

Sustainability

NEW MANTRA OF INTEGRATED INVESTING



ESG: The Megatrend in Investing

Shobhit Jaju – Research analyst (Shobhit.Jaju@MotilalOswal.com)

Investors are advised to refer through important disclosures made at the last page of the Research Report.

Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.

Environment, Social, and Governance: The Megatrend in Investing



01

Page #3 [🔗](#)

Summary

02

Page #7 [🔗](#)

Overview of ESG

03

Page #9 [🔗](#)

Why is ESG investing important

04

Page #11 [🔗](#)

Global ESG journey

05

Page #14 [🔗](#)

India's ESG journey

06

Page #19 [🔗](#)

Key trends evolving in ESG

07

Page #23 [🔗](#)

What should investors do?

Sustainability

Our previous report on Sustainability



Canada is the market with the highest proportion of sustainable investment assets at 62%, followed by Europe (42%), Australasia (38%), the United States (33%) and Japan (24%)

Asia (ex Japan) has less than 1% share in the sustainable asset pool

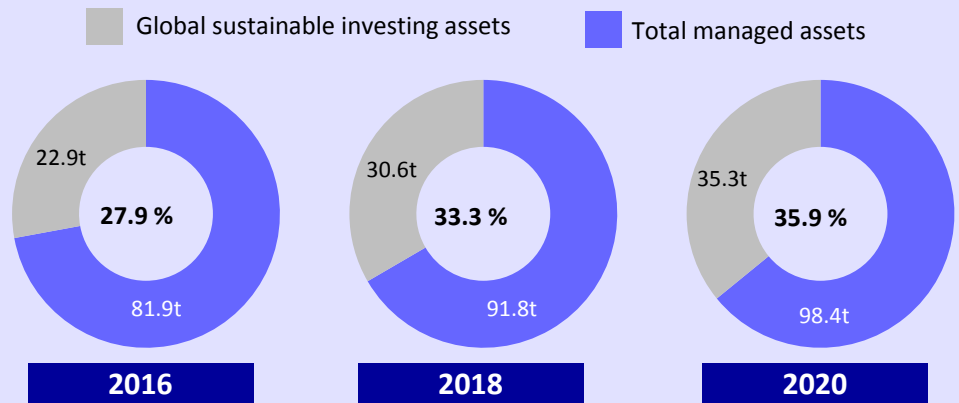
The International Energy Agency (IEA) in its latest report, Net Zero by 2050- A Roadmap for the Global Energy Sector, has advocated that no new Oil and Coal projects should be commissioned to achieve carbon neutrality by 2050

Environmental, Social, and Governance: The megatrend in investing

We published our first report on ESG (Sustainability- Expanding Horizons) in June 2017. What we saw as a significant emerging trend back then has gained remarkable acceptance amongst investors in the past 5 years and is now evolving as a megatrend in investing.

- While the roots of Environmental, Social, and Governance (ESG) date far back to 1970's, it has gained significant ground in the last decade – especially since the launch of the 17 Sustainable Development Goals (SDGs) by the United Nations Organization (UNO) in 2015. The size of sustainable assets grew multifold at a CAGR of ~11% between 2016 and 2020 and stood at USD35.3t in 2020. The sustainable investment share in global AUM rose to 36% in 2020 (from 28% in 2016).

Proportion of sustainable investing assets relative to total managed assets (USD)



Source: GSIR 2020, MOFSL

- The emerging markets (EMs) currently have a negligible share in the sustainable asset pool, mainly due to the emerging state of the capital markets and economy. Going forward, the rising adoption of stewardship codes in these markets, along with a focus on governance reforms and improved ESG disclosure, may help boost the share of such assets allocated to them. India is also likely to see a higher allocation of funds in the form of sustainable investments in the coming years.

Why has investing in ESG become so critical?

- Global warming and climate change have emerged as the world's greatest risks today. Countries across the globe have set targets to achieve carbon neutrality and are working towards achieving these targets and walking the path to a more sustainable future.
- Companies are already experiencing the financial consequences of failing to act on sustainability as many countries have implemented regulations such as carbon taxes and penalties. Moreover, the Financial and Banking sectors have integrated ESG rules into their funding criteria. The only way stakeholders can avoid poor lending conditions and exclusion from the capital markets is to show evidence of having developed robust sustainability and ESG strategies.

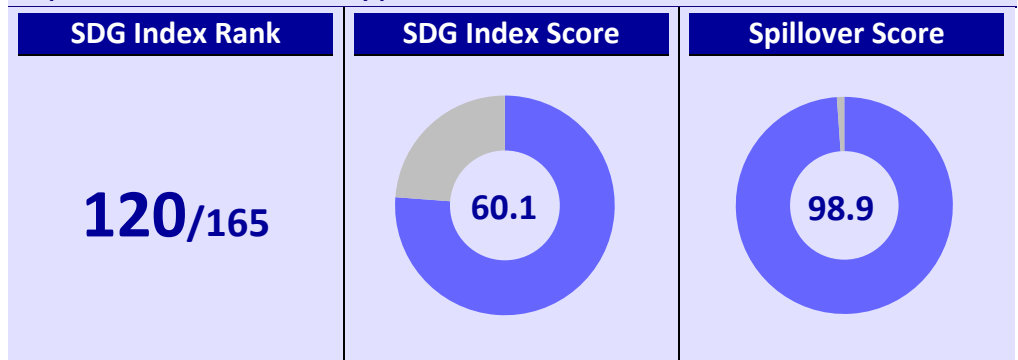
The NITI Aayog annually reports the SDG India Index, which evaluates progress of states and union territories on social, economic and environmental parameters

- Investors, especially foreign institutions (FIs), have included sustainability and ESG criteria into their portfolio strategies. Investors have realized that investing in companies with a robust and convincing ESG strategy positively affects returns and reduces the investment risk, generating sustainable and better long-term financial returns.

India’s ESG journey in the nascent stage

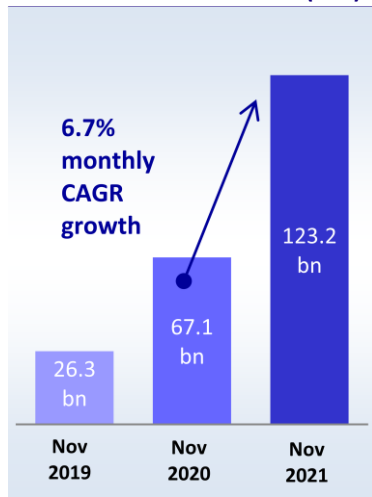
- India is trailing with regard to sustainability performance and ranks 120th out of 165 countries in terms of total progress towards achieving all SDGs, as per the UN Sustainable Development Report 2021. Recently with India committing to a 2070 deadline to achieve net-zero emissions, the progress towards sustainability should gather pace in the coming years.

Snapshot of India’s sustainability performance



Source: UN Sustainable Development Report 2021. MOFSL

AUM of ESG funds in India (INR)



Source: MOFSL

- The regulatory push has, over the years, shaped the governance landscape in India. Sustainability has also been introduced to Corporate India through regulations. Regulatory steps such as the introduction of stewardship codes for institutional investors and the Business Responsibility and Sustainability Reporting (BRSR) framework – which would be applicable for the Top 1,000 listed companies, by market capitalization, from FY23 (voluntarily in FY22) – are certain key steps in the direction of improving governance standards and ESG disclosures for companies.

ESG investing in India to grow multifold

- The size of ESG investments in India from a global sustainability AUM perspective is currently negligible, but it has been growing significantly. Even domestically, the aggregate AUM in ESG funds as of 30th November 2021 was just ~0.3% of the MF industry AUM.
- However, COVID-19 has further accelerated demand for sustainable investing. 7 of 10 ESG funds in India have been launched since January 2020. ESG funds witnessed strong inflows, with aggregate AUM jumping to INR123.2b in November 2021, from INR26.3b in November 2019, reflecting a ~4.7x jump over a two-year period.
- Since most of the ESG funds have started recently, it would be premature to evaluate their performance with benchmark indices. In developing regions, given the nascent stage of the capital markets, the outperformance of ESG funds should be sharper as the gap in practices between the ESG leaders and laggards is larger – and the same should apply to India. This is evident from the sharp outperformance of the MSCI India ESG Leaders index v/s the MSCI India index since its launch in 2007.

As per the latest portfolios, there was a more than 50% median overlap between the ESG portfolios and NIFTY100 and an around 30% overlap with NIFTY50 as well as the respective flagship funds

How should investors approach ESG investing?

- There is no fixed approach to ESG investing. Based on the objectives and constraints, investors have to decide which strategy or combination of strategies is best suited for them in the long run and implement these.
- Investors could choose between a more direct approach to ESG investing by initiating an ESG fund, implementing a style/strategy of ESG investments, such as negative screening or theme-based investing. Another approach is ESG integration, which systematically includes ESG parameters in investment analysis and decisions.
- Investors may also choose between (a) the top-down approach – which is more passive and depends on the framework/index/ratings provided by agencies or (b) the bottom-up approach – a more active and customized approach wherein the investor would have to create their own framework for ESG evaluation based on the objective of the fund/firm.
- ESG investing has a learning curve, which grows with experience and time. Investors' knowledge, expectations, goals, and experience in ESG usually vary. Hence, their approaches differ, and they face different types of challenges and leverage different kinds of opportunities.

How can Indian investors ride this megatrend?

- Investors who wish to ride this wave would have to go back to the drawing board and sketch a fresh strategy that fits their investment objectives and goals. Here are some of the strategies that investors could employ:



- **Identifying the long-term ESG leaders** – Identifying the long-term ESG leaders within a sector or from an overall market perspective is a simple strategy likely to work in the long term.
- **Themes arising out of government policies** – Government policies have played a pivotal role in shaping the ESG trend in India and would continue to do so in the future. Monitoring sectors and businesses that may be impacted by government policies may generate good investment ideas.
- **Trends born from regulatory actions** – Regulatory actions can change the fortunes of companies and even the industries in which they operate. This may

In FY18, China imposed shutdowns and severe restrictions on coal-fired power plants and other polluting industries to reduce its carbon footprint. The Chinese businesses operating in these sectors were adversely impacted. However, this benefited Indian manufacturers in sectors such as Metal and Specialty Chemicals as supply constraints meant a surge in the prices of the commodities manufactured

The FI shareholding has been reducing incessantly in ITC and BHEL, over the past five years, and both the stocks have underperformed the indices on a three-year and five-year basis

not only result in higher operational cost but also pose existential questions. Moreover, some of these trends could have a compounded impact, potentially even surpassing geographies. Understanding existing and potential regulatory actions should help investors to devise their investment strategies better.

- **Businesses in transition** – Businesses that are undergoing a transition – such as the transition towards a greener fuel mix or a more sustainable business model, and change in ownership – could lead to a palpable change in the ESG rating of a company. This theme could generate good investment ideas.
- **Identifying hidden and future ESG risks** – Investors should look at ESG risks that are not as obvious and may not be relevant today, but would be relevant in the future, as the portfolios are constructed for the long term. Understanding such risks could help investors decide on the sectors/businesses to exclude or cap in their portfolios.
- **Focusing on directionality** – Investors should regularly review their ESG rankings/scores or the ratings of stocks under their coverage. They should focus on companies that are showing major changes in their ESG rankings/scores or ratings and understand the reason for the change. Both positive and negative directionality are evidence of a material change in ESG practices and should influence investors' portfolio decisions.
- **Lowering the overall portfolio ESG risk** – While an asset manager should not have restrictions on investing in a particular sector or company, if the investment comes with a higher risk, it should have a higher IRR expectation. Regular monitoring and the reduction of the portfolio ESG risk without compromising on returns is a strategy that could help investors reduce risk and outperform the indices.
- **Monitoring the interest of foreign institutions** – Foreign institutions' declining interest could be a sign that a business has a weak ESG profile – as more and more investors are implementing ESG in their portfolios and aligning their portfolios accordingly. Also, the increasing interest of foreign institutions may be an indicator of improving ESG practices. Domestic institutions (DIs) have also begun implementing ESG practices in their portfolio, so this trend is also likely to be applicable for domestic funds going forward.
- **Identifying agile and flexible businesses** – Businesses that are dynamic and flexible, with management that is receptive to the changing business and sustainability landscape, are likely to outrun their peers in the ESG race despite their size and experience. This approach could help identify winners and future ESG leaders for investors.
- **Actively engaging with portfolio companies** – Investors must use their ESG experience and actively engage with these companies. They must guide them in the right direction and regularly monitor the progress of the businesses on ESG parameters, and push them to implement better practices. This strategy would benefit investors as the ESG performance of the entire portfolio improves with the improving ESG practices of the portfolio companies.

Overview of ESG

What is ESG?

Environmental, Social, and Governance is an integrated term used in the capital markets to evaluate corporate behavior. Investors are increasingly applying these non-financial factors to their analysis processes to identify material risks and growth opportunities. ESG has, over the years, evolved from Socially Responsible Investment (SRI), which has gained worldwide prominence over the years. ESG propounds an underlying philosophy of the larger good without overlooking the financial or economic viability.

“The greatest threat to our planet is the belief that someone else will save it”
– Robert Swan, Author



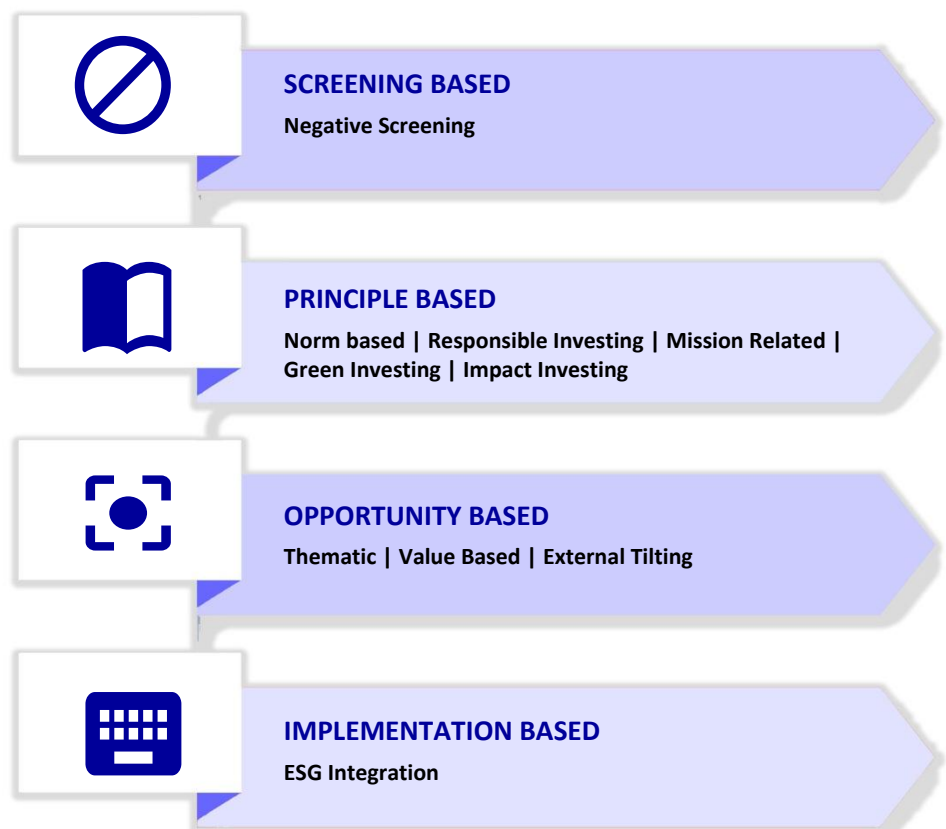
What is ESG investing?

ESG investing is a holistic approach to incorporating critical environmental, social, and governance factors in the investment analysis and decision-making process for an organization. ESG investments include different investment styles, some of which are as follows:

- **Negative screening (or exclusions):** This excludes investments in companies whose business activities do not meet client-specific values. The common objectives of this approach are to align portfolios with moral and ethical values and mitigate ESG risks – e.g. alcohol, tobacco, and arms and ammunition.
- **Norms-based Investing:** Norms-based investing involves the screening of investments against the minimum standards in business practices based on international norms. Such norms include, but are not limited to, the United Nations Global Compact Principles, the Universal Declaration of Human Rights, the UN SDGs, and The OECD Guidelines for Multinational Enterprises.
- **Thematic investing:** This seeks to identify the structural trends which are able to generate long-term growth. It involves creating a portfolio based on a macro-trend by gathering a collection of companies under the trend that would generate superior returns vis-à-vis the market over the long term. It enables investments in long-term trends or themes such as food, climate, and education.
- **Responsible investing:** This is the recognition of the fact that long-term sustainable returns are dependent on stable, well-functioning, and well-governed social, environmental, and economic systems.

- **Value-based investing:** This is an investment philosophy by which investors seek to invest in environmentally conscious companies. They seek positive returns through sustainable and ethical practices.
- **Impact investing:** This type of investing refers to investments in companies, organizations, and funds with the intention to generate an intentional and identifiable social and environmental impact alongside financial returns.
- **Green investing:** This involves investing in activities that may be considered good and friendly for the environment directly or indirectly.
- **External tilting:** This involves favoring overweight companies with the strongest ESG characteristics (such as ESG ratings or pillar scores and carbon emission intensities) based on third-party data (such as from MSCI, Sustainalytics, and S&P Global).
- **Mission-related investing:** This refers to investments done by foundations and/or organizations to achieve their philanthropic goals.
- **ESG integration:** This involves the inclusion of ESG parameters in investment analyses and investment decisions.

Exhibit 1: ESG investment styles



Source: MOFSL

Why is ESG investing important?

Making net zero emissions a reality hinges on a singular, unwavering focus from all governments working together with one another, and with businesses, investors and citizens
– Net Zero by 2050, IEA

- Global warming and climate change have emerged as the greatest risks to modern civilization. Commitments towards decarbonization are indispensable not only from a business standpoint but also from the perspective of the survival of the human species.
- According to the European Green Deal, by 2050, all member states will have to achieve net-zero emissions. With the Biden administration taking over, the US has also committed to achieving the net-zero emissions target by 2050. China has pledged to achieve carbon neutrality by 2060.
- India, the world's third largest greenhouse gas emitter at the 26th Conference of Parties (COP-26) in Glasgow announced that it will achieve net-zero emissions by 2070. Further, India has committed to raise its non-fossil energy capacity to 500 GW by 2030, reducing 1 billion tons of projected emissions from now till 2030 and achieving carbon intensity reduction of 45 per cent over 2005 levels by 2030.

Case Study: How non-alignment to the principles of sustainable lending led to redemption of green bonds



- SBI drafted an in-principle agreement with Adani Ports in 2014 for a USD1.0b facility for financing the thermal coal mine in Carmichael, Australia.
- SBI has managed to raise ~USD800.0m through green bonds since 2018.
- Carmichael has drawn strong criticism from climate campaigners because of the potential carbon emissions that would be produced by the mine. Several investors like Amundi, BlackRock, and Storebrand ASA raised concerns on SBI funding the project due to non-alignment with ESG principles.
- Amundi divests the exposure in green bonds issued by SBI from its Planet Emerging Green One Fund and several other investors made the issue ineligible and others warned for redemption.
- With the opposition to the project, SBI is reticent to disburse the funds for the project. The final decision on whether to disburse the funds is yet to be made.

Source: MOFSL, Reuters

In India, Green Tax is levied on older vehicles, for both private and commercial vehicles. This varies from state to state. For example, in Maharashtra, private vehicles aged more than 15 years and commercial vehicles aged more than 8 years have to pay the Green Tax

- Companies are already experiencing the financial consequences of failing to implement sustainability measures – as many countries have introduced regulations, such as carbon taxes and penalties, and the Financial and Banking sectors have integrated ESG rules into their funding criteria. The only way stakeholders can avoid poor lending conditions and exclusion from the capital markets is to show evidence of having developed robust sustainability and ESG strategies.

Case Study: How not meeting emission norms increased the operational cost



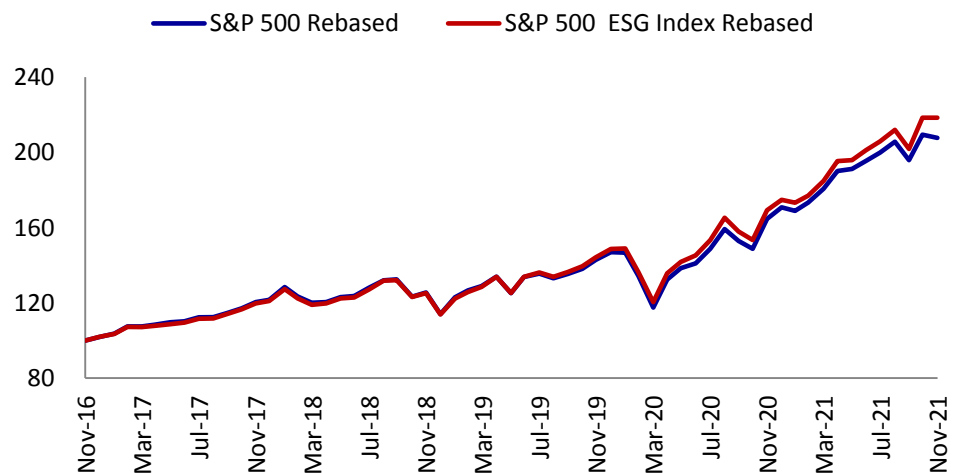
- In the United States, OEMs are subject to substantial civil penalties if they fail to meet federal CAFE standards. These penalties are calculated at USD5.5 for each tenth of a mile below the required fuel-efficiency level for each vehicle sold in a model year in the U.S. market up to and including the 2021 model year vehicles.
- Beginning with the 2022 model year vehicles, the rate is expected to increase to USD14.0 and will be followed by index-linked annual increases thereafter.
- Since 2010, JLR has paid total penalties of USD46.0m for its failure to meet CAFE standards. In addition, as of 31st March 2021, a provision of GBP75.0m was held to face the possible fine from European and UK regulators for failing to meet emission reduction targets.

Source: Tata Motors Annual Report FY21, MOFSL

- Investors, especially FIs, have included sustainability and ESG criteria into their portfolio strategies. Investors have realized that investing in companies with a robust and convincing ESG strategy positively affects returns and reduces the investment risk, generating sustainable, long-term financial returns. As illustrated in Exhibit 7, the S&P 500 ESG index outperformed S&P 500 over a five-year period.

The outperformance by S&P 500 ESG index over S&P 500 has become more palpable since Jan 2020

Exhibit 2: S&P 500 ESG v/s S&P 500 (Nov 2016–Nov 2021)



Source: Bloomberg, MOFSL

Case Study: How responsible investing can result in social impact and also generate superior returns



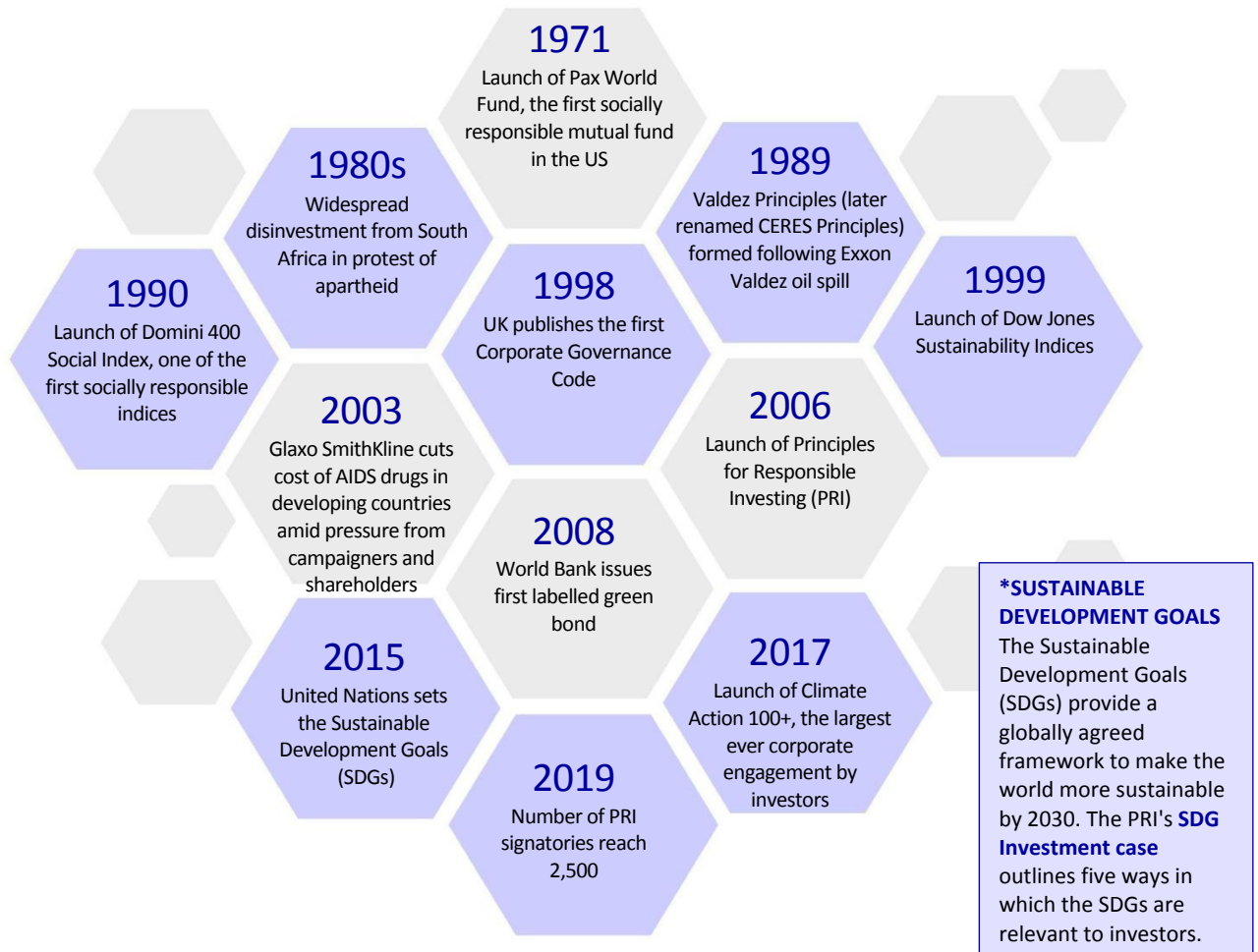
- Founded on the principles of responsible healthcare investing, Quadria Capital is one of Asia’s largest private healthcare investors. By leveraging its financial capital, operational capabilities, and ESG systems, Quadria has been able to develop a sustainable and profitable business model that creates equitable healthcare access and affordability.
- Quadria has also influenced its portfolio companies to become ESG-compliant, which helped them do business with global healthcare companies. Ultimately, this resulted in significant social impact while generating superior double-digit annual profit growth for Quadria – reflecting the important fact that responsible investing does not have to come at the expense of financial returns.

Source: AVPN-Oliver Wyman Analysis, MOFSL

Global ESG journey

- While ESG might seem like a new trend, its roots, in the form of sustainable investing were planted decades ago; however, ESG as a concept has ascended quickly in the past decade. The first socially responsible mutual fund, Pax World Fund, was launched in the US in 1971, which remains investible to date.

Exhibit 3: Milestones in the evolution of responsible investments



Source: PRI, MOFSL

- As a concept, ESG was introduced in 2004 with the launch of The UN Global Compact (UNGC). UNGC was launched with the aim to integrate ESG philosophies into the capital markets.
- One of the reasons why ESG has become ubiquitous in the past decade can be attributed to The United Nations Organization (UNO) formulating 17 Sustainable Development Goals (SDGs) in 2015, which were adopted by 193 countries. SDGs are Global Goals that have become the basis of sustainable development for countries, businesses, and investors.
- India has also aligned itself with the SDGs, and its convergence with the national development agenda is reflected in the motto of *“Sabka Saath Sabka Vikaas.”* Based on the evidence from the SDG India index, which measures progress at the sub-national level, the country has developed a robust SDG localization model centered on adoption, implementation, and monitoring at the state and district levels.

Exhibit 4: UN Sustainable Development Goals

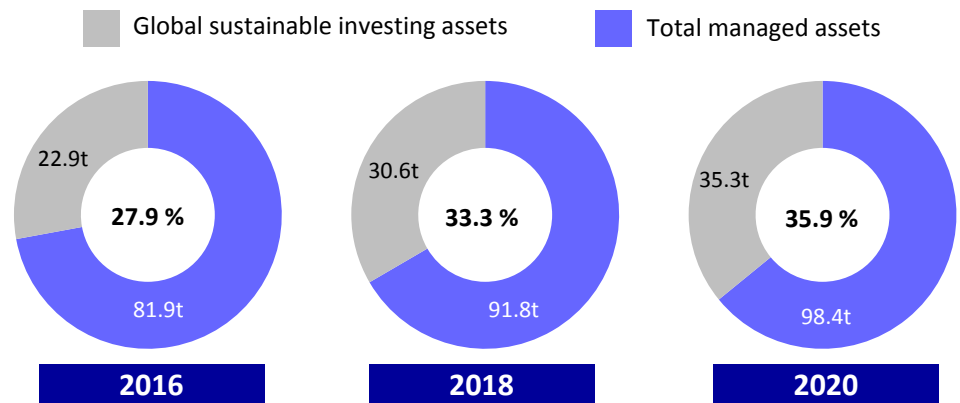


Source: United Nations, MOFSL

US and Europe continue to represent more than 80% of global sustainable investing assets during 2018 to 2020

- ESG investing has since shown tremendous growth; the share of sustainable investments in global AUM rose to 36% in 2020 from 28% in 2016.
- Europe has been a traditional leader in ESG assets, driven by its pension-fund focus on sustainable investing and strong regulatory push. However, we saw the US and Canada catching up with developed European counterparts, with sustainable assets growing 42% and 48%, respectively, between 2018 and 2020. Canada now has 61.8% of its AUM invested in sustainable assets.
- Asia (ex-Japan) has minuscule share (<1%) in the sustainable asset pool, largely due to the emerging state of the capital markets and economy. Going forward, the rising adoption of stewardship codes in the Asian markets, with a focus on governance reforms and improved ESG disclosure, may help boost the share of such assets allocated to the region. For example, in Japan, governance reforms and an emphasis by the Government Pension Investment Fund have helped enhance ESG strategies to 24.3% of AUM from virtually nothing seven years ago.

Exhibit 5: Proportion of sustainable investing assets relative to total managed assets (USD)



Source: GSIR 2020, MOFSL

Exhibit 6: Growth in sustainable investing assets by region in local currency (2014–20)

	2014	2016	2018	2020	Growth Per Period (%)			Compound Annual Growth Rate (CAGR) 2014-2020 (%)
					Growth 2014-16	Growth 2016-18	Growth 2018-20	
Europe* (EUR b)	€9,885	€11,045	€12,306	€10,730	12	11	-13	1
United States (USD b)	\$6,572	\$8,723	\$11,995	\$17,081	33	38	42	17
Canada (CAD b)	\$1,011	\$1,505	\$2,132	\$3,166	49	42	48	21
Australasia* (AUD b)	\$203	\$707	\$1,033	\$1,295	248	46	25	36
Japan (JPY b)	¥840	¥57,056	¥231,952	¥310,039	6,692	307	34	168

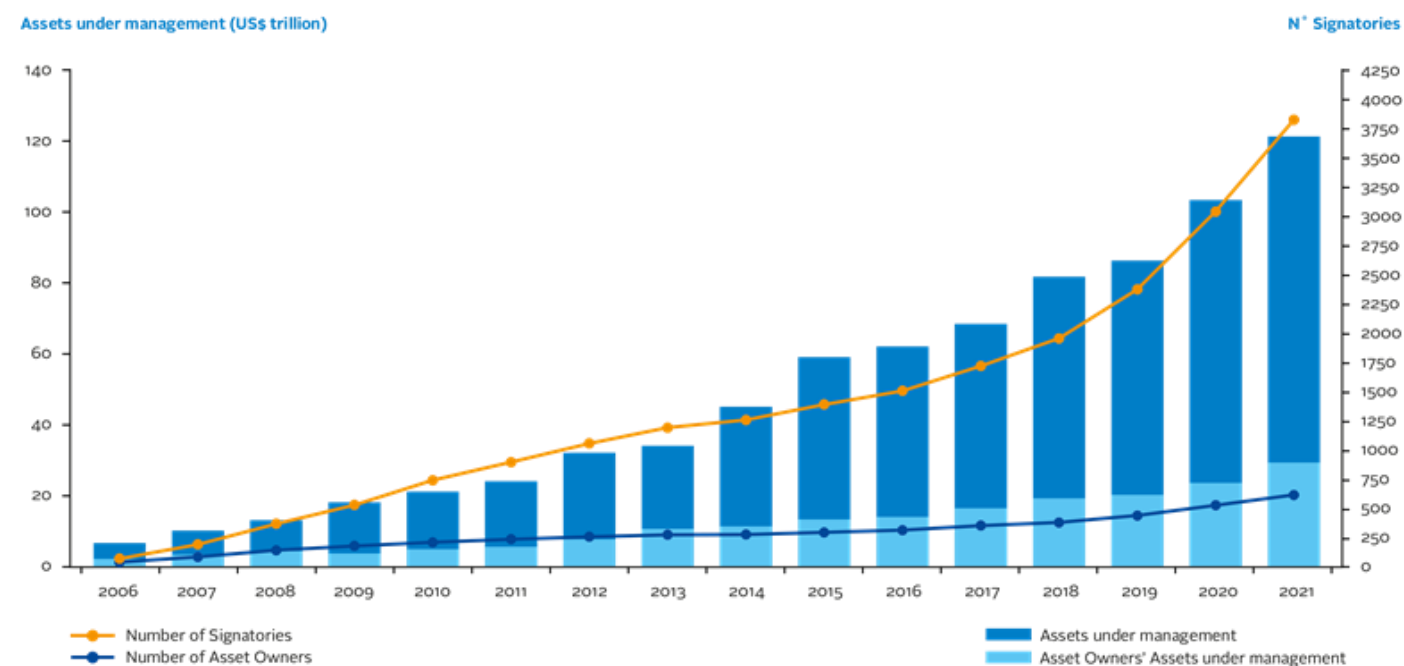
* Europe and Australasia have enacted significant changes in the way sustainable investment is defined in these regions

Source: GSIR 2020, MOFSL

The AUM under PRI has increased at ~21.7% CAGR since its inception in 2006

- Principles for Responsible Investment (PRI), one of the leading proponents of responsible investing, has developed six voluntary and aspirational principles for responsible investing. By implementing these, signatories contribute to developing a more sustainable global financial system. The number of PRI signatories has grown to 3,826 in 2021 (from 63 in 2016), with AUM currently at USD121.4t.

Exhibit 7: PRI growth (2006–21)



Source: PRI, MOFSL

India's ESG journey

The evolving regulatory landscape

- India is at a nascent stage in its ESG journey. It ranks 120th among 165 countries in its total progress towards achieving all 17 SDGs (as per the UN Sustainable Development Report 2021), worse than even some of its SAARC counterparts such as Sri Lanka, Nepal, and Bangladesh. India has a long road ahead to achieving its sustainability targets. NITI Aayog, the Indian government's premier think tank, has been entrusted with the task to coordinate and monitor progress on SDGs. NITI Aayog has been working closely with the government to implement the schemes to achieve these SDGs.

Exhibit 8: Key regulatory milestones in India





Source: CRISIL, MOFSL

More than half of the CSR spends in FY20 were towards education, hunger, poverty, healthcare, and rural development

What is stewardship?
Stewardship is an ethic that embodies the responsible planning and management of resources. The concepts of stewardship can be applied to the environment and nature, economics, health, property, information, theology, cultural resources etc.
- Wikipedia

- At the recently concluded COP-26, India announced that it will achieve net-zero emissions by 2070. Further, India has committed to raise its non-fossil energy capacity to 500 GW by 2030, reducing 1b tons of projected emissions from now till 2030 and achieving carbon intensity reduction of 45 per cent over 2005 levels by 2030.
- Over the years, governance has been introduced in Corporate India via a regulatory push. Similar to governance, sustainability has also been introduced via regulations. In 2011, the government announced the National Voluntary Guidelines on Social, Environmental, and Economic Responsibilities of Business (NVGs). The NVGs contain nine broad principles to be adopted by companies as a part of their business practices. In 2012, SEBI introduced Business Responsibility Reporting (BRR) for the Top 100 entities based on these NVGs, providing a basic framework for sustainability reporting for companies.
- In 2014, MCA amended the Companies Act, 2013, to make it mandatory for companies to spend 2% of their average net profits of the past three years towards CSR activities, making India the only country to legally mandate Corporate Social Responsibility. While introduced as a mandate, Indian companies have embraced the idea of giving back to society and undertaken CSR activities in spirit and not just to tick the checkbox. Spends have not been made in areas where companies would reap direct benefits but in areas that would lead to the upliftment of society or the country as a whole.
- In June 2017, The SEBI Committee on Corporate Governance was formed under the Chairmanship of Mr. Uday Kotak (Kotak Committee) – this initiative was aimed at improving the corporate governance standards of listed companies in India and implementing some of the global best practices. Of the total 81 recommendations made by the Committee, SEBI accepted 40 proposals without modifications, accepted 15 with modifications, rejected 18, and referred 8 to other regulatory bodies.
- The regulatory push was then directed at the stewardship responsibilities of institutional investors. The Insurance Regulatory and Development Authority of India (IRDA) mandated the implementation of stewardship and fiduciary obligations for insurance companies in 2017 and the Pension Fund Regulatory and Development Authority (PFRDA) did the same for pension funds in 2018. In 2020, SEBI directed mutual funds and all categories of AIFs to adopt stewardship code, including monitoring ESG risks in relation to their investments in listed equities.
- In 2019, the NVGs structure was revised and replaced by the National Guidelines on Responsible Business Conduct (NGRBC), primarily to align NVGs with the SDGs – NGRBC places the responsibility for the adoption of the principles on the board. BRR was also made mandatory for the Top 1,000 listed companies.

Exhibit 9: Formats for BRSR reporting

 BRSR 'Comprehensive'	 BRSR 'Lite'
<ul style="list-style-type: none"> ■ This is a comprehensive format been developed for large/listed entities. ■ This will be mandatory for the top 1000 listed companies, by market cap, from FY23 and voluntarily from FY22. 	<ul style="list-style-type: none"> ■ This format is kept easier, to enable all companies to adopt and encourage, unlisted companies to begin sustainability reporting. ■ The adoption of BRSR Lite will be voluntary for such companies.

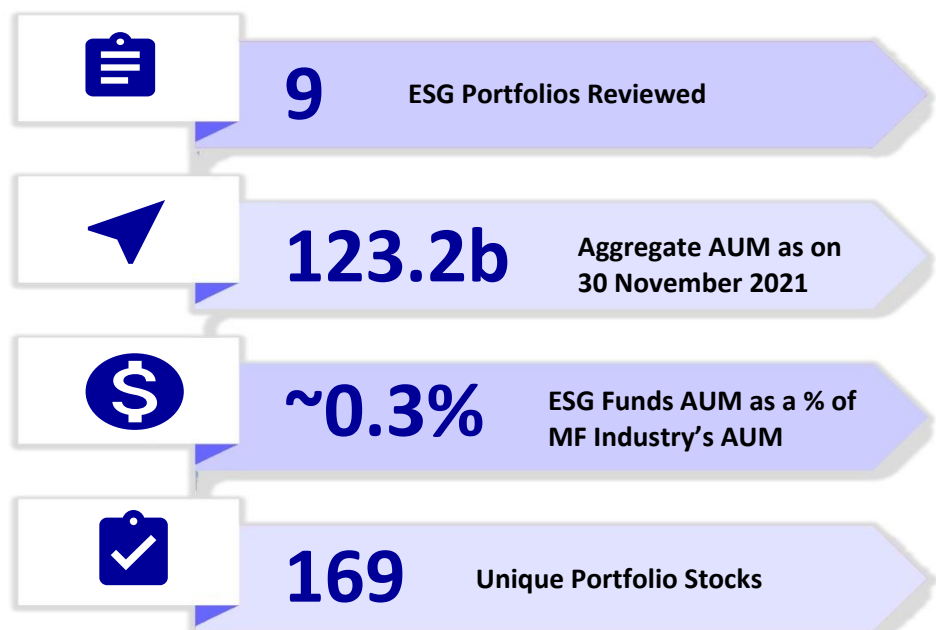
Source: MOFSL

- Recently, SEBI made it mandatory for the Top 1,000 listed companies, by market capitalization, to file Business Responsibility and Sustainability Reporting (BRSR) from FY23 (voluntarily in FY22). BRSR is set to be the single source of sustainability-linked or non-financial information for companies in India and would replace the existing BRR framework. Under BRSR, the reporting format has been revamped to include quantitative and qualitative information in a standardized manner – some disclosures are mandatory and some are voluntary in nature.

ESG investing in India

- While the size of ESG investments in India from a global sustainability AUM perspective may be negligible, it has been growing significantly. Even domestically, aggregate AUM in ESG funds as of 30th November 2021 was just ~0.3% of the MF industry AUM.

Exhibit 10: ESG funds in India – facts in numbers



Source: MOFSL

- However, COVID-19 has further accelerated the demand for sustainable investing. 7 of 10 ESG funds in India currently have been launched since January 2020. ESG funds witnessed strong inflows, with aggregate AUM jumping to INR123.2b in November 2021, from INR26.3b in November 2019, reflecting a ~4.7x jump over a two-year period.
- A few ESG indices have also come up now in the country, namely MSCI India ESG India, launched in 2007, and NSE100 ESG Sector Leaders index / S&P BSE 100 ESG index, launched in 2017.
- Since most of the ESG funds have started recently, it would be premature to evaluate their performance with benchmark indices. However, early trends suggest the performance of the ESG funds has been in line with the benchmarks, and the outperformance is not evident yet.
- One of the reasons the funds have generated market returns could be due to a high degree of overlap with the benchmark. As per the latest portfolios, there was a more than 50% median overlap between the ESG portfolios and NIFTY100 and an around 30% overlap with NIFTY50 as well as the respective flagship funds.

Exhibit 11: ESG funds in India

Name of the Fund	Launch Date/Inception	AUM (INR b)
SBI Magnum Equity ESG Fund *	May-18	44.9
Aventus India ESG Equity Fund	Feb-19	\$
Quantum India ESG Equity Fund – Regular	Jul-19	0.5
AXIS ESG Equity Fund	Feb-20	21.2
ICICI Prudential ESG Fund	Oct-20	17.7
Mirae Asset ESG Sector Leaders ETF	Nov-20	1.7
Quant ESG Equity Fund	Oct-20	0.3
Kotak ESG Opportunities Fund	Dec-20	17.5
Aditya Birla SL ESG Fund	Dec-20	11.2
Invesco India ESG Equity Fund	Mar-21	8.1

*Re-categorized as ESG thematic scheme in May 2018

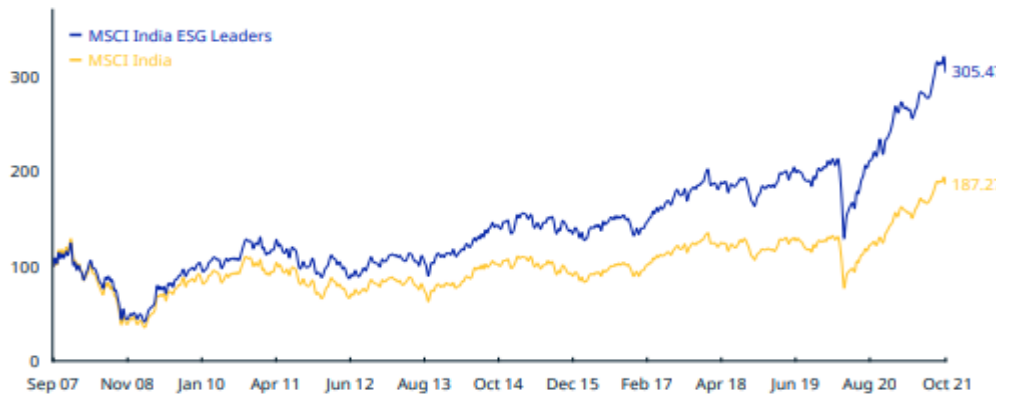
\$ Latest portfolio not available

Source: MOFSL

In line with the global trend, the outperformance of MSCI India ESG Leaders index compared to MSCI India index, has been accentuated since January 2020

- Globally, historical evidence suggests ESG funds have outperformed their benchmarks over the long term. The same should be applicable even for the Indian markets – if the ESG principles and practices are implemented in spirit. In the developing markets, given the nascent stage of the capital markets, we believe the outperformance of the ESG funds should be sharper – as the gap in practices between the ESG leaders and laggards is larger. This is evident from the sharp outperformance of the MSCI India ESG Leaders index v/s the MSCI India index.

Exhibit 12: MSCI India ESG Leaders v/s MSCI India (cumulative index performance – net returns in USD)

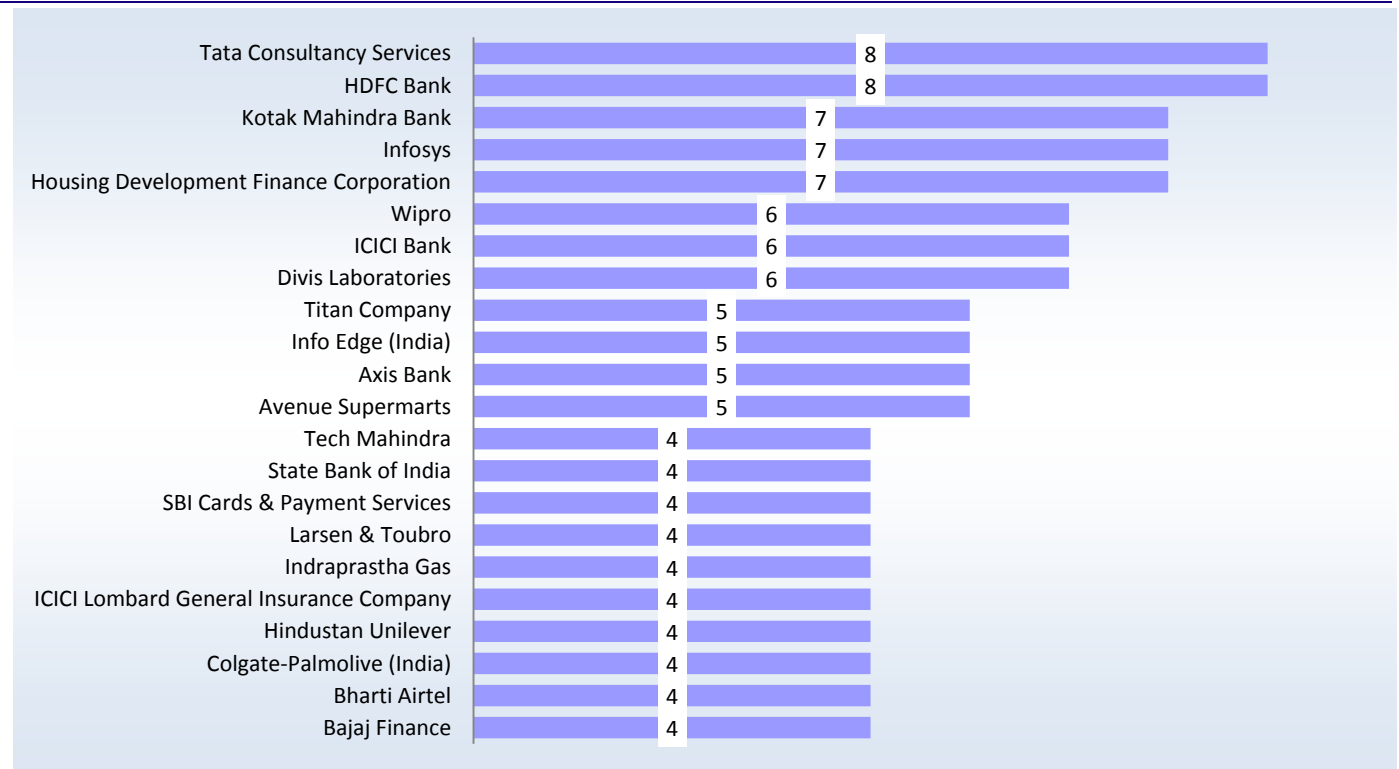


Source: MSCI, MOFSL

7 of the 8 companies that form a part of most ESG funds are from IT Services or Private Sector lending

A closer review of the ESG portfolios shows a higher concentration of asset managers showing a preference for Private Sector lenders and IT Services. Companies in IT Services are global leaders with mature business practices and generally good governance standards. Private Sector lenders work under the RBI’s close lens, and most practices are regulated and institutionalized, leading to better governance practices. Both of these sectors also have high institutional shareholding, and as a result, the push from investors has necessitated the implementation of global best practices. Furthermore, the overall sector-level ESG risk is lower for these businesses, resulting in the preference for them.

Exhibit 13: Most owned stocks by ESG funds in India (based on latest portfolio of 9 ESG funds)



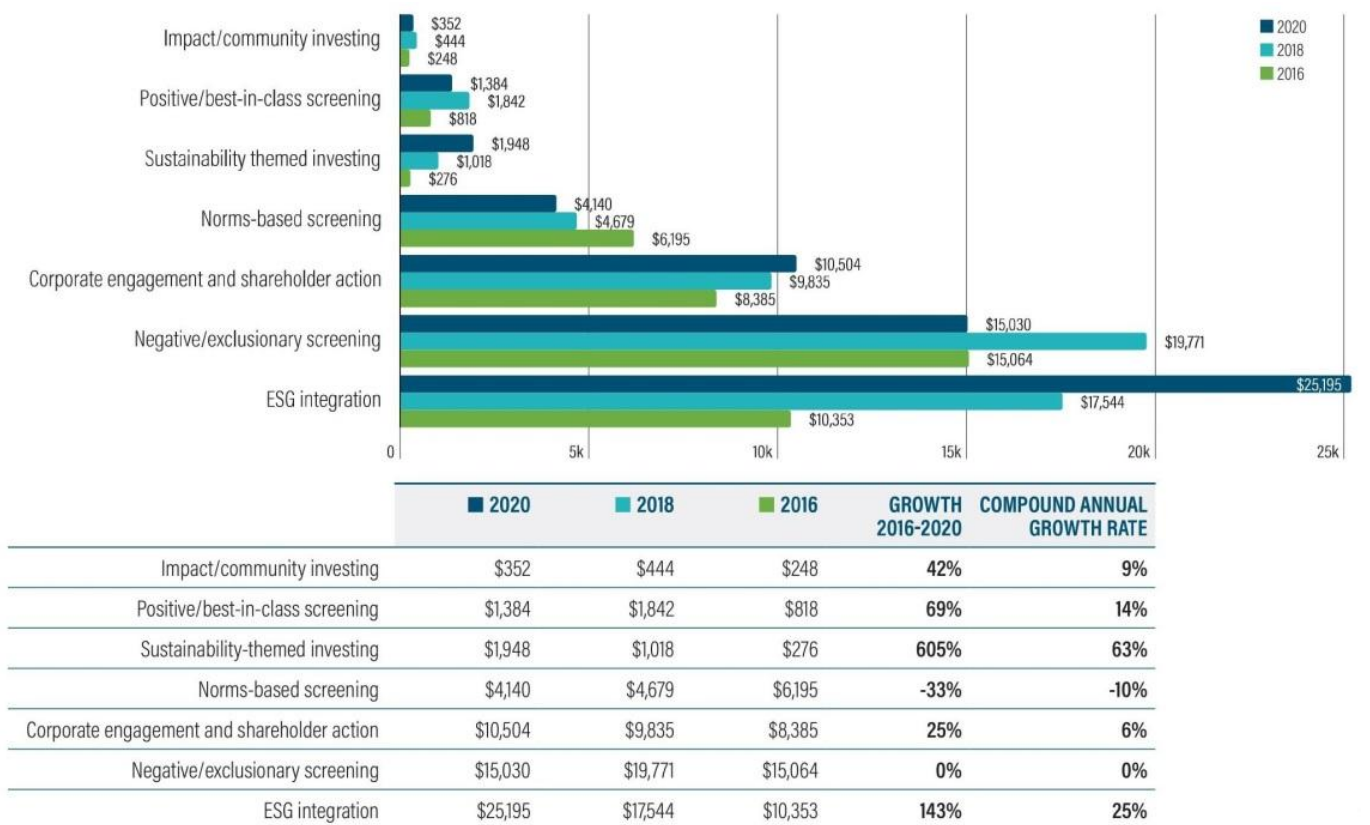
Source: MOFSL

Key trends evolving in ESG

Global trends

- Shift towards ESG integration:** One of the most interesting trends in recent times has been the shift from negative/exclusionary screening towards ESG integration. The PRI defines ESG integration as *“the explicit and systematic inclusion of ESG issues in investment analysis and investment decisions.”* Sustainability-themed investing has also shown good traction since 2016.

Exhibit 14: Global growth in sustainable investing strategies (asset value in USD b)



Source: GSIR 2020, MOFSL

- COVID-19 impacting ESG practices:** COVID-19 has speeded up certain sustainability trends that are likely to continue in the near future. (a) Response to the medical and mental health of employees and workers, (b) flexibility in commuting, and (c) aiding the distribution of essential and life-saving commodities were all indicators of corporate behavior in a difficult time. Even on the environmental front, trends such as virtual meetings and work-from-home, accentuated by COVID-19, would result in a lower carbon footprint in future.
- ESG investing in emerging markets to grow:** Multiple factors are likely to drive higher investments in EMs in the near future. The regulatory push has resulted in the better reporting of sustainable data and, thus, improving practices. As a result, this has improved the coverage of EM companies among ESG score providers. EMs needs capital, and the number of environmental projects requiring funding is increasing. These factors are likely to result in higher inflows in EMs towards ESG in the near future.

While corporate travel is expected to pick-up significantly in the second half of 2021, total spend in Q4 2021 is projected to only reach 25%–35% of 2019 levels
-Deloitte

“We cannot solve our problems with the same thinking we used when we created them”
– Albert Einstein

- **Regulations influencing ESG activities:** Regulatory actions towards the implementation of stewardship codes by institutional investors would mandate them to monitor the ESG activities of businesses they invest in and thus push corporates towards better ESG practices. Also, regulations such as Green Tax and fines/penalties for violating environmental regulations would increase the operational costs for businesses, pushing them to adopt more sustainable practices.
- **Standardization of ESG reporting:** Currently, companies have the option to choose between at least 10 reporting frameworks for ESG reporting. However, the world is moving towards the standardization of ESG reporting, similar to the standardization of financial reporting achieved through the implementation of IFRS. In September 2020, Carbon Disclosure Projects (CDP), the Climate Disclosure Standards Board (CDSB), Global Reporting Initiatives (GRI), International Integrated Reporting Council (IIRC), and the Sustainability Accounting Standards Board (SASB) co-published a shared vision for more comprehensive reporting and a joint Statement of Intent to drive this goal. In November 2020, IIRC and SASB announced their intent to merge into a new unified organization named the Value Reporting Foundation; on 9th June 2021, this merger was officially completed.

Exhibit 15: Sustainability reporting frameworks

Sustainability Reporting Frameworks	
<ul style="list-style-type: none"> ■ Global Reporting Initiative (GRI) ■ Integrated Reporting framework (IR) ■ Task Force on Climate-related Financial Disclosures (TCFD) ■ Carbon Disclosure Project (CDP) ■ Dow Jones Sustainability Index (DJSI) ■ United Nations Principles for Responsible Investment (UN PRI) 	<ul style="list-style-type: none"> ■ Climate Disclosures Standards Board (CDSB) ■ United Nations Environment Programme Finance Initiative ■ Business Responsibility and Sustainability Reporting (BRSR)

Source: MOFSL

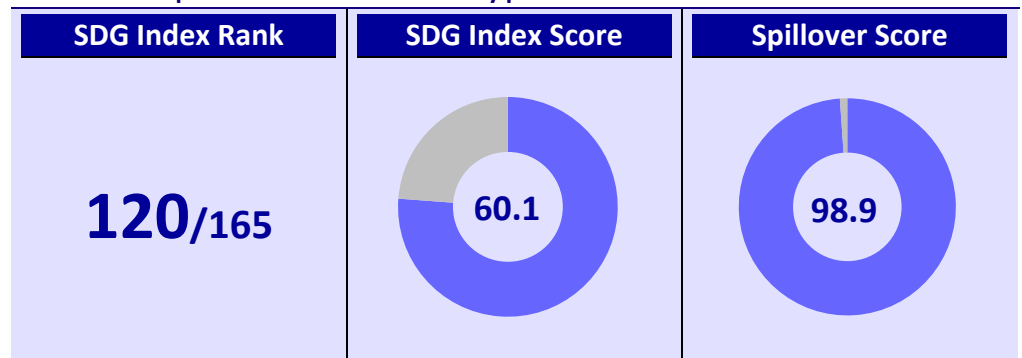
What is Alternative data?
Alternative data refers to data used to obtain insight into the investment process. It is the information about a company that is published by sources outside of the company, which can provide unique and timely insights into investment opportunities

- **Higher focus on ‘S’ in ESG:** The corporate reporting of ‘social’ factors has failed to keep up with ‘environmental’ and ‘governance’ disclosures, even in the developed markets. As already discussed above, COVID-19 has accelerated some of the ESG practices. The discussions around workers’ rights, diversity, human rights, customer engagement, employee well-being, and community relations have only become stronger. As a consequence, we expect ESG frameworks across the world to assign a higher weight to ‘S’.
- **Alternative data sources:** Alternative data is becoming a useful resource in ESG investing. Technologies such as Artificial Intelligence (AI), satellite data, and big data could help investors identify the hidden risks and opportunities that may be missing from traditional ESG disclosures.

Trends in India

- India trails in terms of global standards for ESG:** India is currently a laggard in each of the three parameters of ESG, not only in comparison with developed countries but also some developing peer countries. India must commit to a carbon neutrality target and work towards it. India’s labor and worker laws and practices are primitive and need to be aligned with global standards. On the governance front as well, India has a long road ahead, some of which could be attributed to legacy issues, short-termism, skill gaps, and inflexibility to change at both the corporate and investor levels. While the country is moving in the right direction, it needs to act quickly and align with global ESG standards.

Exhibit 16: Snapshot of India’s sustainability performance



Source: UN Sustainable Development Report 2021. MOFSL

Under BRSR, the reporting format has been revamped to include quantitative and qualitative information in a standardized manner; some disclosures are mandatory and some are voluntary in nature

- Migration from BRR to BRSR:** The existing BRR requires companies to respond to a list of standardized questionnaires, which provide only an overview and the steps undertaken by the company towards sustainability. The BRR framework does little in terms of data and renders it difficult to measure the progress towards sustainability goals and draw comparisons between companies. The proposed BRSR framework, which would be mandatory from FY23 for the Top 1,000 listed companies, is a welcome step in this direction.
- Government policies shaping the ESG landscape:** Government initiatives such as Pradhan Mantri Jan Dhan Yojna, the scheme towards financial inclusion; Pradhan Mantri Ujjwala Yojna, which seeks to substitute harmful cooking fuels with LPG; Bharat VI emission norms; and the Ethanol Blending Policy are some of the key policy changes by the government driving the ESG agenda. The implementation of these policy changes has meant that India is set to meet its Paris Agreement commitments ahead of 2030. We believe government policies will continue to shape the ESG landscape in India.
- Evolving governance landscape:** Over the years, capital market regulator SEBI and the government have worked in tandem to implement several regulations to improve governance and financial reporting standards to bring them on par with those of the developed economies. Policy changes such as the introduction of the Companies Act 2013, adoption of Ind-AS, the Insolvency and Bankruptcy Code, stewardship codes for institutional investors, and the amendment to the LODR are some key initiatives in the past decade that have improved the governance landscape in the country. Indian businesses still have a long way to go in meeting the global standards of governance. However, this is underway,

and we believe regulations would continue to drive India Inc. towards better governance practices.

- **Challenges related to investing in smaller companies:** The existing BRR and the proposed BRSR frameworks are mandatory only for the Top 1,000 companies. Given that sustainability disclosures are not mandatory, asset managers would have to travel the extra mile to evaluate ESG performance and not pass up these opportunities due to the lack of disclosures. Managers would have to innovate and get creative while looking at these businesses. For example, one could look at the public records of the state pollution control board to see if a company has been fined in the past, reflecting non-compliance with local emission norms and therefore higher environmental risk.

What should investors do?

Approach to ESG investing

There is no fixed approach to ESG investing. It depends on the objective/goal of the investor, markets in which it operates, inclination towards an approach, availability of resources, level of involvement, return expectations, and so forth. Investors have to decide what works best for them in the long run and implement the ESG principles and practices in spirit.

“Impact investing has become a broad umbrella that includes all investing with a focus on both financial return and social impact, but in its best form, impact investing prioritizes impact over returns and achieves outcomes that traditional investing cannot”
-Jacqueline Novogratz



ESG fund v/s ESG integration

- **ESG fund:** Investors that wish to undertake ESG investing could initiate an ESG fund based on any of the ESG investment styles, such as negative screening, theme-based investing, green investing, and mission-related investing. The fund approach is a more direct approach to ESG investing, in which the investor establishes the objective of the fund, decides on an investment style, launches the fund, and attracts other investors with similar objectives.
- **ESG integration:** ESG integration is an indirect, yet holistic approach to ESG investing. ESG integration involves including ESG parameters in investment analysis and investment decisions. The approach focuses on value creation through investment selection, portfolio management, and shareholder advocacy.

Top-down v/s bottom-up

- **Top-down approach:** The top-down approach is a more passive approach to ESG investing. Investors do not need their own frameworks to evaluate businesses on ESG performance. They could simply select between the framework/index/ratings provided by multiple agencies. The construction of the portfolios is based on the fund’s objective and acceptable ESG risk by deciding on sector weights/limits. It is important to monitor the portfolio based on rating changes and index rebalancing.
- **Bottom-up approach:** The bottom-up approach is an active and customized approach to ESG investing. Investors would need to identify companies with good ESG practices and low risk to include in their portfolios. For this purpose, the investor would have to create their framework for ESG evaluation based on the objective of the fund/firm. The weights between E, S, and G would be determined based, once again, on the objective of the fund/firm, geography in which the businesses operate, and pool of companies being evaluated.

Exhibit 17: Steps to implement top-down and bottom-up approaches

 Top-Down	 Bottom-Up
<ul style="list-style-type: none"> ■ Identify suitable framework/index/ratings (MSCI, S&P, Sustainalytics, etc.) to select portfolio companies ■ Decide the sector weights/limits based on acceptable ESG risk ■ Construct portfolio based on ESG risk/scores that fit with the fund objective/target ■ Track index/rating changes for portfolio rebalancing 	<ul style="list-style-type: none"> ■ Identify companies with good ESG practices in industries with low ESG risk ■ Track disclosures regularly to check for improvement in ESG performance ■ Engage with company management to improve their ESG practices ■ Monitor improvement on these parameters based on agreed targets

Source: MOFSL

ESG investing journey

ESG is a long-term trend, the implementation of which would require a long-term strategy and plan. ESG investing has a learning curve, which grows with experience and time. As investors vary in terms of knowledge, expectations, and goals, the ESG journey for each investor is unique in a way. While some investors have just embarked on their ESG journeys, some have been working on these themes for decades. Therefore, the approaches differ for them, and they face different challenges and leverage different opportunities.

Exhibit 18: Roadmap of ESG investing journey

Call to action	Early-stage "Embark on the ESG Investing journey"	Intermediate-stage "Become an ESG expert"	Advanced-stage "Advocate ESG Investing"
ESG adoption			
Return expectation <i>F=Financial, E=Environmental, S=Social, G=Governance</i>	<p>Trade-off between financial returns and ESG impact</p>	<p>No trade-off, financial returns and ESG impact are achievable</p>	<p>ESG lens enhances financial performance</p>
Investment approach <i>Based on GSIA investment strategies</i>	Negative screening (i.e. exclusions)	In addition to early-stage: positive screening, ESG integration and thematic investing	In addition to intermediate-stage: corporate engagement (direct or through investment manager)
Guiding principles	Limited, some consideration of external resources	Internal frameworks combined with external information as overlay	Sophisticated analytical models and frameworks built in-house
Challenges	Mindset, knowledge, awareness	Performance track record, education	Supply, e.g. investment managers and products

Source: AVPN-Oliver Wyman Analysis, MOFSL

- Early-stage ESG investors:** These investors are yet to or have just recently embarked on the ESG investing journey. Early-stage ESG investors tend to have relatively lower ESG adoption within their investment process or take a negative screening approach by avoiding sectors such as alcohol and tobacco. They are usually characterized by limited knowledge and awareness and view ESG and financial performance as trade-offs. One key challenge is changing the mindsets of key stakeholders and the senior management.
- Intermediate-stage ESG investors:** These investors have collected considerable experience in ESG investing in recent years. They have higher ESG adoption rates and internally defined principles to guide their investment strategies. They believe ESG and financial performance are complementary and hence adopt a larger variety of approaches, such as ESG integration, thematic investing, and positive screening.
- Advanced-stage ESG investors:** These investors are well-versed with ESG investing and have an ESG-focused investment philosophy. They are the most mature in their adoption and understanding of ESG investing. They integrate ESG factors into their risk management and due diligence functions without compromising on financial performance, leading to more sustainable, long-term value creation. They have constructed sophisticated frameworks and models to guide their investments. Moreover, depending on the nature of the investment, they are able to engage their investee companies to advance their ESG strategies.

"We do not inherit the Earth from our ancestors; we borrow it from our children"
 – Native American Proverb

Strategies for Indian investors to capture this megatrend

Investors who wish to ride this wave would have to go back to the drawing board and sketch a fresh strategy that fits their investment objectives and goals. Here are some of the strategies that investors could employ :



Themes such as renewable energy, Ethanol blending in fuel, and electric vehicles could either change the fortunes of an entire sector or propel some businesses that are better prepared to ride this trend

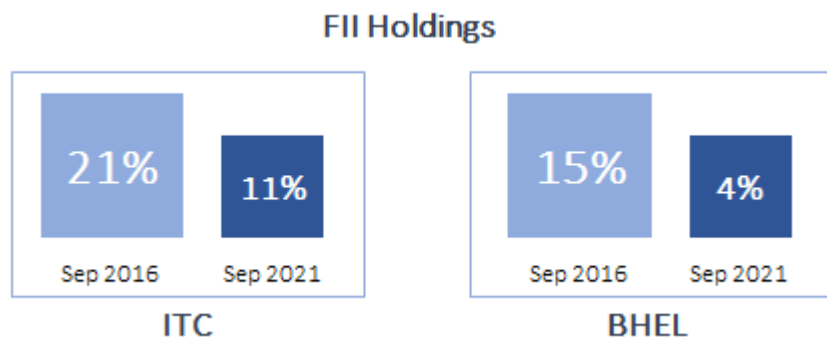
Sustainable funds are likely to have abundant liquidity. Therefore, the demand for investible sustainable projects is also likely to increase

- **Identifying the long-term ESG leaders:** One of the simplest and potentially most efficient strategies is to focus energies and efforts towards identifying the long-term ESG leaders from an overall market or sector perspective and invest for the long term to reap the benefits.
- **Themes arising out of government policies:** As discussed previously, government policies have played a pivotal role in shaping the ESG trend in India. There are several interesting themes pertaining to government policies. Selecting businesses that will benefit from these long-term themes could generate alpha for asset managers in the long run.
- **Trends born from regulatory actions:** Regulatory actions in the form of carbon taxes, penalties, or shutdowns could change the fortunes of companies and even the industries in which they operate. This may not only result in higher operational costs but also pose existential questions. Some of these trends could have a compounded impact – such as in FY18, when China started imposing shutdowns and severe restrictions on coal-fired power plants and other polluting industries to reduce its carbon footprint. This adversely impacted the Chinese businesses operating in these sectors. However, these crackdowns benefited Indian manufacturers in sectors such as Metal and Specialty Chemicals as supply constraints meant a surge in the prices of the commodities manufactured.
- **Businesses in transition:** Businesses that are undergoing a transition throw up some interesting investment ideas. The transition towards a greener fuel mix, a more sustainable business model, and change in ownership, among others, could result in a palpable change in the ESG rating of a company. Also, supporting businesses in transition is an important component of sustainable investing. Therefore, it is easier to access funds from the sustainability pool, which thus improves capital availability.

- **Identifying hidden and future ESG risks:** Most of the ESG risks of a company/sector are tangible in nature and visible to most investors. However, investors should look at the ESG risks that are not as obvious and may not be relevant today, but would be in the future, as the portfolios are constructed for the long term. For example – the environmental risk for a retail bank may seem low due to low carbon emissions and impact on the environment. However, investors should also look at the industry exposure of its lending book to understand whether it has a higher exposure to sectors such as Metals/Mining or Thermal Power, which carry higher environmental risk. This is a hidden risk that needs to be monitored and should be factored in in the bank’s environmental risk.
- **Focusing on directionality:** Reviewing the ESG performance of all the stocks under coverage is a critical exercise and should be carried out regularly as it generates investible ideas. Investors should focus on stocks that show major changes in their ESG ranking/scores or ratings and understand the reason for the change. Both positive and negative directionality are evidence of change in ESG practices and should influence investors’ portfolio decisions.
- **Lowering the overall portfolio ESG risk:** It is critical for investors to understand the ESG risk of the businesses/sectors they invest in as well as monitor the overall ESG risk of the portfolio. The regular monitoring and reduction of portfolio ESG risk without compromising on returns is a strategy that could help investors reduce risk and outperform the indices.
- **Monitoring the interest of foreign institutions:** The declining interest of FIs can be the sign of a weak ESG profile for a business – as more and more investors are implementing ESG in their portfolios and aligning their portfolios accordingly. For example, FI shareholding has been reducing in ITC and BHEL, over the past five years, and both the stocks have underperformed the indices on a three- or five-year basis. Also, increasing the interest of FIs may be an indicator of improving ESG practices. DIs have also begun to implement ESG practices in their portfolios. Hence, this trend is likely to be applicable for domestic funds going forward.

While an asset manager should not have restrictions on investing in a particular sector or company, if the investment comes with a higher risk, it should have a higher IRR expectation

Exhibit 19: Declining FI interest in ITC and BHEL



Source: MOFSL

- **Identifying agile and flexible businesses:** We operate in a dynamic environment. Challenges such as COVID-19 have taught us that businesses that are able to remain agile and flexible can only flourish in difficult times. These businesses are also likely to perform better on ESG parameters – they will have to work towards lowering carbon emissions, improving their customer relations, etc. Dynamic businesses, with management that is receptive to the new reality and the way to do business, are likely to outrun their peers despite their size and experience in the market.
- **Actively engaging with portfolio companies:** As discussed earlier, ESG is a journey for investors with a learning curve and multiple stages of maturity. This is also true for companies as some of them may be embarking on their ESG journey. Investors must use their ESG experience and actively engage with these companies. They must guide them in the right direction and regularly monitor the progress of the businesses on ESG parameters, and push them towards implementing better practices. This strategy would benefit investors as the ESG performance of the entire portfolio improves with the improving ESG practices of the portfolio companies.

Disclosures:

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Investment Advisory Services, Depository participant services & distribution of various financial products. MOFSL is a subsidiary company of Passionate Investment Management Pvt. Ltd.. (PIMPL). MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities Limited - MOSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at <http://onlinereports.motilaloswal.com/Dormant/documents/Associate%20Details.pdf>

Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at <https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx>

MOFSL, its associates, Research Analyst or their relative may have any financial interest in the subject company. MOFSL and/or its associates and/or Research Analyst may have actual/beneficial ownership of 1% or more securities in the subject company in the past 12 months. MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report. Research Analyst may have served as director/officer, etc. in the subject company in the past 12 months. MOFSL and/or its associates may have received any compensation from the subject company in the past 12 months.

In the past 12 months, MOFSL or any of its associates may have:

- managed or co-managed public offering of securities from subject company of this research report,
- received compensation for investment banking or merchant banking or brokerage services from subject company of this research report,
- received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company of this research report.
- Subject Company may have been a client of MOFSL or its associates in the past 12 months.

MOFSL and its associates have not received any compensation or other benefits from the subject company or third party in connection with the research report. To enhance transparency, MOFSL has incorporated a Disclosure of Interest Statement in this document. This should, however, not be treated as endorsement of the views expressed in the report. MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, It does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures. Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, It does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures.

Terms & Conditions:

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Disclosure of Interest Statement	Companies where there is interest
Analyst ownership of the stock	No

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to subject company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Financial Services Limited (SEBI Reg No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

For U.S.:

Motilal Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the "1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers

Act" and together with the 1934 Act, the "Acts), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

For Singapore:

In Singapore, this report is being distributed by Motilal Oswal Capital Markets Singapore Pte Ltd ("MOCMSPL") (Co.Reg. NO. 201129401Z) which is a holder of a capital markets services license and an exempt financial adviser in Singapore, as per the approved agreement under Paragraph 9 of Third Schedule of Securities and Futures Act (CAP 289) and Paragraph 11 of First Schedule of Financial Advisors Act (CAP 110) provided to MOCMSPL by Monetary Authority of Singapore. Persons in Singapore should contact MOCMSPL in respect of any matter arising from, or in connection with this report/publication/communication. This report is distributed solely to persons who qualify as "Institutional Investors", of which some of whom may consist of "accredited" institutional investors as defined in section 4A(1) of the Securities and Futures Act, Chapter 289 of Singapore ("the SFA"). Accordingly, if a Singapore person is not or ceases to be such an institutional investor, such Singapore Person must immediately discontinue any use of this Report and inform MOCMSPL.

Disclaimer: The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, nor its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 71934200/ 022-71934263;

Website www.motilaloswal.com.

CIN No.: L67190MH2005PLC153397. Correspondence Office Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad(West), Mumbai- 400 064. Tel No: 022 7188 1000.

Registration Nos.: Motilal Oswal Financial Services Limited (MOFSL)*: INZ000158836(BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412. AMFI: ARN - 146822; Investment Adviser: INA000007100; Insurance Corporate Agent: CA0579 ;PMS:INP000006712. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP000000670); PMS and Mutual Funds are offered through MOAMC which is group company of MOFSL. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) is offered through MOWML, which is a group company of MOFSL. Motilal Oswal Financial Services Limited is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs, Insurance Products and IPOs. Real Estate is offered through Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. which is a group company of MOFSL. Private Equity is offered through Motilal Oswal Private Equity Investment Advisors Pvt. Ltd which is a group company of MOFSL. Research & Advisory services is backed by proper research. Please read the Risk Disclosure Document prescribed by the Stock Exchanges carefully before investing. There is no assurance or guarantee of the returns. Investment in securities market is subject to market risk, read all the related documents carefully before investing. Details of Compliance Officer: Name: Neeraj Agarwal, Email ID: na@motilaloswal.com, Contact No.:022-71881085.

* MOSL has been amalgamated with Motilal Oswal Financial Services Limited (MOFSL) w.e.f August 21, 2018 pursuant to order dated July 30, 2018 issued by Hon'ble National Company Law Tribunal, Mumbai Bench.