

# ECONOMIC REPORT

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Year 11 | Volume nº 99 | 2023 Q3



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Data as good as of 30/09/2023.



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The background is a dark teal color with faint, semi-transparent charts and geometric patterns. On the left, there are several diamond-shaped outlines. In the center and right, there are faint bar and line charts with numerical values and percentages. A vertical yellow line is positioned to the left of the text.

# MARKET SCENARIO



# 1. Market Scenario - Highlights

- In the first three quarters of 2023 a total of R\$ 421.6 bi in securities were issued (3.1.1). In a comparison with the same period of 2022 (3.3.2) total value issued is slightly lagging, however, the number of issues is 40% up (3.2.1). When one delves into the particular securities that drove such values (3.3.2), one can find out that private equity, REITs, CDO and MBS issues were those that compensated for a fall in the remaining others.
- The set of regulated participants (2.1) has risen 5.6% relative 2022-Q4, now comprising 85.035 participants. One must emphasise the growth observed in the Consultant realm, so far the highest growth rate YTD (21.4% - 1.613 versus 1.329) among categories with more than 100 participants.
- The estimate for the total regulated market (2.2.1) is now R\$ 43.94 tri, 72% up YoY. When one excludes notional derivatives, such sum is up R\$ 0.8 tri (5%) - one can highlight the growth in the Investment Fund sector, corresponding to nearly R\$ 0.7 tri.
- The daily average financial turnover in the secondary market for equities (round lot) is below last year (4.1.1). Nonetheless, the opposite can be now stated for the REIT and corporate bond market (4.1.2 e 4.1.3). Finally, the YTD number of derivatives contracts settled on exchanges (4.2.2) has kept above last year's for CDI futures, despite being below for the others considered.

## 2. Regulated markets

2.1. Number of participants*	2018	2019	2020	2021	2022	2023
Registered Non-Resident Investors	19.293	18.244	18.705	19.220	19.282	19.562
Registered Investment Funds	17.718	19.427	22.295	26.445	29.072	30.436
Registered Asset Managers	3.452	3.560	3.786	4.185	4.557	4.798
Legal persons	2.512	2.603	2.774	3.036	3.294	3.472
Firms	940	957	1.012	1.149	1.263	1.326
Registered Research Analysts	662	698	923	1.269	1.412	1.371
Legal persons	615	629	840	1.161	1.283	1.239
Firms	47	69	83	108	129	132
Registered Investment Consultants	659	694	790	1.018	1.329	1.613
Legal persons	498	547	632	815	1.076	1.317
Firms	161	147	158	203	253	296
Registered Brokerage Firms (trading)	74	74	69	70	63	65
Registered Brokerage Firms (distribution)	101	100	102	106	101	105
Registered Brokers (sum)	7.778	10.798	13.881	18.141	23.294	25.597
Legal persons	6.619	9.608	12.275	16.969	22.033	24.359
Firms	1.159	1.190	1.156	1.172	1.261	1.238
Registered Custodians	139	146	146	156	155	158
Registered Bookkeepers	59	61	63	72	74	76
Registered Organized Market Administrators	1	1	3	3	4	4
Registered CSDs	1	1	1	2	2	2
Registered Crowdfunding Platforms	14	26	32	54	57	67
Registered public, foreign and subsidized companies (active)	666	656	675	765	745	738
Securitization companies	-	-	-	-	79	80
Registered Independent Auditors	375	528	354	346	349	356
Registered Rating Agencies	7	7	6	6	7	7
<b>TOTAL</b>	<b>50.999</b>	<b>55.021</b>	<b>61.831</b>	<b>71.858</b>	<b>80.582</b>	<b>85.035</b>

\* Estimates. Securitization companies had their records segregated from other companies in 2022. There are entities holding more than one register (double counting).

Source: CVM, APIMEC

## 2. Regulated markets

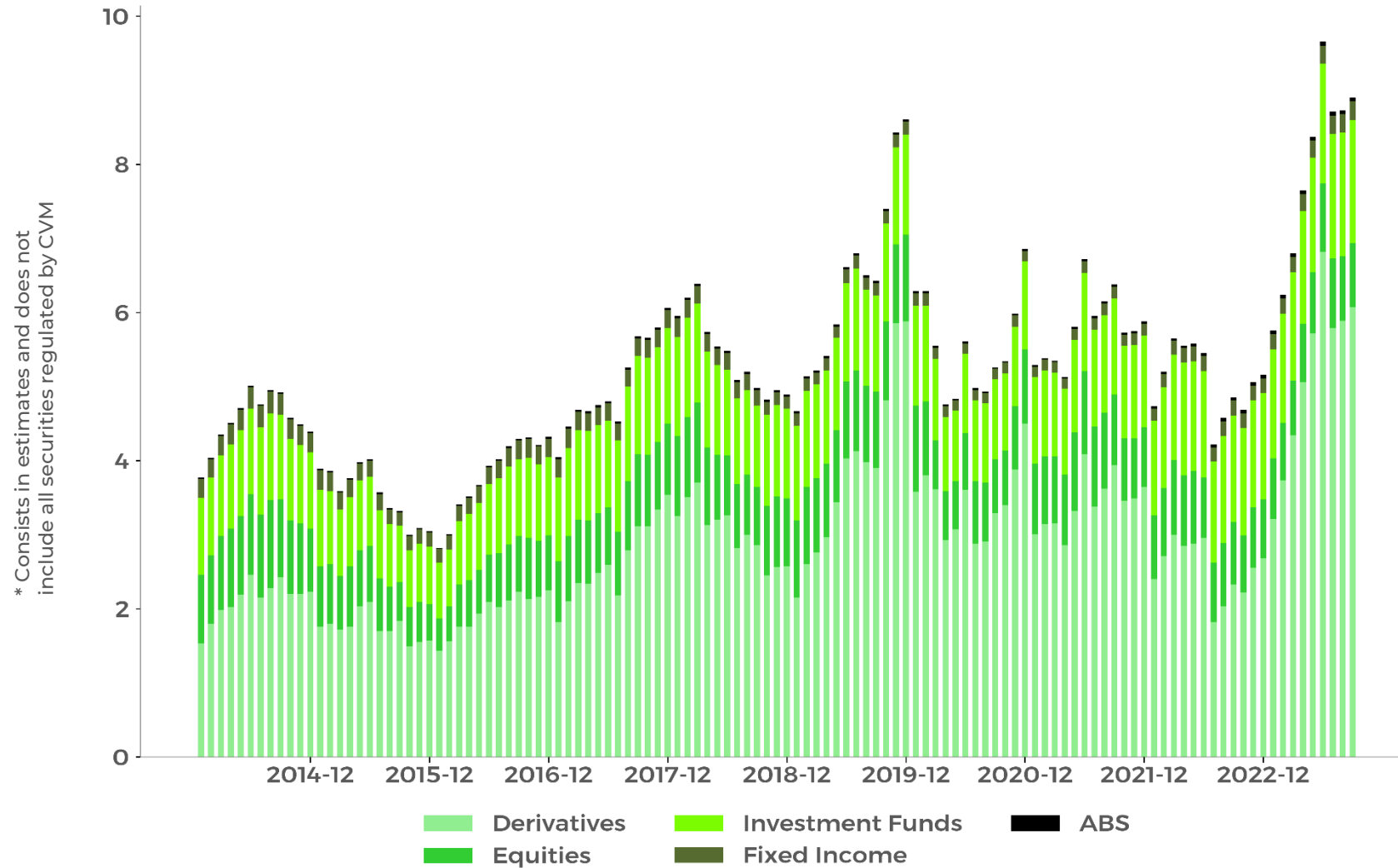
\* Consists in estimates and does not include all securities regulated by CVM. For prior years it represents end of year data.

2.2.1. Total regulated markets (US\$ tri)*							
CATEGORY	ASSET	2018	2019	2020	2021	2022	2023
Fixed Income	Corporate Bonds	0.15	0.17	0.13	0.15	0.19	0.22
	Commercial Paper	0.01	0.01	0.01	0.01	0.01	0.02
Securitization	MBS	0.02	0.02	0.02	0.02	0.03	0.04
	Agrobusiness	0.01	0.01	0.01	0.01	0.02	0.02
Variable Income	Equities – Market Cap	0.92	1.17	1.00	0.81	0.80	0.92
Derivatives	Notional outstanding	2.56	5.88	4.50	3.63	2.67	6.81
	Structured Notes	0.01	0.00	0.00	0.01	0.01	0.01
Investment Funds	Rule-555	1.08	1.18	1.03	1.04	1.18	1.35
	Structured Funds	0.13	0.17	0.16	0.20	0.25	0.27
TOTAL		4.89	8.61	6.86	5.88	5.16	9.66

Source: CVM, APIMEC

## 2. Regulated markets

2.2.2. Regulated market value (US\$ tri)\*

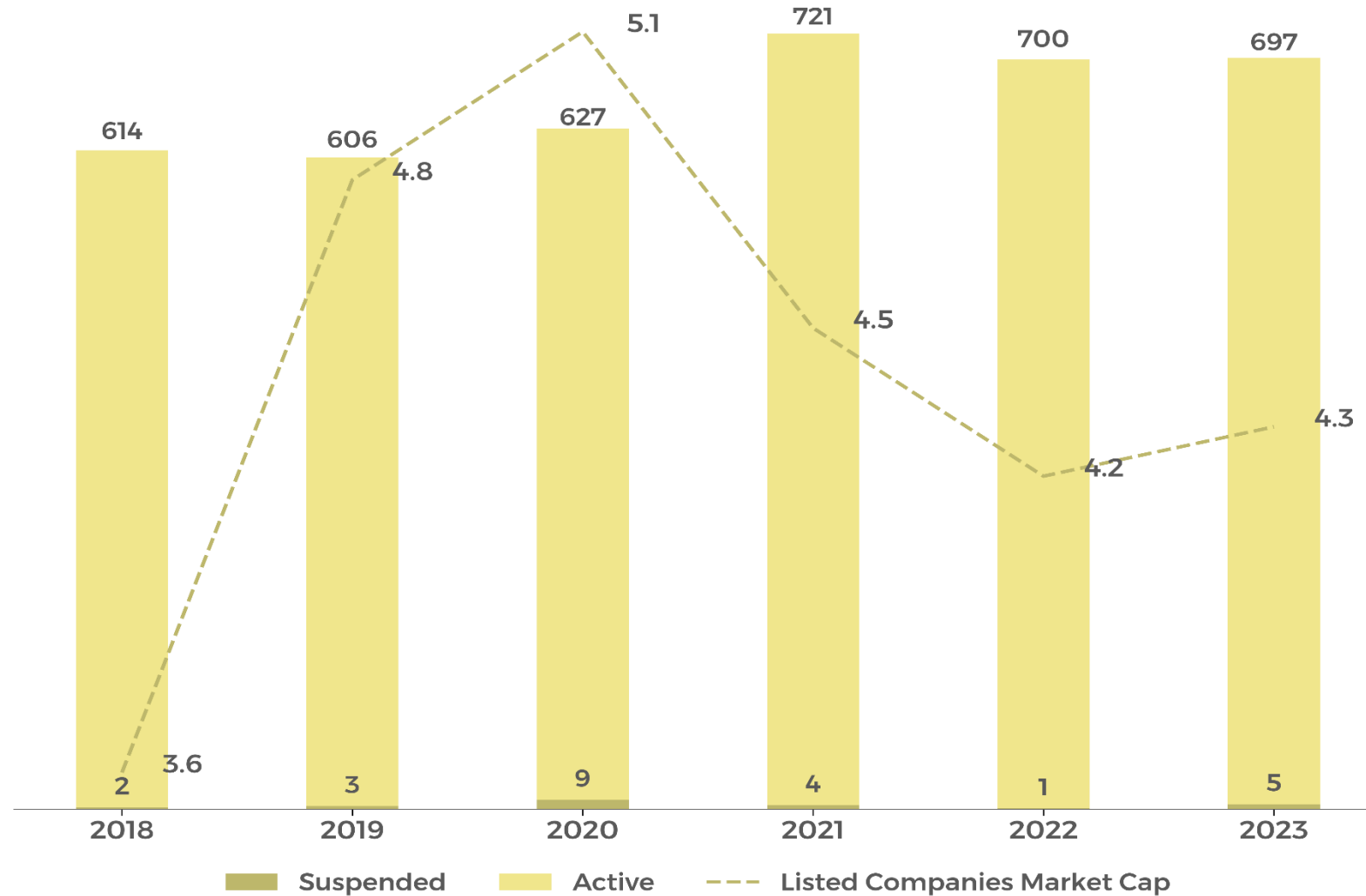


Source: CVM and Organized Market Administrators



## 2. Regulated markets

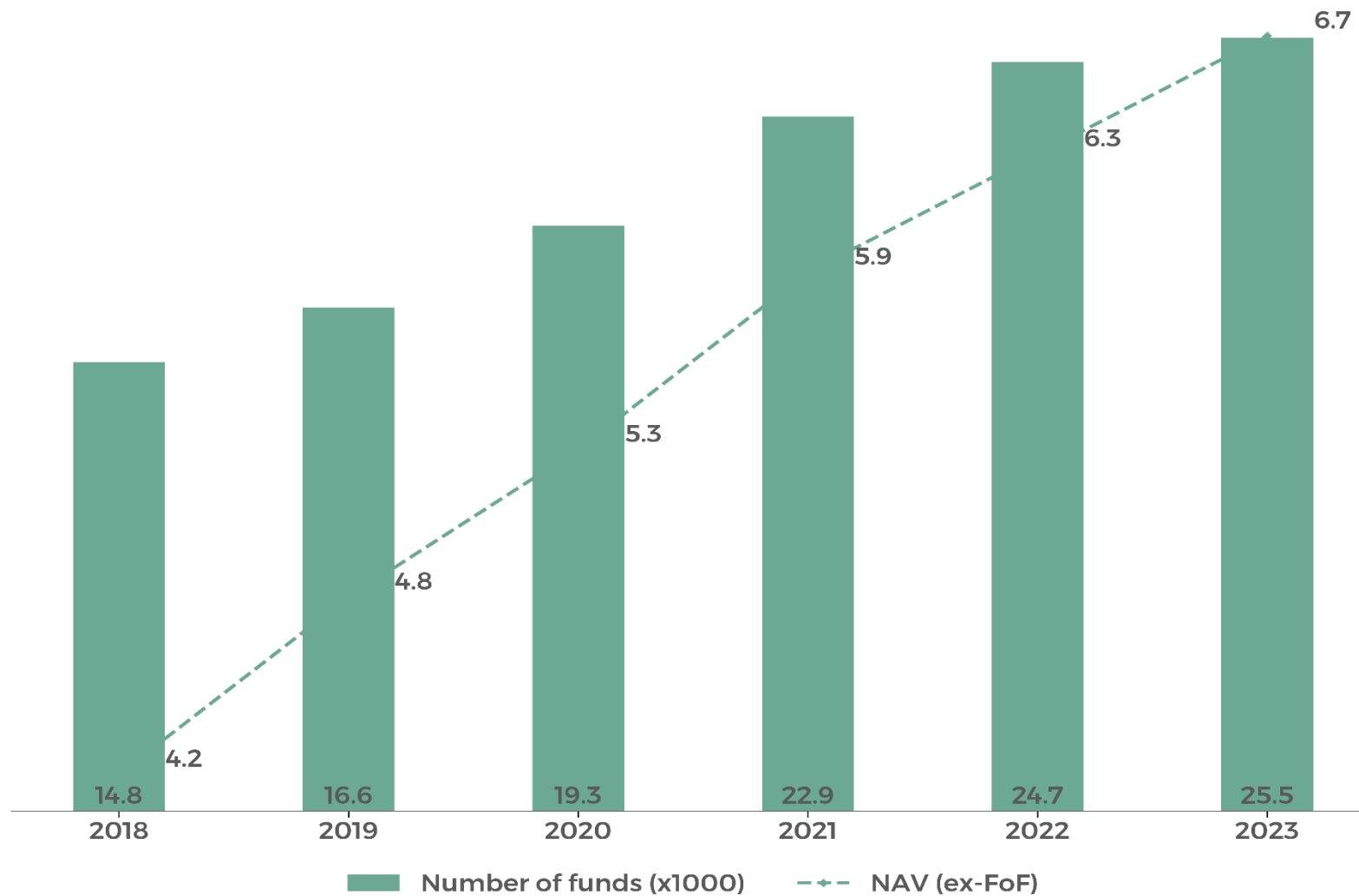
2.3. Registered companies and listed companies market cap (R\$ tri)



Source: CVM, B3

## 2. Regulated markets

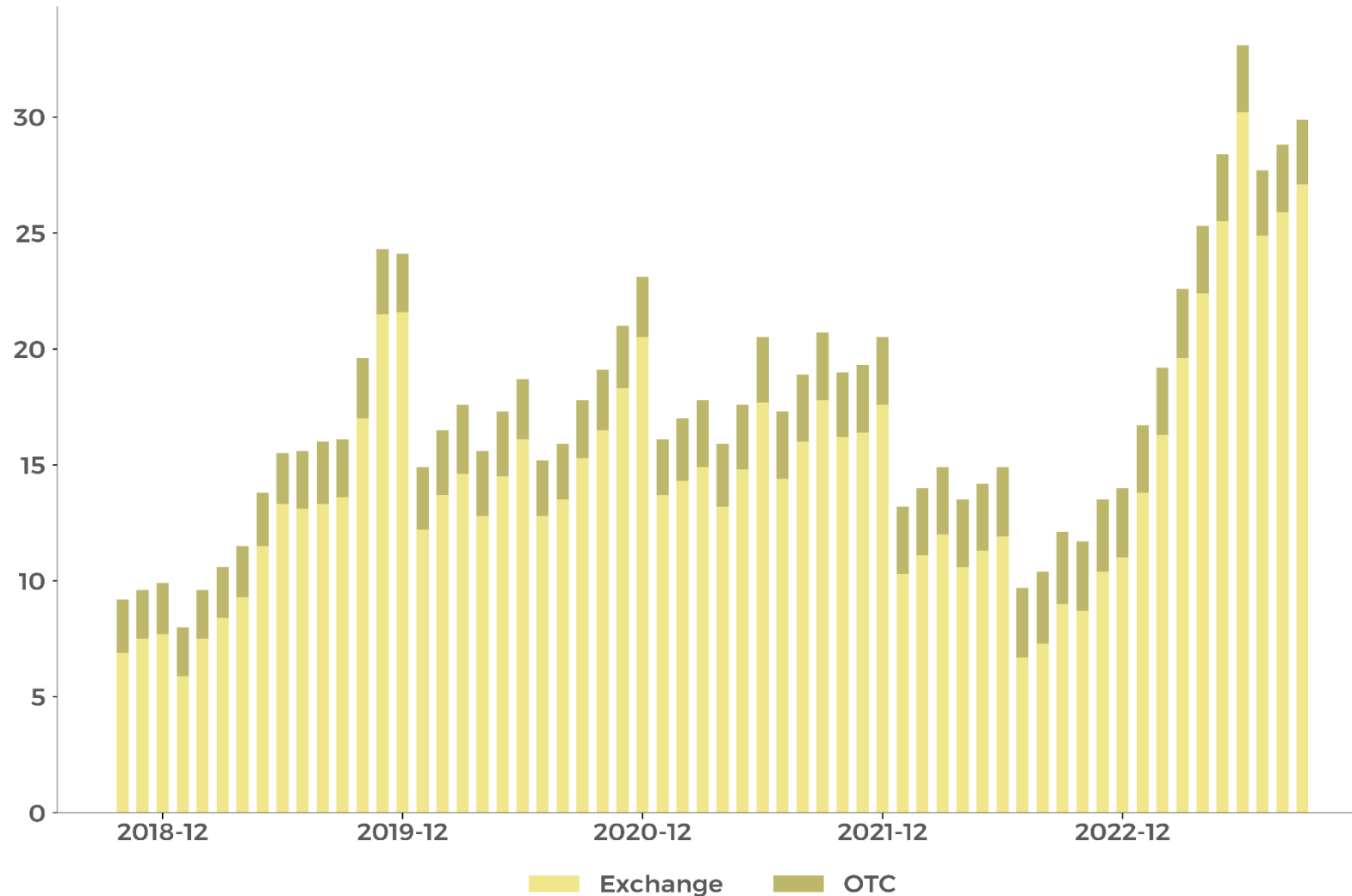
2.4. ICVM 555 Funds (ex-FoF) – quantity and NAV (R\$ tri)



Source: CVM

## 2. Regulated markets

2.5. Derivatives – notional outstanding (R\$ tri)



Source: Organized Market Administrators



## 3. Primary markets

### 3.1. Annual totals by rule – before Rule CVM n° 160/22

\* Consists in estimates and does not include all securities regulated by CVM. Includes stocks+DR, MBS, Agrobusiness ABS, CDOs, REITs, Private Equity, CP, bank bonds and corporate bonds (ex-leasing). ICVM 476 offers exclude ongoing efforts. ICVM 400 exclude single indivisible batch exemptions.

3.1.1. Annual totals (quantity and value)*	2018		2019		2020		2021		2022		2023	
	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi
ICVM 400	76	33.5	125	89.5	134	120.1	164	129.0	146	107.7	10	6.8
ICVM 400 (exemptions)	-	-	-	-	2	5.0	1	0.1	-	-	-	-
ICVM 476	1.040	253.9	1.322	386.5	1.395	318.4	2.711	608.2	2.074	467.4	633	75.6
TOTAL	1.116	287.3	1.447	476.0	1.531	443.5	2.876	737.3	2.220	575.1	643	82.4

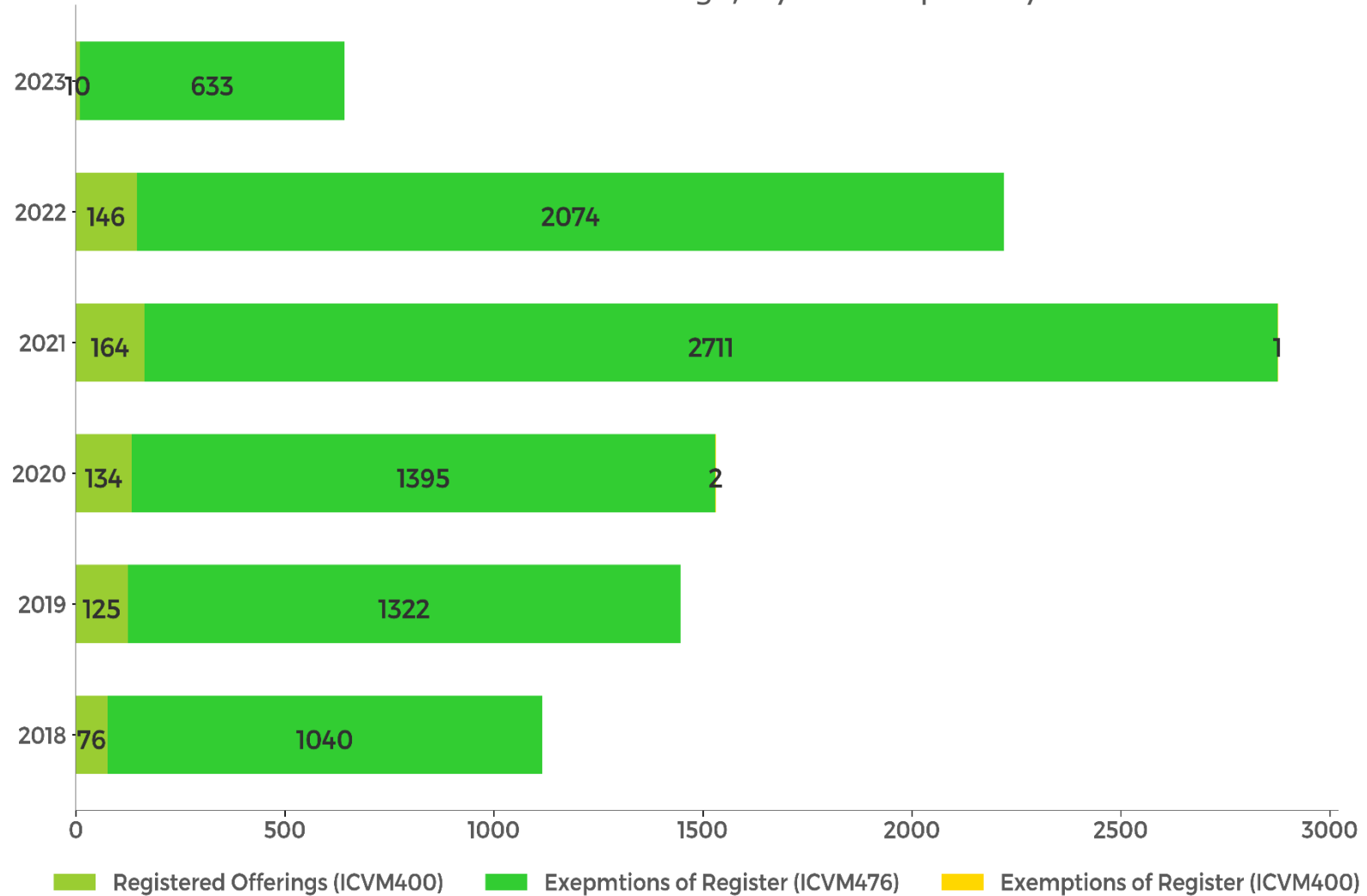
Source: CVM

# 3. Primary markets

## 3.1. Annual totals by rule – before Rule CVM n° 160/22

3.1.2. Total YTD offerings, by rule – quantity\*

\* Consists in estimates and does not include all securities regulated by CVM. Includes stocks+DR, MBS, Agrobusiness ABS, CDOs, REITs, Private Equity, CP, bank bonds and corporate bonds (ex-leasing). ICVM 476 offers exclude ongoing efforts.



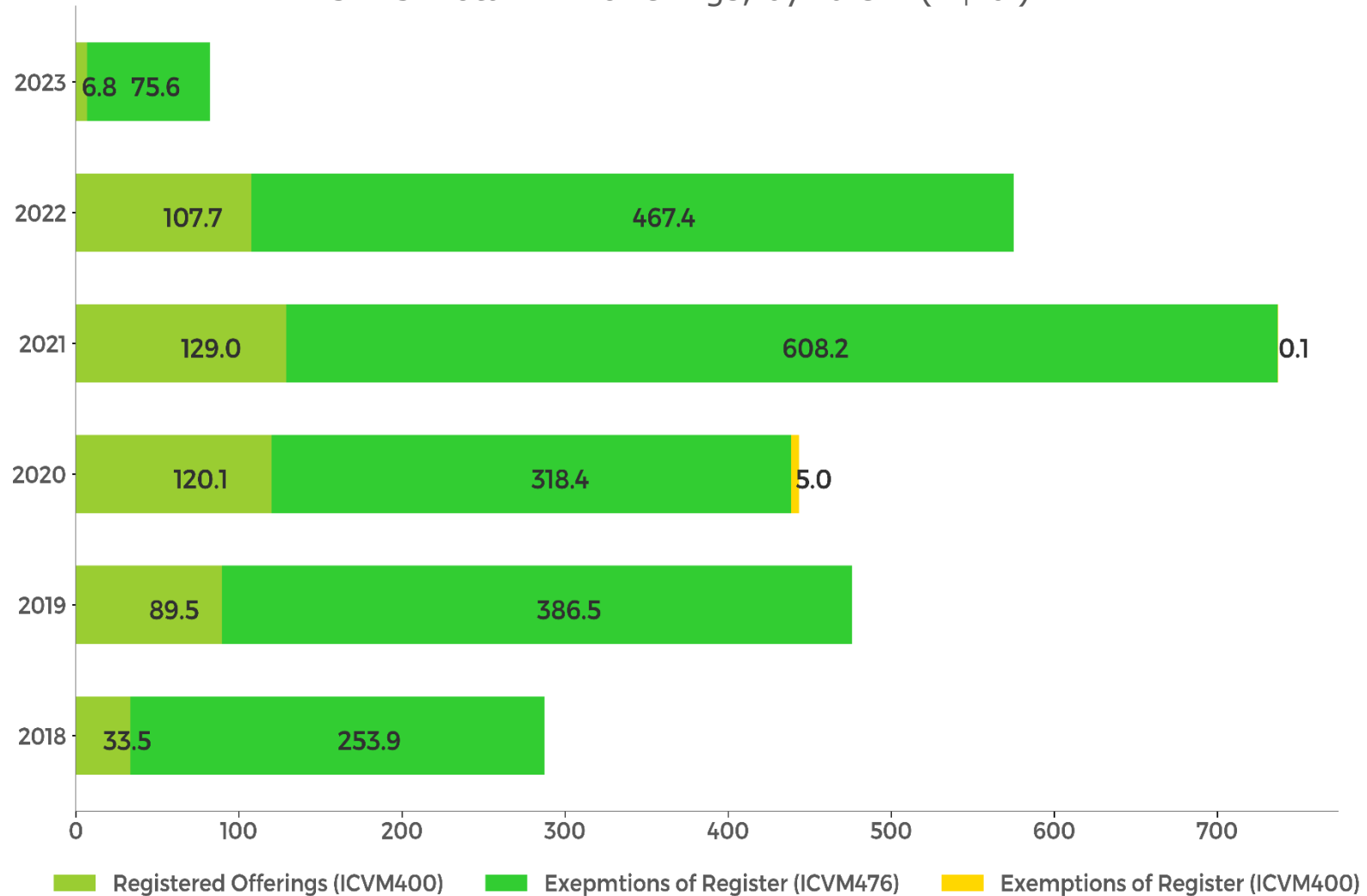
Source: CVM

### 3. Primary markets

#### 3.1. Annual totals by rule – before Rule CVM n° 160/22

3.1.3. Total YTD offerings, by rule – (R\$ bi)\*

\* Consists in estimates and does not include all securities regulated by CVM. Includes stocks+DR, MBS, Agrobusiness ABS, CDOs, REITs, Private Equity, CP, bank bonds and corporate bonds (ex-leasing). ICVM 476 offers exclude ongoing efforts.



Source: CVM



### 3. Primary markets

#### 3.1. Annual totals by rule – with Rule CVM n° 160/22

\* Consists in estimates and does not include all securities regulated by CVM. Includes stocks+DR, MBS, Agrobusiness ABS, CDOs, REITs, Private Equity, CP, bank bonds and corporate bonds (ex-leasing). ICVM 476 offers exclude ongoing efforts. Does not include "unique lot" exemptions.

3.1.4. Annual totals (quantity and value)*	2018		2019		2020		2021		2022		2023	
	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi
"Old" (ICVM 400 + ICVM 476 + Exemptions)	1.116	287.3	1.447	476.0	1.531	443.5	2.876	737.3	2.220	575.1	643	82.4
RCVM 160 (automatic)	-	-	-	-	-	-	-	-	-	-	1.560	333.1
RCVM 160 (ordinary)	-	-	-	-	-	-	-	-	-	-	19	5.9
RCVM 88 ("crowdfunding")	-	-	86	0.10	96	0.14	76	0.13	120	0.24	92	0.20
<b>TOTAL</b>	<b>1.116</b>	<b>287.3</b>	<b>1.533</b>	<b>476.1</b>	<b>1.627</b>	<b>443.6</b>	<b>2.952</b>	<b>737.4</b>	<b>2.340</b>	<b>575.3</b>	<b>2.314</b>	<b>421.6</b>

Source: CVM

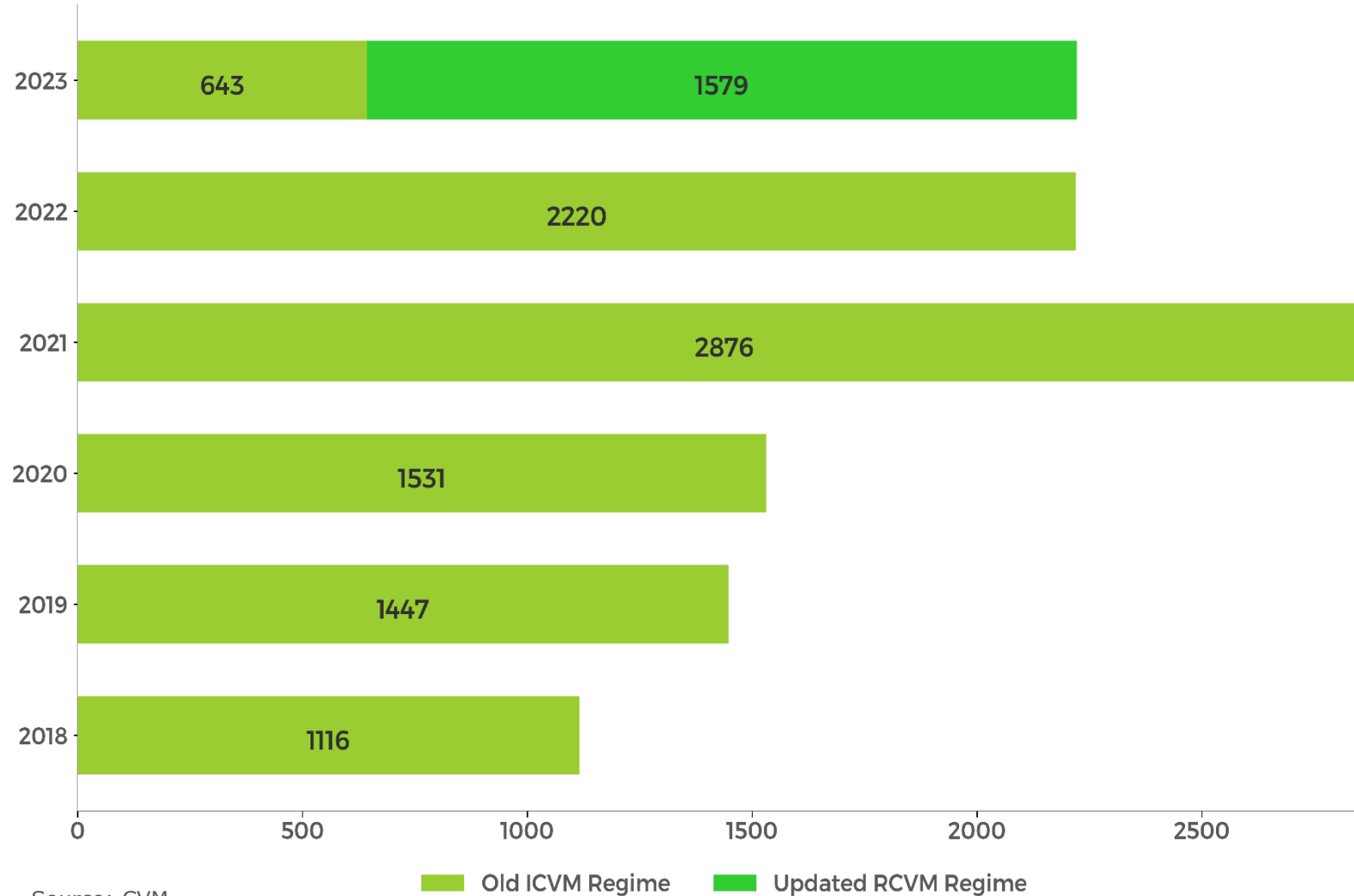


### 3. Primary markets

#### 3.1. Annual totals by rule – with Rule CVM n° 160/22

3.1.5. Total YTD offerings, by rule – quantity\*

\* Consists in estimates and does not include all securities regulated by CVM. Includes stocks+DR, MBS, Agrobusiness ABS, CDOs, REITs, Private Equity, CP, bank bonds and corporate bonds (ex-leasing). ICVM 476 offers exclude ongoing efforts.



Source: CVM

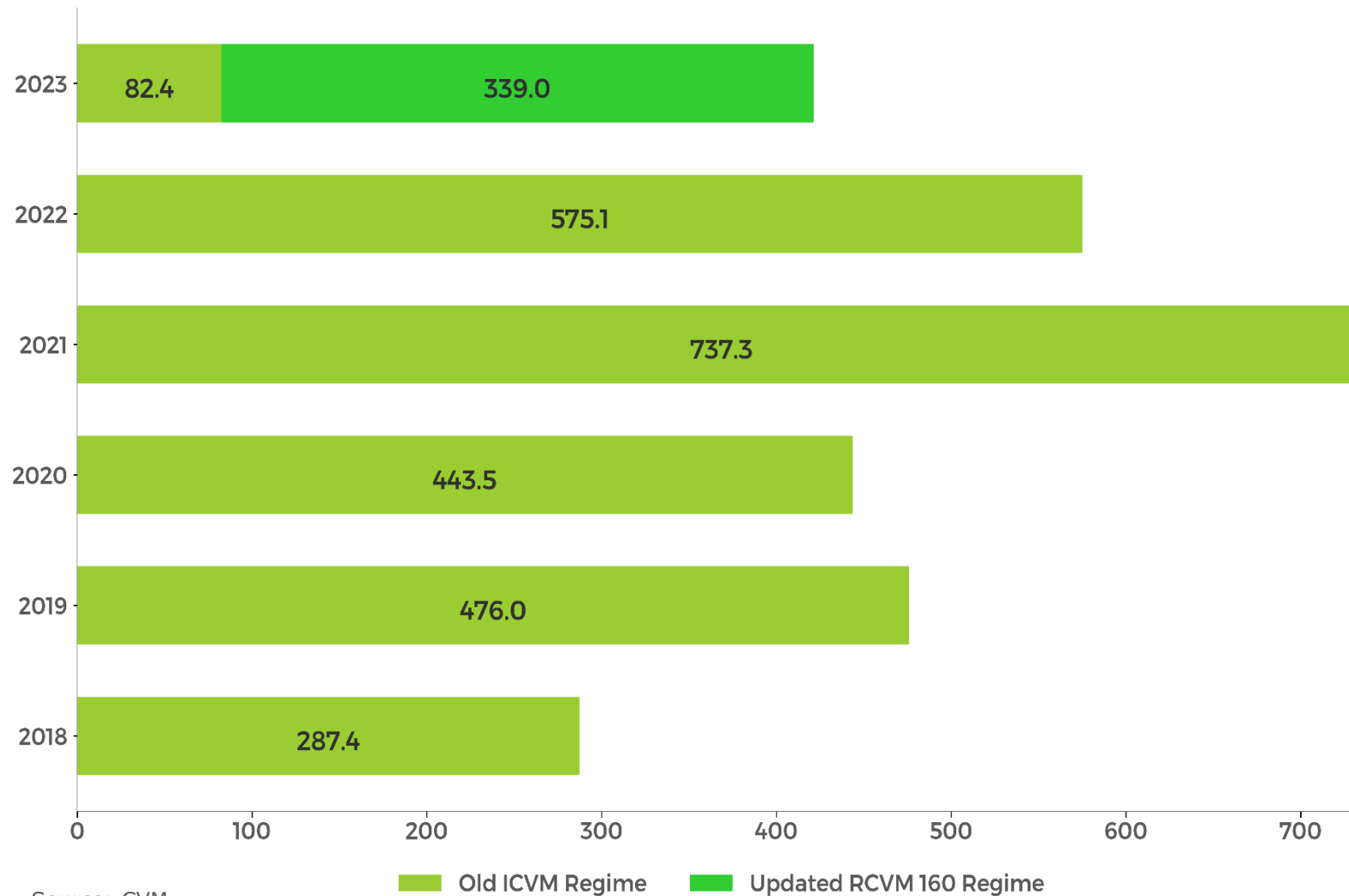


### 3. Primary markets

#### 3.1. Annual totals by rule – with Rule CVM n° 160/22

3.1.6. Total YTD offerings, by rule – (R\$ bi)\*

\* Consists in estimates and does not include all securities regulated by CVM. Includes stocks+DR, MBS, Agrobusiness ABS, CDOs, REITs, Private Equity, CP, bank bonds and corporate bonds (ex-leasing). ICVM 476 offers exclude ongoing efforts.



Source: CVM



### 3. Primary markets

#### 3.2. Accumulated totals by rule – with Rule CVM n° 160/22

\* Consists in estimates and does not include all securities regulated by CVM. Includes stocks+DR, MBS, Agrobusiness ABS, CDOs, REITs, Private Equity, CP, bank bonds and corporate bonds (ex-leasing). ICVM 476 offers exclude ongoing efforts. Does not include "unique lot" exemptions.

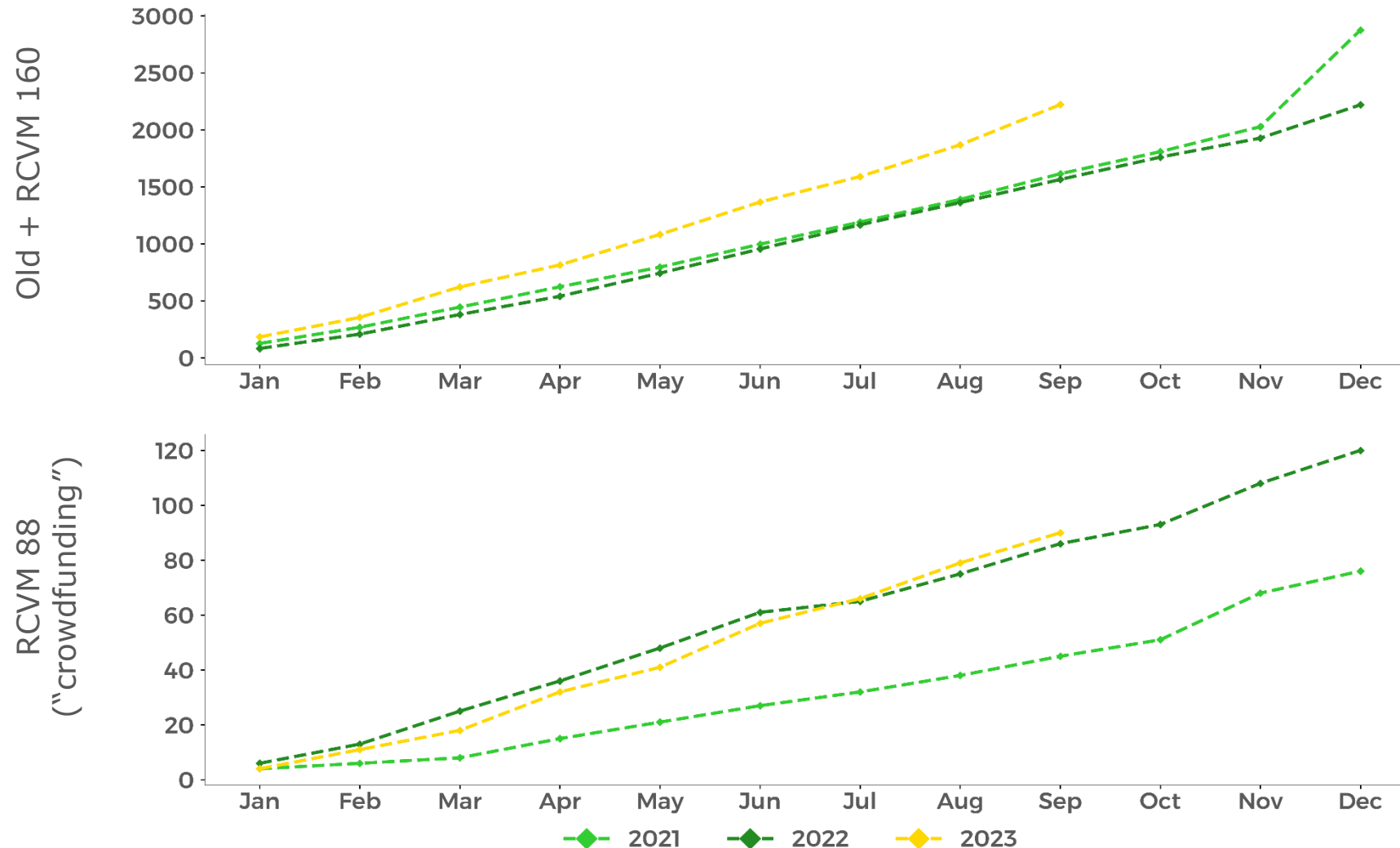
3.2.1. Quarterly cummulative totals (quantity and value)*	2018		2019		2020		2021		2022		2023	
RULE	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi
"Old" (ICVM 400 + ICVM 476 + Exemptions)	775	215.2	957	336.6	1.029	301.3	1.614	472.6	1.565	427.1	643	82.4
RCVM 160 (automatic)	-	-	-	-	-	-	-	-	-	-	1.560	333.1
RCVM 160 (ordinary)	-	-	-	-	-	-	-	-	-	-	19	5.9
RCVM 88 ("crowdfunding")	-	-	59	0.07	80	0.1	46	0.07	86	0.17	92	0.20
<b>TOTAL</b>	<b>775</b>	<b>215.2</b>	<b>1.016</b>	<b>336.7</b>	<b>1.109</b>	<b>301.4</b>	<b>1.660</b>	<b>472.7</b>	<b>1.651</b>	<b>427.3</b>	<b>2.314</b>	<b>421.6</b>

Source: CVM

### 3. Primary markets

#### 3.2. Accumulated totals by rule

3.2.2. Accumulated totals for the current month, by rule (quantity)

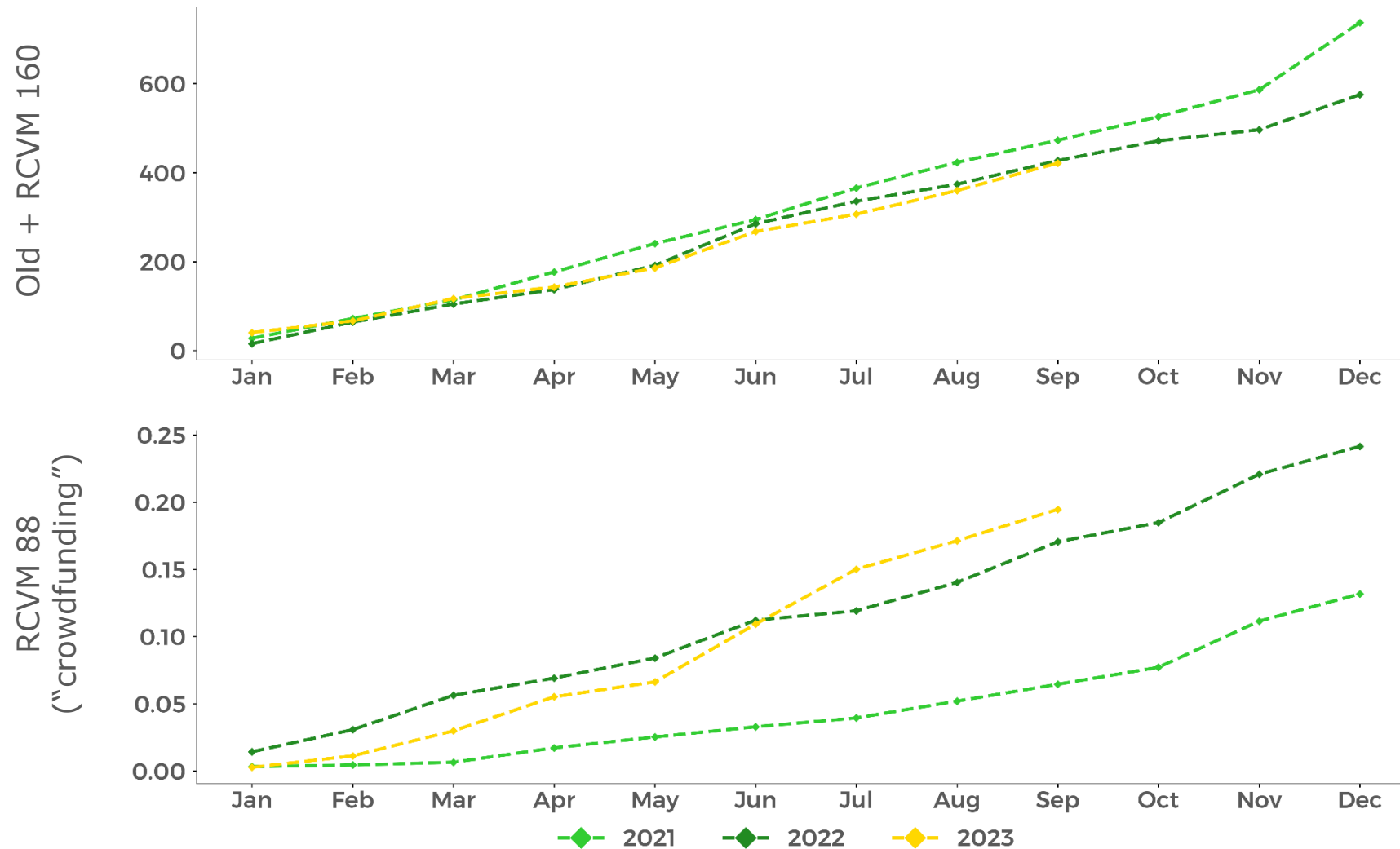


Source: CVM

### 3. Primary markets

#### 3.2. Accumulated totals by rule

3.2.3. Accumulated totals for the current month, by rule (R\$ bi)



Source: CVM

## 3. Primary markets

### 3.3. Annual totals by instrument

\* Consists in estimates and does not include all securities regulated by CVM. Includes stocks+DR, MBS, Agribusiness ABS, CDOs, REITs, Private Equity, CP, bank bonds and corporate bonds (ex-leasing). ICVM 476 offers exclude ongoing efforts. Does not include crowdfunding.

3.3.1. Annual totals (quantity and values)*	2018		2019		2020		2021		2022		2023	
INSTRUMENT	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi	Qty	R\$ bi
Equities	5	11.2	42	90.2	51	117.6	70	130.4	18	57.4	17	29.6
Corporate Bonds	351	149.2	379	185.7	276	121.2	502	251.0	477	269.7	264	149.0
Bank Bonds	14	6.0	21	10.0	2	1.0	-	-	-	-	-	-
Commercial Paper	84	29.0	94	36.6	71	21.9	82	27.0	144	48.4	114	21.6
MBS	101	8.2	188	17.6	230	14.3	430	33.8	425	48.5	339	37.3
Agribusiness ABS	52	6.1	69	14.3	56	13.3	125	25.0	214	43.8	120	26.0
CDOs	198	21.7	269	37.9	305	48.6	692	89.0	463	40.5	778	40.6
REITs	107	17.7	198	42.4	264	49.2	389	62.6	255	36.5	275	48.1
Private Equity	204	38.4	187	41.4	276	56.3	586	118.4	224	30.3	315	69.3
<b>TOTAL</b>	<b>1116</b>	<b>287.3</b>	<b>1.447</b>	<b>476.0</b>	<b>1.531</b>	<b>443.5</b>	<b>2.876</b>	<b>737.3</b>	<b>2.220</b>	<b>575.1</b>	<b>2.222</b>	<b>421.5</b>

Source: CVM

## 3. Primary markets

### 3.3. Annual totals by instrument

\* Consists in estimates and does not include all securities regulated by CVM. Includes stocks+DR, MBS, Agribusiness ABS, CDOs, REITs, Private Equity, CP, bank bonds and corporate bonds (ex-leasing). ICVM 476 offers exclude ongoing efforts. Does not include crowdfunding.

3.3.2. Accumulated totals for the current month (quantity and value)*	2018		2019		2020		2021		2022		2023	
	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi	qty	R\$ bi
<b>INSTRUMENT</b>												
Equities	3	6.8	24	57.6	35	78.4	67	126.1	17	54.7	17	29.6
Corporate Bonds	253	119.0	254	136.0	187	76.2	339	166.0	359	202.2	264	149.0
Bank Bonds	12	5.2	15	7.5	-	-	-	-	-	-	-	-
Commercial Paper	56	23.9	64	27.4	64	18.9	44	14.7	104	29.7	114	21.6
MBS	66	5.5	110	10.8	135	9.6	308	21.1	276	31.9	339	37.3
Agribusiness ABS	35	3.7	40	9.4	28	7.1	76	15.9	152	36.3	120	26.0
CDOs	128	12.6	190	29.0	227	40.5	329	44.1	327	26.6	778	40.6
REITs	78	13.3	129	28.3	171	33.8	232	42.4	172	23.8	275	48.1
Private Equity	144	25.4	131	27.6	184	41.8	220	42.4	158	21.9	315	69.3
<b>TOTAL</b>	<b>775</b>	<b>215.2</b>	<b>957</b>	<b>333.6</b>	<b>1.031</b>	<b>306.3</b>	<b>1.615</b>	<b>472.7</b>	<b>1.565</b>	<b>427.1</b>	<b>2.222</b>	<b>421.5</b>

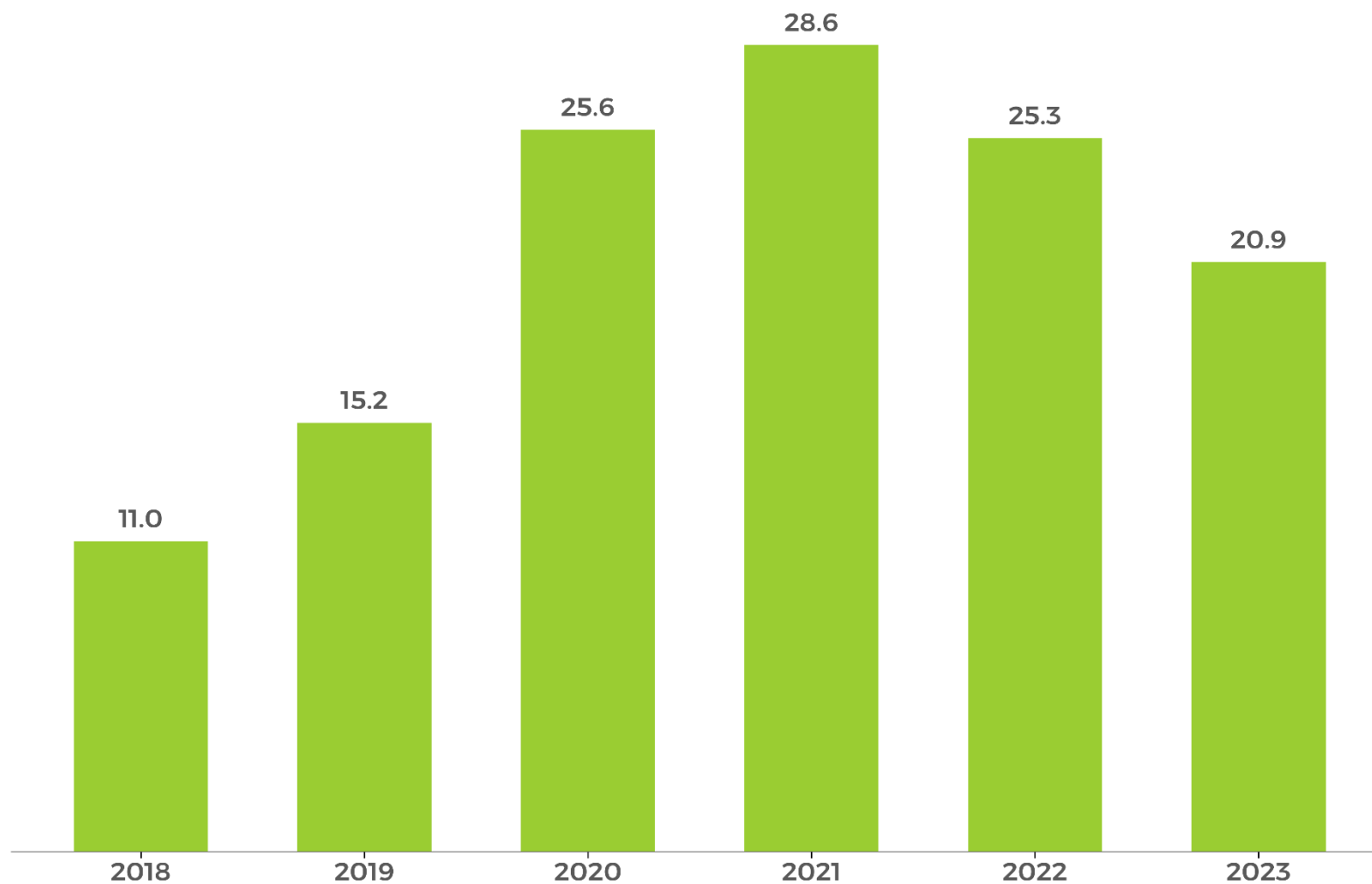
Source: CVM



## 4. Secondary markets

### 4.1. Spot

4.1.1. Average daily volume (R\$ bi) – equities (round lot)

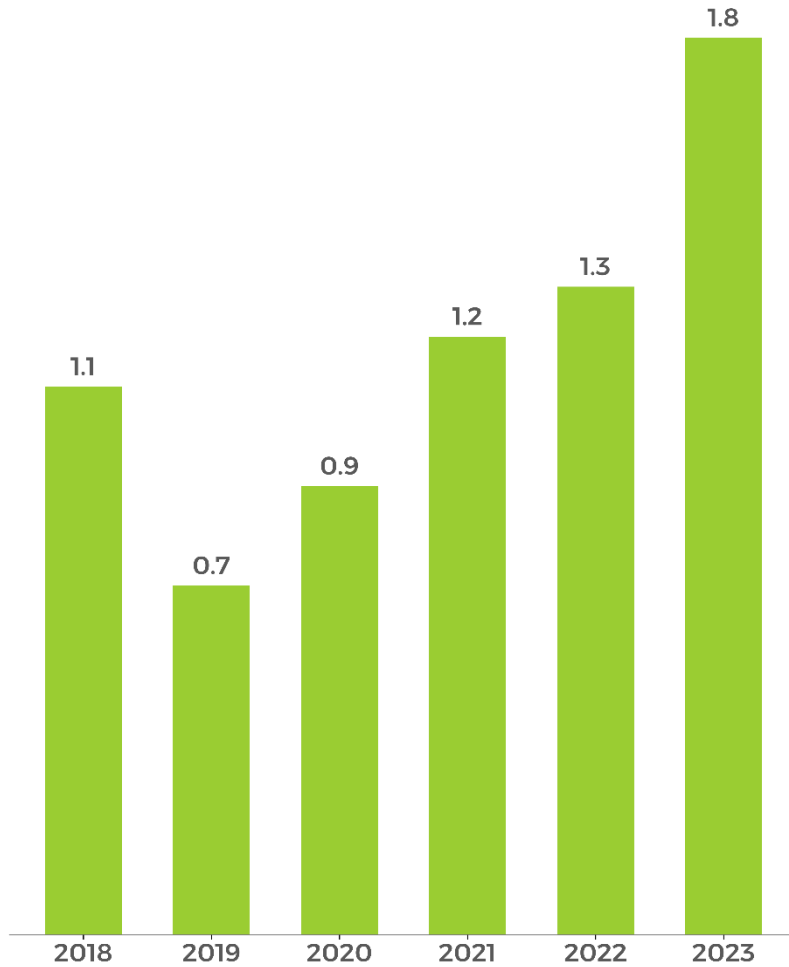


Source: B3

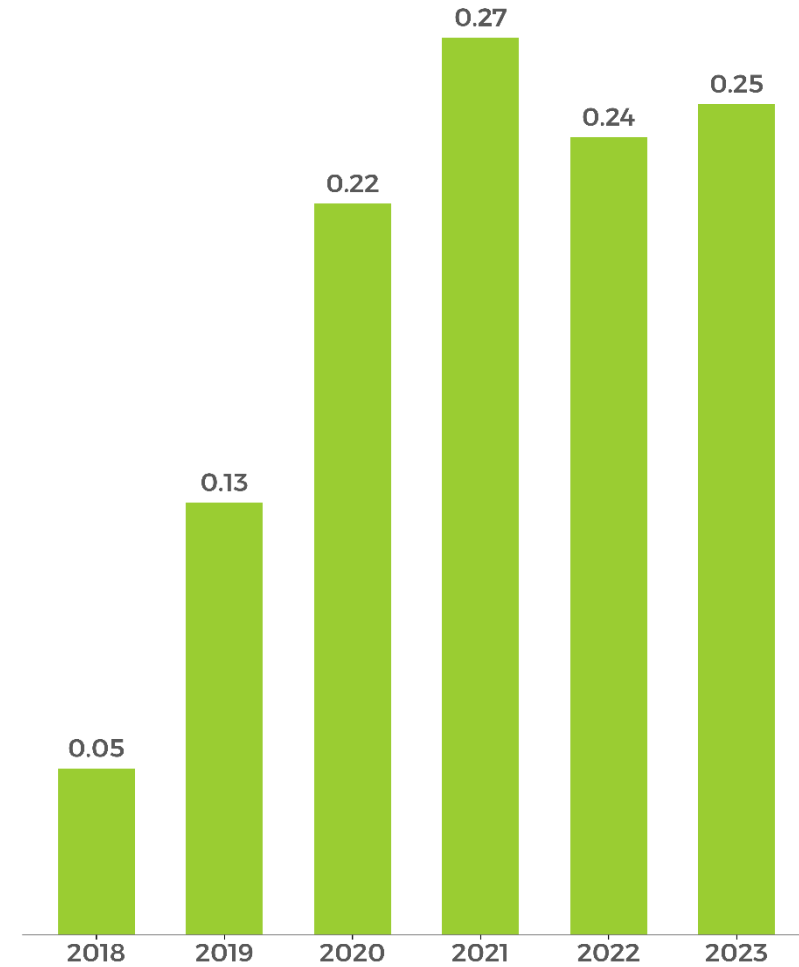
## 4. Secondary markets

### 4.1. Spot

4.1.2. Average daily volume (R\$ bi) – corporate bonds



4.1.3. Average daily volume (R\$ bi) - REITs



Source: ANBIMA and Economática



## 4. Secondary markets

### 4.2. Derivatives

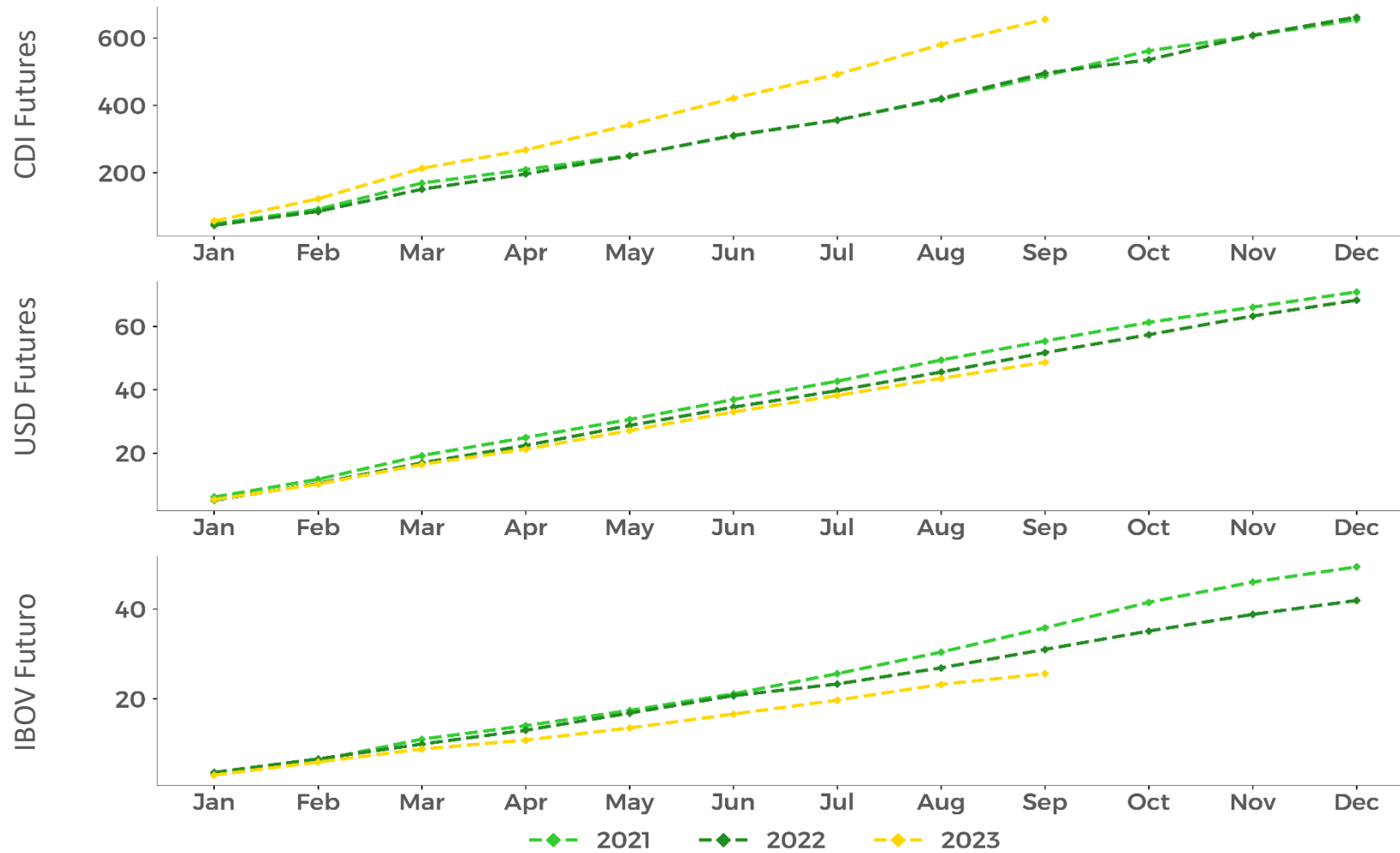
4.2.1. Derivatives – millions of contracts settled on exchanges (annual total)						
INSTRUMENT	2018	2019	2020	2021	2022	2023
CDI Futures	370.8	475.9	516.7	653.9	661.5	654.7
USD Futures	91.7	94.6	80.2	70.9	68.3	48.7
Ibovespa Futures	23.8	36.1	41.9	49.4	41.9	25.6
<b>TOTAL</b>	<b>486.3</b>	<b>606.6</b>	<b>638.8</b>	<b>774.2</b>	<b>771.7</b>	<b>729.0</b>

Source: Organized Market Administrators

# 4. Secondary markets

## 4.2. Derivatives

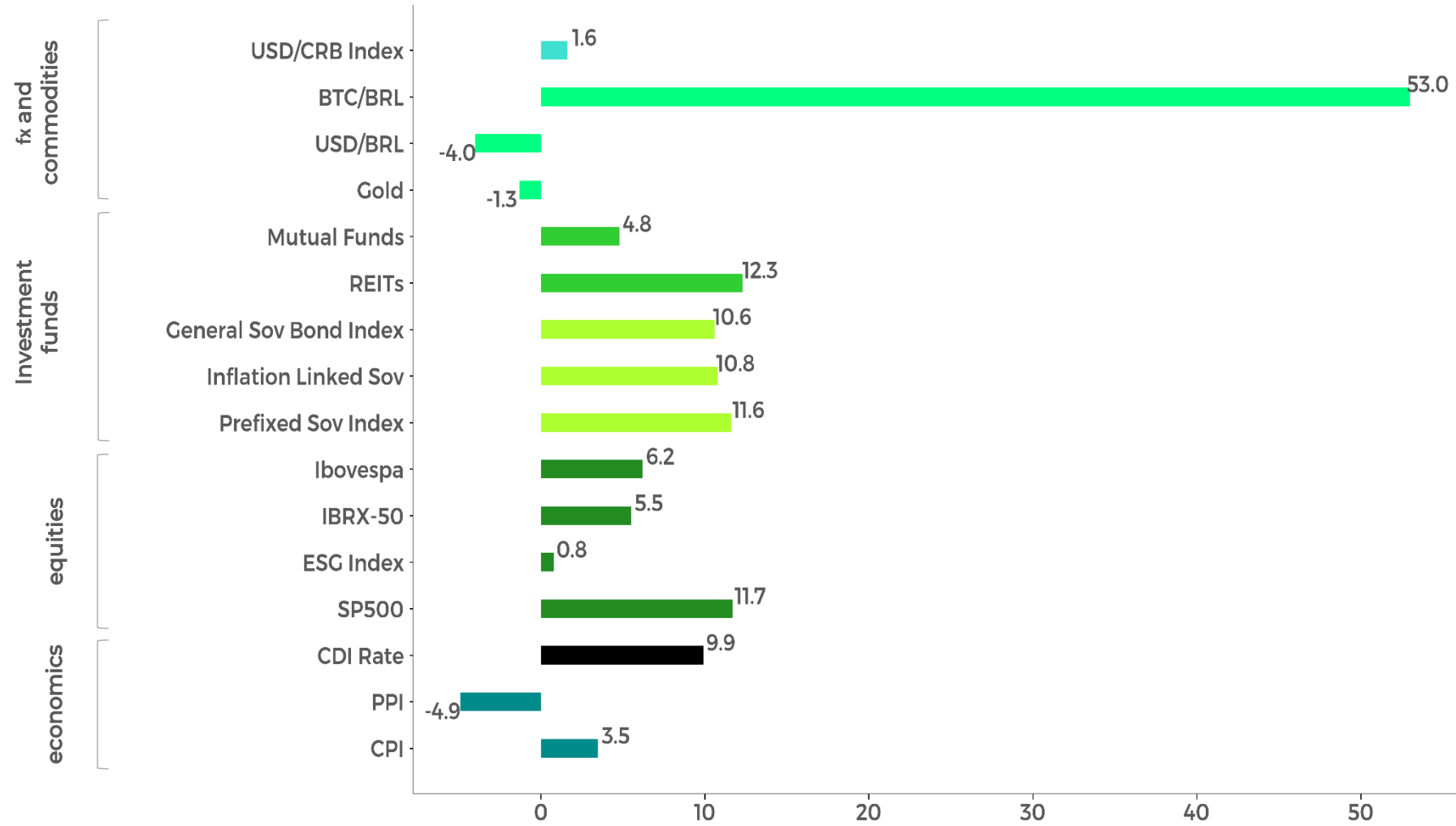
4.2.2. Derivatives – millions of contracts settled on exchanges (accumulated)



Source: Organized Market Administrators

# 5. Asset returns

5.1. YTD % asset returns



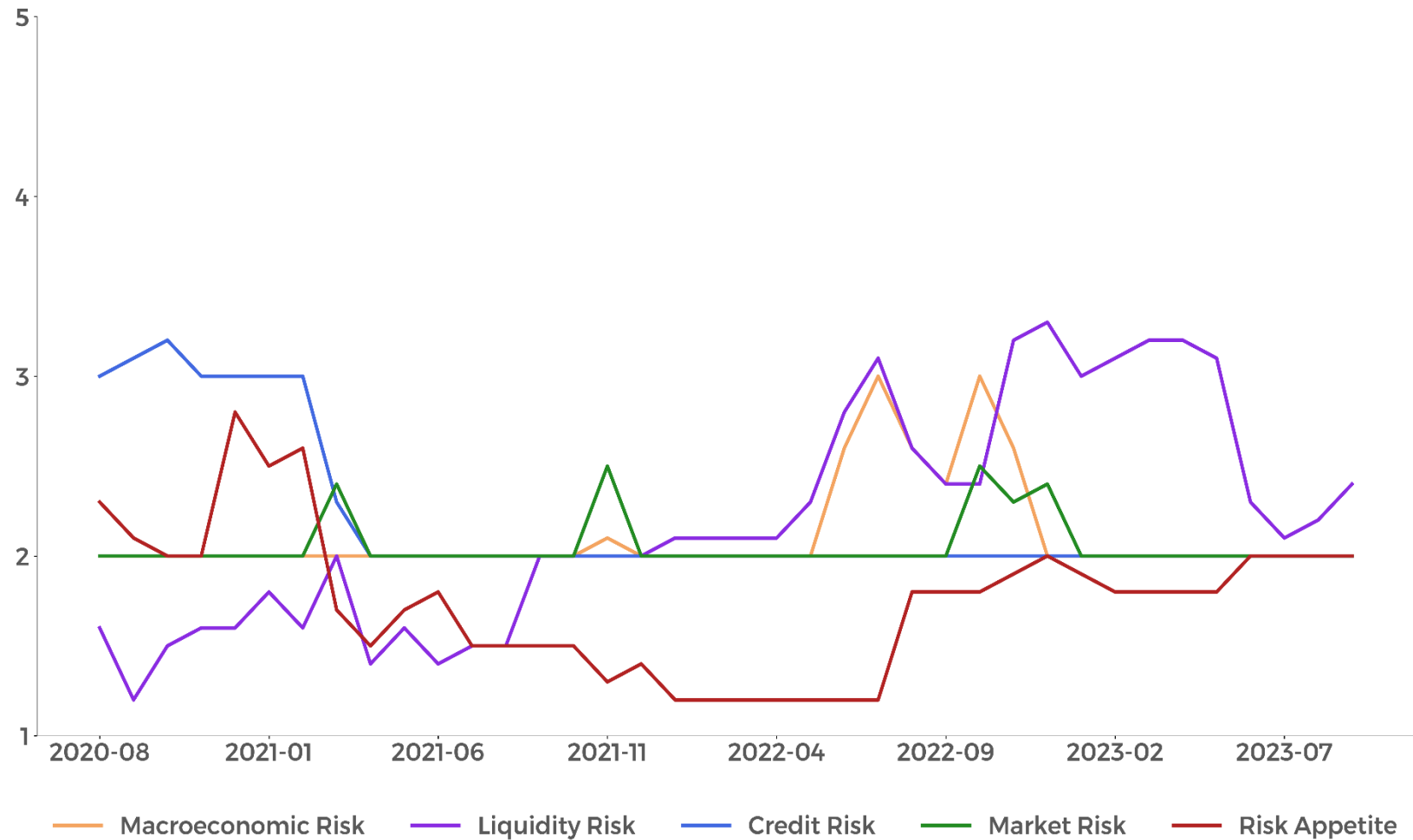
Source: Economatica, Bloomberg

The background is a dark teal color with faint, semi-transparent charts and geometric patterns. On the left, there are several diamond-shaped outlines. In the center and right, there are faint bar and line charts with numerical values and percentages. A vertical yellow line is positioned to the left of the text.

# MARKET SCENARIO


# 6. Risk map

6.1. Risk map – last 36 months



Calculated by CVM according to Methodology

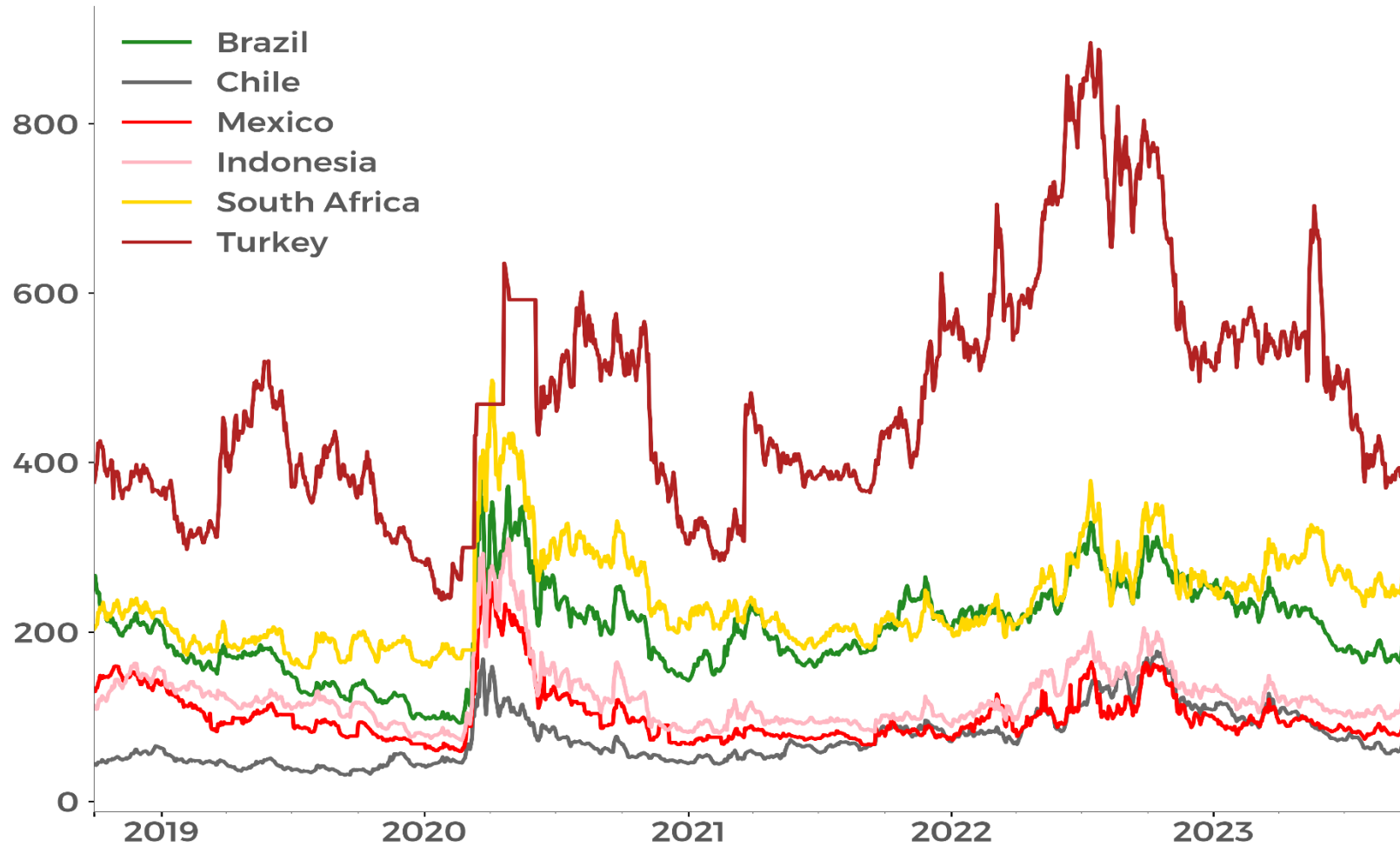
## 6. Risk map - Highlights

	MACRO	MARKET	LIQUIDITY	RISK APPETITE	CREDIT
2023-Q3	2.0	2.0	 2.4	2.0	2.0
2023-Q2	2.0	2.0	2.3	2.0	2.0

- In the context of 2023-Q3, which can be associated to a bear market in global variable income (8.1), reacceleration of volatility (8.2 and 8.4) and negative returns on global fixed income (8.3), connected to the ongoing base rate hikes on DMs, one is able to point out a tiny rise in the liquidity risk indicator, correlated to a deceleration of net inflows of foreign investors in secondary equity markets (10.2).
- Despite stability in the risk appetite indicator, we could observe distinct behaviours for its components. The sovereign spread component (9.2) shows a continuous decoupling of the Brazilian sovereign risk compared to a basket of EM issuers. The rise in US base interest rates has narrowed the spread against the Brazilian sovereign and denotes a higher risk appetite for this single component.
- Finally, one must also point out a relative shock in the end of Q3 for the Brazilian fixed income markets (8.5), which could pressure the market risk indicator. New concerns regarding the proper execution of a deficit narrowing plan have sent real rates higher. Such concerns can also be adversely impacted by a more challenging external scenario, led by higher oil prices in the context of recent escalating international conflicts.

# 7. Macroeconomic risk

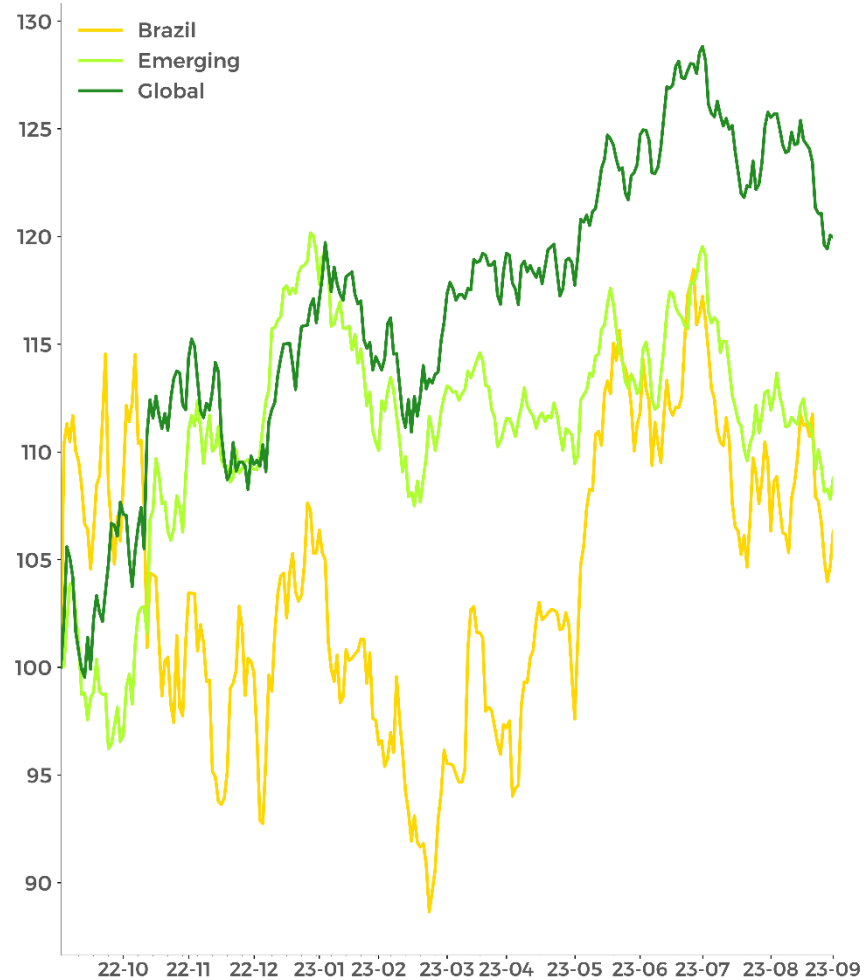
7.1. Sovereign CDS – emerging economies (basis points)



Source: Bloomberg

# 8. Market risk

## 8.1. MSCI equity indexes – last 12 months return



Source: Bloomberg

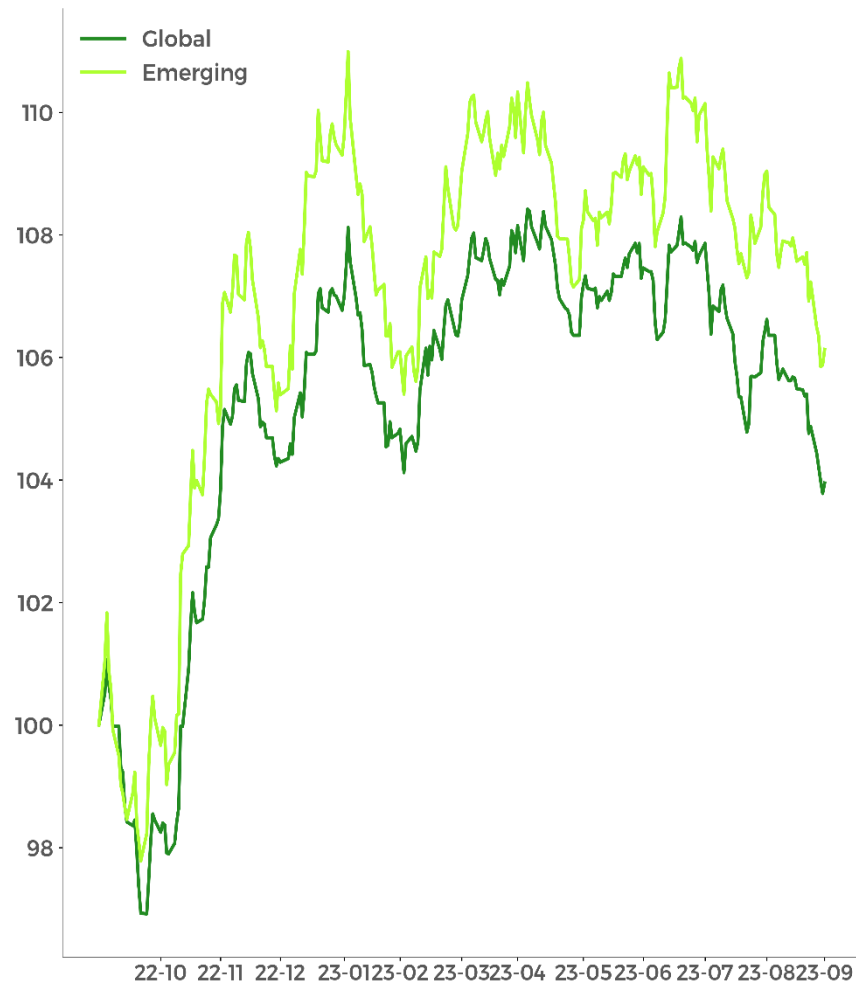
## 8.2. MSCI equity indexes – volatility



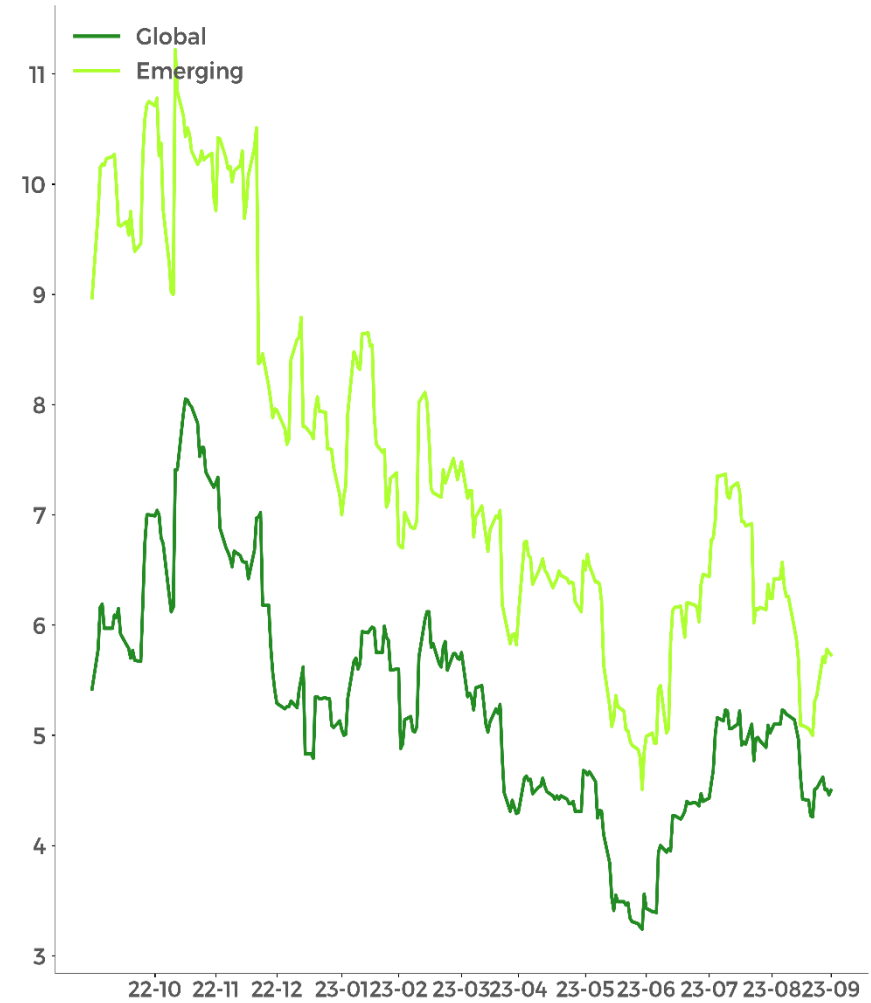


# 8. Market risk

### 8.3. Corporate bond indexes – last 12 months return



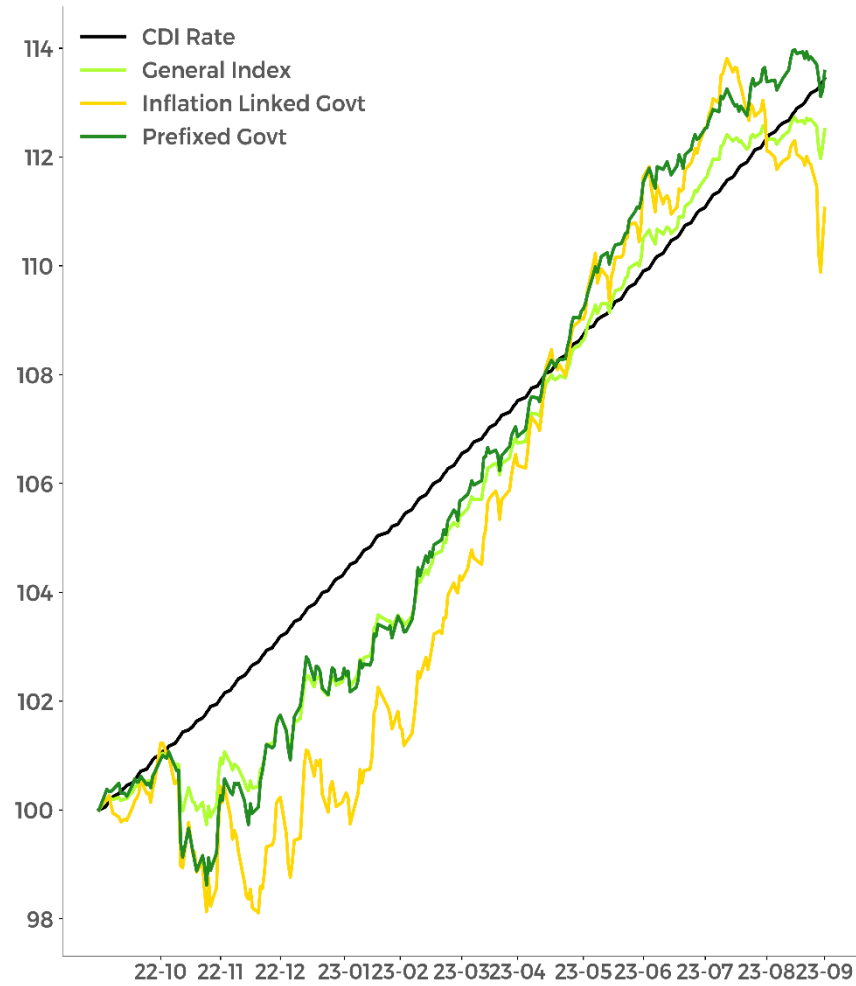
### 8.4. Corporate bond indexes – volatility



Source: Bloomberg

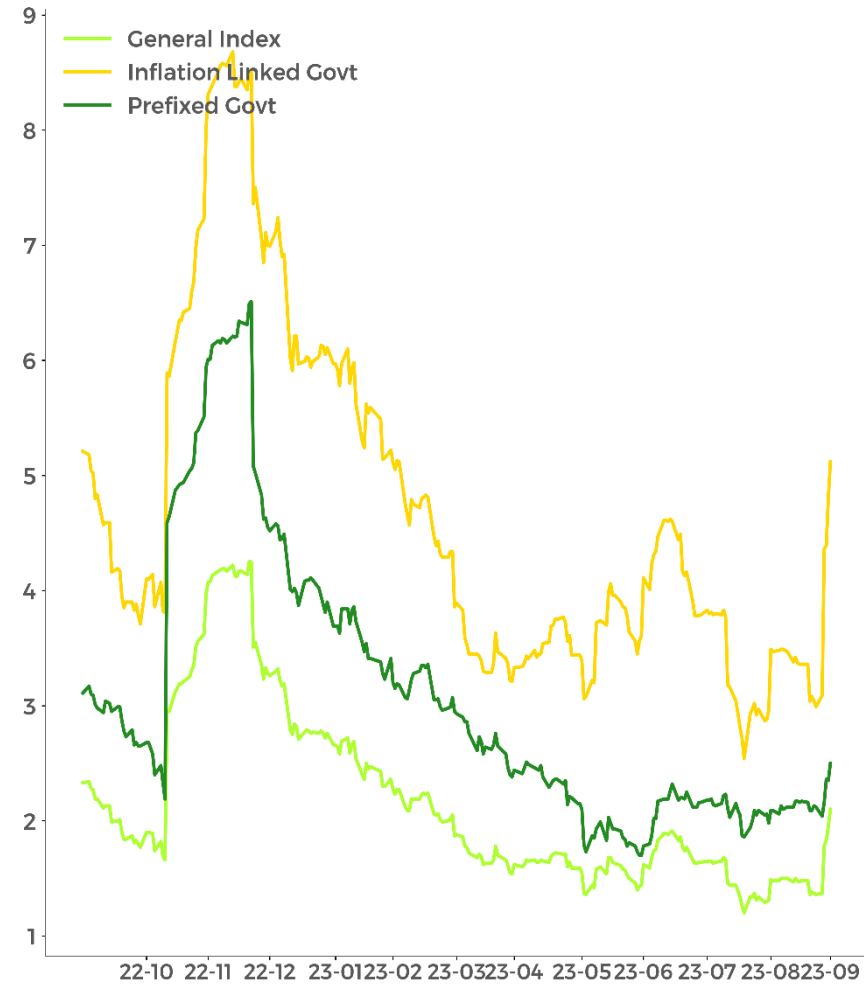
## 8. Market risk

8.5. National fixed income indexes  
– last 12 months return



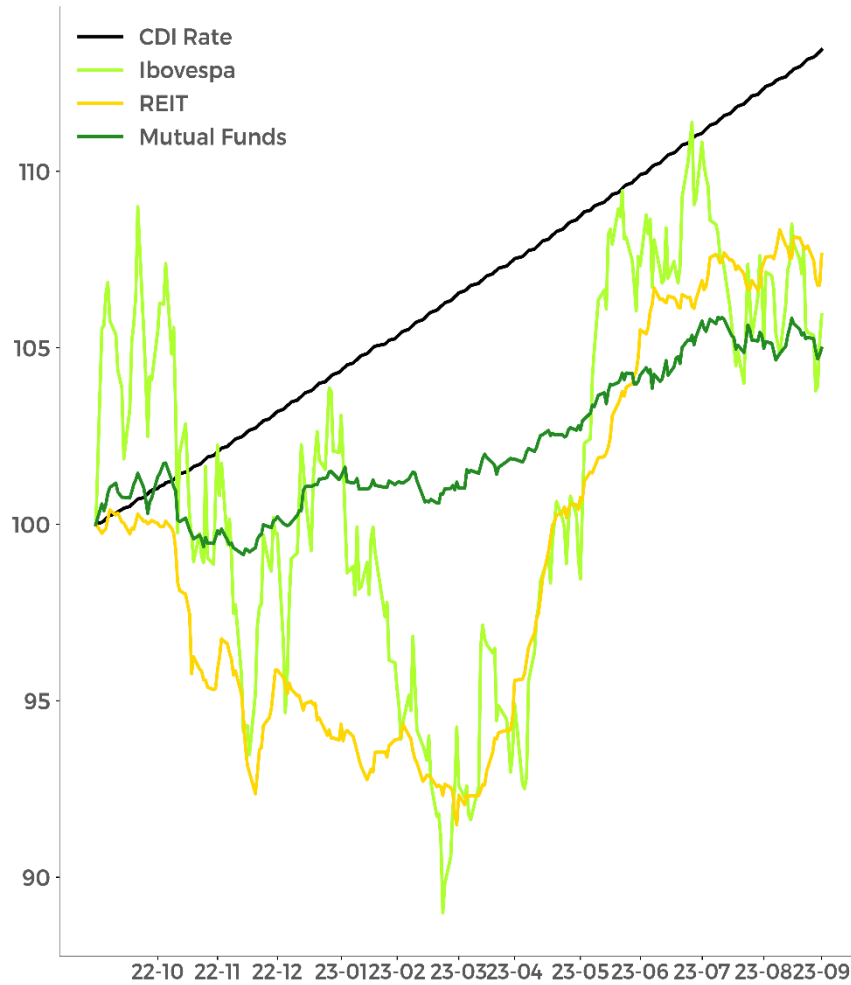
Source: Bloomberg

8.6. National fixed income indexes  
– volatility



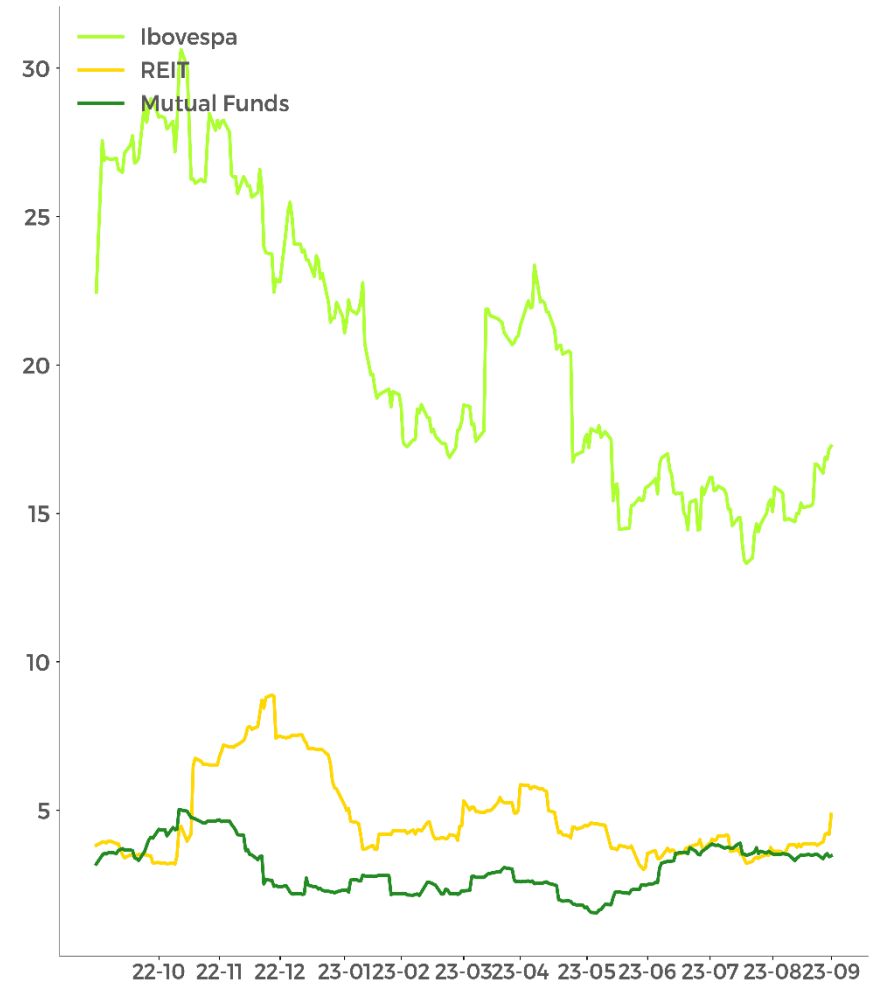
## 8. Market risk

8.7. National variable income indexes  
– last 12 months return



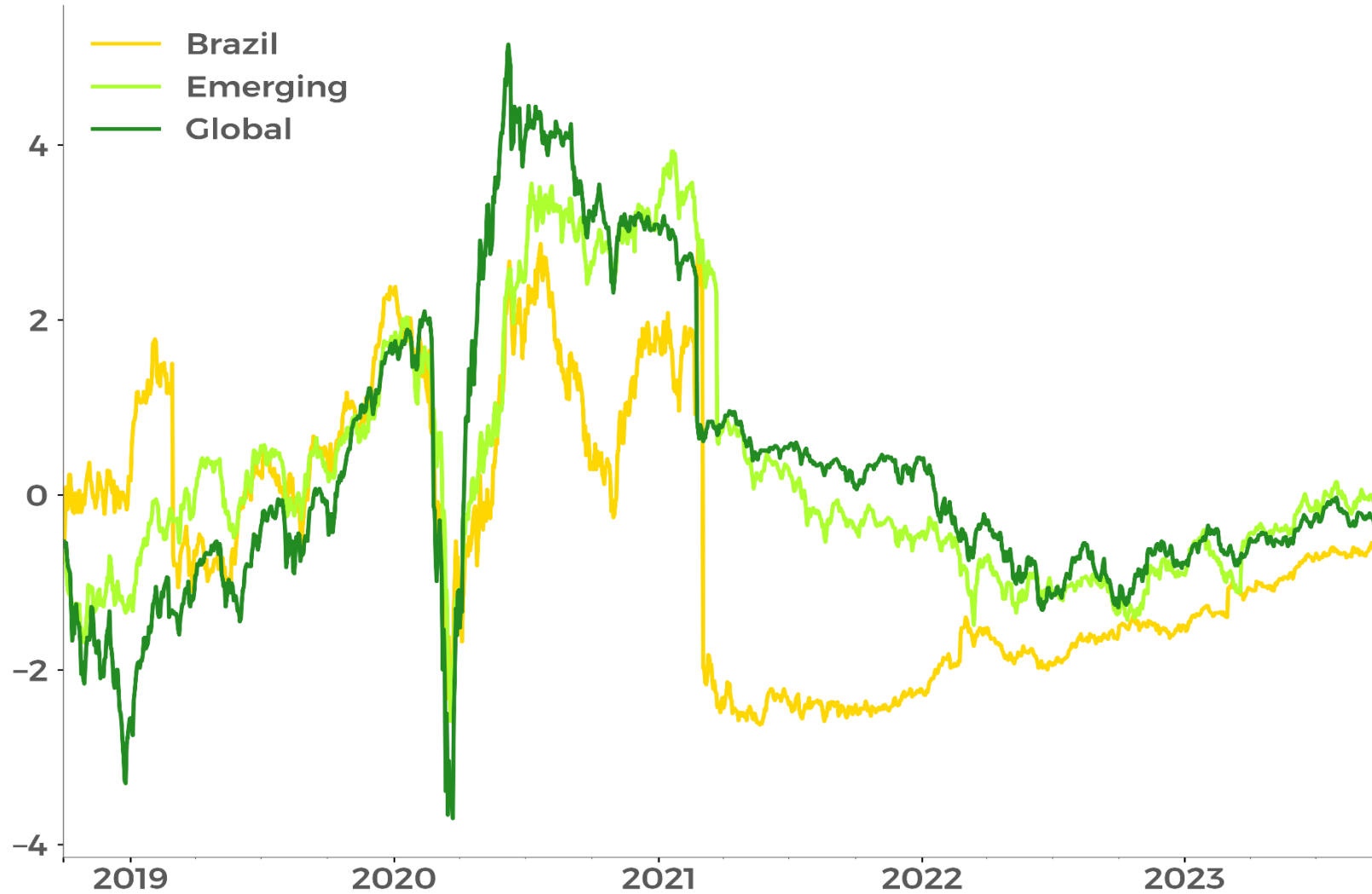
Source: Bloomberg

8.8. National variable income indexes  
– volatility



# 9. Risk appetite

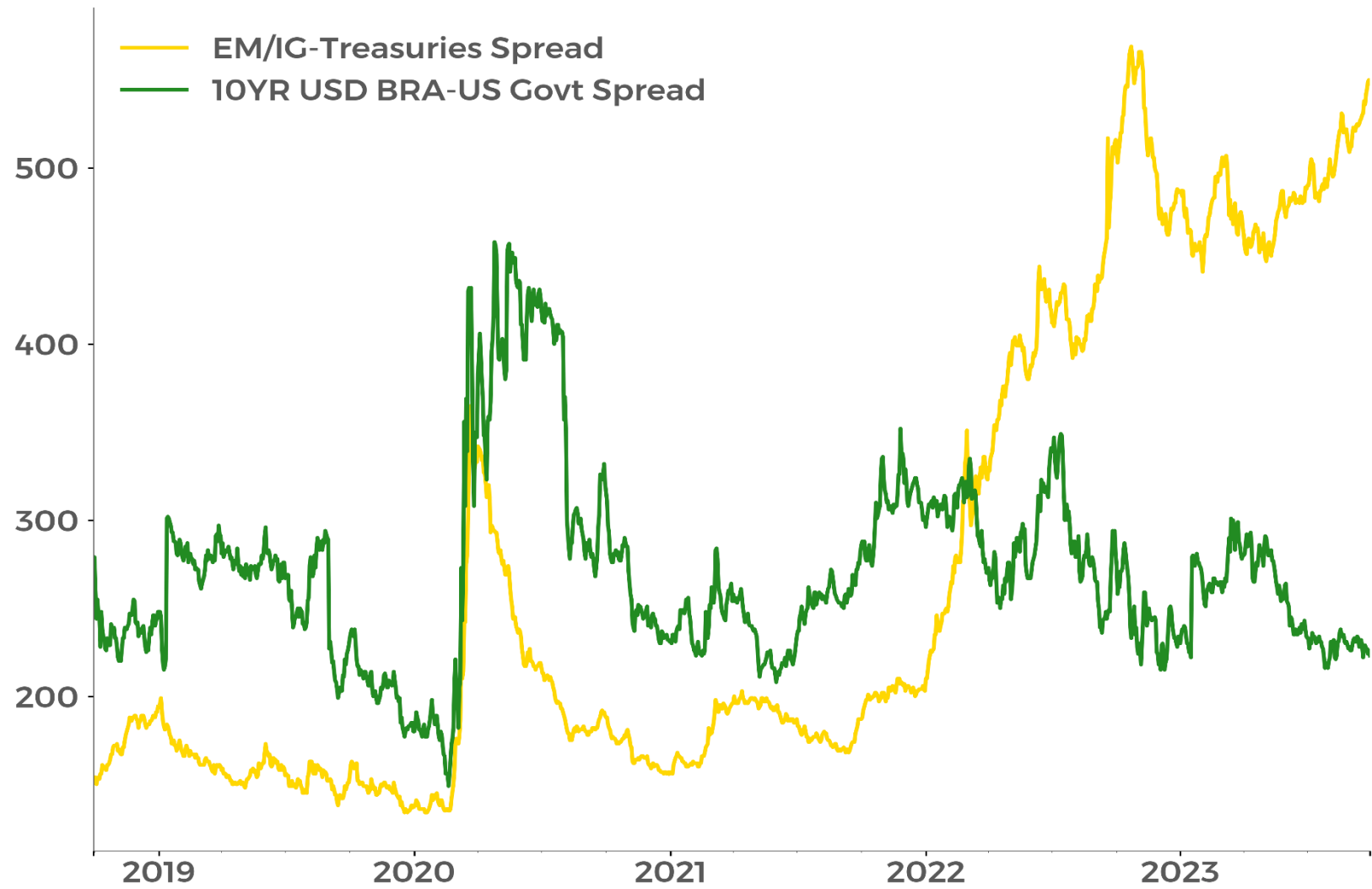
9.1. Adjusted estimated forward PE ratio (Z-Score) – MSCI equity indexes



Source: Bloomberg

# 9. Risk appetite

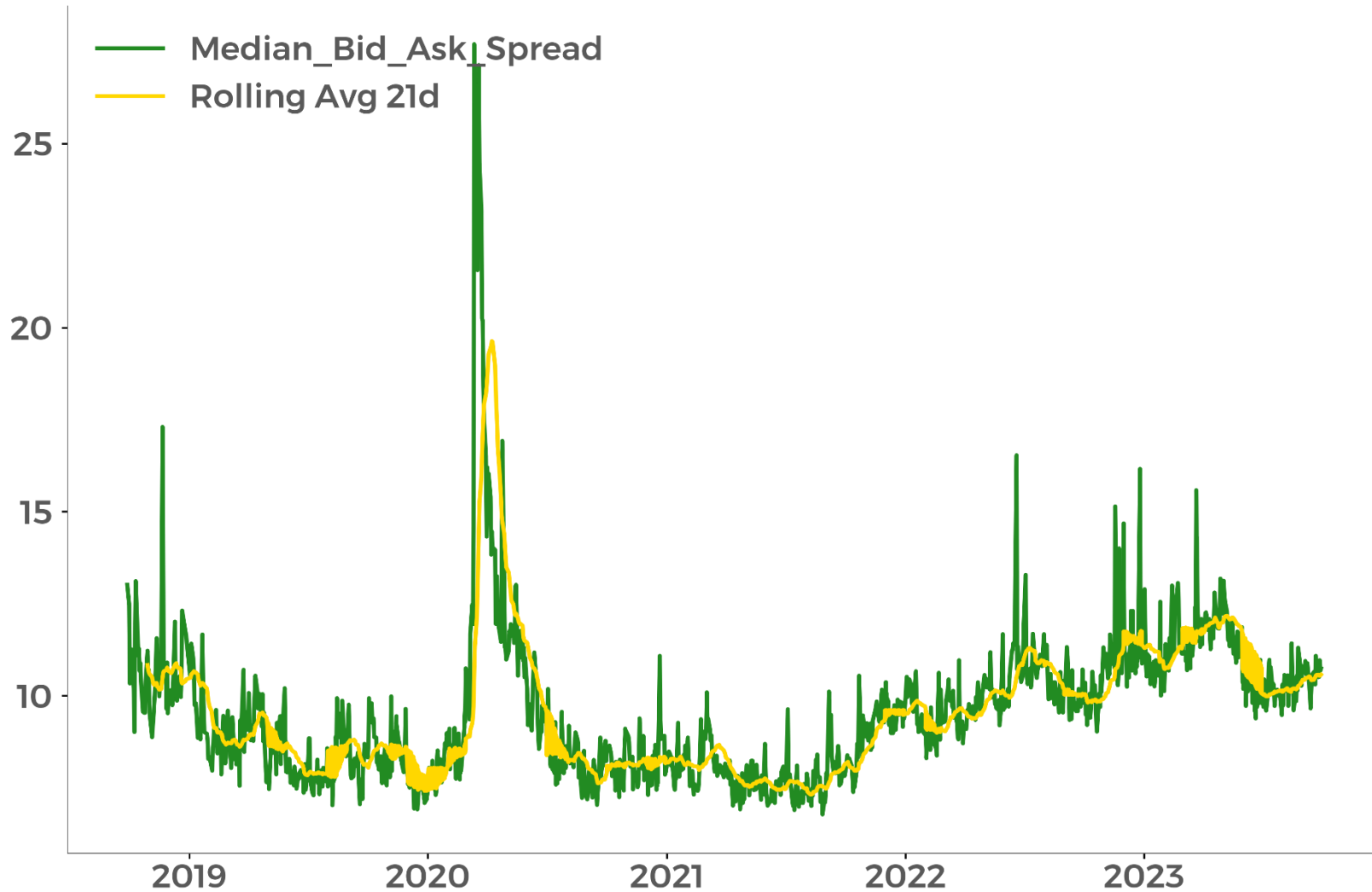
9.2. Spreads vs US treasuries (basis points)



Source: Bloomberg

# 10. Liquidity risk

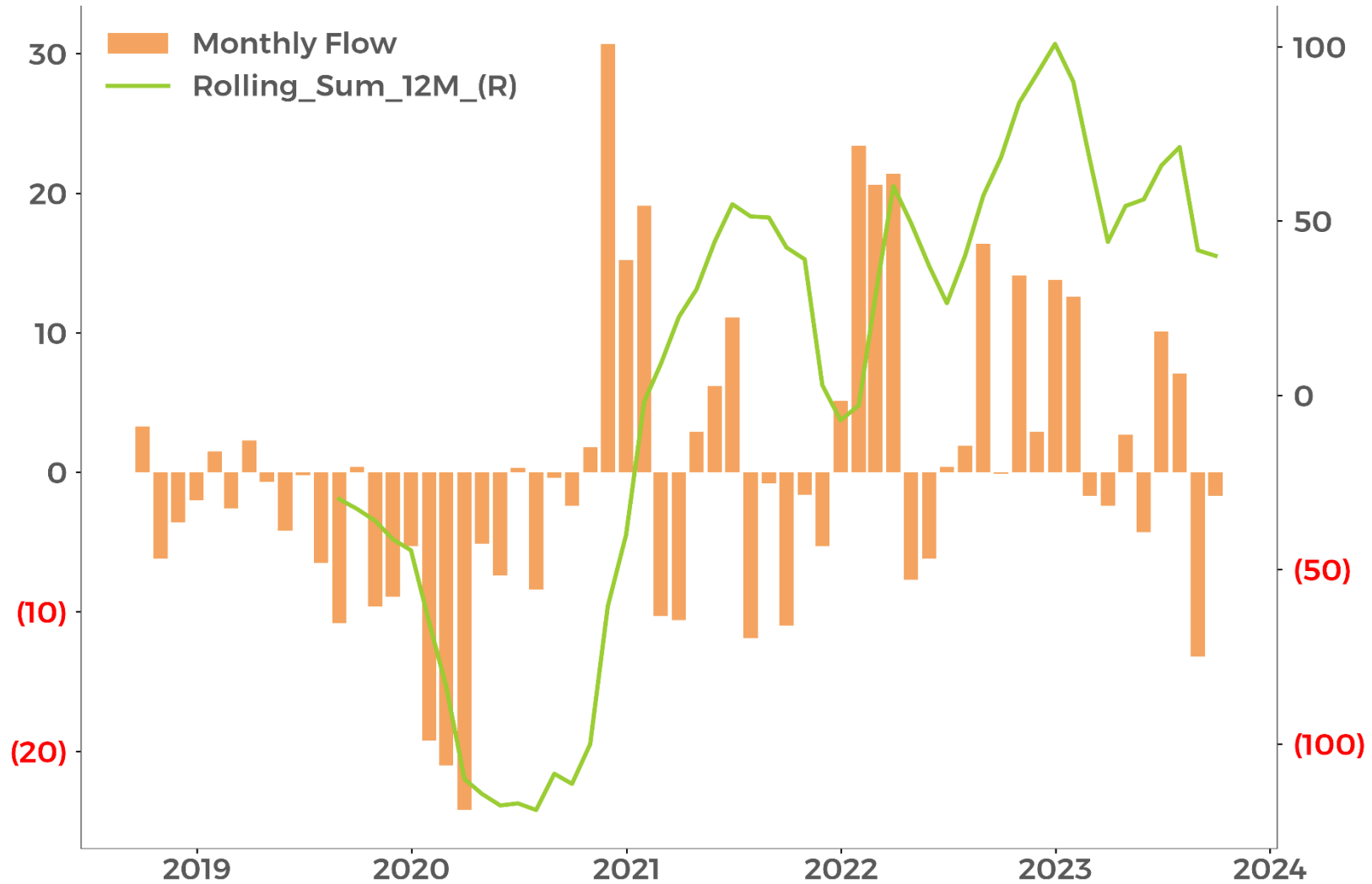
10.1. Bid-Ask spread index – equities (basis points)



Source: Bloomberg

# 10. Liquidity risk

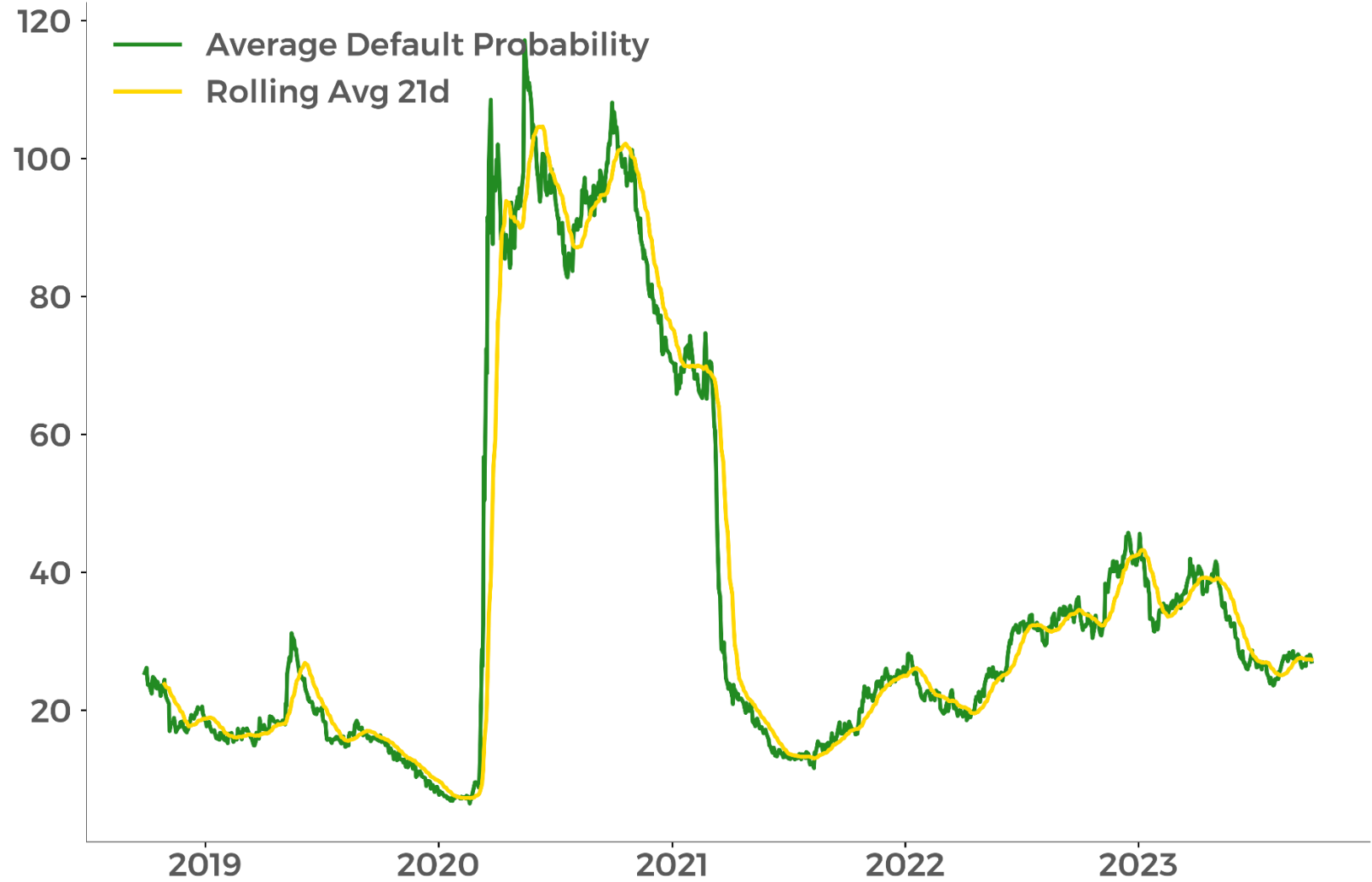
10.2. Net foreign investor inflows on secondary equity markets (US\$ bi)



Source: Bloomberg

# 11. Credit risk

11.1. Default probability index – equities (basis points)



Source: Bloomberg





# Methodology

## Risk map

**Macro risk:** simple monthly average of the daily Z-score (2500 day rolling window) of the 5YR Brazilian sovereign CDS (graph 1.3). Z-score Intervals and corresponding Risk Scale: above 2sd => 5; between 1,5 e 2sd => 4; between 0,5 e 1,5sd => 3; between -1 e 0,5sd=> 2; below -1sd => 1.

**Market risk:** arithmetic average of two composites, respectively the arithmetic monthly average of the daily Z-score (1250 day rolling window) of the 30 day realized annualized volatility of the MSCI Brasil Index (equities, see below) and the Anbima IMA-G Index (fixed income, see below). Z-score Intervals and corresponding Risk Scale: above 2sd => 5; between 1,5 e 2sd => 4; between 0,5 e 1,5sd => 3; between -1 e 0,5sd=> 2; below -1sd => 1.

**Liquidity risk:** simple monthly average of the daily Z-score (1250 day rolling window) of the Bid-Ask Spread Index (see below) . Z-score Intervals and corresponding Risk Scale: above 2sd => 5; between 1,5 e 2sd => 4; between 0,5 e 1,5sd => 3; between -1 e 0,5sd=> 2; below -1sd => 1.

**Risk appetite:** weighted average of three composites: first, the arithmetic average of the Adjusted Estimated PE Ratio, with a 0.5 weight; second, the arithmetic monthly average of the daily Z-score (1250 day rolling window) of the other two series that compose the Risk Appetite section (see below), each series with a weight equal to 0.25. Z-score Intervals and corresponding Risk Scale for the Adjusted Estimated PE Ratio: above 2sd => 5 between 1,5 e 2sd => 4; Between 0,5 and 1,5sd => 3; Between -1 and 0,5sd => 2; Below -1sd => 1. Z-score Intervals and corresponding Risk Scale for remaining series: below -2sd => 5; between -1,5 e -0,5sd => 4; between -0,5 e 1sd => 3; between 1 e 2sd => 2; above 2sd => 1.

**Credit risk:** simple monthly average of the daily Z-score (1250 day rolling window) of the Weighted Average Default Probability Index (see below). Z-score Intervals and corresponding Risk Scale: above 2sd => 5; between 1,5 and 2sd => 4; between 0,5 and 1,5sd => 3; between -1 e 0,5sd=> 2; below -1sd => 1.

## Macro risk

**Sovereign CDS Spreads:** The graphs depict the daily trend of the closing price (in b.p.) of the 5YR sovereign CDS spreads of some emerging markets usually considered peers to Brazil.



# Methodology

## Market indexes

**MSCI equity indexes:** the MSCI World Index (denominated in this report as "Global") reflects the performance of the equity markets of several global markets. The MSCI Emerging Markets Index (denominated in this report as "Emerging") reflects the performance of the equity markets of several emerging markets. The MSCI Indexes also reflect single markets, such as the case of the MSCI Brazil Index.

**Corporate bond indexes:** indexes developed by Barclays/Bloomberg to measure the performance of investment grade bonds, converted to USD when appropriate. The BEHGTRUU Index (denominated in this report as "Emerging") refers to bonds in emerging markets, while the LGCPTRUU Index (denominated in this report as "Global") does the same for the global markets. In Bloomberg methodology, the bonds are weighted by market value, unhedged.

**Índices de Referência:** IRF-M = index composed by a basket of sovereign fixed-rate bonds (LTN and NTN-F). IMA-B = fixed income index that depicts the trend, at market prices, of a basket of retail price inflation-linked sovereign bonds (called NTN-B). IHFA = index for the mutual fund industry in Brazil, whose value reflects, in local currency, the performance of a hypothetical portfolio of mutual funds selected according to a methodology developed by ANBIMA. IFIX = main index for the Brazilian REIT industry. IMA-G = weighted average of the daily returns of IMA-B, IMA-C (wholesale price inflation linked sovereign bond index), IMA-S (floating rate sovereign bonds index) e IRF-M indexes. CDI = index for the main bank overnight rate in Brazil, widely used as benchmark.

**Volatility:** dispersion measure for the realized returns of an index or of a security. The 30 day realized volatility refers to the annualized standard deviation of the closing price returns in the last 30 trading days, expressed in percentage terms.

## Liquidity indexes

**Bid-Ask Spread:** difference of bid and ask prices of a security divided by its midprice, frequently used as a gauge for market liquidity. The lower this ratio, the more liquid the security tends to be. The graph refers to the daily trend of the median spread calculated based on a sample comprised by half of the Ibovespa Index members with the lowest turnover volume for a given month.

**Net foreign inflows on equities:** Monthly foreign investor net inflows in the B3 secondary market for equities and equities derivatives.



# Methodology

## Risk appetite

**Adjusted estimated forward PE ratio:** ratio between the current price of an index or security and its estimated positive earnings for the following accumulated 12 months, according to the consensus of market analysts, excluding companies with negative EPS projections. The PE ratio can be understood as the payback time estimated to recover through its profits the capital investment in a given company. A high PE ratio indicates that the security might be overvalued relative to its recent profit potential. Inversely, a low PE ratio points that the security might be undervalued relative to its profit potential. In this report, the country/region analysis is done using the daily ratio for the corresponding MSCI Indexes as a reference. The calculated indicators refer to the Z-score (1250 trading day rolling window) of such ratios.

**EM\_IG vs US Treasuries:** spread between a USD investment grade mixed corporate/sovereign bond index for emerging markets and the a US treasuries index, expressed as an annual percentage yield. Calculations use the BEHGTRUU Index and the BUSY Index, both available through Bloomberg.

**USD Sovereign Brazil vs US Treasuries:** difference between the yields of a generic 10YR USD-denominated sovereign Brazilian bond and an analogous treasury, both calculated by Bloomberg.

## Credit risk

**Default probability index:** grasps the average default probability of non-holding non-financial corporates traded in the B3 exchange. Its calculation proceeds as follows: for each trading day and for the whole available sample of eligible companies in that day, the weighted average (by market cap) of the 1YR default probabilities is calculated ("BB\_1YR\_DEFAULT\_PROB"), as made available by Bloomberg.



# Methodology

## Primary Markets

**“Old” Regulatory Framework:** includes offerings made under the old CVM rules, filed before 02/01/2023, established by ICVM n° 400/03 (and its exemptions) and 476/09, updated by subsequent rules. Here, the accounting occurs based on the date of register granting (or exemption), in the case of “rule 400”, or in the ending date, in the case of the “rule 476”, always using **the total amount raised**, as announced by the issuer in filings sent to CVM. Such accounting practice implies in retroactive changes related to “Rule 476”, due to the delayed flow of filings sent by the issuers reporting the end of fundraising efforts. The data does not include all types of registration exemptions, neither all securities offered, only those considered most representative.

**“New” Regulatory Framework:** corresponds to offerings under the Rule CVM n°160/22 rule, in force as of 02/01/2023. Those offers are divided in ordinary (with previous analysis by the CVM) and automatic (without previous analysis by the CVM). Unlike the older framework, the accounting of the values occurs here based on the date of the register granting, using **the pretended value of issuance**, as announced by the issuer in the filings sent to CVM. The offer might not reach the total pretended amount, but such information will be sent by issuer to CVM later only. The data does not include all securities offered, only those considered most representative.

**“Crowdfunding” Framework:** corresponds to offerings regulated by the Rule CVM n°88/22, former ICVM 588/17. There were no changes in this framework despite the rule update. Data comes from Annex G.