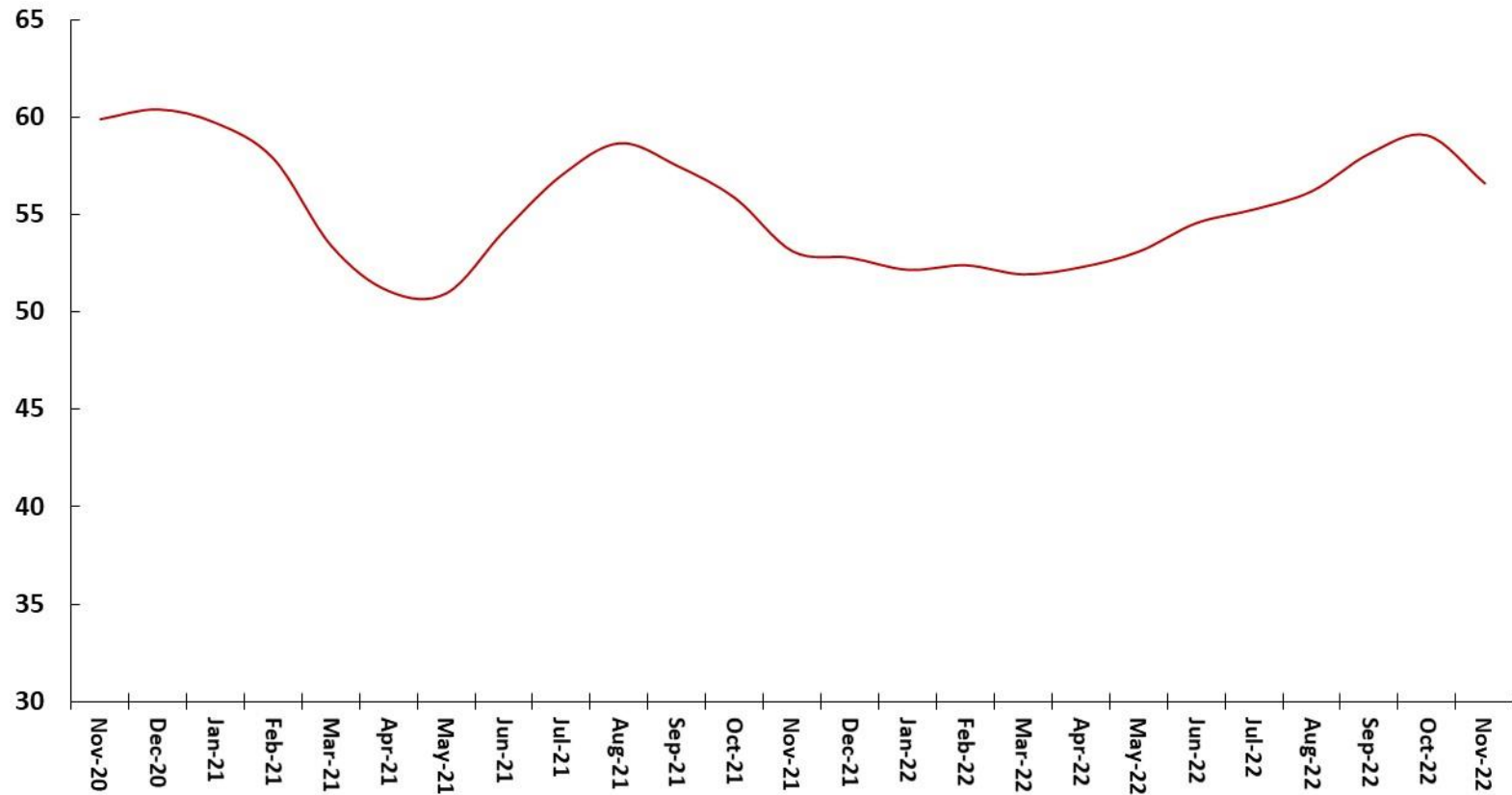
	Last update (m / y)	Annual change % (y-1)	change % (m-1 / y) / (m-1 / y-1)	change % (m / y) / y-1	change % (m- 1/y) / (m-2/y) (seasonally adjusted)	change % (m/y) / (m-1/y) (seasonally adjusted)	Year-To-Date	(m-1 / y) accum. in 12- months	(m / y) accum. in 12- months	carry-over	
Industry Indicators (CNI)											
Real Sales Revenue	Oct-22	-0.1%	7.0%	10.6%	-0.5%	0.3%	2.4%	-0.7%	1.2%	3.1%	2022
Working Hours in Production	Oct-22	-2.1%	3.3%	2.9%	-1.0%	-1.2%	3.0%	2.7%	2.8%	2.6%	2022
Capacity Utilization - UCI	Oct-22	0.4%	-1.9%	-1.6%	0.0%	0.0%	-0.7%	-0.3%	-0.6%	-0.5%	2022
Industry Inventories (CNI) - Final Goods - planned x realize	Dec-22	1.0%	3.7%	3.0%	-1.6%	0.0%	4.1%	5.9%	4.9%	3.2%	2023
Business Confidence - ICEI (CNI)	Nov-22	19.5%	4.2%	-7.7%	-4.2%	-14.0%	-2.3%	-3.4%	-3.0%	-2.7%	2022
Sao Paulo Industry Confidence - ICEI-SP (FIESP)	Nov-22	25.9%	7.7%	-2.9%	-5.2%	-13.6%	0.2%	-2.2%	-1.0%	0.0%	2022
Industry Capacity Utilization - NUCI (FGV)	Nov-22	0.7%	-0.7%	-1.1%	-0.1%	-1.1%	1.8%	1.8%	1.6%	1.6%	2022
Industry Confidence (FGV)	Nov-22	12.5%	-8.9%	-9.7%	-3.8%	-3.8%	-8.1%	-8.6%	-8.6%	-7.9%	2022
Consumer Confidence (FGV)	Nov-22	13.1%	15.0%	12.9%	-0.4%	-3.7%	4.6%	2.0%	3.9%	5.8%	2022
Services Confidence (FGV)	Nov-22	14.6%	0.0%	-3.2%	-2.6%	-5.4%	6.1%	8.0%	6.5%	5.4%	2022
Construction Confidence (FGV)	Nov-22	8.5%	5.1%	0.3%	-0.8%	-5.3%	4.6%	4.6%	4.4%	4.1%	2022
Retail Confidence (FGV)	Nov-22	15.2%	3.4%	-1.0%	-3.7%	-11.0%	0.9%	-0.1%	0.3%	1.2%	2022
Supermarket Sector Total Retail Sales (ABRAS)	Oct-22	1.3%	26.0%	27.6%	1.4%	1.6%	13.3%	8.7%	11.2%	15.3%	2022
Natural Gas and Oil Production (ANP)	Oct-22	4.5%	5.2%	16.1%	2.7%	4.9%	2.5%	1.2%	2.8%	4.2%	2022
Electric Energy Consumption - Total (EPE)	Oct-22	1.2%	0.2%	-0.3%	-1.3%	-1.6%	1.1%	1.1%	1.2%	0.9%	2022
Industry Consumption (EPE)	Oct-22	1.3%	1.8%	0.9%	-0.9%	-1.3%	0.5%	1.0%	1.0%	0.4%	2022
Electric Energy System Supply (ONS)	Nov-22	1.8%	-4.2%	2.5%	-2.4%	0.3%	0.5%	1.5%	1.6%	0.7%	2022
Corrugated Fiberboard Sales (ABPO)	Nov-22	7.9%	1.5%	-0.2%	-1.9%	-1.1%	-2.2%	-2.7%	-2.4%	-2.3%	2022
Heavy Vehicles Road Traffic (ABCR)	Nov-22	8.0%	2.7%	0.9%	-0.6%	-1.3%	2.3%	1.9%	2.1%	2.1%	2022
Total Vehicles Production (ANFAVEA)	Nov-22	13.7%	15.1%	4.9%	2.2%	-1.6%	6.3%	4.4%	6.3%	5.2%	2022
Car Production	Nov-22	7.4%	21.8%	5.5%	4.0%	-3.4%	8.1%	5.9%	8.1%	7.3%	2022
Commercial Vehicles Production	Nov-22	81.5%	13.5%	5.2%	0.8%	1.0%	1.8%	3.3%	1.8%	1.8%	2022
Total Vehicles Exports (ANFAVEA)	Nov-22	17.8%	47.8%	58.2%	42.9%	-1.1%	33.7%	23.9%	33.7%	32.5%	2022
Total Vehicles Sales/Licensing (FENABRAVE)	Nov-22	3.8%	11.4%	17.9%	-2.9%	3.7%	-2.9%	-6.6%	-2.9%	-4.1%	2022
Domestic Vehicles Sales/Licensing	Nov-22	2.9%	13.2%	17.3%	-3.6%	1.6%	-4.7%	-8.7%	-4.7%	-6.0%	2022
Imported Vehicles Sales/Licensing	Nov-22	11.6%	0.3%	21.7%	-2.9%	17.8%	11.1%	11.1%	11.1%	11.0%	2022

**Business Confidence Index – ICEI**  
**3-month moving average**

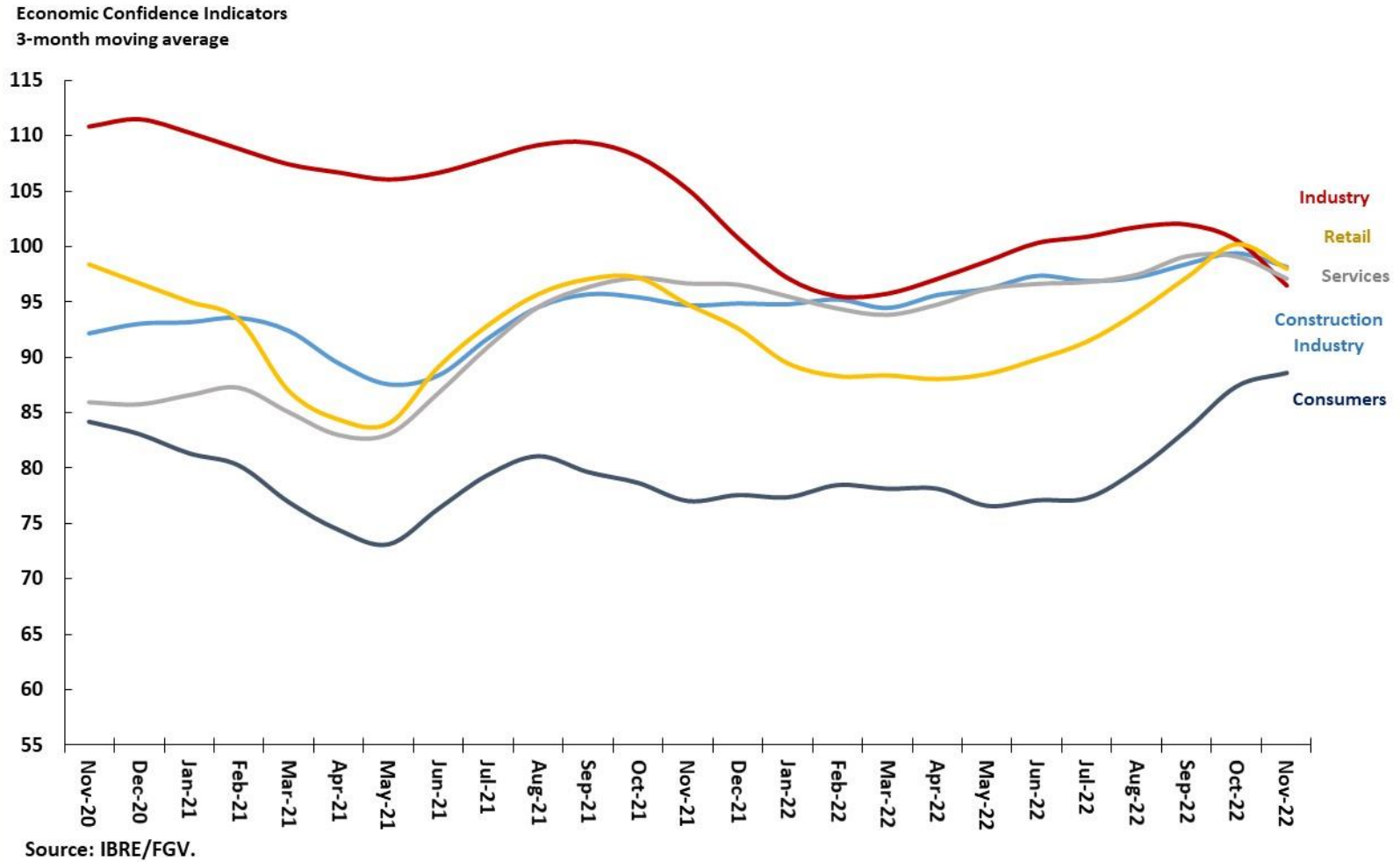


Source: CNI.

Sao Paulo Industry Confidence - ICEI-SP  
3-month moving average



Source: FIESP.

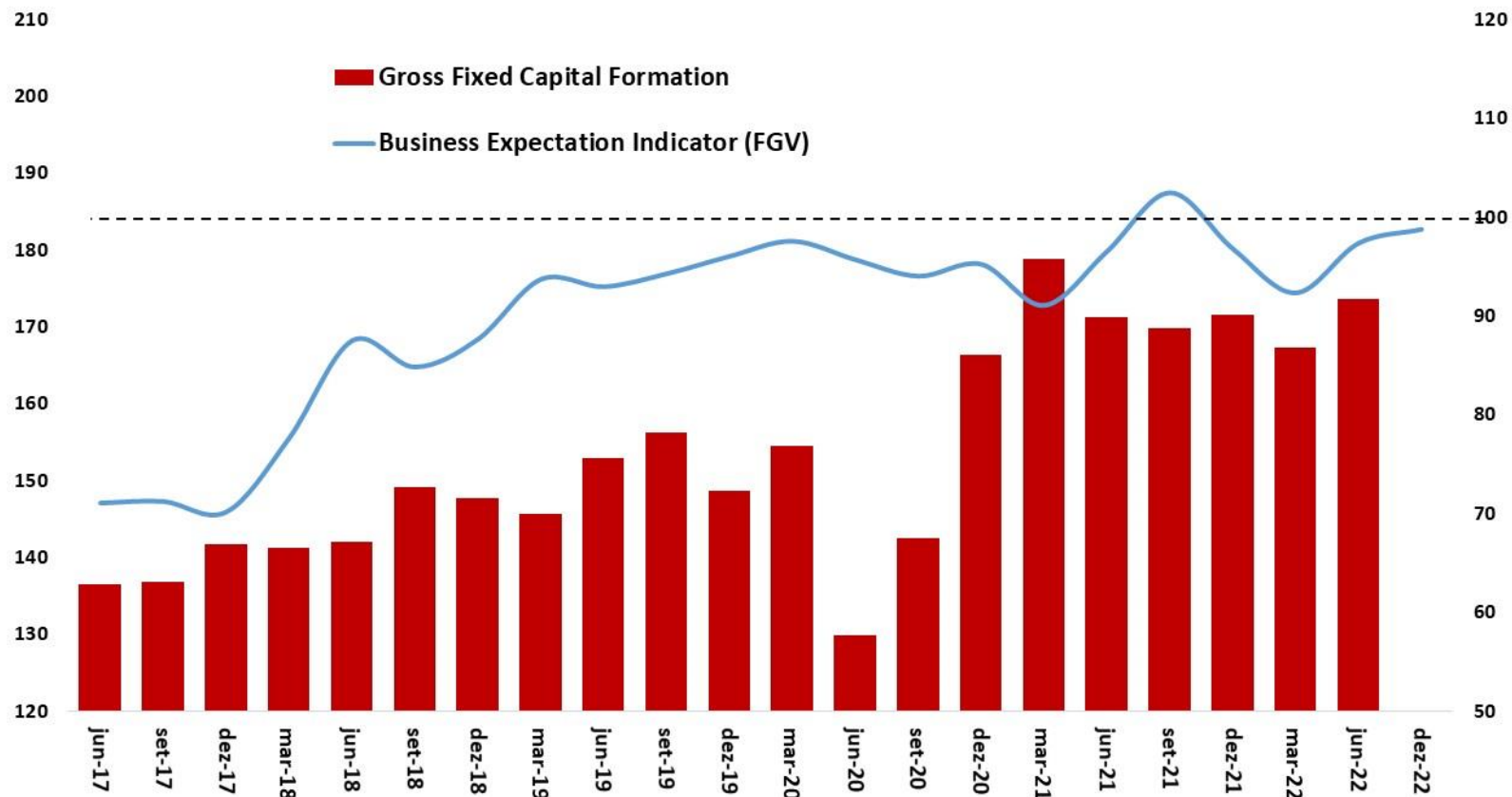


# Gross Fixed Capital Formation and Investment Intention

ECONOMIC ACTIVITY

Gross Fixed Capital Formation (Quarterly National Accounts)  
Chained Series of the Seasonally Adjusted Index: 1995=100

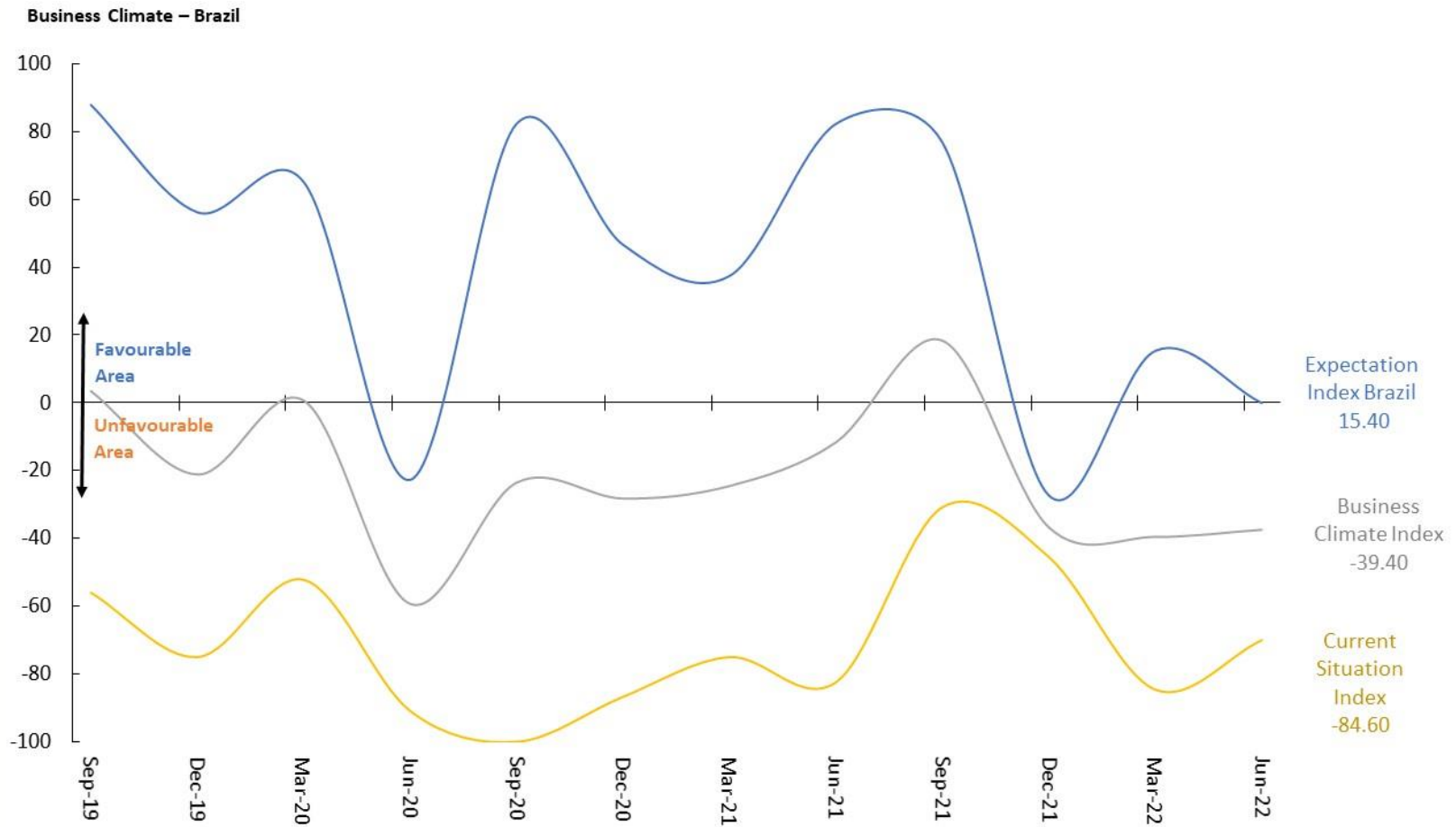
Business Expectation Indicator\*  
IBRE/FGV Investments Survey



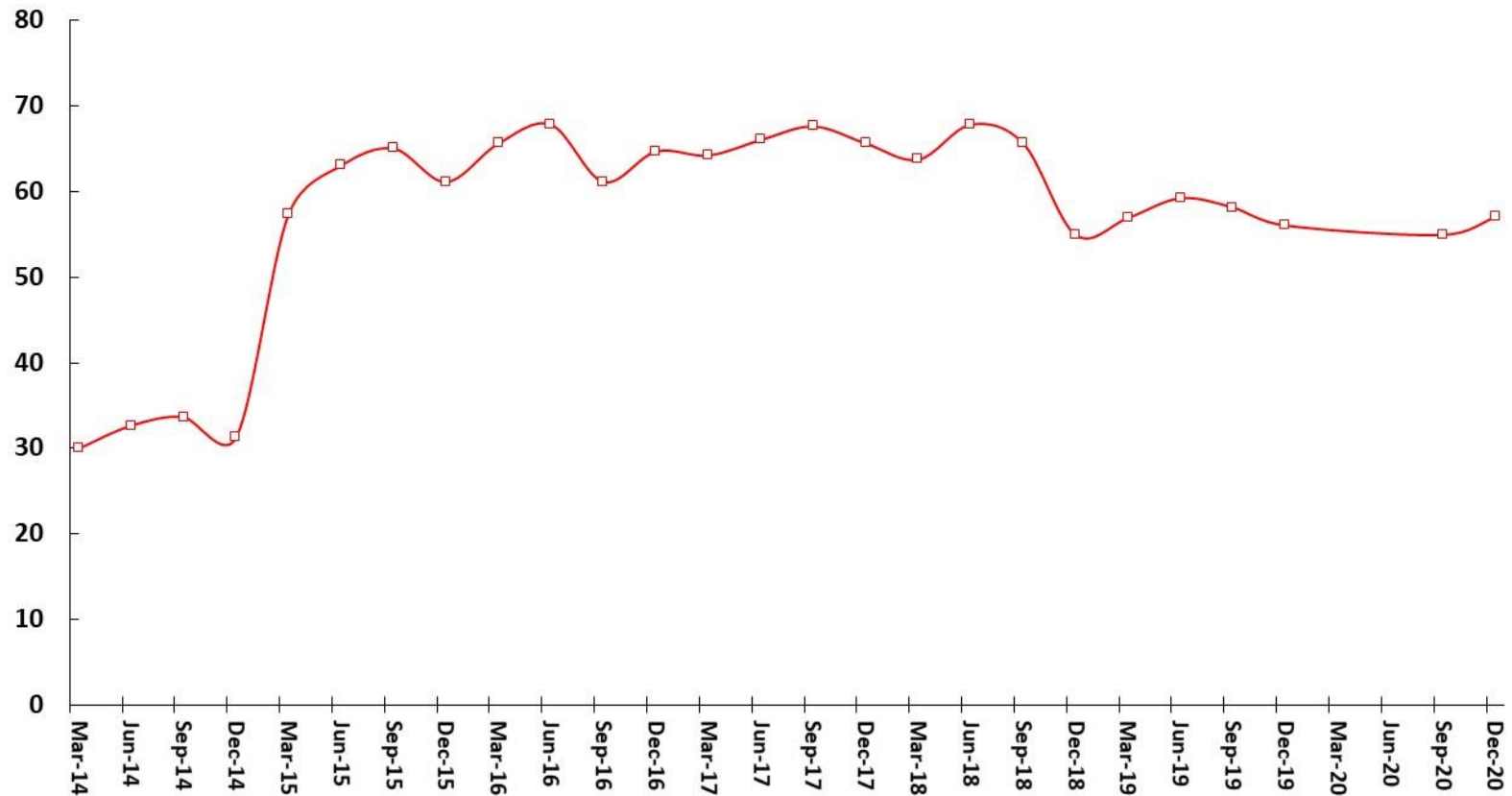
Source: IBGE e IBRE/FGV.

\*Note: Measures the difference between positive and negative answers, plus 100.

# IFO / FGV: Business Climate Index - Brazil



Fear of Unemployment and Life Satisfaction (CNI)  
3-month moving average



Source: CNI.

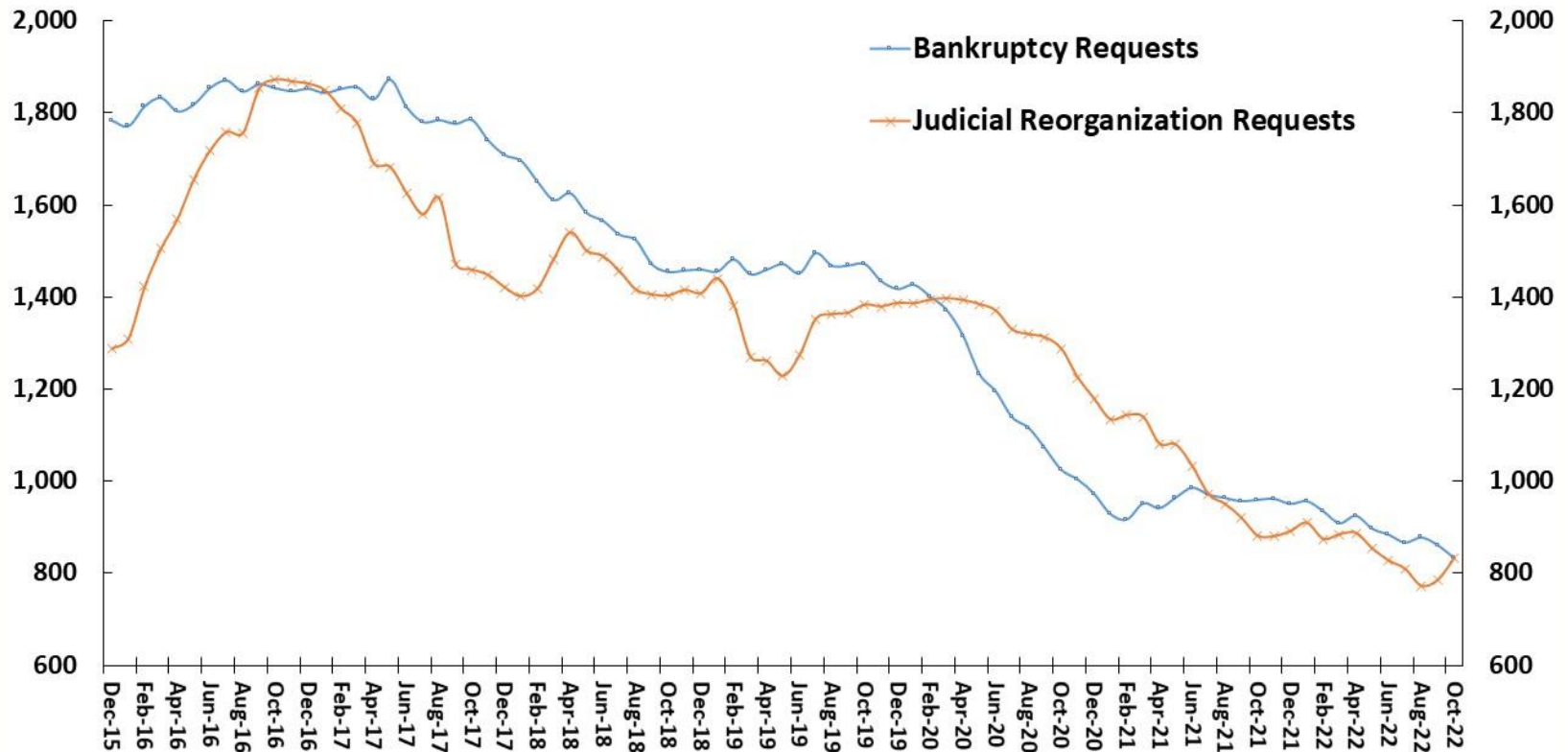


# Bankruptcy and Judicial Reorganization Requests

ECONOMIC ACTIVITY

Number of Bankruptcy Requests  
12-month Accumulated

Number of Requests for Judicial Reorganization  
12-month Accumulated

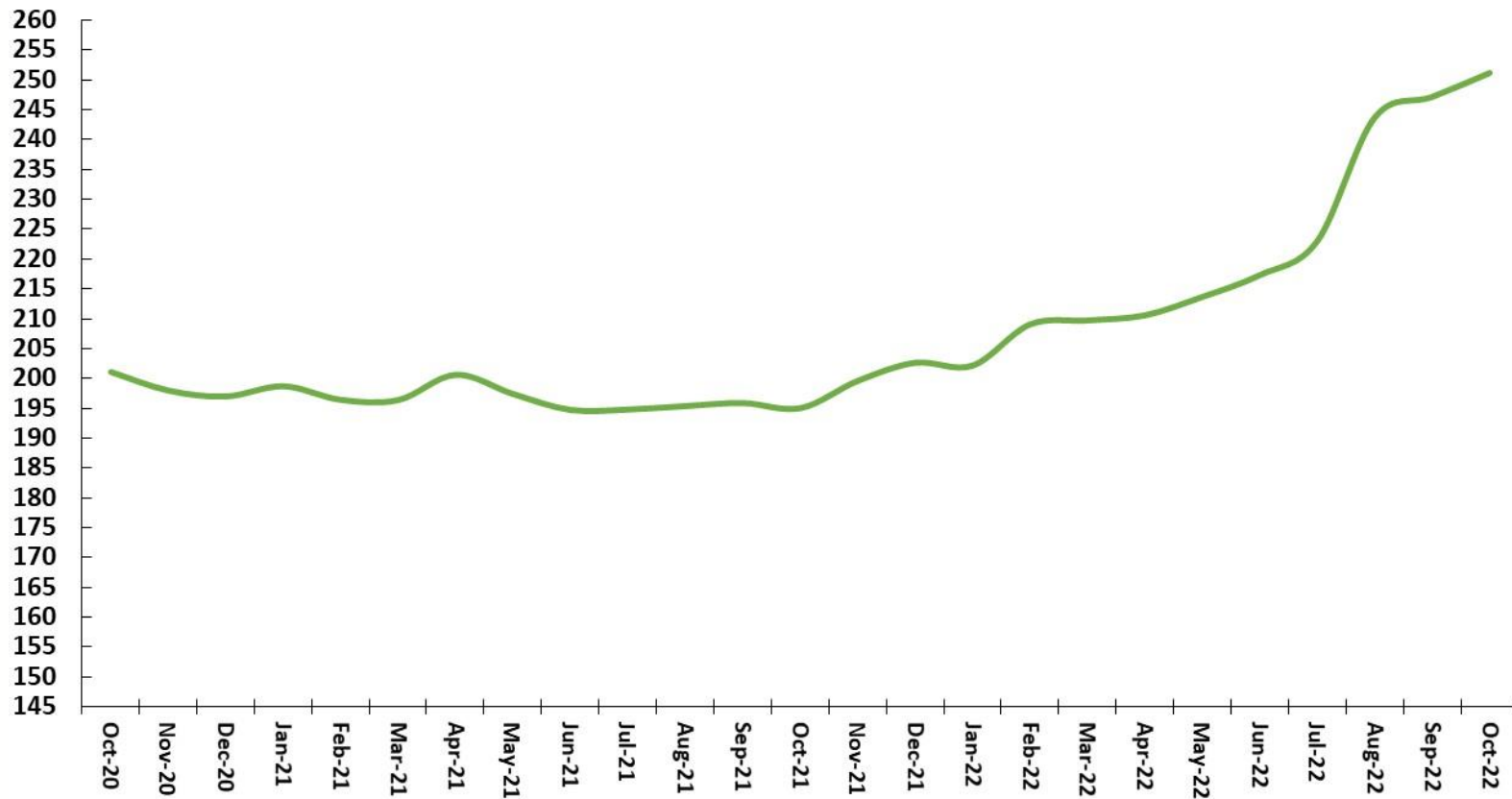


Source: Serasa-Experian.

# ABRAS: Supermarket Sector Total Retail Sales

ECONOMIC ACTIVITY

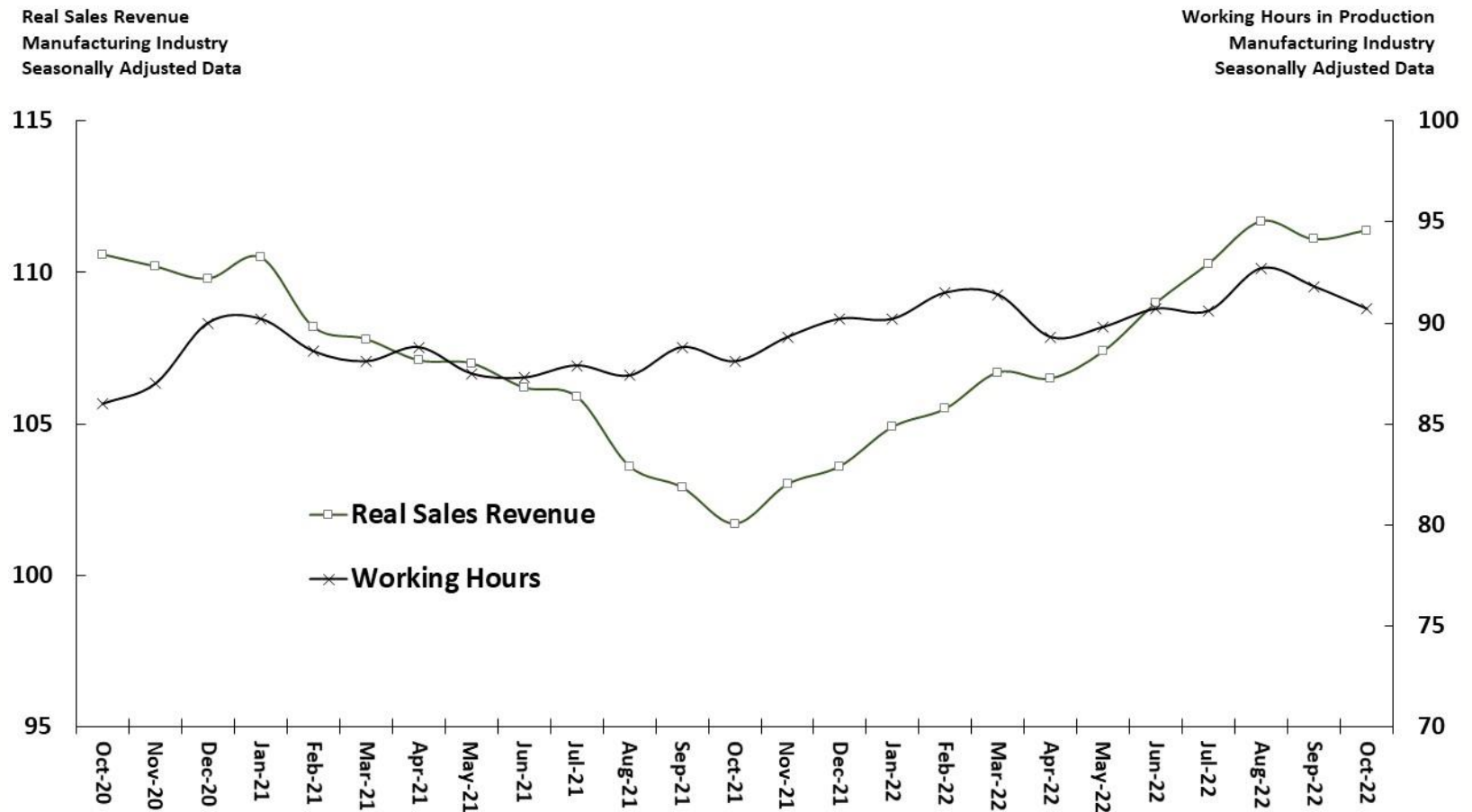
Total Retail Sales  
Seasonally Adjusted Data\*



Source: ABRAS. \* Seasonally adjusted by SPE.

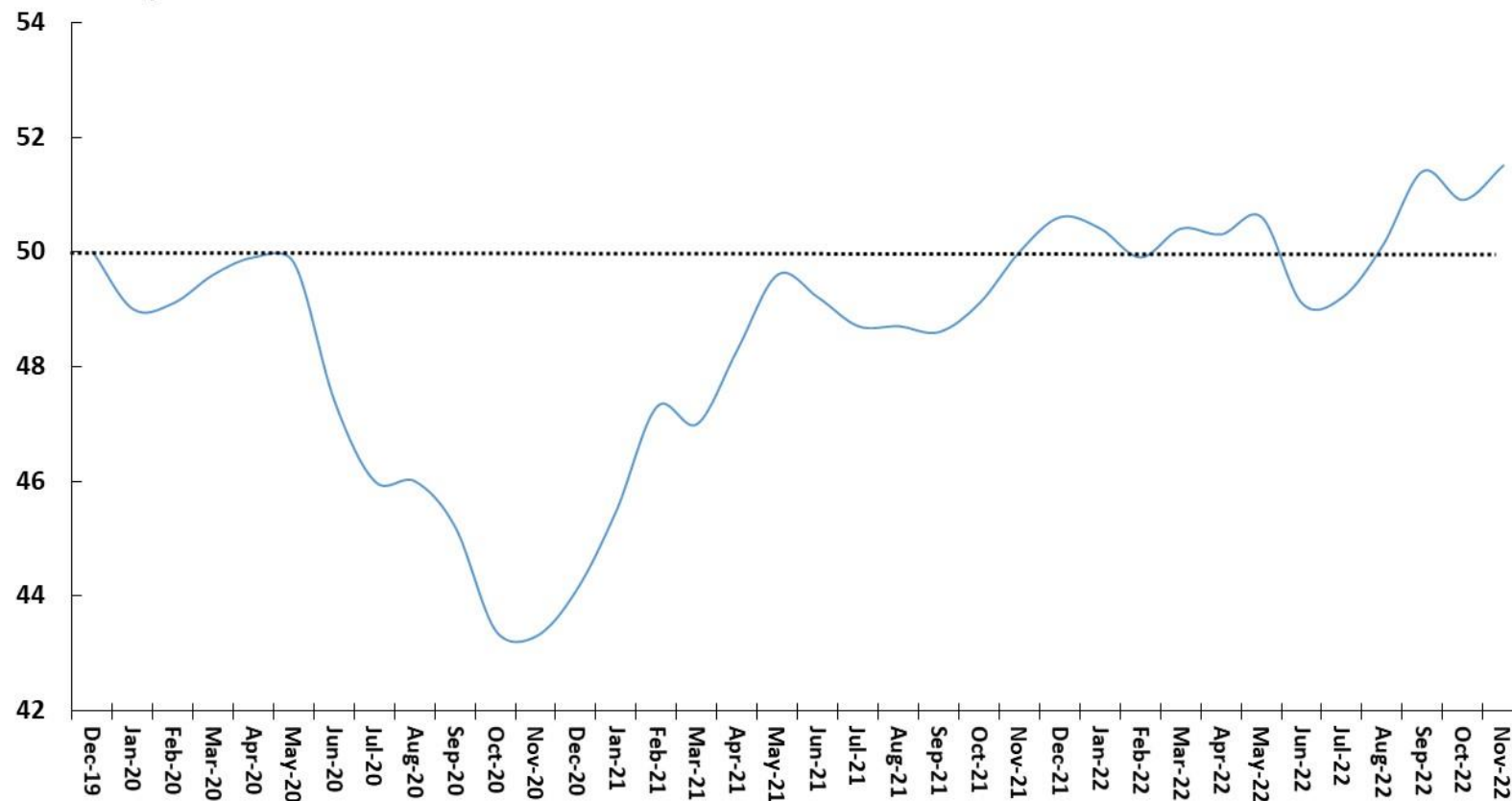
# CNI: Industry Real Sales Revenues and Working Hours

ECONOMIC ACTIVITY



Source: CNI.

General Industry Inventories Level  
Final Goods - planned x effective



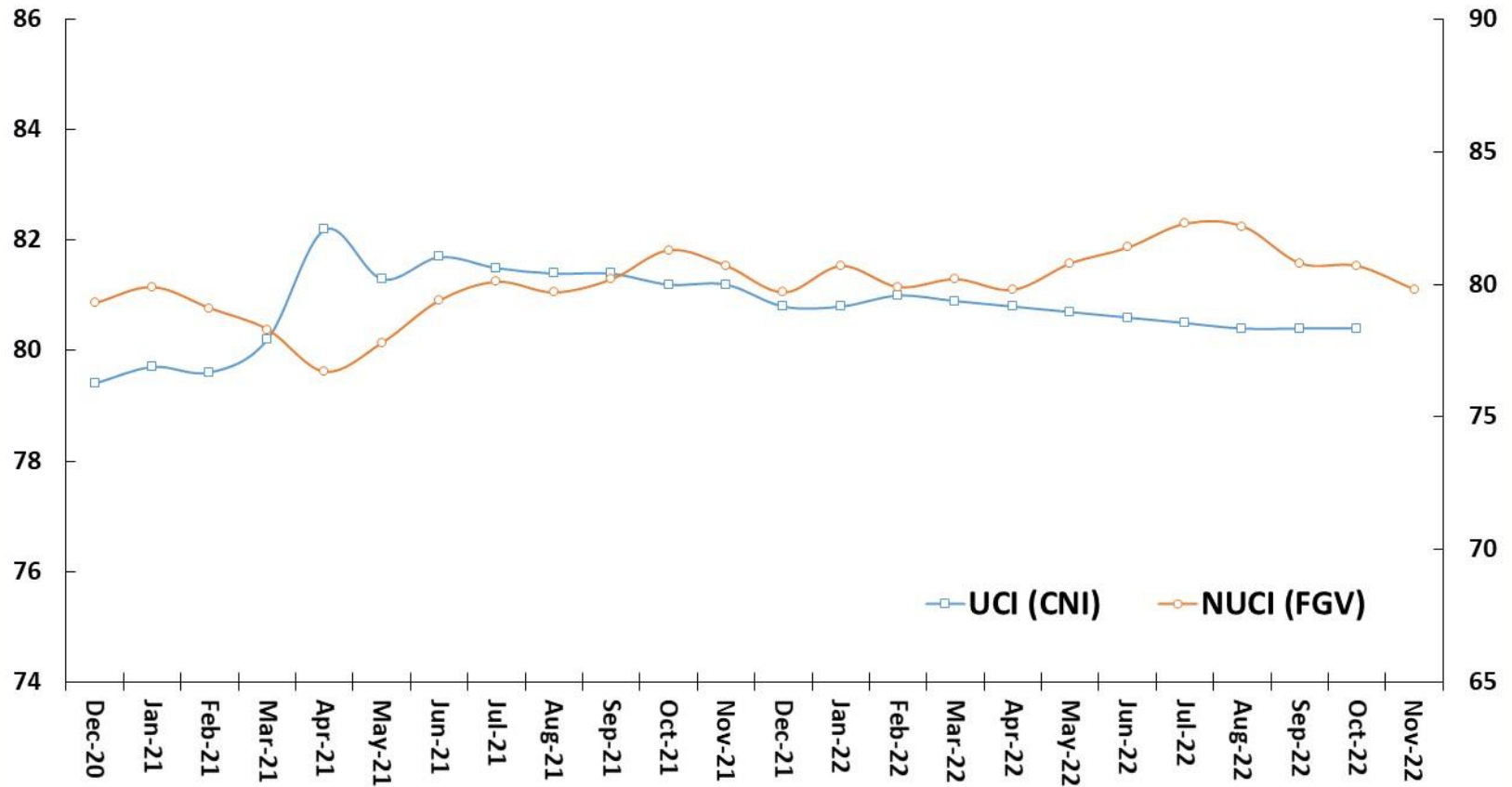
Source: CNI.

# Capacity Utilization Rate

ECONOMIC ACTIVITY

Capacity Utilization Rate - UCI (CNI)  
Seasonally Adjusted Data

Industry Capacity Utilization Rate – NUCI (FGV)  
Seasonally Adjusted Data



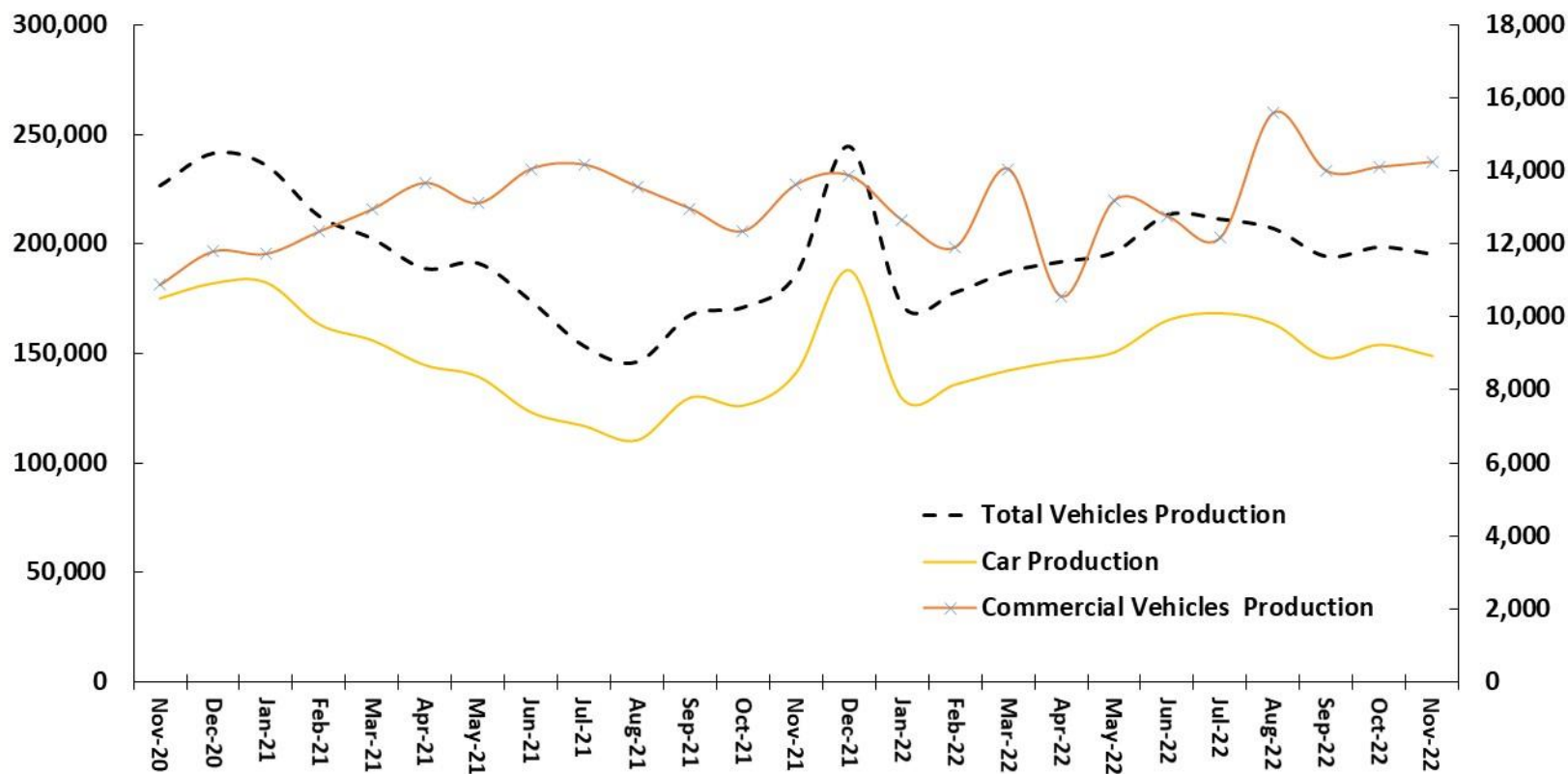
Source: CNI and FGV.

# Anfavea: Automotive Sector Production

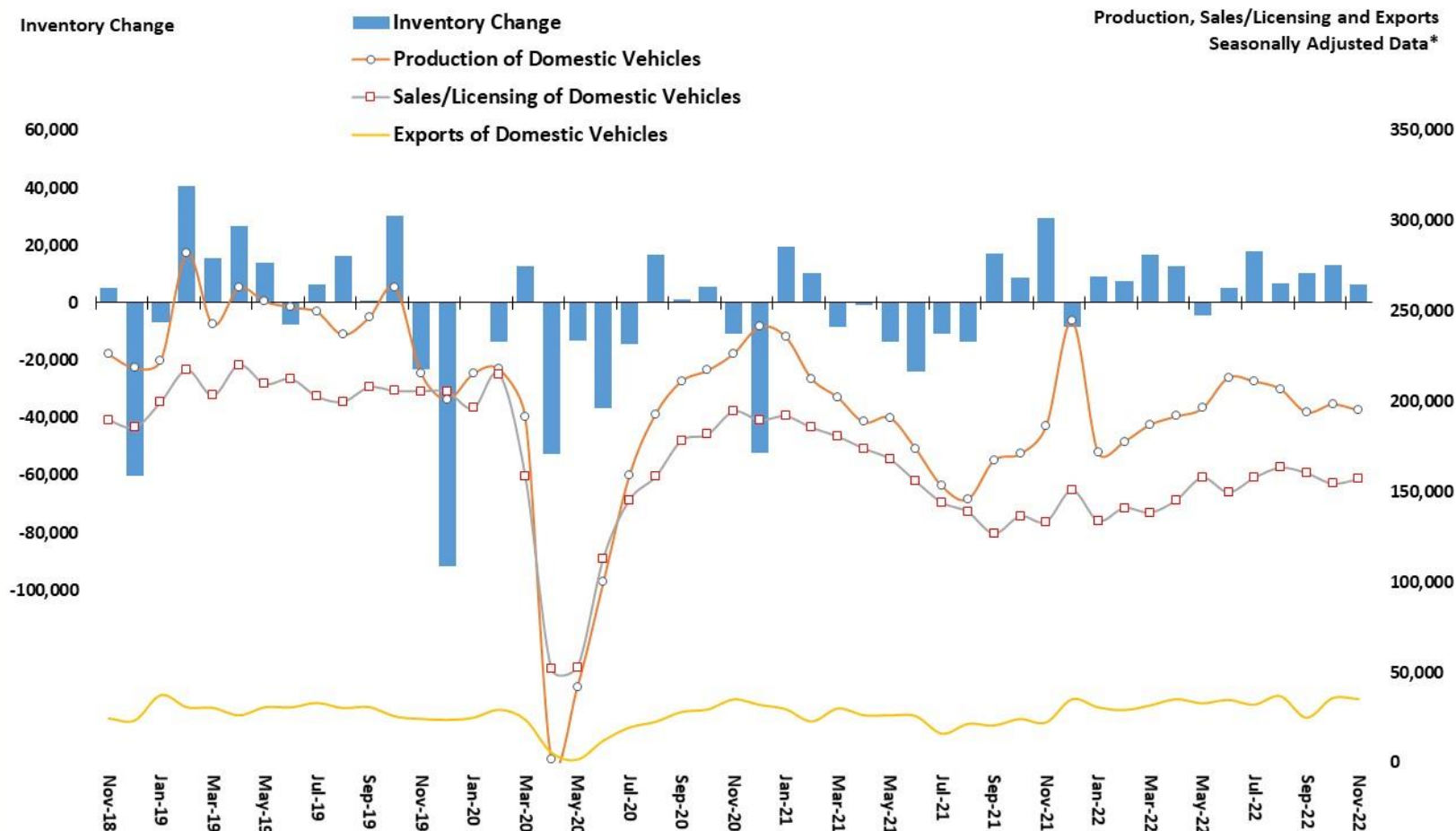
ECONOMIC ACTIVITY

Total Vehicles and Car Production  
Daily Average of Vehicles Monthly Manufactured  
Seasonally Adjusted Data\*

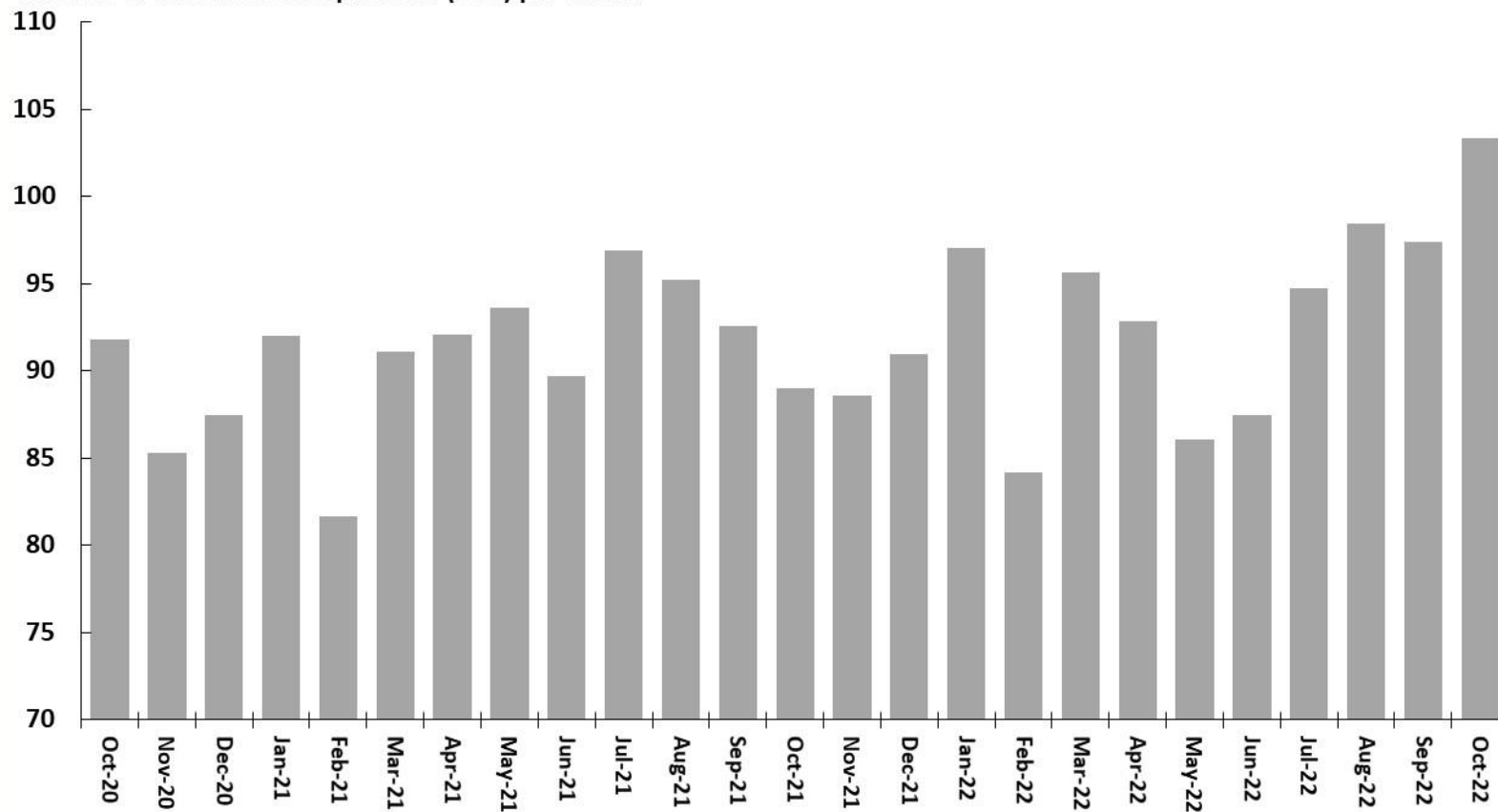
Commercial Vehicles Production  
Daily Average of Vehicles Monthly Manufactured  
Seasonally Adjusted Data\*



Source: ANFAVEA. \* Seasonally adjusted by SPE.



**Natural Gas and Oil Production**  
Millions of Barrels of Oil Equivalent (BOE) per Month



Source: ANP.

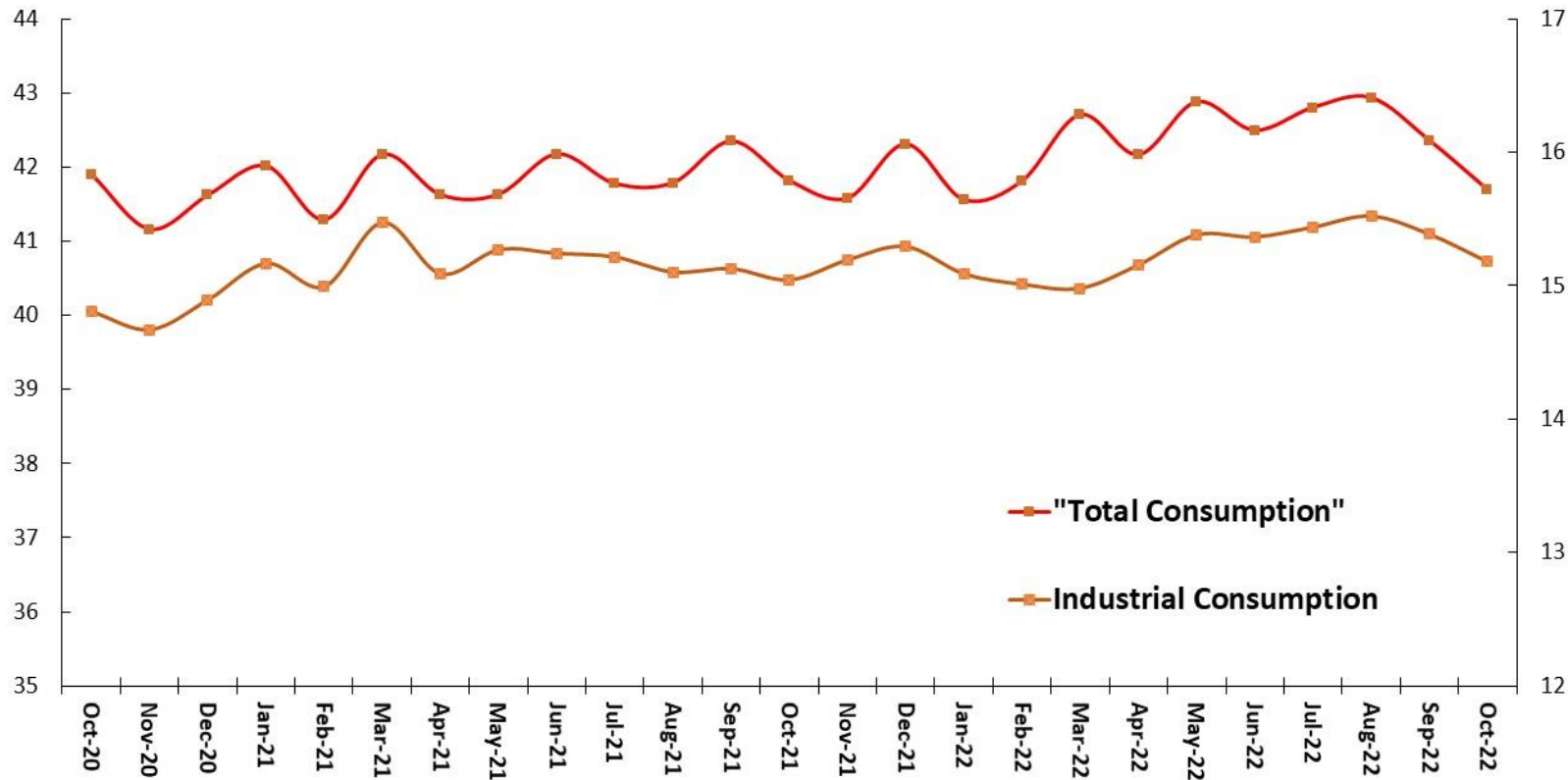


# ANEEL: Electrical Energy Consumption

ECONOMIC ACTIVITY

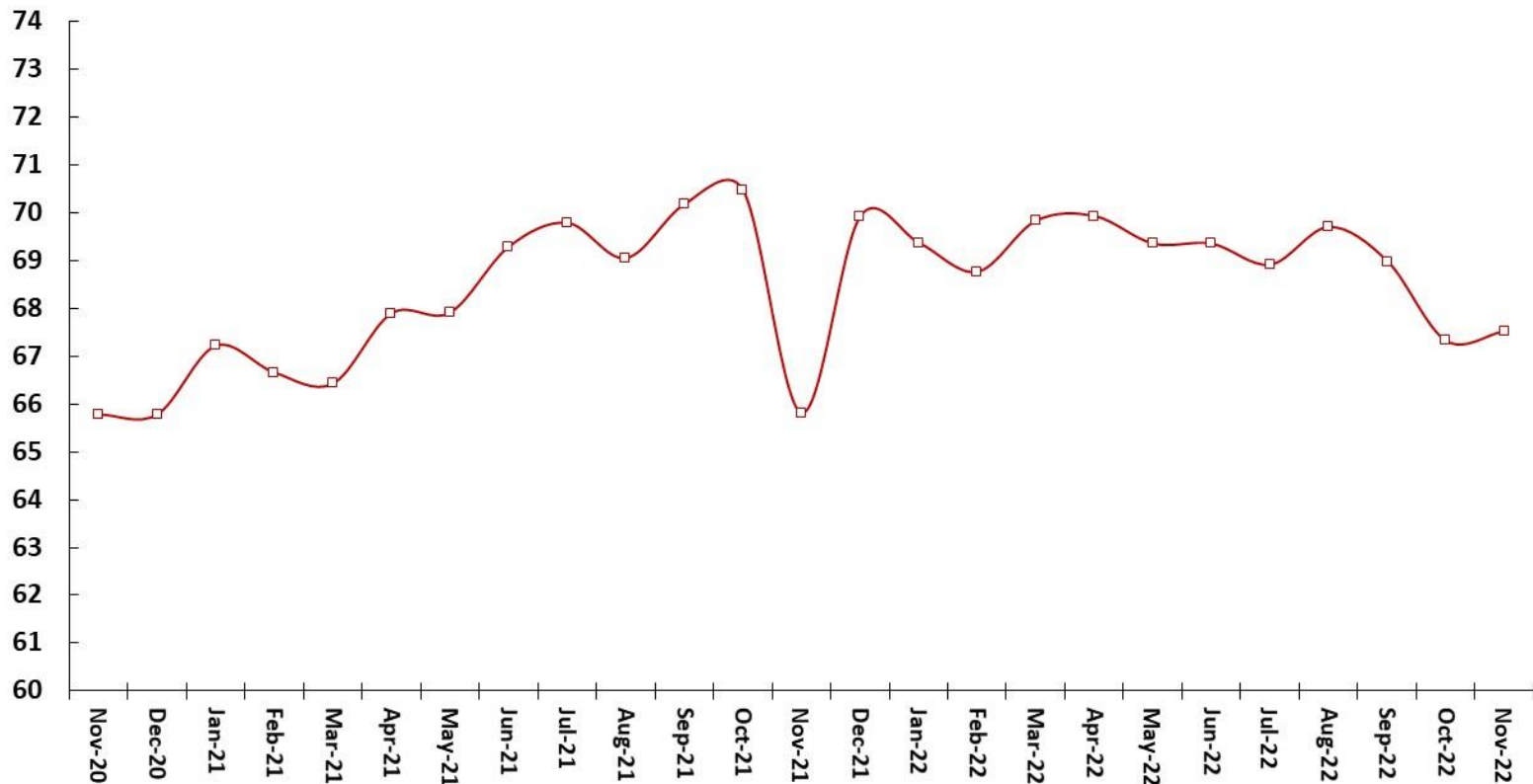
Total Electric Energy Consumption  
Millions of MWh  
Seasonally Adjusted Data\*

Electric Energy Industrial Consumption  
Millions of MWh  
Seasonally Adjusted Data\*



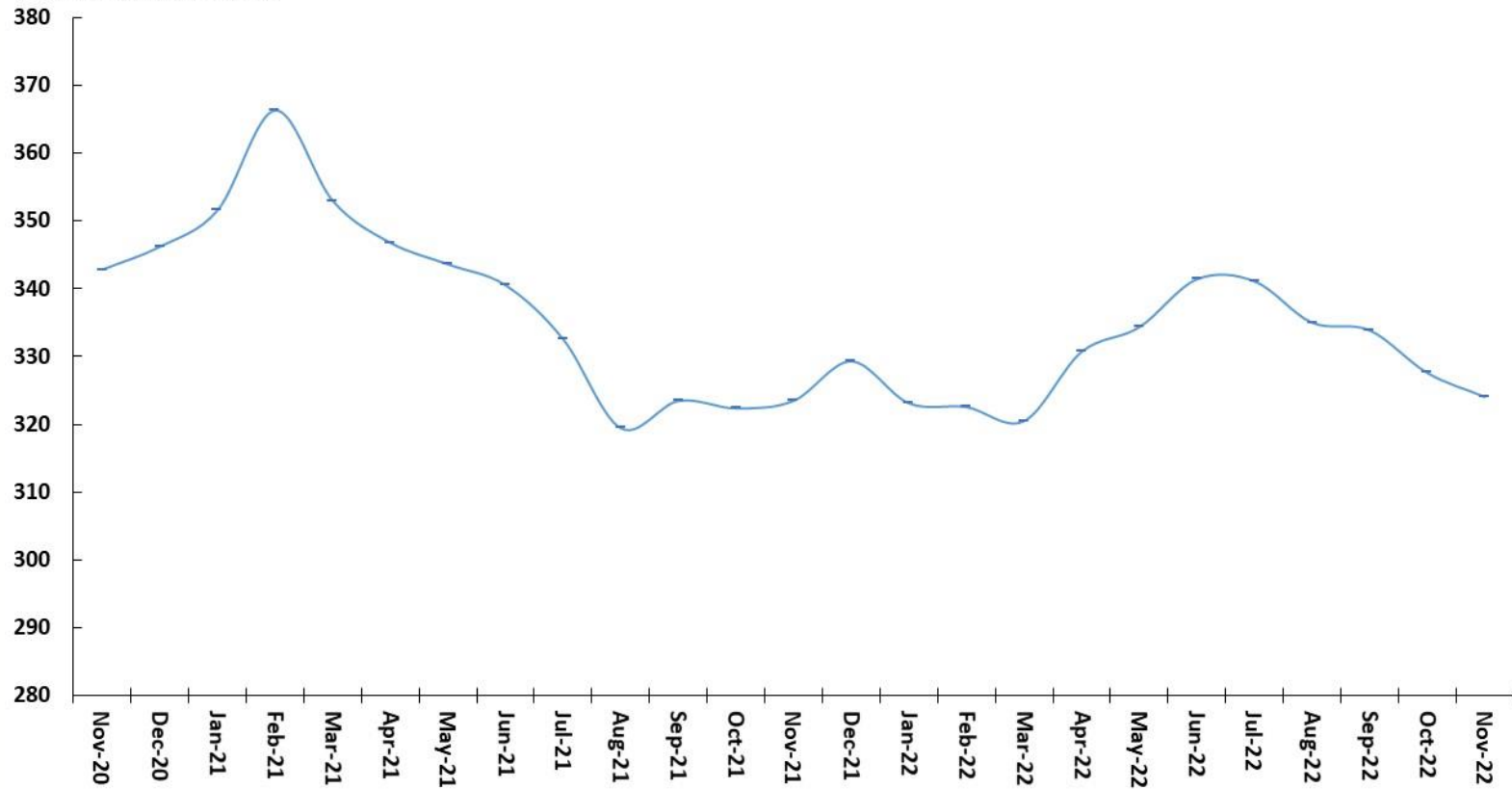
Source: ANEEL. \* Seasonally adjusted by SPE/MP.

Electric Energy System Supply  
Millions of MWh  
Seasonally Adjusted Data\*



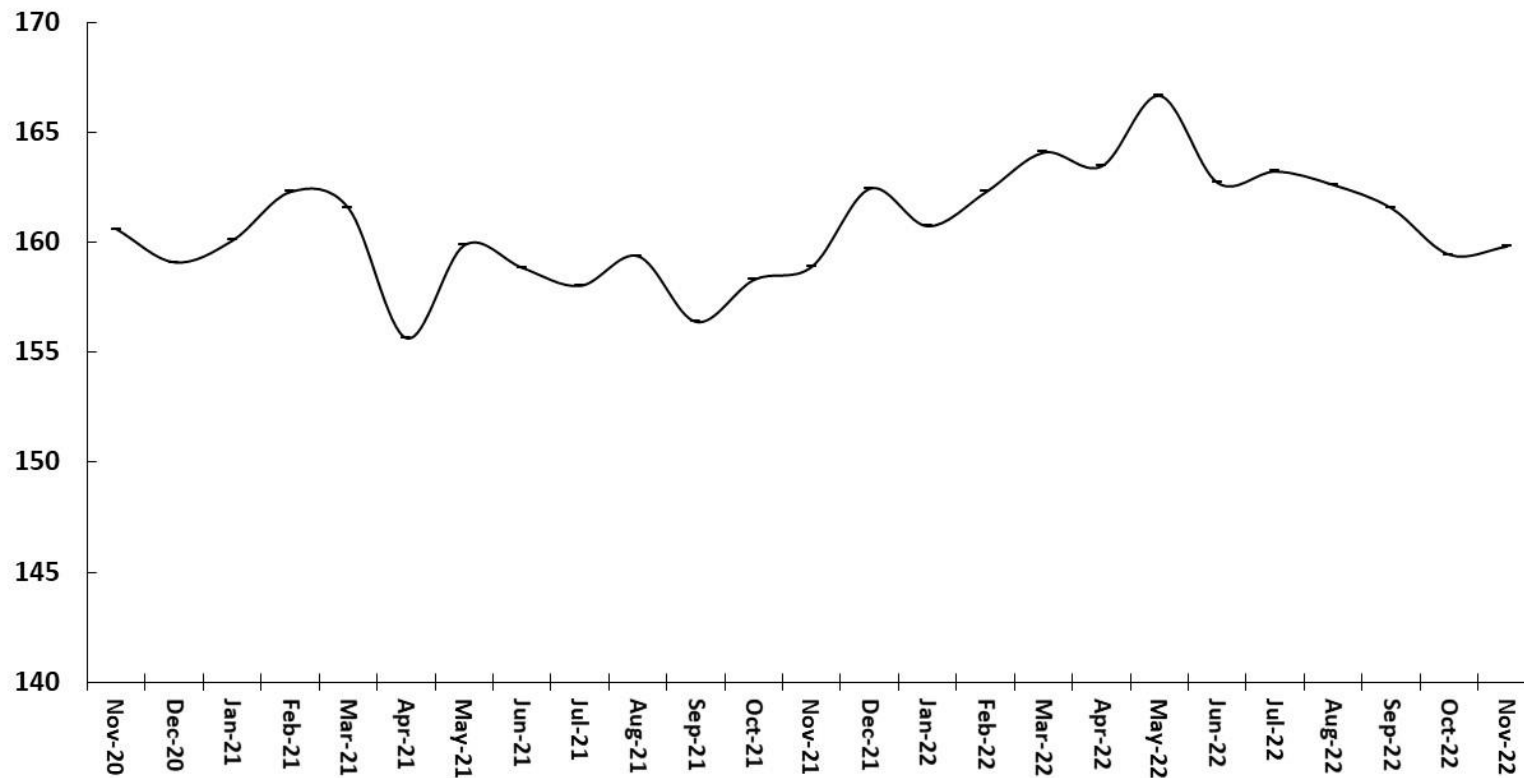
Source: ONS. \* Seasonally adjusted by SPE.

Corrugated Fiberboard Sales  
1.000 of Tons  
Seasonally Adjusted Data\*



Source ABPO. \* Seasonally adjusted by SPE.

Heavy Vehicles Road Traffic Index  
Index: 1999=100  
Seasonally Adjusted Data



Source: ABCR.

Labor market

										BCB/Focus: 12/16/22			
Employment Indicators	October-22	2020 average	2021 average	Oct/22 (12-months moving average)	Oct-22	chg.% 2021 / 2020	chg.% Sep/22-Sep/21	chg.% Oct/22-Oct/21	chg.% YTD 2020 / YTD 2019	chg.% Oct/22 - 2019 average	2022	2023	2024
Brasil (PNADC, IBGE)													
Unemployment Rate % Labor Force		13.5	13.5	10.1	8.3	0.0 pp	-3.9 pp	-3.8 pp	-4.1 pp	-5.2 pp	9.95	10.2	10.0
Working Age Population (in thousands)		169,917	171,551	172,871	173,587	1.0%	0.9%	0.9%	0.9%	1.2%			
Labor Force (in thousands)		101,254	104,652	108,005	108,684	3.4%	2.2%	1.7%	3.9%	3.9%			
Employed Population (in thousands)		87,638	90,549	97,127	99,661	3.3%	6.8%	6.1%	8.8%	10.1%			
Unemployed Population (in thousands)		13,617	14,103	10,879	9,023	3.6%	-29.7%	-30.1%	-26.7%	-36.0%			
Average Real Earnings (PNADC, IBGE)	October-22	2020 average	2021 average	Oct/22 (12-months moving average)	Oct-22	chg.% 2021 / 2020	chg.% Sep/22-Sep/21	chg.% Oct/22-Oct/21	chg.% YTD 2020 / YTD 2019	chg.% Oct/22 - 2019 average			
real values (in R\$ of last month)													
Employed Population		2,921	2,747	2,643	2,754	-5.9%	2.5%	4.7%	-4.5%	0.2%			
Formal Contract		2,719	2,596	2,542	2,611	-4.5%	1.6%	3.7%	-2.9%	0.6%			
Informal Contract		1,857	1,753	1,752	1,818	-5.6%	3.8%	10.8%	-1.4%	3.7%			
Self-employed		2,123	2,072	2,086	2,178	-2.4%	5.1%	7.2%	0.2%	5.1%			
Public Sector		4,551	4,408	4,073	4,196	-3.1%	-2.0%	0.8%	-8.8%	-4.8%			
Real Wage Bill (in R\$ millions of last months)		251,047	243,859	251,770	269,497	-2.9%	9.4%	11.0%	3.9%	10.5%			
Formal Jobs (CAGED, MTE)	October-22	2020	2021	Sep/22 accum. in 12-months	Oct/22 accum. in 12-months	Year-To-Date	Oct-22	chg.% 2021 / 2020	chg.% Oct/22 accum.12-m / 2019	chg.% YTD 2020 / YTD 2019			
Million people													
Net Formal Jobs Creation		-193	2,777	2,434	2,340	2,320	159	-1541.6%	-15.7%	84.2%			
Job Oppenings		15,625	20,949	22,839	22,786	19,445	1,789	34.1%	8.8%	110.4%			
Job Separations		15,818	18,172	20,405	20,445	17,125	1,630	14.9%	12.5%	115.3%			

Macroeconomic Parameters						
Year	Labor Force	Formal Jobs in Private Sector				
		Employed Population	Earnings		Wage Bill	
			Nominal	Real	Nominal	Real
	Chg. % accum. In 4-trimesters					
2016	1.32	-4.28	7.65	-1.03	3.04	-5.27
2017	1.70	-2.76	5.90	2.36	2.99	-0.46
2018	1.20	-0.58	3.43	-0.22	2.84	-0.79
2019	1.77	1.43	3.35	-0.38	4.83	1.05
2020	-5.88	-6.91	5.84	2.55	-1.51	-4.56
2021	4.35	2.56	2.70	-5.12	5.37	-2.77
2022	3.36	9.18	8.68	-0.64	18.70	8.61
2023	2.44	3.84	7.13	2.53	11.21	6.45
2024	2.08	2.54	4.89	1.27	7.54	3.84
2025	2.15	2.47	3.98	0.95	6.55	3.45
2026	2.30	2.86	3.90	0.87	6.86	3.75

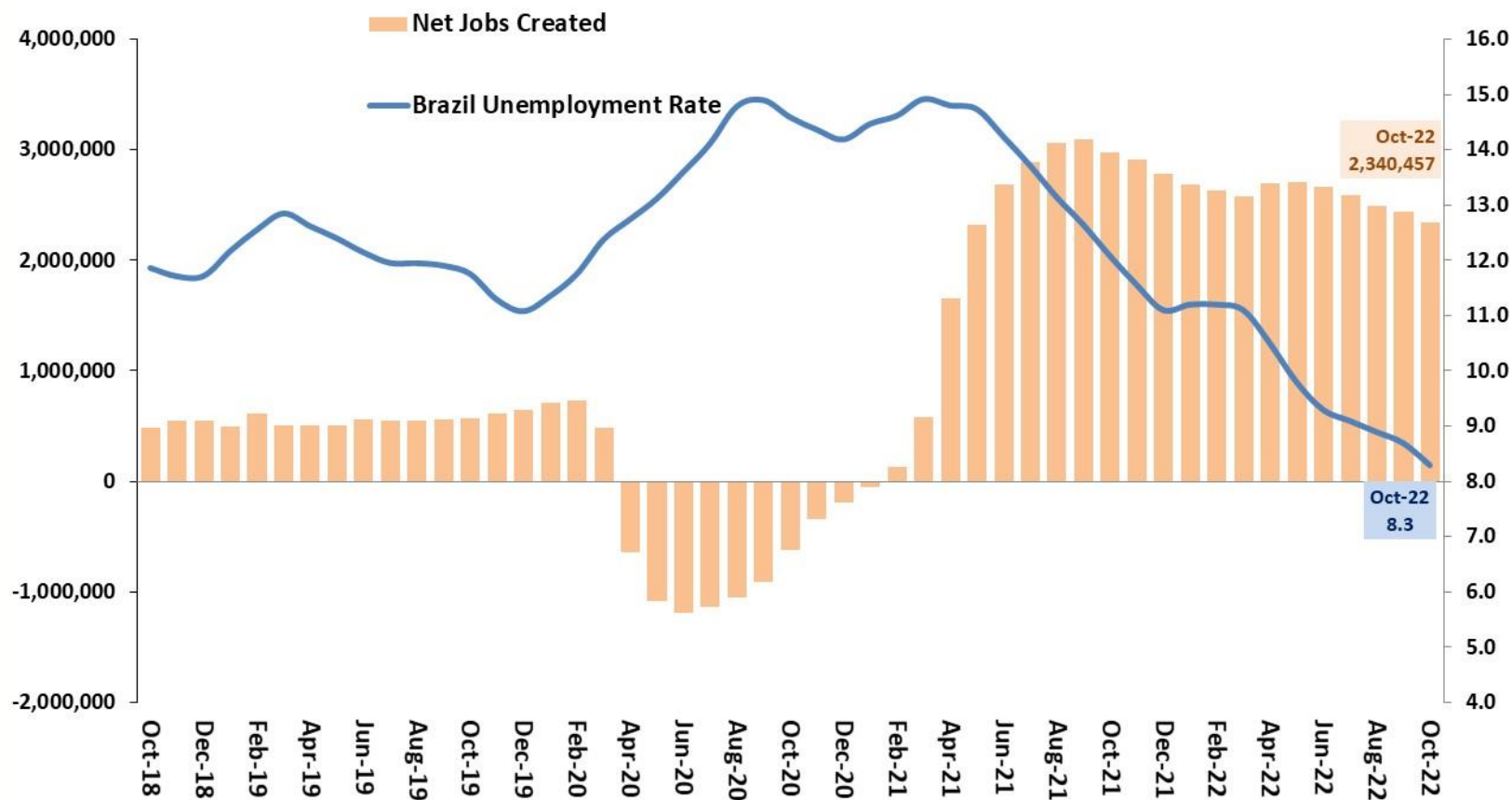
Source: SPE/ME. Macroeconomic Parameters, December-2022.

# Unemployment Rate and Net Formal Job Creation

LABOR MARKET

Net Formal Jobs Creation  
12-Month Accumulated Figures

Brazil Unemployment Rate  
% of Labor Force

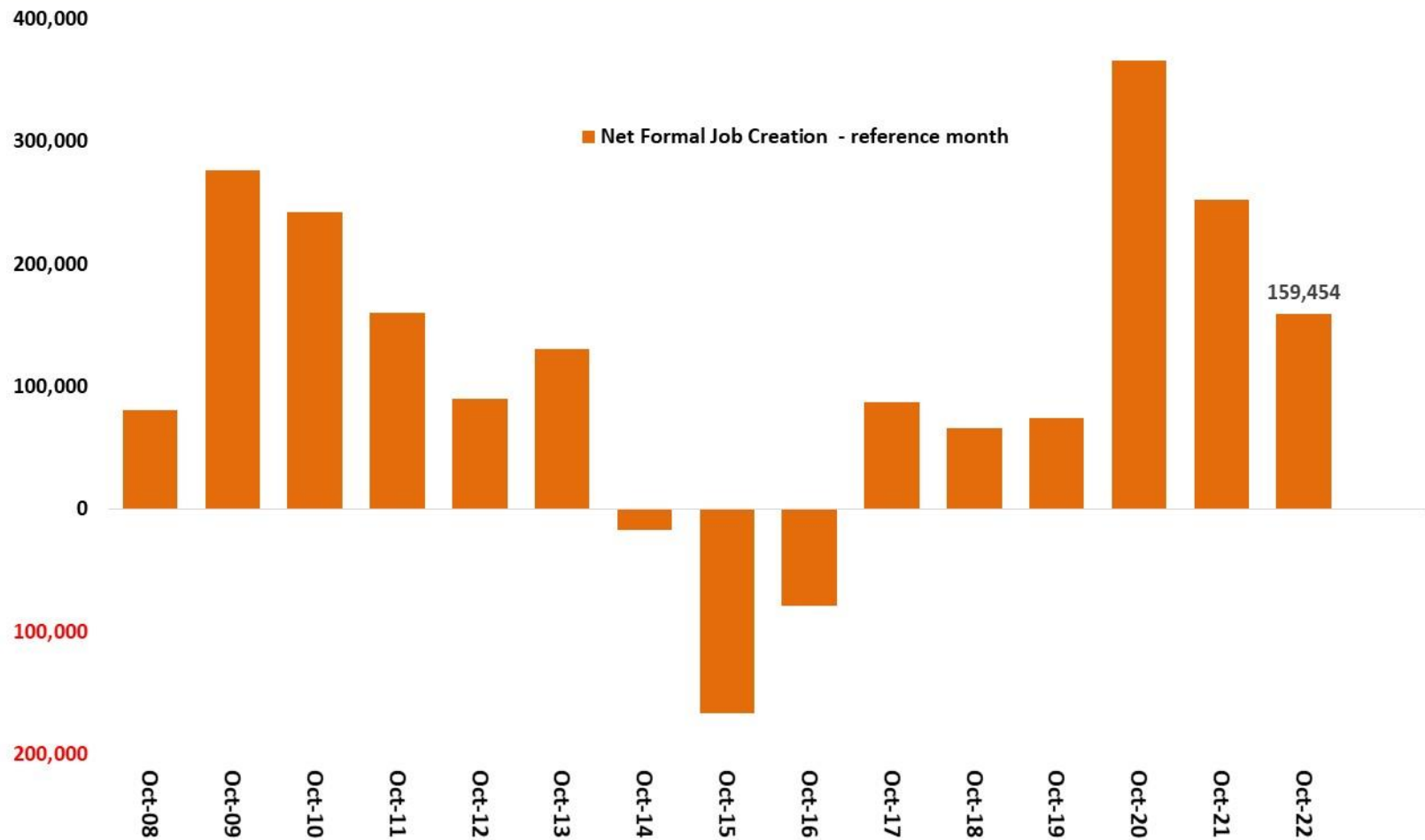


Sources: IBGE - PNADC and ME-CAGED (adjusted data).



# Net Formal Job Creation on Month

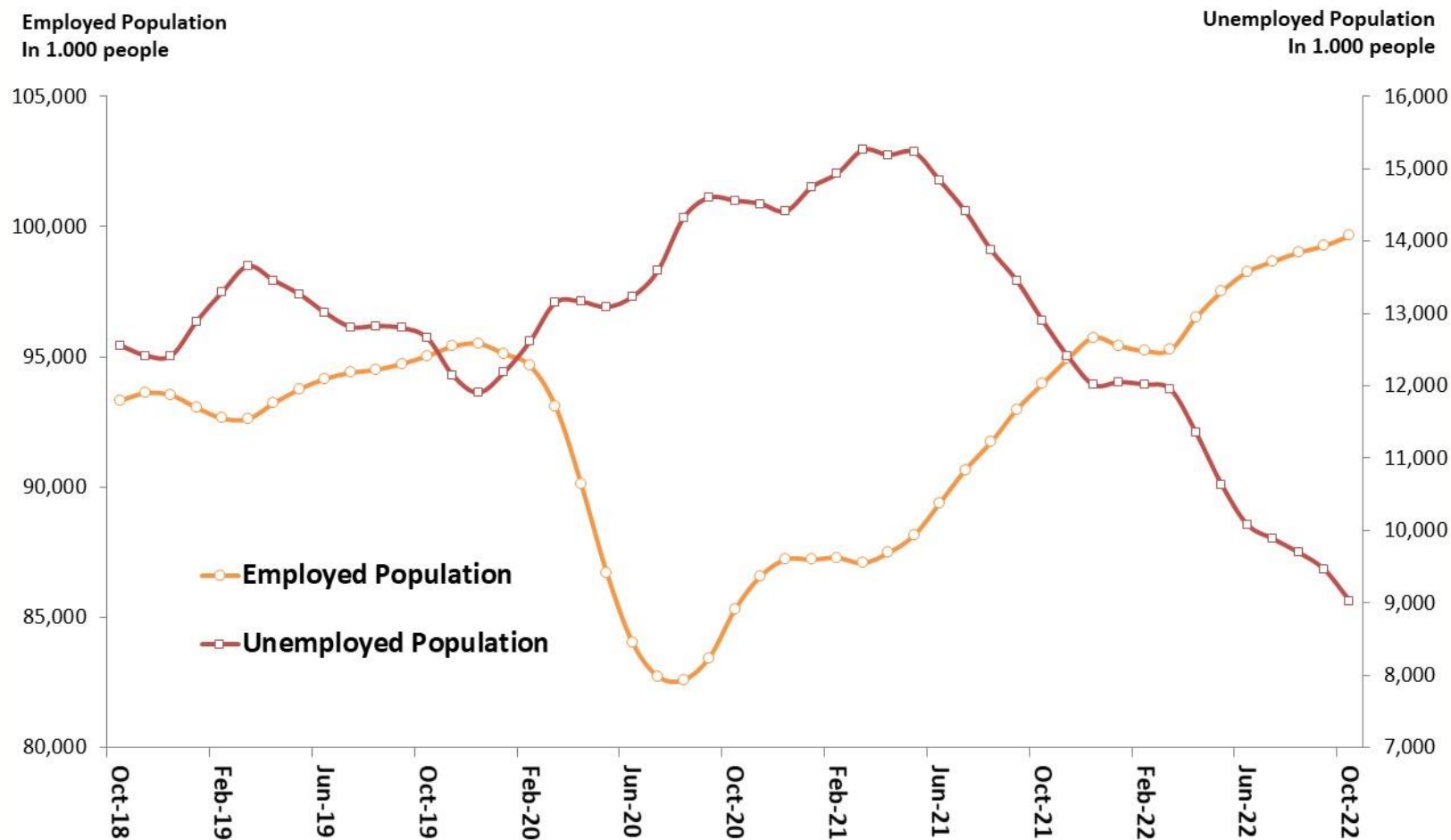
LABOR MARKET



Source: ME-CAGED (adjusted data).

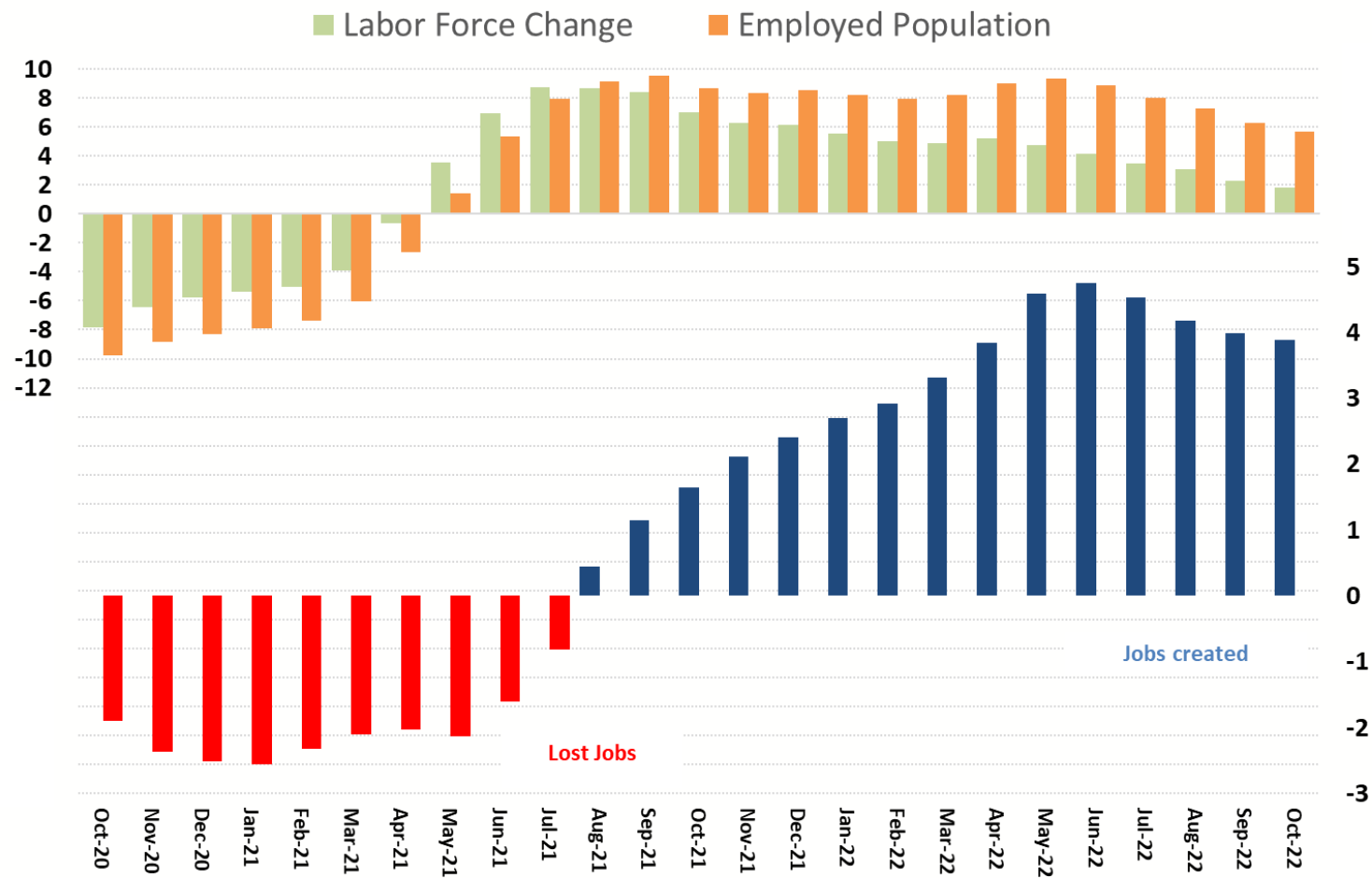
# Employed Population and Labor Force Evolution

LABOR MARKET



Source: IBGE - PNADC.

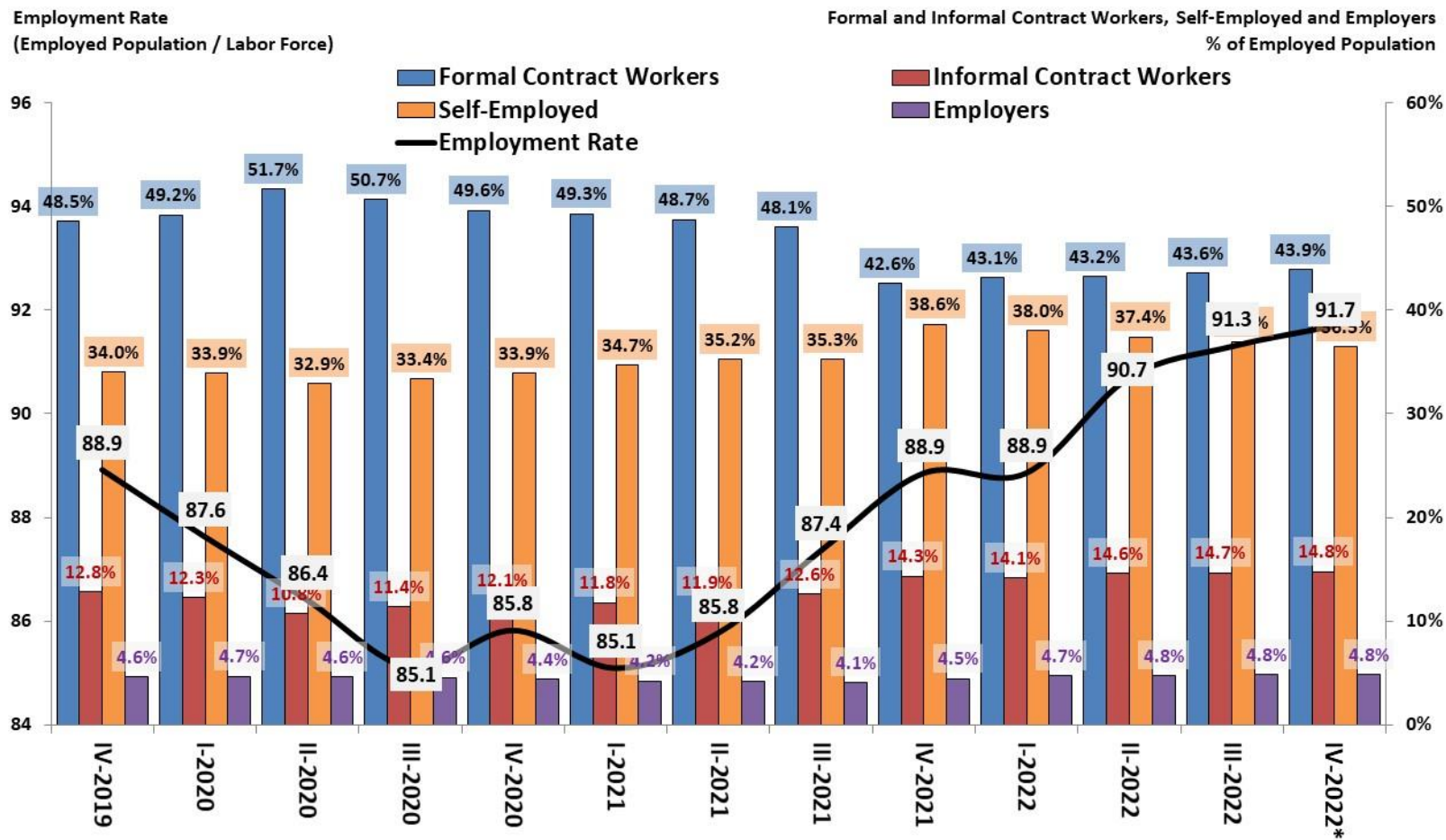
# 12-Month Total Unemployment Increase Decomposition



Source: IBGE - PNADC.

# Labor Market Evolution by Employment Type

LABOR MARKET

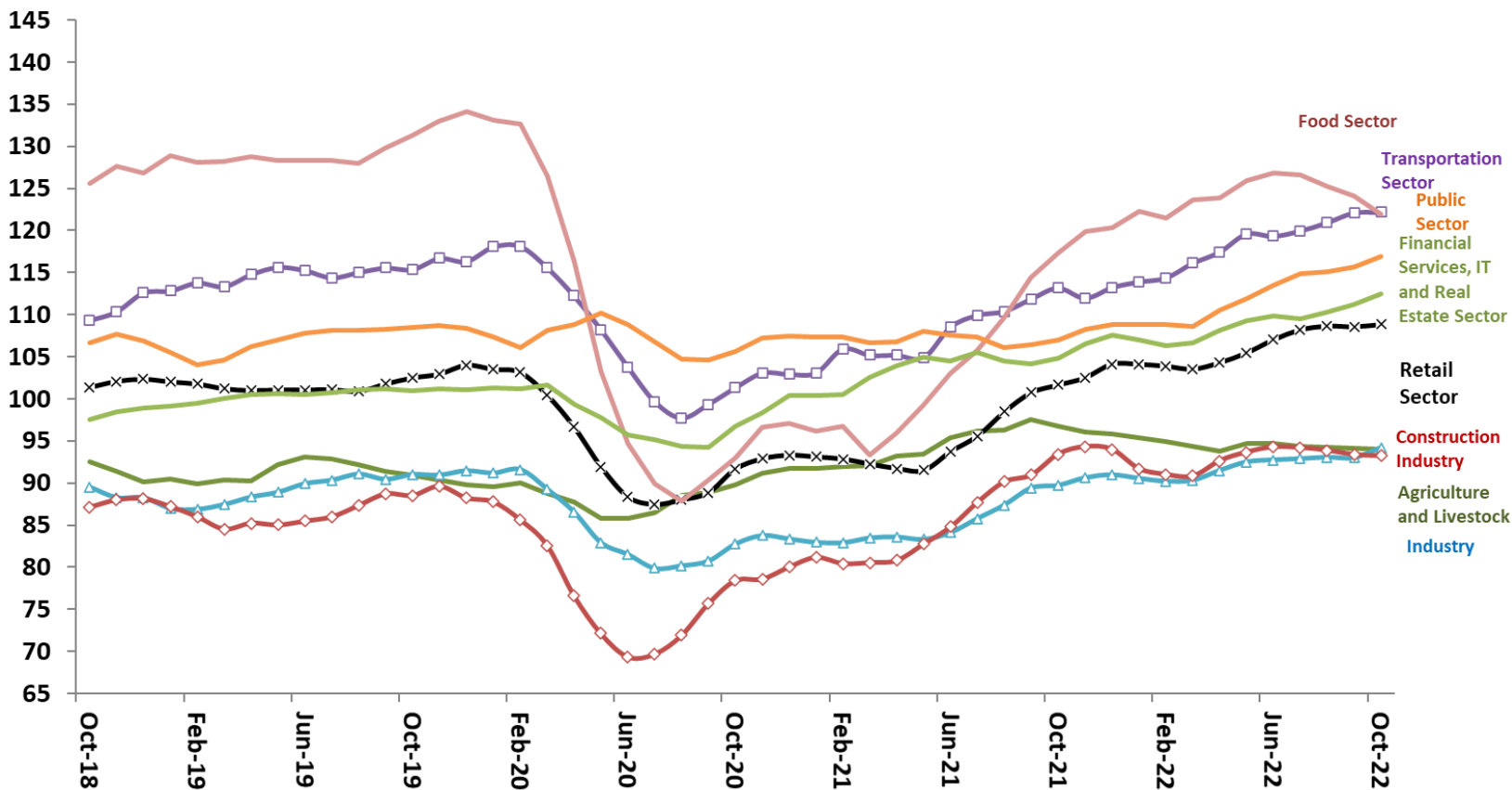


Source: IBGE - PNADC. Note: Formal contract includes both private and public sectors and Self-Employed includes home-workers and family-workers. \*\* Out-22.

# Employment by Sector of Activity

LABOR MARKET

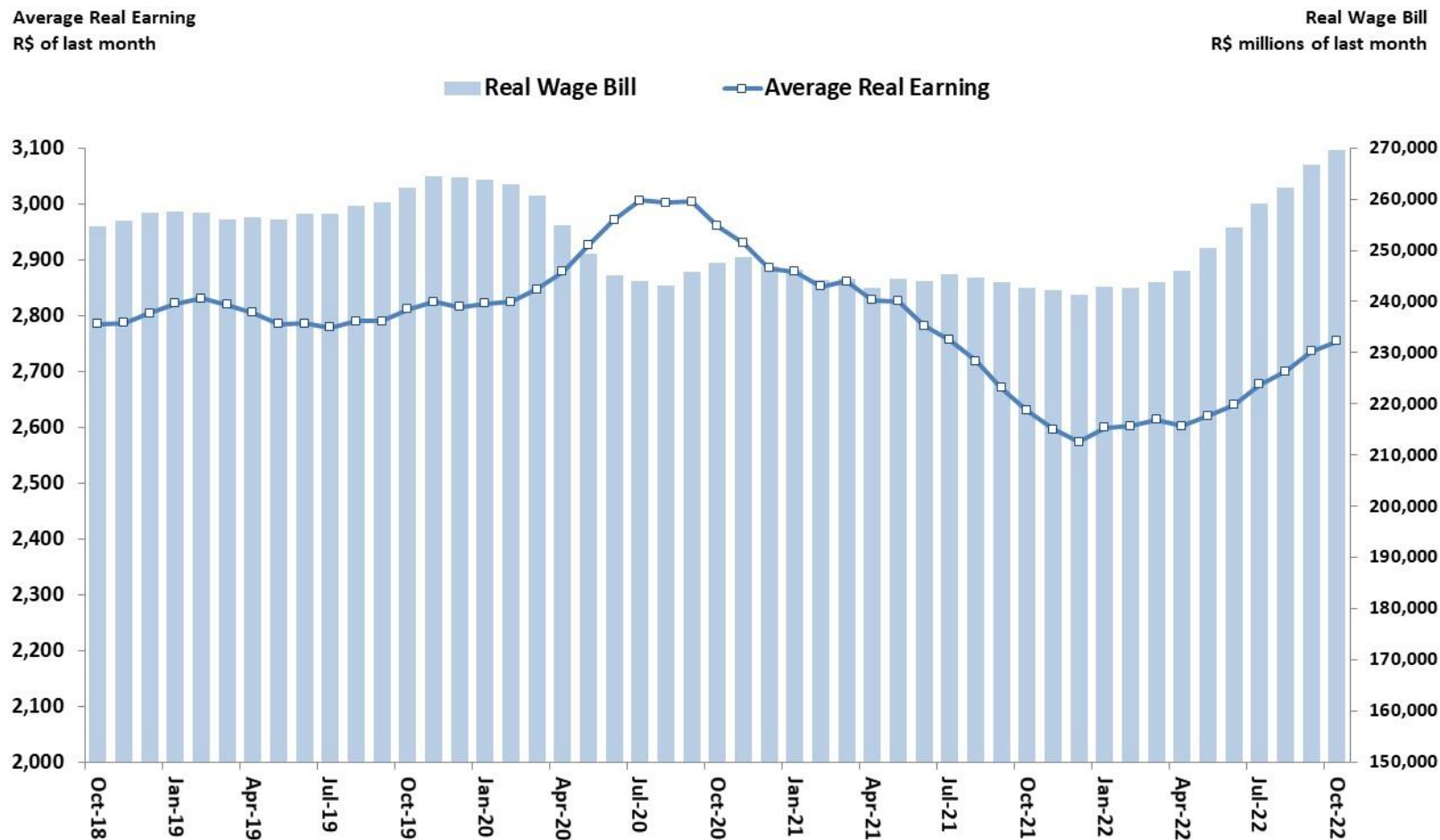
Employed Population by Sectors of Activity  
Index: 2013 = 100



Source: IBGE - PNADC.

# Real Wage Bill and Average Real Earning

LABOR MARKET



Source: IBGE - PNADC.

# Inflation

# Inflation – Main Indices

INFLATION

													BCB/Focus: 12/16/22		
Inflation Index	Last update (m / y)	2020	2021	Accum. In 12-months	YTD Wednesday	YTD Thursday	(m-2/y-1)	(m-1/y-1)	(m/y-1)	(m-2/y)	(m-1/y)	(m / y)	2022	2023	2024
<b>IPCA Inflation Target (CMN)</b>		<b>4.0%</b>	<b>3.8%</b>	<b>3.5%</b>									<b>3.50%</b>	<b>3.25%</b>	<b>3.00%</b>
<b>Consumer Price Index IPCA (IBGE)</b>	<b>Nov-22</b>	<b>4.52%</b>	<b>10.06%</b>	<b>5.90%</b>	<b>9.26%</b>	<b>5.13%</b>	<b>1.16%</b>	<b>1.25%</b>	<b>0.95%</b>	<b>-0.29%</b>	<b>0.59%</b>	<b>0.41%</b>	<b>5.76%</b>	<b>5.17%</b>	<b>3.50%</b>
IPCA core (By exclusion food and energy - Ex2)	<b>Nov-22</b>	2.8%	7.3%	8.0%	6.3%	7.0%	1.0%	1.0%	0.5%	0.5%	0.7%	0.2%			
Food and Beverages	<b>Nov-22</b>	14.1%	7.9%	11.8%	7.0%	10.9%	1.0%	1.2%	0.0%	-0.5%	0.7%	0.5%			
Housing	<b>Nov-22</b>	5.3%	13.0%	0.6%	12.2%	-0.1%	2.6%	1.0%	1.0%	0.6%	0.3%	0.5%			
Household Articles	<b>Nov-22</b>	6.0%	12.1%	8.7%	10.6%	7.2%	0.9%	1.3%	1.0%	-0.1%	0.4%	-0.7%			
Apparel	<b>Nov-22</b>	-1.1%	10.3%	18.6%	8.1%	16.2%	0.3%	1.8%	1.0%	1.8%	1.2%	1.1%			
Transportation	<b>Nov-22</b>	1.0%	21.0%	-0.9%	20.3%	-1.5%	1.8%	2.6%	3.4%	-2.0%	0.6%	0.8%			
Health and Personal Care	<b>Nov-22</b>	1.5%	3.7%	10.5%	2.9%	9.7%	0.4%	0.4%	-0.6%	0.6%	1.2%	0.0%			
Personal Expenses	<b>Nov-22</b>	1.0%	4.7%	7.7%	4.2%	7.1%	0.6%	0.8%	0.6%	1.0%	0.6%	0.2%			
Education	<b>Nov-22</b>	1.1%	2.8%	7.3%	2.8%	7.3%	0.0%	0.1%	0.0%	0.1%	0.2%	0.0%			
Communication	<b>Nov-22</b>	3.4%	1.4%	-1.2%	1.0%	-1.5%	0.1%	0.5%	0.1%	-2.1%	-0.5%	-0.1%			
<b>Consumer Price Index INPC (IBGE)</b>	<b>Nov-22</b>	<b>2.07%</b>	<b>3.43%</b>	<b>5.97%</b>	<b>9.36%</b>	<b>5.21%</b>	<b>1.20%</b>	<b>1.16%</b>	<b>0.84%</b>	<b>-0.32%</b>	<b>0.47%</b>	<b>0.38%</b>			
<b>Consumer Price Index IPCA - 15 (IBGE)</b>	<b>Dec-22</b>	<b>4.23%</b>	<b>10.42%</b>	<b>5.90%</b>	<b>10.42%</b>	<b>5.90%</b>	<b>1.20%</b>	<b>1.17%</b>	<b>0.78%</b>	<b>0.16%</b>	<b>0.53%</b>	<b>0.52%</b>			
<b>General Price Index IGP-10 (FGV)</b>	<b>Dec-22</b>	<b>-0.42%</b>	<b>7.92%</b>	<b>6.10%</b>	<b>17.30%</b>	<b>17.83%</b>	<b>-0.31%</b>	<b>1.19%</b>	<b>-0.14%</b>	<b>-1.04%</b>	<b>-0.59%</b>	<b>0.36%</b>			
<b>General Price Index IGP-M (FGV)</b>	<b>Nov-22</b>	<b>-0.53%</b>	<b>7.55%</b>	<b>5.90%</b>	<b>16.78%</b>	<b>4.99%</b>	<b>-0.64%</b>	<b>0.64%</b>	<b>0.02%</b>	<b>-0.95%</b>	<b>-0.97%</b>	<b>-0.56%</b>	<b>5.42%</b>	<b>4.55%</b>	<b>4.02%</b>
<b>General Price Index IGP-DI (FGV)</b>	<b>Nov-22</b>	<b>-0.42%</b>	<b>7.10%</b>	<b>5.99%</b>	<b>2.91%</b>	<b>4.68%</b>	<b>-0.55%</b>	<b>1.60%</b>	<b>-0.58%</b>	<b>-1.22%</b>	<b>-0.62%</b>	<b>-0.18%</b>			
<b>Consumer Price Subindex IPC/Br-DI</b>	<b>Nov-22</b>	<b>3.22%</b>	<b>4.34%</b>	<b>4.53%</b>	<b>0.27%</b>	<b>3.93%</b>	<b>1.43%</b>	<b>0.77%</b>	<b>1.08%</b>	<b>0.02%</b>	<b>0.69%</b>	<b>0.57%</b>			
<b>Construction Cost Subindex INCC-DI</b>	<b>Nov-22</b>	<b>4.25%</b>	<b>3.83%</b>	<b>9.55%</b>	<b>0.89%</b>	<b>9.17%</b>	<b>0.51%</b>	<b>0.86%</b>	<b>0.67%</b>	<b>0.09%</b>	<b>0.12%</b>	<b>0.36%</b>			
<b>Wholesale Price Subindex IPA-DI</b>	<b>Nov-22</b>	<b>-2.52%</b>	<b>8.73%</b>	<b>5.97%</b>	<b>3.92%</b>	<b>4.37%</b>	<b>-1.17%</b>	<b>1.90%</b>	<b>-1.16%</b>	<b>-1.68%</b>	<b>-1.04%</b>	<b>-0.43%</b>			
IPA-DI Industry	<b>Nov-22</b>	1.22%	9.16%	5.30%	3.25%	3.70%	-0.04%	-0.06%	-1.71%	-1.20%	-1.79%	-0.96%			
IPA-DI Agriculture	<b>Nov-22</b>	-12.34%	7.52%	6.24%	4.20%	4.63%	-1.64%	2.72%	-0.93%	-1.88%	-0.73%	-0.22%			
<b>São Paulo Consumer Price Index IPC RMSP (FIPE)</b>	<b>Nov-22</b>	<b>2.28%</b>	<b>2.99%</b>	<b>7.35%</b>	<b>9.10%</b>	<b>6.74%</b>	<b>1.13%</b>	<b>1.00%</b>	<b>0.72%</b>	<b>0.12%</b>	<b>0.45%</b>	<b>0.47%</b>			



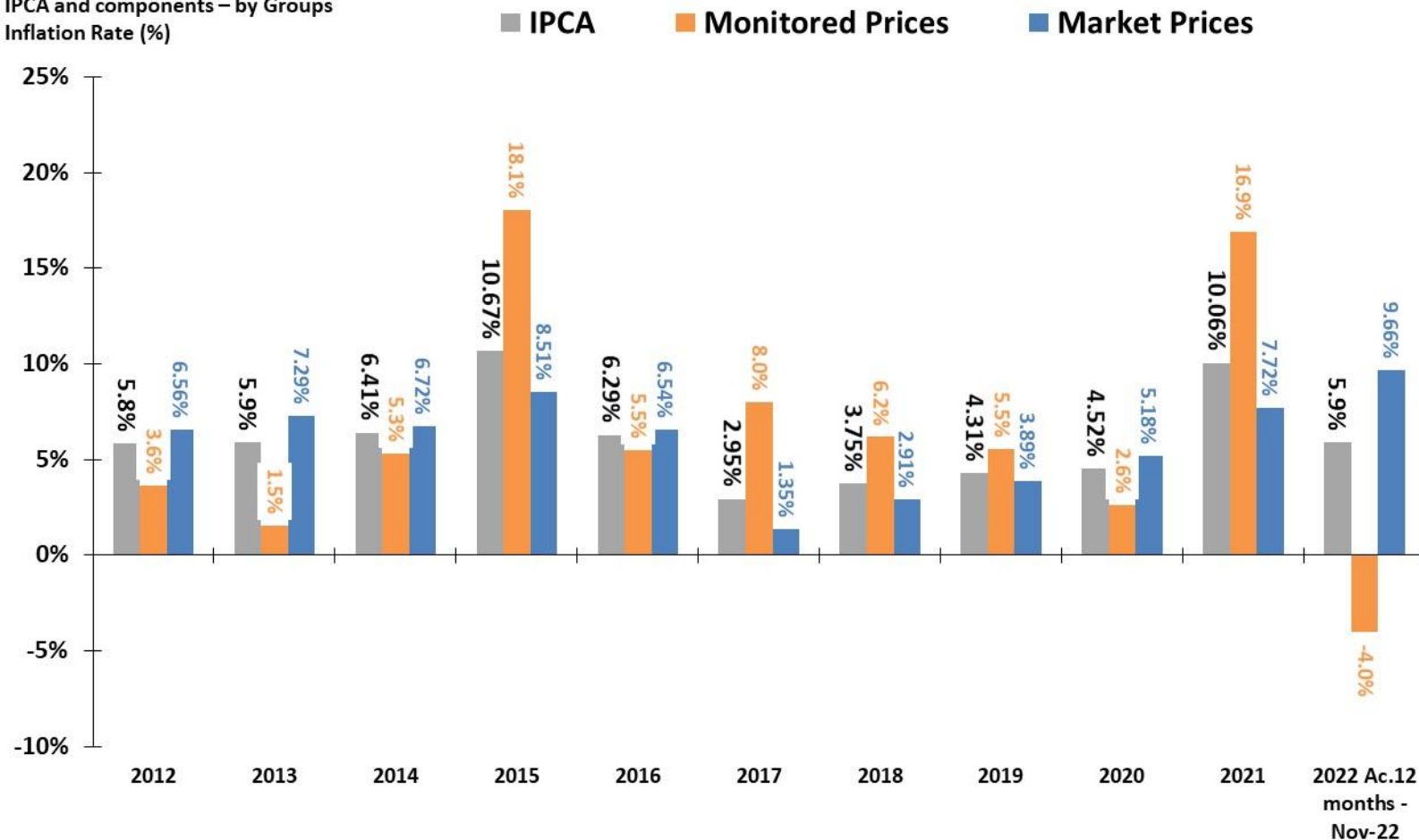
Macroeconomic Parameters						
Year	Inflation					
	IPCA		INPC		IGP-DI	
	Annual Average	Annual Accum.	Annual Average	Annual Accum.	Annual Average	Annual Accum.
	Chg. %					
2016	8.74	6.29	9.32	6.58	10.19	7.18
2017	3.45	2.95	2.97	2.07	0.96	-0.42
2018	3.66	3.75	2.87	3.43	5.81	7.10
2019	3.73	4.31	3.75	4.48	6.05	7.70
2020	3.21	4.52	3.61	5.45	13.05	23.08
2021	8.30	10.06	8.99	10.16	27.30	17.74
2022	9.28	5.75	9.42	5.81	10.30	5.25
2023	4.34	4.60	4.49	4.90	2.04	4.55
2024	3.57	3.00	3.67	3.00	4.37	4.20
2025	3.00	3.00	3.00	3.00	4.07	4.00
2026	3.00	3.00	3.00	3.00	3.86	3.70

Source: SPE/ME. Macroeconomic Parameters, December-2022.

# Relative Prices Convergence in the Consumer Price Index

INFLATION

IPCA and components – by Groups  
Inflation Rate (%)

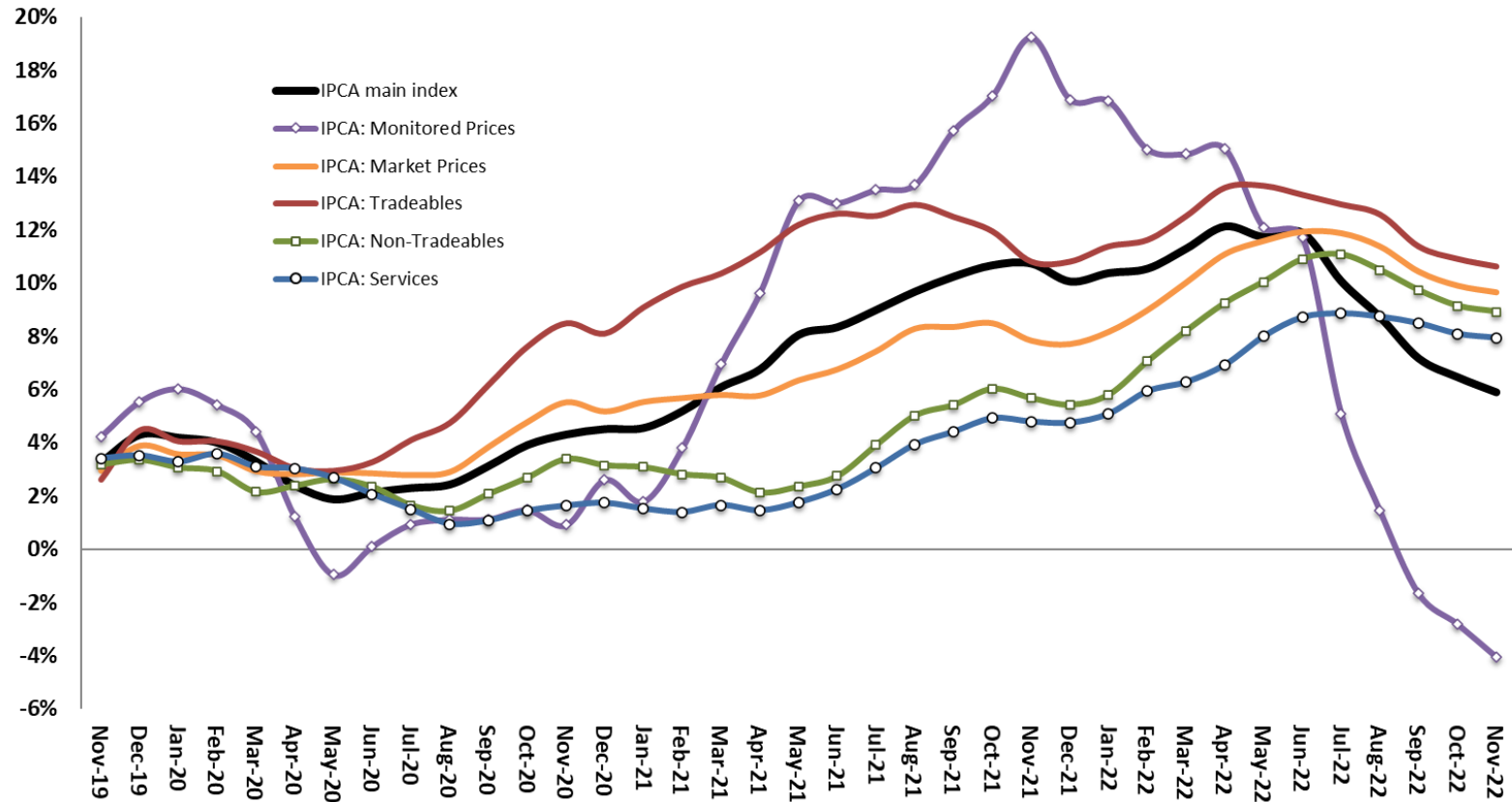


Source: IBGE.

# Consumer Price Index (IPCA) and Subindices

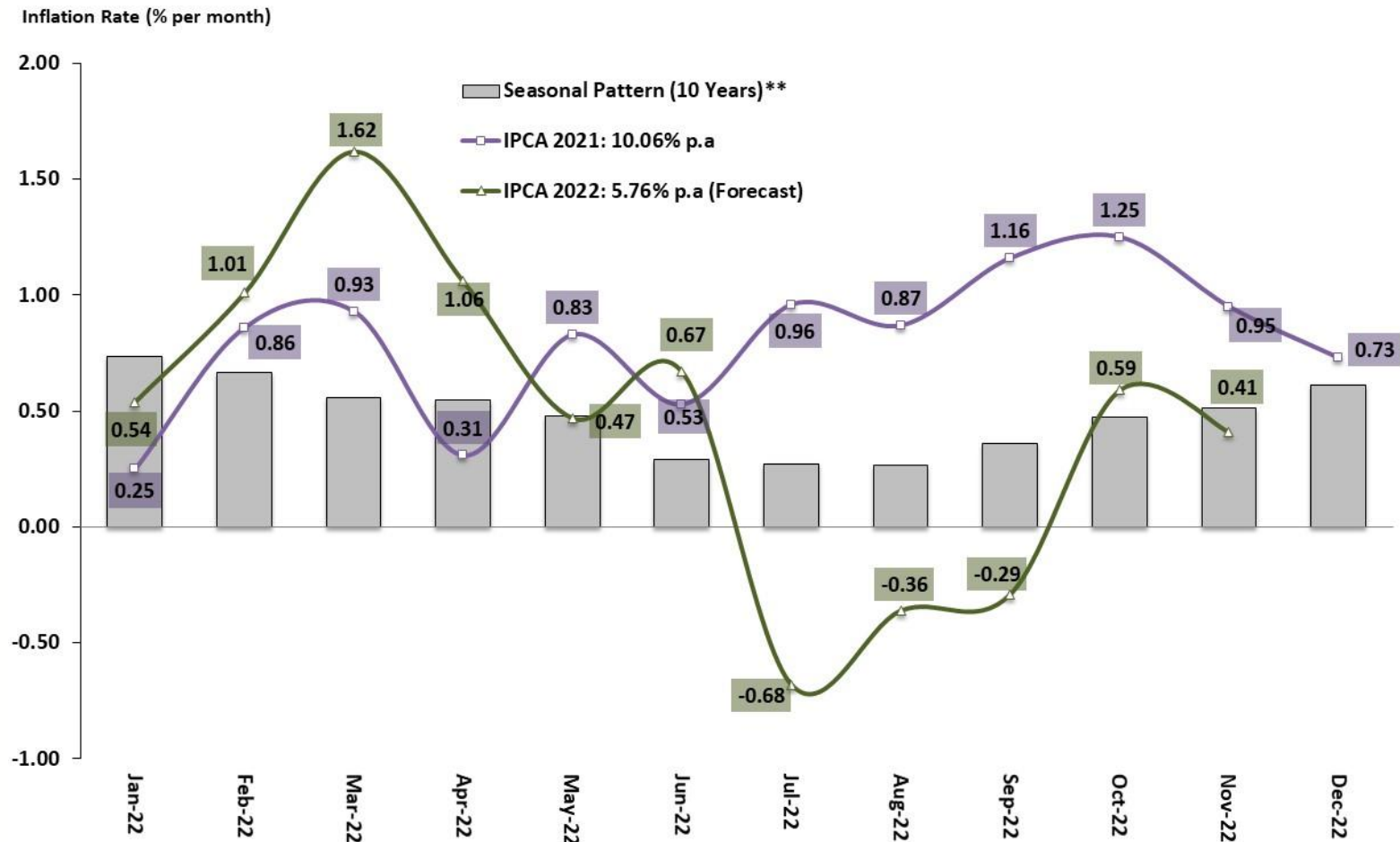
INFLATION

Consumer Price Index and Subindexes  
12-month accumulated rate (%)



Source: IBGE

# Consumer Price Index (IPCA) and Seasonal Pattern

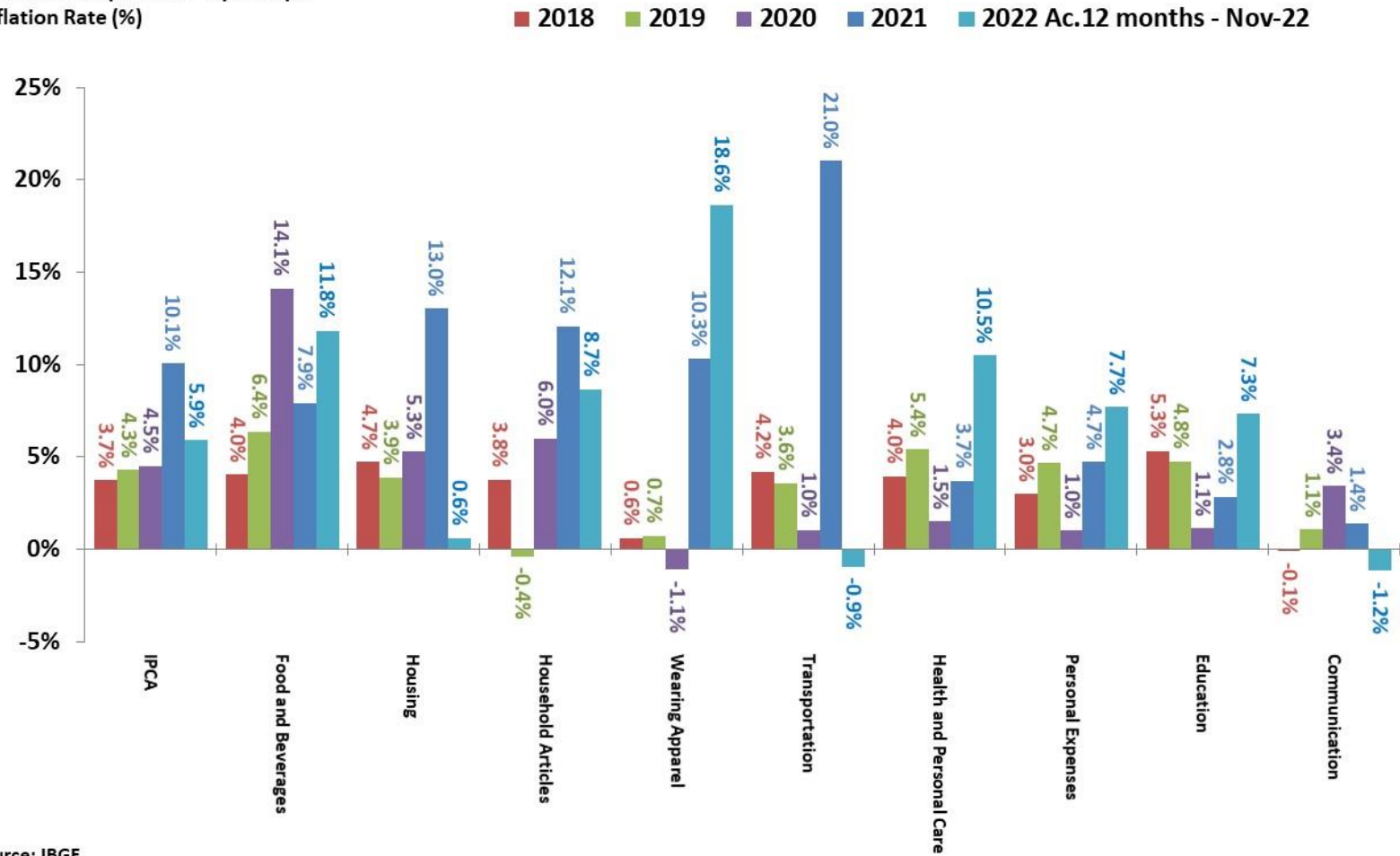


Sources: IBGE and Central Bank of Brazil. \* Annual Forecast: Central Bank of Brazil, Focus Survey, 12/16/2022 \*Seasonal pattern estimated by SPE.

# Consumer Price Index (IPCA) by Groups

INFLATION

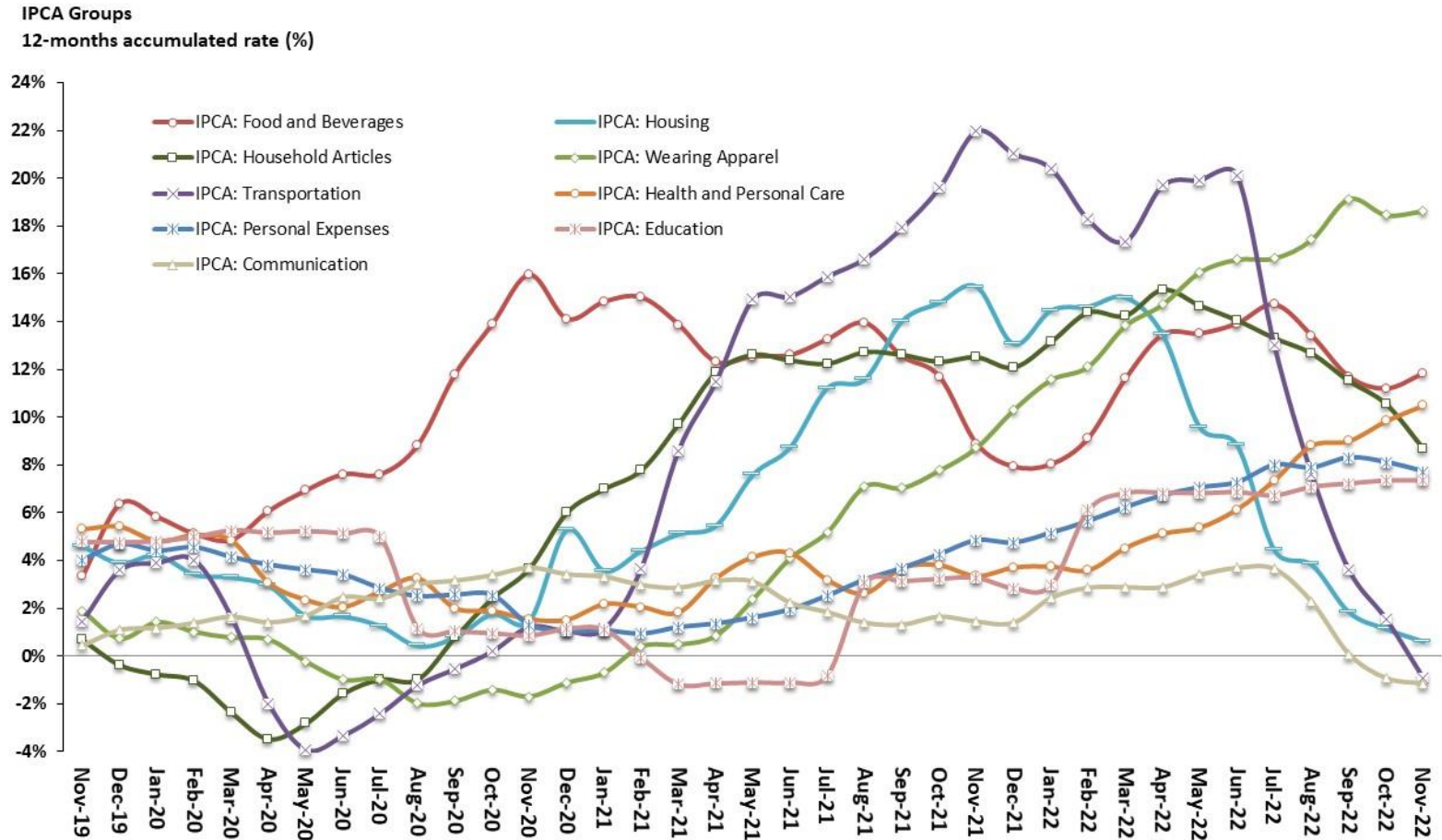
IPCA and components – by Groups  
Inflation Rate (%)



Source: IBGE.

# Consumer Price Index (IPCA) by Groups

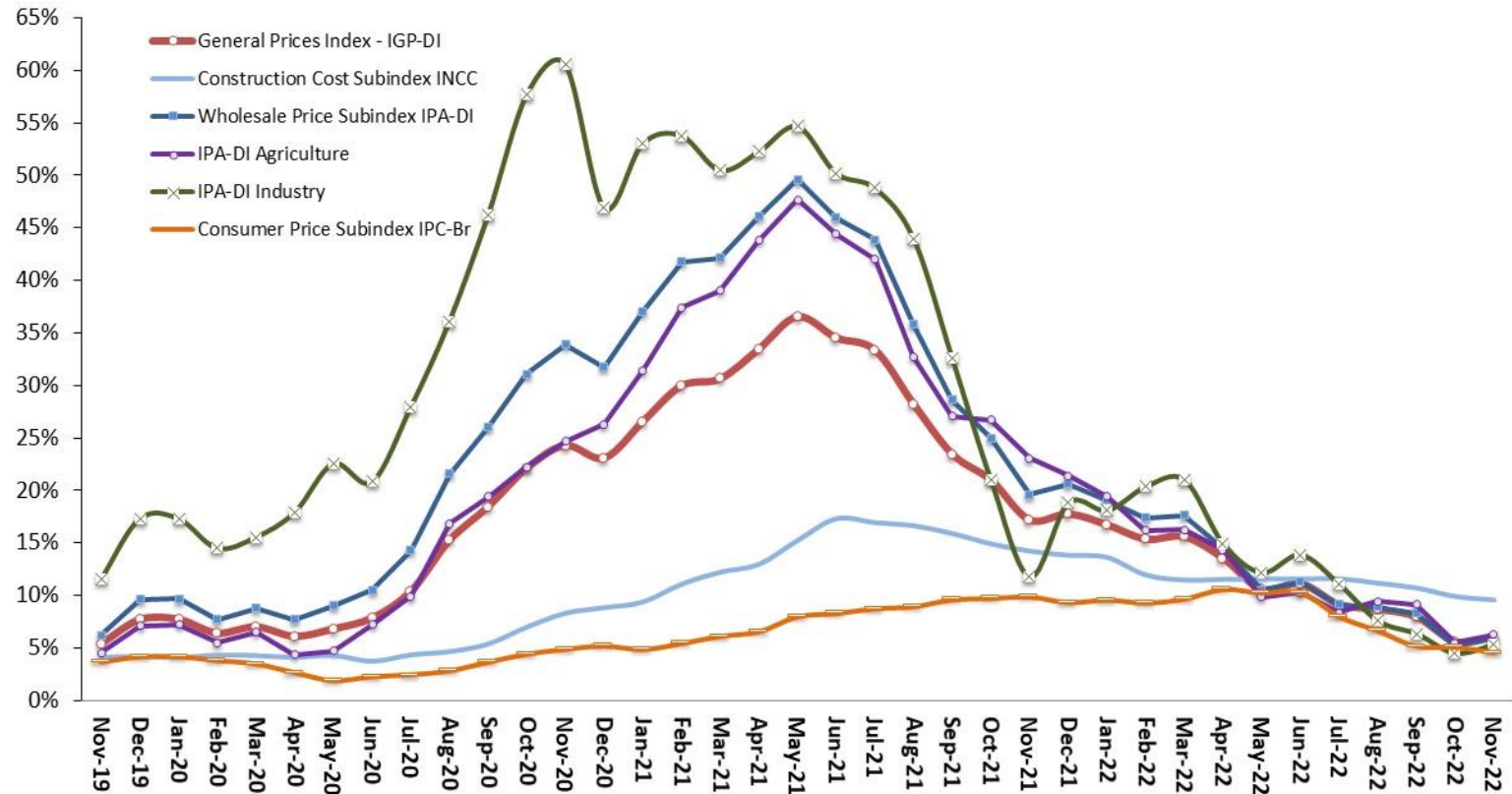
INFLATION



Source: IBGE.

# General Price Index (IGP-DI) by Subindices

**General Prices Subindexes**  
12-months accumulated rate (%)

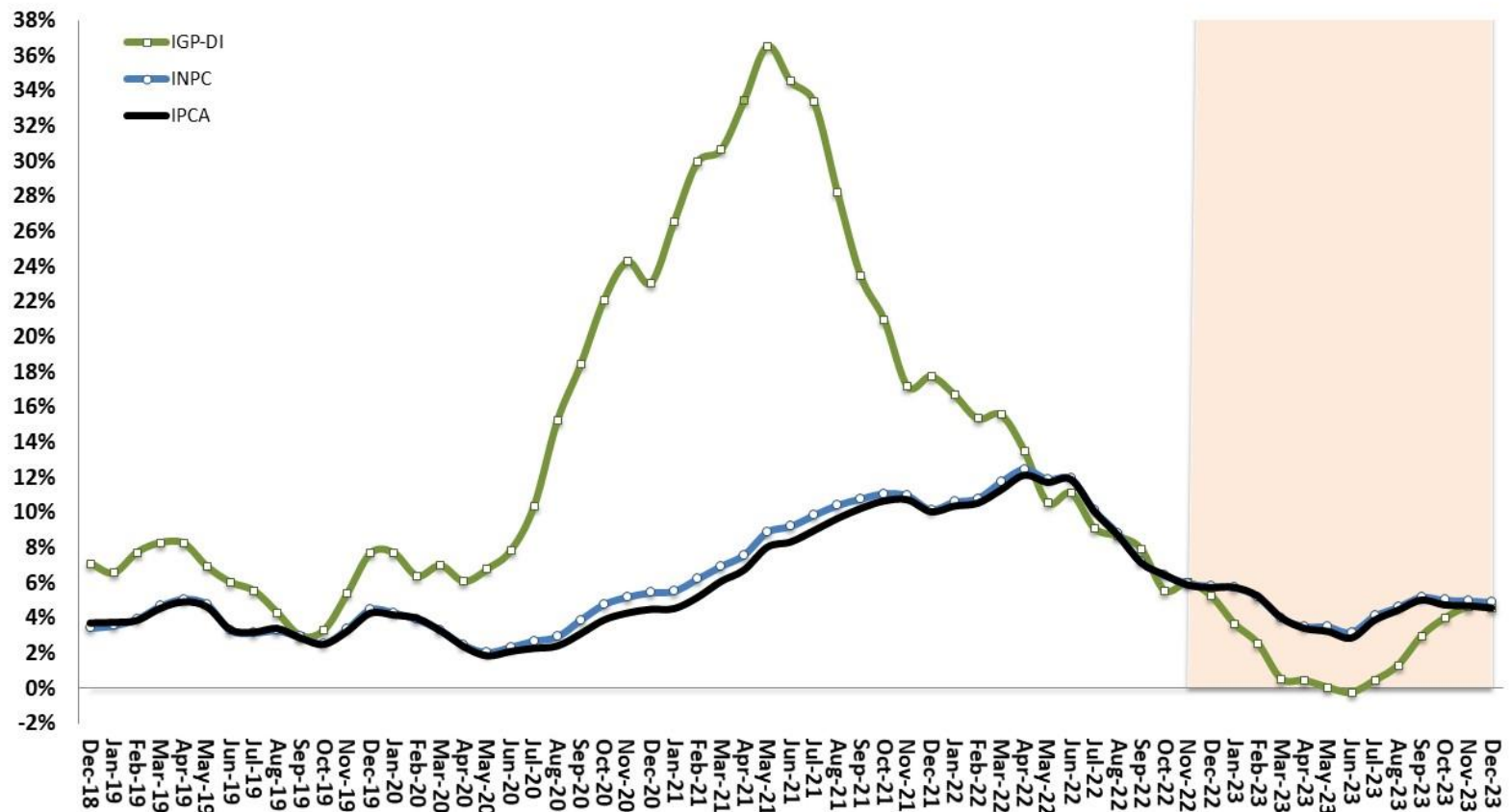


Source: IBGE.



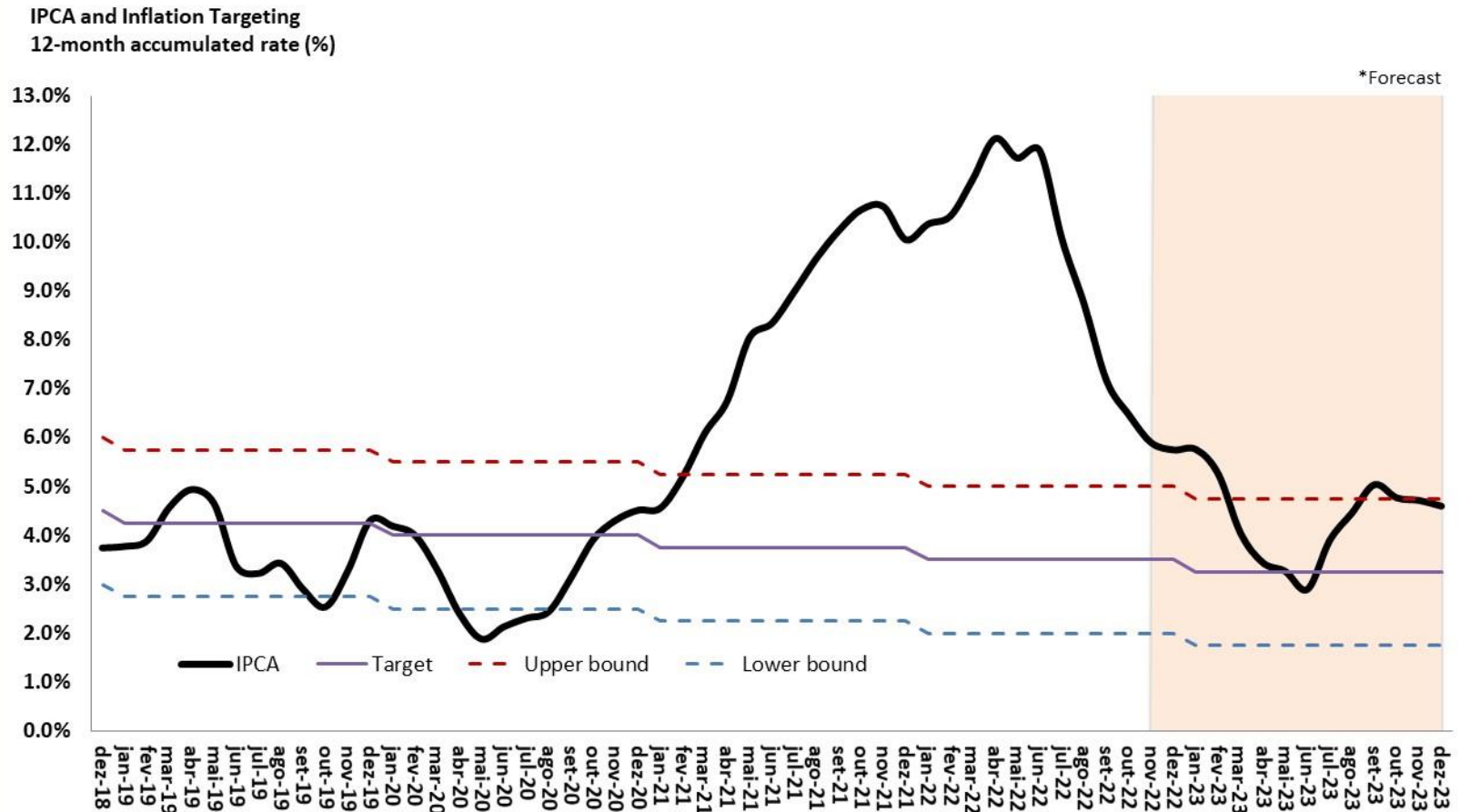
Major Inflation Indexes  
12-month accumulated rate (%)

\*Forecast



Source: IBGE and FGV. \*Forecast: Macroeconomic Parameters, November-2022.

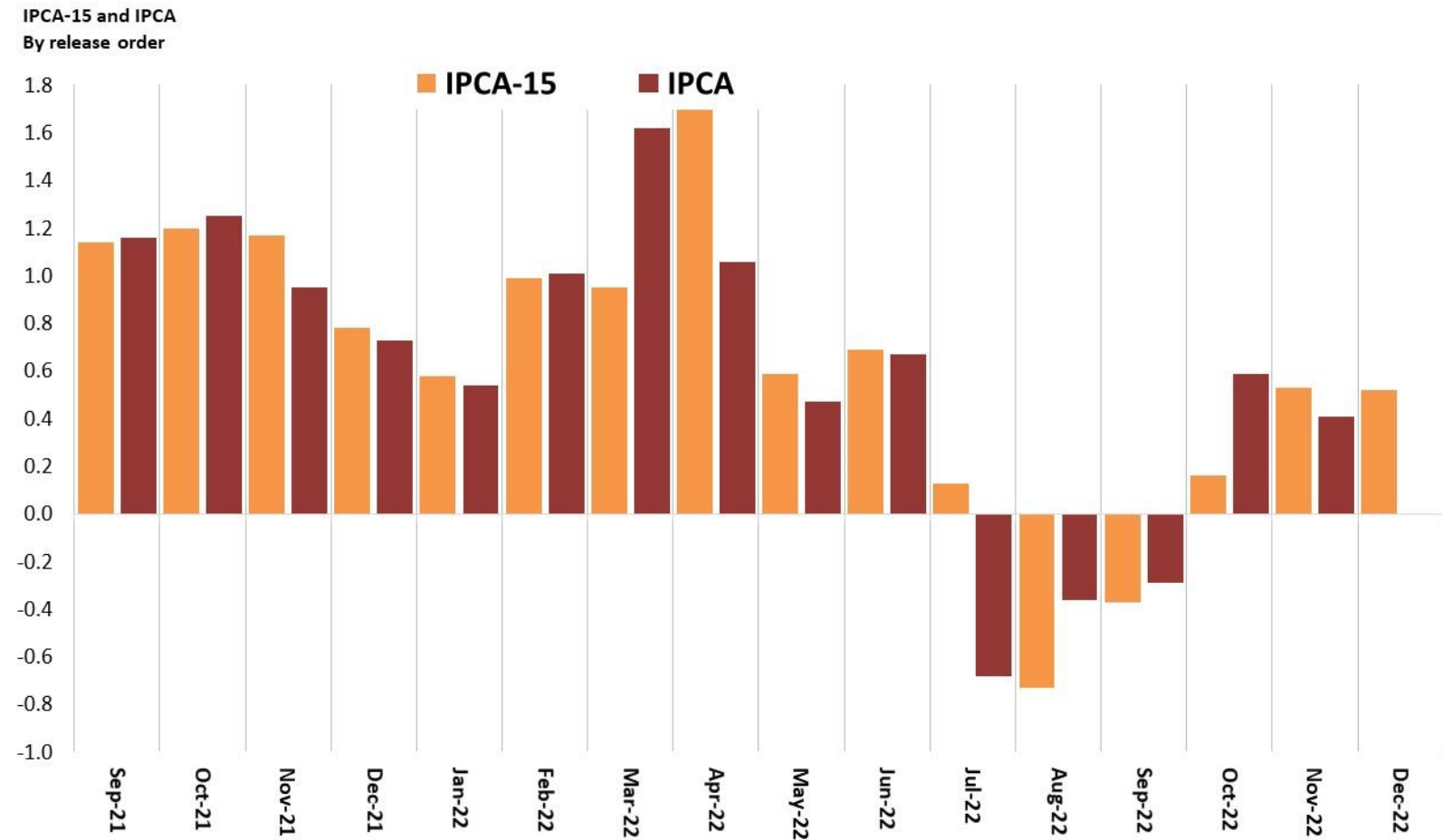




Source: IBGE and Central Bank of Brazil. \*Forecast: Macroeconomic Parameters, November-2022.

# IBGE: Monthly Consumer Price Indices

INFLATION

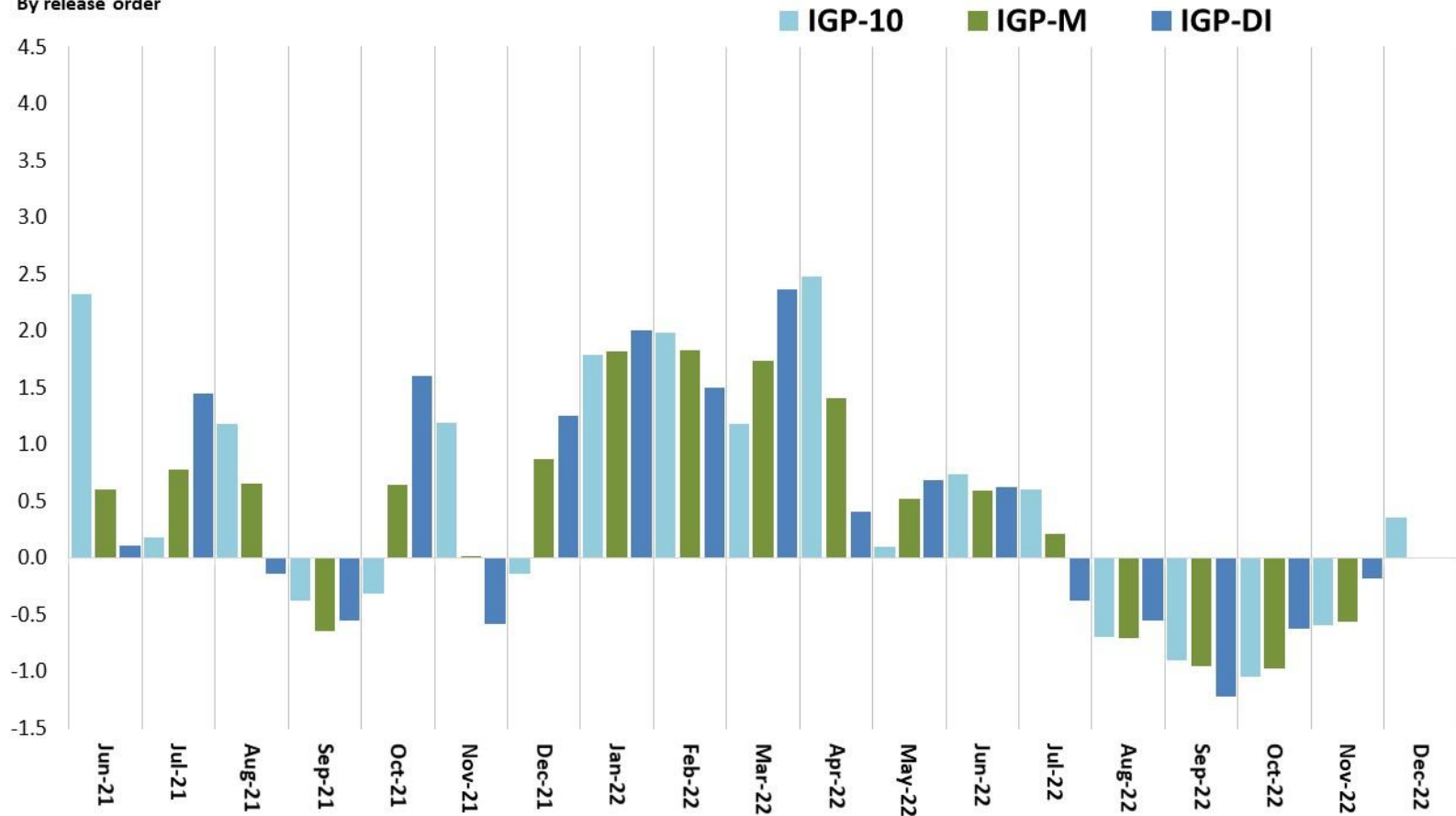


Source: IBGE.

# FGV: Monthly General Price Indices

INFLATION

IGP-10, IGP-M and IGP-DI  
By release order



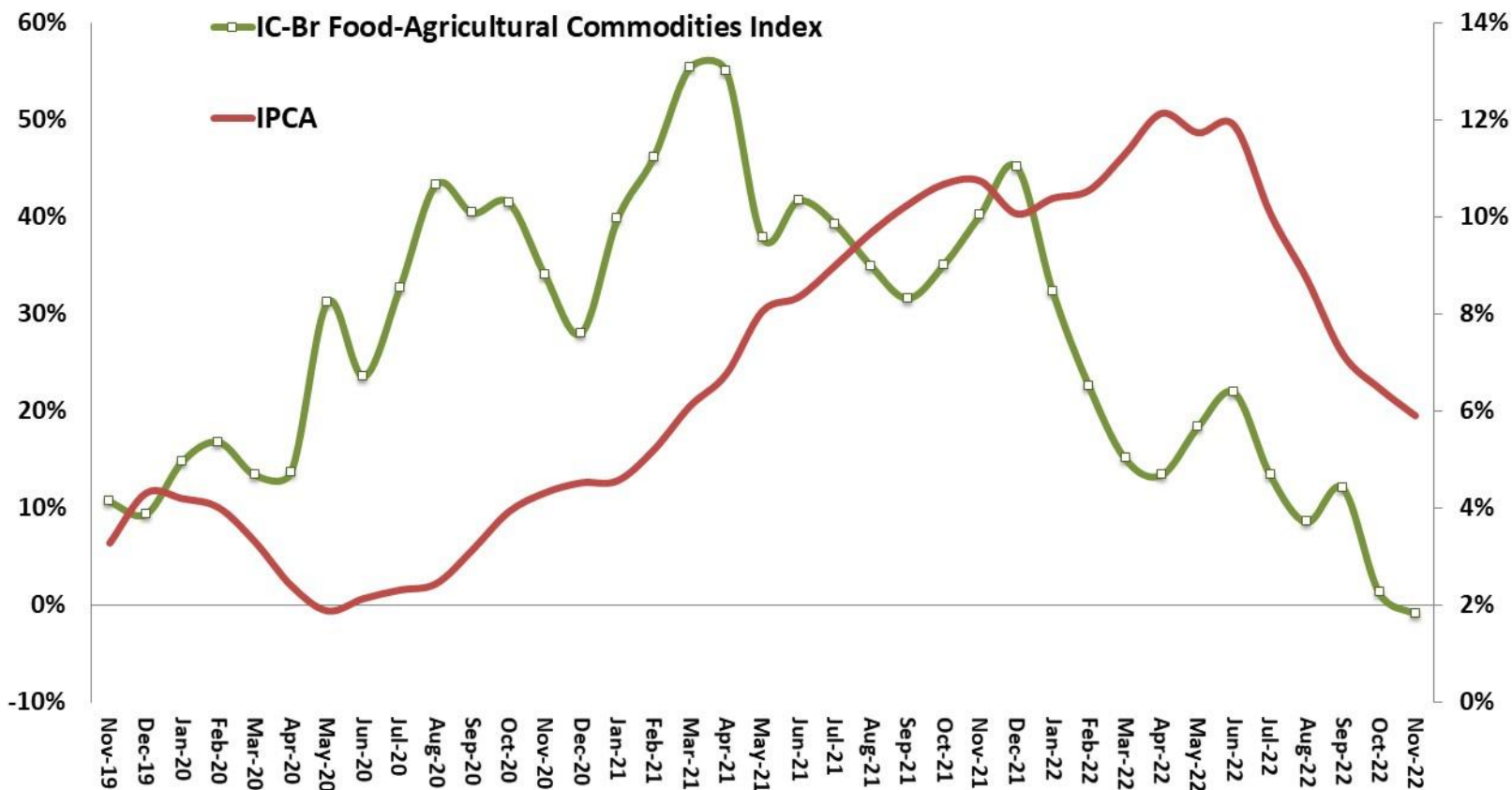
Source: FGV.

# Consumer Price Index and Commodity Index (Brazil Agriculture)

INFLATION

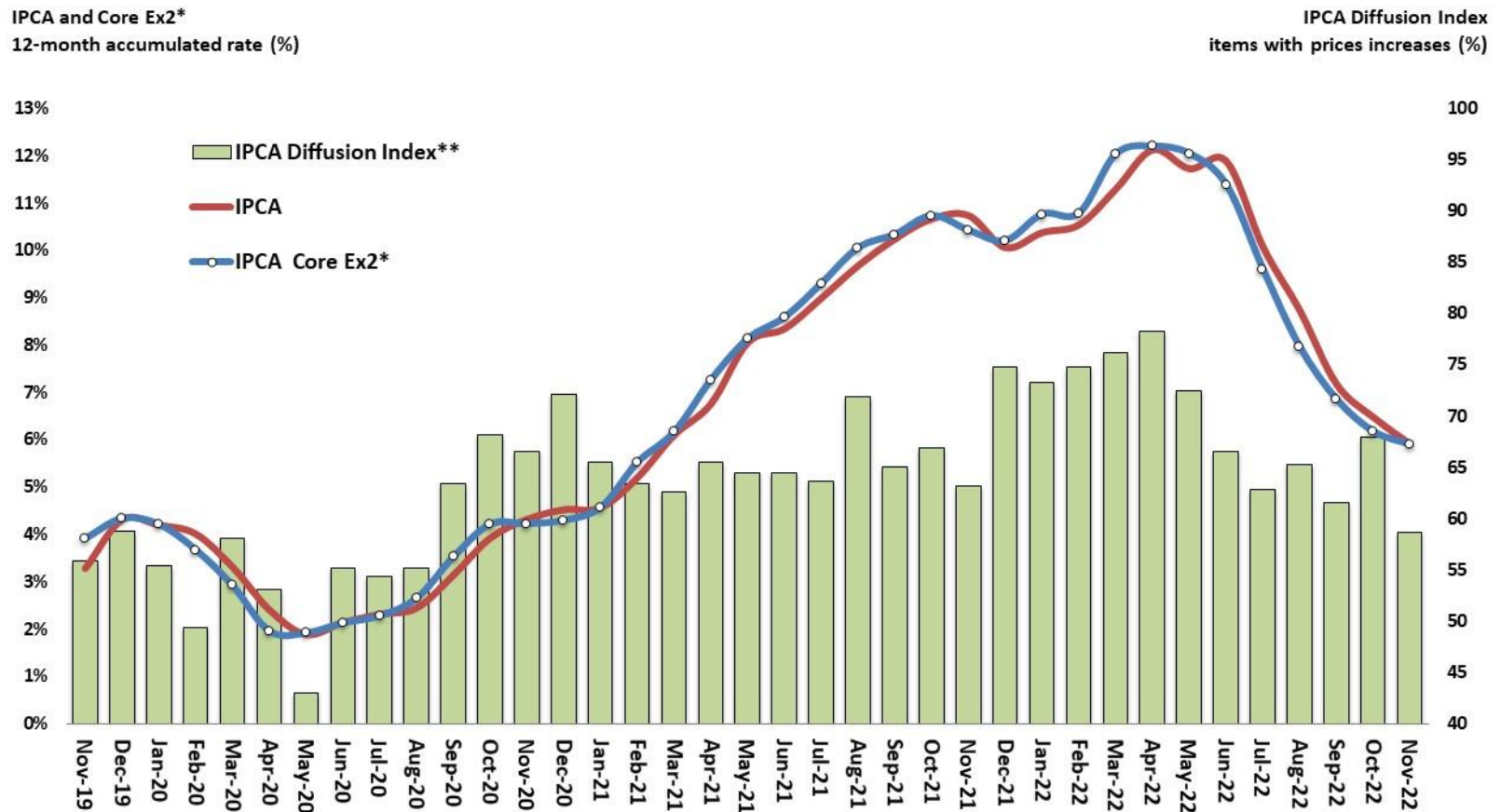
Commodity Index – Brazil Agriculture (IC-Br Ag)  
12-month accumulated change rate (%)

Consumer Inflation - IPCA  
12-month accumulated rate (%)



Sources: IBGE and Central Bank of Brazil.

# IPCA, Core Inflation (IPCA Ex2) and Diffusion Index



Sources: IBGE and Central Bank of Brazil.

\* Ex2 = Exclusion from the main index of 12 items, 10 from residence dining and 2 from monitored prices. The excluded items represent, on average, 16% of IPCA main index.

\*\* Diffusion Index = % of items from IPCA with price increase.

# Credit Market

Credit Market (BCB)	October-22											
End-of-Period Outstanding Credit (in R\$ billions)	Dec-20	Dec-21	Oct-22	% of Total Credit Dec/20	% of Total Credit Dec/21	% of Total Credit Oct/22	chg.% Oct/21-Dec/20	chg.% Oct/22-Dec/21	% of GDP Dec/20	% of GDP Dec/21	% of GDP Oct/22	
Total Credit to the National Financial System (NFS)	4,016.9	4,673.5	5,214.8	100.0%	100.0%	100.0%	16.3%	11.6%	53.8%	53.8%	54.9%	
by type of borrower												
Public Sector (incl. State-Owned Enterprises)	223.5	202.3	208.9	5.6%	4.3%	4.0%	-9.5%	3.3%	3.0%	2.3%	2.2%	
Private Sector	3,793.4	4,470.0	5,005.9	94.4%	95.6%	96.0%	17.8%	12.0%	50.8%	51.5%	52.7%	
Non-Financial Corporations	1,775.9	1,962.7	2,097.4	44.2%	42.0%	40.2%	10.5%	6.9%	23.8%	22.6%	22.1%	
Households	2,241.1	2,710.8	3,117.5	55.8%	58.0%	59.8%	21.0%	15.0%	30.0%	31.2%	32.8%	
by type of lender												
Public Financial Institutions	1,807.8	1,990.2	2,219.1	45.0%	42.6%	42.6%	10.1%	11.5%	24.2%	22.9%	23.4%	
National Private Financial Institutions	1,558.3	1,971.7	2,232.8	38.8%	42.2%	42.8%	26.5%	13.2%	20.9%	22.7%	23.5%	
Foreign Private Financial Institutions	650.8	710.8	762.9	16.2%	15.2%	14.6%	9.2%	7.3%	8.7%	8.2%	8.0%	
by type of credit												
Earmarked Resources	1,697.7	1,882.2	2,095.5	42.3%	40.3%	40.2%	10.9%	11.3%	22.7%	21.7%	22.1%	
Housing	277.5	366.8	458.3	6.9%	7.8%	8.8%	32.2%	25.0%	3.7%	4.2%	4.8%	
Rural	741.5	843.7	943.8	18.5%	18.1%	18.1%	13.8%	11.9%	9.9%	9.7%	9.9%	
BNDES Development Bank	445.7	431.3	444.5	11.1%	9.2%	8.5%	-3.2%	3.1%	6.0%	5.0%	4.7%	
Others	233.0	240.4	248.8	5.8%	5.1%	4.8%	3.2%	3.5%	3.1%	2.8%	2.6%	
Non-Financial Corporations	687.5	685.3	724.5	17.1%	14.7%	13.9%	-0.3%	5.7%	9.2%	7.9%	7.6%	
Households	1,010.1	1,196.9	1,371.0	25.1%	25.6%	26.3%	18.5%	14.5%	13.5%	13.8%	14.4%	
Non-earmarked Resources	2,319.2	2,791.3	3,119.4	57.7%	59.7%	59.8%	20.4%	11.8%	31.1%	32.2%	32.8%	
Non-Financial Corporations	1,088.3	1,277.4	1,372.9	27.1%	27.3%	26.3%	17.4%	7.5%	14.6%	14.7%	14.4%	
Households	1,230.9	1,513.9	1,746.5	30.6%	32.4%	33.5%	23.0%	15.4%	16.5%	17.4%	18.4%	
Non-earmarked Resources (BCB)	October-22											
	Dec-20	Dec-21	Oct-22	% of Total Credit Dec/20	% of Total Credit Dec/21	% of Total Credit Oct/22	chg.% Dec/21-Dec/20	chg.% Oct/22-Dec/21	% of GDP Dec/20	% of GDP Dec/21	% of GDP Oct/22	
New Loans, Spread and Delinquency Rates												
New Loans (12-months accum. in R\$ billions)	3,606.4	4,369.0	5,184.4	100.0%	100.0%	100.0%	21.1%	18.7%	48.3%	50.3%	54.6%	
Non-Financial Corporations	1,748.7	2,086.3	2,479.1	48.5%	47.8%	47.8%	19.3%	18.8%	23.4%	24.0%	26.1%	
Households	1,857.7	2,282.6	2,705.4	51.5%	52.2%	52.2%	22.9%	18.5%	24.9%	26.3%	28.5%	
Spread (in pp per year)	20.8	23.6	30.4				2.9 pp	6.7 pp				
Non-Financial Corporations	7.7	9.7	11.7				2.0 pp	2.0 pp				
Households	31.7	34.7	44.4				3.0 pp	9.6 pp				
Delinquency (% non-performing loans by 90 days or more)	2.9	3.1	4.2				0.2 pp	1.1 pp				
Non-Financial Corporations	1.5	1.5	2.0				0.1 pp	0.5 pp				
Households	4.2	4.4	5.9				0.2 pp	1.5 pp				

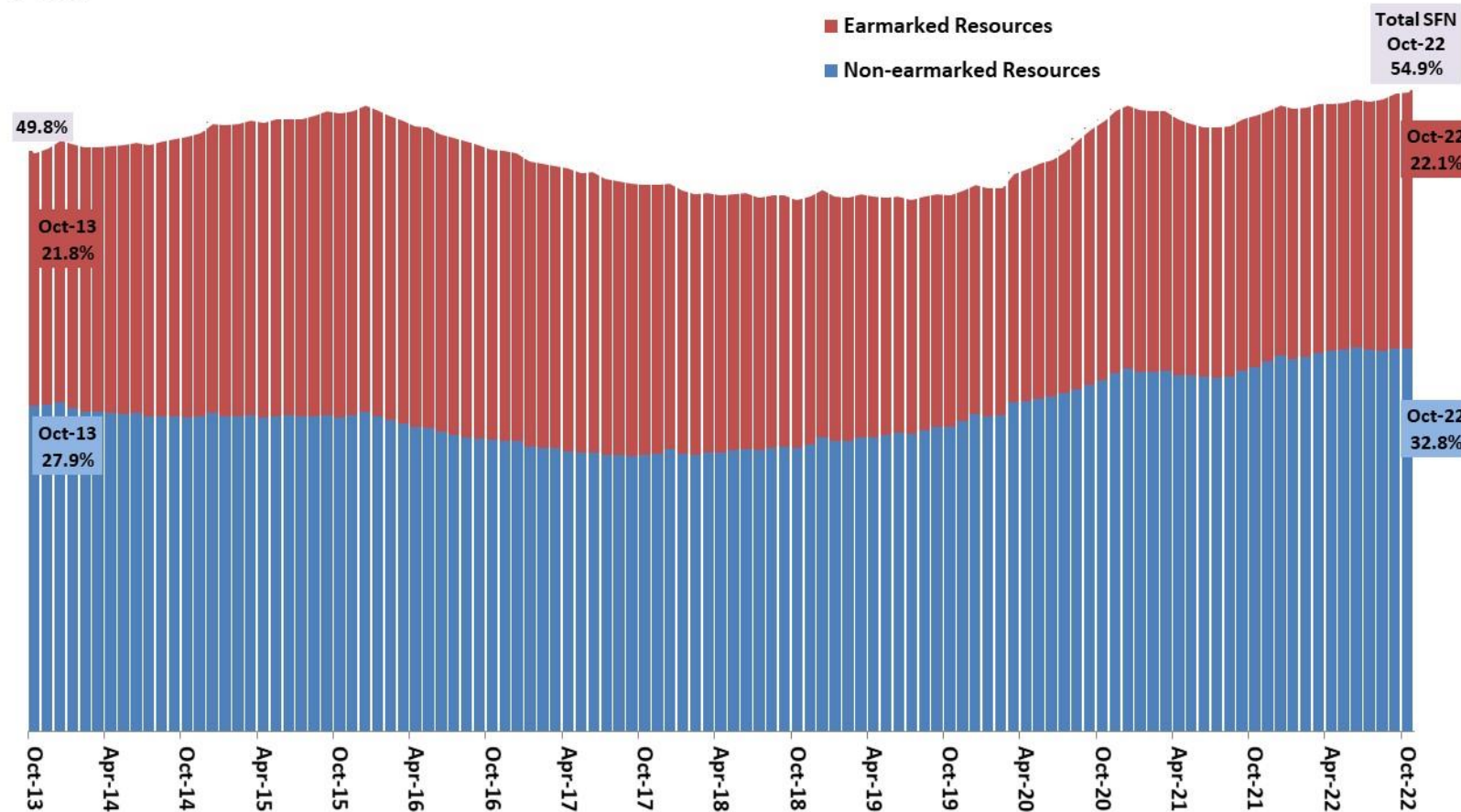
Macroeconomic Parameters		
Year	Credit Market	
	Total Credit	
	Annual Average	
	BRL million	Annual chg. %
2016	3,144,353	0.84
2017	3,079,705	-2.06
2018	3,145,561	2.14
2019	3,324,502	5.69
2020	3,699,682	11.29
2021	4,288,795	15.92
2022	<b>4,994,953</b>	<b>16.47</b>
2023	<b>5,601,999</b>	<b>12.15</b>
2024	<b>6,171,685</b>	<b>10.17</b>
2025	<b>6,762,925</b>	<b>9.58</b>
2026	<b>7,391,519</b>	<b>9.29</b>

Source: SPE/ME. Macroeconomic Parameters, December-2022.



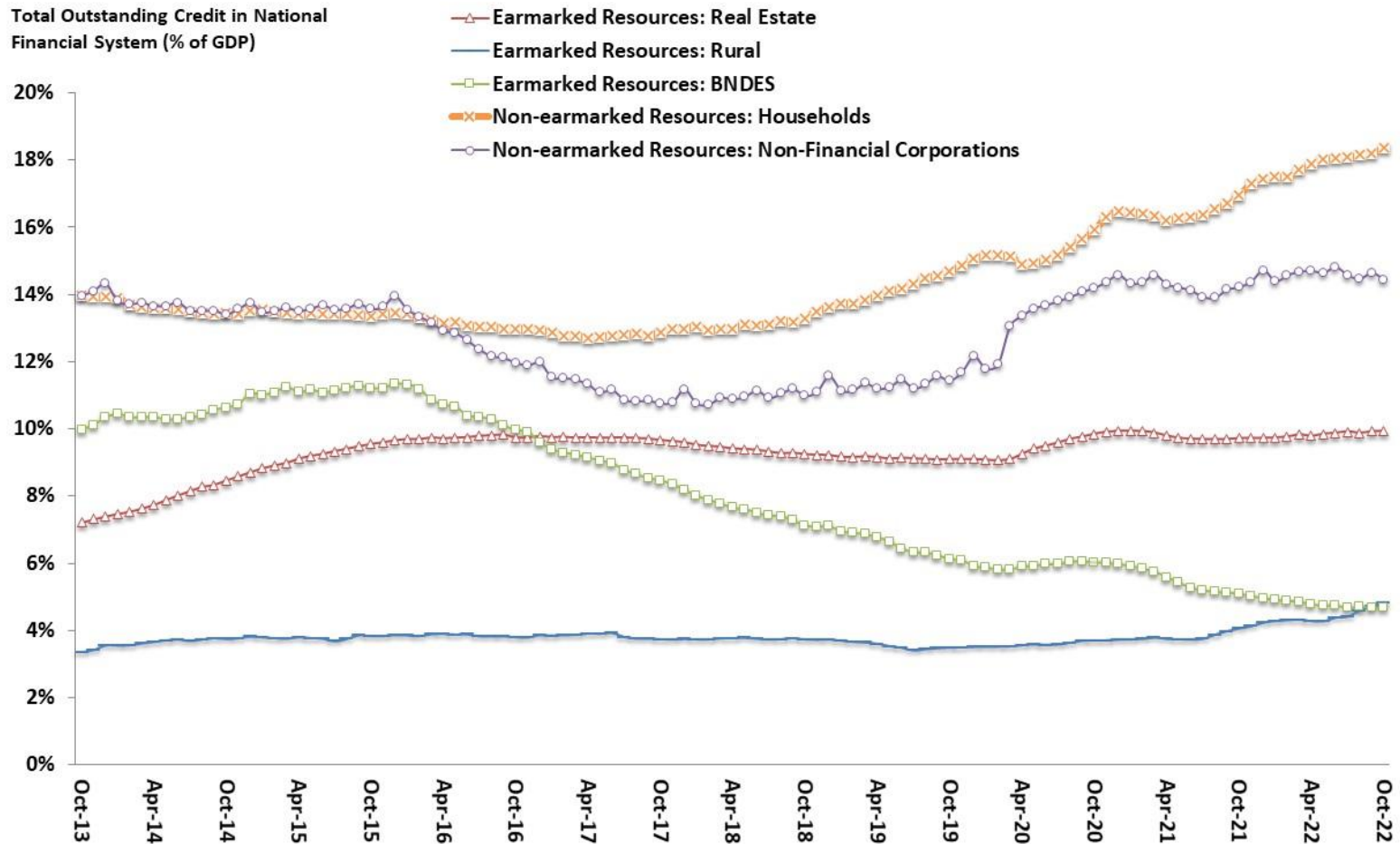
# Total Credit: Earmarked and Non-earmarked Resources

Total Outstanding Credit in National Financial System (SFN)  
% of GDP



Source: Central Bank of Brazil.

# Total Credit Evolution by Major Segments

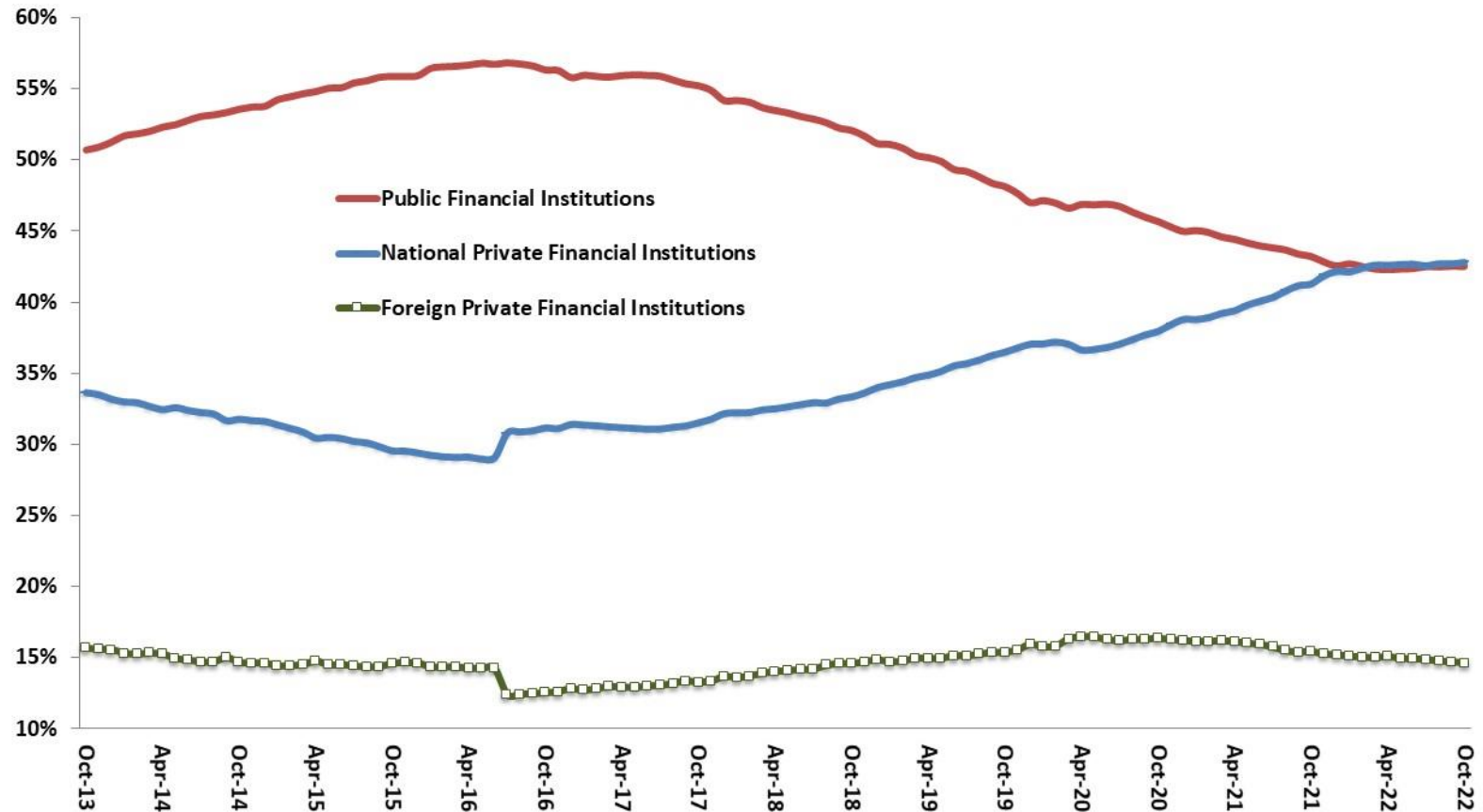


Source: Central Bank of Brazil.

# Total Credit by Types of Financial Institutions

CREDIT MARKET

% of Total Outstanding Credit  
to the National Financial System



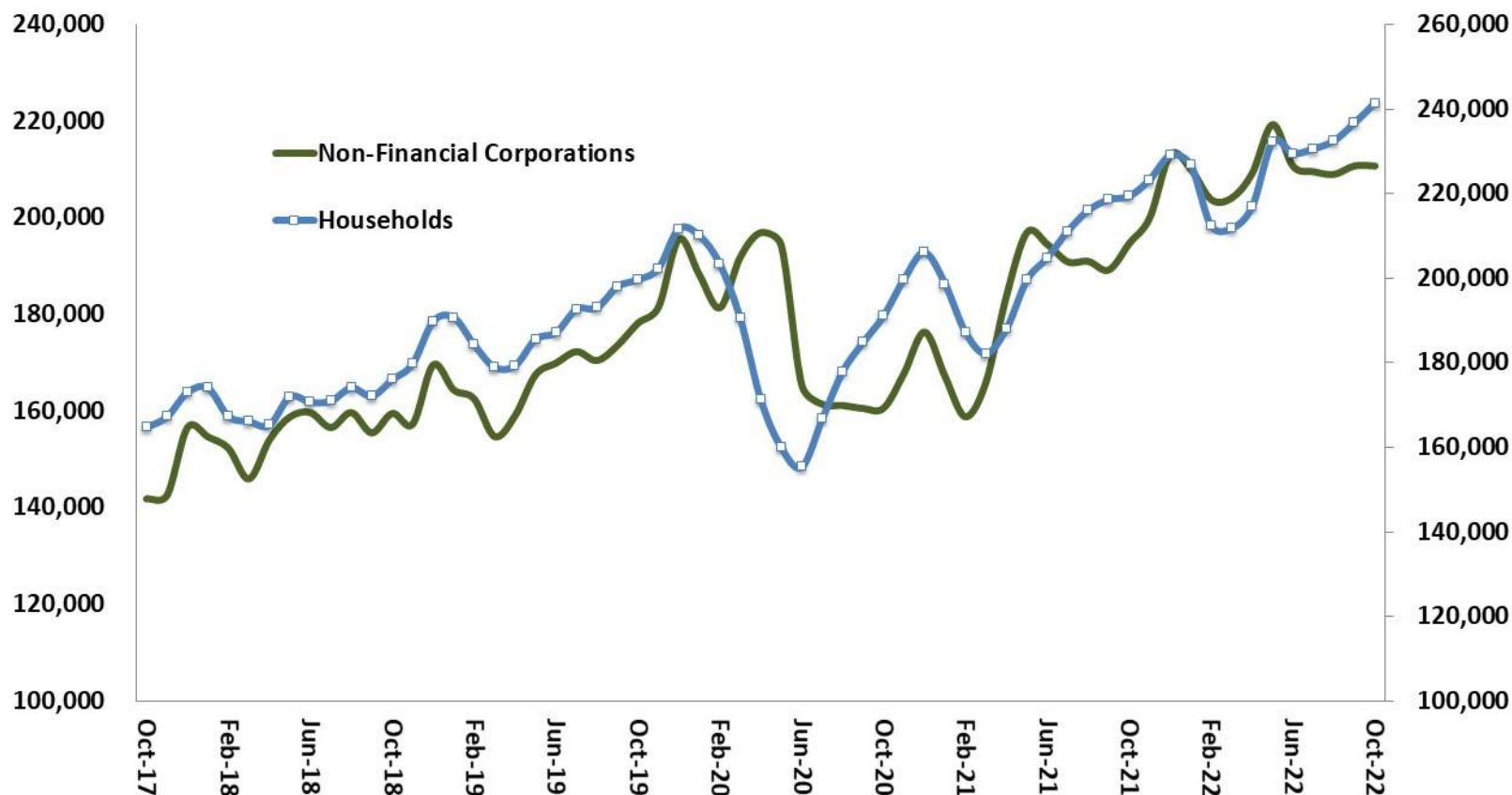
Source: Central Bank of Brazil.

# New Loans to Households and Non-Financial Corporations

CREDIT MARKET

New Loans to Non-Financial Corporations  
R\$ millions of the last month  
3-Month Moving Average - Seasonally Adjusted\*

New Loans to Households  
R\$ millions of the last month  
3-Month Moving Average - Seasonally Adjusted\*

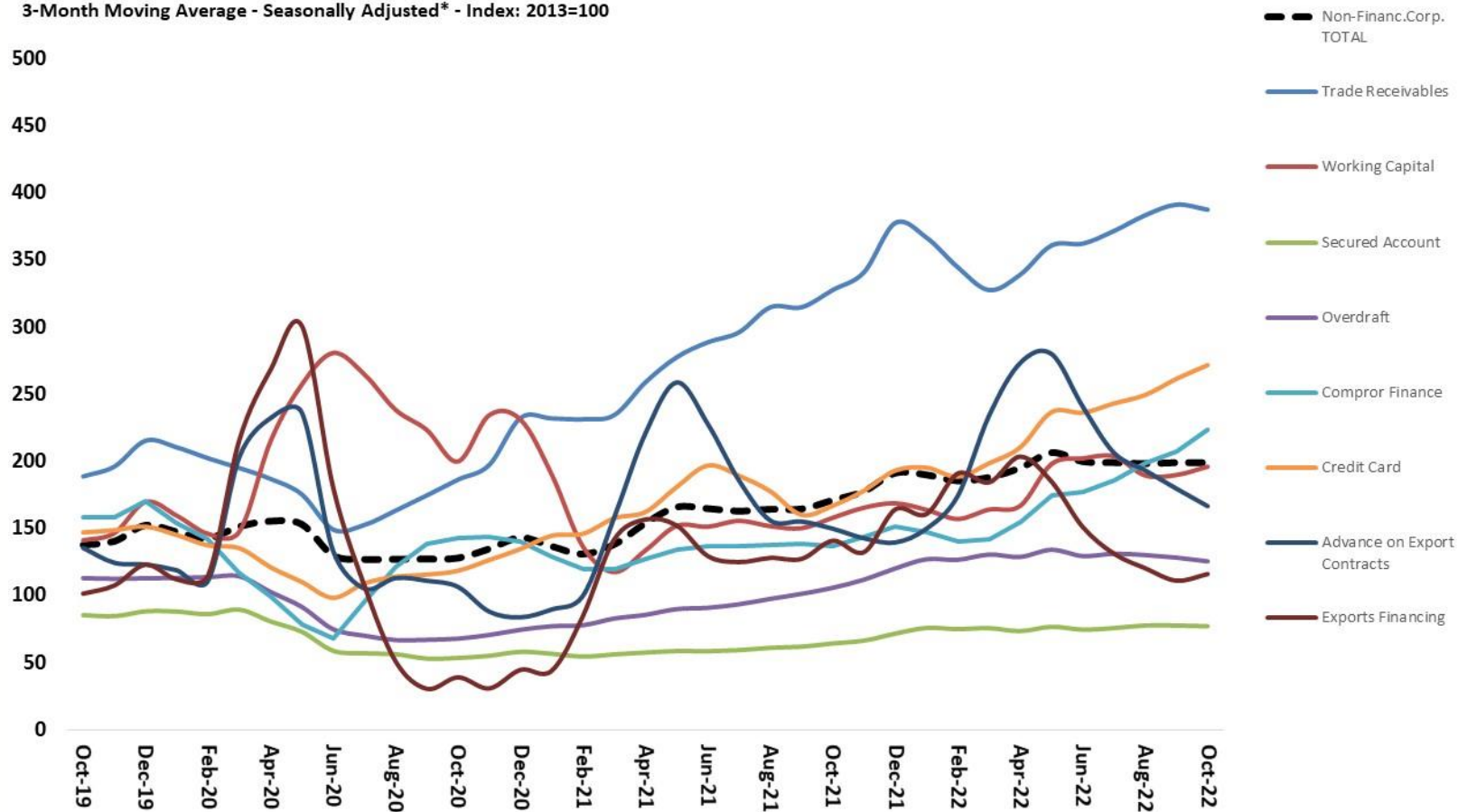


Source: Central Bank of Brazil. \* Seasonally adjusted by SPE.

# New Loans to Non-Financial Corp. by Type of Credit Lines

CREDIT MARKET

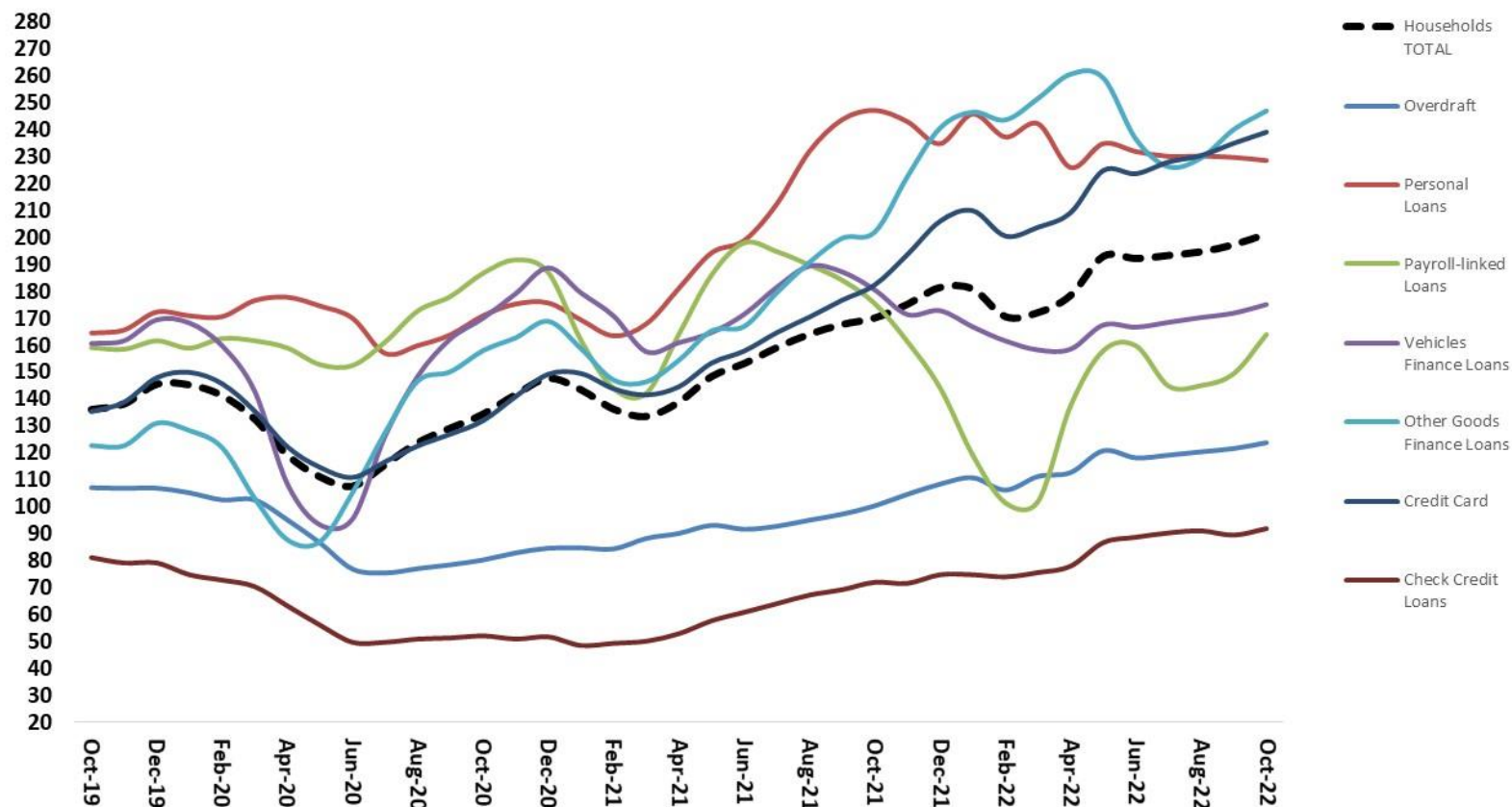
New Loans to Non-Financial Corporations – Last Month Real Values (IPCA)  
3-Month Moving Average - Seasonally Adjusted\* - Index: 2013=100



Source: Central Bank of Brazil. \* Seasonally adjusted by SPE.

# New Loans to Households by Type of Credit Lines

New Loans to Households – Real Last Month Values (IPCA)  
3-Months Moving Average - Seasonally Adjusted\* - Index: 2013=100



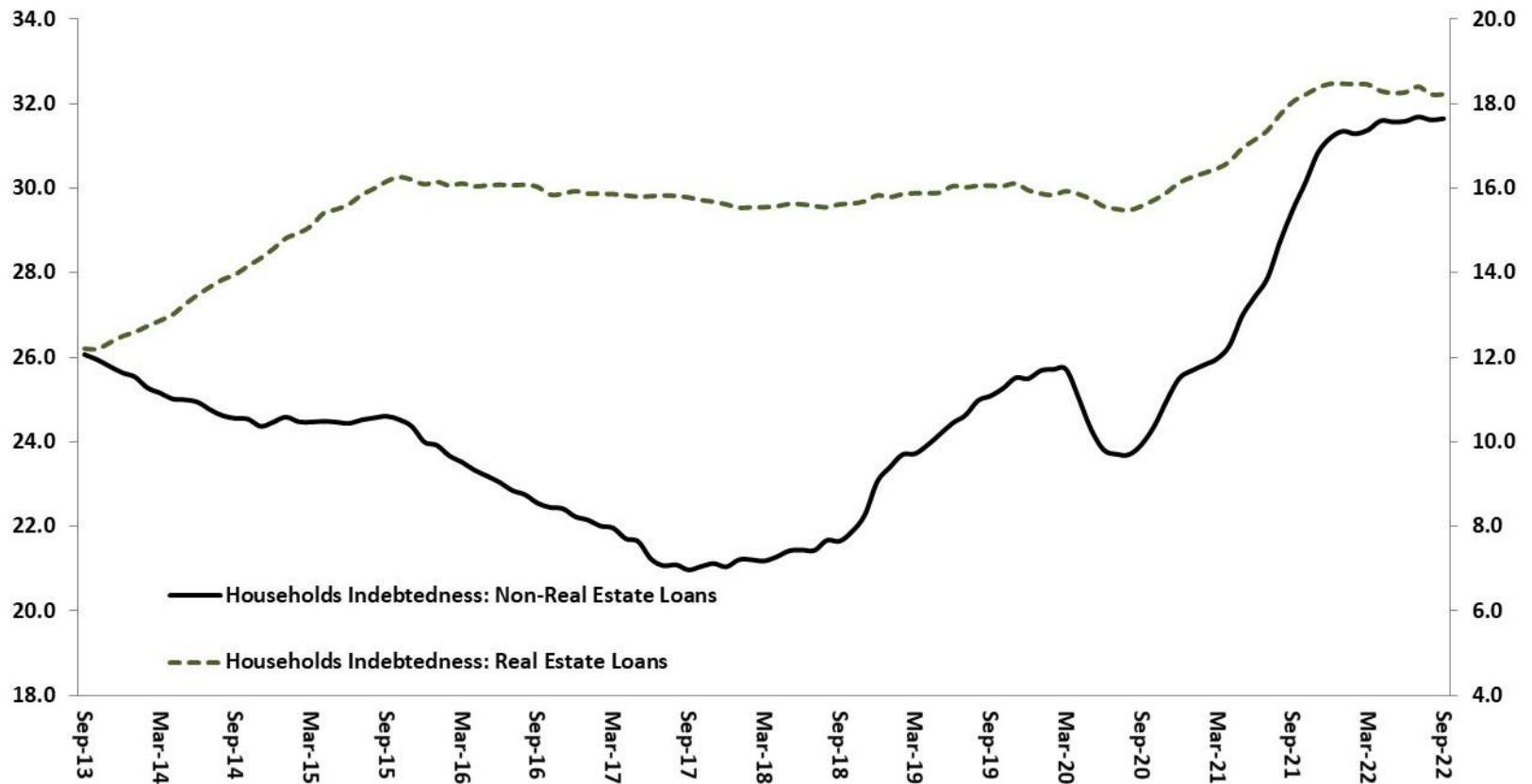
Source: Central Bank of Brazil. \* Seasonally adjusted by SPE.

# Households Indebtedness Rate

CREDIT MARKET

Households Indebtedness Rate\* – Non-Real Estate Loans  
% of 12-month Accumulated Income

Households\* Indebtedness Rate\* – Real Estate Loans  
% of 12-month Accumulated Income

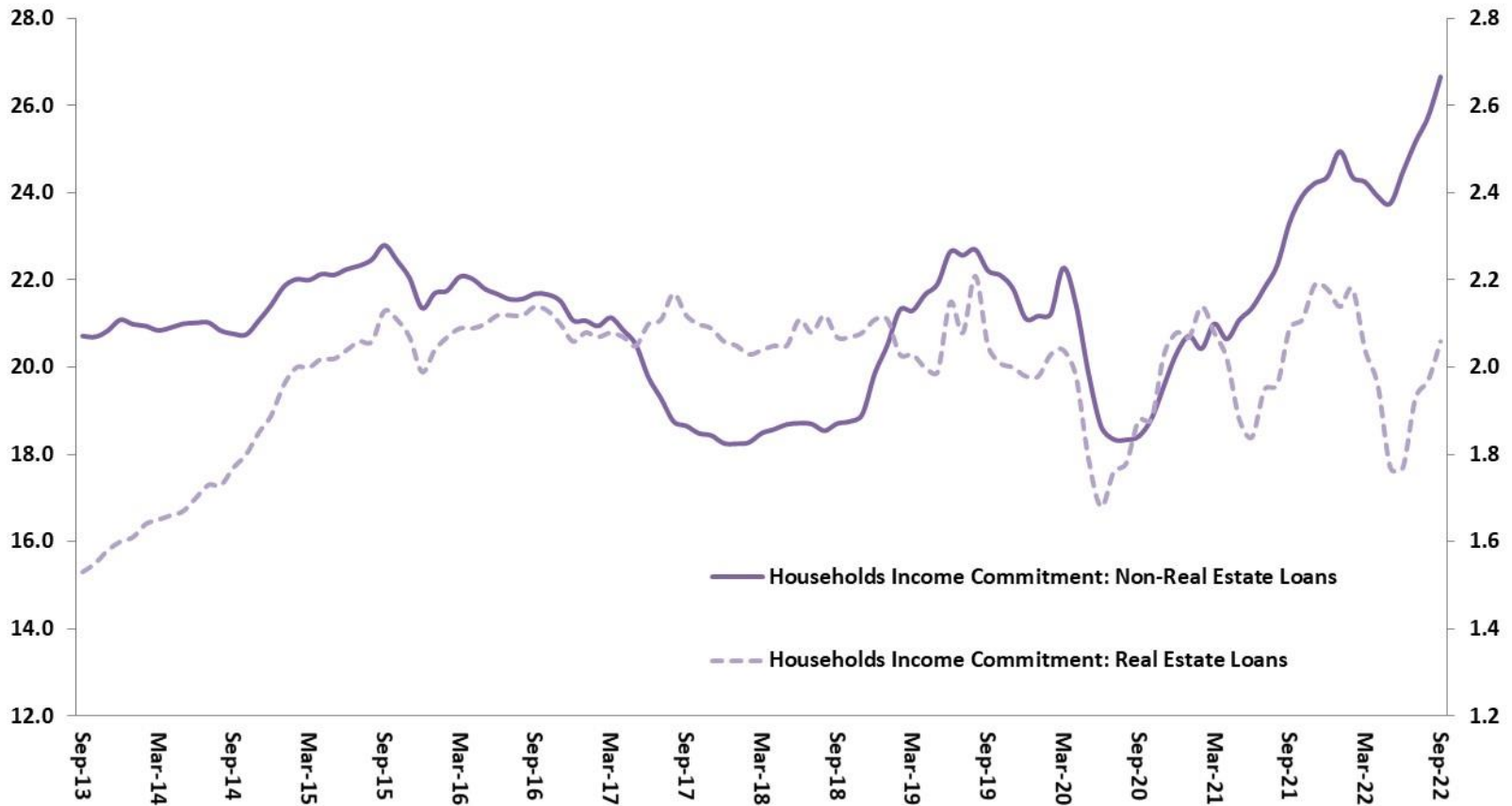


Source: Central Bank of Brazil. \* Indebtedness rate = total outstanding debt / 12-months accumulated income.



Households Income Commitment\* – Non-Real Estate Loans  
% of Monthly Income – 3-month moving average – seasonally adjusted data

Households Income Commitment\* – Real Estate Loans  
% of Monthly Income – 3-month moving average – seasonally adjusted data

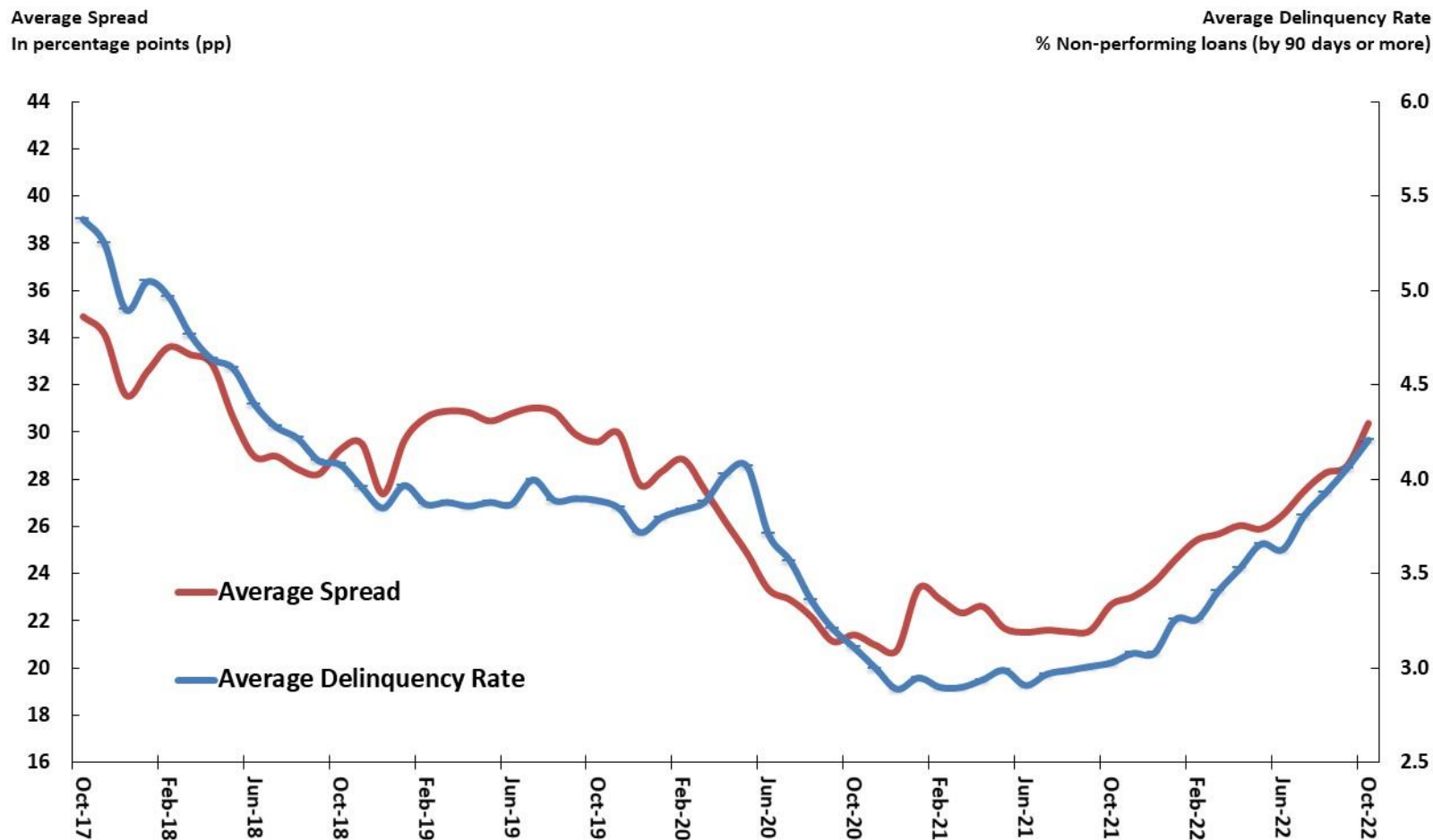


Source: Central Bank of Brazil. \* Households Income Commitment = Loans Service Monthly Expenditure / Monthly Income.



# Non-earmarked Resources: Spread and Delinquency Rates

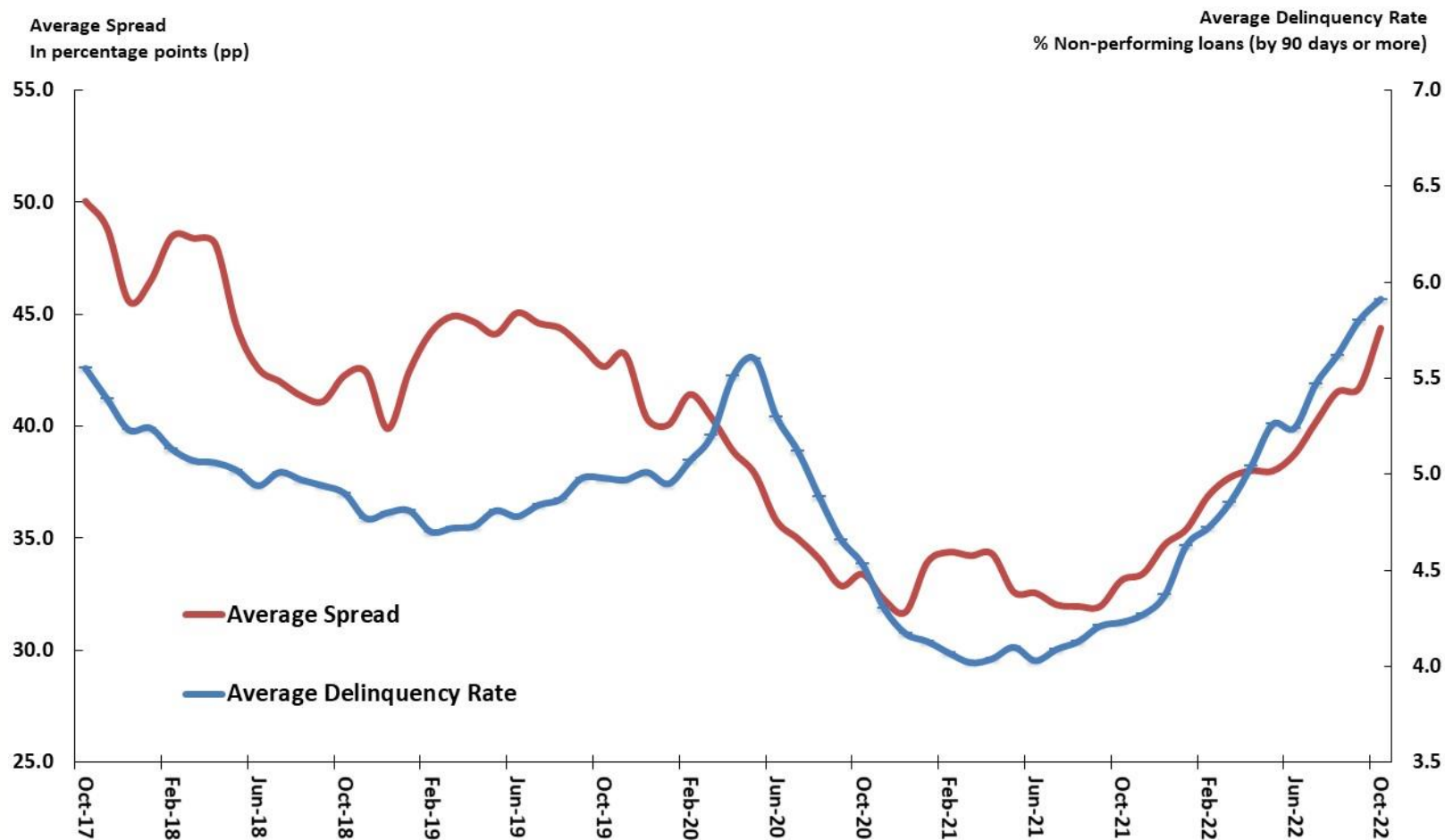
CREDIT MARKET



Source: Central Bank of Brazil.

# Households Loans: Spread and Delinquency Rates

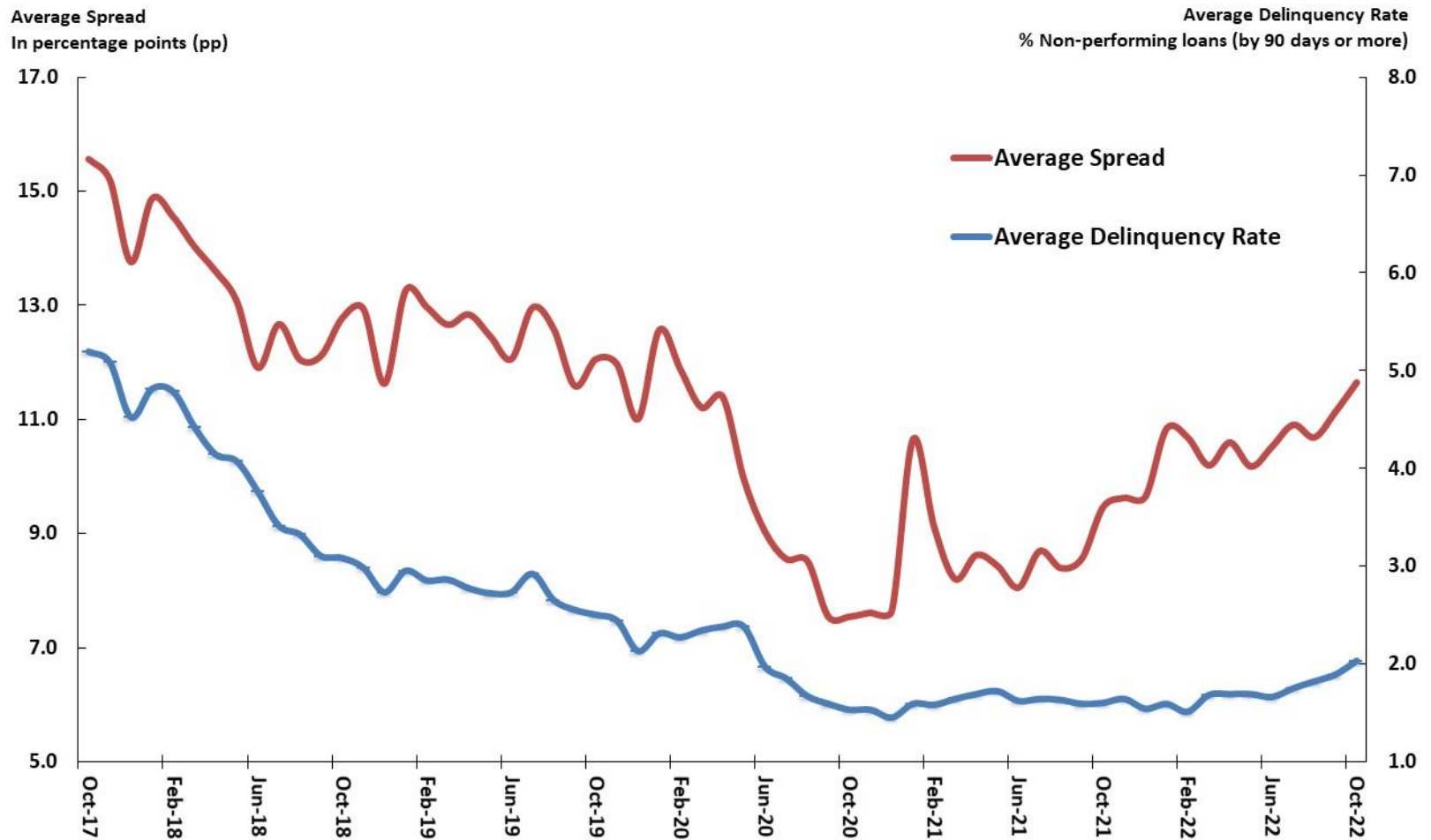
CREDIT MARKET



Source: Central Bank of Brazil.

# Non-Financial Corp. Loans: Spread and Delinquency Rates

CREDIT MARKET



Source: Central Bank of Brazil.

# Financial Markets

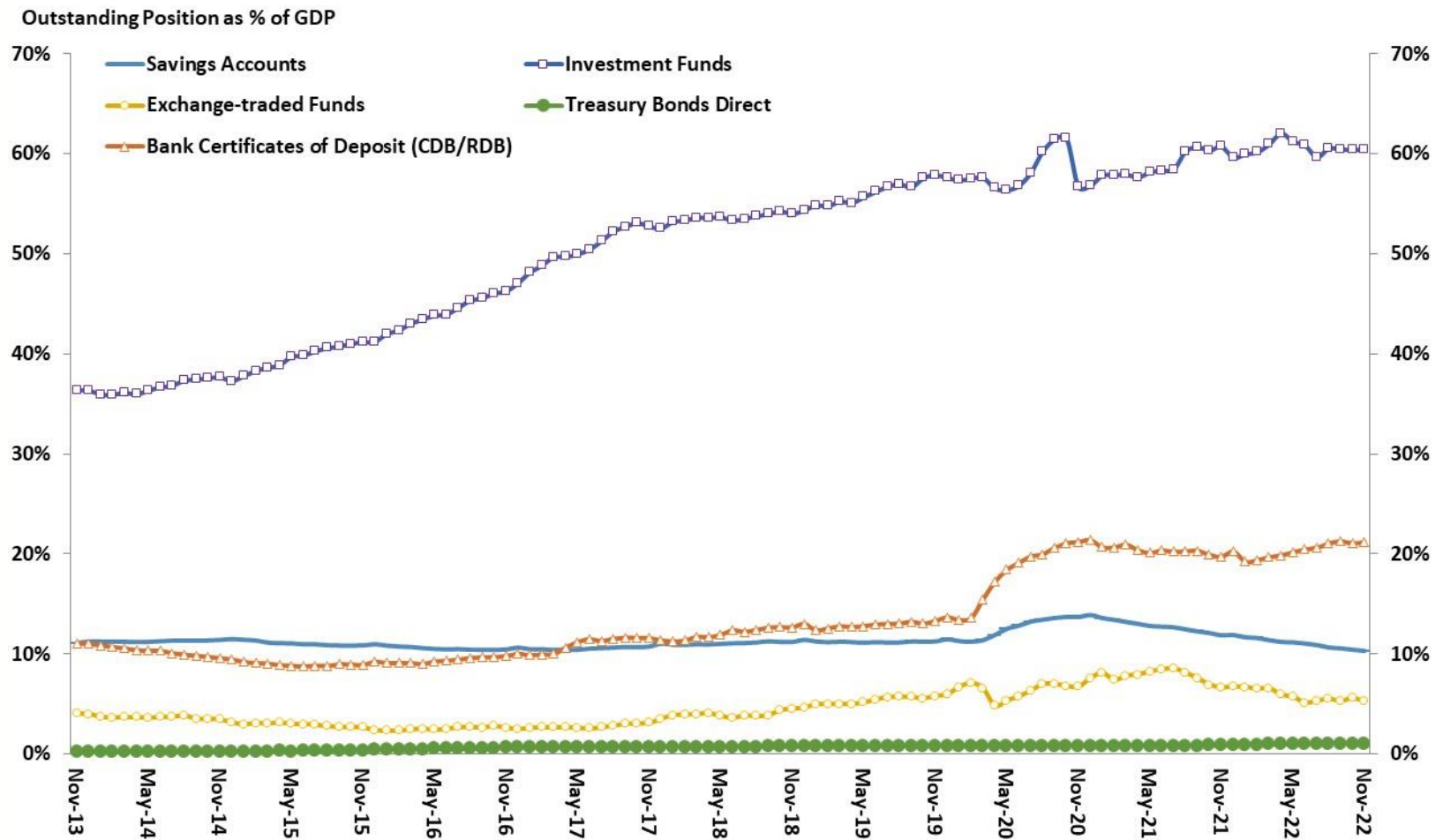
										BCB/Focus: 12/16/22		
Financial Savings (BCB)	November-22					chg. %	chg. %	chg. %	chg. %			
Outstanding Positions - R\$ billions	Dec-20	Dec-21	Nov-21	Nov-22	Dec/17 / Dec/16	Dec/18 / Dec/17	Nov/22- Dec/18	Nov/22- Nov/21				
Bank Certificates of Deposit (CDB/RDB)	1,598.0	1,758.4	1,697.3	2,016.1	58.1%	10.0%	14.7%	18.8%				
Savings Accounts (Caderneta de Poupança)	1,035.6	1,030.6	1,018.6	976.9	22.5%	-0.5%	-5.2%	-4.1%				
Investment Funds	4,245.9	5,179.3	5,226.8	5,743.7	-0.3%	22.0%	10.9%	9.9%				
Exchange-traded Funds	565.3	584.7	572.8	499.3	28.0%	3.4%	-14.6%	-12.8%				
Treasury Bonds Direct (Tesouro Direto)	62.7	79.2	76.6	101.2	5.1%	26.3%	27.8%	32.2%				
BM&F-Bovespa - listed companies value as % of GDP	68.8%	52.2%	68.8%	52.2%	0.53 pp	0.46 pp	4.23 pp	-16.56 pp				
Capital Market (CVM)	November-22					chg. %	chg. %	chg. %	chg. %			
New Public Offering - R\$ billions	Dec-20	Dec-21	Nov-21	Nov-22	Dec/17 / Dec/16	Dec/18 / Dec/17	Nov/22- Dec/18	Nov/22- Nov/21				
Stocks	26.1	36.0	36.0	30.8	517.8%	37.6%	-100.0%	-				
Debentures	3.3	10.1	8.9	14.0	-77.7%	209.7%	-2.5%	-2.5%				
Housing Credit-backed Securities (CRI)	3.5	15.8	12.1	22.5	-83.8%	355.0%	-60.7%	43.6%				
Investment Funds - new shares	24.6	24.4	22.2	19.3	162.1%	-1.2%	14.6%	159.3%				
Monet Market (BCB)	November-22					chg. %	chg. %	chg. %	chg. %			
	Dec-20	Dec-21	Nov-21	Nov-22	Dec/17 / Dec/16	Dec/18 / Dec/17	Nov/22- Dec/18	Nov/22- Nov/21				
<b>Interest Rates</b>												
<b>Selic market rate (% py)</b>	<b>1.90</b>	<b>8.76</b>	<b>8.76</b>	<b>13.65</b>	<b>-2.7 pp</b>	<b>6.9 pp</b>	<b>4.9 pp</b>	<b>4.9 pp</b>				
CDI (% py)	1.90	8.76	8.76	13.65	-2.7 pp	6.9 pp	4.9 pp	4.9 pp				
Swap DI-Pre 180 days (% py)	2.10	11.20	10.81	13.87	-2.2 pp	9.1 pp	2.7 pp	3.1 pp				
Swap DI-Pre 360 days (% py)	2.83	11.79	11.75	13.94	-1.7 pp	9.0 pp	2.2 pp	2.2 pp				
Monet Market (BCB)	December-22					chg. %	chg. %	chg. %	chg. %			
	Dec-20	Dec-21	Dec-21	Dec-22	Dec/17 / Dec/16	Dec/18 / Dec/17	Dec/22- Dec/18	Dec/22- Dec/21		2022	2023	2024
<b>Selic target rate (% py)</b>	<b>2.00</b>	<b>9.25</b>	<b>9.25</b>	<b>13.75</b>	<b>-2.5 pp</b>	<b>7.25 pp</b>	<b>4.5 pp</b>	<b>4.5 pp</b>		<b>0.00%</b>	<b>11.75%</b>	<b>9.00%</b>
TJLP (% py)	4.55	5.32	5.32	7.20	-1.0 pp	0.8 pp	1.88 pp	1.88 pp				
Brazil Sovereign Risk (BCB)	November-22					chg. pp	chg. pp	chg. %	chg. %			
Monthly Average (in basis points)	Dec-20	Dec-21	Nov-21	Nov-22	Dec/17 / Dec/16	Dec/18 / Dec/17	Nov/22- Dec/18	Nov/22- Nov/21				
EMBI+ (JPMorgan)	260	326	366	270	46 pp	66 pp	-56 pp	-96 pp				
5 years CDS	143	205	257	247	43 pp	62 pp	42 pp	-10 pp				
10 years CDS	215	292	345	339	35 pp	77 pp	47 pp	-7 pp				

## Macroeconomic Parameters

Year	Financial Indicators							
	Selic market rate			Long term rate TJLP		Referential rate TR	Financial Savings	
	Annual Average	December	Real chg.	Annual Average	December	Annual Average	Annual Average	
	Annual chg. %						BRL million	Annual chg. %
2016	14.08	13.65	7.33	7.50	7.50	2.01	4,566,852	13.89
2017	9.87	7.00	6.72	7.12	7.00	0.60	4,992,423	9.32
2018	6.48	6.40	2.64	6.72	6.98	0.00	5,346,678	7.10
2019	5.90	4.59	1.53	6.18	5.57	0.00	5,744,064	7.43
2020	2.64	1.90	-1.80	4.87	4.55	0.00	6,367,887	10.86
2021	3.91	8.76	-5.59	4.79	5.32	0.05	7,334,662	15.18
2022	<b>12.34</b>	<b>13.65</b>	<b>6.23</b>	<b>6.76</b>	<b>7.20</b>	<b>1.63</b>	<b>8,555,787</b>	<b>16.65</b>
2023	<b>13.09</b>	<b>11.65</b>	<b>8.11</b>	<b>7.33</b>	<b>7.17</b>	<b>1.97</b>	<b>9,624,282</b>	<b>12.49</b>
2024	<b>9.65</b>	<b>8.40</b>	<b>6.46</b>	<b>6.87</b>	<b>6.64</b>	<b>0.64</b>	<b>10,513,554</b>	<b>9.24</b>
2025	<b>8.13</b>	<b>7.90</b>	<b>4.98</b>	<b>6.32</b>	<b>6.20</b>	<b>0.06</b>	<b>11,376,399</b>	<b>8.21</b>
2026	<b>7.90</b>	<b>7.90</b>	<b>4.76</b>	<b>5.93</b>	<b>5.80</b>	<b>0.02</b>	<b>12,238,531</b>	<b>7.58</b>

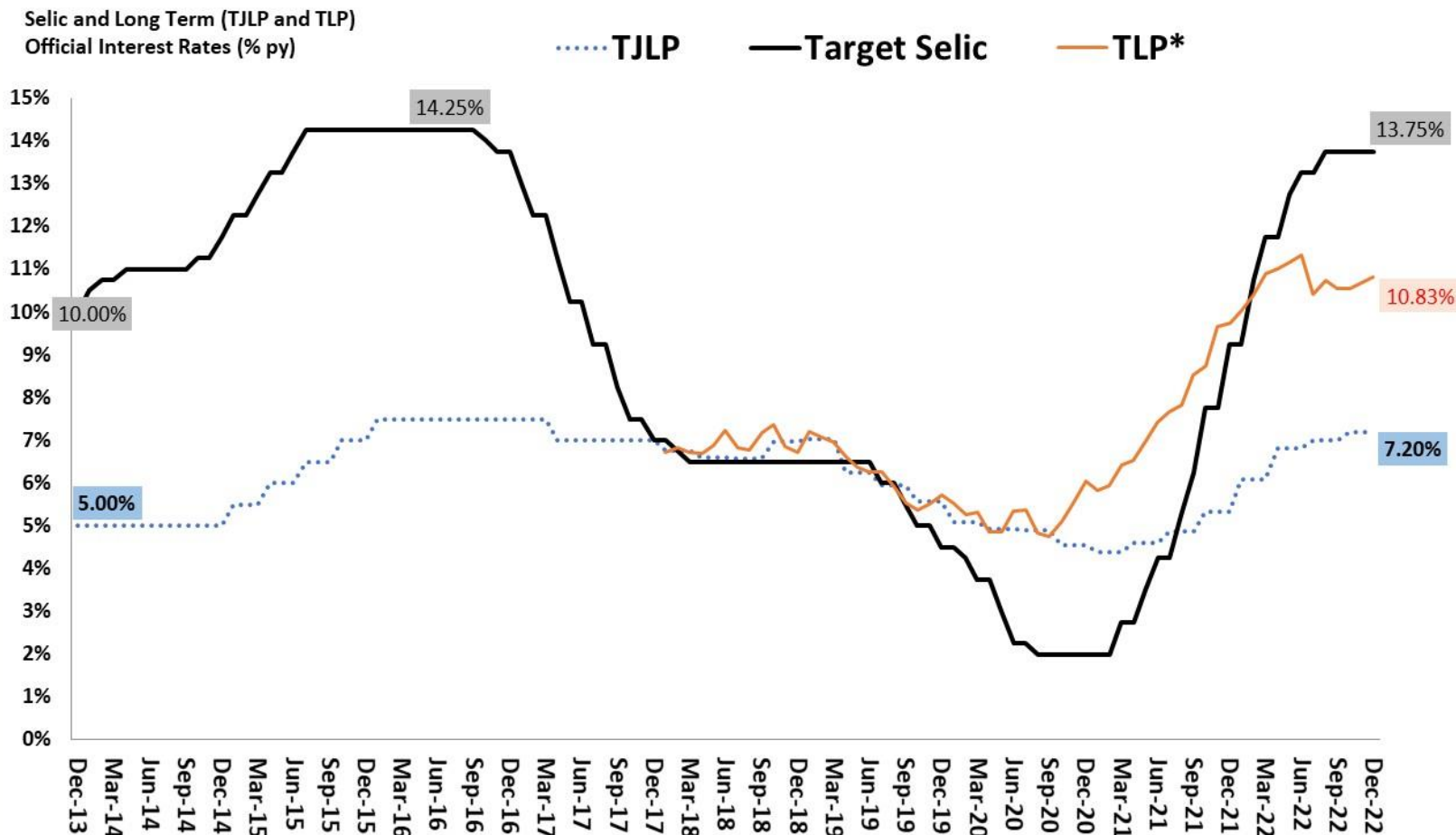
Source: SPE/ME. Macroeconomic Parameters, December-2022.

# Major Financial Savings Instruments



Source: Central Bank of Brazil.

# Official Interest Rates Evolution (Target Selic and TJLP)

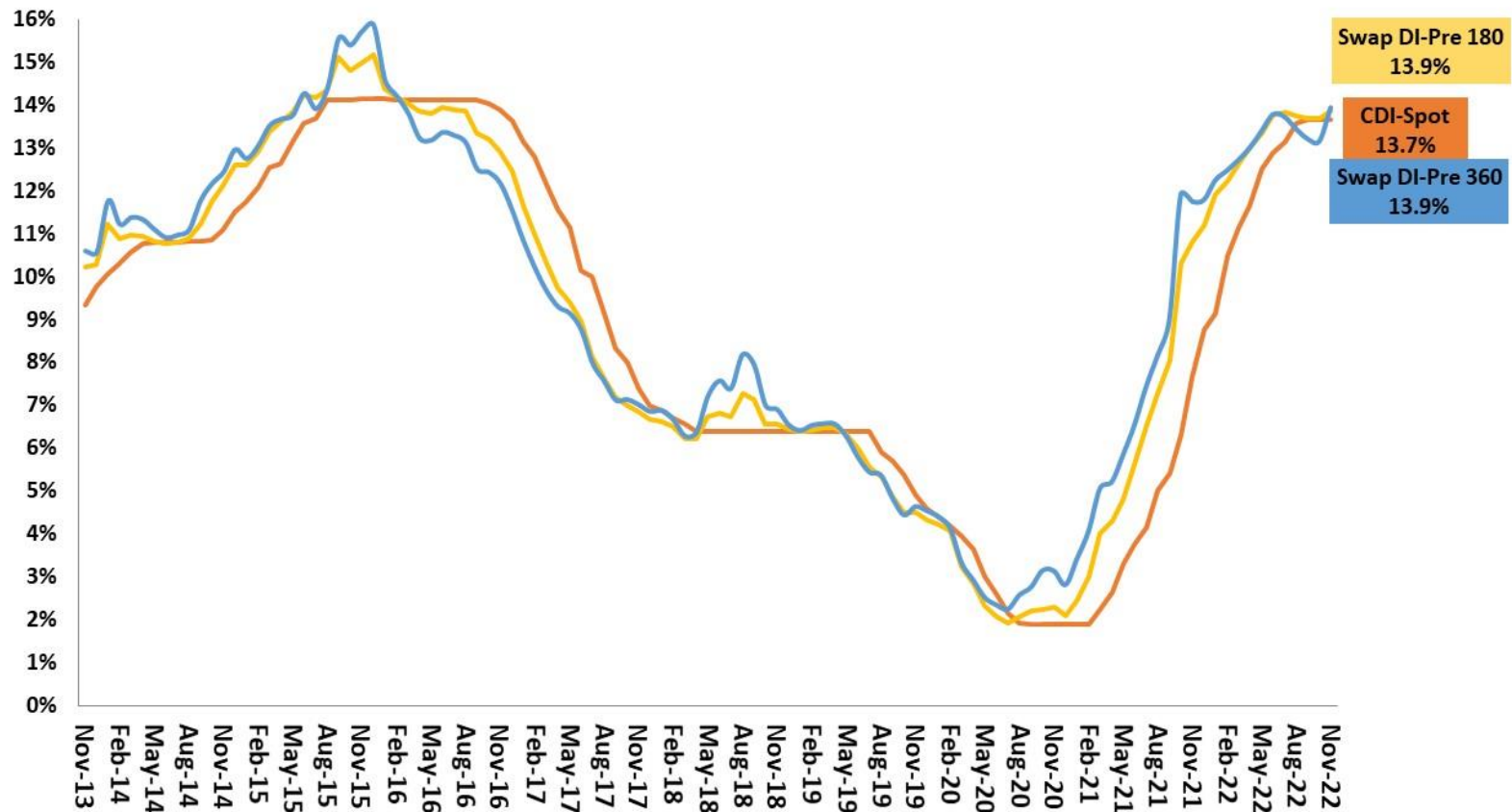


Source: Central Bank of Brazil. \*TLP is 3-Month average of 5-Year NTN-B bonds plus IPCA Market Expectation (Focus Survey by BCB).

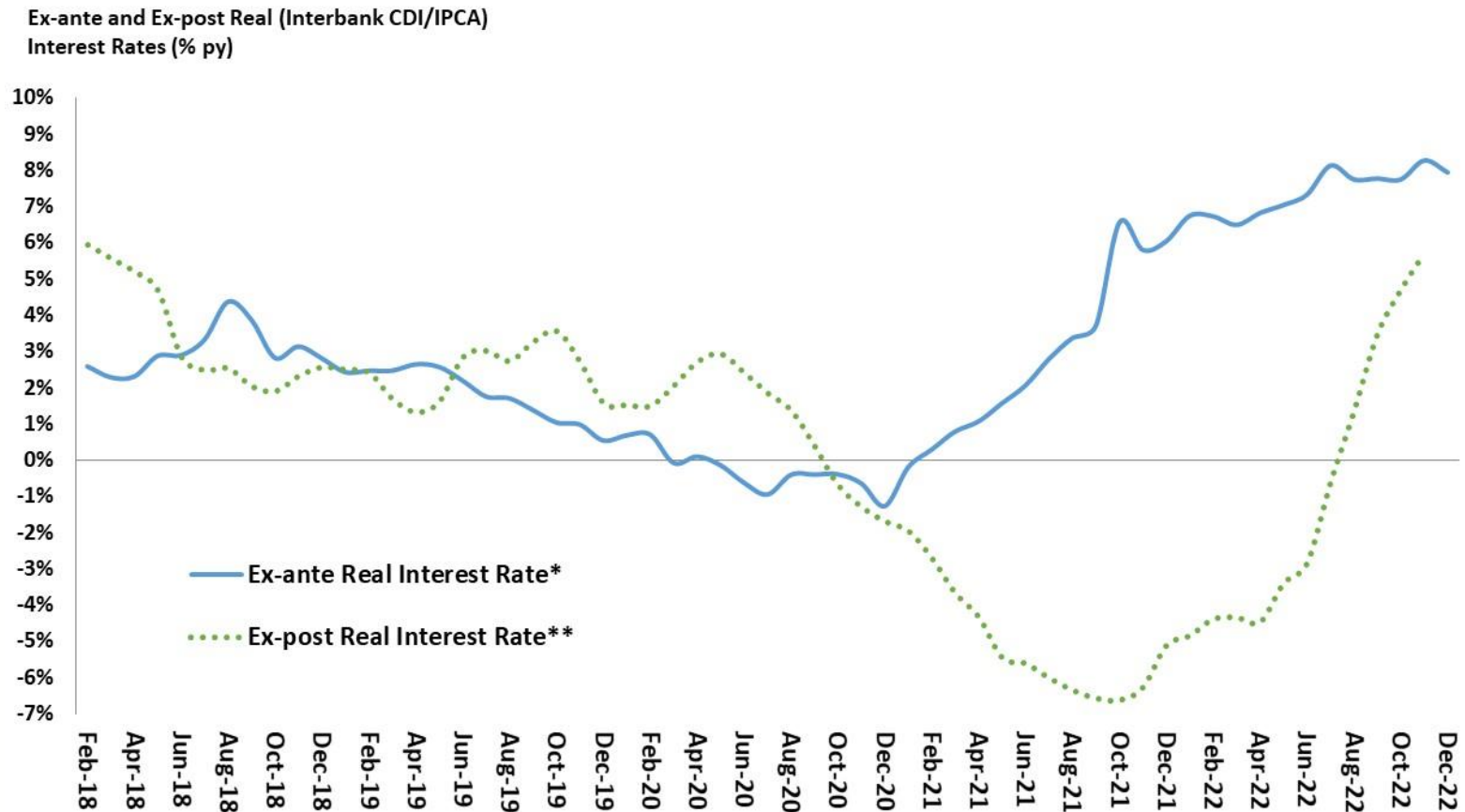


Interbank Spot, 180 and 360-days  
Interest Rate (% p.a.)

## Reverse Points of Yield Curve



Source: Central Bank of Brazil.



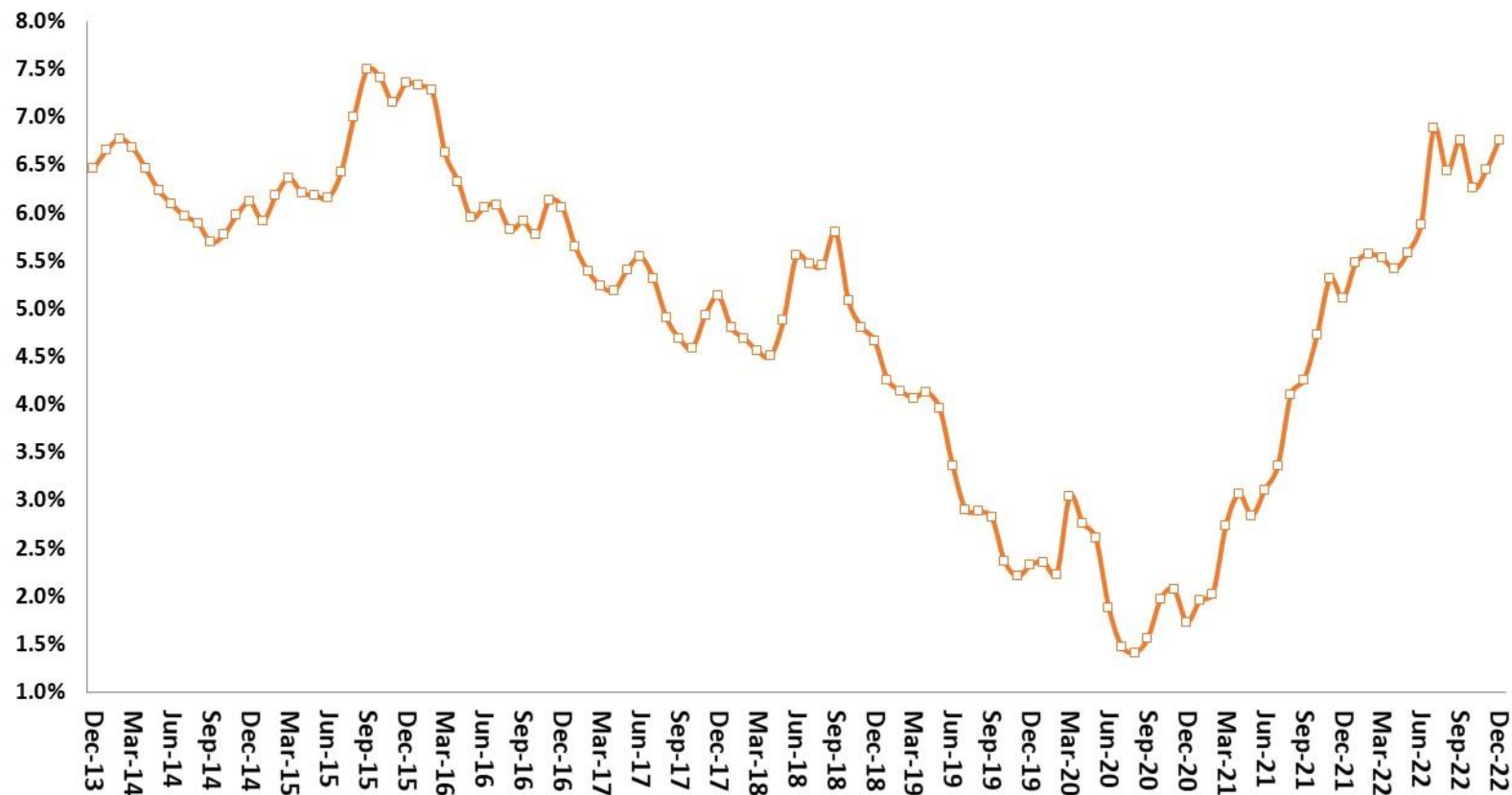
Source: Central Bank of Brazil. Data valid up to the date of the report.

\* Ex-ante Real Interest Rate = Expected Interbank CDI/IPCA ratio, considering 360-days Swap DI-Pre rate and IPCA median of BCB-Focus Survey.

\*\* Ex-post Real Interest Rate = Observed 12-months accumulated CDI/IPCA ratio.

NTN-B 2024\*

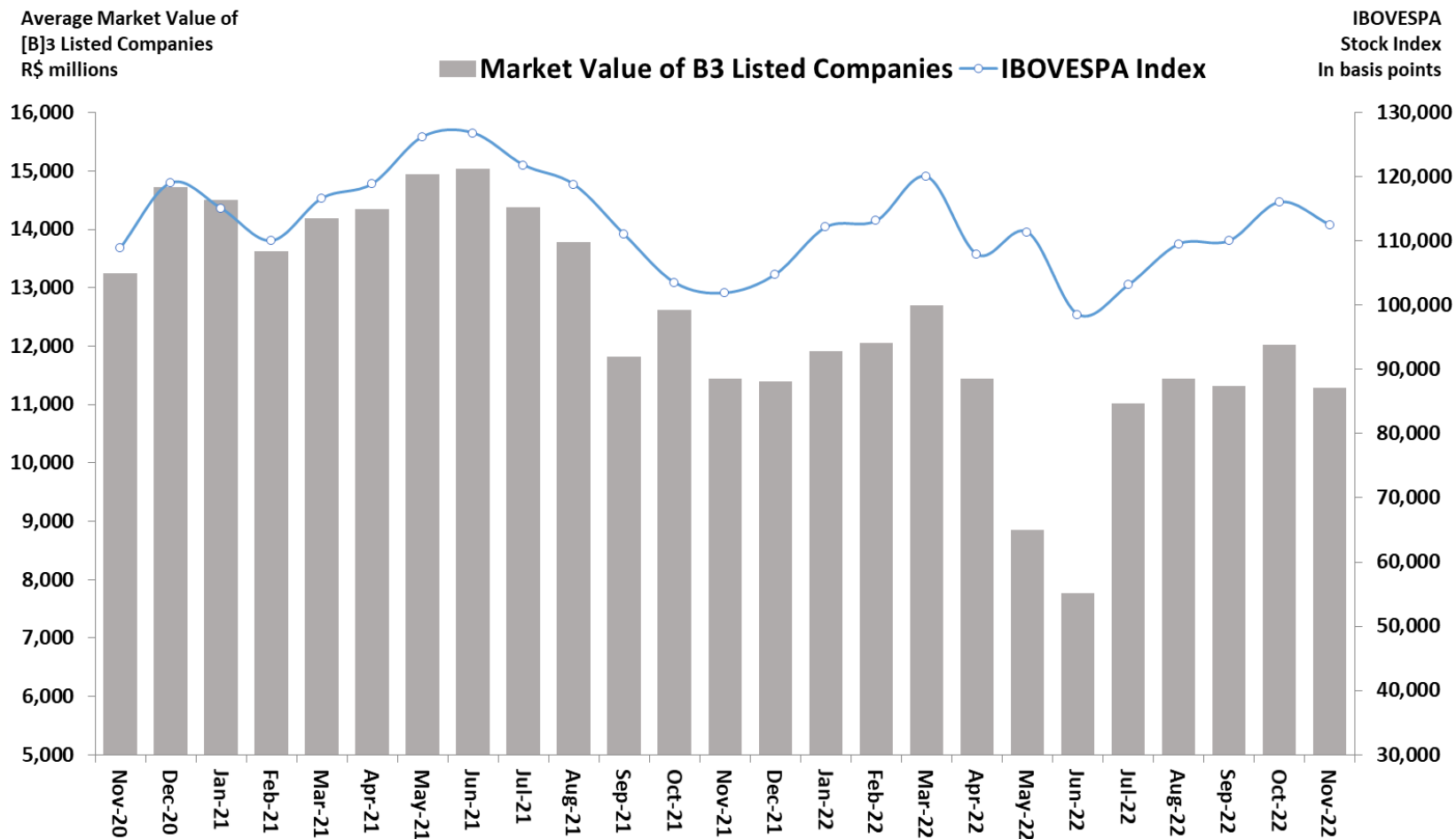
Real Interest Rate (% p.a.) – End Of Month



Source: STN. \* Interest rate paid by the NTN-B 2024 besides the IPCA inflation rate. Data valid up to the date of the report.

# Brazilian Stock Market Evolution

FINANCIAL MARKETS



Source: Central Bank of Brazil.

EMBI+ Brasil Spread  
(basis points)

600

500

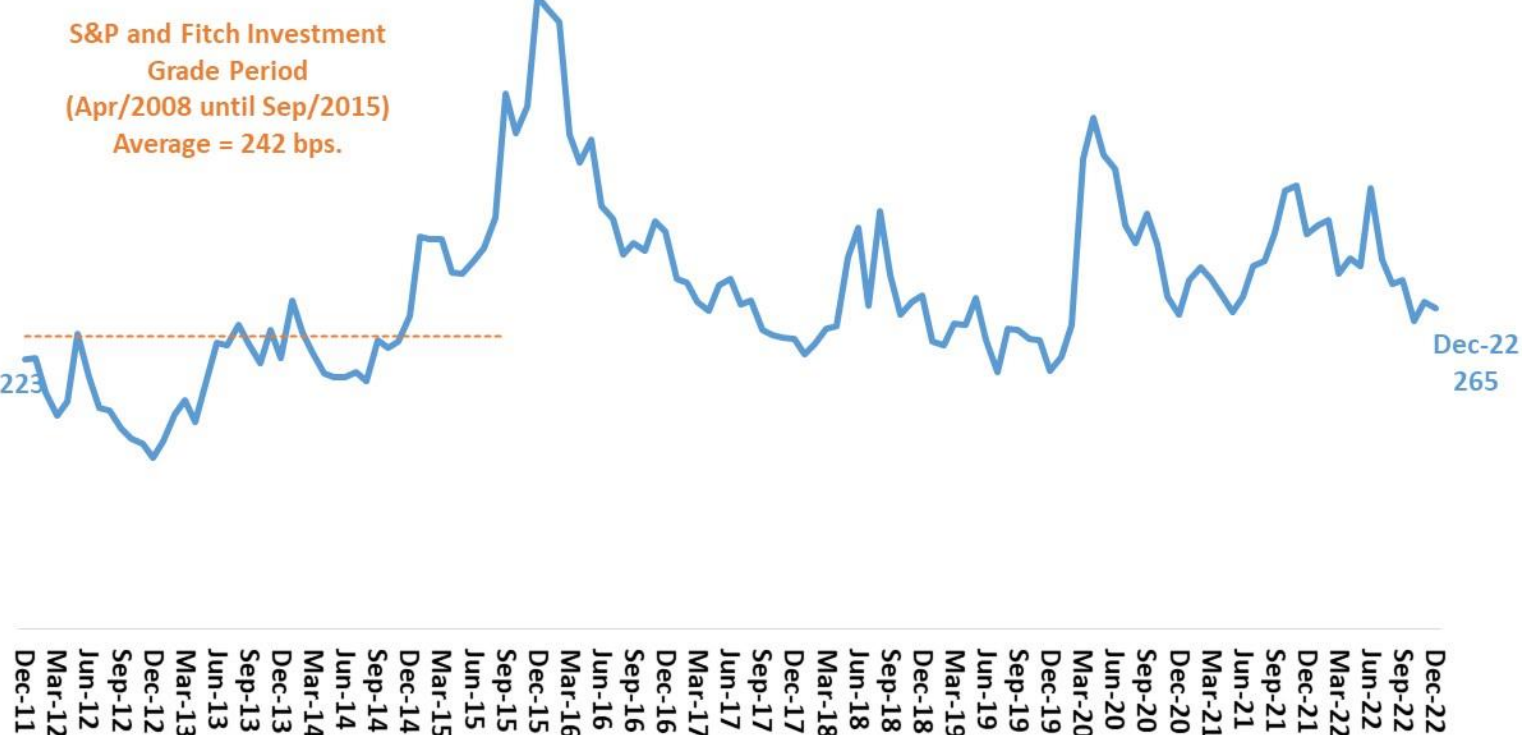
400

300

200

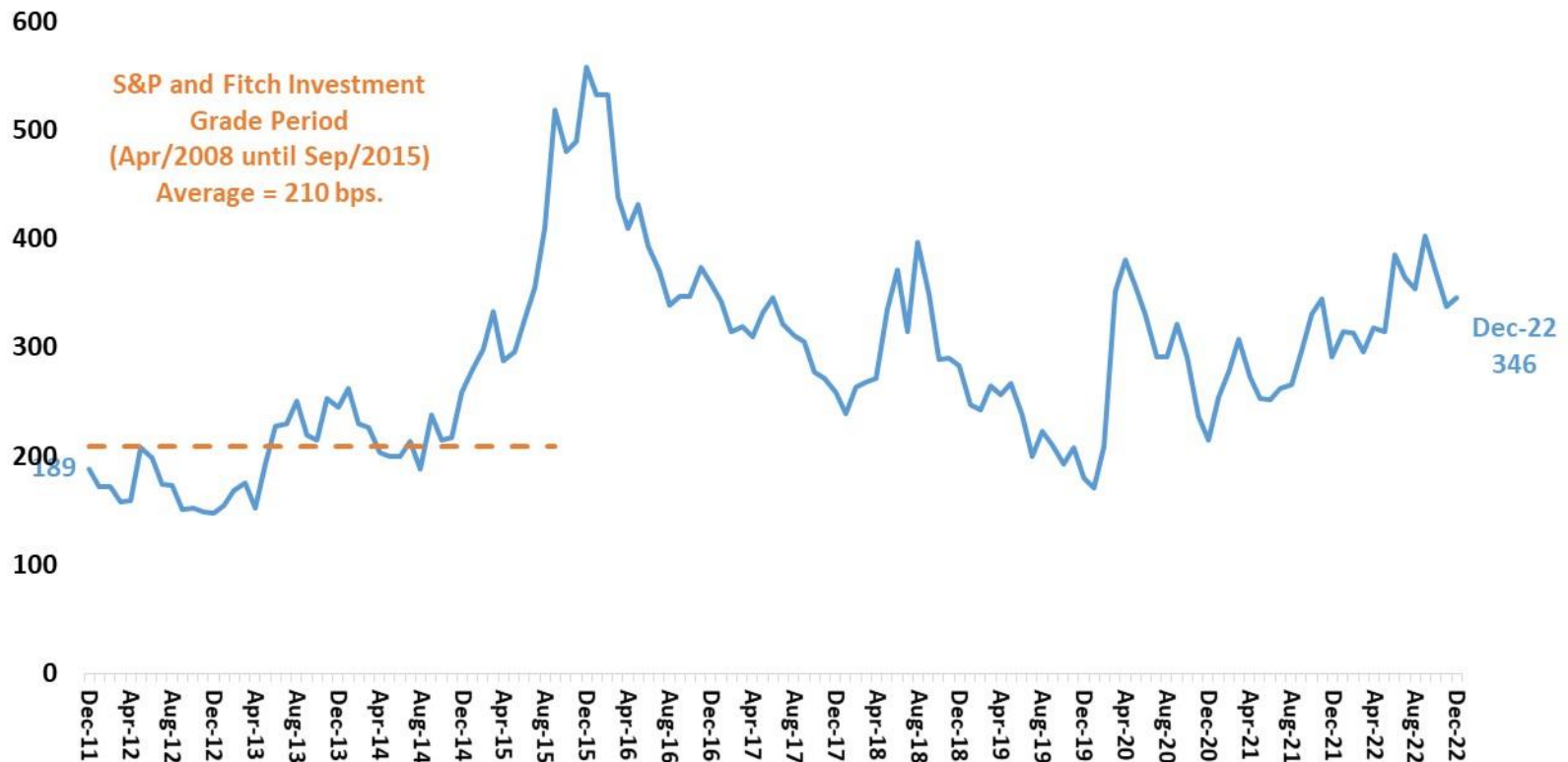
100

0



Source: JPMorgan. Data valid up to the date of the report.

CDS 10Y Brazil Spread  
basis points



Source: Bloomberg. Data valid up to the date of the report.

# Foreign Trade

											BCB/Focus: 12/16/22		
Exchange Rate Indicators (BCB)	November-22			chg.%	chg.%	chg.%		Sep/22	Oct/22	Nov/22	Average FX	Average FX	Average FX
FX % change rate: appreciation (-) or depreciation (+) of the Real	2020	2021	Sep/22- Sep/21	Oct/22- Oct/21	Nov/22- Nov/21	YTD 2022	accum. in 12-months	accum. in 12-months	accum. in 12-months	accum. in 12-months	Rate 2021	Rate 2022	Rate 2023
Nominal Exchange Rate (R\$/US\$) - sale - end of period; month value:	5.2941	32.9%	3.1%	-0.6%	-6.8%	-5.8%	-4.8%	-2.5%	-2.9%	-3.8%	5.25	5.26	5.25
Exchange Rate Indicators (BCB)	November-22			chg.%	chg.%	chg.%		Sep/22	Oct/22	Nov/22			
FX % change rate: appreciation (-) or depreciation (+) of the Real	2020	2021	Sep/22- Sep/21	Oct/22- Oct/21	Nov/22- Nov/21	YTD 2022	accum. in 12-months	accum. in 12-months	accum. in 12-months	accum. in 12-months			
Real Effective Exchange Rate (IPCA)	27.9%	3.2%	-9.1%	-8.2%	-12.7%	-11.0%	-8.4%	-8.6%	-9.2%				
Exchange Rate / Wage Ratio adjusted by Labor Productivity	12.6%	-22.3%	-3.6%	-5.8%	-0.8%	-6.0%	-9.7%	-8.1%	-6.2%				
Unitary Labor Cost in US\$	-20.2%	-0.8%	11.8%	13.3%	18.2%	18.6%	17.7%	17.3%	17.2%				
Foreign Trade of Goods (FUNCEX)	October-22			chg.%	chg.%	chg.%		Aug/22	Sep/22	Oct/22			
Average Price and Quantum	2020	2021	Aug/22- Aug/21	Sep/22- Sep/21	Oct/22- Oct/21	YTD 2022	accum. in 12-months	accum. in 12-months	accum. in 12-months	accum. in 12-months			
QUANTUM													
Exports (X)	1.4%	3.6%	6.4%	10.1%	14.4%	3.9%	1.6%	2.3%	3.5%				
Basic Goods	5.8%	-0.3%	0.3%	9.6%	17.1%	0.1%	-2.9%	-1.8%	-0.4%				
Semi-Manufactured	10.0%	2.0%	6.3%	16.4%	30.1%	7.0%	2.4%	3.5%	7.5%				
Manufactured	-9.1%	12.8%	19.3%	8.0%	3.6%	10.1%	10.3%	10.1%	9.3%				
Imports (M)	-7.9%	22.1%	16.7%	10.1%	4.1%	3.0%	6.1%	5.1%	3.6%				
Intermediate Goods	-7.4%	26.6%	18.6%	2.8%	-3.0%	1.4%	6.7%	4.8%	2.5%				
Capital Goods	-4.4%	1.8%	34.0%	20.1%	37.7%	9.8%	2.0%	3.0%	4.8%				
Durable Consumer Goods	-30.1%	44.6%	29.4%	11.7%	15.3%	2.9%	9.8%	7.8%	7.5%				
Semi and Non-Durable Consumer Goods	-2.6%	5.1%	28.7%	12.9%	16.9%	4.5%	-0.8%	-0.6%	1.6%				
Fuel and Lubricants	-15.7%	34.6%	-15.5%	31.4%	-0.2%	-0.1%	9.5%	9.3%	5.4%				
Exports Profitability Index	6.9%	3.2%	-6.0%	-3.3%	-4.9%	-3.9%	-1.3%	-1.7%	-2.3%				
Quantum Ratio = average quantum X / average quantum M	12.5%	-17.5%	-6.0%	1.7%	9.9%	2.0%	-3.7%	-1.7%	0.9%				
PRICE													
Exports (X)	-6.7%	29.5%	5.7%	6.2%	5.1%	14.2%	19.9%	17.7%	15.7%				
Basic Goods	-4.8%	38.0%	1.7%	4.3%	3.9%	12.4%	19.0%	16.3%	14.0%				
Semi-Manufactured	-6.4%	27.8%	4.6%	-0.2%	-2.8%	11.8%	20.4%	17.4%	14.4%				
Manufactured	-10.3%	14.4%	16.6%	13.1%	10.4%	19.7%	22.0%	21.3%	20.2%				
Imports (M)	-7.3%	13.2%	16.7%	13.2%	9.2%	25.6%	28.4%	27.5%	26.1%				
Intermediate Goods	-5.1%	15.1%	12.0%	10.5%	7.2%	23.2%	27.0%	25.8%	24.2%				
Capital Goods	-1.4%	-1.1%	0.6%	0.3%	3.8%	5.2%	5.4%	4.8%	5.0%				
Durable Consumer Goods	-6.8%	4.6%	1.3%	6.3%	4.9%	8.8%	9.5%	9.6%	9.3%				
Semi and Non-Durable Consumer Goods	-6.6%	0.8%	0.3%	9.3%	1.6%	9.1%	10.6%	10.8%	9.4%				
Fuel and Lubricants	-25.4%	39.1%	87.7%	50.2%	36.9%	86.5%	96.3%	92.8%	87.2%				
Terms of Trade = average price X / average price M	0.6%	14.7%	-9.4%	-6.2%	-3.8%	-9.1%	-6.4%	-7.5%	-8.2%				



Macroeconomic Parameters								
Year	Imports of Goods				Fuels			
	Brent Oil		Imports of Goods less Fuels		Gasoline		Diesel	
	Average price	Chg. %	USD million	Chg. %	Annual average sales			
	USD				Million cubic meters	Chg. %	Million cubic meters	Chg. %
2016	44.05	-15.89	125182.54	-16.40	2.62	4.09	4.52	-5.13
2017	54.39	23.49	139730.39	11.62	2.69	2.63	4.56	0.91
2018	71.07	30.66	161647.66	15.69	2.33	-13.13	4.64	1.56
2019	64.03	-9.91	163757.67	1.31	2.32	-0.49	4.77	3.00
2020	42.30	-33.94	144852.28	-11.54	2.18	-6.13	4.79	0.30
2021	70.44	66.53	193314.84	33.46	2.39	9.75	5.18	8.07
2022	99.90	41.82	229644.44	18.79	2.60	8.57	5.24	1.25
2023	81.83	-18.09	235192.67	2.42	2.69	3.50	5.37	2.48
2024	78.80	-3.70	258001.49	9.70	2.81	4.57	5.55	3.37
2025	75.95	-3.61	281173.00	8.98	2.93	4.40	5.73	3.26
2026	73.81	-2.81	304360.13	8.25	3.05	4.10	5.90	2.91

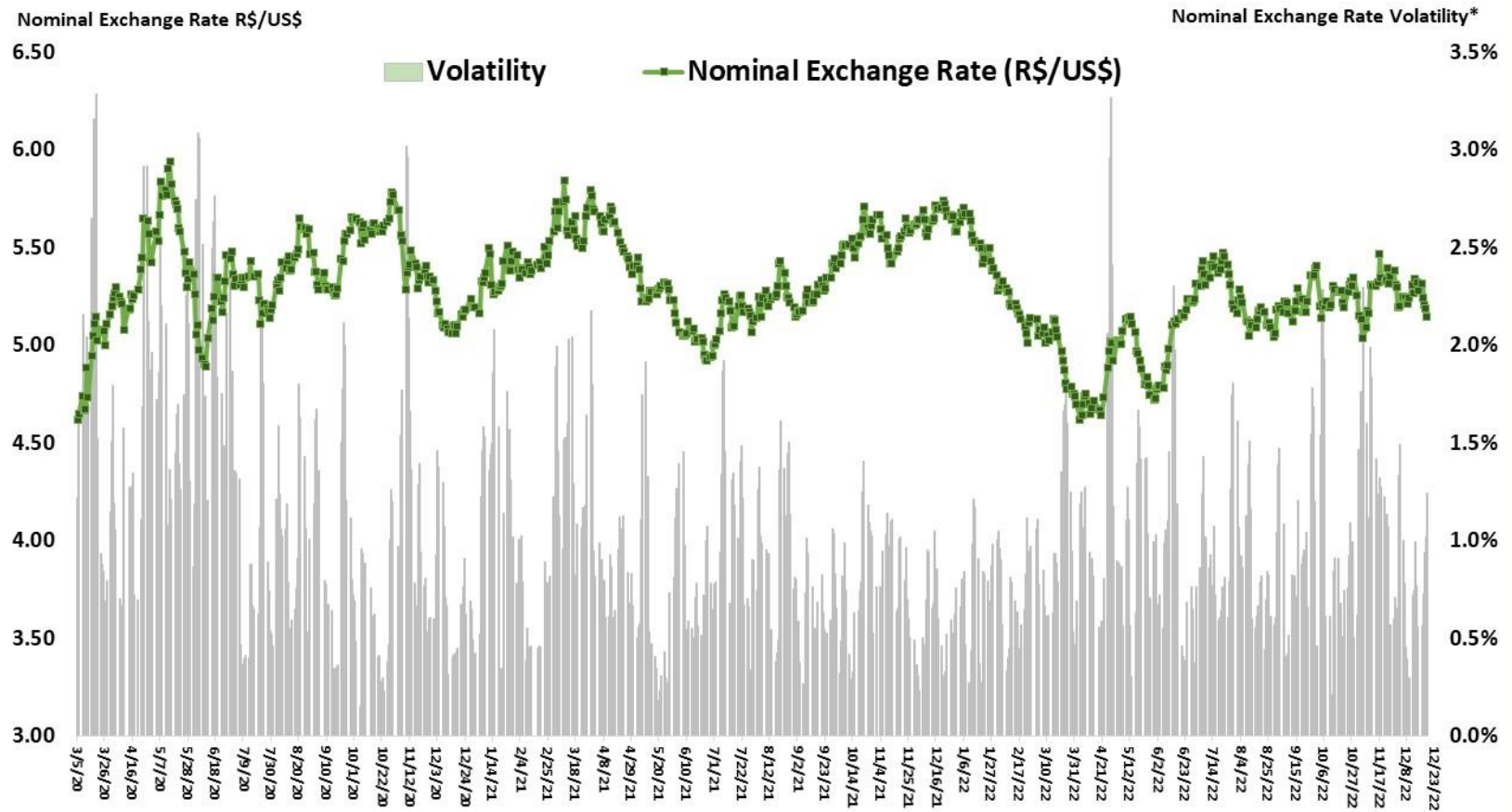
Source: SPE/ME. Macroeconomic Parameters, December-2022.

Macroeconomic Parameters				
Year	External Sector			
	Exchange Rate			
	Annual Average	December	Average chg. %	Annual chg. %
	Exchange Rate BRL/USD			
2016	3.5	3.3	4.8	-13.4
2017	3.2	3.3	-8.5	-1.8
2018	3.7	3.9	14.5	18.0
2019	3.95	4.03	7.95	5.78
2020	5.16	5.20	30.69	25.21
2021	5.40	5.58	4.64	9.83
2022	5.17	5.25	-4.22	-6.71
2023	5.25	5.25	1.57	-0.42
2024	5.21	5.23	-0.78	-0.62
2025	5.22	5.21	0.20	-0.13
2026	5.26	5.30	0.72	1.64

Source: SPE/ME. Macroeconomic Parameters, December-2022.

# Daily Nominal Exchange Rate R\$/US\$

FOREIGN TRADE



Source: Central Bank of Brazil. \*Volatility = 5-days Moving Coefficient of Variation.

# Trade Balance on Goods (52 weeks daily average)

FOREIGN TRADE

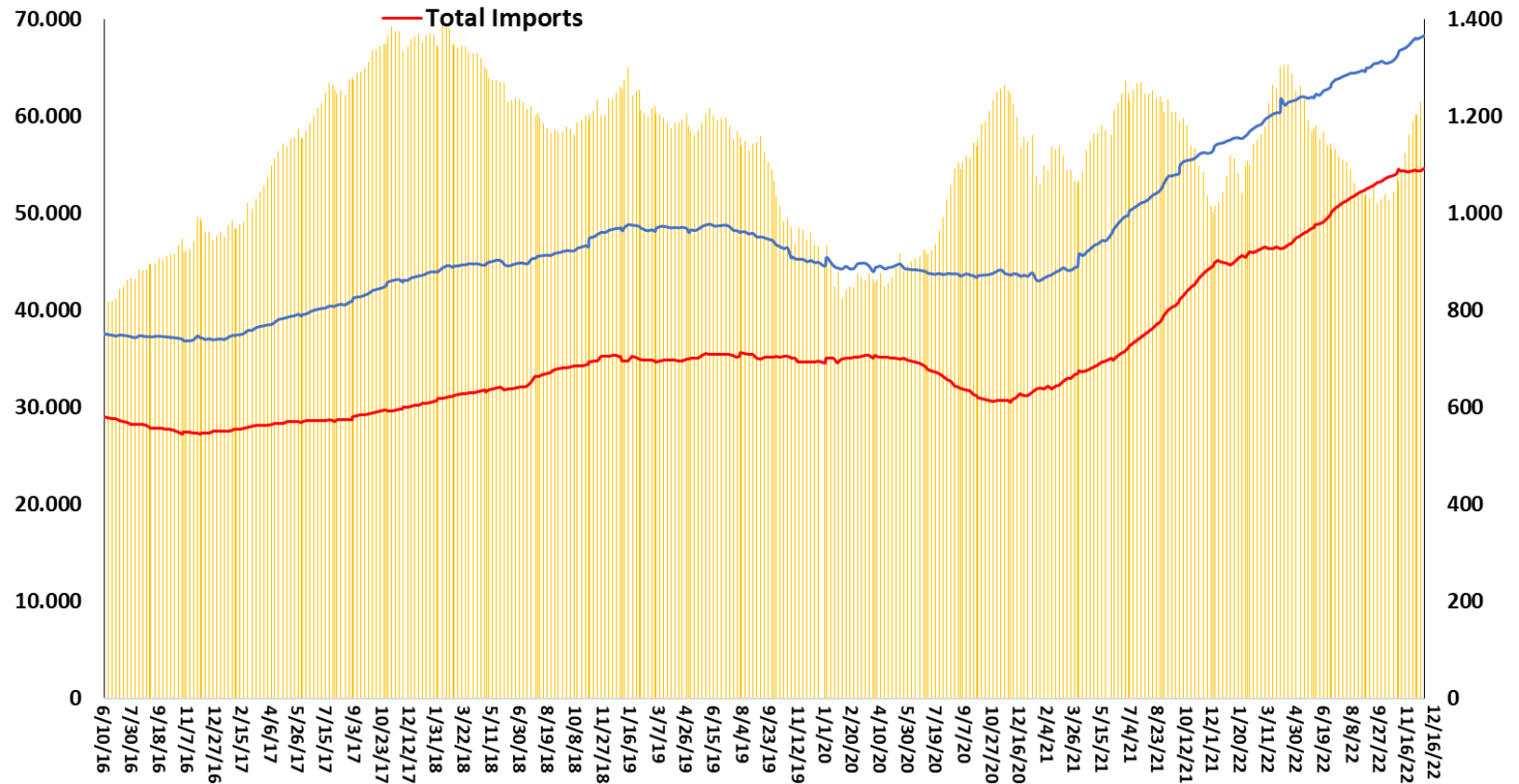
Trade Balance on Goods  
52-week Accumulated Figures  
US\$ millions FOB

Trade Balance on Goods

Total Exports

Total Imports

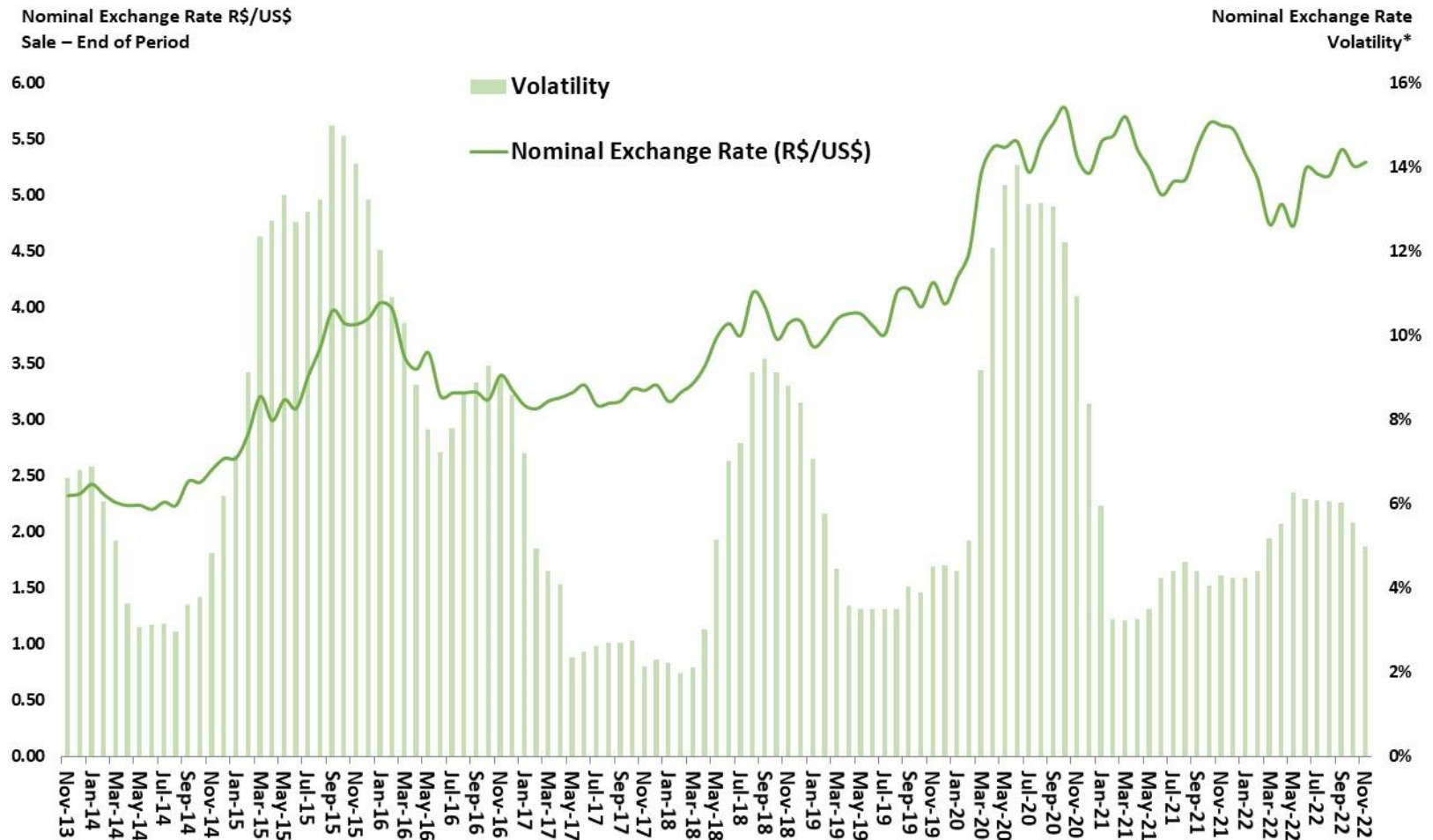
Total Exports and Total Imports  
52-week Moving Average  
US\$ millions FOB



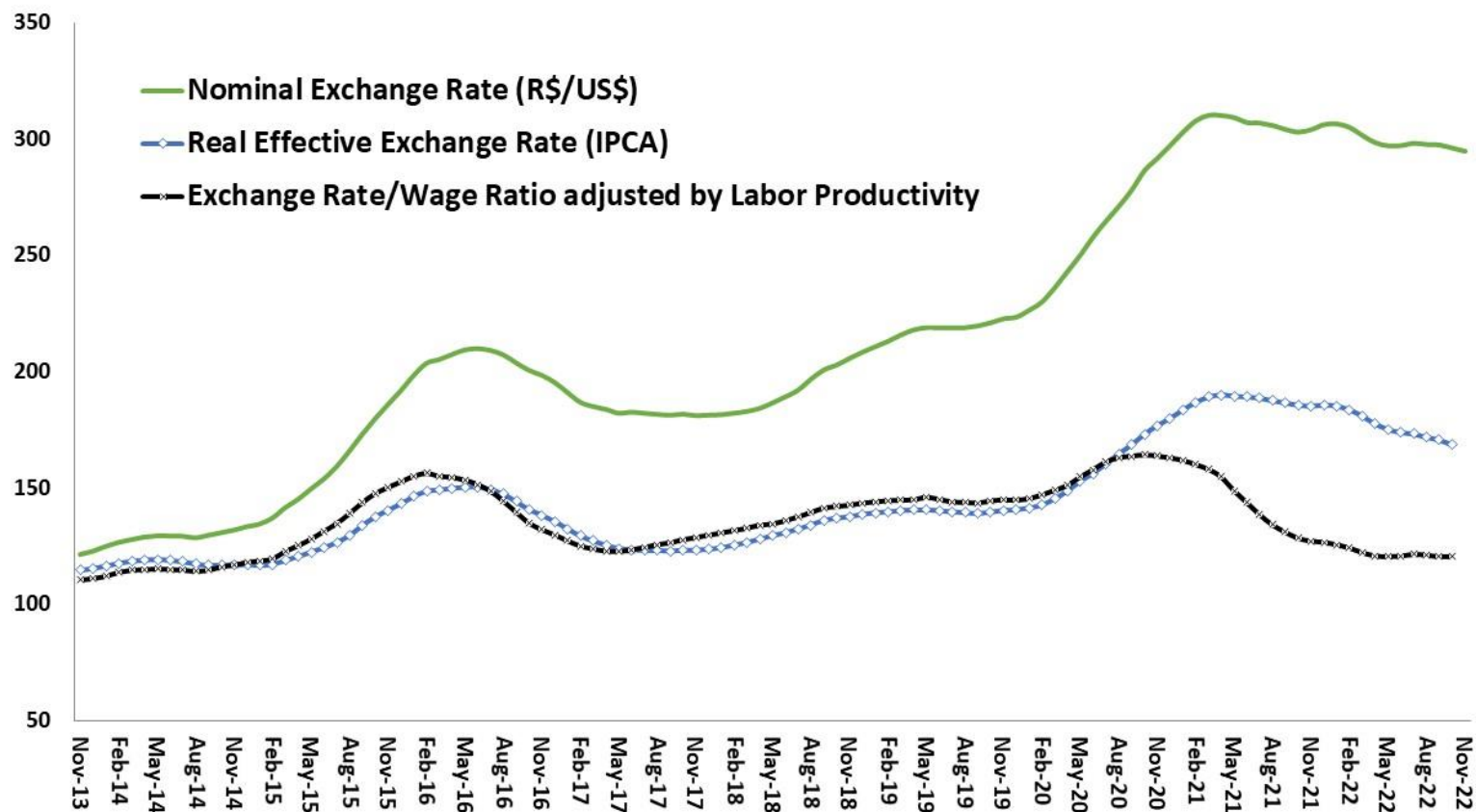
Source: SECEX.

# Nominal Exchange Rate R\$/US\$

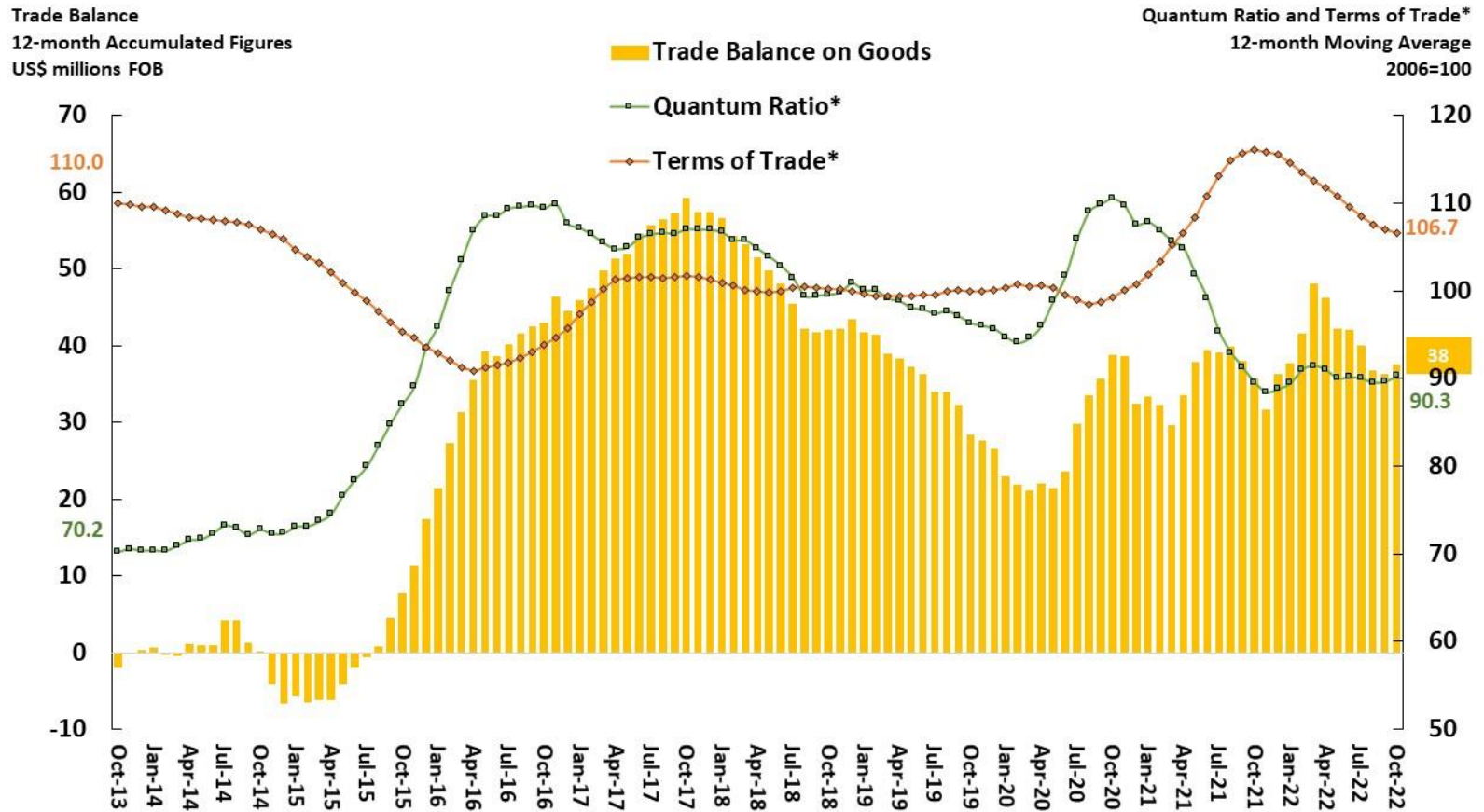
FOREIGN TRADE



Exchange Rate Indexes (2006=100)  
12-month Moving Average



Source: Central Bank of Brazil.

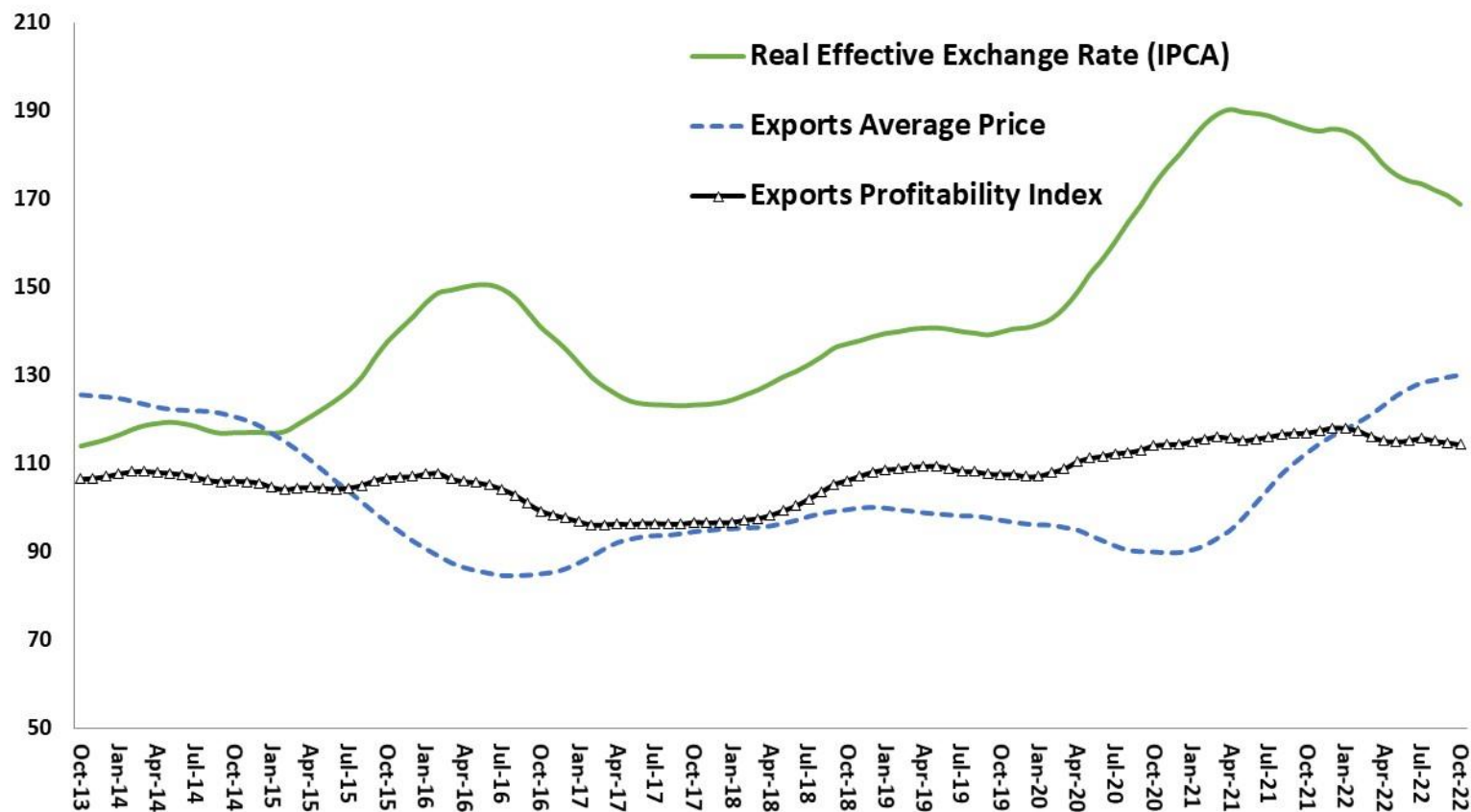


Sources: Central Bank of Brazil, SECEX and FUNCEX.

\* Quantum Ratio = (average quantum Exports / average quantum Imports)

Terms of Trade = (average price Exports / average price Imports)

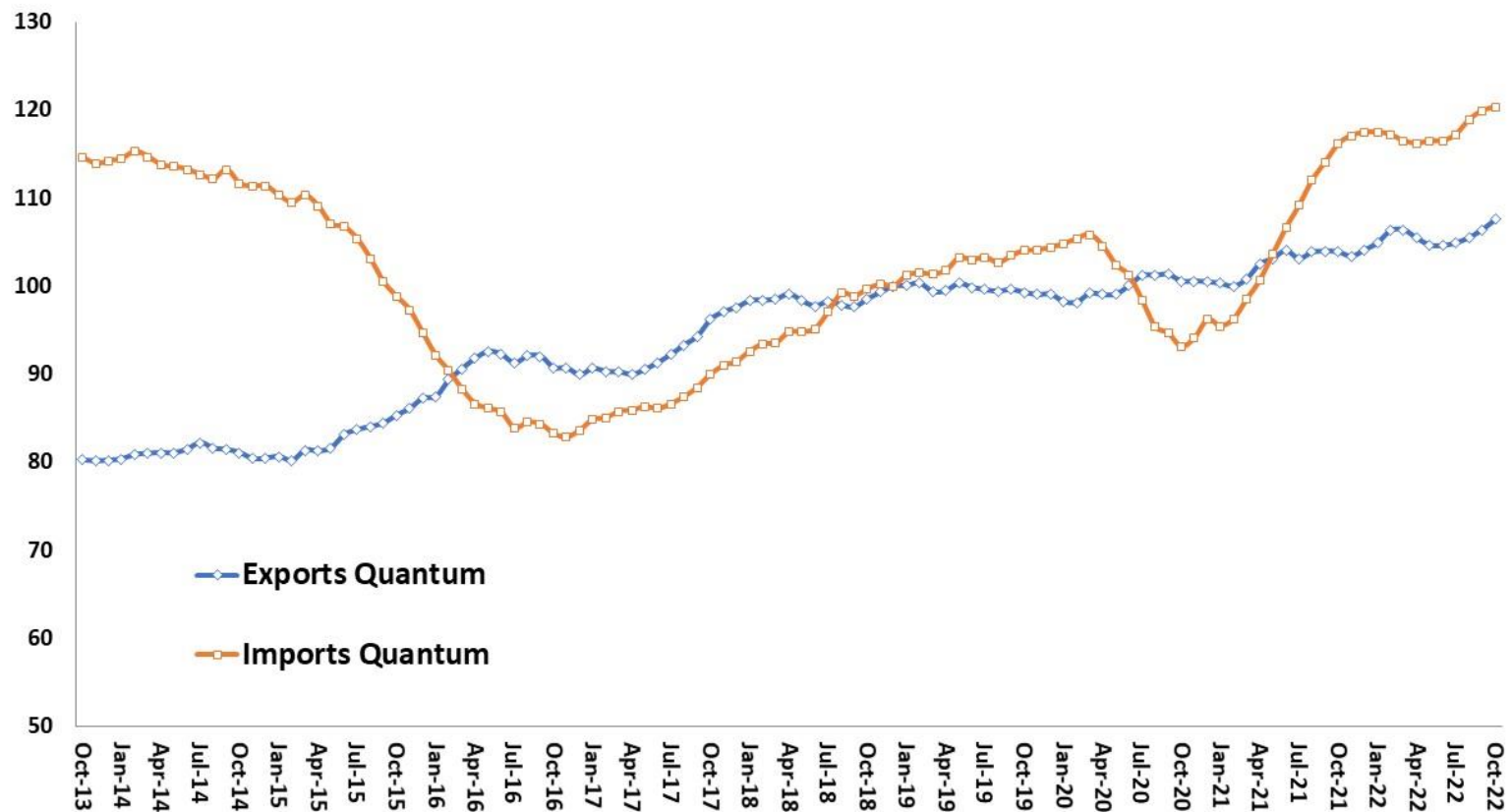
Real Effective Exchange Rate (IPCA), Exports Average Price and Exports Profitability Index  
12-month Moving Average (2006=100)



Sources: Central Bank of Brazil and FUNCEX.

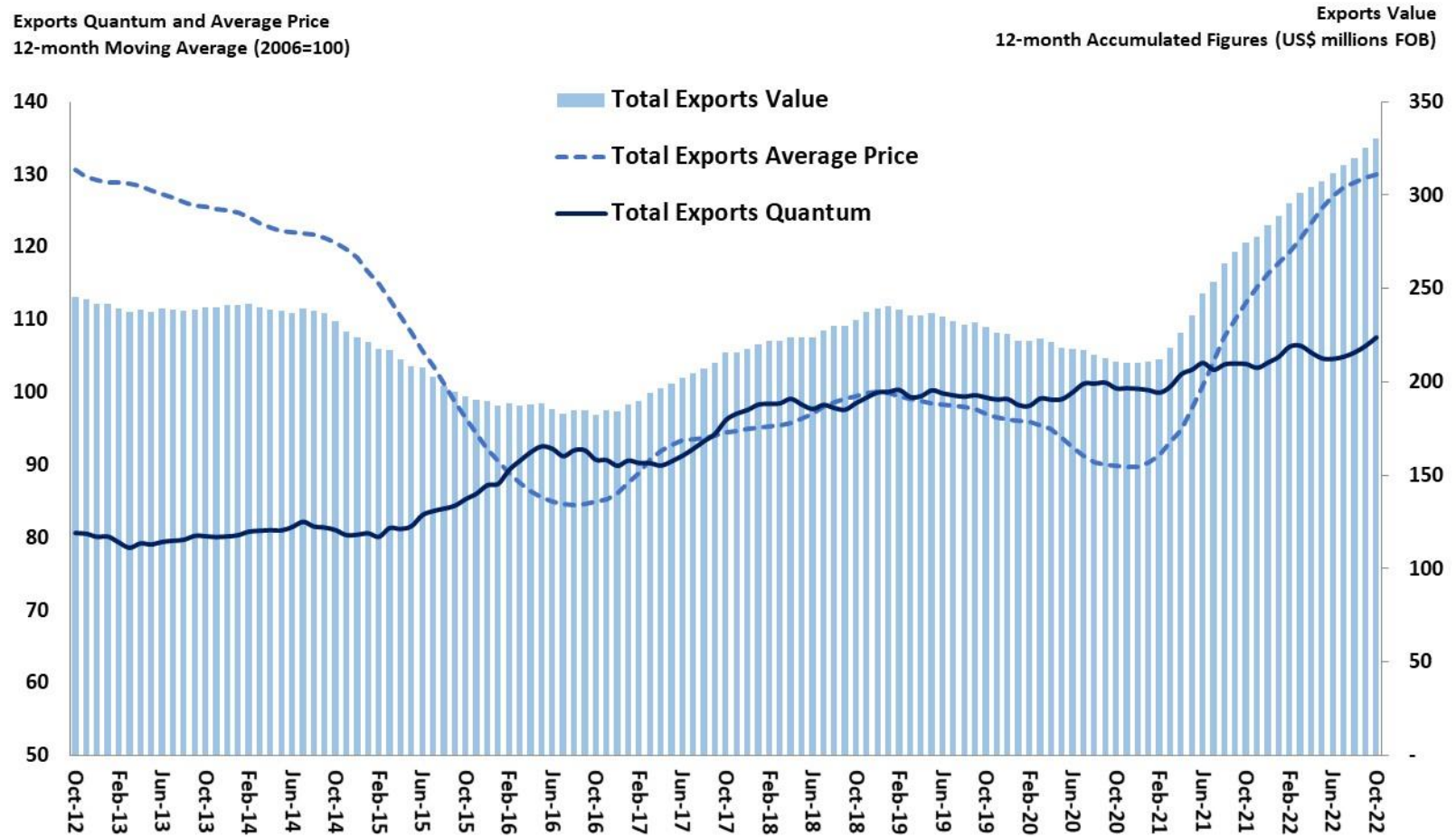


Exports and Imports Quantum  
12-month Moving Average (2006=100)



Source: FUNCEX.

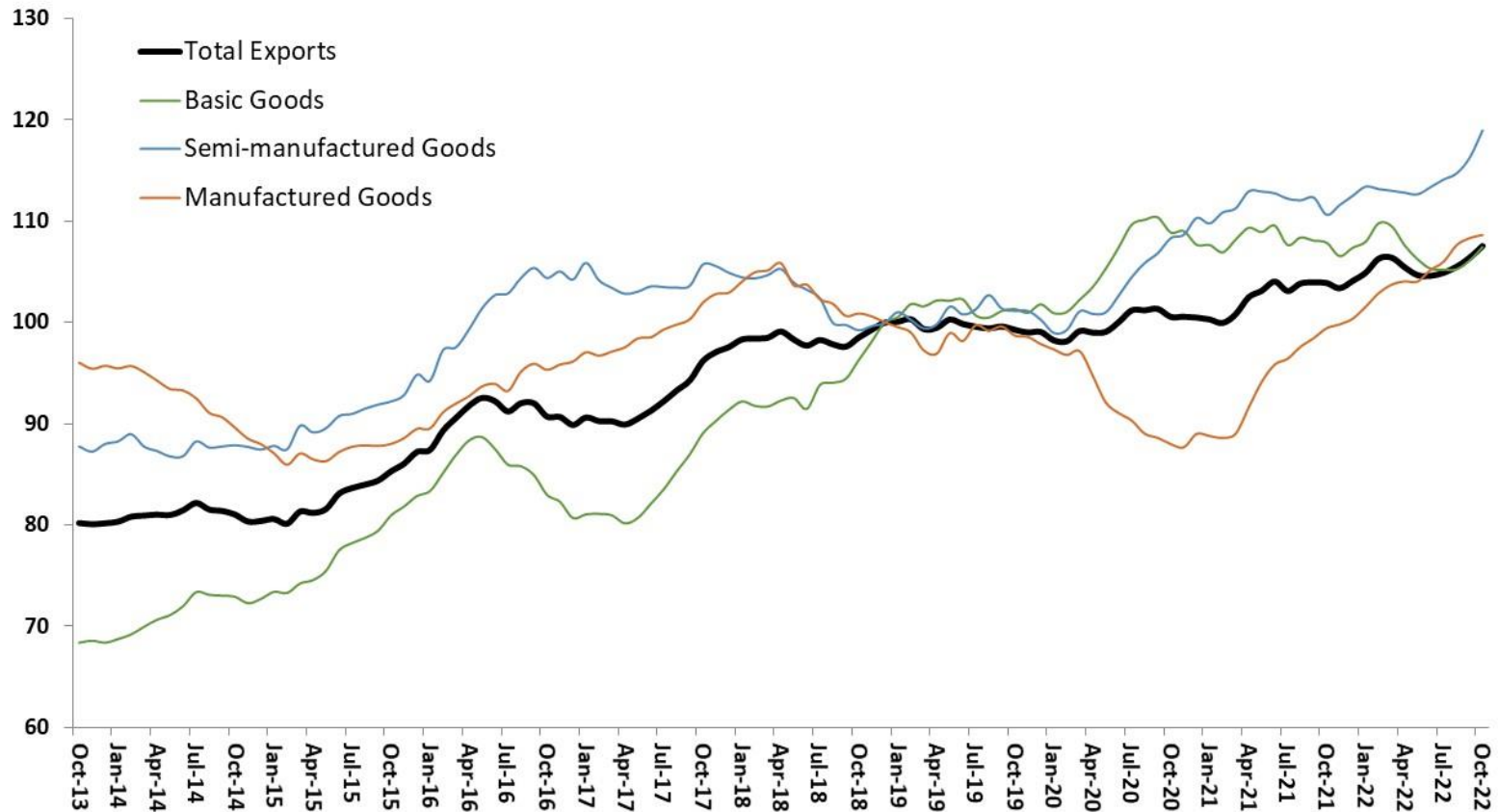
# Total Exports: value, quantum and price



Sources: SECEX and FUNCEX.

# Quantum of Total Exports by Class of Products

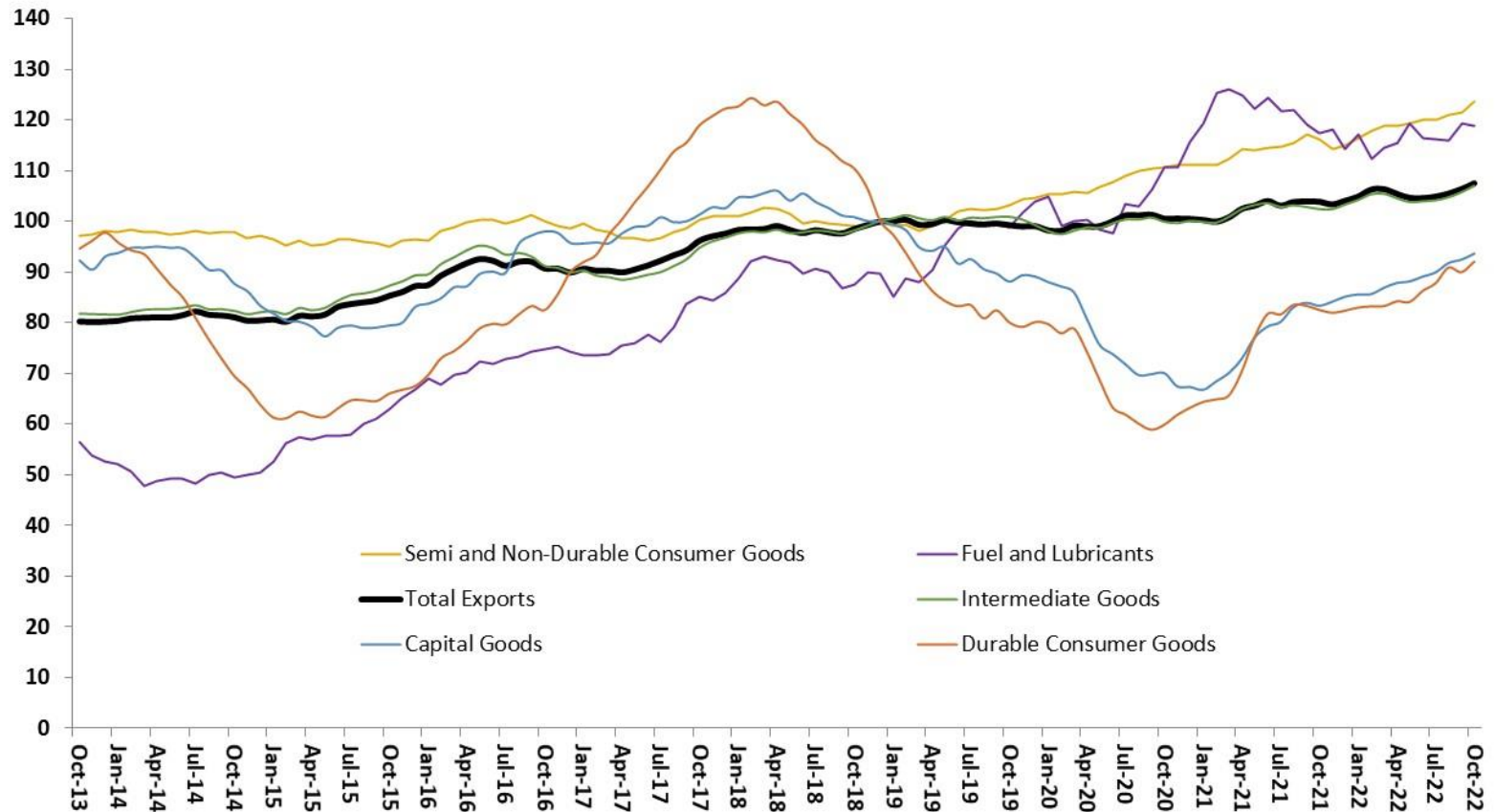
Exports Quantum by Class of Products  
12-months Moving Average (2006=100)



Source: FUNCEX.

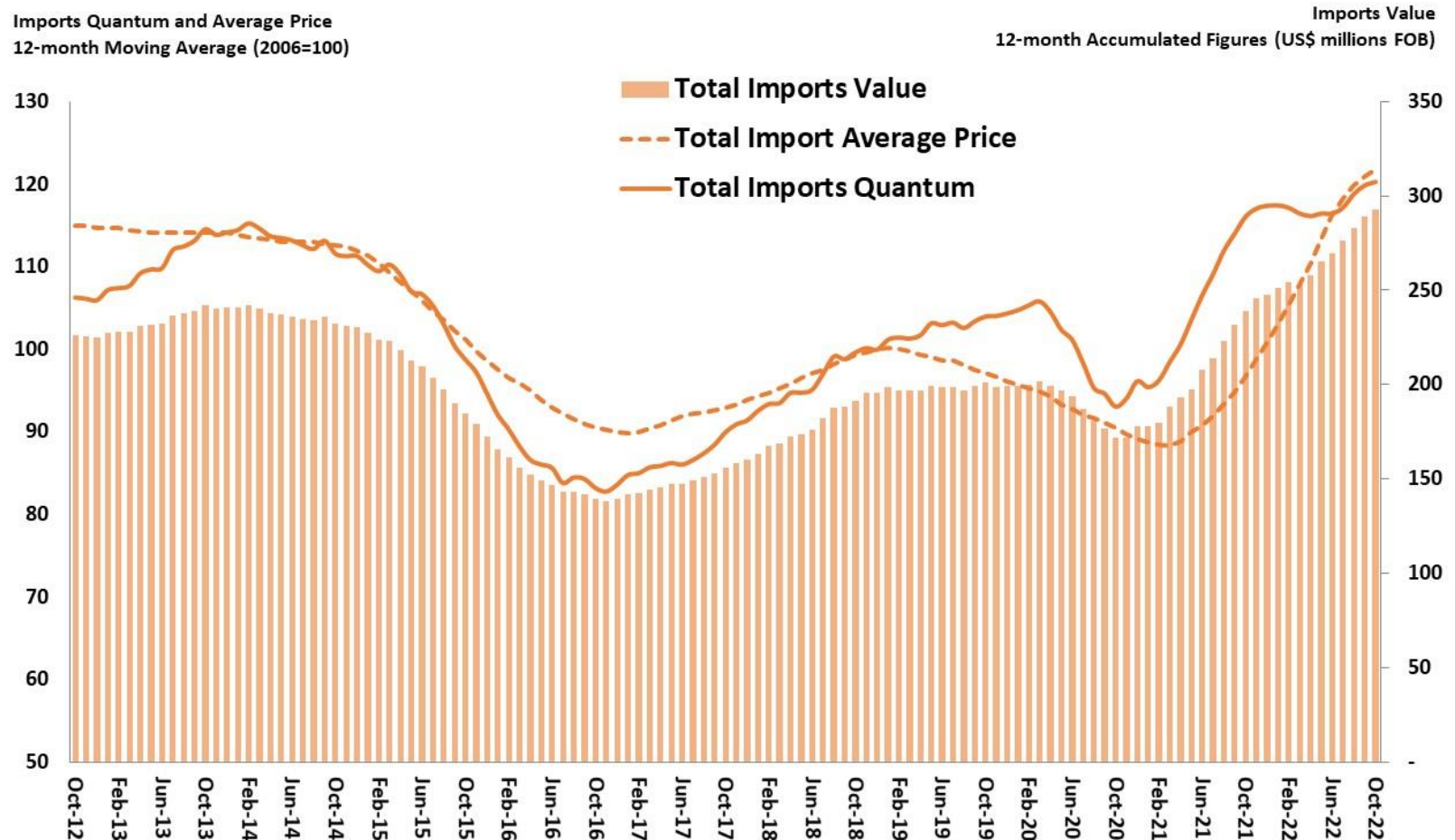
# Quantum of Total Exports by Economic Categories

Exports Quantum by Economic Categories  
12-month Moving Average (2006=100)



Source: FUNCEX.

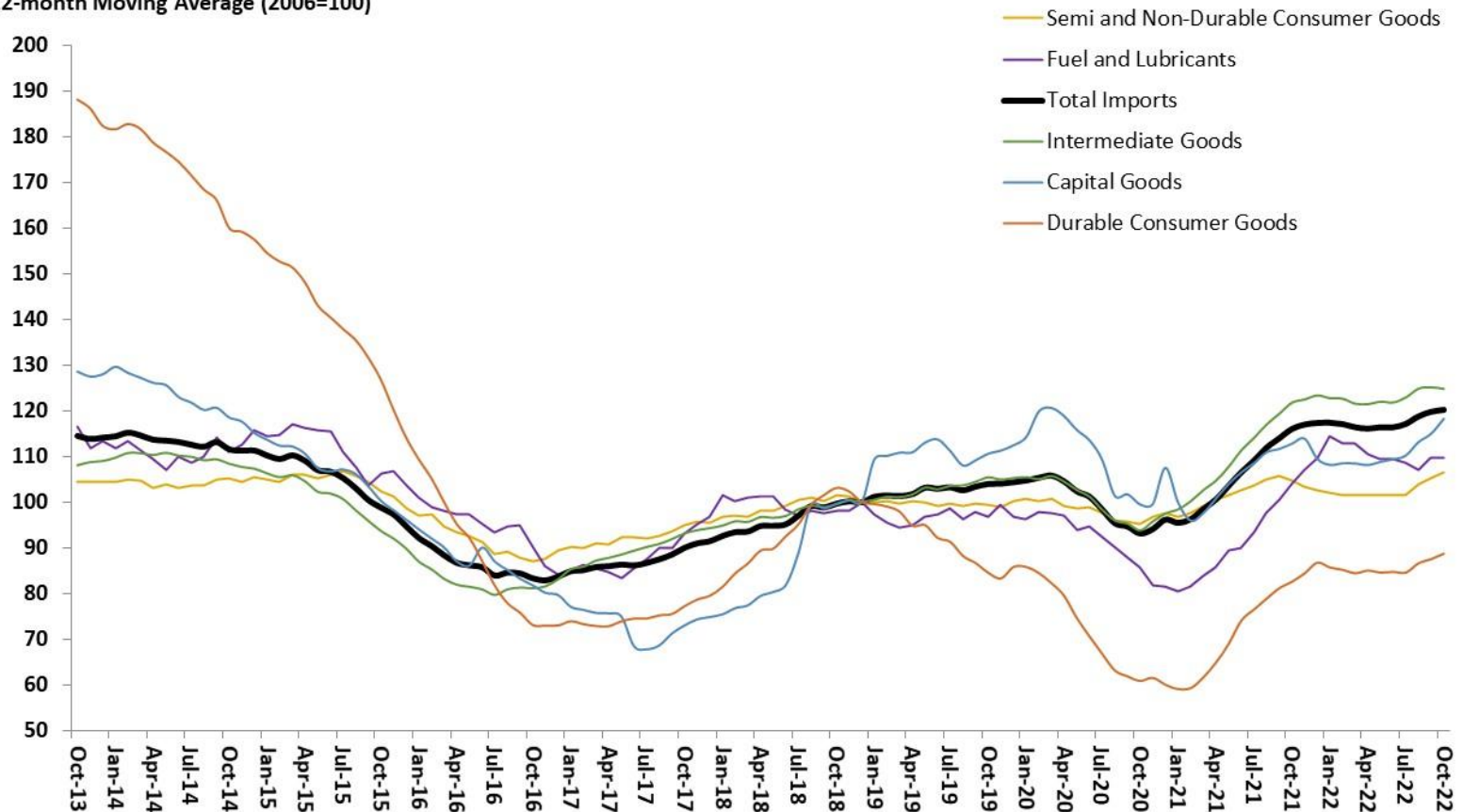
# Total Imports: value, quantum and price



Sources: SECEX and FUNCEX.

# Quantum of Total Imports and by Economic Categories

Imports Quantum by Economic Categories  
12-month Moving Average (2006=100)

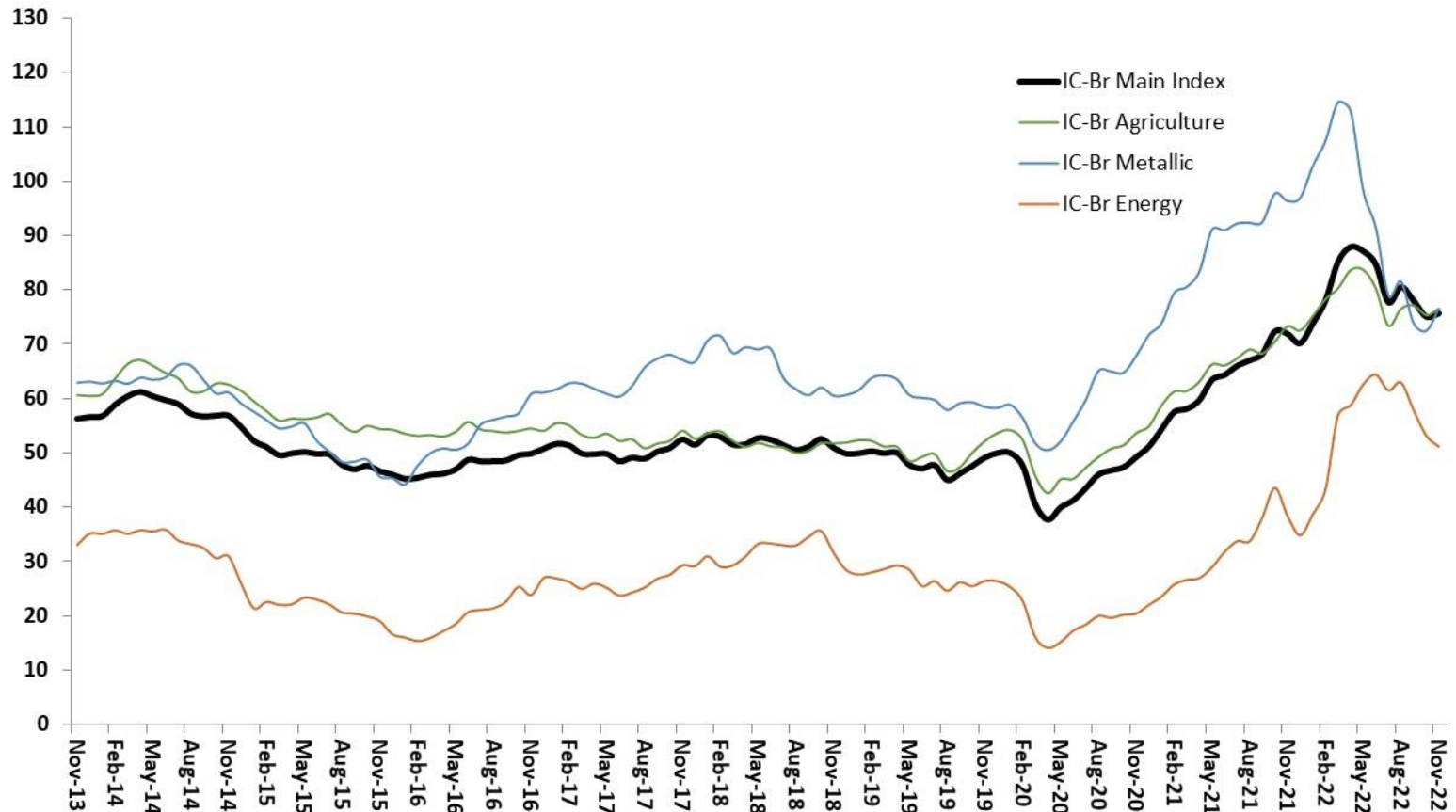


Source: FUNCEX.

# Brazilian Commodity Price Indices

FOREIGN TRADE

Brazilian Commodity Index (IC-Br)  
12-month Moving Average (2006=100)



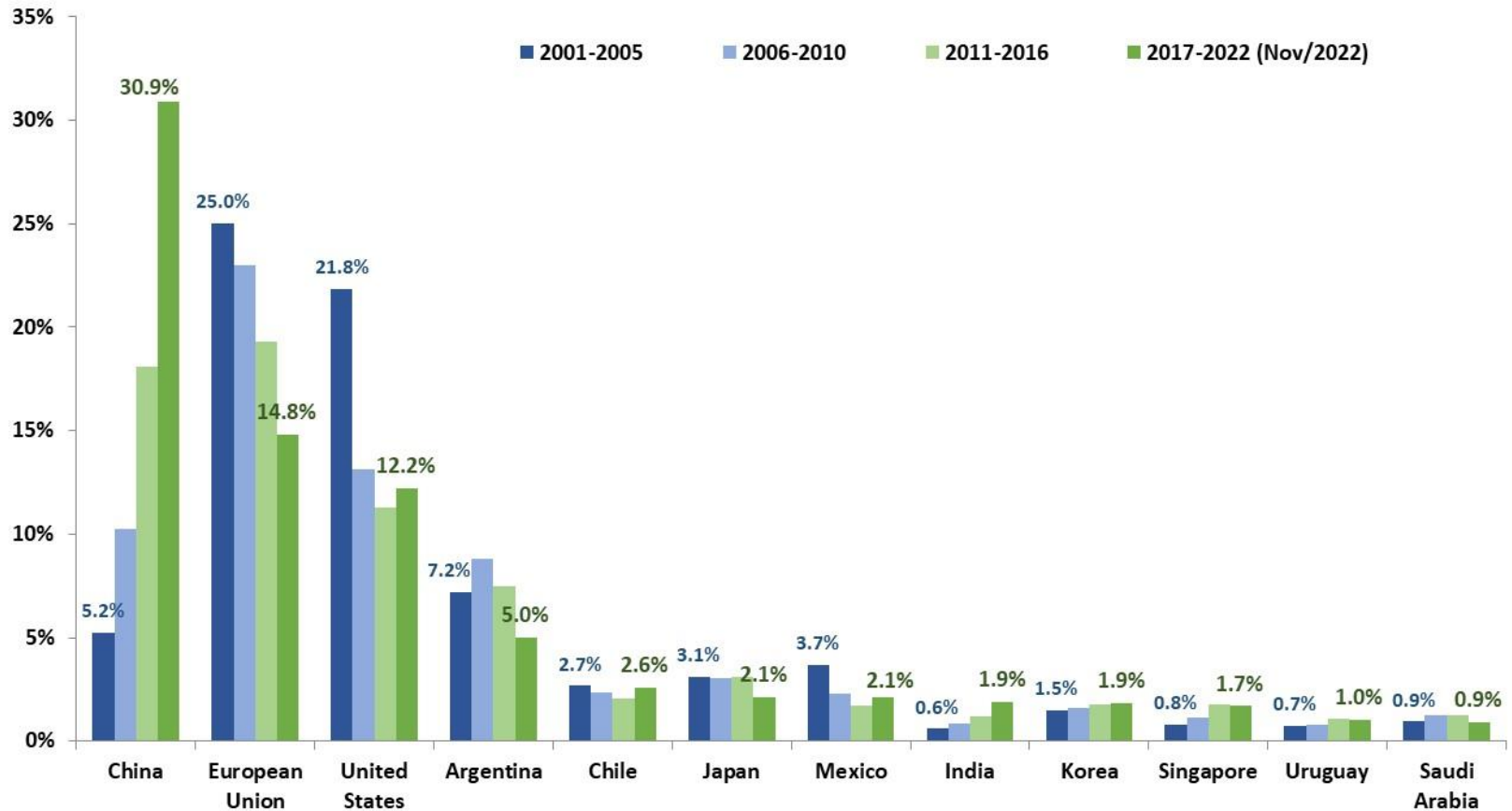
Source: Central Bank of Brazil.



# Brazilian Exports Evolution by Country of Destination

FOREIGN TRADE

% of Exports Value

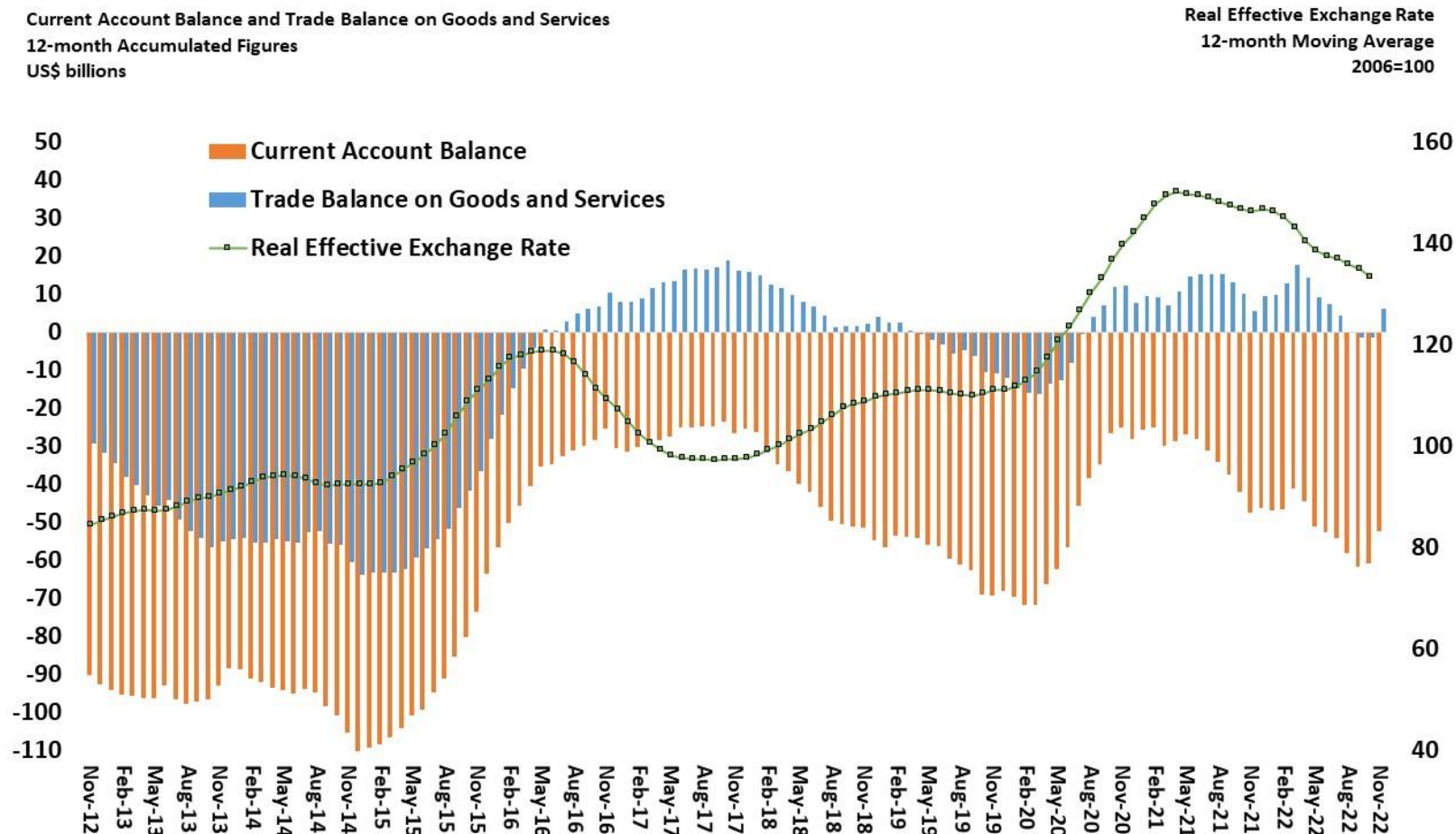


Source: SECEX.



# External Sector

										BCB/Focus: 12/16/22		
Balance of Payments (BCB)	November-22											
In US\$ millions	2020	2021	Nov/22 accum. in 12-months	chg.% 2021 / 2020	chg.% Nov/22 accum. 12-m / 2021	chg.% Oct/22 - Oct/21	chg.% Nov/22 - Nov/21	chg.% - Jan Oct/22 - Jan-Oct/21	chg.% - Jan Nov/22 - Jan-Nov/21	2022	2023	2024
<b>Balance of Payments</b>	<b>7,806</b>	<b>-4,035</b>	<b>-1,989</b>	<b>-151.7%</b>	<b>-50.7%</b>	<b>-62.7%</b>	<b>-62.8%</b>	<b>-178.1%</b>	<b>-36.4%</b>			
<b>Current Account Balance (CAB)</b>	<b>-28,208</b>	<b>-46,358</b>	<b>-52,357</b>	<b>64.3%</b>	<b>12.9%</b>	<b>-15.9%</b>	<b>-99.3%</b>	<b>100.0%</b>	<b>15.5%</b>	-46.2	-46.0	-45.0
<i>CAB as % of GDP</i>	<i>-1.9%</i>	<i>-2.8%</i>	<i>-2.8%</i>	<i>-0.9 pp</i>	<i>0.0 pp</i>	<i>-0.7 pp</i>	<i>0.1 pp</i>	<i>0.0 pp</i>	<i>0.0 pp</i>			
Balance on Goods	32,369	36,363	44,530	12.3%	22.5%	55.8%	-320.3%	-2.0%	24.3%	337.0	332.3	350.0
Exports	210,707	284,012	338,501	34.8%	19.2%	21.0%	39.3%	35.0%	21.0%	280.0	280.0	290.0
Imports	178,337	247,648	293,971	38.9%	18.7%	18.8%	3.0%	43.1%	20.5%	55.0	59.1	54.1
Balance on Services	-24,657	-26,957	-38,422	9.3%	42.5%	39.3%	-7.7%	6.2%	48.0%			
Primary Income	-38,264	-58,971	-62,313	54.1%	5.7%	-21.9%	-18.4%	54.3%	6.5%			
Secondary Income	2,344	3,207	3,848	36.83%	20.0%	8.5%	47.9%	38.6%	21.9%			
<b>Capital Account</b>	<b>4,141</b>	<b>226</b>	<b>249</b>	<b>-94.6%</b>	<b>10.2%</b>	<b>-8.6%</b>	<b>-35.5%</b>	<b>-45.3%</b>	<b>11.0%</b>			
<b>Financial Account</b>	<b>-16,260</b>	<b>-50,168</b>	<b>-54,097</b>	<b>208.5%</b>	<b>7.8%</b>	<b>-30.5%</b>	<b>-105.6%</b>	<b>275.3%</b>	<b>8.9%</b>			
Direct Investments	-41,254	-30,200	-59,154	-26.8%	95.9%	247.7%	131.1%	-33.3%	98.4%			
Foreign Direct Investments (FDI)	37,786	46,439	77,112	22.9%	66.0%	64.2%	65.7%	40.7%	59.4%	80.0	77.0	80.0
Portfolio Investments	12,882	-7,881	4,933	-161.2%	-162.6%	-12.4%	100.5%	-142.3%	-100.0%			
Stock Market	7,701	-901	-5,795	-111.7%	543.4%	260.2%	-1037.8%	-116.7%	261.7%			
Bonds	-3,822	-14,913	18,001	290.2%	-220.7%	-107.6%	-70.3%	-694.3%	-199.1%			
Others Investments and Capital Flows	12,111	-12,087	124	-199.8%	-101.0%	-111.4%	-352.5%	-150.8%	-227.9%			
<b>International Reserves - liquidity concept</b>	<b>355,620</b>	<b>362,204</b>	<b>331,505</b>	<b>1.9%</b>	<b>-8.5%</b>	<b>-11.5%</b>	<b>-9.9%</b>					
<b>Gross External Debt (BCB)</b>	<b>November-22</b>											
In US\$ millions	2020	2021	Nov-22	2020 % of total	Nov/22 % of total	chg. pp	2020 % of GDP	Nov/22 % of GDP	chg. pp			
<b>Total External Debt</b>	<b>619,416</b>	<b>670,286</b>	<b>676,312</b>	<b>100.0%</b>	<b>100.0%</b>	-	<b>37.1%</b>	<b>35.9%</b>	<b>-1.2 pp</b>			
<b>Gross External Debt</b>	<b>307,056</b>	<b>325,440</b>	<b>318,987</b>	<b>49.6%</b>	<b>47.2%</b>	<b>-2.4 pp</b>	<b>18.4%</b>	<b>16.9%</b>	<b>-1.5 pp</b>			
Public Sector	82,349	98,455	92,989	26.8%	29.2%	2.3 pp	4.9%	4.9%	0.0 pp			
Private Sector and Public Financial Sector	224,707	226,985	225,998	73.2%	70.8%	-2.3 pp	13.5%	12.0%	-1.5 pp			
Short Term	71,517	78,753	67,742	23.3%	21.2%	-2.1 pp	4.3%	3.6%	-0.7 pp			
Medium and Long Term	235,539	246,687	251,245	76.7%	78.8%	2.1 pp	14.1%	13.3%	-0.8 pp			
<b>Intercompany Loans</b>	<b>245,953</b>	<b>242,107</b>	<b>256,021</b>	<b>39.7%</b>	<b>37.9%</b>	<b>-1.9 pp</b>	<b>14.7%</b>	<b>13.6%</b>	<b>-1.1 pp</b>			
<b>Domestic Bonds with Foreign Investors</b>	<b>66,407</b>	<b>102,739</b>	<b>101,303</b>	<b>10.7%</b>	<b>15.0%</b>	<b>4.3 pp</b>	<b>4.0%</b>	<b>5.4%</b>	<b>1.4 pp</b>			

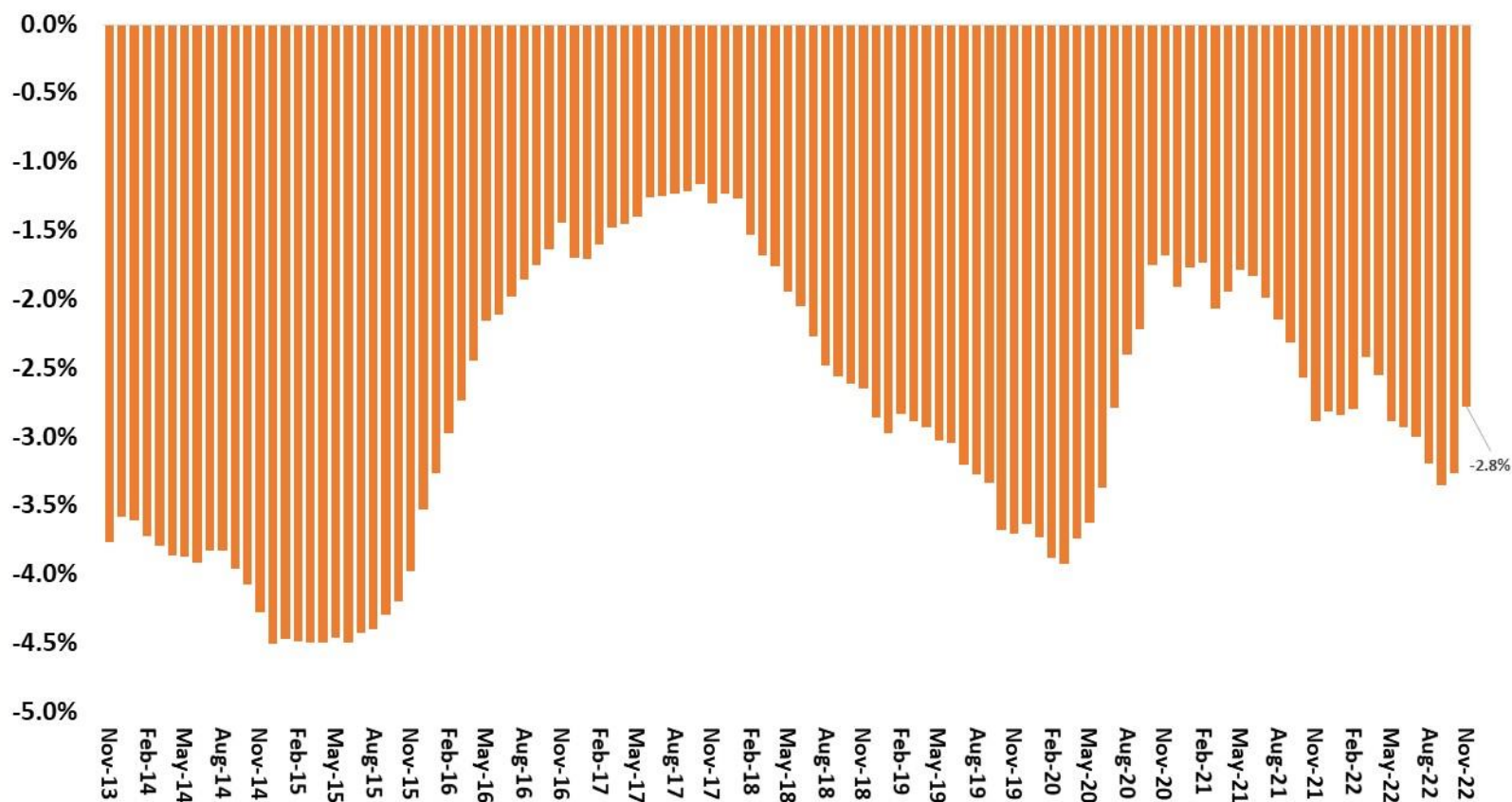


Source: Central Bank of Brazil.

# Current Account Deficit as % of GDP

EXTERNAL SECTOR

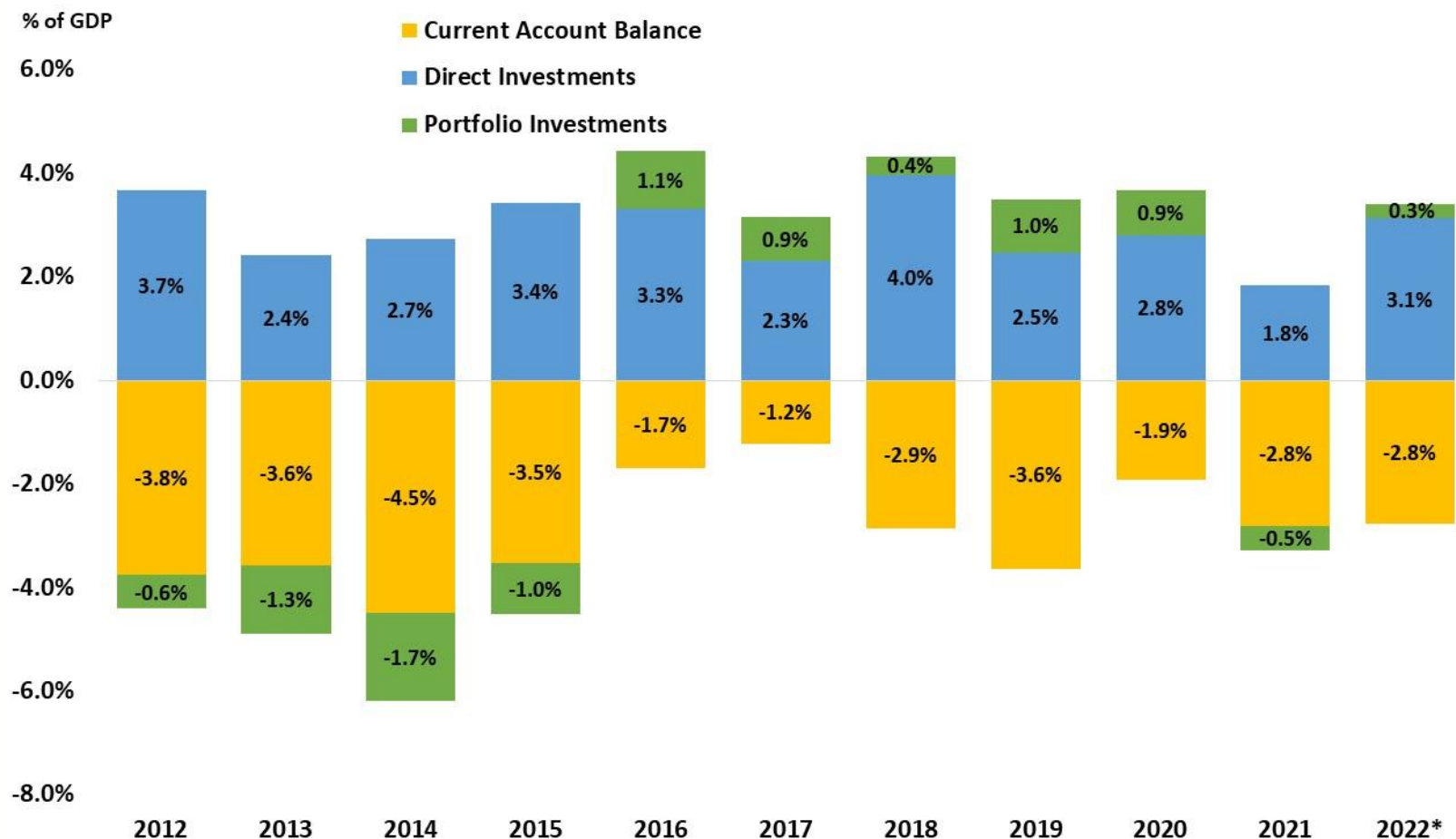
Current Account as % of GDP  
12-month Figures



Source: Central Bank of Brazil.

# Current Account Deficit Financing

EXTERNAL SECTOR

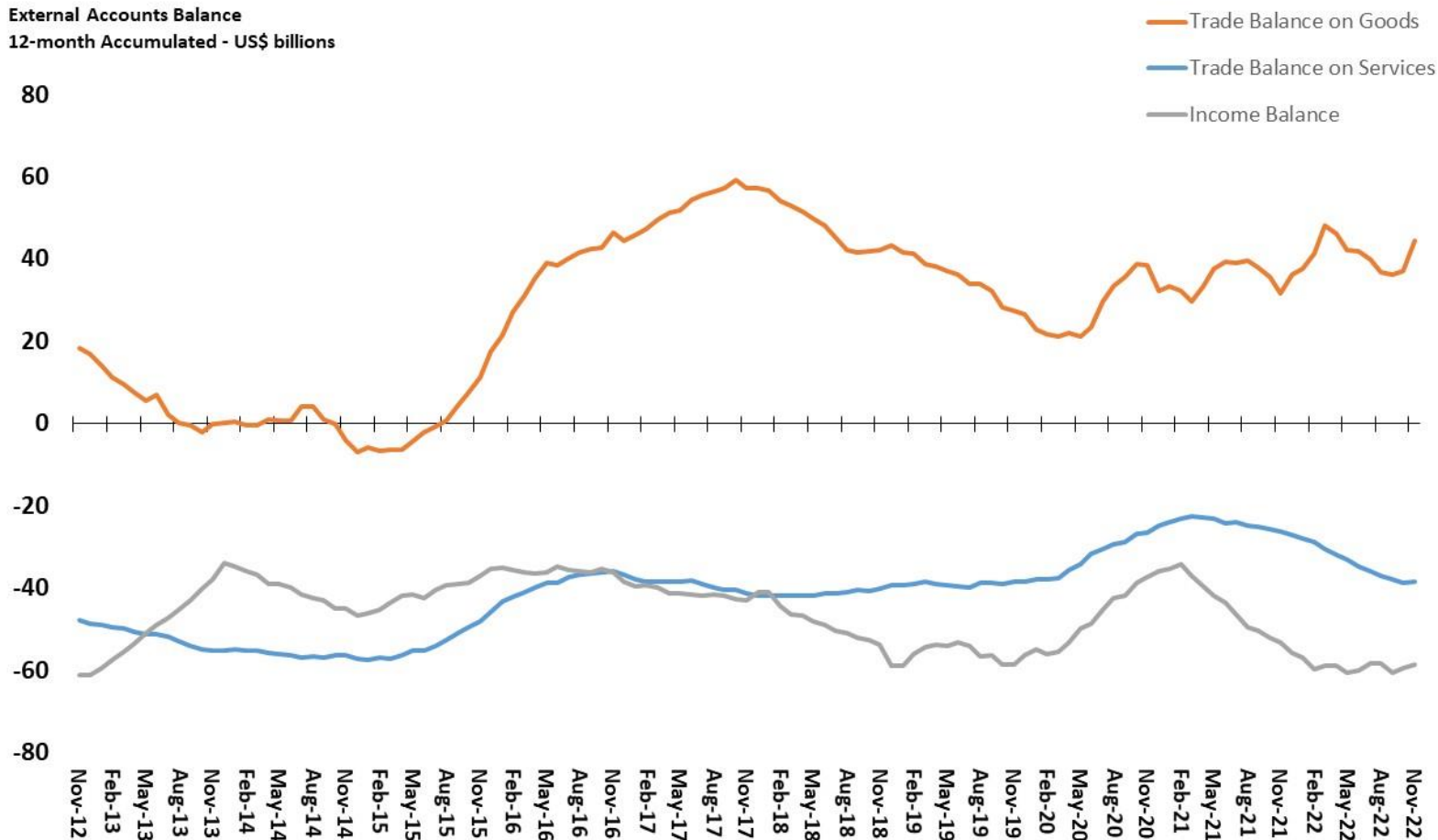


Source: Central Bank of Brazil. \*May/2022.

# Current Account Balance Components

EXTERNAL SECTOR

External Accounts Balance  
12-month Accumulated - US\$ billions

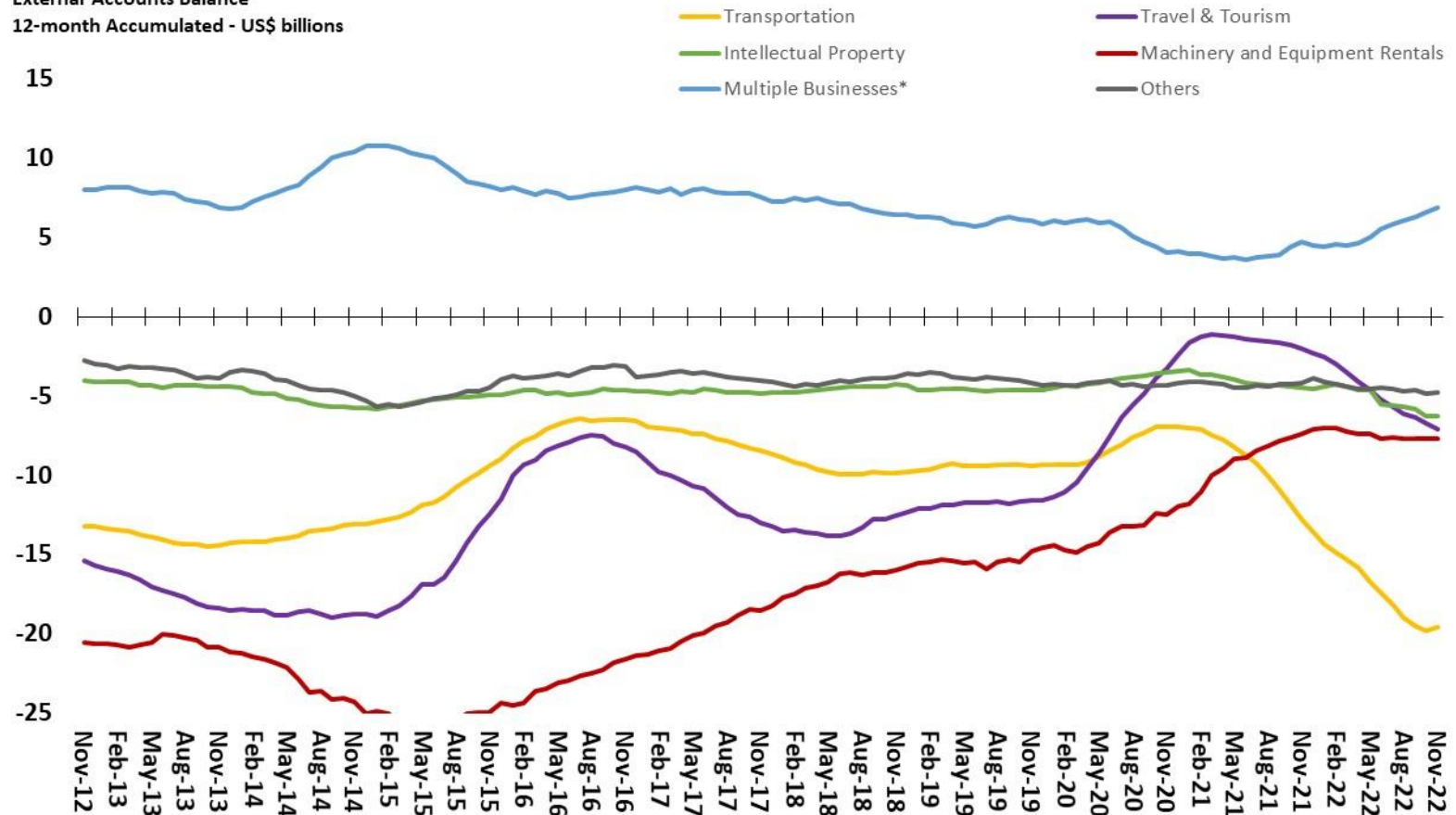


Source: Central Bank of Brazil.

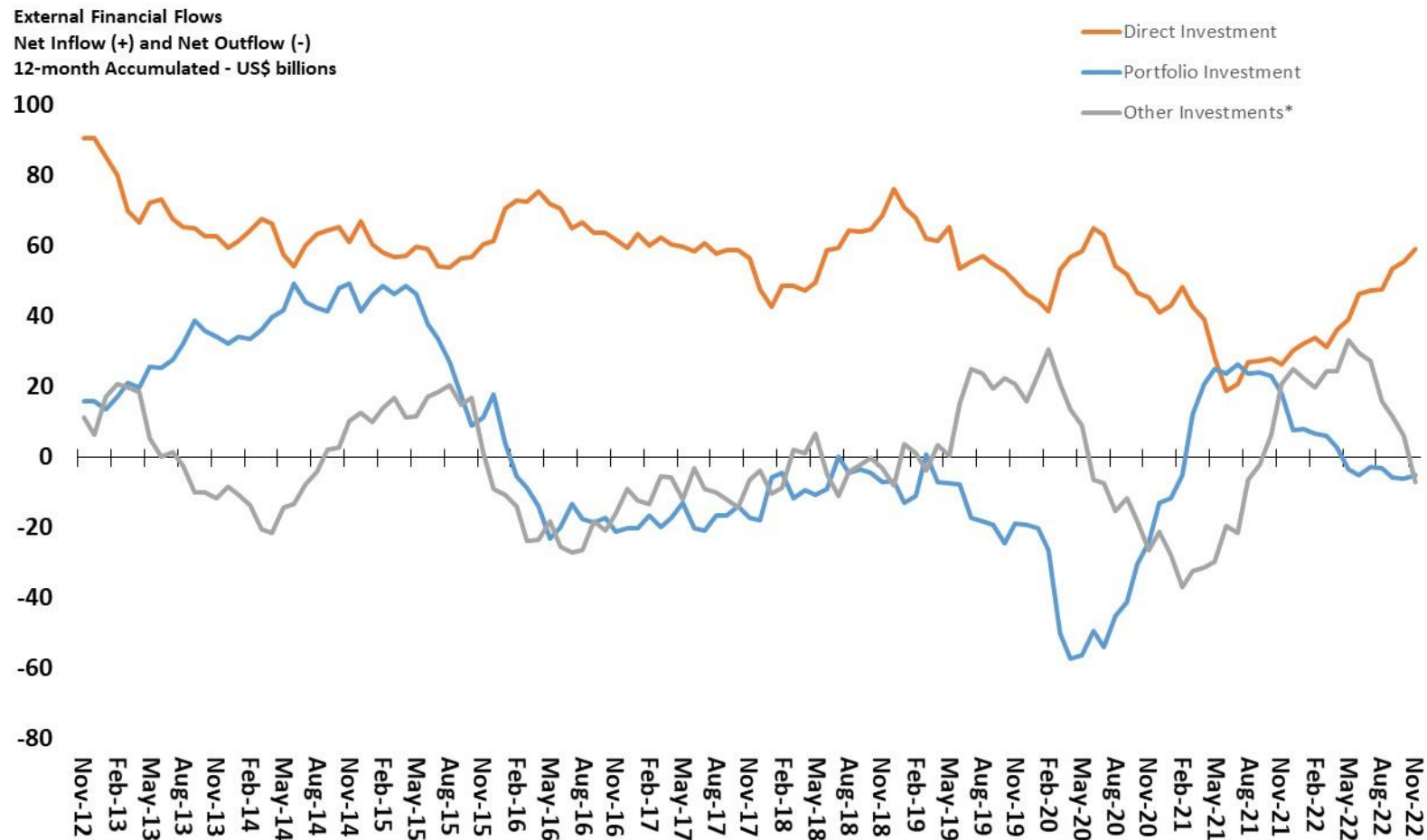
# Service Account Balance and Components

EXTERNAL SECTOR

**External Accounts Balance**  
12-month Accumulated - US\$ billions



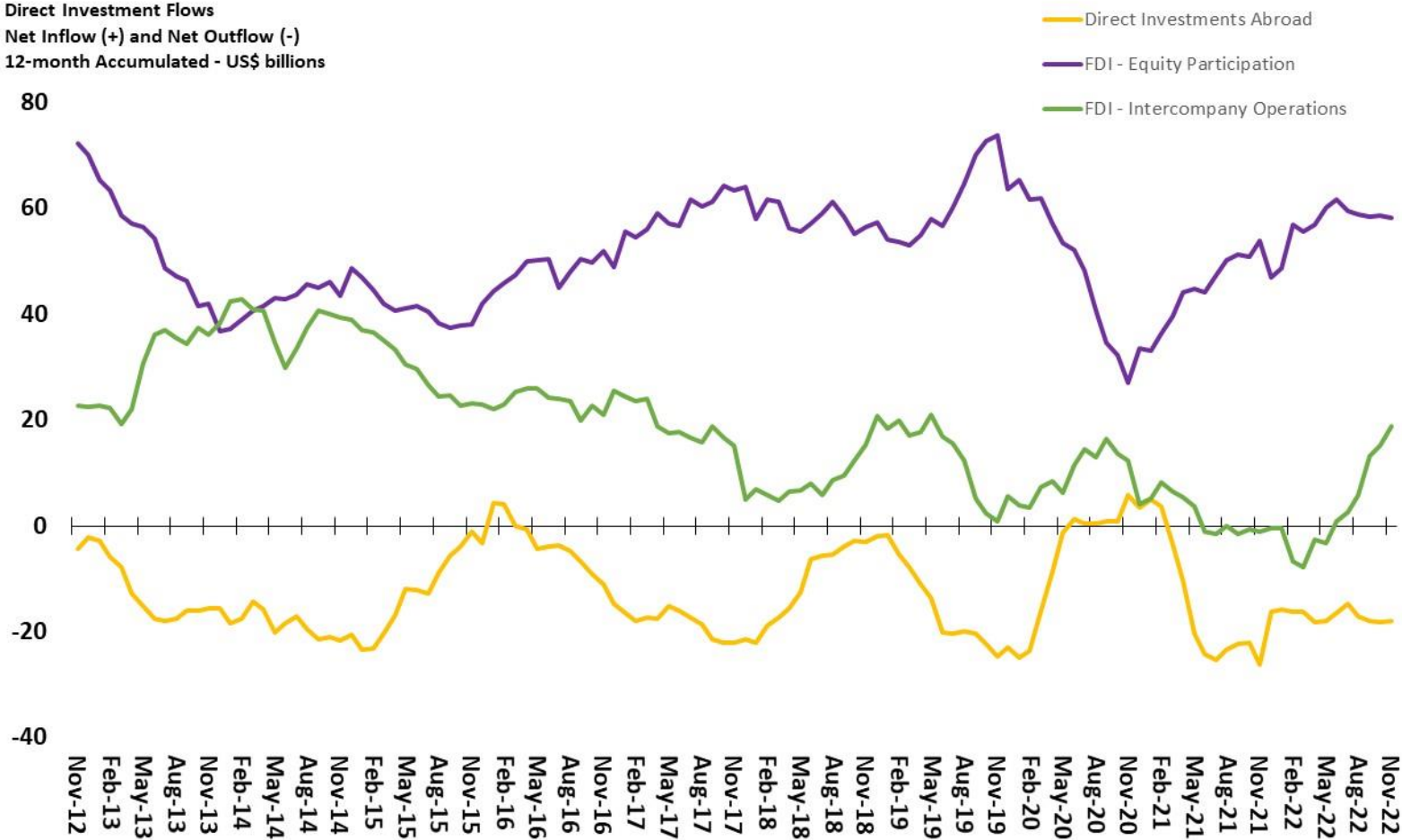
Source: Central Bank of Brazil. \*Includes services of P&D, legal services, marketing, architecture & engineering, environmental services, among others.



Source: Central Bank of Brazil. \*Commercial Credit and Loans.

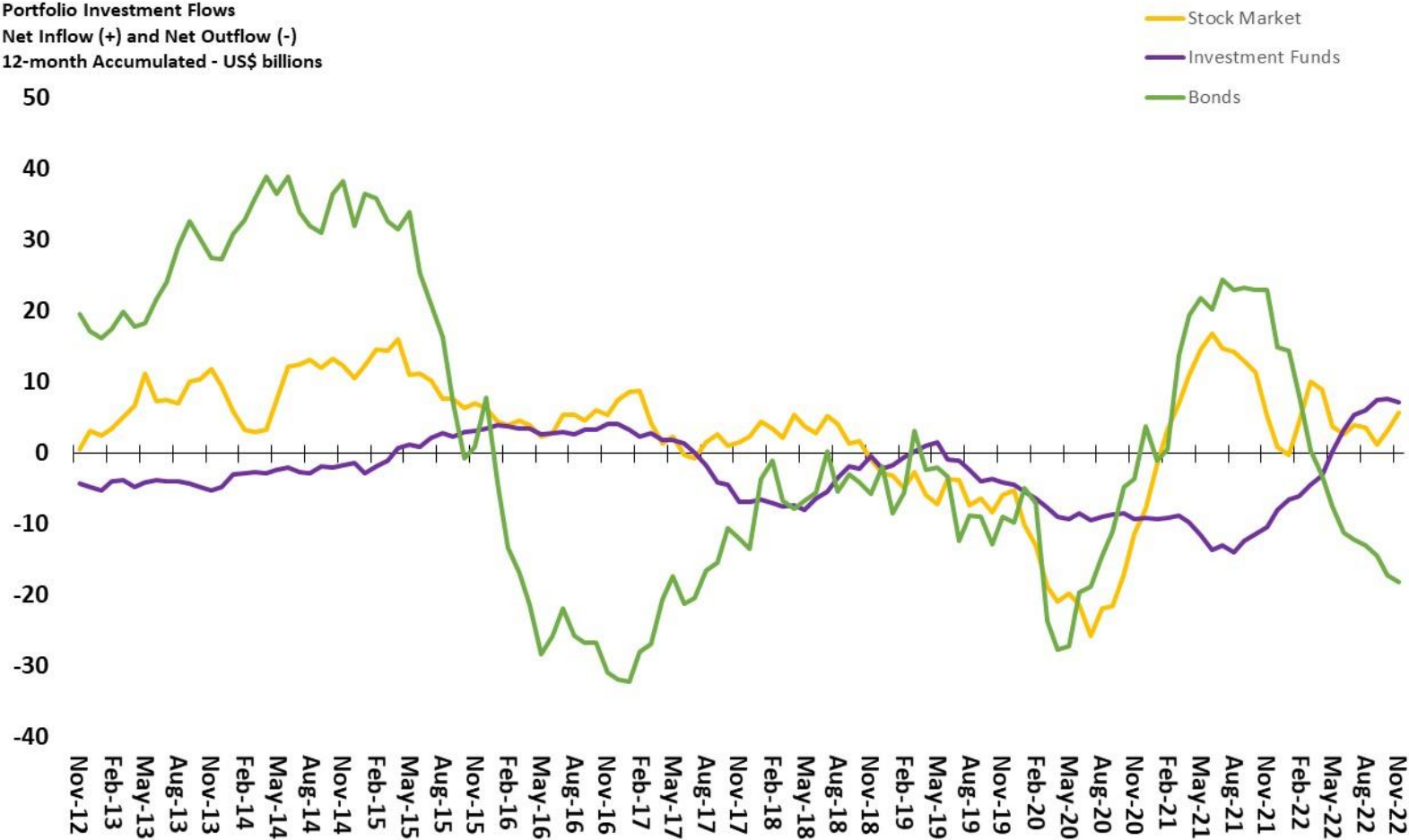


**Direct Investment Flows**  
**Net Inflow (+) and Net Outflow (-)**  
**12-month Accumulated - US\$ billions**

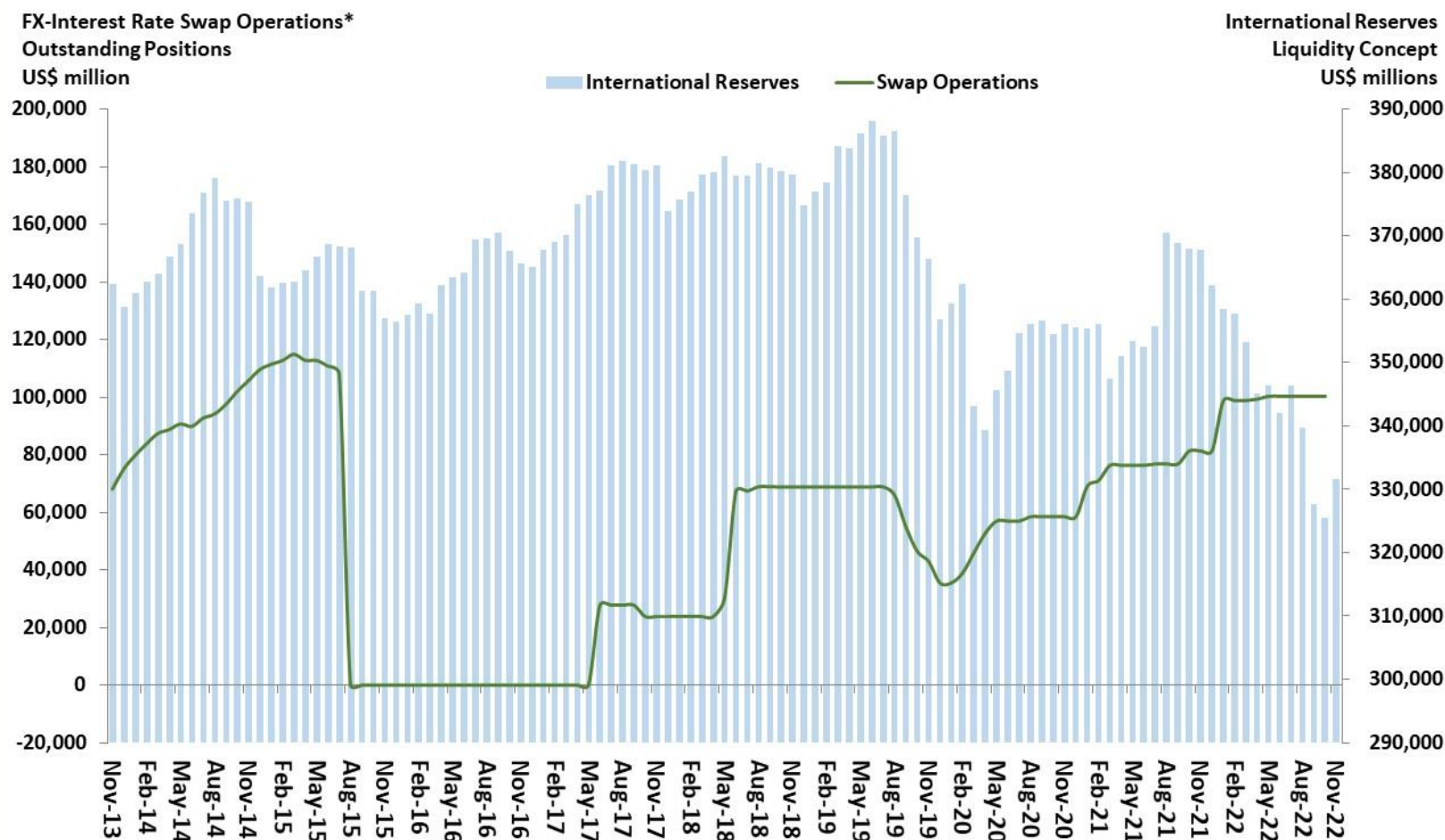


Source: Central Bank of Brazil.

**Portfolio Investment Flows**  
Net Inflow (+) and Net Outflow (-)  
12-month Accumulated - US\$ billions



Source: Central Bank of Brazil.



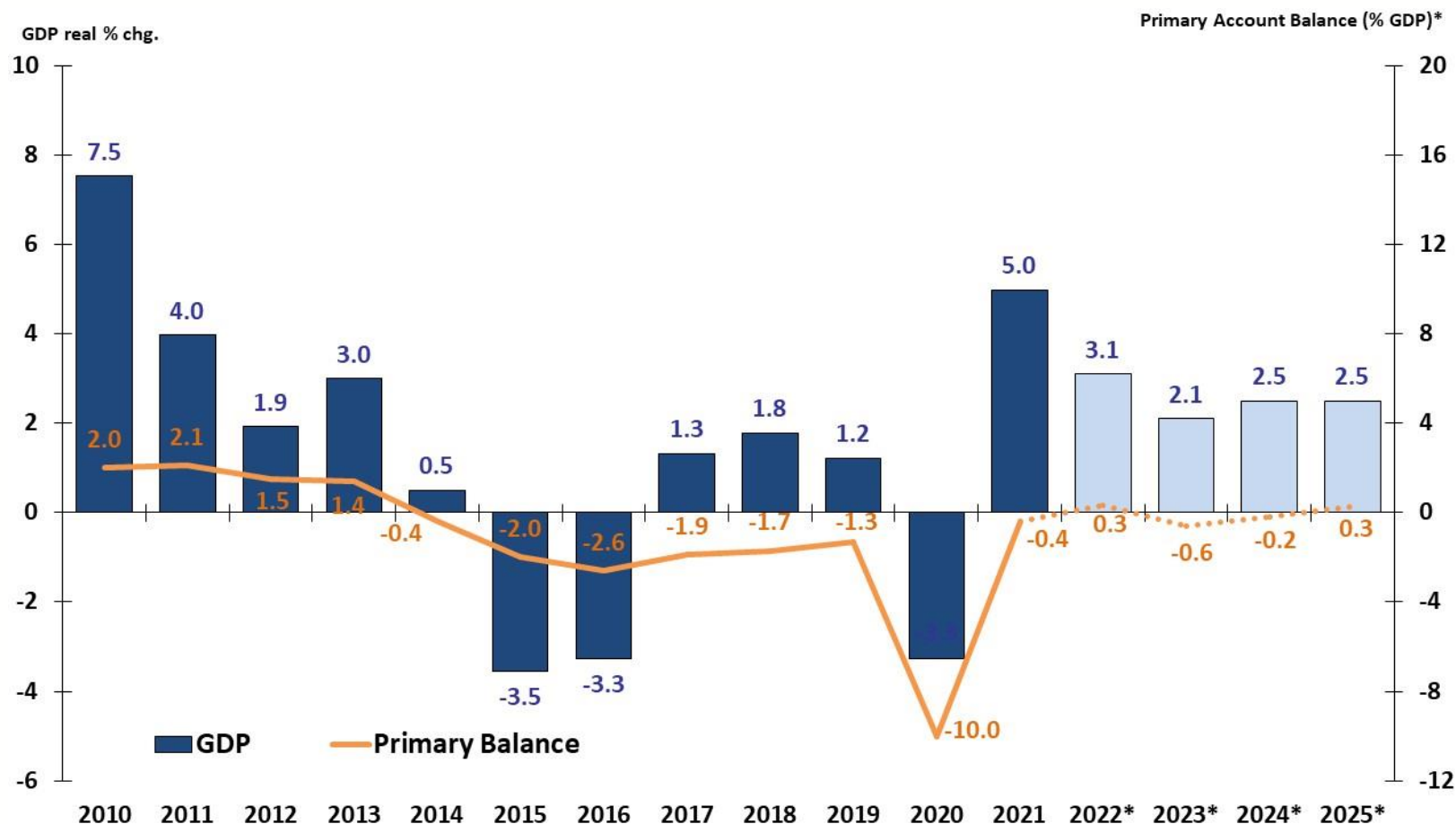
Source: Central Bank of Brazil. \*Positive values represent net sell position on fx and negative values net buy position on fx.

# Public Sector Accounts

# Public Sector Accounts

PUBLIC SECTOR ACCOUNTS

										BCB/Focus: 12/16/22			
Federal Government Accounts	October-22	12-month Acummulated Figures (in R\$ millions)					chg. %			2022	2023	2024	
		2017	2018	2019	2020	2021	Oct/22 accum. in 12- months	2021 / 2020	Dec/17 accum. 12- m / 2016				YTD 2018 / YTD 2017
Federal Budget (National Treasury/Ministry of Finance)													
Total Primary Revenue (a)		1,383,653	1,488,999	1,635,608	1,468,096	1,932,650	2,306,766	31.6%	19.4%	24.4%			
National Treasury		1,008,868	1,097,817	1,222,277	1,063,324	1,470,406	1,503,624	38.3%	2.3%	27.2%			
Social Security General System		374,785	391,182	413,331	404,773	462,244	423,759	14.2%	-8.3%	17.2%			
States and Municipalities Mandatory Transfers (b)		228,335	256,724	288,331	263,798	353,547	368,625	34.0%	4.3%	31.9%			
Net Primary Revenue (a-b)		1,155,318	1,232,276	1,347,277	1,204,298	1,579,103	1,558,758	31.1%	-1.3%	23.2%			
Total Primary Expenditure		1,279,579	1,352,497	1,442,342	1,947,553	1,614,171	1,494,320	-17.1%	-7.4%	10.0%			
National Treasury		722,344	766,118	815,831	1,283,649	904,588	821,895	-29.5%	-9.1%	8.8%			
Social Security General System		557,235	586,379	626,510	663,904	709,583	672,425	6.9%	-5.2%	11.6%			
Federal Government Accounts	October-22	12-month Acummulated Figures (in R\$ millions)					% of GDP						
		2017	2018	2019	2020	2021	Oct/22 accum. in 12- months	2020	2021				Oct/22 accum. in 12- months
Federal Budget (National Treasury/Ministry of Finance)													
Primary Account Balance of Federal Government (STN/MF)		-124,261	-120,221	-95,065	-743,255	-35,068	64,438	-10.0%	-0.4%	0.7%			
National Treasury		58,189	74,976	118,114	-484,123	212,270	313,104	-6.5%	2.4%	3.3%			
Social Security General System		-182,450	-195,197	-213,179	-259,132	-247,338	-248,666	-3.5%	-2.8%	-2.6%			
Consolidate Public Sector Accounts	October-22	12-month Acummulated Figures (in R\$ millions)					% of GDP			2022	2023	2024	
		2017	2018	2019	2020	2021	Oct/22 accum. in 12- months	2020	2021				Oct/22 accum. in 12- months
Public Sector Financial Need (Central Bank of Brazil - BCB)													
Primary Account Balance Target in Law - LDO (% GDP)											0.3%	-0.6%	-0.2%
Primary Account Balance		-110,583	-108,258	-61,872	-702,950	64,727	157,896	-9.4%	0.7%	1.7%	1.3%	-1.0%	-0.8%
Federal Government		-118,442	-116,167	-88,899	-745,266	14,919	65,313	-10.0%	-0.4%	0.7%			
States and Municipalities		7,498	3,492	15,196	38,748	97,694	87,243	0.5%	1.1%	0.9%			
State Owned Companies (except Petrobrás and Eletrobrás)		362	4,417	11,831	3,567	2,906	5,341	0.0%	0.0%	0.1%			
Net Financial Public Expenditure (Debt Interest Payments)		-400,826	-379,184	-367,282	-312,427	-448,391	-477,137	-4.2%	-5.2%	-5.0%			
Nominal Account Balance		-511,408	-487,442	-429,154	-1,015,377	-383,664	-319,241	-13.6%	-4.4%	-3.4%	-5.2%	-8.7%	-6.5%
General Public Sector Debt (BCB)	October-22	Debt Outstanding (in R\$ millions)					chg. %			2022	2023	2024	
		Dec-17	Dec-18	Dec-19	Dec-20	Dec-21	Oct-22	Dec/20 - Dec/19	Dec/21 - Dec/20				Oct/22 - Dec/21
End of Period Debt Outstanding (in R\$ millions)													
Consolidated Public Sector		3,382,942	3,695,837	4,041,769	4,670,004	4,966,921	5,542,541	15.54%	6.36%	11.59%			
Federal Government		2,534,119	2,763,702	3,078,019	3,651,460	4,029,713	4,654,733	18.6%	10.4%	15.5%			
States and Municipalities		789,403	871,134	907,931	954,485	880,490	833,238	5.1%	-7.8%	-5.4%			
State Owned Companies (except Petrobrás and Eletrobrás)		59,420	61,001	55,819	64,060	56,718	54,571	14.8%	-11.5%	-3.8%			
Net Domestic Debt		4,001,077	4,237,861	4,750,944	5,654,808	5,898,308	6,265,892	19.0%	4.3%	6.2%			
Net External Debt		-618,135	-748,749	-709,175	-984,804	-931,387	-723,351	38.9%	-5.4%	-22.3%			
General Public Sector Net Debt (% GDP)		51.4%	52.8%	54.7%	62.5%	57.2%	58.3%	7.8 pp	-5.3 pp	1.1 pp	57.5%	62.2%	64.7%
General Public Sector Gross Debt (% GDP)		73.7%	75.3%	74.4%	88.6%	80.3%	76.8%	14.2 pp	-8.3 pp	-3.5 pp	76.5%	80.7%	84.0%
General Public Sector Gross Debt (in R\$ millions)		5,449,151	5,937,904	6,437,299	7,305,734	8,014,883	8,198,910	13.49%	9.71%	2.30%			

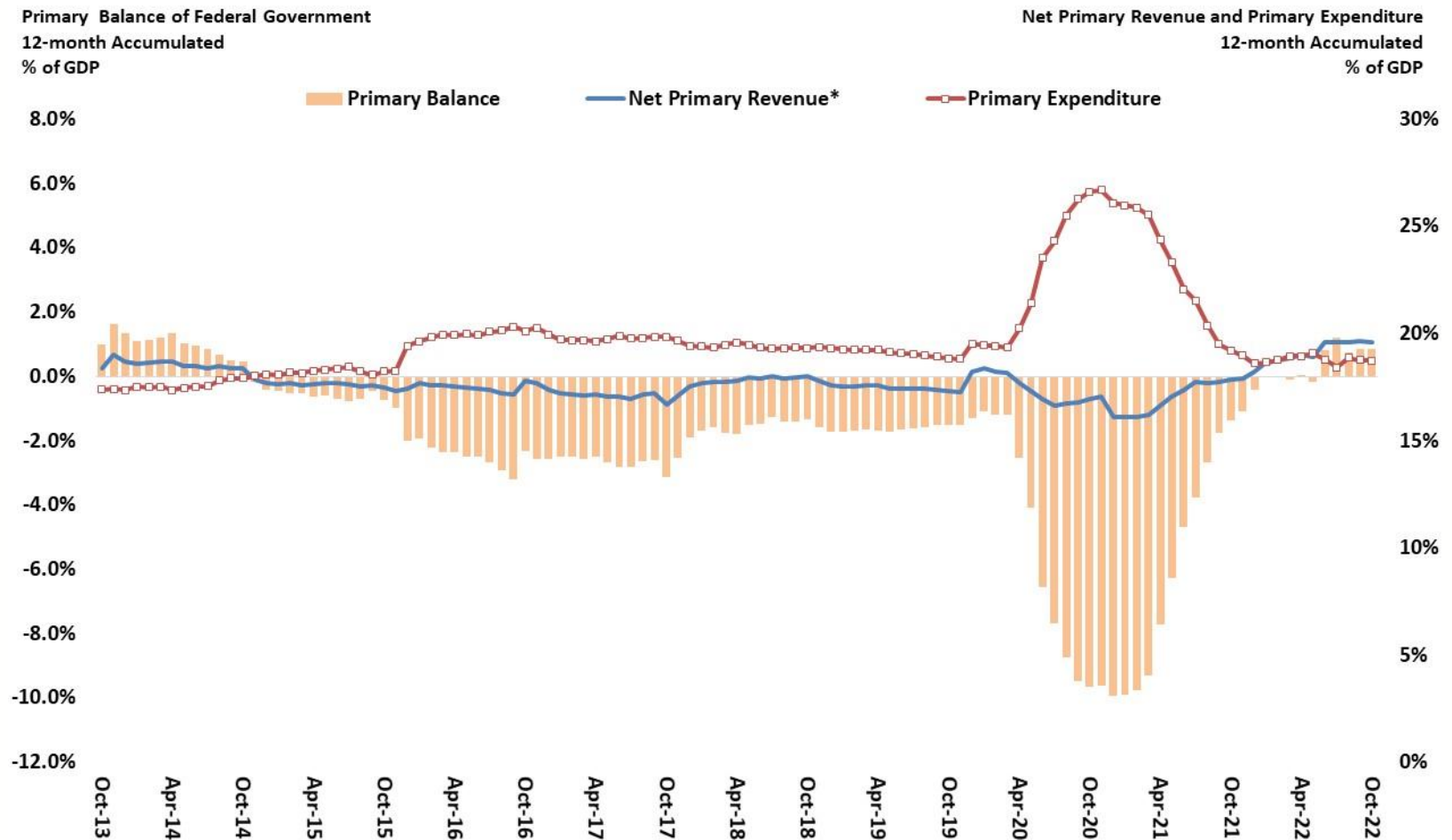


Source: IBGE, STN and Central Bank of Brazil. Primary Account Balance of Federal Government.

\* Annex-Fiscal Targets of Budgetary Guidelines Bill - PLDO 2023; and Macroeconomic Projections from SPE, December/2022.

# Primary Balance of Federal Government (as % GDP)

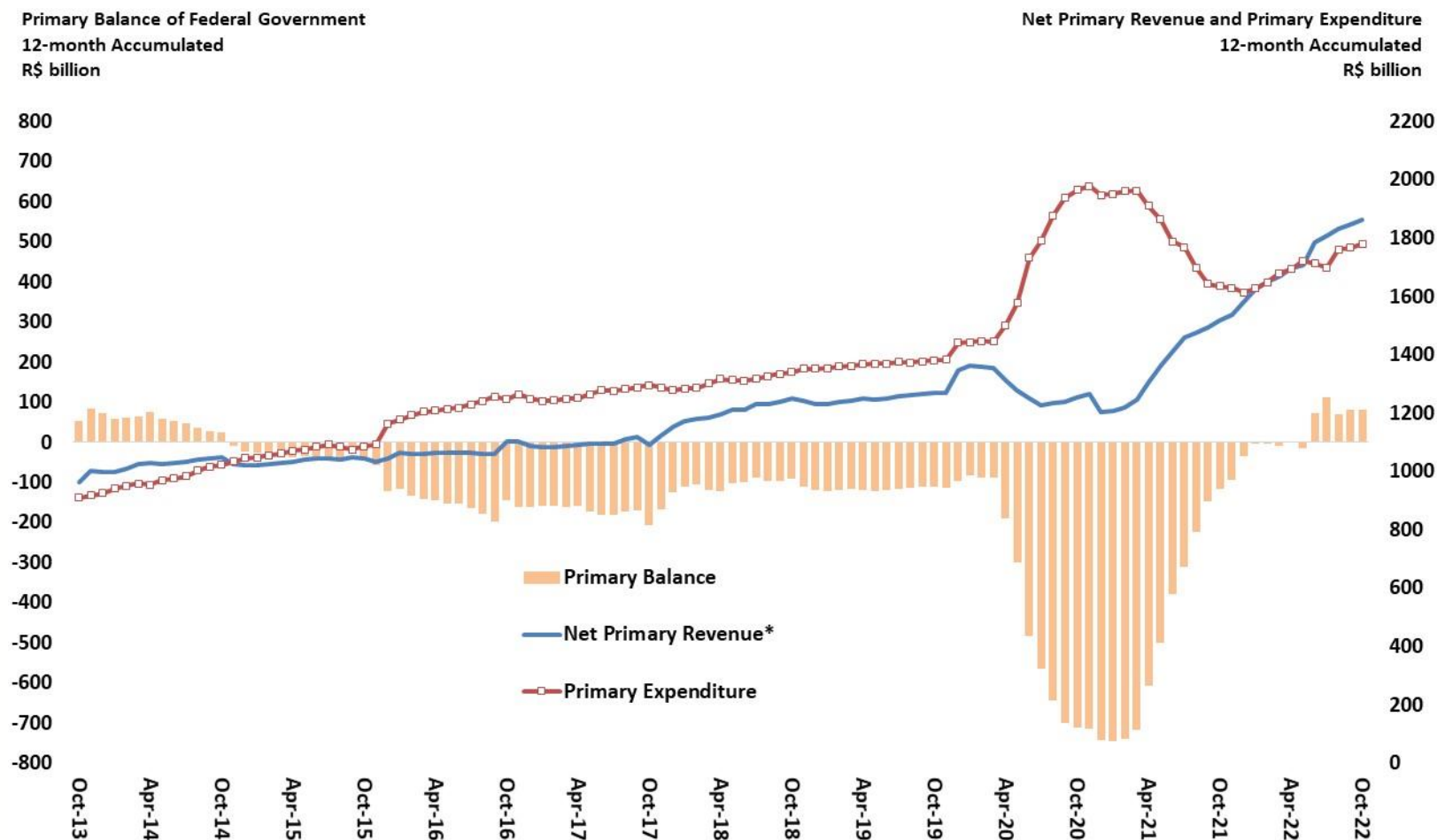
PUBLIC SECTOR ACCOUNTS



Sources: STN/ME. \*Excludes compulsory transfers to subnational entities.

# Primary Balance of Federal Government (nominal values)

PUBLIC SECTOR ACCOUNTS

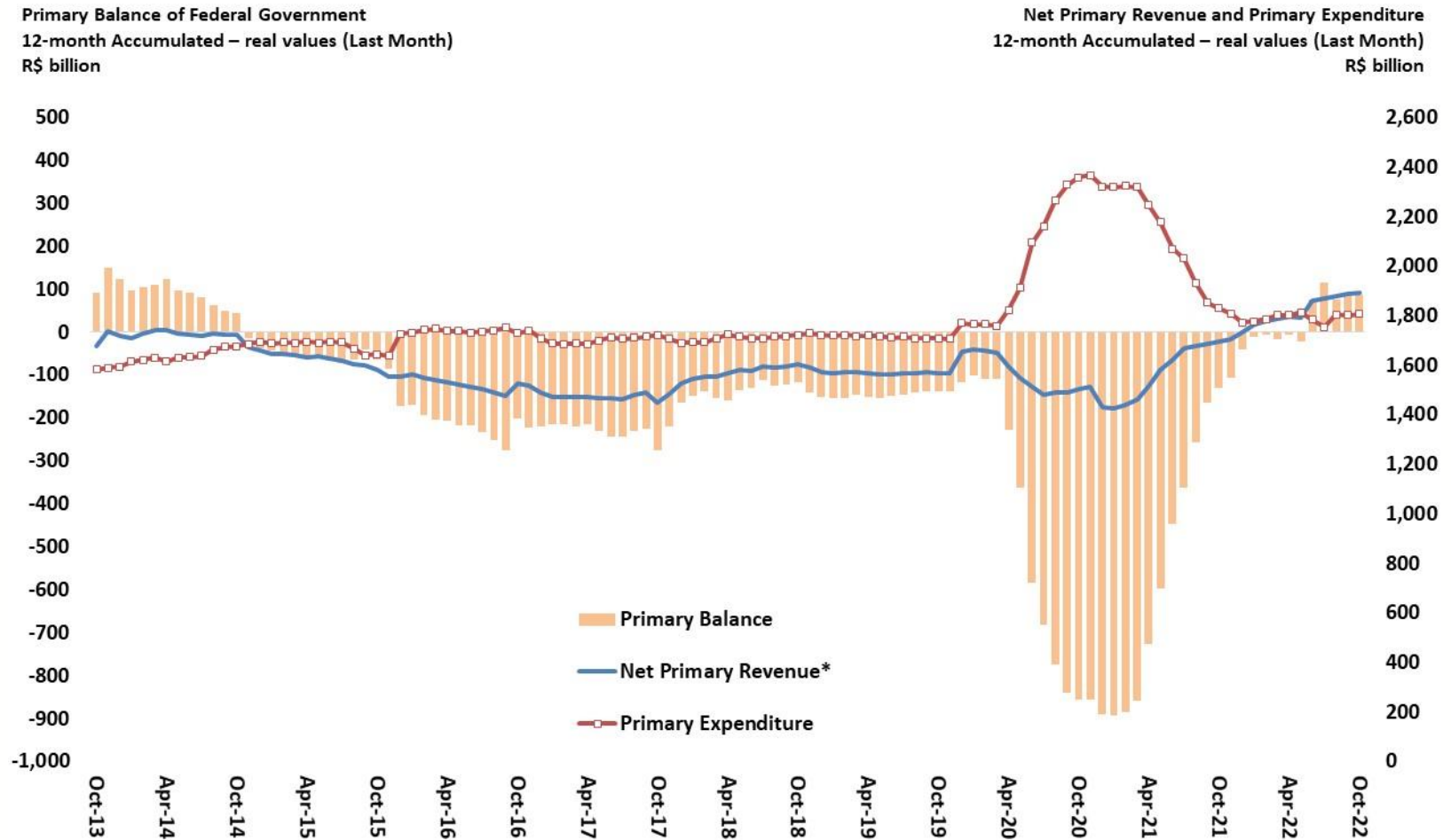


Source: STN/ME. \*Excludes compulsory transfers to subnational entities.



# Primary Balance of Federal Government (real values)

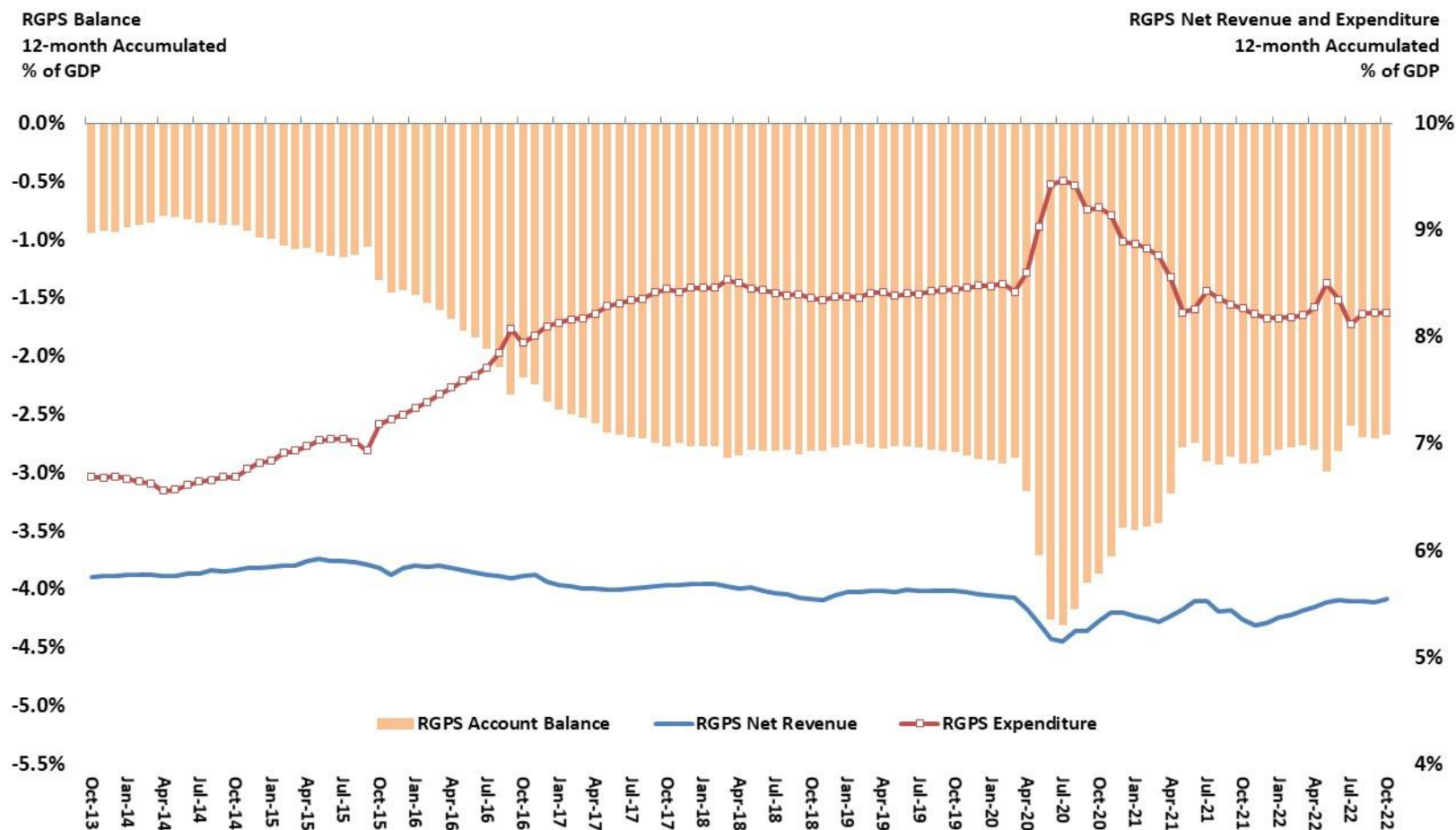
PUBLIC SECTOR ACCOUNTS



Source: STN/ME. \*Excludes compulsory transfers to subnational entities.

# General Social Security System (RGPS) Balance

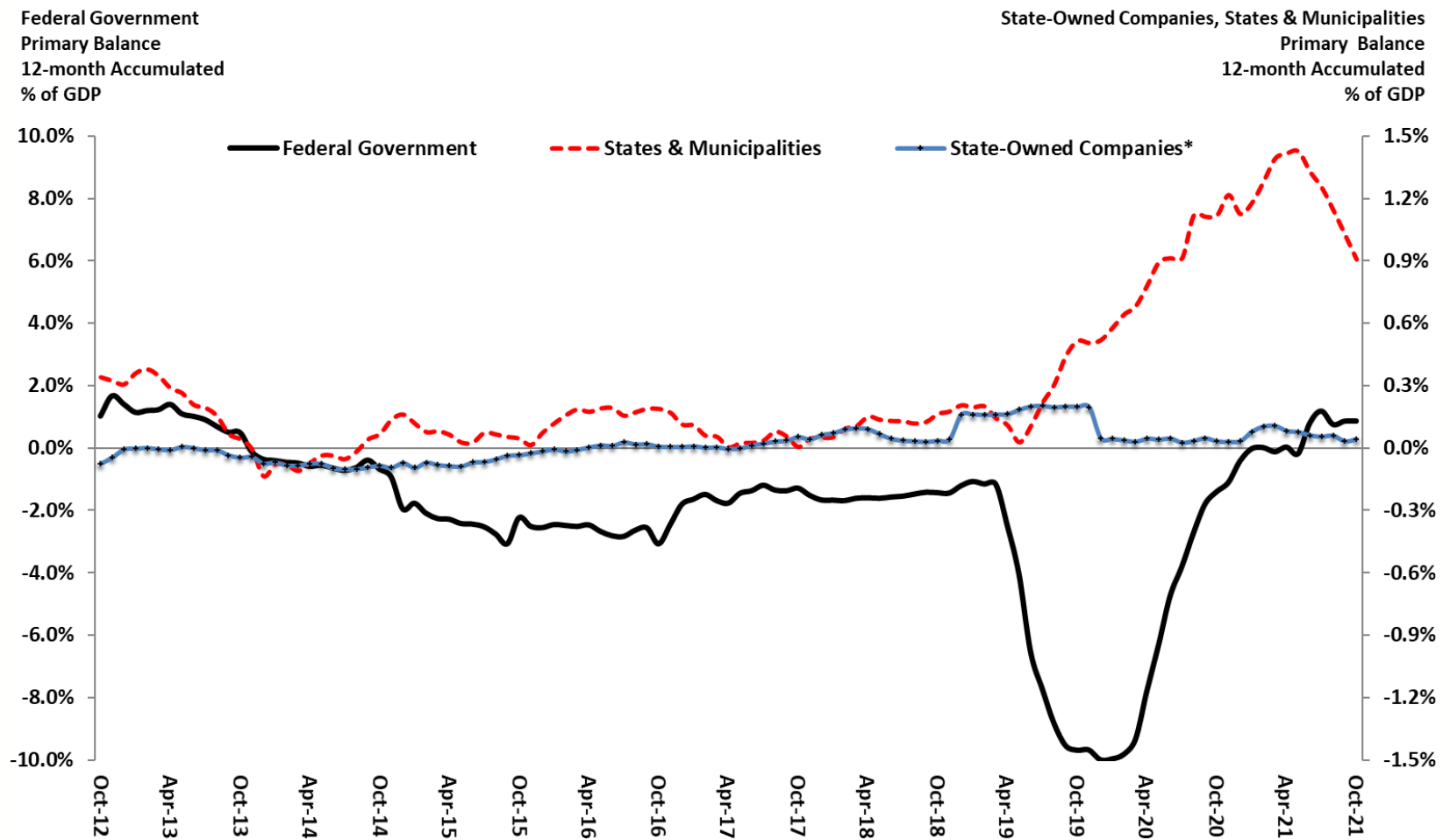
PUBLIC SECTOR ACCOUNTS



Sources: Central Bank of Brazil and STN/ME.

# Public Sector Primary Balance (as % GDP)

PUBLIC SECTOR ACCOUNTS

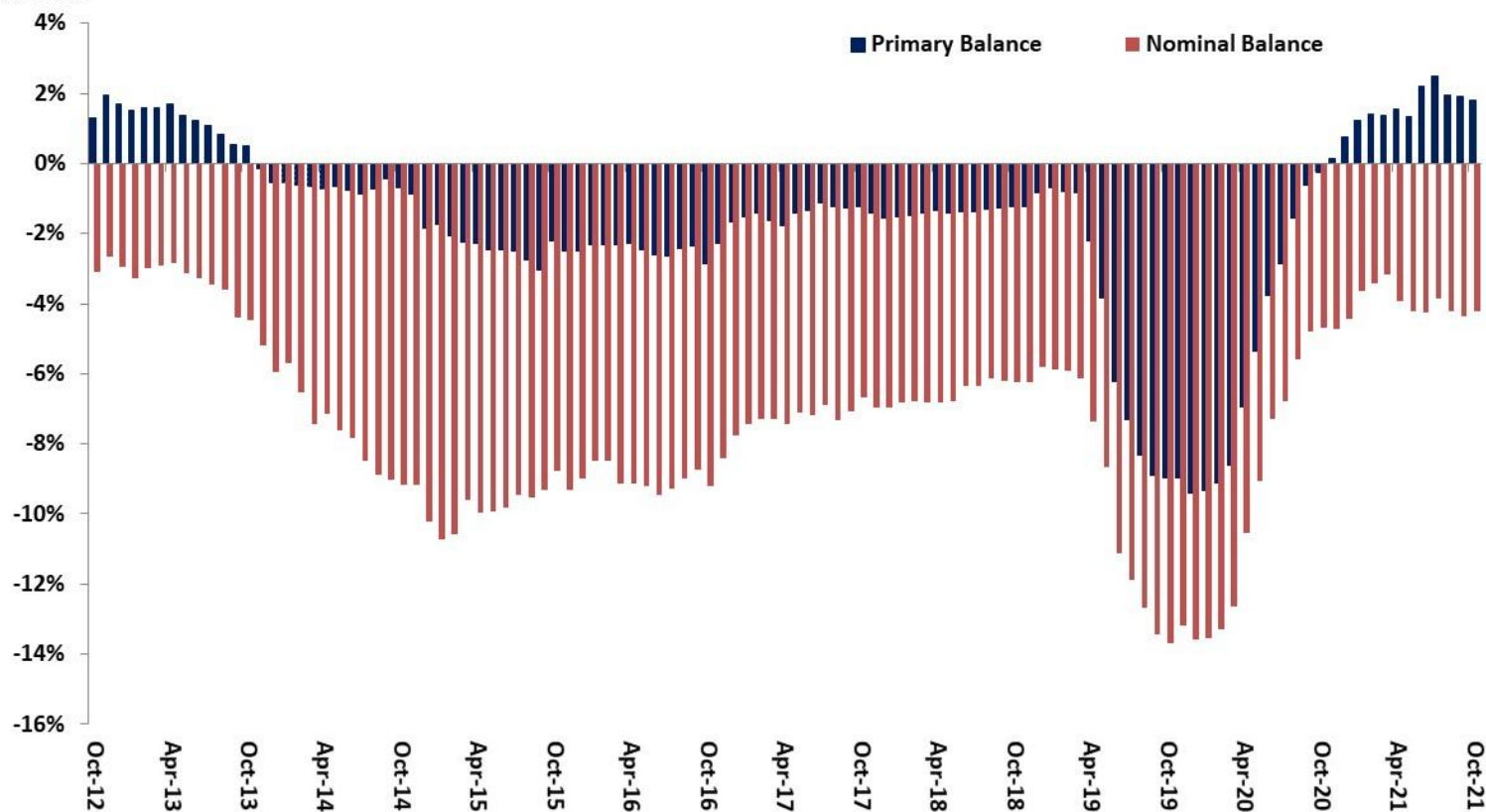


Sources: Central Bank of Brazil. \*Excludes Petrobras and Eletrobras.

# Public Sector Primary and Nominal Balance

PUBLIC SECTOR ACCOUNTS

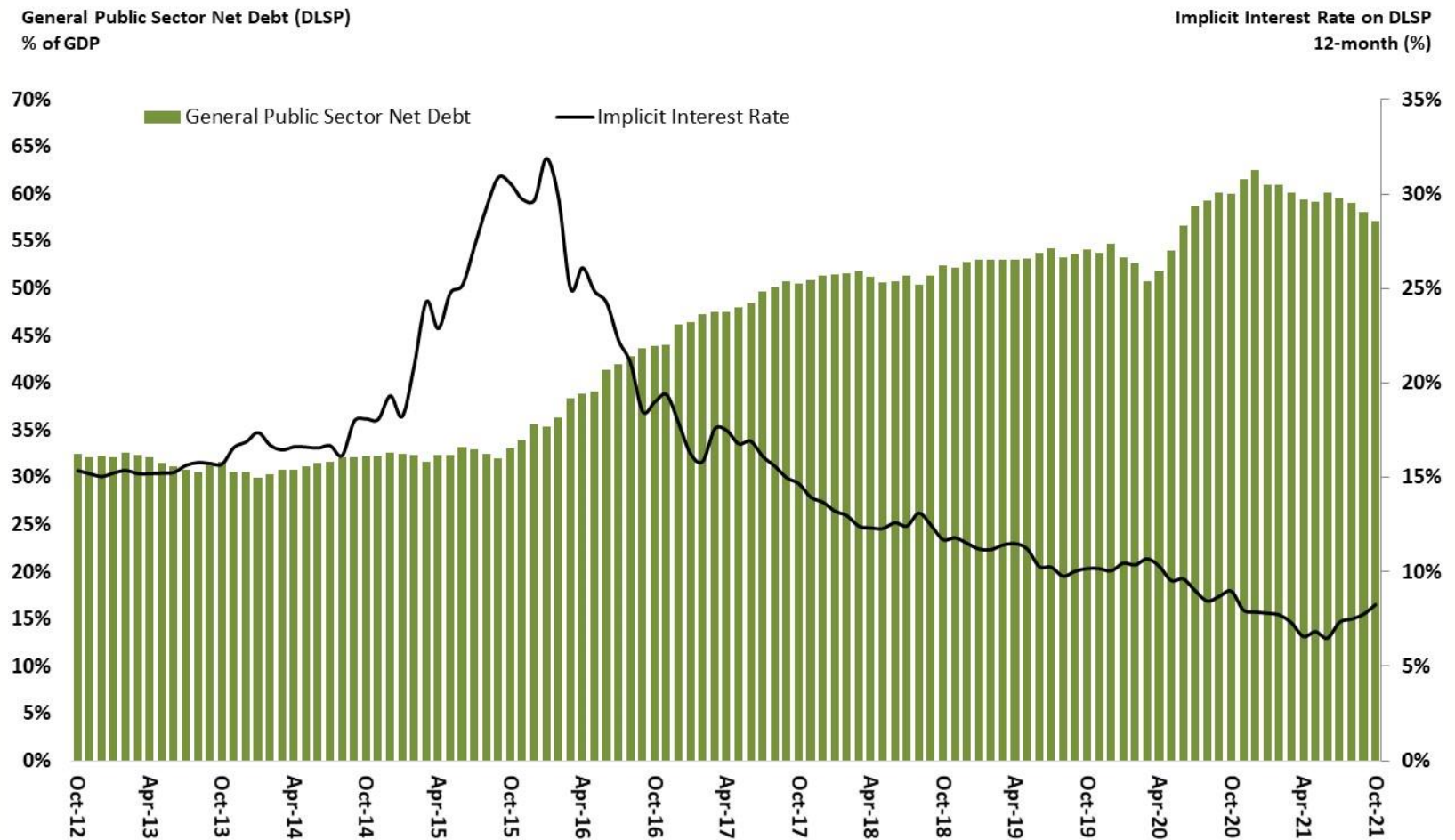
Consolidated Public Sector  
Primary and Nominal Balance  
12-month Accumulated  
% of GDP



Source: Central Bank of Brazil.

# Public Sector Net Debt (as % GDP)

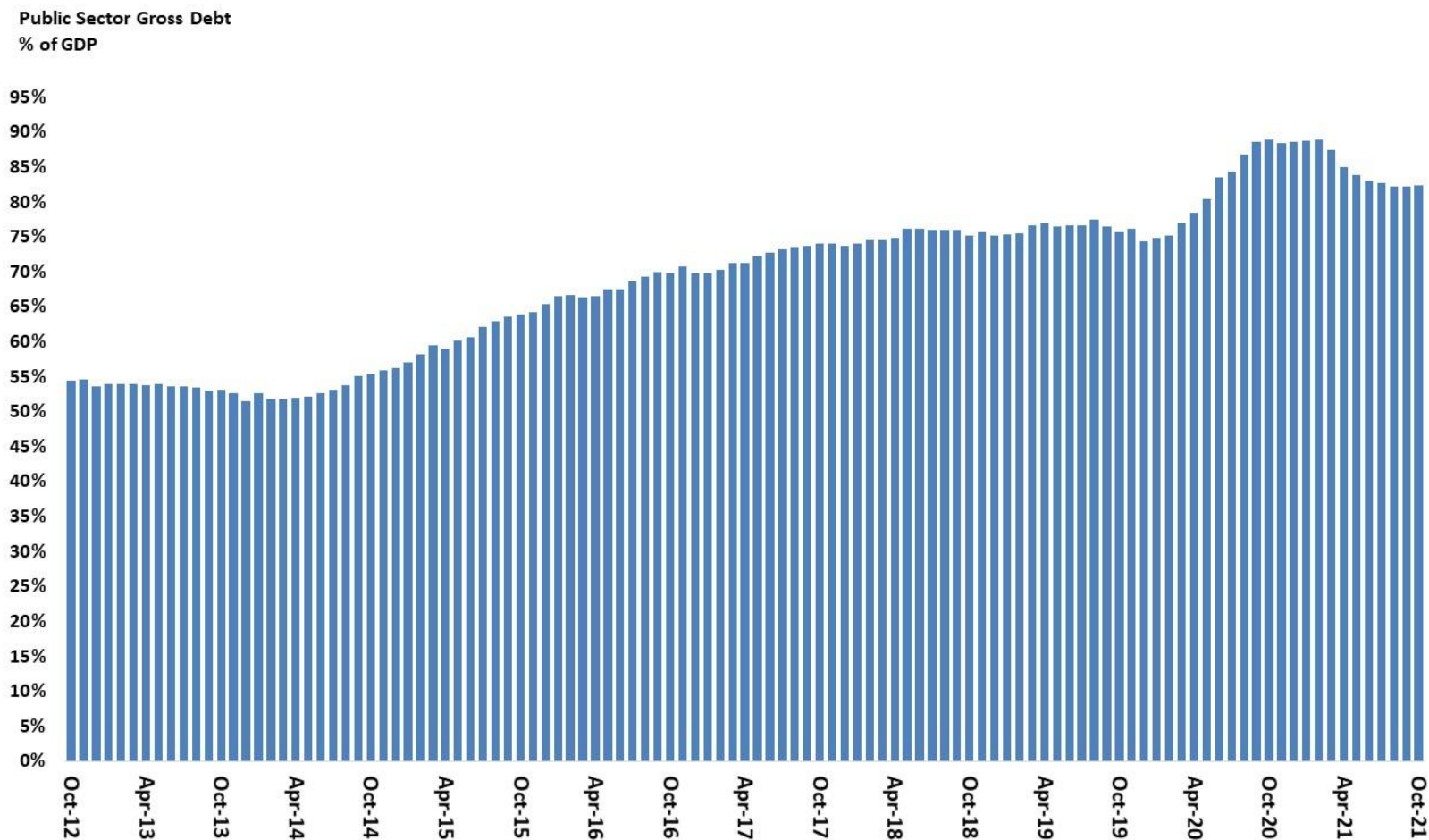
PUBLIC SECTOR ACCOUNTS



Source: Central Bank of Brazil.

# Public Sector Gross Debt (as % GDP)

PUBLIC SECTOR ACCOUNTS



Source: Central Bank of Brazil.

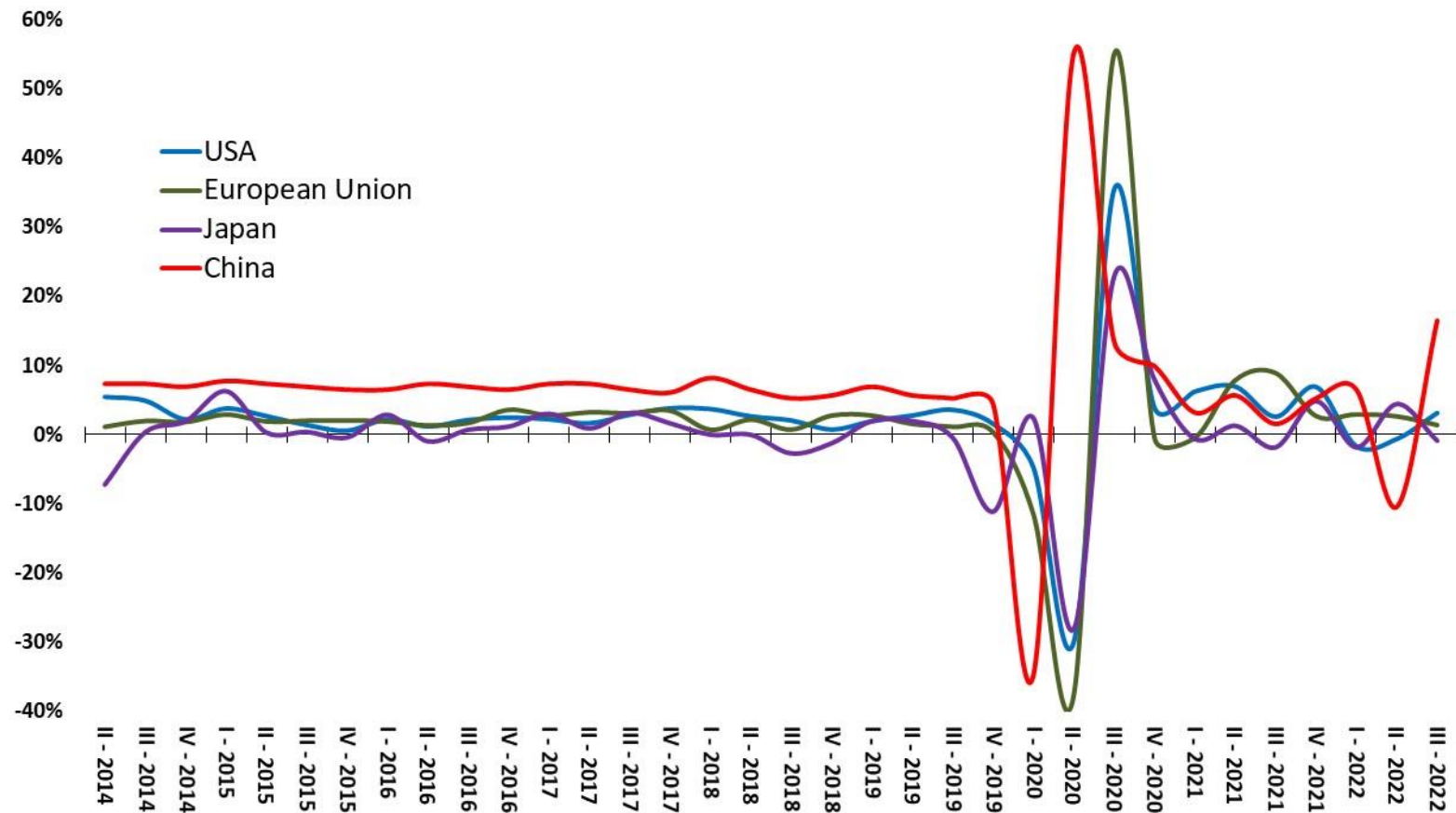
# World Economy

IMF - WEO, Oct. 2022.

World	Q4 2021	2017	2018	2019	2020	2021	Q4-2017 / Q4-2016	Q4-2018 / Q4-2017	Q4-2019 / Q4-2018	Q4-2020 / Q4-2019	Q4-2021 / Q4-2020	2022	2023
data from IMF and WTO													
World Output - GDP	3.8%	3.6%	2.8%	-3.0%	6.0%	2.8%	3.6%	2.7%	-1.4%	4.4%	3.2%	2.7%	
Advanced Economies	2.5%	2.3%	1.7%	-4.4%	5.2%	2.3%	2.0%	1.5%	-3.9%	4.7%	2.4%	1.1%	
Emerging Market and Developing Economies	4.8%	4.6%	3.6%	-1.9%	6.6%	4.8%	4.6%	3.7%	0.9%	4.2%	3.7%	3.7%	
Latin America and the Caribbean	1.4%	1.2%	0.2%	-7.0%	6.9%	1.3%	1.1%	0.0%	-4.8%	3.9%	3.5%	1.7%	
World Trade of Goods and Services	5.6%	4.0%	0.9%	-7.8%	10.1%						4.3%	2.5%	
National Accounts	Q3 2022	2017	2018	2019	2020	2021	Q2-2022 / Q2- 2021	Q3-2022 / Q3- 2021	Q1-2022 accum. in 4- quarters	Q2-2022 accum. in 4- quarters	Q3-2022 accum. in 4- quarters	2022	2023
data from IMF, OECD, Eurostat, NBSC and METI													
USA - GDP	2.2%	2.9%	2.3%	-2.8%	5.9%	1.8%	1.8%	6.5%	4.1%	3.3%	1.6%	1.0%	
Household Expenditure	2.4%	2.9%	2.2%	-3.8%	7.9%	2.4%	2.0%	8.7%	5.5%	4.1%			
Government Expenditure	0.5%	1.4%	2.2%	2.5%	0.5%	-1.3%	-0.6%	-0.3%	-0.4%	-0.8%			
Gross Fixed Capital Formation	4.1%	4.8%	3.2%	-2.7%	7.7%	7.2%	2.3%	12.3%	8.3%	7.4%			
Exports of Goods and Services	4.1%	2.8%	-0.1%	-13.6%	4.6%	7.3%	11.3%	8.2%	6.4%	7.6%			
Imports of Goods and Services (-)	4.4%	4.1%	1.2%	-8.9%	14.0%	11.2%	7.5%	16.2%	11.8%	10.4%			
Industrial Production	1.3%	3.2%	-0.8%	-7.2%	5.5%								
Unemployment (% of Labor Force)	4.4%	3.9%	3.7%	8.1%	5.4%								
Consumer Price Index	2.1%	2.4%	1.8%	1.2%	4.7%						6.4%	2.3%	
European Union - GDP	3.0%	2.2%	2.0%	-5.6%	5.4%	4.3%	2.4%	7.1%	4.8%	4.3%	3.2%	0.7%	
Household Expenditure	1.8%	1.5%											
Government Expenditure	1.1%	1.1%											
Gross Fixed Capital Formation	3.1%	3.3%											
Exports of Goods and Services	5.3%	3.0%											
Imports of Goods and Services (-)	4.3%	3.3%											
Industrial Production	3.5%	1.6%	-3.3%	-8.0%	9.4%								
Unemployment (% of Labor Force)	9.1%	8.2%	7.6%	7.2%	6.6%								
Consumer Price Index	1.6%	1.8%	1.4%	0.7%	2.9%						10.0%	5.0%	
Japan - GDP	1.7%	0.6%	-0.4%	-4.6%	1.7%	1.6%		2.5%	1.0%		1.7%	1.6%	
Industrial Production	2.8%	1.1%	-2.8%	-9.8%	6.4%								
Unemployment (% of Labor Force)	2.8%	2.4%	2.4%	2.7%	2.8%								
Consumer Price Index	0.5%	1.0%	0.5%	0.0%	-0.2%						2.4%	1.2%	
China - GDP	6.9%	6.8%	6.0%	2.2%	8.1%	0.4%	3.9%	5.4%	3.5%	3.3%	3.2%	4.4%	
Industrial Production	6.1%	6.1%	6.2%	2.1%	9.6%								
Unemployment (% of Labor Force)	3.9%	3.8%	3.6%	5.6%	5.1%								
Consumer Price Index	1.6%	2.1%	2.9%	2.4%	0.9%						2.7%	1.8%	

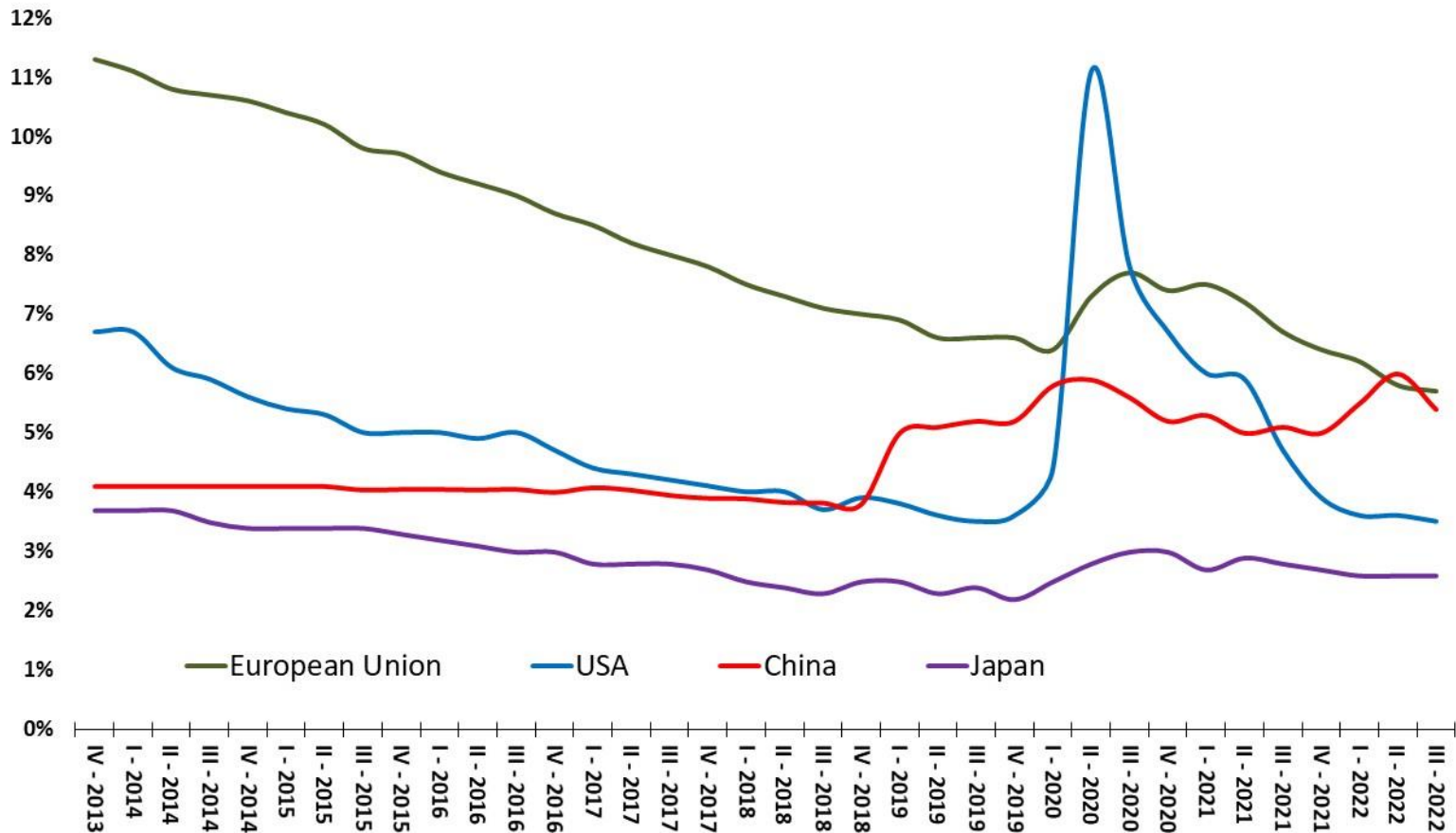


GDP - real quarterly % chg. – seasonally adjusted data (annualized)



Source: OECD.

Unemployment Rate as % of Labor Force

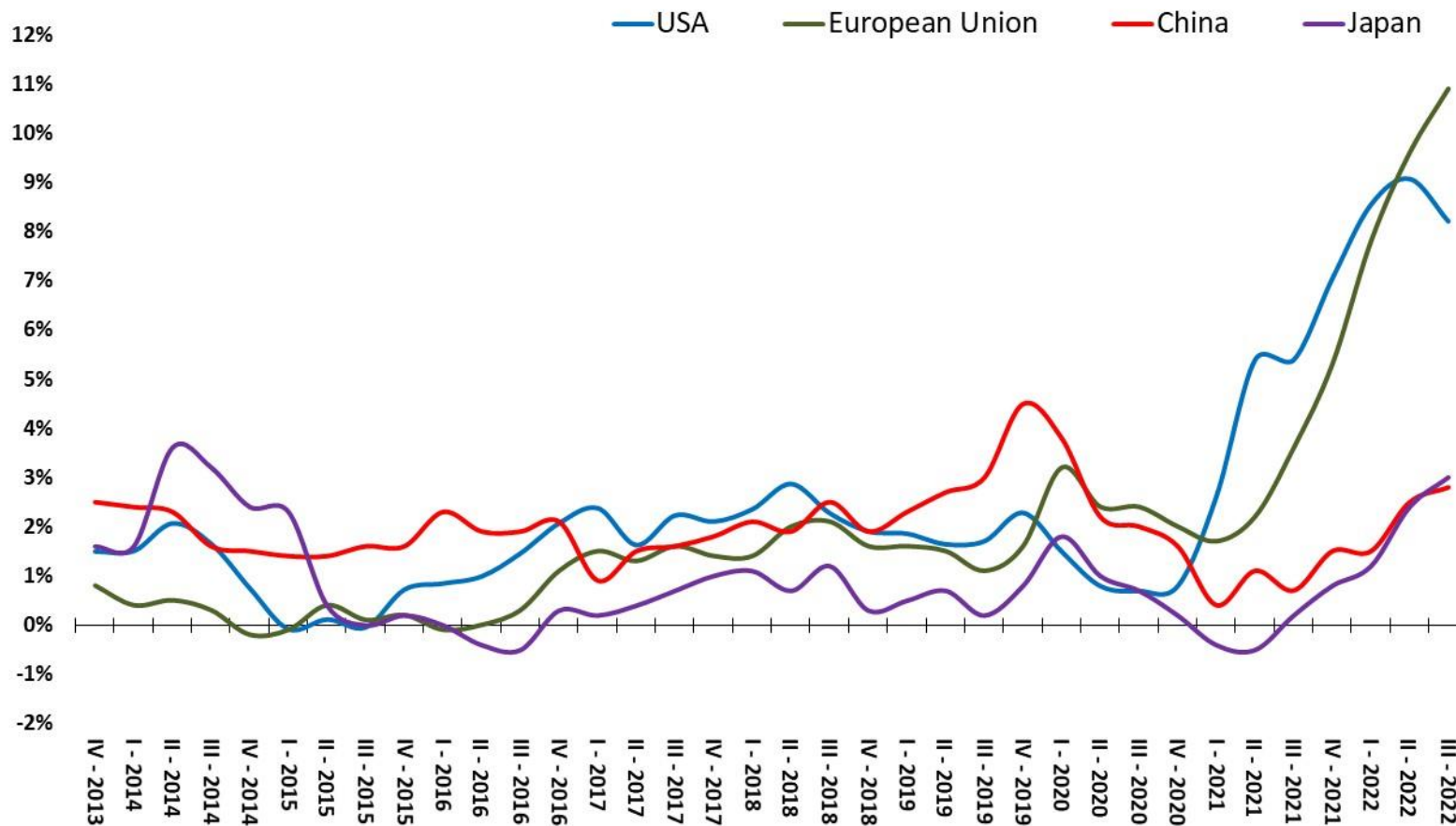


Source: OECD.

# World's Major Economies Consumer Price Index

WORLD ECONOMY

Consumer Price Indexes – annual chg. %

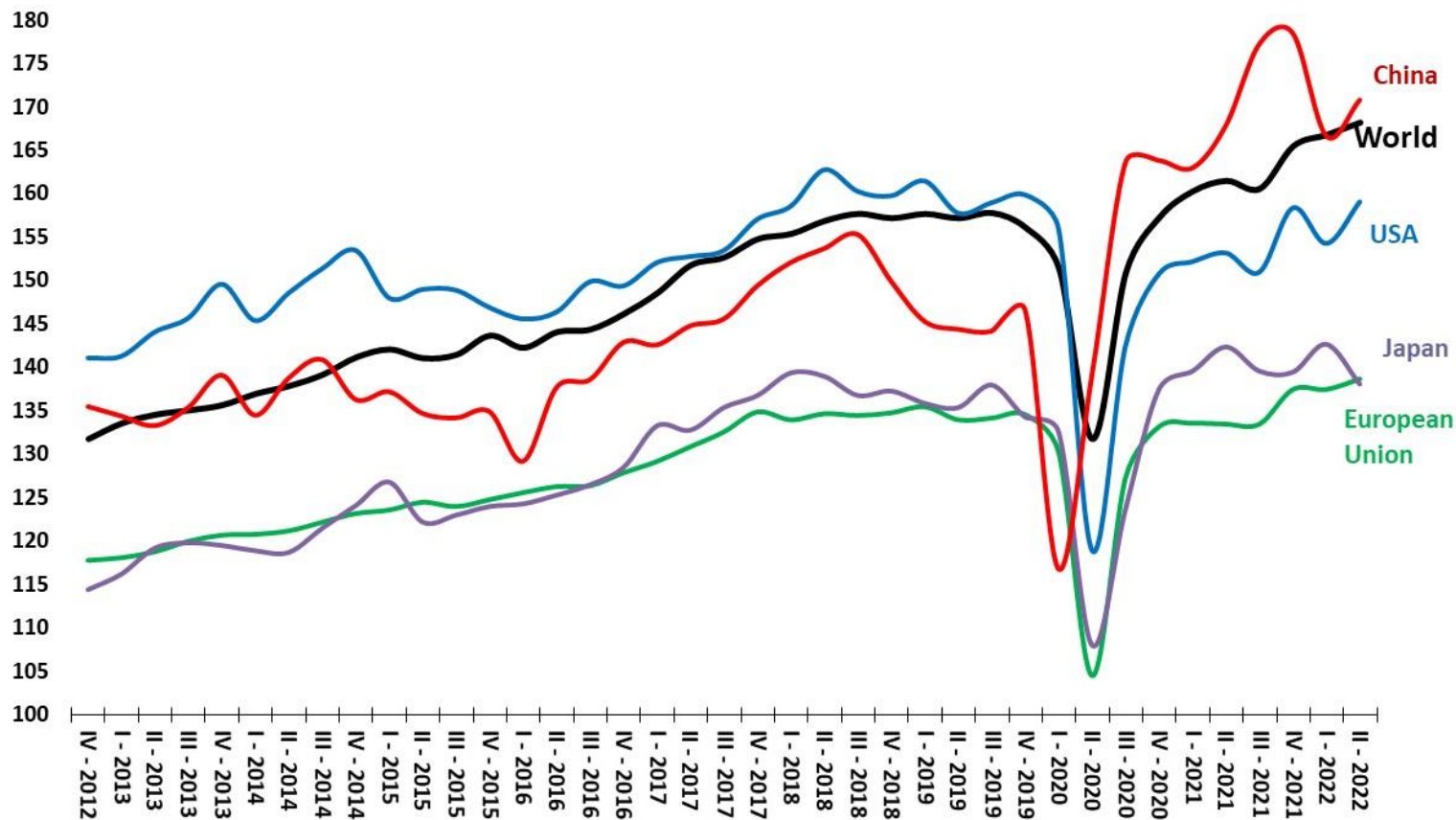


Source:: OECD.

# World's Major Economies Total Exports

WORLD ECONOMY

Total Exports Volume Index – Q3-2012 = 100

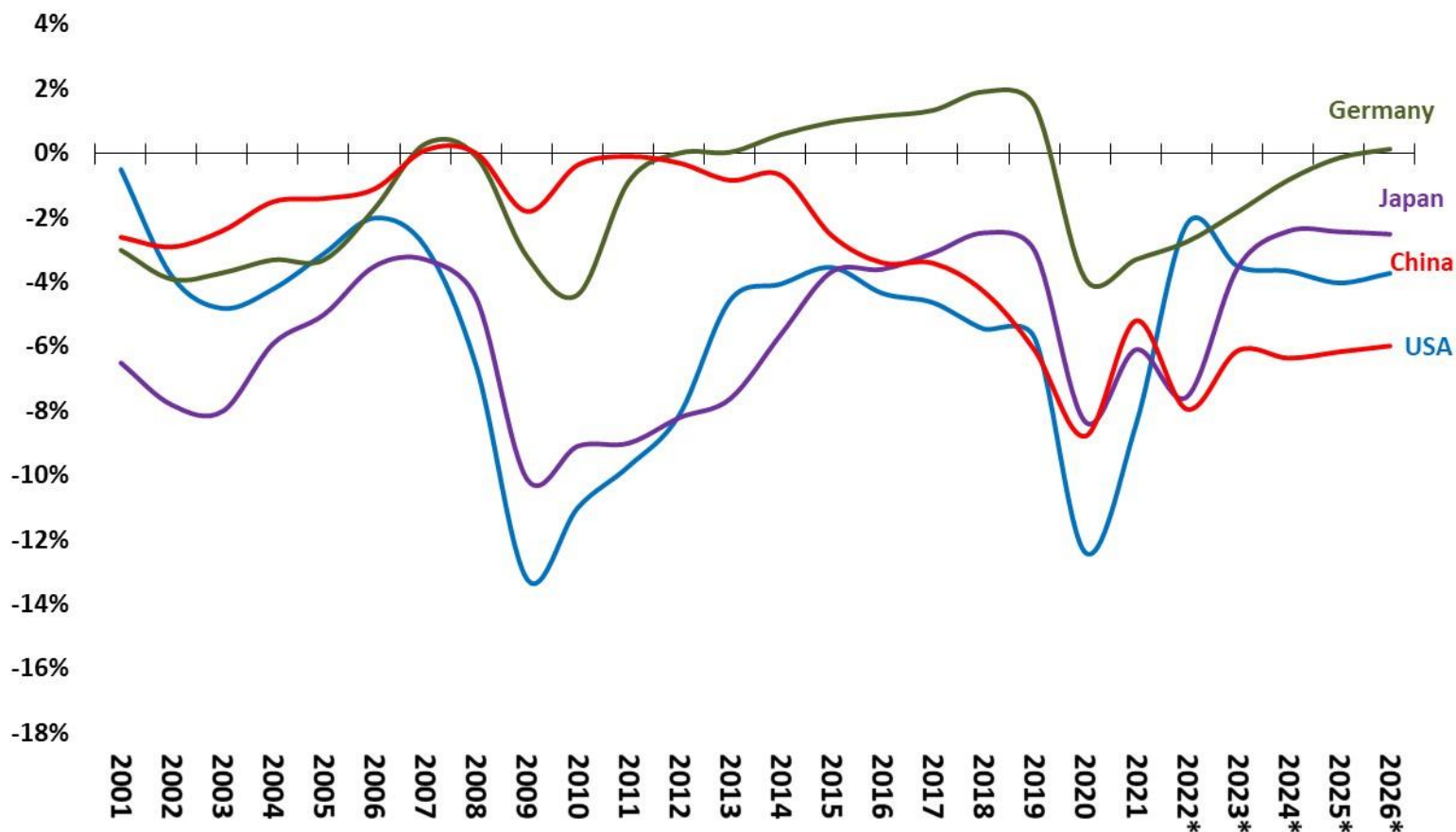


Source: WTO.

# World's Major Economies Government Primary Surplus

WORLD ECONOMY

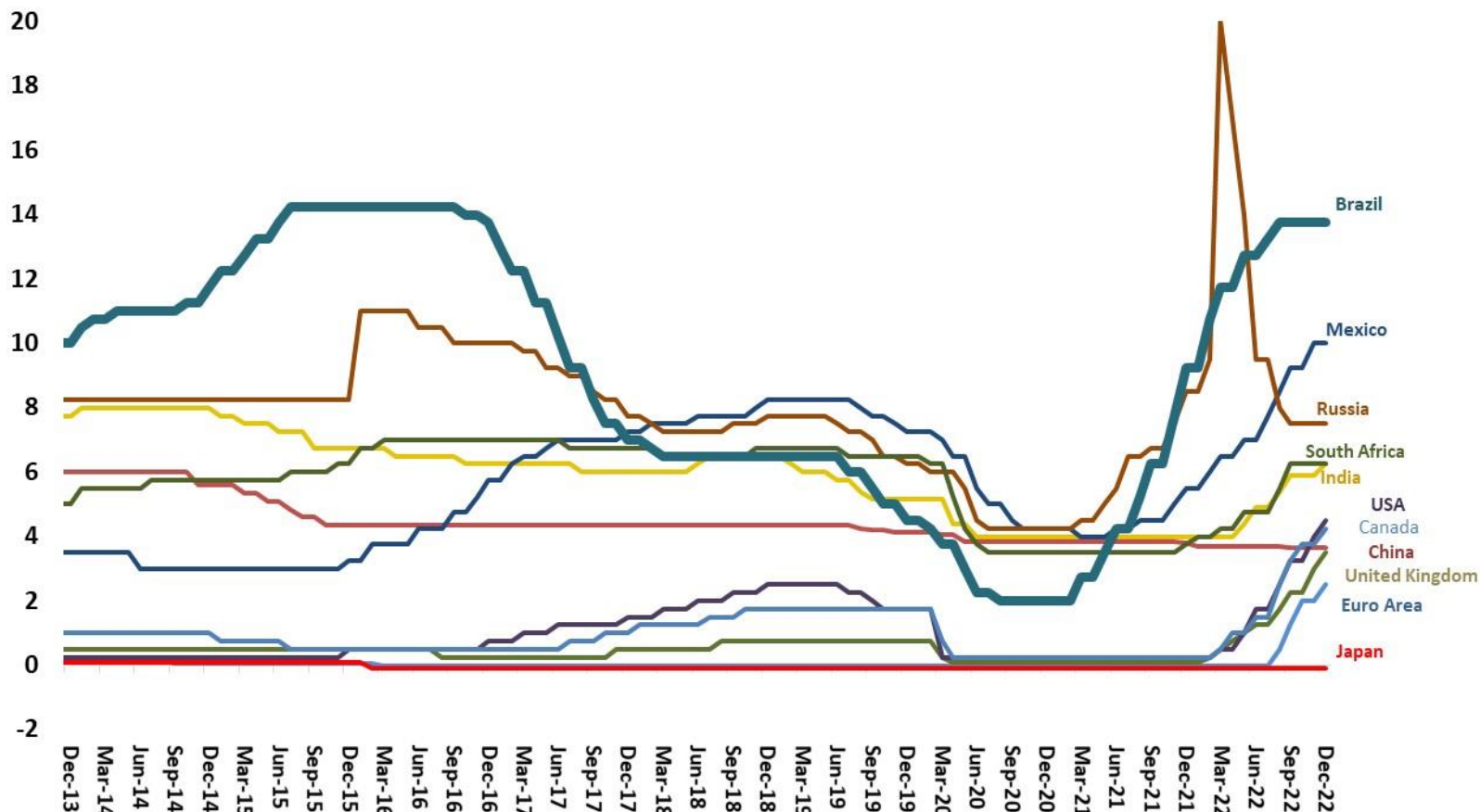
Central Government Primary Surplus as % of GDP



Source: IMF. \* Estimated values - WEO Oct22.

# Selected Economies Main Interest Rate

Main Interest Rates – Selected Economies – % per year

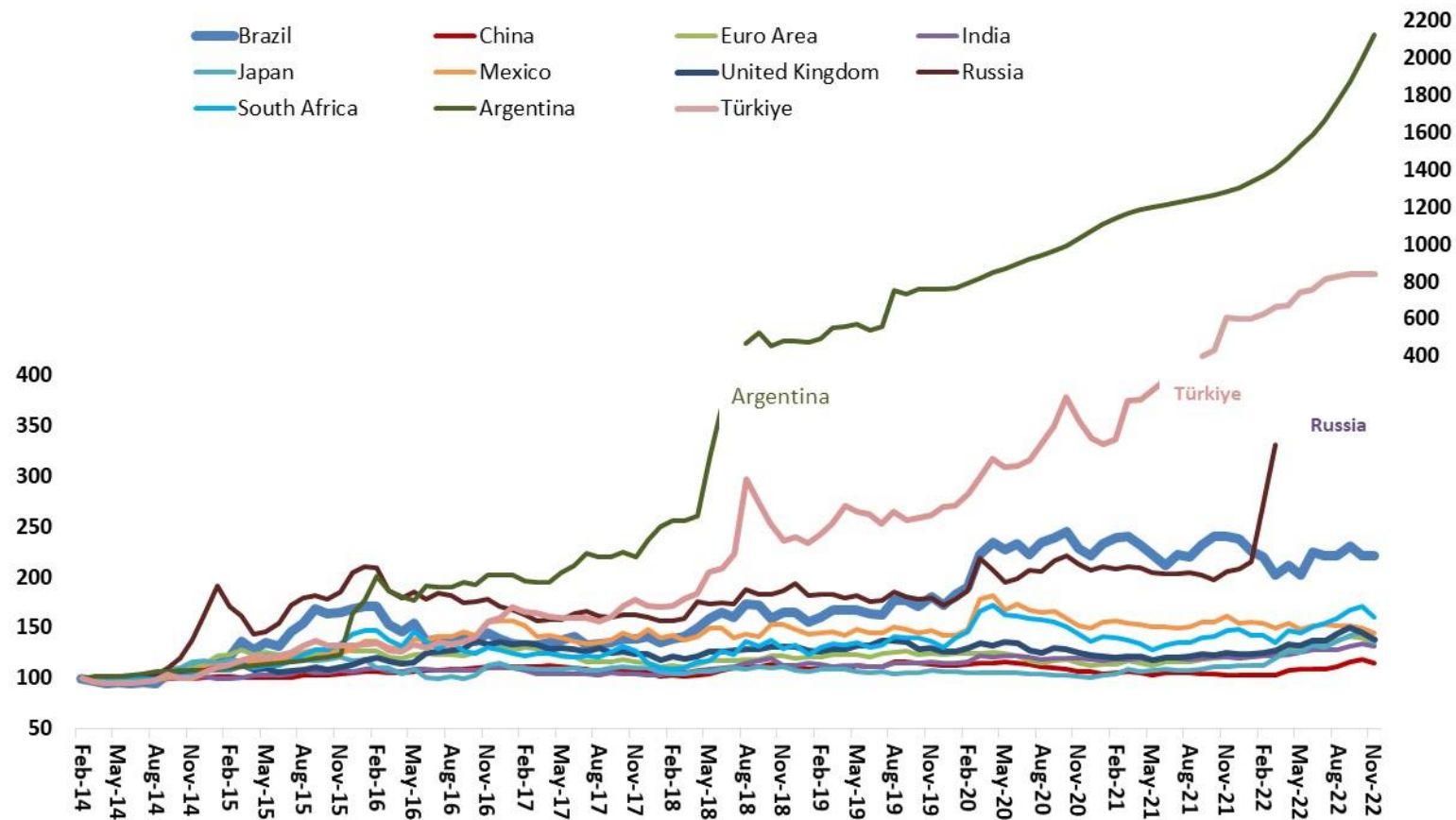


Source: Central Bank of Brazil.



# Selected Economies FX-dollar Rate Evolution

Selected Economies FX-rate Indexes – Dec/2008 = 100

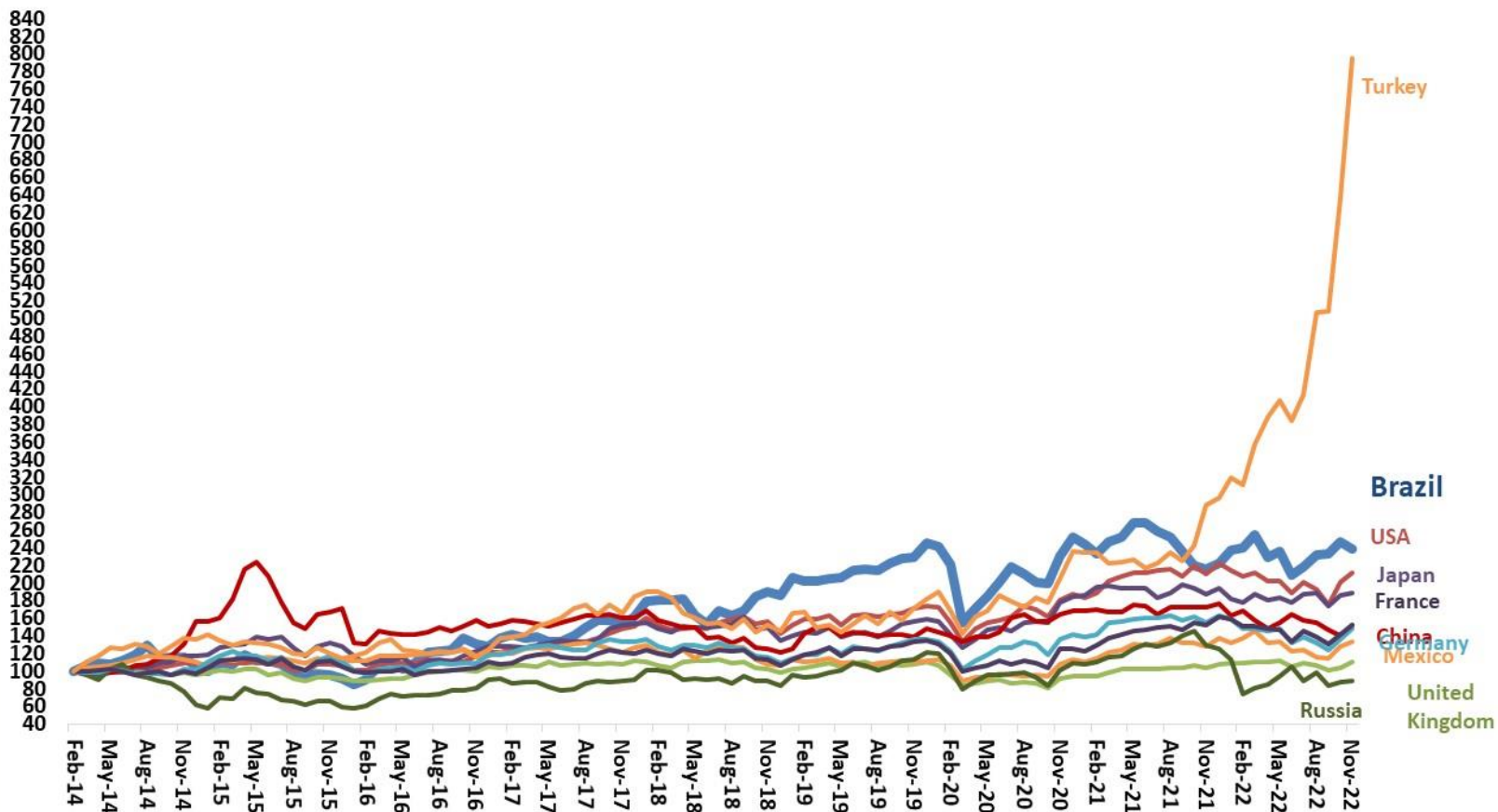


Source: Bloomberg.

# Selected Economies Main Stock Index Evolution

WORLD ECONOMY

Selected Economies Main Stock Indexes – Dec/2008 = 100



Source: Bloomberg.



MINISTER OF ECONOMY - **PAULO ROBERTO NUNES GUEDES**

EXECUTIVE SECRETARY - **MARCELO PACHECO DOS GUARANY**S

CHIEF OF SPECIAL ADVISORY ON STRATEGIC AFFAIRS – **ROGÉRIO BOUERI**

ASSISTANT SECRETARY FOR ECONOMIC POLICY – **PEDRO CALHMAN DE MIRANDA**

HEAD OF MACROECONOMIC POLICY– **FAUSTO JOSÉ ARAUJO VIEIRA**

## MACROECONOMIC OUTLOOK STAFF:

Arthur Rocha Xavier

Carlos Henrique Coêlho de Andrade

Elder Linton Alves de Araújo

Gustavo Miglio de Melo

Hébrida Verardo Moreira Fam

Lilian Cavallante Souto

Pedro Corbelino Melges Barreto Sales

Rodrigo Mendes Pereira

Rogério Mazali

Silas Franco de Toledo

CONTACT: [conjuntura.df.spe@economia.gov.br](mailto:conjuntura.df.spe@economia.gov.br)



## MINISTRY OF ECONOMY

More information:

<https://www.gov.br/fazenda/pt-br/orgaos/spe>



**Ministry  
of Economy**