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HORIZON
Research

INDIA EQUITY OPPORTUNITIES ISSUE V

This report examines the Indian equity markets, their structure, constituents and metrics over time. In continuation to our earlier reports on Indian Equity Opportunities, we show that the Indian equity markets now offer a compelling investment opportunity.

We believe significant investment opportunities exist in India for long-term, strategic investors. Horizon's investment methodology, taking a private market approach to the public markets is well suited to pursue these opportunities.

India is a unique market globally. It offers an abundance of businesses, all for sale, at significant discounts to their global franchise values via the country's stock markets. The environment is conducive for corporate ownership. The Indian market operates on a system of English common law and based on the English language. Stock market participation is broad and deep, with a wealth of retail and institutional market participation.

We at Horizon believe India is entering a phase of massive consolidation and corporate change, driven by an open government policy for foreign investment, combined with companies seeking access to new markets, technologies, and capital partners. Family businesses are experiencing a generational changes leading to mergers and acquisitions. This backdrop offers significant return potential utilizing the Horizon disciplined investment methodology.

HORIZON PROCESS

We follow a methodology deployed by Warren Buffet in the United States of America, resting on the principles set forth by Professors Graham and Dodd in 1934 in the sentinel text book "Securities Analysis". We are bottom-up investors. 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 ideally look for:

- ❑ Discount to replacement and private trade sale valuations
- ❑ Strong franchise that has barriers to entry in their respective markets with the ability to price products well above costs
- ❑ A business that is understandable
- ❑ The right price in stock market establishing a margin of safety
- ❑ Attractive cash flow characteristics
- ❑ Strong existing management that will remain in place
- ❑ Oriented for the growth of the Indian Subcontinent

- We also like special situation opportunities that require Horizon's managerial oversight. These include balance sheet reorganizations, turnarounds, restructurings and companies whose assets will benefit from a change from an outright of control

The Indian businesses available on the equity market have many of these attributes to earn superior risk-adjusted returns through our stock selection using the Horizon process. We believe that it is possible to identify pockets of value/price misalignment especially within domestic demand led industries. With secular trends led by increasing GDP, favorable demographics and increasing disposable income among other long-term factors there are ample opportunities to invest in companies that will benefit.

INDIAN EQUITY MARKET ANALYSIS

The Indian Stock Market

India has a deeply rooted equity culture dating to the period of British rule. The Bombay Stock Exchange (BSE), founded in 1875, is Asia's oldest public bourse. In addition to the BSE, investors can trade through the National stock exchange (NSE). There are approximately 18 other stock exchanges in existence but with little traded market volume.

There are approximately 5,000 listed companies in India of which 3,500 are actively traded, offering a sizeable group of businesses for superior stock selection. Most companies that trade on the BSE have a dual listing on the NSE. An additional feature of the Indian equity markets is that there is a single stock futures market with nearly 200 companies traded on 30/60/90 day contracts. These future contracts assist the price discovery process and are a vehicle for short selling.

Trading and participation

The annual value traded on the NSE and BSE in 2022 was USD 1,775 billion and the ratio of value traded to market capitalisation was 52% (Table 1a), which is below the value traded to market capitalization ratios of comparative bourses and reflects a decrease from the covid high of 2021. Both the annual value of share trading as a percentage of GDP and as a percentage of market capitalisation for India have increased marginally since our previous reports.

Table 1a: Annual value of share trading between 2012-2022 (USD Billion)

	Annual value of share trading											
	(USD billion)				As a % of GDP				As a % of Mcap			
Bourse	2012	2019	2021	2022	2012	2019	2021	2022	2012	2019	2021	2022
NASDAQ	24,479	39,683	73,281	75,242	146	186	314	295	534	305	298	463
NYSE	14,747	33,079	29,266	30,289	88	155	126	119	105	157	106	126
NSE (India)#	638	1,210	2,300	1,775	35	43	73	52	51	56	65	52
B3 - Brasil Bolsa Balcão	875	1,066	1,565	1,365	36	57	95	71	71	90	192	172
Shenzen + Shanghai#	4,989	18,276	40,479	33,410	59	127	228	185	135	536	496	497

For Mcap, Only NSE and Shanghai

Source: Horizon Research, WFE, World Bank, IMF

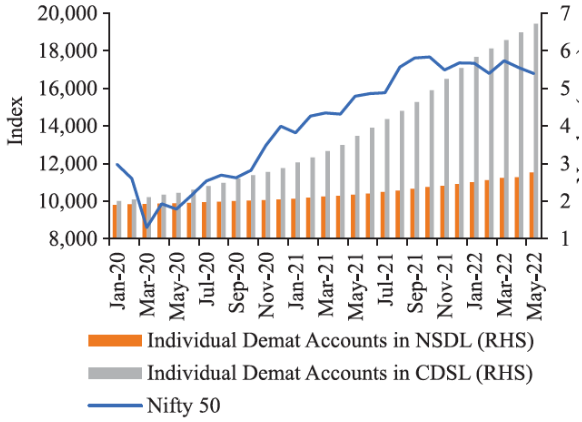
The Reserve Bank of India's Financial Stability Report Issue No. 25 has analyzed trading per market participant and reveals that "*Retail investor participation has increased significantly since the onset of the COVID-19 pandemic and registration of new investors on exchanges is reaching beyond Tier 1 cities. During January 2020 to May 2022, the number of dematerialized*[1] *accounts of 'individuals' has increased by 340% in the Central Depository Services Limited (CDSL) and by 150% in the National Securities Depository Limited (NSDL)*" (Figure 1a).

The report attributes increased retail investor participations to "*the decrease in real returns on fixed income investments, simplification of know your customer (KYC) registration processes, effective use of digital technology and opening of online*

[1] Dematerialized accounts represent the electronic bookkeeping system that is prevalent in India

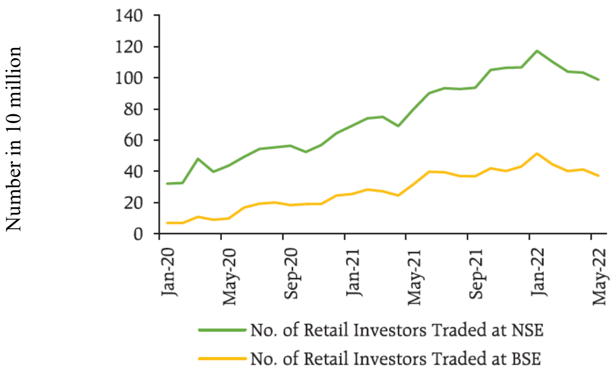
accounts, enhanced availability of investment information on digital modes and growing public awareness has promoted a widening of the investor base, including first-time investors." (Figure 1b).

Figure 1a: Dematerialized Accounts with Depositories



Source: Horizon Research, RBI Financial Stability Report Issue No. 25

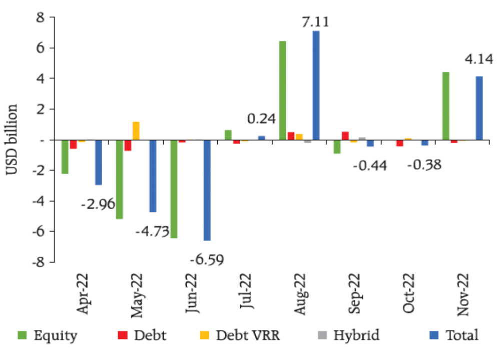
Figure 1b: Trend of Number of Retail Investors Trading on the Exchanges



Source: Horizon Research, RBI Financial Stability Report Issue No. 25

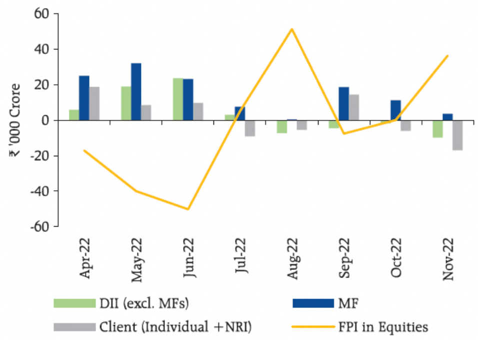
Foreign investors, by contrast, were net sellers till August 2022. Foreign Portfolio Investor (FPI) outflows have been offset by Domestic Institutional Investors (DIIs). (Chart 1.46 and 1.47).

Figure 2a: Monthly FPI Flows

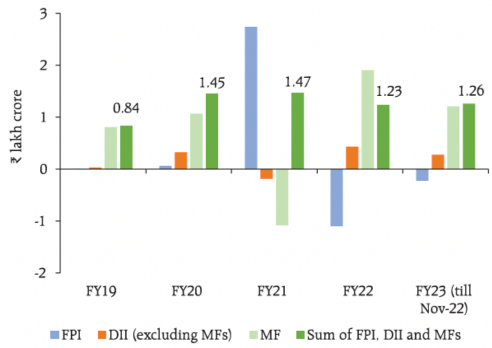


Source: Horizon Horizon Research, RBI Financial Stability Report Issue No. 26

Figure 2b: FPI and DII flows



Source: Horizon Research, RBI Financial Stability Report Issue No. 26
Amount INR 10Bn



Source: Horizon Research, RBI Financial Stability Report Issue No. 26
Amount INR 1Tn

Mutual Funds and ETF's

In addition to the robust equity markets India has had a long-standing culture of investing through mutual funds and recently through ETF's.

As a percentage of GDP, AUM of MF's and ETFs were 14% and 2% respectively in 2022 (Table 2a). In comparison for the US, as a percentage of GDP, AUM of MF's and ETFs were 117% and 31% respectively in 2022 (Table 2c). The 2018-2022 CAGR for ETF AUM in India has been 53% (Table 2a) compared to 21% in the US for a similar period (Table 2c). As a subcategory of MFs, FoF investing in overseas markets has seen the highest CAGR at 99% between 2018 to 2022 (Table 2a).

As per a recent report by CRISIL, India's mutual fund penetration (16%) is significantly lower than the world average (75%) and lower than many developed economies such as the United States (148%), Canada (98%), France (98%), UK (78%), Brazil (81%) and South Africa (62%). Further, the ratio of Equity mutual fund AUM to GDP in India is at 6% compared with 89% in the United States, 78% in Canada, 50% in the United Kingdom, and 30% in Brazil, as of 2020[2].

Table 2a: AUM and Growth of MF's and ETFs in India (In INR millions)

	AUM as on 31-Mar-2018	AUM as on 31-Mar-2019	AUM as on 31-Mar-2020	AUM as on 31-Mar-2021	AUM as on 31-Mar-2022	2022 AUM As a % of GDP	CAGR 2018 to 2022
Equity (Non ETF)	7,497,900	8,921,010	6,029,620	10,011,210	13,737,290	6%	16%
		19%	*-32%*	*66%*	*37%*		
Hybrid (Non ETF)	1,721,510	1,806,480	2,621,500	3,429,570	4,799,180	2%	29%
		5%	*45%*	*31%*	*40%*		
Debt (Non ETF)	11,349,500	11,658,910	11,958,560	14,770,600	13,811,070	6%	5%
		3%	*3%*	*24%*	*-6%*		
Index funds			80,890	191,640	686,760	0%	na
				137%	*258%*		
ETF	776,940	1,390,730	1,544,120	2,900,540	4,306,430	2%	53%
		79%	*11%*	*88%*	*48%*		
Fund of Fund investing overseas	14,510	18,710	27,340	124,080	226,090	0%	99%
		29%	*46%*	*354%*	*82%*		
	21,360,360	23,795,840	22,262,030	31,427,640	37,566,820	16%	15%
		11%	*-6%*	*41%*	*20%*		

Source: Horizon Research, AMFI. Figures in italics are YoY growth.

[2] IPO PROSPECTUS Dated October 4, 2021 of Aditya Birla Sun Life AMC Limited

Table 2b: AUM and Growth of MF's and ETFs in India (In USD billions)

	AUM as on 31-Mar-2018	AUM as on 31-Mar-2019	AUM as on 31-Mar-2020	AUM as on 31-Mar-2021	AUM as on 31-Mar-2022	2022 AUM As a % of GDP	CAGR 2018 to 2022
Equity (Non ETF)	115	129	80	138	182	6%	12%
		19%	*-32%*	*66%*	*37%*		
Hybrid (Non ETF)	26	26	35	47	63	2%	24%
		5%	*45%*	*31%*	*40%*		
Debt (Non ETF)	174	168	159	203	182	6%	1%
		3%	*3%*	*24%*	*-6%*		
Index funds			1.1	2.6	9.1	0%	na
		0%	*0%*	*137%*	*258%*		
ETF	12	20	20	40	57	2%	48%
		79%	*11%*	*88%*	*48%*		
Fund of Fund investing overseas	0.2	0.3	0.4	1.7	3.0	0%	91%
		29%	*46%*	*354%*	*82%*		
	328	344	295	432	496	16%	11%
		11%	*-6%*	*41%*	*20%*		

Source: Horizon Research, AMFI. Figures in italics are YoY growth.

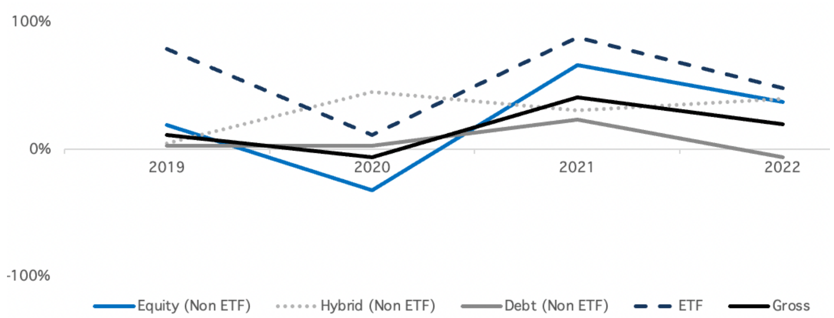
Table 2c: AUM and Growth of MF's and ETFs in USA (In USD billions)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2021 AUM As a % of GDP	CAGR 2017 to 2021	CAGR 2012 to 2021
MF	13,046	15,039	15,867	15,648	16,342	18,750	17,698	21,277	23,883	26,964	117%	10%	8%
	12%	*15%*	*6%*	*-1%*	*4%*	*15%*	*-6%*	*20%*	*12%*	*13%*			
ETF's	1,337	1,675	1,975	2,101	2,525	3,401	3,371	4,396	5,449	7,191	31%	21%	21%
	28%	*25%*	*18%*	*6%*	*20%*	*35%*	*-1%*	*30%*	*24%*	*32%*			
CEF's	265	282	292	263	265	277	252	279	282	309	1%	3%	2%
	9%	*6%*	*4%*	*-10%*	*1%*	*5%*	*-9%*	*11%*	*1%*	*10%*			
UIT's	72	87	101	94	85	85	70	79	78	95	0%	3%	3%
	20%	*21%*	*16%*	*-7%*	*-10%*	*0%*	*-18%*	*13%*	*-1%*	*22%*			
Total	14,720	17,083	18,235	18,106	19,217	22,513	21,391	26,031	29,692	34,559	150%	11%	10%
	13%	*16%*	*7%*	*-1%*	*6%*	*17%*	*-5%*	*22%*	*14%*	*16%*			

Source: Horizon Research, 2022 Investment Company Factbook. Figures in italics are YoY growth.

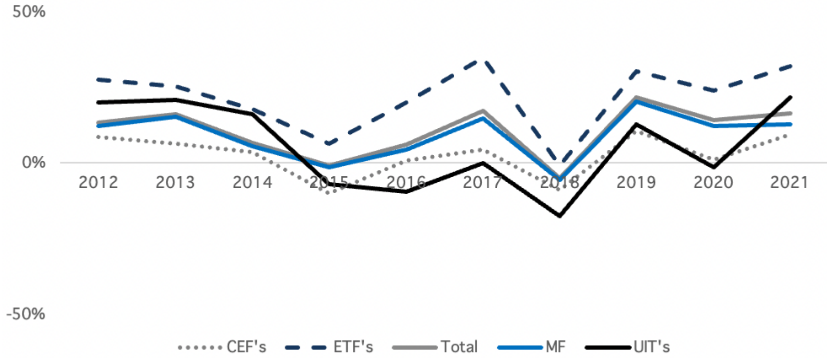
Since 2018 growth in ETF AUM has exceeded AUM growth in every other category in both India and the US (Figure 2(a) and Figure 2(b).

Figure 2a: Percentage change in AUM of MF's and ETF's in India



Source: Horizon Research, AMFI

Figure 2b: Percentage change in AUM of MF's and ETF's in USA



Source: Horizon Research, 2022 Investment Company Factbook

The Indices

There is a heavy concentration of market capitalization represented through, the primary indices. The NIFTY[3], which is comprised of 50 companies, and the Sensex[4], which is comprised of 30 companies, are the two major indices.

Between 2005 and 2022 the Sensex with a 11.6% CAGR in local currency terms and 7.7% when indexed to the USD, has outperformed the MSCI EM Index, Shanghai Composite and S&P 500. In the current year to date period, the Sensex with a (1.9%) CAGR has underperformed the MSCI EM Index which had a 3.2% CAGR (Table 3).

Table 3: Performance of Indian Vs. International Indices (2005-2022)

	Index level							CAGR						
Index	2005	2010	2015	2020	2021	2022	CYtD	2005-10	2010-15	2015-20	2005-20	2005-21	2005-22	CYtD
S&P 500	1,248	1,258	2,044	3,756	4,766	3,840	4,169	**0.1%**	**10.2%**	**12.9%**	**7.6%**	**8.7%**	**6.8%**	**8.6%**
S&P BSE Sensex	9,398	20,509	26,118	47,751	58,254	60,841	61,112	16.9%	5.0%	12.8%	11.4%	12.1%	11.6%	0.4%
Indexed in USD	209	459	395	652	777	735	749	**17.0%**	**-2.9%**	**10.6%**	**7.9%**	**8.6%**	**7.7%**	**1.9%**
Shanghai Composite	1,161	2,808	3,539	3,473	3,640	3,089	3,323	19.3%	4.7%	-0.4%	7.6%	7.4%	5.9%	7.6%
Indexed in USD	144	426	546	533	573	448	481	**24.2%**	**5.1%**	**-0.5%**	**9.1%**	**9.0%**	**6.9%**	**7.3%**
IBOVESPA Index	33,456	69,305	43,350	119,306	104,822	110,031	104,432	15.7%	-9.0%	22.4%	8.8%	7.4%	7.3%	-5.1%
Indexed in USD	15,055	41,708	11,260	22,988	18,652	20,839	20,970	**22.6%**	**-23.0%**	**15.3%**	**2.9%**	**1.3%**	**1.9%**	**0.6%**
iShares MSCI Emerging Markets	88	48	32	52	49	38	39	-11.6%	-7.5%	9.9%	-3.5%	-3.6%	-4.9%	3.2%

Source: Horizon Research, Yahoo Finance (Index level taken at the last trading day of December or first day of January of the subsequent year for NIFTY)

There is a heavy concentration of market capitalization represented through the primary indices. The stocks that participate in the Sensex represent over 31.2% (USD 501 billion) of the annual value traded on the exchange and 34.2% of the sum of all Sensex company's market capitalization (Table 3a). The annual value traded of the Sensex Index was 23.9% in 2015[5].

The balance of stocks not captured by the indices equates to approximately 4,800 companies, and results 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.

[3] The NSE Nifty index is computed using the Free Float Market Capitalisation weighted method, wherein the level of index reflects the free float market capitalisation of all stocks in the Index. (Source NSE Website)
[4] The BSE Sensitive Index, or Sensex, consists of companies selected on the basis of market capitalization, liquidity and industry representation. (Source BSE Website)
[5] All references to 2015 are to the release of our previous report

The Indian equity market quantity of traded companies offers investment diversification opportunities within the Indian market itself. The Sensex also offers diversity of the market, with the Sensex comprising companies across 9 of the 10 broad industry segments (Table 4).

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 and their representation of the broad market capitalization is 55.4%. An analysis of value traded as a percentage of total traded volume reveals that in 2022 39% 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 Top 100 companies continue to outperform the other remaining companies on several metrics. Leverage, measured in terms of net debt to enterprise value, was 19% for the Top 100 companies but it was 54% for the bottom 3,852 companies.

The Top 100 companies have a ROE of 20.8%, FCF yield of 5.7% and dividend yield of 1.4%. In contrast, the bottom 3,852 companies have an ROE of 7.6%, FCF yield of 0.6% and dividend yield of 0.6%.

The Top 100 companies trade at a lower P/E and EV/ EBITDA multiple compared to the bottom companies. 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 capitalization - 2022

BY MARKET CAPITALISATION	Number of Co's	Market Cap (USD MN)	Mcap, % of All Stocks	Enterprise Value (USD MN)	Net Debt (USD MN)	Nedt Debt/ EV	ROE: 2022	FCF Yld: 2022	Dvd Yld: 2022	P/E: 2022	EV/ EBITDA: 2022	P/BV: 2022	PEG Ratio	Total Return: Y-5 (I)	Total Return: Y-1 (I)	EPS T12M	Est. Annual Value Traded (USD MN)	Value Traded, % of All Stocks	Value Traded, % of MCap
S&P BSE SENSEX	30	1,465,569	44%	1,694,873	326,309	19%	19.3%	4.5%	1.2%	36.2	16.6	7.7	1.6	111.4%	8.6%	1.0	501,597	31.2%	34.2%
NSE NIFTY 50 Index	50	1,736,032	52%	2,025,182	371,935	18%	19.4%	5.1%	1.4%	39.2	17.0	7.4	1.7	134.5%	7.8%	0.9	647,701	40.3%	37.3%
All India traded equities, Cap Weighted	4,852	3,352,167	100%	4,151,739	1,007,585	24%	27.0%	4.7%	1.3%	60.4	24.2	8.9	1.9	146.3%	10.0%	0.8	1,608,809	100.0%	48.0%
Top 10 Companies	10	916,162	27%	1,046,223	179,119	17%	19.3%	5.3%	1.2%	32.5	14.0	5.9	1.6	118.7%	9.1%	0.9	263,964	16.4%	28.8%
Top 25 Companies	25	1,417,460	42%	1,604,276	261,342	16%	20.5%	4.2%	1.0%	43.8	18.8	6.5	1.5	147.8%	7.1%	0.9	452,431	28.1%	31.9%
Top 50 Companies	50	1,847,161	55%	2,143,631	387,697	18%	21.2%	4.5%	1.4%	53.1	21.8	10.9	2.5	132.7%	6.4%	0.9	613,555	38.1%	33.2%
Top 100 Companies	100	2,283,296	68%	2,615,848	503,255	19%	20.8%	5.7%	1.4%	49.4	22.0	9.8	2.5	131.7%	8.0%	0.8	890,518	55.4%	39.0%
Top 500 Companies	500	3,132,134	93%	3,832,911	894,982	23%	28.0%	5.2%	1.4%	51.1	24.1	9.3	2.1	138.8%	9.1%	0.8	1,443,550	89.7%	46.1%
Top 1,000 Companies	1,000	3,288,288	98%	4,034,567	943,836	23%	27.4%	4.8%	1.3%	60.6	24.0	9.1	2.0	143.1%	9.5%	0.8	1,563,494	97.2%	47.5%
Remaining 3,852 companies	3,852	63,879	2%	117,171	63,749	54%	7.6%	0.6%	0.6%	49.6	33.0	3.6	0.0	312.1%	36.0%	0.3	45,315	2.8%	70.9%

Source: Horizon Research, Bloomberg

Sensex securities

There is a dominance of Sensex securities, which are relatively larger in terms of their size and trading volume, in most of the industries (Table 4).

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 47 energy companies of which 1 company constitutes 70% of the market capitalisation. This trend is repeated in the communication services industry where 1 company out of 144 companies in the broad market constitutes 59% of the market capitalization (Table 4).

Table 4: Concentration of market capitalisation by industry - 2022

BY INDUSTRY	BROAD MARKET Number of securities	BROAD MARKET Market Cap in USD MN	SENSEX Number of securities	SENSEX Market Cap in USD MN	Market Cap of SENSEX securities as a % of the broad market
Communication Services	144	93,008	1	54,477	59%
Consumer Discretionary	785	349,011	4	100,293	29%
Consumer Staples	321	322,715	3	160,779	50%
Energy	47	285,525	1	200,221	70%
Financials	544	823,777	9	482,081	59%
Health Care	230	171,194	1	28,951	17%
Industrials	785	342,184	1	40,641	12%
Information Technology	277	352,990	5	280,768	80%
Materials	681	407,616	3	76,820	19%
Real Estate	201	51,841	-	-	-
Utilities	44	145,787	2	40,539	28%
@NA	793	6,519	-	-	-

Source: Horizon Research, Bloomberg

Industry sectors oriented for growth

The Financials, Materials, and Information Technology industries are amongst the largest industry sectors by market capitalisation in the Indian equity market with respective participation of 25%, 12%, and 11%.

Each sector of the Indian market has its own 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 5).

Table 5: Analysis of performance highlights by industry – 2022

BY MARKET CAPITALISATION	Number of Co's	Market Cap (USD MN)	Mcap, % of All Stocks	Enterprise Value (USD MN)	Net Debt (USD MN)	Nedt Debt/ EV	ROE: 2022	FCF Yld: 2022	Dvd Yld: 2022	P/E: 2022	EV/ EBITDA : 2022	P/BV: 2022	PEG Ratio	Total Return: Y-5 (I)	Total Return:Y-1 (I)	EPS T12M	Annual Value Traded (USD MN)	Value Traded, % of All Stocks	Value Traded, % of MCap
Communication Services	144	93,008	3%	167,729	60,143	36%	28%	4.7%	0.8%	68.7	27	7.1	1.1	109.2%	-1.4%	0.2	47,887	3.0%	51.5%
Consumer Discretionary	785	349,011	10%	392,476	50,445	13%	10%	-2.5%	0.7%	83.3	41	8.8	0.8	82.0%	14.2%	1.1	185,484	11.5%	53.1%
Consumer Staples	321	322,715	10%	326,365	4,057	1%	29%	1.9%	1.8%	61.7	38	18.2	2.8	181.4%	22.7%	0.6	93,776	5.8%	29.1%
Energy	47	285,525	9%	353,383	61,814	17%	13%	4.4%	2.3%	22.2	14	2.0	0.9	115.0%	-4.6%	0.9	74,192	4.6%	26.0%
Financials	544	823,777	25%	1,266,999	651,953	51%	18%	12.7%	1.0%	28.5	7	3.2	1.1	86.5%	18.0%	0.8	434,913	27.0%	52.8%
Health Care	230	171,194	5%	173,937	626	0%	15%	1.7%	0.7%	42.3	22	7.0	2.8	110.0%	1.8%	0.7	78,898	4.9%	46.1%
Industrials	785	342,184	10%	385,014	45,067	12%	16%	2.2%	0.9%	56.1	30	6.5	0.8	257.6%	27.3%	0.5	254,250	15.8%	74.3%
Information Technology	277	352,990	11%	339,459	-12,530	-4%	32%	2.9%	1.5%	38.3	26	11.4	1.7	129.3%	-7.4%	1.1	129,954	8.1%	36.8%
Materials	681	407,616	12%	446,767	51,776	12%	80%	3.3%	1.7%	116.7	21	6.9	5.7	176.3%	4.0%	0.8	224,992	14.0%	55.2%
Real Estate	201	51,841	2%	62,654	9,958	16%	6%	1.4%	1.0%	70.7	56	4.3	1.8	603.4%	4.7%	0.2	19,599	1.2%	37.8%
Utilities	44	145,787	4%	231,551	82,268	36%	27%	3.0%	2.5%	177.1	53	46.2	1.9	158.3%	-15.0%	0.2	61,734	3.8%	42.3%
@NA	793	6,519	0%	5,404	2,008	37%	5%	0.1%	1.8%	51.3	15	1.6	-	1549.5%	190.3%	0.0	3,130	0.2%	48.0%

Source: Horizon Research, Bloomberg

The Communication Services industry represents 3% of all Indian market capitalization and 3% of all value traded. The sector has a net debt to enterprise value of 36%. The ROE of the sector is 28%, the FCF yield of the sector is 4.7% and the dividend yield is

0.8%. The Communication Services industry valuation multiples P/E and EV/EBITDA are 68.7X and 27X respectively.

The Consumer Discretionary industry represents 10% of all Indian market capitalization and 11.5% of all value traded. The sector has a net debt to enterprise value of 13%. The ROE of the sector is 10%, the FCF yield of the sector is -2.5% and the dividend yield is 0.7%. The Consumer Discretionary industry valuation multiples P/E and EV/EBITDA are 83X and 41X respectively.

The Consumer Staples industry represents 10% of all Indian market capitalization and 5.8% of all value traded. The sector has a net debt to enterprise value of 1%. The ROE of the sector is 29%, the FCF yield of the sector is 1.9% and the dividend yield is 1.8%. The Consumer Staples industry valuation multiples P/E and EV/EBITDA are 62X and 38X respectively. 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 9% of all Indian market capitalization and 4.6% of all value traded. The sector has a net debt to enterprise value of 17%. The ROE of the sector is 13%, the FCF yield of the sector is 4.4% and the dividend yield is 2.3%. The Energy industry valuation multiples P/E and EV/EBITDA are 22X and 14X respectively.

The Financials industry, which includes banks, asset management, mortgage finance and thrifts represents 25% of all Indian market capitalization and 27% of all value traded. The sector has a net debt to enterprise value of 51%. The ROE of the sector is 18%, the FCF yield of the sector is 12.7% and the dividend yield is 1%. The Financial industry valuation multiple P/B is 3X.

The Healthcare industry represents 5% of all Indian market capitalization and 4.9% of all value traded. The sector has a negligible net debt to enterprise value. The ROE of the sector is 15%, the FCF yield of the sector is 1.7% and the dividend yield is 0.7%. The Healthcare industry valuation multiples P/E and EV/EBITDA are 42X and 22X respectively.

The Industrials industry represents 10% of all Indian market capitalization and 15.8% of all value traded. The sector has a net debt to enterprise value of 1%. The ROE of the sector is 16%, the FCF yield of the sector is 2.2% and the dividend yield is 0.9%. The Industrials industry valuation multiples P/E and EV/EBITDA are 56X and 30X respectively.

The Information Technology industry represents 11% of all Indian market capitalization and 8.1% of all value traded. The sector has a net debt to enterprise value of -4% reflecting the positive cash balances with the larger Information Technology industry companies. The ROE of the sector is 32%, the FCF yield of the sector is 2.9% and the dividend yield is 1.5%. The Information Technology industry valuation multiples P/E and EV/EBITDA are 38X and 26X respectively.

The Materials industry, which includes paint, cement and chemical companies, represents 12% of all Indian market capitalization and 14% of all value traded. The sector has a net debt to enterprise value of 12%. The ROE of the sector is 80%, the FCF yield of the sector is 3.3% and the dividend yield is 1.7%. The Materials industry valuation multiples P/E and EV/EBITDA are 117X and 21X respectively.

The Real Estate industry represents 2% of all Indian market capitalization and 1.2% of all value traded. The sector has a net debt to enterprise value of 16%. The ROE of the sector is 6%, the FCF yield of the sector is 1.4% and the dividend yield is 1 %. The Real Estate industry valuation multiples P/E and EV/EBITDA are 71X and 56X respectively.

The Utilities industry represents 4% of all Indian market capitalization and 3.8% of all value traded. The sector has a net debt to enterprise value of 36%. The ROE of the sector is 27%, the FCF yield of the sector is 3% and the dividend yield is 2.5%. The Real Estate industry valuation multiples P/E and EV/EBITDA are 177X and 53X respectively.

THE INDIAN ECONOMY

While Indian GDP (at current USD) has increased from USD 820 billion in 2005 to USD 3,386 billion in 2022, the total market capitalisation to GDP ratio is above global levels leading to higher valuations in the Indian equity markets. Indian broad market capitalization of USD 3,387 billion in 2022 represented 100% of Indian GDP. This was above the long-term average trend. In comparison, the ratio of US and China market capitalization to GDP in 2022 was 158% and 37% (Table 6a).

Table 6a: Market Capitalisation to GDP ratio

	GDP				Market Cap				Market Capitalisation/GDP			
	2012	2019	2021	2022	2012	2019	2021	2022	2012	2019	2021	2022
USA	16,768	21,381	23,315	25,464	18,668	34,086	52,244	40,298	111%	159%	224%	158%
India	1,836	2,836	3,150	3,386	1,139	2,163	3,548	3,387	62%	76%	113%	100%
Brazil	2,412	1,873	1,649	1,924	1,020	1,187	815	794	42%	63%	49%	41%
China	8,387	14,341	17,759	18,100	3,949	3,410	8,155	6,724	47%	24%	46%	37%

Source: Horizon Research, Bloomberg, World Bank data, WFE

Indian Equities have a similar P/E ratio average as US equities but over the course of the past four years the premium to the MSCI has been over 70% (Table 6b).

Table 6b: Indian Equities' P/E ratio as a percentage of comparative markets

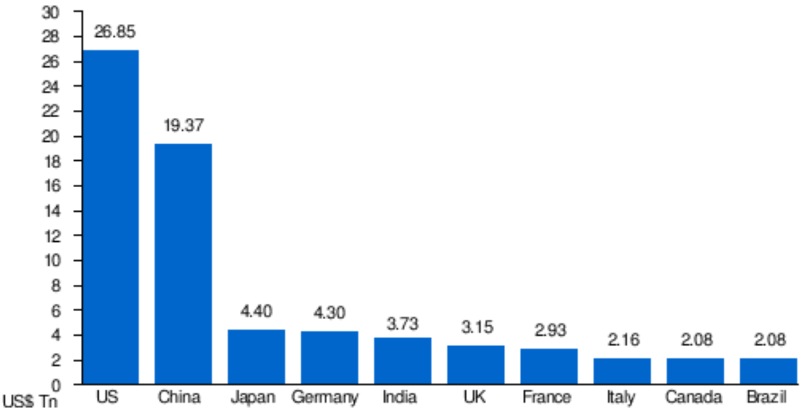
						Discount to USA				Discount to MSCI			
		2019^	2020	2021	2022	2019^	2020	2021	2022	2019^	2020	2021	2022
Brazil	P/E (TTM)	19.42	32.51	14.52	5.69	-7%	-9%	-45%	-76%	29%	53%	4%	-53%
	Forward P/E	12.95	12.55	10.94	6.81								
China	P/E (TTM)	14.55	16.39	16.39	13.24	-30%	-54%	-38%	-44%	-3%	-23%	17%	9%
	Forward P/E	10.92	13.26	13.26	9.98								
India	P/E (TTM)	28.30	38.45	24.11	22.13	36%	8%	-9%	-7%	88%	81%	72%	82%
	Forward P/E	18.81	23.90	23.32	21.69								
USA	P/E (TTM)	20.84	35.59	26.43	23.79					39%	67%	89%	
	Forward P/E	15.38	22.40	21.30	20.18								
MSCI EM	P/E (TTM)	15.02	21.26	14.02	12.18	-28%	-40%	-47%	-49%				0%
	Forward P/E	12.58	15.11	12.04	11.51								

^ 3/31/2020 for USA

Source: Horizon Research, Bloomberg, FactSet, https://siblisresearch.com/data/emerging-markets-valuations/

We believe Indian GDP will continue to grow at an average of 7-8% in the long term, which will provide an added impetus to companies across capitalisation and industry sectors. India was the fifth largest economy in the world in 2021 (Chart 6c).

Chart 6c: Global GDP



Source: Horizon Research, IMF Estimates, Chart Taken from Wikipedia

Net FDI has increased in most years stood at USD 64 billion in 2020 (Table 6d). Portfolio inflows in 2020 were USD 25 billion.

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

Country	Subject Descriptor	Units	1980	1990	2000	2010	2020	2021	2022	2023	CAGR 1980-2023	CAGR 2000-2023
Brazil	GDP, current prices	USD	146	455	655	2,209	1,476	1,649	1,924	2,081	6.5%	5.4%
	GDP per capita, current prices	USD	1,230	3,106	3,772	11,333	6,971	7,755	8,995	9,673	5.0%	4.4%
	Total investment	% of GDP	21.33	18.45	18.90	21.80	16.12	19.43	18.14	18.26		
	Gross national savings	% of GDP	18.34	19.76	14.86	17.88	14.21	16.61	15.24	15.53		
	Volume of imports of goods and services	% change	16.48	9.30	14.74	37.17	(8.17)	17.37	6.62	3.94		
	Volume of exports of goods and services	% change	13.90	(12.29)	12.92	7.17	(1.33)	2.28	11.16	6.56		
China	GDP, current prices	USD	303	397	1,206	6,034	14,863	17,759	18,100	19,374	10.4%	13.5%
	GDP per capita, current prices	USD	307	347	951	4,500	10,525	12,572	12,814	13,721	9.5%	12.9%
	Total investment	% of GDP	34.96	33.98	33.74	46.97	42.86	43.29	43.88	43.99		
	Gross national savings	% of GDP	32.63	38.59	35.43	50.91	44.53	45.08	46.18	45.40		
	Volume of imports of goods and services	% change	n/a	n/a	26.44	23.09	(0.40)	8.91	(4.13)	2.25		
	Volume of exports of goods and services	% change	n/a	n/a	26.71	28.46	2.61	17.38	(1.27)	(1.62)		
India	GDP, current prices	USD	189	327	477	1,708	2,672	3,150	3,386	3,737	7.4%	9.8%
	GDP per capita, current prices	USD	272	375	450	1,377	1,913	2,234	2,379	2,601	5.5%	8.3%
	Total investment	% of GDP	19.17	26.03	24.26	36.50	28.75	31.23	31.62	32.44		
	Gross national savings	% of GDP	15.87	23.09	23.70	33.70	29.65	30.00	29.01	30.25		
	Volume of imports of goods and services	% change	13.36	5.64	2.19	16.21	(13.90)	20.39	9.61	7.50		
	Volume of exports of goods and services	% change	7.26	3.98	11.40	27.25	(6.59)	20.09	9.39	3.73		
United States	GDP, current prices	USD	2,857	5,963	10,251	15,049	21,060	23,315	25,464	26,855	5.5%	4.5%
	GDP per capita, current prices	USD	12,553	23,848	36,313	48,586	63,577	70,160	76,348	80,035	4.5%	3.7%
	Total investment	% of GDP	23.31	21.53	23.68	18.67	21.05	21.10	21.55	20.95		
	Gross national savings	% of GDP	22.05	18.67	20.73	15.20	19.26	17.96	18.74	18.97		
	Volume of imports of goods and services	% change	(6.66)	3.58	13.00	13.17	(8.96)	14.13	8.17	(2.05)		
	Volume of exports of goods and services	% change	10.76	8.82	8.31	12.88	(13.24)	6.05	7.23	2.49		

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

Indian exports are diversified, though in general food and manufactures exports are the largest export items in most years. With Merchandise trade/GDP ratio stabilizing, India is becoming more integrated with and sensitive to global economic conditions.

SUMMARY – INVESTMENT OPPORTUNITY IS NOW

With deeply rooted equity culture and a favorable environment for corporate ownership, Indian stock markets offer unprecedented opportunity to own business at significant discount to their global franchise value. Secular trends led by rapidly rising GDP, favorable demographics, growing disposable income combined with increasing levels of corporate actions offer investment returns amongst the highest in the global marketplace.

Horizon's investment methodology, including our small and mid cap expertise and taking a private equity approach to the public markets, is optimally suited to pursue these opportunities and earn high risk adjusted returns.

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.

Manjit Singh Kalha, Managing Director Horizon Research 2023

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A 34 Mohan Cooperative, Mathura Road New Delhi 110044 Horizon Research TEL (+91 11) 9810023768

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Analysts' ratings are largely (but not always) determined by our "private market value," or PMV methodology. Our basic goal is to understand in absolute terms what a rational, strategic buyer would pay for an asset in an open, arms-length transaction. At the same time, analysts also look for underlying catalysts that could encourage those private market values to surface.

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A **Hold** is a stock that may be trading at or near our estimated private market value. We may not anticipate a large increase in the PMV, or see some other factors at work.

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