

Latam Equity Quant

Foreign inflows to Brazil pick up

Investment Strategy

Key takeaways

- Ibov outperformed global markets in Nov. Foreign inflows, higher iron ore prices and lower US rates were key factors.
- Foreign inflows into BZ picked up in Nov as iron ore climbs higher and US rates decline. Flows to EM remain flat.
- Outflows from equity/hedge funds ticked up again this week.

Last week in numbers

Performance of the week: Ibov +0.9%, Mexbol +0.5%, SPX flat, EM +0.3%, Iron ore - 2.6%, Brent oil +2.8% this week in USD terms.

Ibovespa outperformed global markets in Nov. Ibovespa was up +15%, Mexbol +14%, SPX +9%, EM 7% in Nov (USD terms, total return). Yet EM flows stopped in the past 3M (Exhibit 14), the rally in Brazil was likely driven by foreigners, as foreign flows into B3 (Brazil local exchange) picked up in November (Exhibit 2). Key factor for Ibov outperformance was iron ore (+8% in Nov) while US rates continue to decline (US 10Y down 42bp in Nov, Exhibit 2).

Foreign inflows into B3 surged in the last 4 weeks as iron ore climbs higher and US rates decline. (Exhibit 2, Exhibit 3). We saw R\$23bn in Nov-23 (R\$18bn into cash equities and R\$5bn into futures - Exhibit 13), after flattish flows in Oct. It's the biggest monthly inflow since Feb-22. Cumulative foreign inflows (cash + futures + IPO/follow-ons) reached R\$42bn YTD.

Meanwhile, we see no inflows into EM equity funds in the past 13 weeks. EM equity funds had -US\$1.2bn outflows this week (Exhibit 15). YTD, EM equity funds are still positive: +US\$85bn (Exhibit 14).

Once again US inflation was softer than expected. Our outlook is a slower disinflation in 2024, which suggests a cautious cutting cycle beginning in June 2024 and cuts at a rate of 25bp/quarter thereafter (see: [CPI Inflation Watch](#)).

Valuation update: Ibov ex-commodities now trades at around 10% disc. to hist (vs 17% 5 weeks ago, Exhibit 5). Mexbol is currently trading at 15% disc. to hist. (Exhibit 6).

Outflows from equity/hedge funds ticked up again. R\$1.9bn outflows from local equity funds last week, above the avg of outflows/week YTD (R\$1bn outflows/week). Hedge funds had R\$5.7bn outflows last week, compared to R\$2bn outflows/week YTD on avg (Exhibit 11). See the latest [Flows to Know](#) for more details.

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Refer to important disclosures on page 16 to 18.

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Investment Strategy
Latin America

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Exhibit 1: LatAm Earnings Revision Ratio

Earnings Revision Ratio = #Up Revisions / #Down Revisions. Brazil ERR at 0.9. Sector details in Exhibit 24.

LatAm countries	Sep-23	Oct-23
Argentina	2.6	2.1
Brazil	0.8	0.9
Chile	0.8	0.8
Colombia	0.6	0.9
Mexico	0.8	0.9
Peru	0.9	0.8
LatAm	0.8	0.9

Source: BofA Global Research, Factset, Bloomberg
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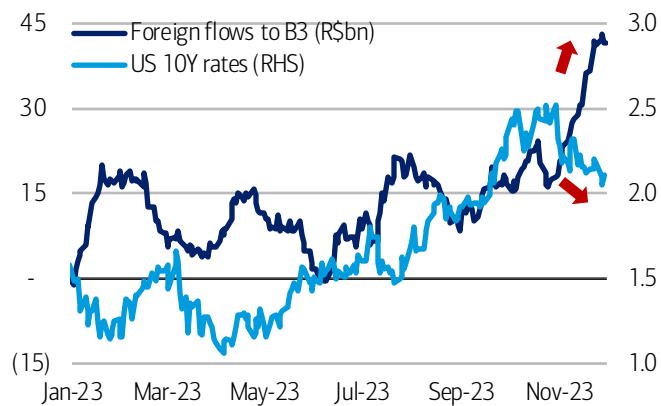
BZ = Brazil

EM = Emergent Markets

ERR = Earnings Revision Ratio

Exhibit 2: Cumulative foreign flow into B3 YTD (R\$bn) vs US10Y

Foreign flows to Brazil peaked up after US rates started to decline.



Source: Bloomberg, B3

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Exhibit 3: Iron ore prices YTD (US\$/t)

Iron ore prices peak up in Nov-23.



Source: Bloomberg

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LatAm valuation

Exhibit 4: Ibovespa P/E ratio (12m fwd)

Trading at 1 Std Dev below historical average, mostly driven by commodities.



Source: BofA Global Research, Bloomberg

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Exhibit 6: Mexbol P/E ratio, Nov-17 to Nov-23

Trading at more than 1 Std Dev below historical average.

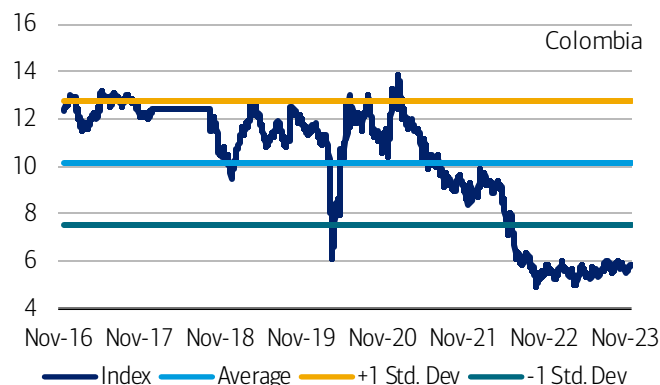


Source: BofA Global Research, Bloomberg

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Exhibit 8: Colcap P/E ratio, Nov-17 to Nov-23

Trading more than 1 Std Dev below historical average.

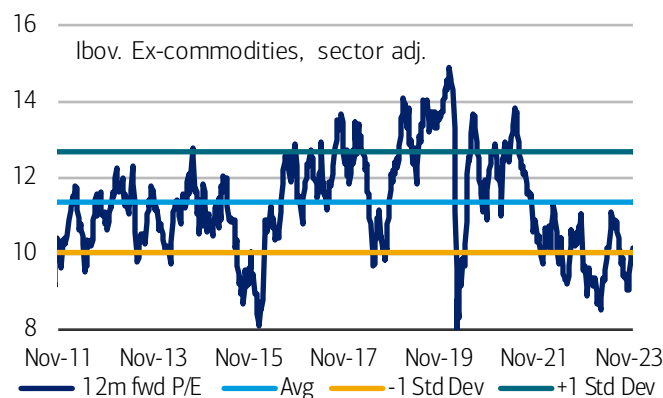


Source: BofA Global Research, Bloomberg

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Exhibit 5: Ibovespa P/E ratio (12m fwd, sector adjusted ex. commodities)

Ibov ex-commodities at 11% discount vs hist.



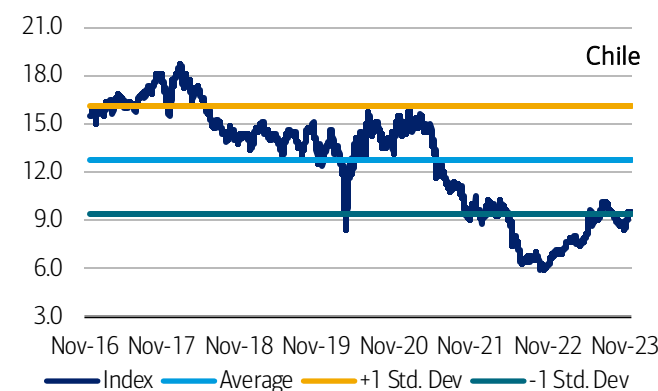
Note: Sector weights were adjusted and kept constant through time.

Source: BofA Global Research, Bloomberg

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Exhibit 7: IPSA P/E ratio, Nov-17 to Nov-23

Trading 1 Std Dev below historical average.



Source: BofA Global Research, Bloomberg

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Exhibit 9: Valuation summary

Brazil 26% discounted vs hist.

Country	Index	Current	Average	Std. Dev	Prem. to Hist	Prem. to EM*
Brazil	Ibov	8.0	10.8	2.7	-26%	-33%
BZ	Ex-commod.	10.1	11.3	1.3	-11%	-12%
Mexico	Mexbol	11.9	14.1	1.8	-15%	4%
Chile	Ipsa	9.6	12.8	3.4	-25%	-17%
Peru	SPBLPGPT	8.6	12.1	2.6	-29%	-13%
Colombia	Colcap	5.9	10.1	2.6	-42%	-55%
Argentina	Merval	6.2	9.9	3.0	-37%	-41%
EM	MXEF	11.5	12.2	1.2	-5%	-

Source: BofA Global Research, Bloomberg

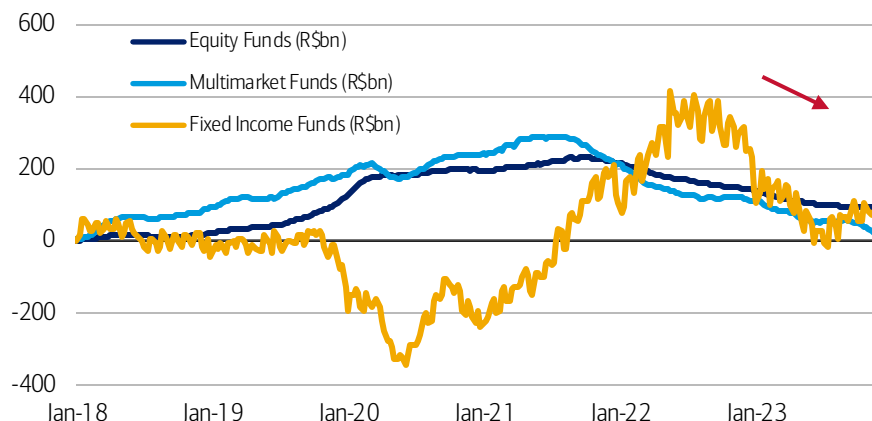
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Flows & Positioning

Brazil flows

Exhibit 10: Cumulative flows into Brazil local fixed income, equity funds and local multimarket (hedge) funds (R\$bn)

Outflows from Brazil local equity and multimarket funds are slowing down in 2023.



Source: BofA Global Research, Economática

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Exhibit 11: Equity and Multimarket funds weekly flows (R\$mnn) (Brazil local funds)

Flow picture is improving in 2023

Equity and Multimarket funds weekly flows (R\$mnn)

Fund type (R\$mnn)	AUM	29-Sep	6-Oct	13-Oct	20-Oct	27-Oct	3-Nov	10-Nov	17-Nov	24-Nov	1-Dec*	2023	2022
Equity Funds	247,456	-236	-336	-171	-664	-395	-803	-606	-545	-839	-49	-34,550	-42,836
Foreign Investments	129,905	-147	-129	197	-5	12,766	5,197	3,036	-150	-219	-102	16,204	-18,740
Ibovespa Active	44,071	25	-138	-23	-164	-153	16	-392	-656	-656	-72	-9,702	-16,714
Sector	10,974	50	27	74	145	37	-9	-17	-28	-20	-7	475	-1,860
Value / Growth	18,009	-157	-27	-76	-22	-41	-79	-94	-56	-104	-43	-4,551	-6,745
Dividends	12,472	67	3	2	-4	5	-7	-83	-249	-78	-2	-1,772	-434
Ibovespa Passive	11,253	-1	-32	-60	-89	24	-9	-259	-242	-129	-50	-1,227	-2,932
Small Caps	5,780	56	77	11	6	-3	-12	-10	25	-13	5	-347	-2,243
Single Stocks	9,972	-3	-2	-19	6	-35	-36	-25	-14	-52	-2	-857	-2,225
ESG	122	0	0	0	0	0	0	-1	0	2	0	-14	-366
Equity Funds (Total)	490,013	-347	-557	-65	-793	12,202	4,259	1,548	-1,915	-2,108	-321	-36,341	-95,096
Equity Funds (Total ex. Foreign Invest.)	360,108	-200	-428	-262	-787	-563	-939	-1,488	-1,765	-1,889	-219	-52,545	-76,355
Multimarket	839,505	-935	483	-2,370	-555	-1,794	-406	-1,998	-3,216	-2,215	-819	-32,768	-69,300
Foreign Investments	812,139	2,655	-3,029	553	-1,927	-3,625	-2,630	-8,165	-4,824	-3,922	-1,730	-46,644	-22,102
Macro	239,076	-1,303	-992	-1,407	-2,400	-1,995	-2,376	-2,074	-1,915	-2,817	-1,221	-54,712	-14,754
Dynamic Multimarket	48,340	-252	-282	-331	-55	-295	-279	-341	-318	-228	-196	-5,919	-16,130
Specific Strategy	68,721	-11	-12	-107	-99	144	41	-9	33	-309	-196	2,751	-2,279
Long/Short Directional	7,842	-15	-29	-26	-106	-23	-45	-52	-29	-31	-19	-2,396	-3,384
Balanced	12,023	-181	9	-62	-15	-57	11	3	-16	-98	-38	-1,006	-54
Trading	3,731	-5	-15	-10	-14	-22	-3	-9	-12	-25	4	-591	-1,154
Long/Short Neutral	2,382	-3	6	8	-10	-5	17	26	8	-14	0	-304	-527
Protected Capital	792	-1	-1	-2	-2	-2	-1	0	-1	0	0	77	-196
Multimarket Funds (Total)	2,034,550	-51	-3,862	-3,752	-5,182	-7,674	-5,671	-12,619	-10,290	-9,659	-4,215	-141,513	-129,878
Multimarket Funds (Total ex. Foreign Invest.)	1,222,411	-2,706	-833	-4,306	-3,256	-4,048	-3,041	-4,454	-5,466	-5,736	-2,485	-94,868	-107,777

(*) Preliminary data, up to Wednesday.

Source: Economática

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Exhibit 12: Fixed Income funds weekly flows (R\$bn) (Brazil local funds)

Brazil local fixed income funds had inflows in Aug-23.

Fixed Income funds weekly flows

Fund type	AUM	3-Nov	10-Nov	17-Nov	24-Nov	1-Dec*	YTD
FI Short Duration - Invest. Grade	971	-3.1	4.1	1.8	4.5	-0.8	-81.4
FI Short Duration Govt	882	1.6	1.9	14.0	-14.2	16.0	62.2
FI All Duration Credit	342	1.9	3.9	-1.0	3.2	0.5	52.2
FI All Duration - Invest. Grade	750	-5.0	-6.9	5.2	4.3	-0.2	-19.9
FI All Duration Govt	238	-3.7	1.9	-0.6	0.1	-0.2	3.2
FI (Broad)	370	-6.6	3.1	1.6	2.8	-3.2	-0.8
Other	511	-0.5	0.4	-0.2	0.6	-0.8	-7.0
Fixed Income (Total) Ex. Foreign Invest.	4,058	-15	8	21	1	11	9

(*) Preliminary data, up to Wednesday.

Source: Ecomatica

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Exhibit 13: Foreign flow to B3 (R\$bn), Dec-22 to Nov-23

Flows are positive YTD

Month	Futures	Cash	IPO/follow-on	TOTAL
Dec-22	-4	14	1	12
Jan-23	6	13	0	19
Feb-23	-9	-2	0	-11
Mar-23	-2	-2	2	-3
Apr-23	3	3	1	6
May-23	-6	-4	0	-10
Jun-23	-7	10	4	7
Jul-23	3	7	3	13
Aug-23	-3	-13	3	-13
Sep-23	10	-2	0	8
Oct-23	5	-3	0	2
Nov-23	5	18	0	23
12M Cumulative	1	38	14	53
2023 YTD	5	24	12	42
2022	-2	101	17	116
2021	27	-7	44	64

Source: B3, Bloomberg

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Global flows

Exhibit 14: Cumulative flows into EM equity funds (US\$bn), 2018-2023

EM equity funds had US\$1.2bn outflows this week.



Source: EPFR

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Exhibit 15: Weekly flows to LatAm and EM funds (US\$mn)

EM equity funds had US\$1.2bn outflows this week.

Region	Week	% Current Assets	4 Weeks	% Current Assets	YTD	% Current Assets
LatAm	20	0.2%	158	1.6%	702	6.9%
Brazil	60	0.3%	178	1.0%	(289)	-1.7%
Mexico	47	0.5%	349	3.5%	530	5.4%
Andean	(2)	-0.1%	4	0.1%	(77)	-2.5%
LatAmTotal	128	0.3%	705	1.8%	902	2.2%
China	251	0.0%	(370)	0.0%	72,986	4.9%
EM Total	(1,195)	-0.1%	(2,760)	-0.2%	85,024	5.7%

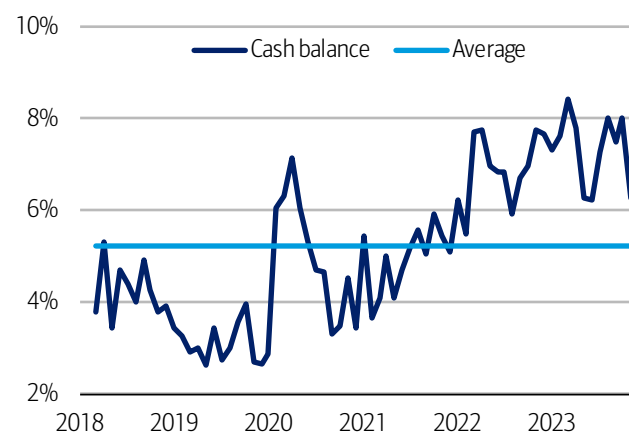
Source: EPFR

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LatAm positioning

Exhibit 16: Average cash position (2018-2023)

Cash levels at 6.3% in Nov-23, above hist avg (5%).

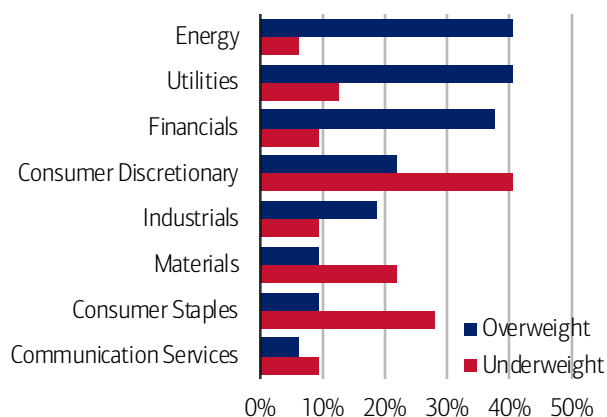


Source: LatAm Fund Manager Survey

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Exhibit 17: Which sectors among equities are you most underweight?

Participants are more underweight C. Discretionary, C. Staples, Materials and Communication than they are overweight.



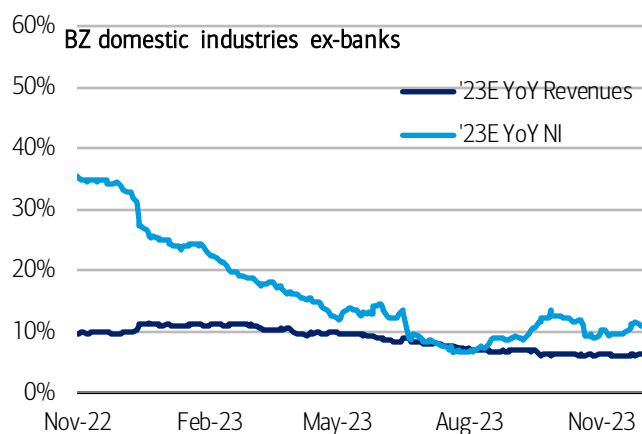
Source: LatAm Fund Manager Survey

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Consensus Earnings Revisions for Brazil

Exhibit 18: Brazil domestic industries: consensus revised NI downwards but still expected at 11% YoY growth

Brazil domestic industries (ex-banks) revenues vs NI consensus estimates (2023E YoY growth).



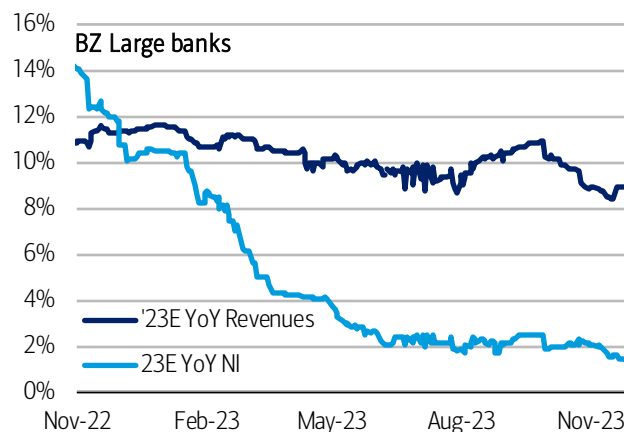
Consensus estimates.

Source: Bloomberg, BofA Global Research

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Exhibit 19: Brazil Banks: consensus revised NI downwards since Nov-22, but still expected at +1% YoY for 2023.

BZ large banks revenues vs NI consensus estimates (2023E YoY growth).



Consensus estimates.

Source: Bloomberg, BofA Global Research

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Earnings Revision Ratio (ERR)

The Earnings Revision Ratio measures the number of revisions for which the consensus EPS estimate has risen versus the number for which it has fallen.

An ERR above 1 means more upwards revisions than downwards revisions. However, historically analysts tend to start overly optimistic and do more downwards revisions down the line. As a result, **the overall historical average of the 3-month ERR is close to 0.8**

Exhibit 20: LatAm 3-month ERR – country details

Brazil 3-month ERR at 0.6 in Oct-23.

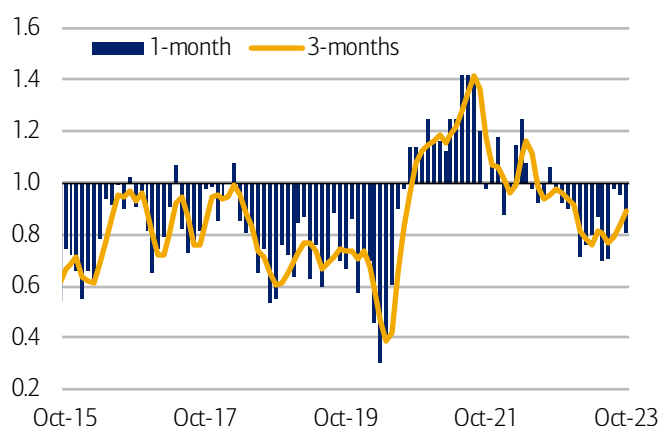
LatAm countries	12m Avg	Aug-23	Sep-23	Oct-23	1M Chg in 3M ERR
Argentina	2.6	3.6	2.6	2.1	-0.46
Brazil	0.7	0.8	0.8	0.9	0.06
Chile	0.8	0.8	0.8	0.8	-0.07
Colombia	0.7	0.6	0.6	0.9	0.26
Mexico	1.0	0.8	0.8	0.9	0.05
Peru	0.8	0.7	0.9	0.8	-0.13
LatAm	0.8	0.8	0.8	0.9	0.05

Source: BofA Global Research, Factset, Bloomberg

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Exhibit 21: LatAm Earnings Revision Ratio (Oct 15-Oct 23)

3-month ERR at 0.9 in Oct-23.



Source: BofA Global Research, Factset, Bloomberg

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Exhibit 22: LatAm 3-month ERR – sector details

Real Estate shows the highest ERR (1.5).

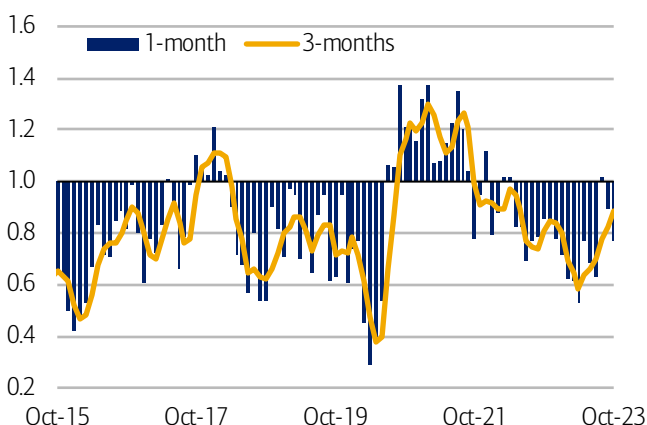
LatAm sectors	12m Avg	Aug-23	Sep-23	Oct-23	1M Chg in 3M ERR
C. Discretionary	0.8	1.0	1.0	0.9	-0.02
C. Staples	0.8	0.7	0.6	0.8	0.16
Energy	0.8	0.8	0.9	1.4	0.42
Financials	1.4	1.6	1.6	1.4	-0.15
Health Care	0.6	1.3	1.5	1.0	-0.49
Industrials	0.9	0.7	0.7	0.7	-0.02
IT	1.2	1.1	1.0	0.9	-0.09
Materials	0.7	0.5	0.5	0.6	0.05
Real Estate	1.0	0.9	1.1	1.5	0.39
Communication	0.8	0.8	1.0	1.0	-0.04
Utilities	1.1	1.0	1.2	1.4	0.23
LatAm	0.8	0.8	0.8	0.9	0.05

Source: BofA Global Research, Factset, Bloomberg

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Exhibit 23: Brazil Earnings Revision Ratio (Oct 15-Oct 23)

Communication and Real Estate show highest ERR in October.



Source: BofA Global Research, Factset, Bloomberg

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Exhibit 24: Brazil 3-month ERR – sector details

Communication and Real Estate show highest ERR in October.

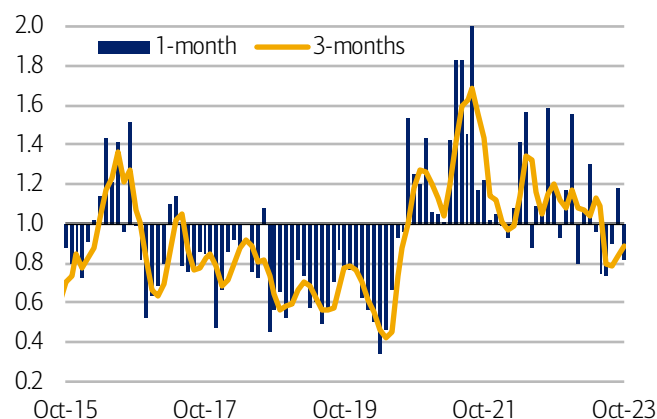
Brazil sectors	12m Avg	Aug-23	Sep-23	Oct-23	1M Chg in 3M ERR
C. Discretionary	0.6	0.8	0.9	1.0	0.08
C. Staples	0.6	0.8	0.6	0.6	-0.02
Energy	0.8	0.8	1.0	1.5	0.57
Financials	1.2	1.9	1.8	1.5	-0.31
Health Care	0.6	1.2	1.4	0.9	-0.50
Industrials	0.8	0.9	0.8	0.7	-0.06
IT	1.3	1.2	1.0	0.9	-0.10
Materials	0.6	0.3	0.4	0.5	0.11
Real Estate	1.6	0.9	1.6	5.0	3.40
Communication	3.2	3.0	6.0	19.0	13.00
Utilities	1.0	0.8	1.0	1.4	0.33
Brazil	0.7	0.8	0.8	0.9	0.06

Source: BofA Global Research, Factset, Bloomberg

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Exhibit 25: Mexico Earnings Revision Ratio (Oct 15-Oct 23)

Financials has the highest ERR in Mexico (1.8 in October).



Source: BofA Global Research, Factset, Bloomberg

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Exhibit 26: Mexico 3-month ERR – sector details

Financials has the highest ERR in Mexico (1.8 in October).

Mexico sectors	12m Avg	Aug-23	Sep-23	Oct-23	1M Chg in 3M ERR
C. Discretionary	1.1	1.0	0.8	0.6	-0.20
C. Staples	1.3	0.8	0.7	1.2	0.52
Energy	NA	NA	NA	NA	NA
Financials	2.9	1.7	2.0	1.8	-0.27
Health Care	NA	NA	NA	NA	NA
Industrials	1.2	0.5	0.6	0.7	0.02
IT	NA	NA	NA	NA	NA
Materials	0.8	0.6	0.7	0.6	-0.03
Real Estate	0.8	0.8	0.8	1.0	0.14
Communication	0.5	0.6	1.0	0.4	-0.58
Utilities	NA	NA	NA	NA	NA
Mexico	1.0	0.8	0.8	0.9	0.05

Source: BofA Global Research, Factset, Bloomberg

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ERR methodology

The Earnings Revision Ratio (ERR) is calculated as follows: $ERR = \frac{\text{\#Up Revisions}}{\text{\#Down Revisions}}$, where:

Up Revisions = All instances when an analyst revises an estimate up.

Down Revisions = All instances when an analyst revises an estimate down.

We look at 1-Month and 3-Month ERRs; the former may anticipate market turns, while the latter is less volatile. Each company may contribute more than once as the total number of analyst revisions are considered. A company covered by several analysts will have a higher weight in the ratio.

The considered universe is composed of all companies within our current LatAm Coverage countries (Argentina, Brazil, Chile, Colombia, Mexico and Peru). A company will be included in the sample if at least one of the following variables is listed as one of said countries: country of risk, country of incorporation, country of registration, country of Headquarters, and country of top revenue. Panama's Copa Holdings is the only exception to the rule and was also added to the sample. Number of companies with at least one revision in the last 12 months: Argentina: 35, Brazil: 185, Chile: 37, Colombia: 20, Mexico: 106, Peru: 19.

Stock screens

Exhibit 27: Value screen

Within this screen, homebuilders, food-commodities and oil have the best performance YTD.

Company	Country	Industry	BBG Ticker	BofA Ticker	P/E 2023E	P/E 2024E	Net Debt/EBITDA	30D Performance (local crncy)	YTD Performance (local crncy)
Petrobras PN	BZ	Oils	PETR4 BZ	PTBFB	3.5	3.8	0.8	1%	44%
Petro-Rio	BZ	Oil & Gas Producers	PRI03 BZ	HRTPF	6.8	4.8	1.1	-4%	23%
Metalurgica Gerdau	BZ	Steels	GOAU4 BZ	MZGPF	3.7	5.1	0.4	1%	-20%
Copa	CO	Airlines	CPA US	CPA	6.0	5.6	0.6	13%	11%
Ecopetrol	CO	Oil & Gas Producers	ECOPETL CB	XESSF	6.0	5.7	1.6	5%	5%
Ternium	MX	Steels	TX US	TX	7.2	5.7	-0.8	8%	32%
Cemig	BZ	Electric Utilities	CMIG4 BZ	CEMCF	5.1	5.9	1.1	-8%	-3%
COPASA	BZ	Water Utilities	CSMG3 BZ	CSAOF	5.3	5.9	1.4	16%	18%
Vale ON	BZ	Non-Ferrous-Mining	VALE3 BZ	VALEF	6.9	5.9	0.6	6%	-17%
Gerdau	BZ	Steels	GGBR4 BZ	GGBUF	4.4	6.0	0.5	3%	-20%
Sanepar	BZ	Water Utilities	SAPR11 BZ	XJALF	6.4	6.7	1.5	18%	42%
SQM	CL	Fertilizers	SQM US	SQM	5.8	6.8	0.2	5%	-37%
Liverpool Puerto	MX	Retailing-Broadline/Department Stores	LIVEPOLC MM	ELPQF	7.6	6.8	0.9	9%	-13%
Sao Martinho	BZ	Food-Commodities	SMT03 BZ	SRTOF	9.6	7.9	1.9	-5%	28%
Danhos	MX	REITs	DANHOS13 MM	GRFFF	9.5	8.9	1.9	0%	-18%
CPFL Energia	BZ	Electric Utilities	CPFE3 BZ	XPFGF	8.7	9.0	1.5	8%	9%
Prom y Oper Infra	MX	Toll Road Operators	PINFRA* MM	PYOIF	12.2	9.4	-1.2	13%	5%
Engie	BZ	Electric Utilities	EGIE3 BZ	XZDDF	10.6	9.7	1.9	10%	14%
Coca-Cola Andina	CL	Soft Drinks	ANDINAB CI	AKOBF	11.5	9.7	2.0	15%	1%
Megacable	MX	Telecom Services-Wireless/Cellular	MEGACPO MM	MHSDF	11.3	10.2	1.5	7%	-27%
Median								7%	5%

Source: BofA Global Research, Bloomberg.

Stocks are selected from our LatAm universe of coverage regardless of the rating. Stocks must have at least 5y of trading. Screen criteria: Mkt Cap>US\$1bn. 2021E and 2022E fwd P/E ratio below MSCI LatAm median P/E. Net Debt/EBITDA <2 (this condition is ignored for Financials). If results exceed 20 companies, those with the lowest 2022E P/E ratio are selected. Fundamental ratings are not part of the screening criteria. This screen is not a recommended list either individually or as a group of stocks. Investors should consider the fundamentals of the companies and their own individual circumstances/objectives before making any investment decision. Fundamental ratings are not part of the screening criteria.

BofA GLOBAL RESEARCH

Exhibit 28: Growth screen

Many traditional retail and e-commerce names in this screen.

Company	Country	Industry	BBG Ticker	BofA Ticker	P/E 2024E	Div. Yield 2023E	30D Performance (local crncy)	YTD Performance (local crncy)
Brasil Foods	BZ	Food Processors	BRFS3 BZ	BRFFF	49.2	0%	41%	82%
Magazine Luiza	BZ	Retailing-Hardlines	MGLU3 BZ	MGZZF	48.2	0%	41%	-31%
Mercado Libre	BZ	Internet/e-Commerce	MELI US	MELI	47.8	0%	30%	90%
Marfrig	BZ	Food Processors	MRFG3 BZ	MRRTF	41.9	0%	61%	20%
Omega Geração	BZ	Renewable Energy	MEGA3 BZ	XZQAF	34.6	0%	20%	-5%
Raia Drogasil	BZ	Drug Store Chains	RADL3 BZ	RAIAF	31.7	1%	10%	24%
WEG	BZ	Industrials/Multi-Industry	WEGE3 BZ	WGSEF	26.1	2%	3%	-11%
TOTVS	BZ	Server & Enterprise Software	TOTS3 BZ	XBEGF	25.1	1%	32%	21%
Vesta	MX	Real Estate/Property	VESTA* MM	VESTF	23.0	2%	10%	33%
Alpargatas	BZ	Footwear	ALPA4 BZ	SRDDF	21.9	0%	12%	-39%
Natura	BZ	Cosmetics/Personal Care	NTCO3 BZ	XZVAF	20.6	0%	27%	40%
FEMSA	MX	Brewers	FEMSAUBD MM	FMXUF	20.6	2%	5%	42%
Rumo Logística	BZ	Rail Transport/Railroads	RAIL3 BZ	RUMOF	20.2	0%	3%	23%
Falabella	CL	Retailing-Broadline/Department Stores	FALAB CI	XDIYF	20.0	1%	11%	22%
DASA	BZ	Healthcare Technology & Distribution	DASA3 BZ	DIAOF	19.8	1%	-5%	-33%
AES Brasil	BZ	Electric Utilities	AESB3 BZ	XDFDF	19.1	1%	8%	12%
Bimbo	MX	Bakers	BIMBOA MM	GRBMF	19.0	1%	18%	5%
Energisa	BZ	Utilities-Other	ENGI11 BZ	XLXGF	18.6	2%	12%	18%
Eneva	BZ	Electric Utilities	ENEV3 BZ	XZUMF	17.6	1%	14%	4%
Ultrapar	BZ	Oil Refining & Marketing	UGPA3 BZ	XLRUF	17.2	2%	21%	96%
Median							13%	21%

Source: BofA Global Research, Bloomberg.

Stocks are selected from our LatAm universe of coverage regardless of the rating. Stocks must have at least 5y of trading. Screen criteria: Mkt Cap>US\$1bn. 2021E and 2022E fwd P/E ratio above MSCI LatAm median P/E. Dividend yield (2022E) below MSCI LatAm dividend yield. If results exceed 20 companies, those with the highest 2022E P/E ratio are selected. Fundamental ratings are not part of the screening criteria. This screen is not a recommended list either individually or as a group of stocks. Investors should consider the fundamentals of the companies and their own individual circumstances/objectives before making any investment decision.

BofA GLOBAL RESEARCH

Exhibit 29: High dividend screen

This screen encompasses many utilities and banks.

Company	Country	Industry	BBG Ticker	BofA Ticker	Div. Yield 2023E	30D Performance (local crncy)	YTD Performance (local crncy)
Petrobras PN	BZ	Oils	PETR4 BZ	PTRBF	21.1	1%	44%
GMexico	MX	Non-Ferrous-Mining	GMEXICOB MM	GMBXF	18.5	3%	10%
Ecopetrol	CO	Oil & Gas Producers	ECOPETL CB	XESSF	16.3	5%	5%
Metalurgica Gerdau	BZ	Steels	GOAU4 BZ	MZGPF	11.6	1%	-20%
Danhos	MX	REITs	DANHOS13 MM	GRFFF	11.5	0%	-18%
CSN	BZ	Steels	CSNA3 BZ	SIDHF	11.4	39%	12%
Alpek	MX	Chemicals-Major	ALPEKA MM	ALPKF	11.2	29%	-51%
SQM	CL	Fertilizers	SQM US	SQM	10.8	5%	-37%
Auren Energia	BZ	Electric Utilities	AURE3 BZ	XZMXF	10.6	8%	-1%
BB Seguridade	BZ	Insurance - Multi-line	BBSE3 BZ	XBDPF	10.4	2%	-7%
CPFL Energia	BZ	Electric Utilities	CPFE3 BZ	XPFGF	9.2	8%	9%
Banco do Brasil	BZ	Banks-Retail	BBAS3 BZ	XBBAF	9.0	9%	52%
Gerdau	BZ	Steels	GGBR4 BZ	GGBUF	8.8	3%	-20%
TAESA	BZ	Electric Utilities	TAE11 BZ	XTAEF	8.8	8%	5%
Banco de Chile	CL	Banks-Retail	CHILE CI	XHNDF	8.7	4%	9%
Bradespar	BZ	Non-Ferrous-Mining	BRAP4 BZ	BRDQF	8.6	8%	-19%
Banorte	MX	Banks-Retail	GFNORTEO MM	GBOOF	8.3	8%	13%
Vale ON	BZ	Non-Ferrous-Mining	VALE3 BZ	VALEF	8.1	6%	-17%
Median						5%	2%

Source: BofA Global Research, Bloomberg

Stocks are selected from our LatAm universe of coverage regardless of the rating. Stocks must have at least 5y of trading. Screen criteria: Mkt Cap>US\$1bn. Dividend yield

(2022E) above MSCI LatAm dividend yield. If results exceed 20 companies, those with the highest dividend yield are selected. Fundamental ratings are not part of the screening criteria. This screen is not a recommended list either individually or as a group of stocks. Investors should consider the fundamentals of the companies and their own individual circumstances/objectives before making any investment decision.

BofA GLOBAL RESEARCH

Exhibit 30: Defensive screen

Many bond proxies, Utilities, Soft Drinks and Telecom.

Company	Country	Industry	BBG Ticker	BofA Ticker	Beta	Net Debt/EBITDA	30D Performance (local crncy)	YTD Performance (local crncy)
Soriana	MX	Supermarkets/Food Retailers	SORIANAB MM	ONZBF	0.1	1.9	-2%	-3%
Chedraui	MX	Supermarkets/Food Retailers	CHDRAUIB MM	GCHEF	0.4	1.9	-2%	23%
Liverpool Puerto	MX	Retailing-Broadline/Department Stores	LIVEPOLC MM	ELPQF	0.4	0.9	9%	-13%
Copa	CO	Airlines	CPA US	CPA	0.4	0.6	13%	11%
Qualitas	MX	Insurance - Non-Life	Q* MM	QUCOF	0.4	NA	6%	83%
BB Seguridade	BZ	Insurance - Multi-line	BBSE3 BZ	XBDPF	0.4	NA	2%	-7%
Danhos	MX	REITs	DANHOS13 MM	GRFFF	0.4	1.9	0%	-18%
Coca-Cola Andina	CL	Soft Drinks	ANDINAB CI	AKOBF	0.4	2.0	15%	1%
Vivo	BZ	Telecom Equipment-Wireless/Cellular	VIVT3 BZ	XCPTF	0.4	0.7	16%	37%
Engie	BZ	Electric Utilities	EGIE3 BZ	XZDDF	0.4	1.9	10%	14%
Grupo Financiero Galicia	AR	Banks-Retail	GGAL US	GGAL	0.5	NA	55%	78%
Coca-Cola FEMSA	MX	Soft Drinks	KOFUBL MM	COCSF	0.5	0.8	6%	10%
TIM	BZ	Telecom Services-Wireless/Cellular	TIMS3 BZ	XZUAF	0.5	1.2	12%	38%
Arca	MX	Soft Drinks	AC* MM	EMBVF	0.5	0.5	7%	10%
Banco Macro	AR	Banks-Retail	BMA US	BMA	0.5	NA	57%	75%
Auren Energia	BZ	Electric Utilities	AURE3 BZ	XZMXF	0.5	0.6	8%	-1%
Grupo BMV	MX	Other Financials	BOLSAA MM	BOMXF	0.5	NA	18%	-12%
AmBev	BZ	Brewers	ABEV3 BZ	AVBPF	0.5	-0.6	3%	-8%
Sanepar	BZ	Water Utilities	SAPR11 BZ	XJALF	0.5	1.5	18%	42%
CPFL Energia	BZ	Electric Utilities	CPFE3 BZ	XPFGF	0.6	1.5	8%	9%
Median							9%	10%

Source: BofA Global Research, Bloomberg

Stocks are selected from our LatAm universe of coverage regardless of the rating. Stocks must have at least 5y of trading. Screen criteria: Mkt Cap>US\$1bn. Net Debt/EBITDA <2 (this condition is ignored for Financials).

Beta relative to the local index <0.9. If results exceed 20 companies, those with the lowest beta are selected. Fundamental ratings are not part of the screening criteria.

This screen is not a recommended list either individually or as a group of stocks. Investors should consider the fundamentals of the companies and their own individual circumstances/objectives before making any investment decision.

BofA GLOBAL RESEARCH

Exhibit 31: High Beta screen

Several Banks and Retail names in this screen.

Company	Country	Industry	BBG Ticker	BofA Ticker	Beta	Net Debt/EBITDA	30D Performance (local crncy)	YTD Performance (local crncy)
Magazine Luiza	BZ	Retailing-Hardlines	MGLU3 BZ	MGZZF	2.2	3.0	41%	-31%
Banco inter	BZ	Banks-Retail	INTR US	INTR	1.9	NA	21%	127%
Cemex	MX	Building Materials	CX US	CX	1.8	3.0	16%	71%
B3 SA	BZ	Financial Services-Consumer/Commercial	B3SA3 BZ	XIMAF	1.7	NA	19%	0%
Banco Pan	BZ	Banks-Retail	BPAN4 BZ	XQSFF	1.6	NA	11%	29%
Cogna	BZ	Education & Training Services	COGN3 BZ	KROTF	1.6	3.4	30%	48%
Ecorodovias	BZ	Toll Road Operators	ECOR3 BZ	XVEDF	1.6	3.7	20%	90%
Estacio	BZ	Education & Training Services	YDUQ3 BZ	ECPCF	1.5	2.4	15%	101%
BTG Pactual	BZ	Banks-Retail	BPAC11 BZ	XNXCF	1.5	NA	17%	45%
Televisa	MX	Cable TV	TLEVICPO MM	GRPFF	1.5	2.8	21%	-44%
CSN	BZ	Steels	CSNA3 BZ	SIDHF	1.4	3.2	39%	12%
Cosan	BZ	Energy Commodities	CSAN3 BZ	CSAIF	1.4	3.2	11%	2%
GFINbursa	MX	Banks-Retail	GFINBURO MM	GPFOF	1.4	NA	12%	27%
DASA	BZ	Healthcare Technology & Distribution	DASA3 BZ	DIAOF	1.3	5.0	-5%	-33%
Localiza	BZ	Car Rental	RENT3 BZ	LZRFF	1.3	3.6	16%	12%
Credicorp	PE	Banks-Retail	BAP US	BAP	1.3	NA	1%	-7%
Dexco	BZ	Forest Products	DXCO3 BZ	DURXF	1.2	4.7	5%	6%
Iguatemi	BZ	Real Estate/Property	IGTI11 BZ	XBGQF	1.2	2.2	13%	22%
Aliansce	BZ	Real Estate/Property	ALOS3 BZ	XADSF	1.2	4.0	9%	47%
Median							16%	17%

Source: BofA Global Research, Bloomberg

Stocks are selected from our LatAm universe of coverage regardless of the rating. Stocks must have at least 5y of trading. Screen criteria: Mkt Cap>US\$1bn. Net Debt/EBITDA >2 (this condition is ignored for Financials). Beta relative to the local index >1.1. If results exceed 20 companies, those with the highest beta are selected. Fundamental ratings are not part of the screening criteria.

This screen is not a recommended list either individually or as a group of stocks. Investors should consider the fundamentals of the companies and their own individual circumstances/objectives before making any investment decision. Fundamental ratings are shown only for information and are not part of the screening criteria

BofA GLOBAL RESEARCH

Exhibit 32: List of stocks within our coverage most discounted to historicals

Commodity exporters with large earnings this and next year have depressed ratios, as well as many financial names.

Company	Country	Industry	BBG Ticker	BofA Ticker	Discount to hist.	Current Valuation	10-Year Avg. Valuation	Net Debt/EBITDA	30D Performance (local crncy)	YTD Performance (local crncy)
Cogna	BZ	Education & Training Services	COGN3 BZ	KROTF	-91%	11.7	134.7	3.4	30%	48%
Televisa	MX	Cable TV	TLEVICPO MM	GRPFF	-87%	1.3	10.2	2.8	21%	-44%
Eneva	BZ	Electric Utilities	ENEV3 BZ	XZUMF	-80%	9.6	46.9	4.9	14%	4%
Embraer	BZ	Aerospace	ERJ US	ERJ	-76%	6.3	26.8	2.3	18%	51%
Rumo Logistica	BZ	Rail Transport/Railroads	RAIL3 BZ	RUMOF	-73%	20.2	73.9	2.3	3%	23%
Cielo	BZ	Financial Services-Consumer/Commercial	CIEL3 BZ	CIOXF	-62%	5.0	13.1	NA	6%	-29%
Magazine Luiza	BZ	Retailing-Hardlines	MGLU3 BZ	MGZZF	-58%	0.5	1.2	3.0	41%	-31%
Omega Geração	BZ	Renewable Energy	MEGA3 BZ	XZQAF	-54%	34.6	75.3	7.2	20%	-5%
Gentera	MX	Banks-Retail	GENTERA* MM	CMPRF	-52%	1.3	2.6	NA	3%	-10%
Banrisul	BZ	Banks-Retail	BRSR6 BZ	XGRBF	-50%	0.5	1.0	NA	11%	24%
Ecorodovias	BZ	Toll Road Operators	ECOR3 BZ	XVEDF	-48%	7.8	14.9	3.7	20%	90%
Bradesco	BZ	Banks-Retail	BBDC4 BZ	BRDPF	-42%	1.1	1.8	NA	15%	6%
GFINbursa	MX	Banks-Retail	GFINBURO MM	GPFOF	-40%	8.6	14.3	NA	12%	27%
BB Seguridade	BZ	Insurance - Multi-line	BBSE3 BZ	XBDPF	-39%	7.9	13.0	NA	2%	-7%
Credicorp	PE	Banks-Retail	BAP US	BAP	-37%	7.1	11.3	NA	1%	-7%
Cencosud	CL	Retailing-Broadline/General Merchandisers	CENCOSUD CI	XCSCF	-33%	6.4	9.5	3.4	8%	12%
Alpek	MX	Chemicals-Major	ALPEKA MM	ALPKF	-32%	4.4	6.5	2.7	29%	-51%
Cemex	MX	Building Materials	CX US	CX	-31%	5.6	8.2	3.0	16%	71%
Median									13%	5%

Source: BofA Global Research, Bloomberg

Stocks are selected from our LatAm universe of coverage regardless of the rating. Stocks must have at least 5y of trading. Screen criteria: Mkt Cap>US\$1bn. Net Debt/EBITDA <2 (this condition is ignored for Financials). Valuation ratio < 10y hist avg (or longest available). Valuation ratios are chosen according to a company's sector: for Materials, Energy, Airlines and C. Staples EV/EBITDA is used; for Retail EV/Sales is used; for Financials Price/Book Value is used. For remaining sectors Price/Earnings is used. If results exceed 20 companies, those with the greatest discounts to historicals are selected.

This screen is not a recommended list either individually or as a group of stocks. Investors should consider the fundamentals of the companies and their own individual circumstances/objectives before making any investment decision. Fundamental ratings are shown only for information and are not part of the screening criteria

BofA GLOBAL RESEARCH

Stock screens methodology

Our monthly screens are a quantitative approach for monitoring performance across several investment strategies. The screens are generated through a quantitative process,

using consensus projections and historical data. There are two main steps to the selection process: filtering and ranking. For each screening process, filter criteria is applied first, then resulting assets are ranked according to the core variable for each strategy. Each month, we select and rank the 20 stocks that best fit the screen criteria. The stocks are selected from our universe of coverage in LatAm regardless of the rating but must have a market cap above US\$1bn.

There are 5 different screens: Growth, Value, Dividends, Defensive and High Beta. Our Growth screen looks for companies with high projected growth that reinvests free cash flow. Our Value screen looks for companies with low or moderate leverage that are trading at a discounted valuation. The Dividends screen looks for companies with high dividend yields, supported by low moderate leverage. Defensive screen looks for assets with solid performance and lowest volatility while High beta screen looks for market-dependent assets with high leverage and volatility. We also provide a list of stocks within our coverage that are most discounted to historicals.

Out-of-consensus

Our out-of-consensus rank identifies companies where our estimates most diverge from consensus, according to EPS, (current and next year), EBITDA (current and next year), Sales (current and next year), ROE (current and next year) and Price Objective. Details on how the views are ranked at the end of this section.

Our out of consensus highlights can fall in one of the following categories:

- Out of consensus in an upwards direction: stocks with a positive out of consensus Rank and BofA Buy rating, but less than 50% Buy ratings from consensus.
- Out of consensus in a downwards direction: stocks with a negative out of consensus Rank and BofA Neutral/Underperform rating, but more than 50% Buy ratings from consensus.

Exhibit 33: Top out of consensus stocks

Buy-rated stocks with a positive out of consensus ranking. Three Buy-rated stocks according to BofA are not Buy-rated by most of consensus (highlighted).

Company name	BBG ticker	BofA ticker	Sector	Market Cap	Rank	BofA Rating	Consensus Rating			EPS Cmcyc	2023 EPS		2024 EPS	
							Buy	Hold	Sell		BofA	Cons.	BofA	Cons.
				USDmn										
Coca-Cola Femsa	KOFUBL MM	COCSE	C. Staples	17,516	10.0	BUY	57%	43%	0%	MXN	9.9	9.4	11.3	10.4
Arca	AC* MM	EMBV	C. Staples	17,172	9.6	BUY	78%	17%	6%	MXN	10.5	10.0	13.1	11.4
Vitru Limited	VTRU US	VTRU	C. Discretionary	429	9.5	BUY	100%	0%	0%	BRL	5.7	7.7	11.3	11.0
TOTVS	TOTS3 BZ	XBEGF	IT	4,187	9.3	BUY	83%	17%	0%	BRL	0.9	1.0	1.3	1.3
Bajio	BBAJIO MM	BBAJF	Financials	3,787	9.1	BUY	47%	47%	7%	MXN	9.3	9.2	8.8	8.8
Marfrig	MRF3 BZ	MRRTF	C. Staples	2,023	9.0	BUY	29%	64%	7%	BRL	-1.3	-2.0	0.0	0.2
Parque Arauco	PARAU CO	XNNJF	Real Estate	1,341	8.4	BUY	75%	25%	0%	CLP	144.8	95.1	162.8	97.0
Vibra Energia SA	VBBR3 BZ	XUBRF	C. Discretionary	5,340	8.3	BUY	93%	7%	0%	BRL	1.6	1.6	1.6	2.0
Petro Rio	PRI3 BZ	HRTPF	Energy	8,254	8.2	BUY	83%	11%	6%	USD	1.6	1.4	2.9	2.0
Natura &Co	NTCO3 BZ	XZVAF	C. Staples	4,558	7.9	BUY	46%	54%	0%	BRL	-0.3	-0.6	0.1	0.8
YDUQS	YDUQ3 BZ	ECPCF	C. Discretionary	1,278	7.7	BUY	80%	20%	0%	BRL	1.2	1.2	1.7	2.0
VTEX	VTEX US	VTEX	Telecom	1,302	7.6	BUY	67%	33%	0%	USD	-0.1	-0.1	0.1	0.1
Afya Limited	AFYA US	AFYA	C. Discretionary	1,886	7.4	BUY	67%	33%	0%	BRL	6.4	5.7	7.9	8.1
Hapvida	HAPV3 BZ	XDUFF	Health Care	6,799	7.3	BUY	92%	8%	0%	BRL	0.1	0.0	0.2	0.2
XP Inc.	XP US	XP	Financials	12,831	7.1	BUY	73%	27%	0%	BRL	8.2	7.5	9.7	9.2

Highlighted rows: Out of consensus in an upwards direction. Stocks with a positive out of consensus Rank and BofA and a Buy rating, but less than 50% Buy ratings from consensus.

This screen is not a recommended list either individually or as a group of stocks. Investors should consider the fundamentals of the companies and their own individual circumstances/objectives before making any investment decision. **Source:** BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 34: Bottom out of consensus stocks

Neutral/Underperform-rated stocks with a negative out of consensus ranking. Eight Neutral/Underperform-rated stocks according to BofA are Buy-rated by most of consensus (highlighted).

Company name	BBG ticker	BofA ticker	Sector	Market Cap	Rank	BofA Rating	Consensus			EPS Cmcry	2023 EPS		2024 EPS	
							Rating				BofA	Cons.	BofA	Cons.
				USDmn	Buy	Hold	Sell							
Liverpool	LIVEPOLC MM	ELPQF	C. Discretionary	7,652	-10.0	UND	50%	31%	19%	MXN	12.5	13.1	13.7	14.6
Cencosud	CENCOSUD CI	XCSCF	C. Staples	5,091	-9.9	NEU	62%	31%	8%	CLP	153.2	169.1	189.1	184.3
Even	EVEN3 BZ	EVCNF	C. Discretionary	282	-9.7	UND	38%	50%	13%	BRL	1.1	0.9	0.7	1.0
M. Dias Branco	MDIA3 BZ	XDMIF	C. Staples	2,395	-9.5	NEU	64%	36%	0%	BRL	2.6	2.6	3.8	3.7
CBD	PCAR3 BZ	GPSAF	C. Staples	187	-8.9	UND	14%	79%	7%	BRL	-3.2	-4.4	-1.5	-1.5
Cyrela Brazil	CYRE3 BZ	XCBMF	C. Discretionary	1,690	-8.8	UND	80%	13%	7%	BRL	2.1	2.3	2.2	2.7
CCR	CCRO3 BZ	CDCRF	Industrials	5,476	-8.6	UND	83%	0%	17%	BRL	0.6	0.7	0.5	0.8
Diagnosticos da Am.	DASA3 BZ	DIAOF	Health Care	1,397	-8.5	UND	50%	40%	10%	BRL	0.0	-0.6	0.0	0.5
Cemig	CMIG4 BZ	CEMCF	Utilities	5,485	-7.9	NEU	17%	83%	0%	BRL	2.2	2.1	1.9	1.8
Adecoagro	AGRO US	AGRO	C. Staples	1,215	-7.5	NEU	43%	57%	0%	USD	1.6	1.1	2.1	1.3
Itau Unibanco	ITUB4 BZ	ITUBF	Financials	57,157	-7.4	NEU	89%	11%	0%	BRL	3.6	3.6	4.0	4.0
Petz	PETZ3 BZ	XUXUF	C. Discretionary	376	-7.3	NEU	58%	42%	0%	BRL	0.2	0.1	0.3	0.3
CTEEP	TRPL4 BZ	XOOTF	Utilities	3,611	-7.1	UND	20%	60%	20%	BRL	2.2	2.1	2.4	2.6
Randon	RAPT4 BZ	RPRTF	Industrials	728	-6.8	NEU	73%	27%	0%	BRL	1.4	1.4	1.5	1.8
Lojas Renner SA	LREN3 BZ	LORPF	C. Discretionary	3,140	-6.6	UND	69%	25%	6%	BRL	1.0	1.1	1.2	1.3

Highlighted rows: Out of consensus in a downwards direction. Stocks with a negative out of consensus Rank and BofA Neutral/Underperform rating, but more than 50% Buy ratings from consensus.

This screen is not a recommended list either individually or as a group of stocks. Investors should consider the fundamentals of the companies and their own individual circumstances/objectives before making any investment decision. **Source:** BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Out-of-Consensus Rank Methodology

Our Out-of-Consensus Rank is a -10;10 scale that measures where BofA analyst estimates are diverging from market consensus. The closer the rank is to the extremes, the farther BofA estimates are from market consensus, which is based on Bloomberg consensus estimates.

For all stocks within our coverage, we look at the following forecasts:

EPS, (current and next year), EBITDA (current and next year), Sales (current and next year), ROE (current and next year) and Price Objective.

For each variable, the z-score is calculated as follows:

$$\text{z-score} = (\text{BofA estimate} - \text{consensus estimate}) / \text{consensus estimate std dev}$$

A z-score will be excluded from the sample if:

- Either BofA or consensus estimate is missing
- Number of estimates that make up the consensus is less than 3.
- Consensus has zero standard deviation
- For EPS, EBITDA and SALES, scores for both years are needed to avoid seasonality. If one year is missing the other will also be excluded.
- Z-score > 5. Such cases are probably because of lack of reliable data.
- ROE z-scores are only considered for financials

A company will be excluded from the sample if:

- Does not have a PO z-score
- It has a PO z-score but does not have a z-score for at least one other variable
- It has a PO z-score but does not have a ROE z-score (financials only)

For each variable, z-scores are ranked and scaled into [-10;10]. The most out of consensus the estimate is, the closer to the range boundaries. The average rank is computed for all companies. For any given company, the average rank will only consider the available variables. The average rank is then re-scaled again from -10 to 10 to obtain the final Out Of Consensus Rank.

This Out-of-Consensus Rank methodology was inspired by [European Beat Factor - Out-of-consensus stocks under BofA Global Research coverage](#)

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R1}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R1} Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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