

**BRAZILIAN EQUITY OPPORTUNITIES****ISSUE II**

This report examines the Brazilian equity markets, their structure, constituents and metrics over time. In continuation to our earlier report on Brazilian Equity Opportunities (May 2015), we show that the Brazilian equity markets now offer a compelling investment opportunity. There are 321 actively traded companies in Brazil<sup>i</sup>, offering a sizeable group of businesses for superior stock selection.

Brazil has a deeply rooted equity culture and BM&FBOVESPA S.A, founded in 1890, has had a long history of services provided to the stock market and the Brazilian economy. In 2000, BOVESPA led a program of integration with the eight other Brazilian exchanges to concentrate all equity trading in a single environment. BM&FBOVESPA was founded in May 2008 with the integration between BM&F, Brazil's main derivatives exchange, and BOVESPA, the stock exchange. BM&FBOVESPA is the sole exchange, despite the market being open for a competitor since 2007. Stocks are exclusively traded through an exchange (Dark pools, MTFs and internalization prohibited). It is also the provider of central counterparty and securities custody services. In addition, BM&FBOVESPA ranks among the world's leading exchanges by market capitalization and the largest in the Americas (outside of the US).

**GABELLI PROCESS**

Idea generation is a rigorous and often contrarian process and adherence to fundamental discipline in volatile markets is tantamount to success. At the core of our process is identification of securities and sectors for investment along with an on-going maintenance of the valuation and event universe to provide advanced insights to unfolding investment landscapes. Some of the characteristics we look for:

- Discount to Private market value with catalysts that provide opportunities
- A margin of safety during periods of uncertainty is essential
- Attractive risk adjusted returns
- Low PEG ratio
- Strong corporate governance
- Oriented for the growth of the Brazilian Sub Continent
- Meaningful free cashflow

The Brazilian equity market has certain attributes that allow us to believe that there are opportunities to earn risk-adjusted returns through superior stock selection using the Gabelli process. We believe that it is possible to identify pockets of value/price misalignment especially within domestic demand led industries. Key drivers of opportunities in the Brazilian equities markets are<sup>ii</sup>:

- **Portfolio diversification:** Diversification of institutional investors portfolios with a higher participation of equities
- **Retail investors:** Increasing participation of retail investors and growth of the middle class
- **Listed companies:** A low number of listed companies leading to important sectors not adequately represented on the exchange

Key drivers of opportunities in the Brazilian derivative markets are:

- **Growth of credit and fixed-rate government debt:** higher demand for hedging from financial institutions and institutional investors
- **Growth of foreign trade:** higher demand for hedging through FX contracts
- **Equities market development:** growth in demand for index-based contracts
- **OTC derivatives:** capital requirements (Basel) should benefit OTC transactions through a CCP

With secular trends led by increasing GDP, growing population and increasing disposable income among other long-term trends there are ample opportunities to invest in companies that will benefit.

**BRAZIL EQUITY MARKET ANALYSIS**

**Trading and participation**

The annual value traded on the BM&FBOVESPA in 2015 was USD 498 billion and the ratio of value traded to market capitalisation was 66% (Table 1), which is well below the value traded to market capitalisation ratios of NASDAQ and NYSE of 432% and 106% respectively. Both the annual value of share trading as a percentage of GDP and as a percentage of market capitalisation for Brazil have decreased since our previous report.

**Table 1: Annual value of share trading between 2012-2015 (USD Billion)**

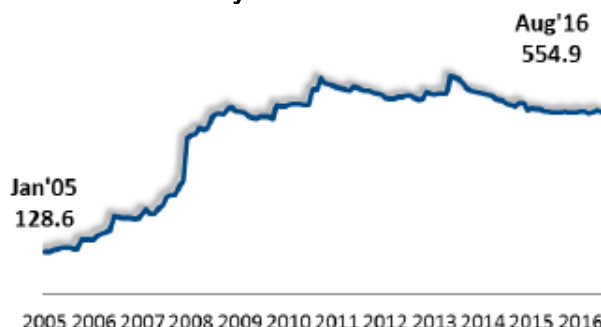
Bourse	Annual value of share trading (USD billion)											
					As a % of GDP				As a % of Mcap			
	2012	2013	2014	2015	2012	2013	2014	2015	2012	2013	2014	2016 <sup>^</sup>
NASDAQ	24,479	26,644	31,044	32,984	146	153	171	184	534	438	445	432
NYSE	14,747	15,309	18,234	19,991	88	88	101	111	105	85	94	106
NSE + BSE (India)	638	566	758	809	35	30	37	39	51	50	49	49
BM&FBOVESPA	875	811	728	498	36	34	31	28	71	79	86	66
Shenzen + Shanghai	4,989	7,632	12,055	41,833	59	81	116	385	135	193	201	568

<sup>^</sup> September 2016 for Brazil, USA and India. August 2016 for China

Source: Horizon Research, WFE, World Bank, IMF

An analysis of trading per market participant reveals that retail investors were once more numerous on the BM&FBOVESPA, accounting for as much as 31.4 per cent of market participation in January of 2010, a boom year. However, their participation has steadily declined with the stagnation of the economy during the Rousseff four-year government and accounted for only 14.4 per cent of volumes towards the end of 2014. Foreign investors, by contrast, accounted for 52.2 per cent of Brazilian trade towards the end of 2014<sup>iii</sup>. The Number of retail investors represents only 0.3% of the population (lower than global average). This is best reflected through a relative decline in the number of custody accounts (Figure 1).

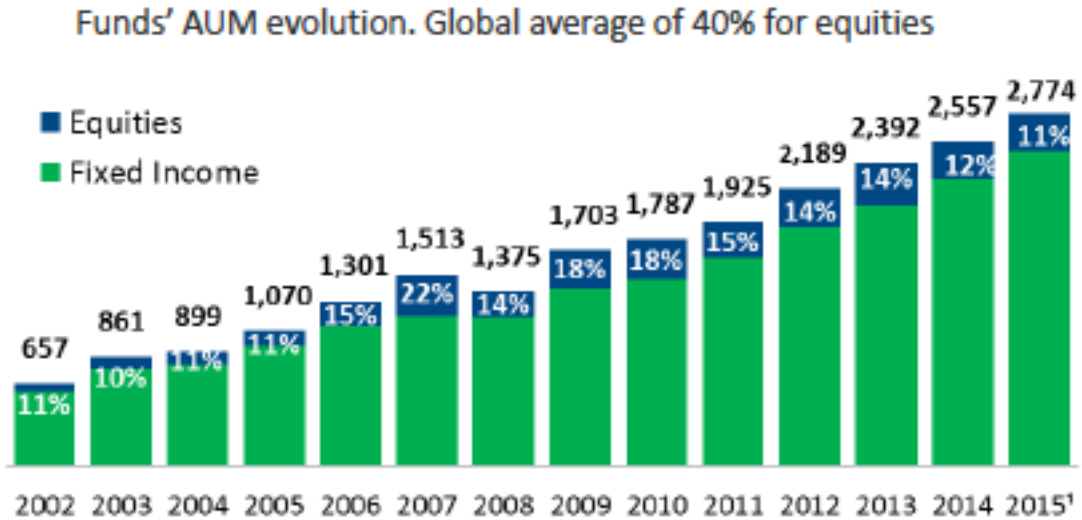
**Figure 1: Number of custody accounts in thousands**



Source: BM&FBOVESPA investor presentation

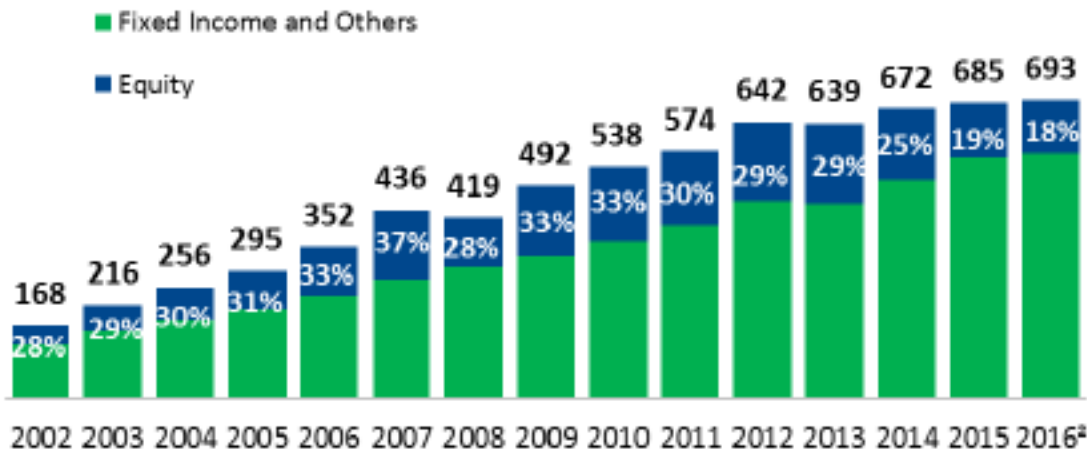
Investor’s exposure to equity is low and their portfolios are heavily concentrated in fixed income. This could be attributed to historically high interest rates, a low level of sophistication of pension funds and asset managers and a lack of knowledge about the equity market, combined with retail investors’ fixed-income mindset<sup>iv</sup>. Whereas the global average of AUM invested in Equities by investment funds is 40% it is considerably lower in Brazil (Figure 2). Similarly the participation of equities in the portfolio of pension funds as a percentage has marginally declined (Figure 3).

**Figure 2: Funds AUM evolution (in BRL Billion)**



Source: BM&FBOVESPA investor presentation

**Figure 3: Participation of equities in the portfolio of pension funds**



Source: BM&FBOVESPA investor presentation

**The Indices**

The BOVESPA Index was established in 1968 to serve as an average indicator of the stock market’s behavior and has been calculated uninterruptedly ever since, without any methodological changes.

The BOVESPA Index is used as a proxy to track the 321 listed companies and is currently constitutes 55 of the most actively traded companies in the broad Bovespa stock market. In order for a company to be included in the index, its “negotiability index” (a mix of number of trades and value traded) has to be above 80%, its trading value has to be at least 0.1% of the market total, and the company has to trade in at least 80% of the last 12 month sessions. The filter is adjusted three times per year, based on the latest 12 months indicators.

The Bovespa index with a 2.6% CAGR between 2005 and 2015 has outperformed the MSCI EM Index (-9.6% CAGR) but underperformed S&P BSE Sensex, Shanghai Composite and S&P 500. However, in the current year to date period, the Bovespa index has outperformed all other indices with a 47.3% return (Table 2).

**Table 2: Performance of Brazilian Vs. International Indices (2005-2015)**

Index	Index level				CAGR			
	2005	2010	2015	10/20/2016	2005-10	2010-15	2005-15	CYtD
S&P 500	1,248.3	1,257.6	2,043.9	2,141.3	0.1%	10.2%	5.1%	4.8%
S&P BSE Sensex	9,397.9	20,509.1	26,117.5	28,129.8	16.9%	5.0%	10.8%	7.7%
Shanghai Composite	1,161.1	2,808.1	3,539.2	3,084.5	19.3%	4.7%	11.8%	-12.8%
IBOVESPA Index	33,456.0	69,305.0	43,350.0	63,838.0	15.7%	-9.0%	2.6%	47.3%
iShares MSCI Emerging Markets	88.3	47.6	32.2	37.6	-11.6%	-7.5%	-9.6%	16.8%

*Source: Horizon Research, Yahoo Finance (Index level taken at the last trading day of December)*

There is a heavy concentration of market capitalization represented through the primary indices. The stocks that participate in the Bovespa Index represent over 90.9% (USD 443 billion) of the annual value traded on the exchange and 84.6% of the sum of all Bovespa’s company’s market capitalization.<sup>v</sup> Annual value traded on the Bovespa Index increased by 19.4% from USD 371 billion since the release of our previous report.

The balance of shares not captured by the indices equates to approximately 266 companies, and result in opportunities for superior stock selection. Our efforts emphasize valuations with catalysts, and believe that a significant portion of small and mid-caps present opportunities for investment.

The Brazilian equity market quantity of traded companies offers investment diversification opportunities within the Brazilian market itself. The Bovespa Index also offers diversity of the market, with the Bovespa Index comprising companies across each of the 10 broad industry segments.

**Concentration offers opportunities**

A closer look at the market focusing on company size helps identify divergences amongst the listed companies. The largest 100 companies by market capitalisation continue to dominate with their representation of the broad market capitalization increasing from 94.9% in May 2015 to 95.5% (current). An analysis of value traded as a percentage of total traded volume reveals that nearly 97.6%, compared to 95.5% in May 2015, of the total traded volume is restricted to the largest 100 companies by market capitalisation. On an aggregate basis, these companies offer attractive values (Table 3a).

The largest 100 companies continue to outperform other remaining companies on several metrics. The leverage, measured in terms of net debt to enterprise value, declined from 66.0% in May 2015 to 51.0% (current) for the largest 100 companies but it increased from 58.6% to 70.0% during the same period for the remaining companies after extracting the top 100 companies by market capitalisation.

The largest 100 companies have 2015 ROE of 15.5%, FCF yield of 12.4% and dividend yield of 5.2%. In contrast, after extracting the top 100 companies by market capitalisation, the remaining 221 companies have 2015 ROE of 2%, FCF yield of -1.4% and dividend yield of 2.9% in 2015. A similar trend prevailed in 2014 as well (Table 3a & 3b).

The largest 100 companies traded at a higher P/E multiple both in 2014 and 2015 compared to remaining 221 companies. The largest 100 companies have 2015 P/E of 16.1x and 2014 P/E of 17.4x. In contrast the remaining 221 companies have 2015 P/E of 10.3x and 2014 P/E of 12.1x. As investors, we find opportunities masked in the aggregates and underscore that these broad differences provide opportunities in individual stock selection.

**Table 3a: Analysis of performance highlights by market capitalisation - 2016**

BY MARKET CAPITALISATION	Number of Co's	Market Cap (USD MN)	Enterprise Value (USD MN)		Net Debt (USD MN)	ROE: 2015	FCF Yld: 2015	Dvd Yld: 2015	P/E: 2015	EV/ EBITDA: 2015	P/BV: 2015	PEG Ratio	Total Return: Y-5 (I)	Total Return: Y-1 (I)	EPS T12M	Annual Value Traded (USD MN)	Value Traded as Percentage of All Stocks	Annual Value Traded to Market Cap
			Value	Net Debt														
Ibovespa	55	700,822	1,478,199	777,376	15.9%	13.3%	5.5%	16.6	4.8	2.8	1.4	97.3%	47.1%	0.3	443,468	90.9%	63.3%	
All Brazil traded equities, Cap Wgt.	321	828,039	1,737,154	909,115	14.9%	11.8%	5.1%	15.8	4.3	4.3	1.3	91.5%	47.3%	0.3	487,969	100.0%	58.9%	
Top 10 Companies by M Cap	10	454,515	1,127,020	672,504	14.4%	13.3%	6.4%	9.1	5.2	2.4	1.5	81.1%	55.1%	0.2	225,106	46.1%	49.5%	
Top 25 Companies by M Cap	25	606,316	1,337,099	730,783	16.3%	12.4%	5.6%	11.6	5.0	2.8	1.5	100.9%	51.1%	0.3	316,129	64.8%	52.1%	
Top 50 Companies by M Cap	50	710,745	1,494,719	783,974	15.5%	11.8%	5.4%	16.4	4.7	2.7	1.4	100.2%	48.6%	0.3	417,063	85.5%	58.7%	
Top 100 Companies by M Cap	100	790,747	1,614,044	823,297	15.5%	12.4%	5.2%	16.1	4.5	4.4	1.3	95.5%	47.8%	0.3	476,022	97.6%	60.2%	
Top 200 Companies by M Cap	200	825,848	1,706,555	880,706	15.0%	11.8%	5.1%	15.9	4.3	4.3	1.3	91.9%	47.4%	0.3	487,086	99.8%	59.0%	
Top 105	105	795,106	1,634,294	839,188	15.5%	11.9%	5.2%	16.0	4.5	4.4	1.3	95.0%	47.8%	0.3	477,915	97.9%	60.1%	
Mid 105	105	31,394	75,045	43,651	2.5%	9.4%	3.1%	11.2	0.7	1.3	0.3	8.2%	35.6%	0.1	9,230	1.9%	29.4%	
Bottom 221	221	37,292	123,110	85,818	2.0%	-1.4%	2.9%	10.3	1.6	1.2	0.3	6.9%	37.1%	(0.2)	11,947	2.4%	32.0%	
Bottom 115	115	1,788	28,789	27,001	-8.7%	7.5%	1.6%	3.3	-	0.4	-	-32.7%	27.9%	(3.4)	831	0.2%	46.5%	

Source: Horizon Research, Bloomberg

**Table 3b: Analysis of performance highlights by market capitalisation - 2015**

BY MARKET CAPITALISATION	Number of Co's	Market Cap (USD MN)	Enterprise Value (USD MN)		Net Debt (USD MN)	ROE: 2014	FCF Yld: 2014	Dvd Yld: 2014	P/E: 2014	EV/ EBITDA: 2014	P/BV: 2014	PEG Ratio	Total Return: Y-5 (I)	Total Return: Y-1 (I)	EPS T12M	Annual Value Traded (USD MN)	Value Traded as Percentage of All Stocks	Annual Value Traded to Market Cap
			Value	Net Debt														
Ibovespa	58	632,872	716,788	498,291	18.6%	0.6%	3.6%	18.5	10.0	3.3	1.0	24.6%	8.1%	0.5	371,167	91.0%	58.6%	
All Brazil traded equities, Cap Wgt.	310	763,284	896,968	587,986	18.0%	0.6%	3.5%	17.1	9.7	3.1	1.0	25.0%	7.1%	0.5	407,708	100.0%	53.4%	
Top 10 Companies by M Cap	10	424,986	411,909	361,159	21.8%	0.5%	4.0%	9.9	10.7	3.5	1.1	18.2%	7.8%	0.5	221,966	54.4%	52.2%	
Top 25 Companies by M Cap	25	567,158	555,750	449,920	20.0%	0.7%	3.6%	19.8	10.1	3.4	0.9	26.3%	10.1%	0.5	292,221	71.7%	51.5%	
Top 50 Companies by M Cap	50	652,342	695,571	498,979	18.9%	0.6%	3.6%	18.3	10.2	3.2	1.0	27.5%	9.6%	0.5	343,495	84.3%	52.7%	
Top 100 Companies by M Cap	100	724,170	815,417	538,195	18.9%	0.6%	3.5%	17.4	10.0	3.2	1.0	27.0%	8.1%	0.5	389,334	95.5%	53.8%	
Top 200 Companies by M Cap	200	759,717	880,008	576,822	18.2%	0.6%	3.5%	17.1	9.8	3.1	1.0	25.2%	7.2%	0.5	406,242	99.6%	53.5%	
Top 105	105	728,261	820,332	539,706	18.9%	0.6%	3.6%	17.4	10.0	3.2	1.0	26.8%	8.1%	0.5	390,510	95.8%	53.6%	
Mid 105	105	32,278	61,958	38,728	2.7%	2.2%	1.7%	10.8	4.1	1.1	0.3	-12.2%	-12.8%	0.3	16,175	4.0%	50.1%	
Bottom 215	215	43,472	87,387	51,221	2.4%	1.4%	2.4%	12.1	4.5	1.2	0.2	-9.3%	-11.1%	0.3	20,428	5.0%	47.0%	
Bottom 115	115	4,081	17,596	11,495	-25.9%	-0.6%	0.5%	1.5	1.7	0.9	0.0	-20.3%	-18.8%	(0.3)	1,520	0.4%	37.3%	

Source: Horizon Research, S&P CapitalIQ

There is an increasing dominance of iBovespa securities, which are relatively larger in terms of their size and trading volume, in most of the industries (Table 4a and 4b). For instance, 5 iBovespa securities accounted for 55% (compared to 48% in May 2015) of the total market capitalisation of USD 48.5 billion of 64 companies in consumer discretionary industry. A similar trend is seen in basic materials, energy, financials and industrials.

In addition, we observe that the market capitalisation of a small number of companies within each industry sector constitute a majority of that industry sectors broad market capitalisation. For example in the broad market there are 11 energy companies of which 1 company constitutes 90.3% of the market capitalisation. This trend is repeated in the Healthcare industry where 3

companies out of 10 healthcare companies in the broad market constitute 75.1% of the market capitalisation (Table 4).

**Table 4a: Concentration of market capitalisation by industry - 2016**

BY INDUSTRY	BROAD MARKET		iBOVESPA Index		Market Cap of iBOVESPA securities as a % of the broad market
	Number of securities	Market Cap in USD MN	Number of securities	Market Cap in USD MN	
Basic Materials	28	60,198	8	58,587	97%
Consumer Discretionary	64	48,518	5	26,766	55%
Consumer Staples	22	156,073	8	145,878	93%
Energy	11	84,512	2	81,837	97%
Financials	76	299,044	15	274,857	92%
Health Care	10	7,941	0	0	0%
Industrials	55	45,879	7	35,629	78%
Technology	5	1,719	0	0	0%
Telecommunications	6	30,731	2	28,768	94%
Utilities	44	93,425	8	48,500	52%

Source: Horizon Research, Bloomberg

**Table 4b: Concentration of market capitalisation by industry - 2015**

BY INDUSTRY	BROAD MARKET		iBOVESPA Index		Market Cap of iBOVESPA securities as a % of the broad market
	Number of securities	Market Cap in USD MN	Number of securities	Market Cap in USD MN	
Basic Materials	29	65,910	8	63,431	96%
Consumer Discretionary	62	44,532	7	21,165	48%
Consumer Staples	21	158,264	7	147,561	93%
Energy	11	67,561	2	62,450	92%
Financials	67	282,751	16	253,954	90%
Health Care	11	5,072	0	0	0%
Industrials	54	39,406	7	18,145	46%
Technology	7	2,852	0	0	0%
Telecommunications	5	31,986	3	31,916	100%
Utilities	43	64,950	8	34,250	53%

Source: Horizon Research, S&P CapitalIQ

### Industry sectors oriented for growth

The financials, consumer staples, utilities and energy industries are amongst the largest industry sectors by market capitalisation in the Brazilian equity market with respective participation of 36.1%, 18.8%, 11.3% and 10.2%. We observed a marginal decline in the domination of financials and consumer industry as they accounted for 37.0% and 20.7% of the total market capitalization of Brazilian equity market in May 2015.

Each sector of the Brazilian market has its particular economics, and it would not always be accurate to compare two industries using the same financial indicator. However, certain trends are discernible when we analyze performance highlights by industry grouping (Table 5a & 5b).



**Table 5a: Analysis of performance highlights by industry - 2016**

BY INDUSTRY	Number of Co's	Market Cap (USD MN)	Enterprise Value (USD MN)	Net Debt (USD MN)	ROE: 2015	FCF Yld: 2015	Dvd Yld: 2015	P/E: 2015	EV/EBITDA: 2015	P/BV: 2015	PEG Ratio	Total Return: Y-5 (l)	Total Return: Y-1 (l)	EPS T12M	Annual Value Traded (USD MN)	Value Traded as Percentage of All Stocks	Annual Value Traded to Market Cap
Basic Materials	28	60,198	123,917	63,719	-9.0%	16.2%	5.8%	6.5	4.4	1.4	1.2	1.8%	28.8%	(0.9)	117,352	24.0%	194.9%
Consumer Discretionary	64	48,518	59,908	11,391	24.8%	7.7%	3.1%	24.5	NA	5.3	1.2	199.4%	49.7%	0.3	28,494	5.8%	58.7%
Consumer Staples	22	156,073	186,210	30,138	23.0%	8.0%	2.8%	21.8	9.8	4.7	2.4	125.2%	10.1%	0.3	54,168	11.1%	34.7%
Energy	11	84,512	197,981	113,469	-10.7%	17.4%	0.4%	1.1	5.5	0.4	0.1	13.1%	114.5%	(0.9)	42,111	8.6%	49.8%
Financials	76	299,044	884,144	585,099	24.7%	14.8%	9.0%	17.1	1.4	2.2	1.5	104.1%	56.3%	0.8	159,756	32.7%	53.4%
Health Care	10	7,941	8,723	782	10.3%	6.6%	1.7%	48.7	2.6	3.4	1.0	66.2%	75.1%	0.3	2,245	0.5%	28.3%
Industrials	55	45,879	78,434	32,556	8.4%	2.6%	1.9%	21.7	7.7	3.5	0.8	85.2%	16.8%	(0.0)	25,265	5.2%	55.1%
Technology	5	1,719	1,931	212	14.7%	7.4%	2.3%	23.7	0.0	3.8	-	13.6%	-0.1%	0.3	1,868	0.4%	108.7%
Telecommunications	6	30,731	47,651	16,920	6.5%	-4.2%	0.6%	14.0	4.1	1.0	0.6	19.0%	22.0%	0.5	6,691	1.4%	21.8%
Utilities	44	93,425	148,254	54,829	9.9%	13.1%	4.6%	11.4	2.3	16.4	0.4	98.1%	52.4%	0.4	50,018	10.3%	53.5%

Source: Horizon Research, Bloomberg

**Table 5b: Analysis of performance highlights by industry - 2015**

BY INDUSTRY	Number of Co's	Market Cap (USD MN)	Enterprise Value (USD MN)	Net Debt (USD MN)	ROE: 2014	FCF Yld: 2014	Dvd Yld: 2014	P/E: 2014	EV/EBITDA: 2014	P/BV: 2014	PEG Ratio	Total Return: Y-5 (l)	Total Return: Y-1 (l)	EPS T12M	Annual Value Traded (USD MN)	Value Traded as Percentage of All Stocks	Annual Value Traded to Market Cap
Basic Materials	29	65,910	139,165	58,847	0.7%	2.0%	6.4%	64.5	6.3	0.9	1.1	-7.9%	13.2%	(0.5)	42,403	10.4%	64.3%
Consumer Discretionary	62	44,532	52,599	6,784	23.1%	1.5%	4.9%	14.1	12.4	5.2	0.8	53.3%	29.2%	0.5	37,323	9.2%	83.8%
Consumer Staples	21	158,264	180,231	18,008	22.4%	3.7%	2.2%	20.9	12.5	4.9	1.5	36.1%	24.8%	0.4	48,307	11.8%	30.5%
Energy	11	67,561	172,801	100,330	-6.2%	-6.9%	0.0%	(1.8)	6.2	0.5	0.0	-46.4%	-33.4%	(0.5)	56,523	13.9%	83.7%
Financials	67	282,751	122,837	326,277	26.0%	0.5%	3.8%	11.5	10.2	3.3	1.1	43.8%	37.8%	0.9	165,563	40.6%	58.6%
Health Care	11	5,072	5,865	777	14.7%	2.6%	3.4%	25.7	12.5	4.2	0.9	44.2%	-14.0%	0.3	1,820	0.4%	35.9%
Industrials	54	39,406	60,760	18,396	15.9%	-2.1%	4.0%	18.1	10.1	4.0	0.3	57.1%	11.4%	0.2	22,238	5.5%	56.4%
Technology	7	2,852	2,848	(5)	18.5%	5.4%	2.2%	23.4	15.6	4.2	0.2	-1.6%	6.0%	0.5	2,861	0.7%	100.3%
Telecommunications	5	31,986	44,908	12,429	10.1%	0.0%	7.1%	12.0	5.3	1.4	-	-3.8%	-3.8%	1.1	10,610	2.6%	33.2%
Utilities	43	64,950	114,954	46,144	16.6%	0.8%	3.0%	6.5	7.8	1.5	1.2	-1.2%	-10.9%	0.6	20,059	4.9%	30.9%

Source: Horizon Research, S&P CapitalIQ

The basic materials industry, which includes chemicals, metals and mining, construction material, etc., represents 7.3% of all market capitalisation and 24.0% of value traded. In contrast, the basic materials industry represented 8.6% of all market capitalisation and 10.4% of value traded in May 2015. The sector's net debt to enterprise value increased from 42.3% in May 2015 to 51.0% (current). The 2015 ROE of the sector is -9.0%, 2015 FCF yield is 16.2% and the 2015 dividend yield is 5.8%. The sector traded at 2015 P/E of 6.5x and 4.4x 2015 EV/EBITDA. The sector traded at 2014 P/E of 64.5x and 6.3x 2015 EV/EBITDA. Higher P/E of Vale SA (VALE5) and Fibria Celulose SA (FIBR3) together with higher weightage in the industry had resulted in a higher P/E for the industry.

The consumer discretionary industry represents 5.9% of all market capitalisation and 5.8% of value traded. In contrast, the consumer discretionary industry represented 5.8% of all market capitalisation and 9.2% of value traded in May 2015. The leverage of the industry increased as indicated by the increase in net debt to enterprise value from 12.9% in May 2015 to 19.0% currently. It has 2015 ROE of 24.8%, with FCF yield of 7.7% and dividend yield of 3.1%. In comparison, it had 2014 ROE of 23.1%, with FCF yield of 1.5% and dividend yield of 4.9%. The consumer discretionary industry has seen an expansion in valuation multiples with P/E increasing from 14.1x in 2014 to 24.5x in 2015. Valuations for the consumer discretionary sector are a reflection of high growth in this sector with the PEG ratio near 1.2.

The consumer staples industry represents 18.8% of market capitalisation and 11.1% of traded volume. In contrast, the consumer staples industry represented 20.7% of market capitalisation and 11.8% of traded volume in May 2015. The FCF yield and dividend yield of the sector improved from 3.7% and 2.2% in 2014 to 8.0%, and 2.8% in 2015. The sector traded at 2015 P/E ratio of 21.8x and 9.8x EV/EBITDA, higher than the Index. In comparison, the consumer staples industry traded at 2014 P/E ratio of 20.9x and 12.5x EV/EBITDA. These disconnects in financial ratios versus the index respond to secular trends in the sector (e.g. increasing disposable income leading to higher demand).

The energy industry, which includes oil, gas and coal exploratory companies and allied services, represents 10.2% of all market capitalisation and only 8.6% of value traded. In contrast, it represented 8.9% of all market capitalisation and 13.9% of value traded in 2014. It has a 57.3% net debt to enterprise value ratio, more or less at the level of 2014. It has 2015 ROE of -10.7%, with FCF yield of 17.4% and dividend yield of 0.04% (lowest amongst all industry groups). The energy industry is trading at 1.1x 2015 P/E and 5.5x 2015 EV/EBITDA.

The financial industry, which includes banks, asset management, mortgage finance and thrifts represents 36.1% of all market capitalisation and 32.7% of value traded which is the highest amongst all industry groups. It represented 37.0% of all market capitalisation and 40.6% of value traded. The ROE of the sector decreased from 26.0% in 2014 to 24.7% in 2015 but the dividend yields increased from 3.8% to 9.0% during the same period. Though, the sector P/E expanded from 11.5x in 2014 to 17.1x in 2015, P/B ratio contracted from 3.3x in 2014 to 2.2x in 2015.

The healthcare industry represents 1.0% of the total market capitalisation and 0.5% of total value traded. In comparison, it represented 0.7% of the total market capitalisation and 0.4% of total value traded in 2014. Though, the ROE and dividend yield declined from 14.7% and 3.4% in 2014 to 10.3% and 1.7% in 2015, FCF yield increased from 2.6% in 2014 to 6.6% in 2015. The sector traded at 2015 P/E of 48.7x (25.7x in 2014) and 2015 EV/EBITDA of 2.6x (12.5x in 2014).

Industrials represent 5.5% of all Brazilian market capitalisation and 5.2% of all value traded. It represented 5.2% of all Brazilian market capitalisation and 5.5% of all value traded. The sector has net debt to enterprise value of 41.5%, higher than 30.3% in May 2014. ROE and dividend yield of the sector declined from 15.9% and 4.0% in 2014 to 8.4% and 1.9% in 2015. Industrials traded at 2015 P/E of 21.7x (18.1x in 2014) and 7.7x 2015 EV/EBITDA (10.1x in 2014).

The technology industry represents 0.2% of all market capitalisation and 0.4% of value traded. In contrast, it represented 0.4% of all market capitalisation and 0.7% of value traded in May 2014. The sector has net debt to enterprise value of 11.0%, which increased from -0.2% (net cash position). The 2015 ROE of the sector is 14.7% (18.5% in 2014), 2015 FCF yield is 7.4% (5.4% in 2014) and 2015 dividend yield is 2.3% (2.2% in 2014). The technology industry traded at 2015 P/E of 23.7x.

The Telecommunication industry represents 3.7% of all Brazilian market capitalisation and 1.4% of all value traded. In contrast, it represented 4.2% of all Brazilian market capitalisation and 2.6% of all value traded. The sector has net debt to enterprise value of 35.5%, which increased from 27.7% in 2014. The ROE of the sector decreased from 10.1% in 2014 to 6.5% in 2015. The 2015 FCF yield of the sector is -4.2% (which is the lowest amongst all industry groups) and the 2015 dividend yield is 0.6%. The Telecommunication industry has seen an expansion in valuation multiples with P/E and EV/EBITDA increasing from 12.0x and 5.3x in 2014 to 14.0x and 4.1x in 2015.

The utilities industry, which includes independent power producers & energy traders, electric, water and gas utilities represents 11.3% of all market capitalisation and 10.3% of value traded. In contrast, it represented 8.5% of all market capitalisation and 4.9% of value traded. The sector has net debt to enterprise value of 37.0%, marginally down from 40.1% in May 2015. Though, the ROE of the sector declined from 16.6% in 2014 to 9.9% in 2015, FCF yield and dividend yield improved from 0.8% and 3.0% in 2014 to 13.1% and 4.6% in 2015. The sector traded at 2015 P/E of 11.4x and 2.3x 2015 EV/EBITDA. In comparison, the sector traded at 2014 P/E of 6.5x and 7.8x 2014 EV/EBITDA.



**THE BRAZILIAN ECONOMY**

While Brazilian GDP (at current USD) has increased from USD 892 billion in 2005 to USD 1,775 billion in 2015, the total market capitalisation to GDP ratio is below global levels leading to lower valuations in the Brazilian equity markets. Brazilian broad market capitalisation of USD 491 billion in 2015 represents 28% of Brazilian GDP. This is below the long-term average trend and is lower than the recent peak 2010 of 70%. In comparison, the ratio of US, China and India market capitalisation to GDP in 2015 are 140%, 75% and 73% (Table 6).

We believe Brazilian GDP will continue to grow at its at an average of 3-4% in the long term, which will provide an added impetus to companies across capitalisation and industry sectors. Brazil was the seventh largest economy in the world with an estimated GDP in 2013 of USD 2,246 billion in current dollars<sup>1</sup>. Currently, Brazil is the eighth largest economy in the world with an estimated GDP in 2015 of USD 1.7 trillion in current dollars<sup>2</sup>.

Net FDI has increased in most years stood at USD 75 billion in 2015 (Table 6). Portfolio inflows in 2015 were USD 10 billion, these were lower than Portfolio inflows for China, which were USD 15 billion.

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<sup>1</sup> Source World Bank

<sup>2</sup> <http://statisticstimes.com/economy/countries-by-projected-gdp.php>

**Table 6: Comparative: Economic indicators for the past 10 years**

	2005	2008	2010	2013	2015	2016 ^	2005-2015 10 yr CAGR	2010-2015 5 yr CAGR
<b>BRAZIL Indicators (in USD Billion)</b>								
GDP (current US\$)	892	1,654	2,209	2,246	1,775		7%	-2%
Market capitalization of listed companies (current US\$)	475	589	1,546	1,020	491	759	0.3%	-11%
Market Capitalization to GDP Ratio	53%	36%	70%	45%	28%			
Foreign direct investment, net inflows (BoP, current US\$)	(13)	51	(62)	81	75			
GDP growth (annual %)	3	5	8	2	(4)			
GDP per capita (current US\$)	4,731	8,623	11,121	11,208	8,539		6%	-3%
Merchandise trade (% of GDP)	22	23	18	22	21			
Portfolio equity, net inflows (BoP, current US\$)	6	(8)	38	12	10			
Agriculture, value added (% of GDP)	5	6	5	6	5			
Manufacturing, value added (% of GDP)	17	17	15	13	11			
Services, etc., value added (% of GDP)	66	66	68	69	72			
<b>USA Indicators (in USD Billion)</b>								
GDP (current US\$)	13,094	14,719	14,964	16,768	17,947		3%	2%
Market capitalization of listed companies (current US\$)	17,001	11,738	17,283	24,035	25,068	26,497	4%	4%
Market Capitalization to GDP Ratio	130%	80%	115%	143%	140%			
Foreign direct investment, net inflows (BoP, current US\$)	(76)	333	95	295	379			
GDP growth (annual %)	3	(0)	3	2	2			
GDP per capita (current US\$)	44,308	48,401	48,374	53,042	55,837		2%	1%
Merchandise trade (% of GDP)	20	23	22	23	21			
Portfolio equity, net inflows (BoP, current US\$)	89	127	179	(85)	(171)			
Agriculture, value added (% of GDP)	1	1	1					
Manufacturing, value added (% of GDP)	13	13	12					
Services, etc., value added (% of GDP)	77	77	78					
<b>China Indicators (in USD Billion)</b>								
GDP (current US\$)	2,269	4,522	6,040	9,240	10,866		17%	6%
Market capitalization of listed companies (current US\$)	402	2,794	4,028	3,949	8,188	7,362	35%	7%
Market Capitalization to GDP Ratio	18%	62%	67%	43%	75%			
Foreign direct investment, net inflows (BoP, current US\$)	(90)	187	(186)	348	250			
GDP growth (annual %)	11	10	11	8	7			
GDP per capita (current US\$)	1,740	3,414	4,515	6,807	7,925		16%	6%
Merchandise trade (% of GDP)	63	57	49	45	36			
Portfolio equity, net inflows (BoP, current US\$)	21	8	31	33	15			
Agriculture, value added (% of GDP)	12	11	10	10	9			
Manufacturing, value added (% of GDP)	32	33	32	32				
Services, etc., value added (% of GDP)	41	42	44	46	50			
<b>India Indicators (in USD Billion)</b>								
GDP (current US\$)	834	1,224	1,708	1,875	2,074		10%	2%
Market capitalization of listed companies (current US\$)	553	645	1,632	1,139	1,516	1,663	11%	-1%
Market Capitalization to GDP Ratio	66%	53%	96%	61%	73%			
Foreign direct investment, net inflows (BoP, current US\$)	(5)	43	(11)	28	44			
GDP growth (annual %)	9	4	10	7	8			
GDP per capita (current US\$)	729	1,042	1,388	1,498	1,582		8%	1%
Merchandise trade (% of GDP)	29	42	34	42	32			
Portfolio equity, net inflows (BoP, current US\$)	12	(15)	30	20				
Agriculture, value added (% of GDP)	19	18	18	18				
Manufacturing, value added (% of GDP)	15	15	15	17				
Services, etc., value added (% of GDP)	53	54	55	51				

^ September 2016 for Brazil, USA and India. August 2016 for China

Source: Horizon Research, The World Bank, IMF, WFE

Brazilian exports are diversified, though in general food and manufactures exports are the largest export items in most years. With Merchandise trade/GDP ratio stabilising, Brazil is becoming more integrated with and sensitive to global economic conditions. The degree of openness to trade represented by the Merchandise trade/GDP ratio is lower in Brazil at 21% in 2015, as compared to 36% for China and 32% for India (Table 7).

**Table 7: Comparative Trade indicators**

<b>Brazil</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Merchandise exports (current US\$ Billion)	256	243	242	2,251	1,911
Merchandise trade (% of GDP)	20	21	22	19	21
Agricultural raw materials exports (% of merchandise exports)	4	4	4	4	5
Food exports (% of merchandise exports)	31	32	34	35	38
Fuel exports (% of merchandise exports)	11	11	7	9	7
Manufactures exports (% of merchandise exports)	34	35	36	35	38
Ores and metals exports (% of merchandise exports)	19	16	16	14	11
<b>USA</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Merchandise exports (current US\$ Billion)	1,483	1,546	1,580	1,621	1,505
Merchandise trade (% of GDP)	24	24	23	23	21
Agricultural raw materials exports (% of merchandise exports)	3	2	2	2	2
Food exports (% of merchandise exports)	10	10	10	10	10
Fuel exports (% of merchandise exports)	10	10	11	11	8
Manufactures exports (% of merchandise exports)	63	63	62	62	64
Ores and metals exports (% of merchandise exports)	4	4	3	3	3
<b>China</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Merchandise exports (current US\$ Billion)	1,898	2,049	2,209	2,342	2,275
Merchandise trade (% of GDP)	50	47	45	42	36
Agricultural raw materials exports (% of merchandise exports)	1	0	0	0	0
Food exports (% of merchandise exports)	3	3	3	3	3
Fuel exports (% of merchandise exports)	2	2	2	1	1
Manufactures exports (% of merchandise exports)	93	94	94	94	94
Ores and metals exports (% of merchandise exports)	1	1	1	1	1
<b>India</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Merchandise exports (current US\$ Billion)	303	297	313	323	267
Merchandise trade (% of GDP)	42	43	42	38	32
Agricultural raw materials exports (% of merchandise exports)	2	2	2	2	2
Food exports (% of merchandise exports)	9	11	11	11	12
Fuel exports (% of merchandise exports)	19	19	20	20	12
Manufactures exports (% of merchandise exports)	62	65	62	64	71
Ores and metals exports (% of merchandise exports)	4	3	3	3	3

Source: Horizon Research, The World Bank, IMF

<sup>i</sup> Source: Bloomberg October 20, 2016

<sup>ii</sup> <http://ir.bmfbovespa.com.br/enu/2147/BVMF%20Presentation%20-%20September%202016.pdf>

<sup>iii</sup> Source: FT <http://www.ft.com/intl/cms/s/0/86f6cd10-582f-11e4-b331-00144feab7de.html#axzz3YxEz8tyy>

<sup>iv</sup> <http://ir.bmfbovespa.com.br/enu/2304/BVMF%20Presentation%20-%20Abril%202015.pdf>

<sup>v</sup> For further information on the methodology visit: [http://www.bmfbovespa.com.br/Indices/download/IBovespa\\_ing.pdf](http://www.bmfbovespa.com.br/Indices/download/IBovespa_ing.pdf)

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**Manjit Singh Kalha**, the analyst who prepared this report, hereby certify that the views expressed in this report accurately reflect the analyst's personal views about the subject companies and their securities. The Research Analyst has not been, is not and will not be receiving direct or indirect compensation for expressing the specific recommendation or view in this report.

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### **Important Disclosures**

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