Advanced Financial Instruments for Sustainable Business and Decentralized Markets

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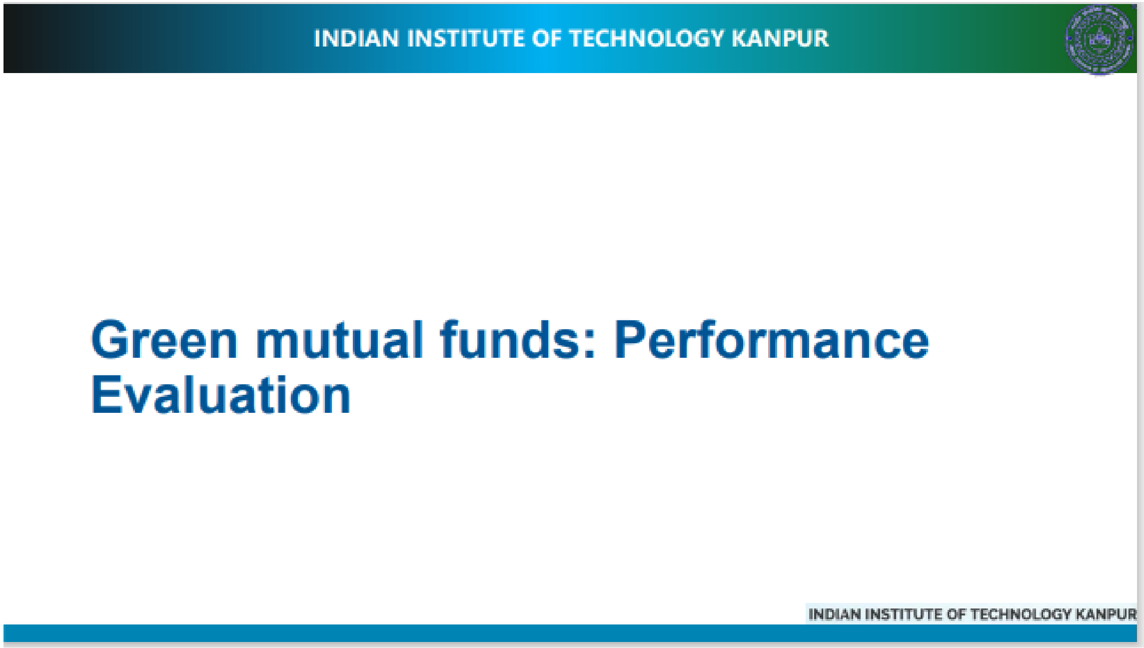
Lecture 35

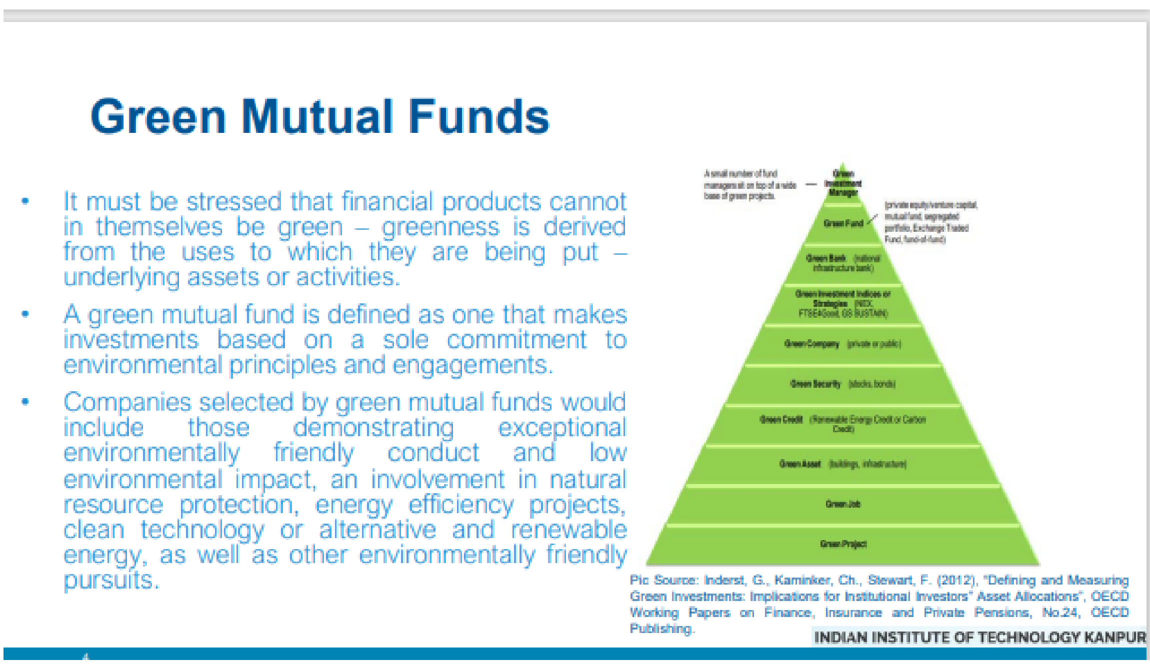
Week 12

In this lesson, we start the discussion with an introduction about green investments. Then we discuss the performance evaluation of green mutual funds related to selectivity and timing. We also discuss the key factors driving the performance of these funds. Next we discuss the conceptual framework explaining the linkage between sustainable investment and economic transformation. Next we discuss the rules and regulations related to socially responsible investing across major economies and current state of development. We also discuss the role of key organizations such as International Sustainability Standards Board, ISSB.

Next we discuss some of the major economies such as US, EU, Canada, Australia, New Zealand, Japan and India and the current state of development in socially responsible investment sector. We discuss the key instruments of SRI that is socially responsible investment such as ESG and green leases, sovereign green bond. We also discuss sustainable real estate and key developments in that sector. We also discuss other important topics related to SR investing such as sustainability stock changes, shareholder engagement and green washing.Lastly we discuss the future course of action at WayForward.



In this video, we will introduce and define green mutual fund and green investments and also discuss the performance evaluation of green mutual funds.

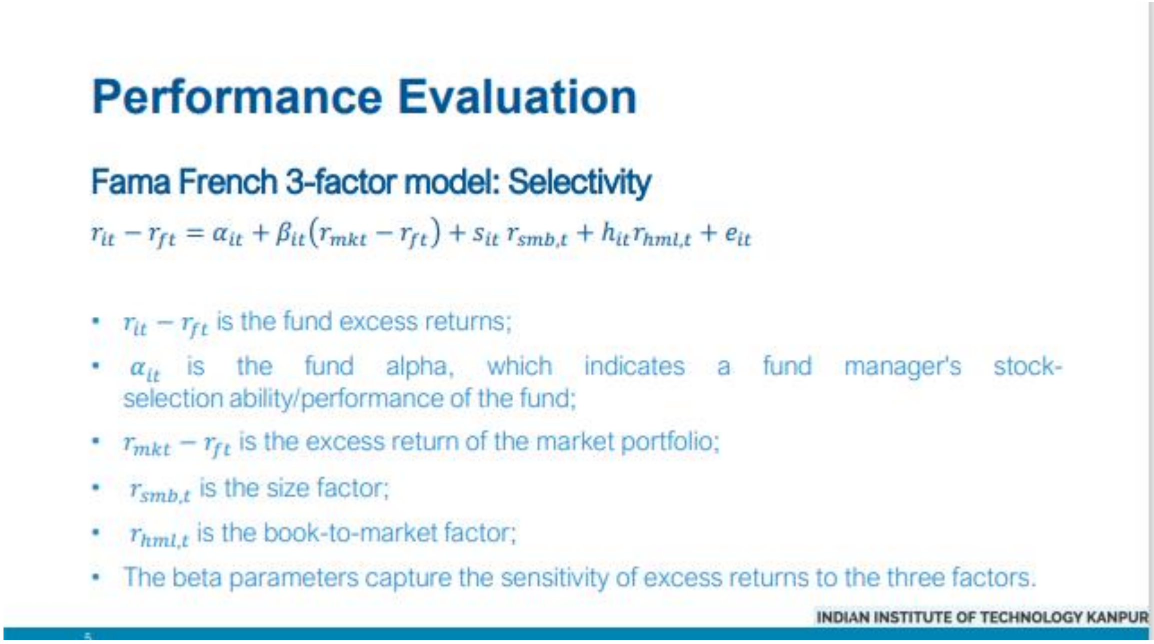


It must be stressed that financial products cannot be themselves be green. This greenness is derived from the uses to which they are put, what are the underlying assets or activities. A green mutual fund is defined as the one that makes investments based on sole commitment to environmental principles and green engagements.

Companies selected by green mutual funds would include those demonstrating exceptional environmental friendly conduct and low environmental impact and involvement in natural resource production, energy efficiency projects, clean technology or alternatively and renewable energy sources as well. In addition to any other environment friendly pursuits, thus a green mutual fund focuses its investment decisions on environmental related principles and engagement along with long term financial return generating objectives. In the broadest terms, an investment involves committing money or capital to an endeavour a business project or a real estate investment with the expectation of obtaining an additional income or profit. This can refer to the investment in underlying technology, projects or ventures, but also to financial products that invest in those technology projects and ventures. Thus, green investment is being referred to at all such levels of investment.

So, based on this discussion, one can think of green investment as a sort of pyramid of activities where you start with a very broad term green project which generates green jobs, green assets such as buildings, infrastructure. Then you have green credits like renewable energy credits or carbon credits. You have green securities like green bonds and so on, stocks also. Then you have green companies which can be private or public and green investment thesis like GSST, FTSE for goods, then green bank supporting financing activities and green investment. And then you have green funds which may have private equity, venture capital, mutual funds that specialize in green fund activities.

And at the top of the pyramid, you have the smallest number of people which are fund managers who are at the top of it. And at the base, you have a very wide base which include green projects. And all these activities pertain to green investment. At different stages of this green pyramid, green investment pyramid, you have different activities and the entire set of activities comprise your green investment.



The next most important aspect of any invest is performance evaluation.In particular, green funds, it is very important to evaluate their performance. Conventionally, various factor models are employed. We will employ one of the most celebrated model which is form of French three factor model. Let us start the discussion with the selectivity of green funds or any funds in general. So, this three factor model appears like this RIT minus RFT equal to alpha IT and so on.Let us discuss each of the parameter one by one. So, here RIT minus RFT is the excess fund return, excess over risk-free rate RFT, where RFT the risk-free rate and RIT is the return on security I which is the fund. Here alpha IT is the fund alpha, which indicates a fund manager stock selection ability, which essentially is the performance of the fund as well. That is the ability to choose stocks that are undervalued and short-sell stocks that are overvalued and thus offering greater returns than other investments that are comparable in terms of risk. A positive and significant intercept, this alpha IT would indicate manager strong stock selection ability and thus good performance.

However, it is negative and significant, it would indicate managers poor power stock selection skills, which may be one of the contributing factors to underperformance. Then you have R market minus RFT, which is the excess return of market portfolio over risk-free rate. Then you have RSMBT, which is the small minus big, which is the size factor. RSMBT is the size factor, which is the difference between diversified portfolio returns for small and large cap firms or the portfolio of large and small stocks. So, it is the excess returns from small minus large cap stocks.Next, you have RHMLT, which is the book to market factor high minus low or book to market factor. It is the difference between high book to market and low book to market portfolios. Thus, the beta parameters in this equation capture the sensitivity of excess return to the three factors. So, these betas, beta IT, similarly for size SIT and similarly high minus low for book to market HIT, these are sort of sensitivities of returns to each of these factors. In conventional terms, these are called betas of return on the security with these factors. If a manager is able to report this excess alpha, then he said to have some kind of excess performance, good performance or selectivity, that is ability to select underperforming stocks and differentiate them from overperforming stocks. That is the ability to select undervalued stock, which will give higher performance as compared to overvalued stock, which are expected to give lower performance and resulting in a better alpha. Now, let us discuss the timing criteria of performance evaluation. Again, we use the form of rich three factor model, one can use more advanced models. This is the most celebrated three factor model.

Performance Evaluation

Fama French 3-factor model: Timing

$$r_{it} - r_{ft} = \alpha_{it} + \beta_1(R_{Mt} - R_{Ft}) + \beta_2\, SMB_t + \beta_3 HML_t + \lambda_1\,(R_{Mt} - R_{Ft})^2 + \lambda_2\,(SMB_t)^2 + \lambda_3(HML_t)^2 + e_{it}$$

- where $r_{it} - r_{ft}$ is the fund excess returns;
- α_{it} is the fund alpha, which indicates a fund manager's stock-selection ability;
- λ_1, λ_2, λ_3 measure the mutual fund manager's timing skills for the three investing styles: market, size, book-to-market

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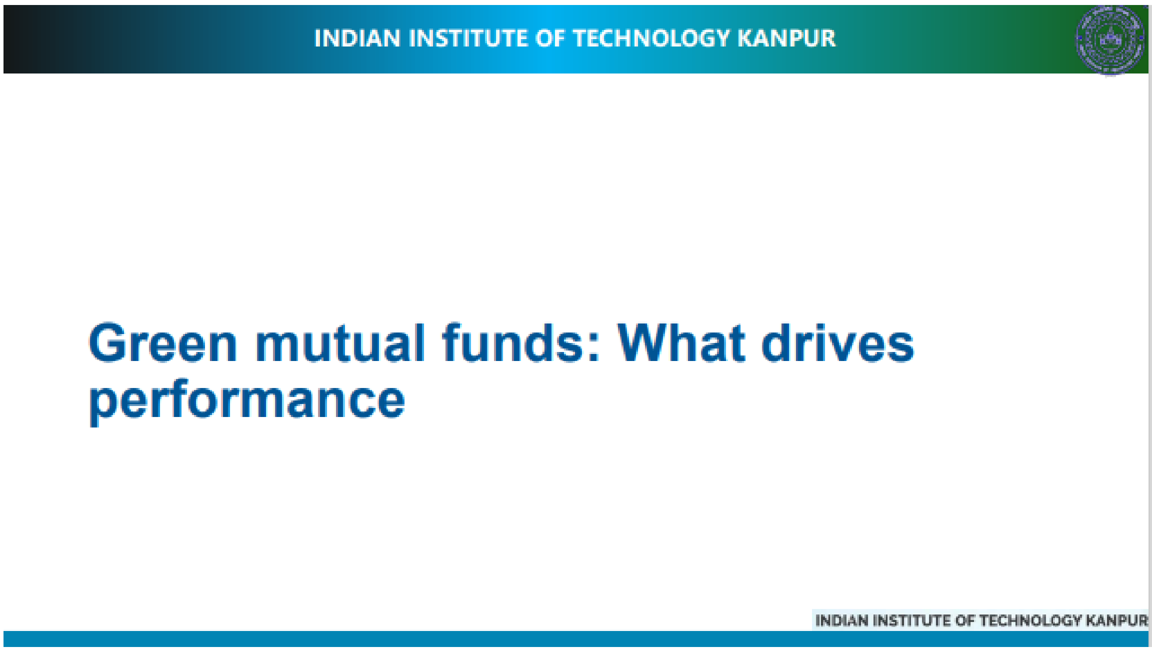
So, we are discussing this. Timing is the ability of a portfolio or fund manager to accurately predict the movement of a particular style or its exposure. If he is able to predict that whether this risk or style is going to up or down, the fund manager can appropriately increase or decrease his or her exposure in that particular style and make excess return out of it. Let us see how. So, in this again same three factor model, we have RIT minus RFT, which is the fund excess return over history rate.Then you have alpha IT, which is the sort of fund alpha, which indicates a fund manager's stock selection ability, that is their ability to choose stocks with greater returns than other investments while having the same systematic risk. A positive and significant intercept demonstrates the manager's strong selection skills. However, if it is negative and significant, it indicates manager's poor and perverse stock selection skills, which may heavily contribute to the underperformance of the security and portfolio. Here, RMT minus RFT is the excess return over the market portfolio and beta one is the sensitivity of the security to this excess market returns or market. Again, SMB is small minus big, which is the difference between diversified portfolio returns for small and large cap form portfolios and beta two again is the sensitivity of the stock security over this small minus big SMB factor.Similarly, HML high minus low as we defined earlier is the difference between high book to market and low book to market portfolio returns and beta three is the sensitivity to this factor for the security. Now, we have put some nonlinear terms RMT minus RFT raised to the power two, SMB raised to the power two and HML raised to the power two. The coefficient lambda for these sensitivities measure the mutual fund managers timing skills for these three factors RMT minus RFT raised to the power two, SMB square and HML square that is size, book to market respectively. As per this approach, we examine the timing skills concerning the market and the other two investment styles. This model is based on three factor Fama French model and if one obtains these coefficients lambda one, lambda two and lambda three as significant that is the model is nonlinear in these factors, sort of convex relationship.

This would indicate that there is a relationship between fund return and that particular style and its timing. And as a result, the manager will increase the funds exposure to a particular investment style if they anticipate it will outperform other style options and vice versa in opposite situation and if this lambda one is positive and significant that would indicate their ability to successfully do so. As per this model and approach, we examine the timing skills concerning the market and each investment style for a fund manager. Now, this is a three factor Fama French model and this model says or examines the fund relationship between fund return and style investment styles. If the manager is successful, then they will increase the funds exposure to a particular risk factor such as RMT minus RFT market factor or size or HML.Successfully, they will increase the fund exposure to a particular style or risk if they anticipate it will outperform other style options and vice versa if they feel that they are going to underperform, then they will decrease the exposure. Then in that case, if one were to examine the return of the security with respect to a particular risk factor, then the relationship if the manager is successful in timing the relationship will appear like this. What it means is that when the risk increases, then they would be the risk factor is expected to overperform or perform well on the upside or go on the upside, then they are expected to increase the exposure and increasing exposure would lead to their performance being further higher. And similarly, if they anticipate it will decrease, then they are expected to decrease the exposure to this risk factor style and there they will perform again, they will not perform well because the factor itself is performing poorly, but there underperformance will be less because now they have decreased the exposure to this factor. So, either way they will gain if it is going up, they will go further. This can be market factor SMB or HML any such factor, they can increase the exposure when they expect it to go up and time it well and when they are anticipating successfully that will go down, they can also decrease the exposure that means decrease the beta of their security to this particular risk factor and therefore, their underperformance will be less than this factor. So, this is called the timing ability. Now, therefore, how to interpret this result if the lambda parameter that we can see here lambda, lambda 1, lambda 2, lambda 3, they are positive, then it demonstrates the manager's good investing style timing ability, but if it is negative, then it would indicate bad timing ability. Now, generally as a overall result, if this alpha is significant and positive, then they are said to be doing better in terms of their selectivity skill, selection of stocks and if lambdas are positive and significant, these lambda 1, lambda 2, then they are said to do that timing ability better. To summarize, in this video, we introduced green mutual funds and green investment profile.We also discussed how to evaluate the performance of a fund manager through pharma French three-factor model.

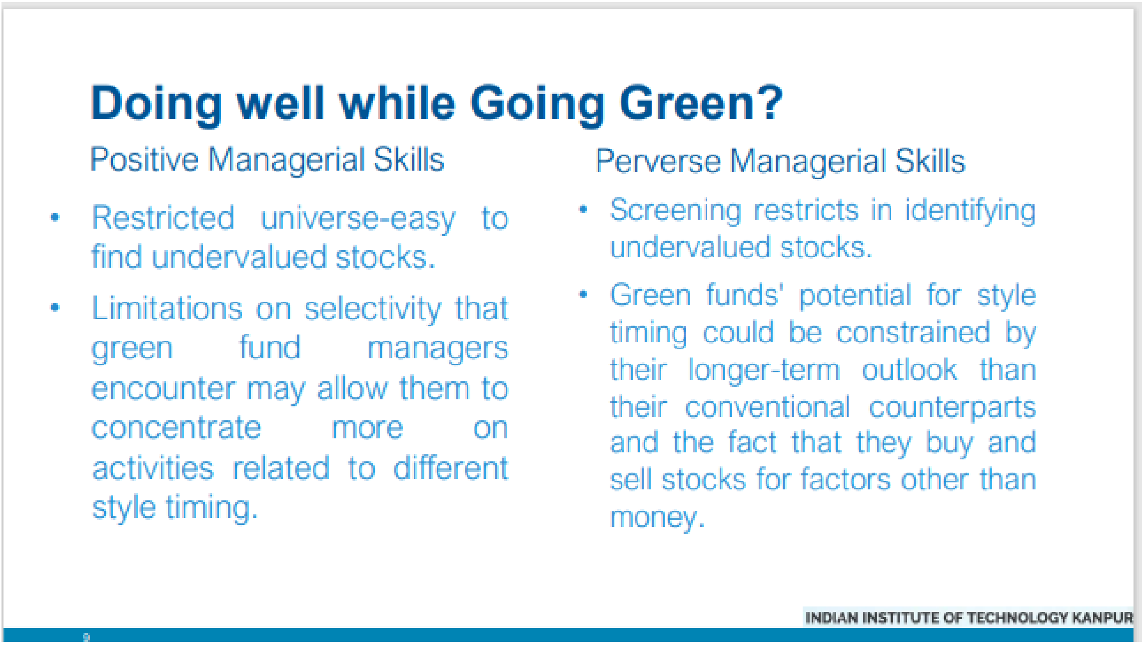


In this video, we will discuss the performance drivers and their theoretical underpinnings for green mutual funds and then we will summarize them.

To begin with, literature argues that focused investment in environment-friendly stocks and exclusion of others leads to fewer diversification opportunities and suboptimal portfolio choices according to classical portfolio theory perspective. So, focused investment and exclusion of other wider universe, this leads to less diversification as per the classical portfolio theory. Also, it has been observed that green funds tend to underinvest in financially strong companies, such as those companies engaged in unethical practices or alcohol, tobacco and so on, high carbon emitting products because they fall short of the funds environmental objectives.So, less investment in financially strong. Among other reasons, the soaring prices of environmentally oriented stocks might be further attributed to excess demand brought on by the environmental trend leading to excessive market values. Thus, green mutual funds or green funds would have suffered from a later adjustment to founded stock price levels in terms of underperformance. So, some of these environmentally conscious firms because of the current trend towards sustainability, we have quota protocol and so on, these funds are in demand and therefore their stocks sell at premium, sort of overvalued and there is a tendency to later the price when the prices go down, they will underperform. Moreover, currently we are in this learning phase, because we are learning more and more about the performance of green mutual funds.

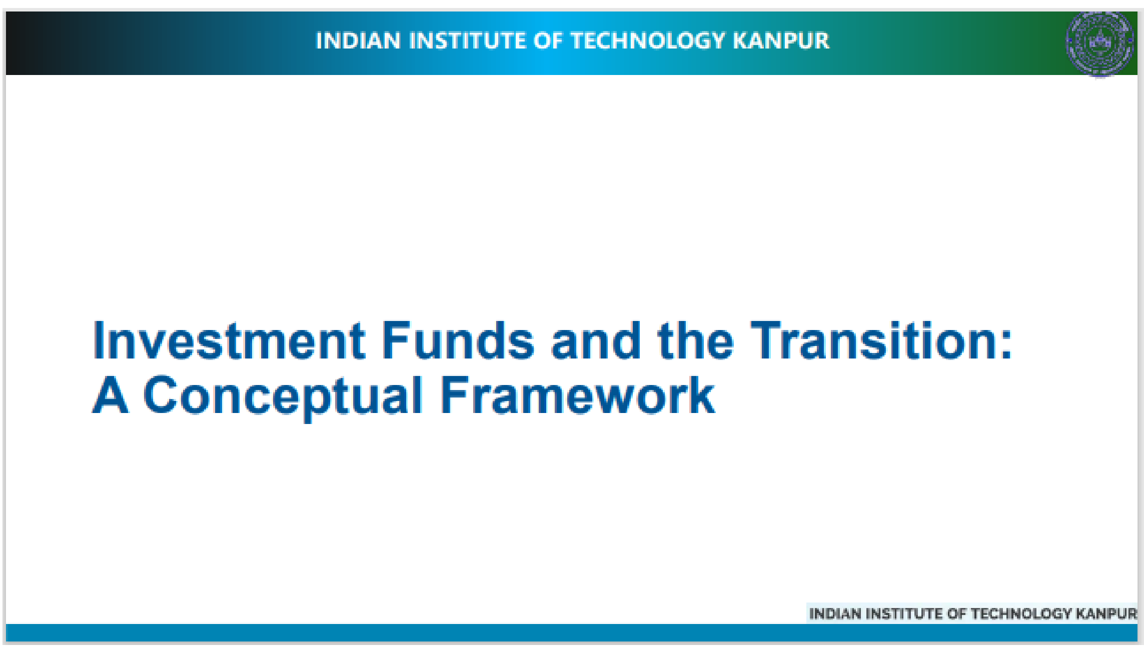
The performance of these green mutual funds supports another strand of literature that these green funds outperform conventional funds that is sort of contrasting stand off literatures and it takes stakeholder theory perspective. So, this literature argues and provides economic justification for how businesses with strong environmental records can benefit from increased income and reduce costs. This specialization perspective further substantiates green funds outperform issue. So, this kind of literature suggests that green fund managers acquire considerable specialization in their segment. And this characterized by investing style, timing and selection of securities leads to poor performance.

So, they have this specialization knowledge about their segment and that leads to performance. Additionally, we anticipate that over time the performance of green mutual funds will gradually improve as compared to their conventional counterparts, given the steady increase in environmental investment options over the past 20 years and the increasing experience of investors and fund managers. So, investors and fund managers they are becoming more experienced and specialized and this segment has come of age. So, there is some knowledge about which stocks are good which are doing better and going to perform better. So, now let us summarize what could be the reasons behind the underperformance and overperformance of these SRI green funds related to their conventional nor SI counterparts based on the literature review.First and foremost, we take from outperformance perspective, we take on stakeholder theory view. Firms that engage in stakeholder related activities are at a competitive advantage to firms that do not. And also these SRI firms they tend to maintain good relationship with the society and various stakeholders within which they operate and hence in the long run these SRI funds tend to over perform related to conventional funds. So, these are some of the reasons for outperformance of these SRI funds as compared to non-SRI funds. Next, we also say that green investors and fund managers alike for these SRI funds are becoming more and more experienced and they are achieving specialization by choosing a very limited set of restrained portfolio.So, their choice of stock universe is limited. So, they become more knowledgeable about these limited set of stocks and they become more specialized and experienced. Also, during crisis periods, these SRI funds face less age-related risk which leads to better performance during market downturn or situations like COVID crisis as compared to their conventional counterparts. Similarly, we can think of some reasons for underperformance for these SRI funds as follows. First, the industry concentration and sectoral avoidance bias present in these green funds may lead to restricted investment universe.And therefore, because they have very limited set of universe of stocks to choose from that leads to reduced diversification opportunities and more idiosyncratic stock specific risk, less diversification. Literature suggests that each time a portfolio is constrained that means it is less diversified and limited number of choices then its performance suffers based on the classical portfolio theory and the adverse impact of frequent re-balancing because you have limited set of stocks you frequently re-balance. So, the performance is further deteriorating and also due to lack of managerial skills related to selectivity and timing, the performance may further deteriorate in such a small universe of stocks because there is such a limited set of stocks you can't demonstrate your managerial skills in that set of stocks and you are forced to lack of sort of exhibition of managerial skill, you demonstrate poor managerial skills and also you need to re-balance your stocks frequently. So, the performance deteriorates.

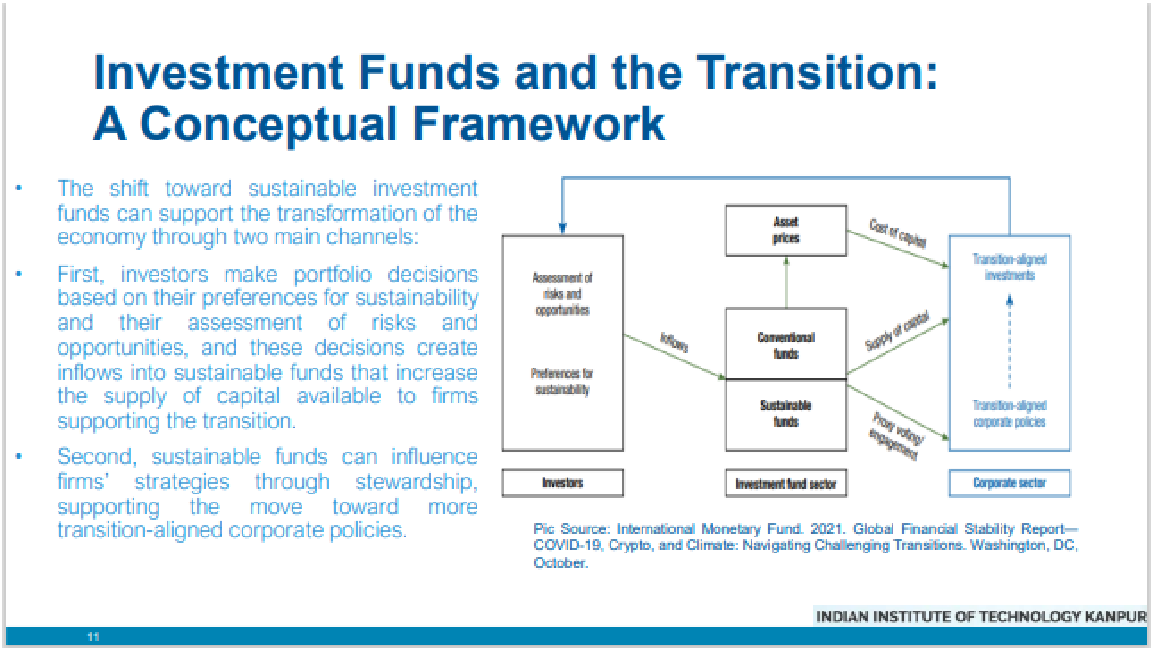


Coming to the some of the positive managerial skill aspects because you have a restricted universe in the SRI funds, the stocks to choose, you can slightly more be more focused and easily find some undervalued stock because your consideration set is limited, you can do more analysis, fundamental values and so on and fair valuation activity and you can find some of the undervalued stocks.Also, there is limitation on selectivity of these green fund managers because they have limited units to choose from. It may allow them to focus more on the timing related aspects so they can focus more on the style timing which style or exposure is going to overperform or underperform, they can do more analysis and focus there and thus find those styles where stocks are going to overperform and choose and where underperform they can short sell and perform better. So, that has a positive impact on their managerial skill aspect. However, there are some perverse managerial skills or negative impact also due to the nature of SRI funds. First is that screening mistakes in identifying undervalued stocks because of this screening criteria precisely, a number of undervalued stocks may be excluded from the consideration set.A number of stocks may be excluded from the consideration set and therefore you are left with a limited set of universe to choose from. Second, green funds potential for style timing could be constrained by their long term outlook, then their conventional or counterparts and the fact that they buy and sell stocks for factors other than money. So, this is another challenge because as a part of SRI fund strategy, green fund strategy, your consideration is not only short term money making but also long term fundamentals and fundamentals related to environmental activity. So, unlike the conventional funds where short term undervaluation and lower valuation matter a lot, you also have to consider or give a considerable weightage to their long term environmental strategy. So, even if a stock is sort of very undervalued but given its strong focus on environmental aspects, you may be forced to go long or keep that hold that stock for a longer period than would have been the case with the conventional funds.

To summarize, in this video, we discussed the theoretical underpinnings behind the positive and negative performance of SRI funds as compared to their conventional counterparts. We also discussed what factors drive the performance of these SRI funds vis-a-vis their conventional counterparts. We noted that due to a limited set of universe of stocks to choose from, these SRI funds, while it leads to less diversification and may adversely affect their performance also has a positive impact in that sense that these fund managers and investors gain specialization, they become more knowledgeable about these limited set of universe of stocks and are able to evaluate their performance more accurately and may have this ability to choose more efficient stocks or more overperforming stocks in a more efficient manner as compared to their conventional counterparts who have to choose a very broad set of stocks and therefore may not have that wherewithal to analyze each of these stocks from such a wide universe.



In this video, we will discuss the conceptual framework about how transition towards these SRI investment funds can lead to the economy as a whole transitioning towards sustainability or sustainable economy.



To begin with, the shift towards sustainable investment funds can support the transformation of economy through two key channels.First, the investors make portfolio decisions based on their preferences for sustainability and their assessment of risk and opportunities. So, there is an assessment of risk and opportunities and preferences for sustainability. And these decisions create inflow into sustainable funds that increase the supply of capital available to the firm supporting the transition. So, there is inflow more towards the sustainable fund, there is more inflow, there is more money going in and this in turn reduces their cost of capital. So, because there is more fund flow here, it reduces the cost of capital for these funds while increases for the conventional funds.

For example, there will be increase in asset prices for the sustainable funds while relative decrease in the conventional funds and that would affect their cost of capital for the transition, one and second supply of capital. So, this in turn will reduce their cost of capital and encourages transition aligned investment. So, because of this funding aspect, it will drive these conventional funds also to invest more in transition aligned investments and economy as a whole towards these sustainable environment friendly investment projects. Second, the sustainable funds can influence the strategies of the firm through stewardship supporting the move toward more transition aligned corporate policies. So, also these sustainable funds and also conventional funds, because of these fund flow, they can, they will be motivated to align their strategies through stewardship to move towards more transition aligned corporate policies.Let us briefly define the stewardship. So, the literature suggests that stewardship is the use of influence by institutional investors to maximize overall long term value including the value of common economy, social and financial assets on which returns and clients and beneficiaries interest depend. So, this would entail exerting influence through engagement and proxy voting sitting on the board of directors and improving sustainability practices and outcomes and disclosures and so on. So, a positive feedback loop is created that would emerge through the investment fund sector. So, because so from this fund sector sort of positive push will come a positive impact will be there through stewardship and with investors sustainability concern, these concerns of sustainability, it will lead to more and more investment in these sustainable funds, climate changing funds and therefore, towards projects that are more climate change mitigating projects, which will reflect risk management and rate of return considerations as well and thus increasing the pace of transition. So, there are two aspects one, through fund channel first supply of channel supply.So, through this inflows supply of capital and cost of capital to these green sustainable projects is increased and while those conventional funds that are starved of the supply they will be more motivated and make these transition aligned state investments and secondly, there will be more stewardship from sustainable funds like proxy voting and engagement in AGM's annual general board meetings and so on and that would further enforce transition aligned corporate policy overall. So, overall the corporate sector will be impacted because of transition towards these investment funds, the corporate sector will be further induced to invest on the sustainable transition aligned investments for economy as a whole. So, to summarize we noted how transition and this motivation and emphasis and impetus towards these SRI investment funds would create a positive feedback loop through two channels as we discuss supply and cost of capital first channel, second is stewardship channel through proxy voting and engagement would emerge through investment fund sector with investors sustainability concerns leading to more investment in such climate friendly green technology and climate change mitigating projects which will reflect the risk management and rate of return considerations as well and increase the pace of economy towards this transition towards this green and renewable energy projects and clean energy projects transition that are more oriented towards sustainability goals.

In a series of next few videos we will discuss the rules and regulations related to SRI in major economies and globally.

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Rules and Regulations related to SRI in major economies: International Sustainability Standards Board (ISSB)

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In this video we will talk about International Sustainability Standards Board that is ISSB.

International Sustainability Standards Board

- The Trustees of the IFRS Foundation announced the formation of the International Sustainability Standards Board (ISSB) on 3 November 2021 at COP26 in Glasgow, following strong market demand for its establishment.
- The ISSB is developing—in the public interest—standards that will result in a high-quality, comprehensive global baseline of sustainability disclosures focused on the needs of investors and the financial markets.

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To begin with the trustees of IFRS foundation announced the formation of International Sustainability Standards that is ISSB on No. 2021 at COP26 in Glasgow following strong market demand for its establishment. COP stands for Conference of the Parties and the summit was attended by the countries that signed United Nations Framework Convention on Climate Change a treaty that came into force in 1994 this was the 26 COP summit and was hosted in the partnership between UK and Italy. The ISSB is developing in the public interest standards that will result in high quality comprehensive global baseline of sustainability disclosures focused on the needs of investors and financial markets. Now in this backdrop sustainability factors are becoming a mainstream part of investment decision making.

There are increasing calls for companies to provide high quality globally comparable information on sustainability related risks and opportunities as indicated by feedback from many consultations with market participants. There is also a strong desire to address a fragmented landscape of voluntary sustainability related standards and requirements that add cost complexity and risk to both the companies and investors. In this backdrop ISSB has international support with its work to develop sustainability disclosure standards backed by G7 and G20.

The International Organization of Security Commission's IOSCO and the Financial State Ability Board as FSB, African Finance Ministers and Finance Ministers and Central Bank Governance from more than 40 jurisdictions and thus ISB has set out four key objectives in this regard. First is to develop standards for a global baseline of sustainability disclosures to meet information needs of investors to enable global companies to provide comprehensive sustainability information to global capital markets and lastly to facilitate interoperability with disclosures that are jurisdiction specific and aimed at broader stakeholder groups.

Thus, the ISB builds on the work of market-related investor-focused reporting initiatives including the Climate Disclosure Standards Board, CDSB, the TASO for Climate-related Financial Disclosure, PCFD, the Value Reporting Foundation's Integrated Reporting Framework and industry-based SASB standards as well as the World Economic Forum

Stakeholder Capitalism Matrix. The ISB is committed to delivering standards that are cost-effective, decision-useful and market-informed. Thus, these standards are developed with efficiency in mind, helping companies to report what is needed globally to investors across markets. The standards are designed to provide the right information in the right way to support investor decision-making and facilitate international comparability to attract capital. Thus, a company can avoid double reporting by applying the ISB standards.

When jurisdictional requirements build on the global baseline, companies are able to meet jurisdictional requirements while benefiting from the efficiency and comparability of the global baseline. To summarize, in this video, we discussed the roles and responsibilities of a very important entity that is ISB, International Sustainability Standards Board in the context of socially responsible investments, rules and regulations and framework.

In this video, we will talk about rules and regulations related to SRI in the context of EU.

Europe

- Climate Transition Benchmarks Regulation
- Strategy for financing the transition to a sustainable economy.
- The Delegated Act on sustainable activities for climate change adaptation and mitigation objectives, as well as the Delegated Act supplementing Article 8 of the Taxonomy Regulation.
- A further complementary Delegated Act on climate, introducing nuclear and gas energy under specific conditions entered into force in August 2022.
- Sustainable Finance Disclosure Regulation

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Increasingly, the financial sector in Europe and globally has assumed a more prominent role in addressing environmental and social challenges. The expectation that financial institutions should be part of the solution to sustainability challenges has become deeply embedded as per the report of EuroSIF 2022.The consideration of sustainability risk has been recognized as an integral part of risk management. If these risks are neglected and accumulate over time, there are potential implications for financial stability at a systemic level. Asset managers are now embracing better risk management and ESG preferences of their clients in portfolios. Let us discuss some of the further developments in European regulation.

First, Climate Transition Benchmark Regulation CTBR. It was updated in November 2019 to create two new categories labels of climate related benchmarks. This includes climate transition benchmark and Paris-aligned benchmark. The December 2020 updated regulation provided the minimum standards for both climate related benchmarks. These benchmarks are intended to enable market participants to make well-informed choices through greater transparency. Next, in July 2021, the European Commission published its Strategy for financing the transition to a sustainable economy report.

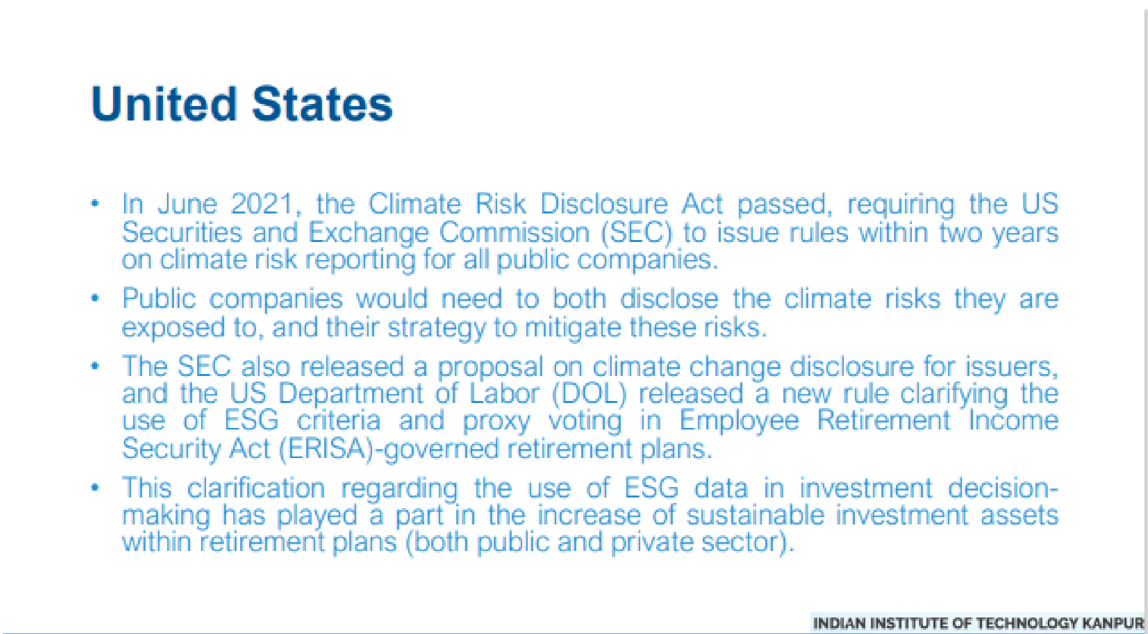
The strategy instated the European Commission's commitment to the sustainable financing agenda and aimed to support the financing of the transition to a sustainable economy by proposing action in four areas – transition finance, inclusiveness, resilience, and contribution of the financial system and global ambitions. This taxonomy regulation entered into force in July 2020. It was complemented by further acts establishing its technical criteria. First and foremost, the delegated act on sustainable activities for climate change adaptation and mitigation objectives, as well as the delegated act supplementing Article 8 of the taxonomy regulation. A further complementary delegated act on climate introducing nuclear and gas energy under specific conditions entered into force in August 2022.

Next, the Sustainable Finance Disclosure SFDR started to apply from March 2021, imposing mandatory ESG disclosure obligations for asset managers and other financial market participants. This SFDR introduced sustainable investments, often referred to as Article 9, and produced with ESG characteristics, so-called Article 8 products. Together with the EU taxonomy, this SFDR created a new sustainability-related disclosure framework for financial market participants and financial advisors with regards to the integration of sustainability risks and the consideration of adverse sustainability impacts in the investment process. However, the market has started using SFDR as a de facto classification system, which has attracted some controversy as well.

Next, we have the Sustainability Investment Association in the region, called EuroSIF.

EuroSIF is the leading pan-European association promoting sustainable finance at European level, encompassing the EU, the European Union, and the wider European Economic Area, and the United Kingdom. EuroSIF is a partnership comprised of Europe-based National Sustainable Investment Forum, SIFs. Most of the SIFs have a broad and diverse membership, including asset managers, institutional investors, index providers, and ESG research and analytics providers. To summarize, in this video, we broadly discuss the developments regarding rules and regulations pertaining to SRI investments in the European Union region.

In this video, we will discuss the rules and regulations related to SRI in US and their historical evaluation.



To begin with, since 1995, when the US Sustainable Investment Forum began tracking and measuring sustainable investing assets in the United States, the field had evolved since then into a multi-trillion dollar industry, with a considerable acceleration of ESG integration in the past 10 years. Despite an uncertain political environment, there has been a steady increase in ESG product choices for American investors. There was a significant jump during the pandemic, with huge investment flows directed into mutual funds and exchange-traded funds as per the KPMG 2022 report. This follows the US rejoining the Paris Agreement in January 2021. The Climate Risk Disclosure Act, which passed in June 2021, looks set to change the availability of data, as publicly traded companies will be required to make climate risk disclosure reports to the US Securities and Exchange Commission, SEC.

Thus, sustainable investing in the US has become increasingly mainstream, and we expect to see a trajectory of growth in the reported assets for sustainable investing in the coming decade. Market demand for ESG products is expected to grow, while regulatory interventions could enhance the rigor of the field and promote the use of material financial information in investment decision making. Let us discuss some of the developments in the US. In the US, there are multiple concurrent regulatory developments. The current administration has made efforts to move the field forward in the use of ESG in retirement assets, enhancing rules related to funds, and creating the first mandated climate-related disclosures, climate for corporations.In June 2021, the Climate Risk Disclosure Act was passed, requiring the US Securities and Exchange Commission, SEC, to issue rules within two years on climate risk reporting for all the public companies. Public companies would need to, therefore, both disclose their climate risks that they are exposed to and their strategy to mitigate these risks. The same month, the act became law. The SEC announced its annual regulatory agenda, including plans for rule amendments on climate risk disclosure. In efforts to increase transparency, the SEC has sent letters asking publicly traded companies to make climate risk information available to investors and initiated a 90-day input period for feedback on mandatory climate disclosure.The SEC has also released two proposals that focused on preventing misleading or deceptive fund names and requiring more detailed environmental, social and corporate governance disclosures by funds and advisors. This mirrors similar developments around the globe, including the European Union. While not solely focused on sustainable investing, the SEC has the names rule for funds that should lead to more clarity in fund objectives and marketing, which will help individual investors seeking sustainable investment products. Then SEC also released their proposal on climate change disclosure for issuers and the US Department of Labor, DOL, released a new rule clarifying the use of EHE criteria and proxy voting in Employee Retirement Income Security Act, ERISA, governed retirement plans. Thus, this clarification regarding the use of EHE data in investment decision making has played a part in the increase of sustainable investment assets within retirement plans, both public and private sector.And rules imposed by SEC could lead to mandated reporting for some areas of climate and human capital. And should any become final rule, they would be the first standards in the US for climate and social criteria reported by corporations. Now, we have seen both investors and politicians debate climate change mitigation strategies, net zero commitments and virtually all environmental social government topics. Despite recent political headwinds in the US, individual customer interest in sustainable investing remains high across multiple demographics. Surveys and studies from the reporting period show that investors across generations and political parties increasingly want EHE objectives in their investment products. It is worth noting that there is a generational gap with a larger proportion of young generations interested in climate action within their investments. In this backdrop, a very important body US Sustainable Investment Forum, USSIF. Let us discuss the history of this USSIF.

History of the United States Sustainable Investment Forum, USSIF starts from 1984, when it was founded under the name of Social Investment Forum, SIF and produce research on growth trends of sustainable investing in the United States since 1995.

USSIF is the leading voice advancing sustainable investing across all asset classes. Their mission is to rapidly shift investment practices towards sustainability focusing on long term investment and generation of positive values and environmental impacts. Their vision is that environmental, social and governance impacts are meaningfully assessed in all investment decisions resulting in a more sustainable and equitable society. The members representing 5 trillion assets under management or advisors include investment management and advisory firms, mutual fund companies, asset owners, data and research firms, financial planners and advisors, broker dealers, banks, credit unions, community development, financial institutions and non-profit associations. US-SIF is supported in its work by US-SIF Foundation, a 501c3 organization that undertakes educational, research and programmatic activities to advance the mission of USSIF. US-SIF is a member of Global Sustainable Investment Alliance and a member of the US Impact Investing Alliance

Industry Advisory Council.So, to summarize, in this video, we discussed the evolution and history of rules and regulations pertaining to socially responsible investment in the US.

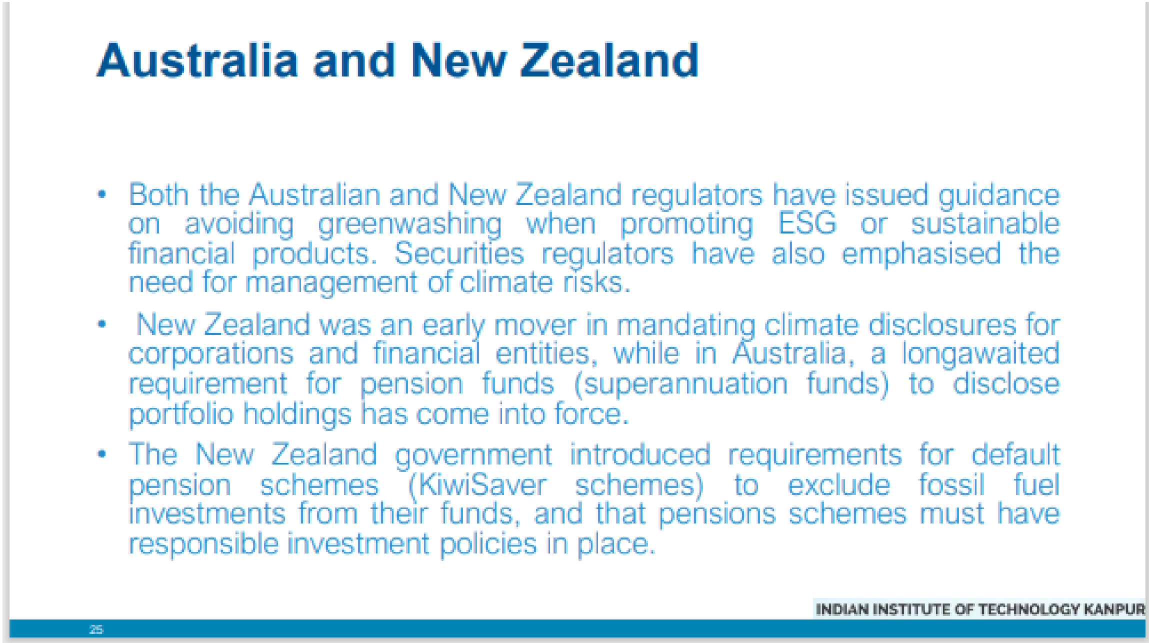
In this video, we will discuss the developments in SRI and pertaining rules and regulations in Canada.

To begin with, policy and regulatory drivers for EAG and responsible investment have been receiving increased attention from regulators in Canada. In 2020, corporations governed by Canada Business Corporations at CBCA with publicly traded securities became required to provide information on the corporations, policy and practices related to diversity on the board of directors and within senior management. This includes the number and percentage of members of the board and of senior management who are women, Aboriginal persons, members of visible minorities and persons with disabilities.

Canada became the first jurisdiction in the world to mandate diversity disclosure concerning specific personal characteristics in addition to gender. Next, the Investment Industry Organization of Canada, that IIROC, published updated NOIO Client Rules in November 2021, where they accepted the RIA's proposal to position clients' EAG preferences and personal values as part of their potential investment objectives. In January 2022, the Canadian Securities Administrator, CSA, published guidance for investment funds on their disclosure practices related to EAG considerations where funds use EAG strategies, markets themselves, EAG-focused or have investment objectives that reference the EAG factors. In the same month, OSFI and the Bank of Canada published a report highlighting the fact that Canada's financial institutions are at risk of sudden and large losses as the global economy transitions away from the carbon industry. In this backdrop, a very important organization is Canadian Responsible Investment Association, RIA.

Let us discuss the historical evolution of this organization. History of Canadian Responsible Investment Association The RIA's predecessor, the social investment organization, SIO, was established in 1990 to advance socially responsible investing in Canada with a focus on what we know now negative screening as a means of investors to express their values in their investments. In 2013, the SIO was rebranded as the Responsible Investment Association to evolve with the industry and encompasses the broader scope of responsible investment, which incorporates environmental, social and governance issues into the selection and management of investments. Now, this RIA in Canada has grown tremendously, largely linked to the global growth since we started counting RIA asset in the management in 2006. The assets have grown from Canadian dollars 460 billion to Canadian dollars 3 trillion as of December 2021. To summarize this video, we discussed the evolution of responsible investing and socially responsible investing and sustainable investing in Canada.To summarize this video, we discussed the evolution of socially responsible investing in Canada and also focused on the history of the Responsible Investment Association, RIA in Canada.

In this video, we will discuss the landscape of socially responsible investing in Australia, New Zealand and their rules and regulations.



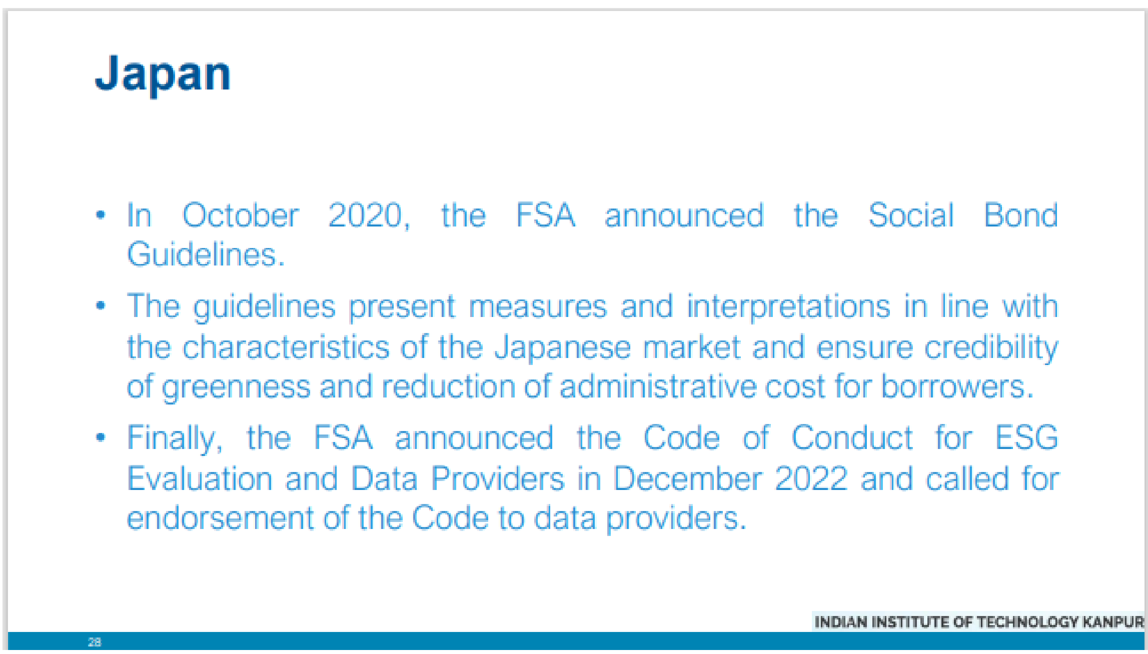
To start the discussion, both the nations, Australia and New Zealand took vastly different approaches to socially responsible investing. First, in New Zealand, regulation was a key driver while in Australia, in the absence of regulatory pressure until more recently, industry initiatives dominated.Let us start with the policy related and regulatory diverse. Regulatory and government activity around responsible investment is playing an ever greater role in accelerating responsible investment in Australian markets. Both the Australian and New Zealand regulators have issued guidance on avoiding greenwashing when promoting ESG or sustainable financial products. Security regulators have also emphasized the need for management of climate risk. New Zealand here was an early mover in mandating climate disclosures for corporations and financial entities while in Australia, a long-awaited requirement for pension funds or super innovation funds to disclose portfolio holdings has come into force. The New Zealand government introduced requirements for default pension schemes, EV saver schemes to exclude fossil fuel investments from their funds and that pension schemes must have responsible investment policies in place.

The ever-increasing focus on greenwashing has had a significant impact on funds looking to be clearer and more precise in their product marketing and legal documents. Stewardship activities of investors across the region are ever-increasing and becoming more targeted and we are also seeing increased accountability within these activities. The development and launch of New Zealand stewardship code in 2022 was a major step forward in New Zealand market.

In this region, a very important body is Sustainable Investment Association that is RIAA. This Responsible Investment Association of Australia that is RIAA, its mission is to promote, advocate and support approaches that are responsible for investment that align capital with achieving a healthy and sustainable society, environment and economy.

RIAA advocates for strong sustainability standards that embed real world outcomes as a measure of focus and this focus is incorporated in RIAA's policy work, research and certification standards. RIAA works for 500 members representing 29 trillion US dollars to champion responsible investing and a sustainable financial system in Australia and New Zealand. To summarise, in this video, we will discuss the socially responsible investing landscape and development of rules and regulations in Australia and New Zealand.

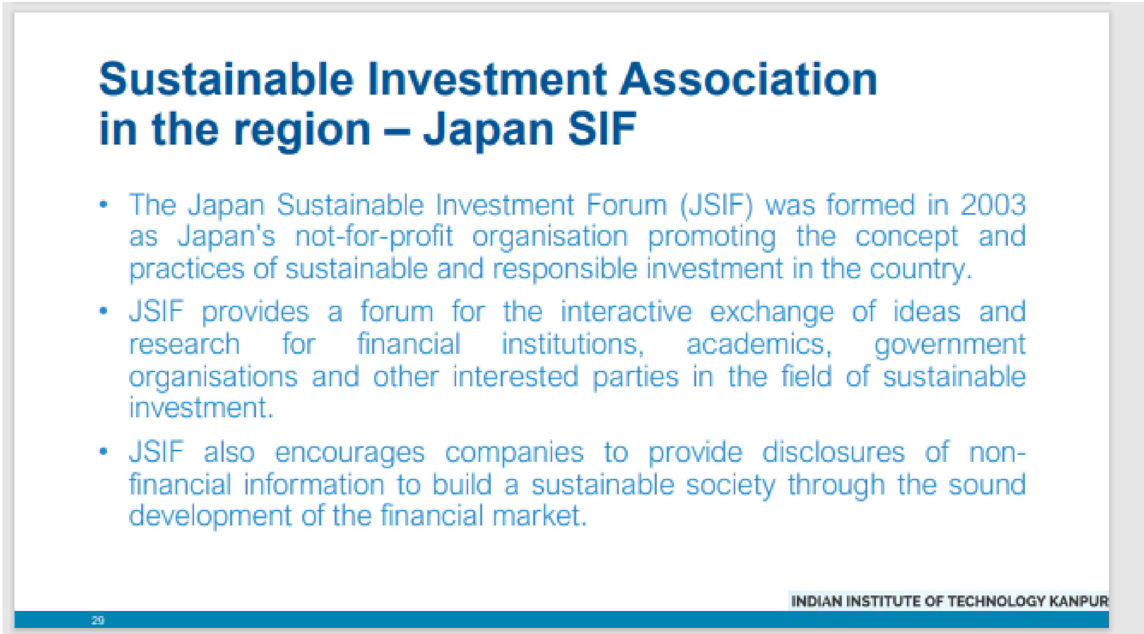
In this video, we will discuss the landscape of socially responsible investments and rules and regulations in the context of Japan.



To begin with, over the past decade, Japan's sustainable investment landscape has experienced significant growth and change.Year 2013 marked a foundational year for responsible investing, beginning with Japan's revitalisation strategy in 2013, which laid the foundation for sustainable and responsible investment in Japan. In the same year, Government Pension Investment Fund, GPIF, underwent a governance restructuring, leading to diversification of its portfolio by cutting down on bond investments, primarily in Japanese government bonds, and increasing its equity proportion. The subsequent years saw the introduction of the Japanese Teawardship Code 2014 and the Corporate Governance Code 2015 by the Financial Services Agency, FSA, solidifying the framework for responsible investments and corporate transparency. In 2015, GPIF became a signatory of the principle for Responsible Investment PRI in a move that catalysed ESG's growth in the country. GPIF as the PRI signatory subsequently published its Responsible Investment Policy and amended its Teawardship responsibilities to ensure asset managers consider ESG factors in their engagement activities.Moreover, GPIF required detailed reporting from asset managers on their PRI activities and stance. In 2017, the Teawardship Code and ITO report were updated. The Japan exchange group joined the Sustainable Stock Changers. TCFD, Task Force on Climate-Related Financial Disclosures, garnered attention, leading the Ministry of Economy, Trade and Industry, METI, to develop TCFD guidance and initiate a consortium in 2018. Japan led in TCFD support and was a significant backer of science-based targets and RE100 initiatives. In 2019, the Ministry of Foreign Affairs released the National Action Plan focusing on business and human rights.

The following year, METI published the ITO report on Sustainable Corporate Value, specifically addressing human capital considerations. The 2021 update to the Corporate Governance Code was significant due to its inclusion of a mandate of appointing a minimum of one-third independent external directors as well as a new section addressing sustainability. Japan's bond market has also seen strong growth. In 2014, the first green bond was issued, followed by subsequent issuances by commercial banks and local governments. The Ministry of Environment's Green Bond Guidelines in 2017 and the Financial Services Agency, FSA's Social Bond Guidelines in 2021, bolstered this section of the market.In May 2021, the MOE, METI and FSA jointly formulated foundational guidelines for climate transition finance following the publication of ICMA's Climate Transition Finance Handbook in December 2020. In 2022, the Japan exchange group JPX launched an ESG bond information platform. There have been notably more transition-labeled bonds issued in Japan than in other countries. Finally, sustainable investment has witnessed significant growth from 2020 onwards, with funds surpassing previous records. In 2023, guidelines for ESG investment trusts were issued by the FSA, aiming to streamline the sustainable investment process.A hallmark of Japan's responsible investment is its emphasis on transitional strategies, influenced by its manufacturing center, Dick Convy. Instead of rapid shifts, Japan is innovating in areas like battery technology, green fuels and environmentally friendly steel production. The global adoption of Japanese green technologies, such as electric railways, showcases Japan's contribution to reducing ESG emissions. Finally, the Japanese government is advocating for green transformation in order to change the industrial and social structure to shift away from fossil fuels, with an emphasis on clean energy.The government plans to raise $1 trillion in transition finance for net-zero by 2050. The key strategy to raise this finance is the government's climate transition bonds. These sovereign transition bonds are the world's first and will be worth around $20 trillion in Japanese currency or $130 billion aimed at renewable uptake and industrial innovation by attracting private-sector investment worth $130 trillion in Japanese currency and $870 billion or more, which is said to be necessary for decarbonization in Japan. All in all, responsible investing, investing in net-zero transition, looks to become increasingly mainstream in Japan. Next, Policy and regulatory divers in Japan are very important. The growth of the sustainable and responsible investment market during the reporting period was accelerated by policy and regulatory developments.

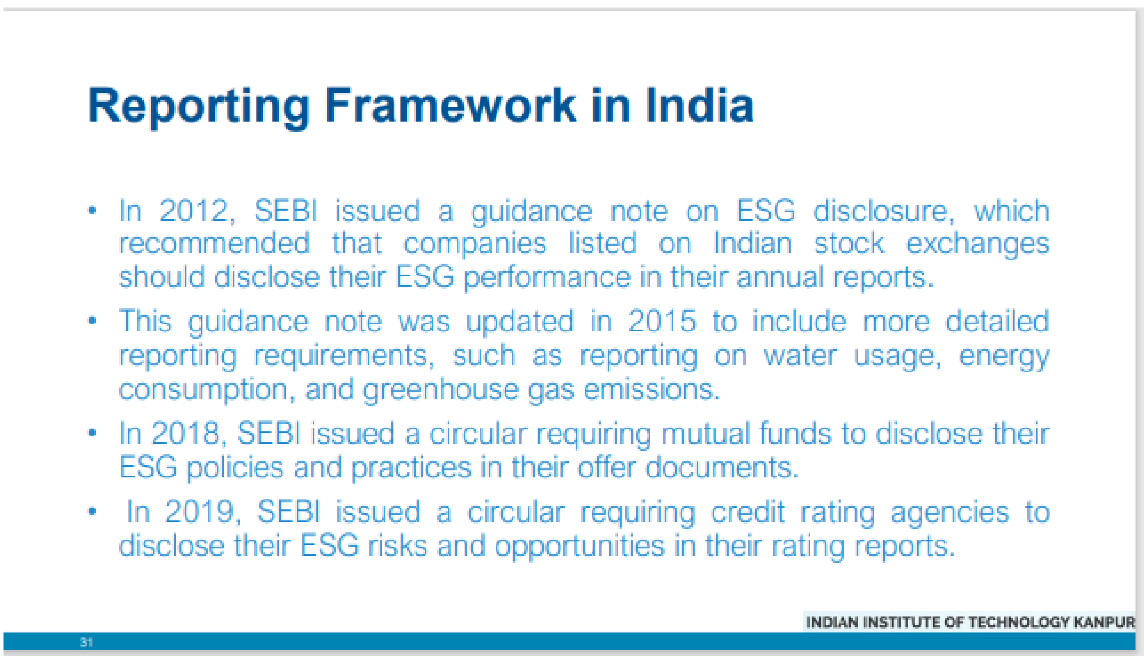
These developments were the result of collaboration between government and regulators alongside market participants. The Japanese FSA established the Task Force on Sustainable Finance in 2020, made up of business, financial and academic experts and observers from relevant ministries and agencies. The Task Force was initially brought together to discuss issues and policies to achieve carbon neutrality by 2050 and later broadened to wider sustainable financial issues. The first report was released in 2021 and since then the Task Force has been following up on issues raised in this report. The government launched Japan's National Action Plan on Business and Human Rights in 2020 and started the last conference of the relevant ministries and agencies. Since then, follow-up roundtables have been held regularly to facilitate and implement human rights issues across the business sector including guidelines on respecting human rights in responsible supply chains issued by METI. In October 2020, the FSA announced the Social Bond Guidelines. The Ministry of Environment launched the Green and Sustainability Linked Loan guidelines in 2020 and revised them in 2022. The guidelines are consistent and present measures and interpretations in line with the characteristics of Japanese market and ensure credibility of greenness and reduction of administrative costs for borrowers. Finally, the FSA announced the Code of Conduct for AG Evaluation and Data Providers in December 2022 and called for endorsement of Code to Data Providers.



Let us discuss another very important organization named as Sustainable Investment Association in the region i.e. Japanese SIF. The Japan Sustainable Investment Forum or JSIF was formed in 2003 as Japan's not-for-profit organization promoting the concept and practices of sustainable and responsible investment in the country. JSIF provides a forum for the interactive exchanges of ideas and research for financial institutions, academics, government organizations, and other interested parties in the field of sustainable investment. JSIF also encourages companies to provide disclosures of non-financial information to build a sustainable society through sound development of the financial market. JSIF is a member of the organization of the Global Sustainable Investment Alliance, GSIA, and contributes to the market study of Japanese sustainable investing.

To summarize, in this video, we discuss the landscape of socially responsible investments, in Japan. We also discuss some of the recent developments.

In this video, we will discuss the landscape of socially responsible investing in India. We will also discuss the role played by regulatory authorities such as SEBI and RBI.



In India, EHE regulations have been gaining traction, driven by the growth and awareness about EHE risks and opportunities among investors, increasing focus on corporate sustainability, and the regulatory push towards responsible investment practices. SEBI, the Securities and Exchange Board of India, the regulator of the Indian securities market, has been actively promoting EHE investing in India through various initiatives.

In 2012, SEBI issued a guidance note on EHE disclosures, which recommended that companies listed on Indian stock exchanges should disclose their EHE performance in their annual reports. This guidance note was updated in 2015 to include more detailed reporting requirements, such as reporting on water usage, energy consumption, and resound gas emissions. Since then, SEBI has been periodically issuing circulars and guidelines on EHE disclosure, and many companies have started reporting on their EHE performance. In 2018, SEBI issued a circular requiring mutual funds to disclose their EHE policies and practices in their offer documents.SEBI also introduced a number of other EHE related regulations and guidelines in recent years. For example, in 2019, SEBI issued a circular requiring credit rating agencies to disclose their EHE risks and opportunities in their rating reports.

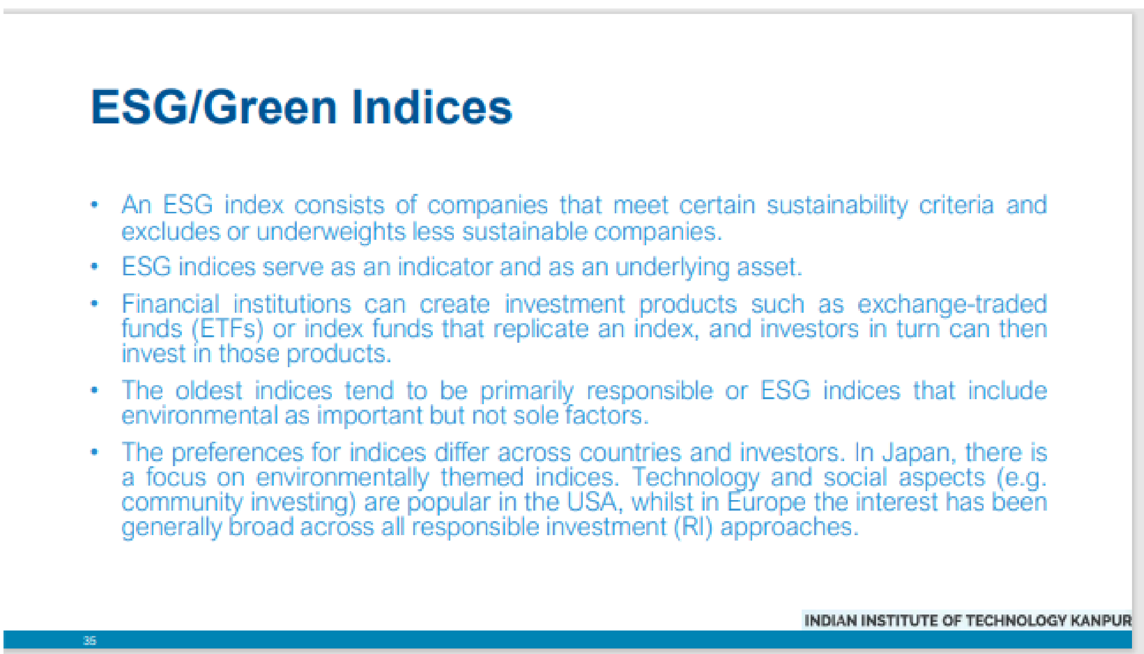
In 2020, SEBI issued a circular requiring asset management companies to report on their stewardship activities, including their engagement with companies on EHE issues. In 2020, SEBI took a major step towards promoting EHE investing in India by mandating the top 1000 listed companies to disclose their EHE-related information in their annual reports from the financial year 2021-2022 onwards. The disclosure requirements cover a range of EHE issues including carbon emissions, water usage, waste management, diversity and inclusion, employee health and safety, and board composition. Coming to mutual funds, under the extant regulatory requirements, mutual funds are permitted to launch only one scheme with EHE investing under the thematic category for equity schemes.

In view of the industry representations for allowing multiple schemes with different EHE strategies and considering the increased need for green financing, it has been decided to permit and launch multiple EHE schemes with different strategies by mutual funds. The concept of EHE investments in remarging and therefore consistent, comparable, and decision useful scheme disclosures is desirable to enable investors to make informed investment decisions and to prevent greenwashing. In addition, in order to suggest further measures to improve transparency with a particular focus on mitigation of risk and misspelling and greenwashing, an EHE Advisory Committee was set up by SEBI which provided recommendations for expanding the disclosure norms for EHE funds. Considering the recommendations of the EHE Advisory Committee and pursuant to public consultation on the matter, the provisions of SEBI Mutual Funds Regulation 1996 were further amended to interally specify that funds under EHE schemes shall be vested in the manner as specified by the SEBI norm from time to time. Accordingly, it has been decided to implement number of measures to facilitate green financing with thrust on enhanced disclosures and mitigation of greenwashing risk.

Presently, the EHE schemes of mutual funds are mandated to invest only in such companies which have comprehensive business responsibility and sustainability reporting disclosures. The balance asset under management of this scheme can be invested in companies having these BRSR that is business responsibility and sustainability reporting disclosures. This requirement will be applicable with effect from 2024 October. It is decided that an EHE scheme shall invest at least 75% of its asset under management in companies which are reporting on comprehensive BRSR and also providing assurance on BRSR core disclosures.

Lastly, the Reserve Bank of India, the regulator of Indian Bank sector, has also been promoting EHE investment in India. In 2020, RBI issued a circular requiring banks to disclose their EHE-related information in their annual reports, including their policies on climate risk management, sustainable finance, and social responsibility. The circular issued by RBI also required banks to report on their financing of green and social projects. Coming to the implication for companies, the EHE regulations by RBI require companies to disclose their EHE performance and risk to investors, which increase transparency and accountability. Companies that fail to meet EHE standards may face reputational damage and loss of investor confidence, which can have a significant impact on their bottom line. EHE regulations may require companies to change their business practices to align with the EHE standards, which would involve significant investments in new technology, processes, and systems.Coming to the challenges ahead, in India, the implementation of EHE regulation faces a number of challenges. One major challenge is the lack of standardization and comparability of EHE reporting. Currently, there is no standardized framework for EHE reporting in India, and companies are free to choose their own EHE metrics and reporting formats. Another challenge is the lack of awareness and capacity among companies to report on EHE issues. Many companies in India are still new to EHE reporting and may not have the necessary systems and processes in place to gather and report on EHE data.Some lack the resources and expertise needed to implement EHE practices, especially smaller firms. Limited regulatory framework is another problem. Although there are a number of EHE regulations in place in India, they are not yet comprehensive enough to address all the issues related to sustainability and responsible business practices. Addressing these challenges requires a concerted effort by regulators, companies, and investors to promote EHE compliance and foster the culture of sustainability and responsible practices. Rise of EHE regulations is a crucial step towards achieving a sustainable finance.To summarize, in this video, we discussed various EHE investment avenues and EHE instruments in financial markets. We discussed the regulatory landscape in India and development of socially responsible investing and practices and rules and norms governed by SEBI and RBI. We noted that rise of EHE regulation in India is a crucial step towards achieving a sustainable future. These regulations provide a framework for companies to measure and report their EHE performance, which helps to improve the growth of EHE

investment avenues and EHE instruments in financial markets.

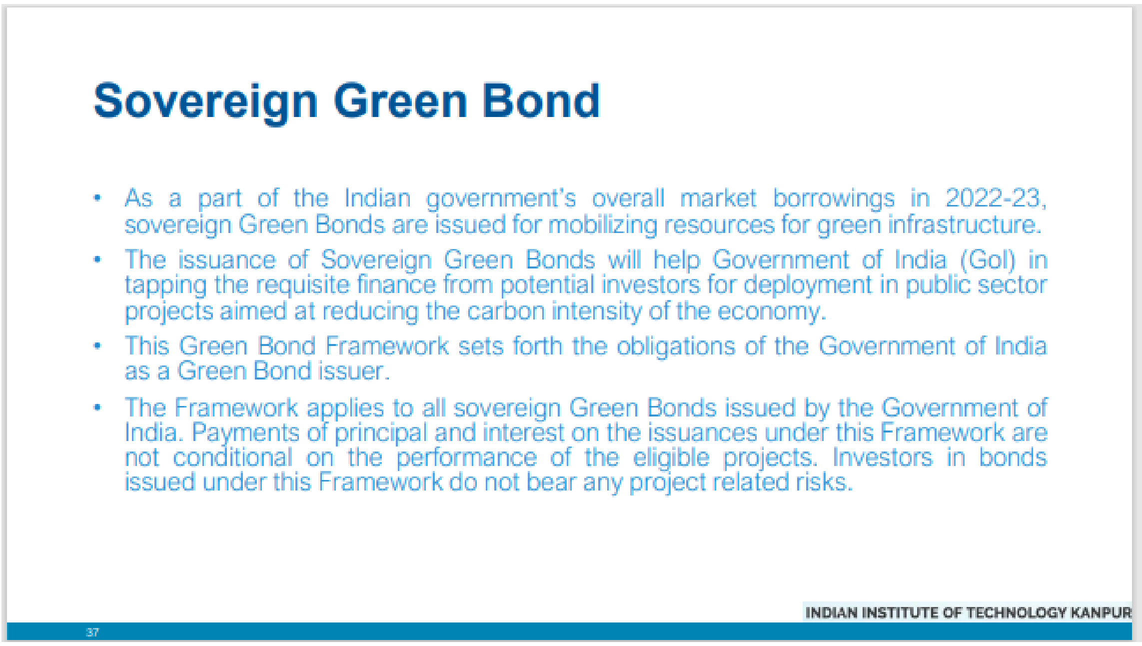


Let us start with EHE and BEIN indices. If you combine the concept of a stock index with EHE criteria, you get an EHE index. But in what way does an EHE index differ from a conventional index? The difference lies mainly in the selection of companies contained in the index because in addition to common criteria such as market capitalization and perhaps a complete stock trading liquidity, EHE criteria also gets factored in. This means that insufficiently sustainable companies do not get included in an EHE index or are weighed differently in it. So, an EHE index would consist of companies that meet certain sustainability criteria and exclude or underways less sustainable companies. The use cases for EHE indices are generally the same as the use cases for conventional indices.

So, EHE indices serve as an indicator and as an underlying asset. Financial institutions can create investment products such as exchange traded funds, ETFs or index funds that replicate an index and investors in turn can invest in these products. For example, sustainable indices, SIX, often referred to as SIX, they supply index data to banks and other financial institutions to enable them to construct index based financial instruments. With its EHE indices for the equity and bond markets, SIX, sustainable index, SIX provides a consistent family of EHE indices as a reference and market standard. Together with a raw EHE data and the regulatory data that SIX provides, the EHE indices form a comprehensive product offering for users of EHE information.The oldest indices tend to be primarily responsible for EHE indices that include environmental as important but not the sole factors. The preferences for indices differ across countries and investors. In Japan, there is a focus on environment EHE indices. Technology and social aspect like community investing are more popular in USA. While Europe, the interest has been generally towards more broad and various responsible investment approaches.

Next, let us discuss sovereign green bond. Governments issue sovereign green bonds to raise money for projects that deal with the environment or climate. Investors, however, could require clarification on issues like interest rate, liquidity and trading. According to World Bank, a green bond is a debt security that is issued to raise money for initiatives that are relevant to the environment or climate. So, governments offer soaring green bonds to raise money for these kind of initiatives.The first ever green bond was issued by World

Bank in 2008 and ever since its issuance, the green bond market has experienced large spikes. Green bonds continue to be the most prevalent of the sustainable social green instruments among all the issuers worldwide. Social bonds were replaced by sustainability bonds as the second most common type of bond issued in this year in terms of dollars. Companies, nations and international organizations all offer green bonds with guaranteed fixed income payments to investors while only funding initiatives that benefit the environment or the climate. Now, in keeping with the ambition to significantly reduce the carbon intensity of the economy in India, the union budget 2022-23 announced the issuance of soaring green bonds.



And as part of Indian government's overall market borrowings in 2022-23 soaring green bonds that is SGB are issued for mobilizing resources for green infrastructure.

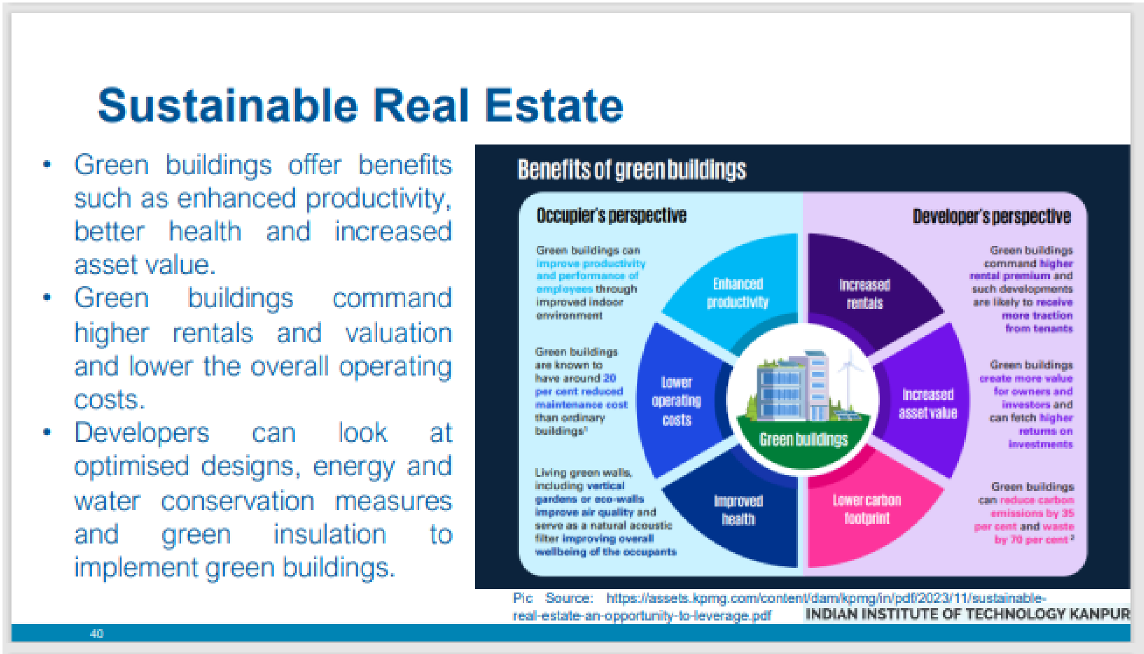
The proceeds will be deployed in public sector projects which help in reducing the carbon intensity of the economy. The issuance of soaring green bonds that is SGB will help government of India, GOI in tapping the requisite finance from potential investors for deployment in public sector projects aimed at reducing the carbon intensity of the economy. Now, here the green bond framework sets forth the obligation of the government of India as a green bond issuer. The framework applies to all the soaring green bonds issued by the government of India. Payments of principal interest on the issuance under this framework are not conditional on the performance of the eligible projects and investors in bond issued in this framework do not bear any project related risk.To summarize, in this video we discussed various AIG investment related financial market instruments. These included soaring green bond, SGB and green indices.

Continuing with our discussion on AIG investment avenues in financial markets that is AIG instruments, in this video we'll discuss sustainable real estate.

Starting with the discussion about sustainable real estate, the built environment contributes a substantial carbon footprint accounting for around 40% of annual global CO2 emissions. By 2040, it is expected that roughly two-third of the existing global building stock would continue to contribute to CO2 emissions, signifying challenges in meeting the Paris Agreement targets.Additionally, the global building floor area is estimated to grow two-fold by 2060, necessitating an additional 2.6 trillion square feet, that is approximately 240 billion square meter of new floor area to support urban expansion. As a result, lowering greenhouse gas emissions from buildings and construction would be crucial to maintain global warming and its effects. The real estate sector currently contributes for about 28% of the operational emissions and the remaining 11% from materials and construction. The real estate industry heavily relies on fossil fuel energy, not just for construction of new properties, buildings, but also to maintain the performance of existing properties.

It is therefore imperative for real estate firms to look at operations from the view of climate lens. Investors, developers and occupiers need to identify aspects and create strategies around sustainability to especially lower carbon emissions. For developing as well as developed countries, the real estate sector is one of the largest contributor to the GDP as well as environmental footprint. With rapid urbanization and increasing environmental concerns, it has become imperative for real estate sector to embrace sustainable practices. With significant portion of new construction focusing on high-rise buildings that are energy intensive, resource hungry and contribute to climate change, incorporating energy-efficient systems such as solar power, rainwater harvesting and smart building technologies not only reduces carbon emissions but also lowers operating costs for developers as well as occupants. Furthermore, the Indian government has recognized the significance of sustainability in the real estate sector and has introduced regulations and initiatives to promote it.

Certifications like Green Rating for Integrated Habitat Assessment, GRI, GRI drill and Leadership in Energy and Environment Design lead encourage developers to other to sustainable building practices.



Here, it must be noted that investors at the core of propelling sustainability are increasingly seeking environmentally responsible projects that align with their ESG i.

e. Environmental, Social and Governance goals driven by investor demand. Green building construction has also grown exponentially since 2010. Now, in this backdrop, sustainability is being incorporated across different phases of project life cycle. Starting from construction, developers can use sustainable materials for construction which includes use of recyclable and renewable materials. Such materials can minimize energy consumption and reduce waste production. Next, we have transactions between tenants and occupants. Occupancy decisions are now being influenced by building sustainability too which can bring about benefits such as reduced carbon footprint, comparatively lower operational cost and elevated indoor environment and employee productivity.Next, building operations, for example, sustainability in building operations can be elevated through aspects such as optimizing energy efficiency in HVAC systems i.e. heating, ventilation and air conditioning HVAC systems using air filter of minimum efficiency. Next, talking about sustainable real estate, sustainable transitions in land building, energy transport and cities together are taking shape of far reaching strategies that will aid the global carbon reduction roles. Green buildings can also reduce carbon emissions if they are built in green spaces, built in green spaces that are integrated into the design of green buildings provide a multitude of benefits from improved indoor environment quality to temperature regulation.

Green developments reduce the adverse impact on environment by limiting energy, water, waste and at the same time can save long-term energy costs. According to the US Green Building Council, UAGBC, maintenance cost for LWD certified buildings is about 20% lower than for regular buildings. Even old buildings retrofitted with green amenities can cut down on operation cost by 10% in just one year. So, green buildings offer benefits such as enhanced productivity, better health and increased asset value. Green buildings command higher rentals and valuation and lower the overall operating costs.

And lastly, developers can look at optimized designs, energy and water conservation measures and green installation to implement green buildings. So, to summarize this particular part about sustainable real estate, let's discuss the benefits of green building. So, you have from occupiers perspective of green buildings can increase productivity and performance of employees through improved indoor environment. Green buildings are known to have around 20% reduced maintenance cost than ordinary buildings. Living green walls include vertical gardens and eco walls improve air quality and serve as natural acoustic filter improving overall well-being of documents.From the developers perspective, green buildings command higher rental premium and such developments are likely to receive more traction from tenants. Green buildings create more value for owners and investors and can fetch higher returns on investments. And lastly, green buildings can reduce carbon emission by 35% and waste by 20%. So, overall, there is enhanced productivity, lower operating costs, improved health, low carbon footprint, increased asset value and increased rental as a overall benefit of green buildings. Lastly, we also talk about various green certifications for sustainable real estate and evolving platform to endorse green buildings.

Green certifications are a medium to validate a building as green. There are many green certification platforms that enable different levels of programs for entities to highlight their sustainable measures, products, services and practices. The world's first green building standard building research establishment environmental assessment method that is BRWAM was introduced by UK 1990 to create a more systematic and informed standards for green buildings. Next, early 2000 saw the formation of green rating and integrated habitat assessment degree and Indian Green Building Council IGBC also is there. These councils verify whether the building satisfy the set standards in energy, water, health and wellness and based at every step of the life cycle.Overall, over the years, several standards have been introduced globally to set benchmarks and assess whether a building is sustainable or not. To summarize this video, we discuss various aspects of sustainable real estate and green buildings. We also discuss how green buildings can benefit owners, buyers, real estate buyers, tenants and real estate developers. And we also discuss certain global certifications that set the benchmark and criteria and relevant parameters for green building construction.

In this video, we will talk about a very important platform related to EAG investment in financial markets that is sustainable stock exchanges.

To begin with sustainable stock exchanges in collaboration with investors, companies, regulators, policymakers and relevant international organizations, the sustainable stock exchanges that is SSE initiative is a global platform for exploring how exchanges can enhance performance on ESG that is environmental, social and governance issues and encourage sustainable investment.The SSE initiative seeks to achieve this mission through an integrated program of conducting evidence-based policy analysis, facilitating a network and forum for multi-stakeholder consensus building and providing technical assistance and advisory services. The current research and advisory are focused on five topics namely ESG disclosure, green finance, gender equality, SME growth and securities regulation. The SSE initiative is a UN partnership program organized by UNC-TAD and the global UN-IM compact, UNEPFI and PRI.We will discuss some of these organizations shortly. Stock exchanges are the sustainable stock exchange initiative primary partners. When joining the initiative, the exchanges make a public commitment to advancing sustainability in their market. There are around 100 SSE partner exchanges that is sustainability stock exchanges across the globe. Thus, this sustainability or sustainable stock exchange initiative is a UN partnership program organized by UNCTAD, UN global compact, UNEPFI and PRI. This SSE's mission is to provide a global platform for exploring how exchanges in collaboration with investors, companies that is issuers, regulators, policy makers and relevant international organizations can enhance performance on ESG that is environmental, social and corporate governance issues and encourage sustainable investment including the financing of the UN sustainable development goals. Thus, the SSE seeks to achieve this mission through an integrated program of conducting evidence-based policy analysis, facilitating a network and forum for multi-stakeholder consensus building and providing technical assistance and advisory services.

Let us discuss some of these very important organizations managing the show behind SSE. First, we have United Nations Conference on Trade and Development that is UNCTAD division on investment and enterprise. This division is recognized as a global center of excellence on issues related to investment and enterprise for sustainable development. Built on several decades of successful experience, its staff provides international expertise on research and policy analysis, intergovernmental consensus building and technical assistance to over 150 countries. Its flagship product is the annual World Investment Report and its main global stakeholder event is the biennial World Investment Forum.

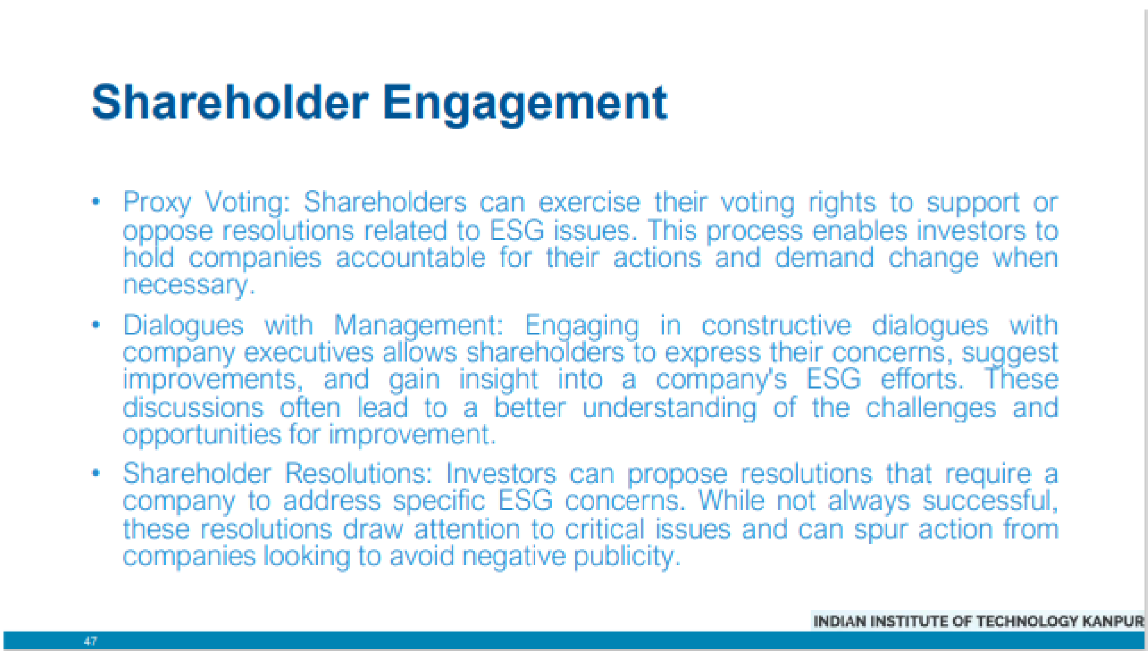
United Nations Environment Program Finance Initiative, UNEPFI. UNEPFI is a unique global partnership between the United Nations Environment Program, UNEPI and the global financial sector. UNEPFI works closely with over 200 financial institutions who are signatories to the UNEPFI statements and a range of partner organizations to develop and promote linkages between sustainability and financial performance. Through peer-to-peer networks, research and training, UNEPFI carries out its mission to identify, promote and realize the adoption of best environmental and sustainability practice at all levels of financial institution operations. The UN Global Compact is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with 10 universally accepted principles in the areas of human rights, labor, environment and anti-corruption. By doing so, business as a primary driver of globalization can help ensure the markets, commerce, technology and finance advance in ways that benefit economies and societies everywhere.Lastly, we have principles for responsible investment, PRI. The United Nations supported principles for responsible investment initiative is a network of international investors working together to put six principles for responsible investment into practice. The principles provide a voluntary framework by which all investors can incorporate ESG issues into their decision making and ownership practices and so better align their objectives with those of the society at large. To summarize this video, we discussed sustainable stock exchanges, their operations, their composition and also the key organizations behind the show. The Sustainable Stock Changes SSE initiative is a peer-to-peer learning platform, peer-to-peer learning platform for exploring how exchanges in collaboration with investors, regulators and companies can enhance corporate transparency and ultimately the performance on ESG that is environmental, social and corporate governance issues and encourage sustainable investment. Thus, the SSE is organized by the UN Conference on Trade and Development, UNCTAD, UN Global Compact, the UN Environmental Program Finance Initiative that is UNEPFI and the principles for responsible investment that is PRI.

In this video, we will discuss the role of shareholder engagement in the context of ESG investment avenues in financial markets.

To begin with, owning shares in a company gives investors a channel to raise environmental, social and corporate governance that is ESG issues of concern. By filling or co-filling advisory shareholder resolutions at US companies, which may proceed to a vote by all shareholders in the company, active shareholders bring important issues to the attention of company management, often winning media attention and educating the public. Moreover, resolutions need not come to a vote to be effective. The process of filing often prompts productive discussion and agreements between the filers and management that enable the filers to withdraw their resolutions. From 2020 to, first half 2022, 154 institutional investors and 70 investment managers collectively controlling a total of 3 trillion dollars in asset at the start of 2022 file or co-file shareholder resolutions on ESG issues.

Investors filed more than 750 resolutions relating to environmental, social and governance issues for the 2022 proxy season. The leading issue raised in shareholder proposals based on the number of proposals filed from 2020 to 2022 was on ensuring fair workplace practices and particularly on ending de facto discrimination based on ethnicity and gender. From 2020 through 2022, investors had filed a total of 311 proposals on these fair labour issues. Investors also focused on disclosure and management of corporate political spending and lobbying. Shareholders filed 288 proposals on the subject during this period, continuing a trend of several years, many of the target companies that have supported trade associations that oppose regulations to curb greenhouse gas emissions. In addition to filing or co-filing shareholder resolutions, investors can also actively vote their proxies, engage in dialogue with corporate management or join shareholder coalition as a means to encourage companies to improve their ESG governance practices.

In addition, investors can participate in public policy initiatives, working with government regulatory agencies and testify and report on ESG investment issues to congress or the government. Now, environmental, social or governance that is ESG investing has gained significant momentum in recent years, driven by growing awareness of the impact of corporations on the world around us. Investors are increasingly considering not only financial returns but also the broader societal environmental implications of their investments. In this context, shareholder engagement plays a pivotal role in shaping corporate behaviour and driving positive change.Let us try to unravel the role of shareholder engagement in the context of ESG investment. ESG investing is an approach that considers environmental, social and governance factors alongside traditional financial metrics when evaluating investment opportunities. Companies are associated based on their performance in areas such as carbon emissions, labour practices, board diversity and ethical leadership. ESG investors aim to align their investments with companies that demonstrate responsible business practices and sustainability efforts. While ESG investing continues to evolve, shareholder engagement has emerged as a powerful tool in influencing corporate behaviour.



Let us understand the power of shareholder engagement in this backdrop. Shareholder engagement refers to active involvement of investors and influencing a company s strategic decisions, policies and practices. This involvement can take various forms including proxy voting, dialogues with company management and filing shareholder resolutions. In the context of ESG investing, shareholder engagement is a means to encourage companies to improve their ESG performance and disclosure.Let us understand this one by one. First and foremost, proxy voting. Shareholders can exercise their voting rights to support or oppose resolutions related to ESG issues. This process enables investors to hold companies accountable for their actions and demand change when necessary. Dialogues with management. Engaging in constructive dialogues with management and company executives allows shareholders to express their concerns, suggest improvements and gain insight into companies ESG efforts.These discussions often lead to a better understanding of the challenges and opportunities for improvement. Lastly, shareholder resolutions. Investors can propose resolutions that require a company to address specific ESG concerns. While not always successfully, these resolutions draw attention to critical issues and can spur action from companies looking forward to avoid negative publicity. Now, there are several positive outcomes of such shareholder engagement. For example, improved ESG performance. Companies that engage with shareholders on ESG matters tend to enhance their ESG practices and reporting which can lead to improved long-term sustainability. Risk mitigation. Identifying and addressing ESG risk productivity can help companies avoid legal and reputational issues, ultimately protecting shareholder value. Enhanced transparency.

For example, shareholder engagement encourages companies to disclose more information about their ESG efforts allowing investors to make more informed decisions. Stakeholder alignment. Engaging with shareholders fosters alignment between a company's values and those of its investors leading to a stronger corporate culture. Market leadership. Companies that excel in ESG performance can gain a competitive advantage in attracting ESG-focused investors and customers.There are certain challenges also. Despite its benefits, shareholder engagement in ESG investing faces challenges. Some companies may resist change and not all shareholders are equally committed to ESG goals. Additionally, it can be challenging to measure the direct impact of shareholder engagement on ESG outcomes making it difficult to quantify the value of these efforts. To summarize this video, shareholder engagement in the context of ESG investing is a crucial catalyst for driving positive change in the ESG investing. As investors increasingly consider ESG factors in their decision making, companies are undergoing pressure to prioritize sustainability and responsible business practices through proxy voting dialogues with management and shareholder solutions.Investors can actively influence corporate behavior and contribute to a more sustainable and responsible business environment. Ultimately, the integration of ESG considerations into investment strategies coupled with effective shareholder engagement can lead to a more sustainable and equitable future for both companies and society at large.

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ESG investment avenues in Financial Market: Greenwashing

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In this video, we will discuss a very important concern in the context of ESG investment that is greenwashing.

Greenwashing

- The term greenwashing was first used by Jay Westerveld in the 1980's and it implies any dishonest practices used by businesses to represent themselves as more sustainable either by giving a false impression or providing misleading information as to the sustainability of a product/service.
- Greenwashing may be the result of a management team that doesn't understand the level of rigor required to prepare and present high quality ESG disclosure.
- Alternatively, some management teams may insist on including vague (or false) claims about sustainability efforts in their annual reporting in order to appear like they're engaging in legitimate ESG analysis – this, too, is greenwashing.

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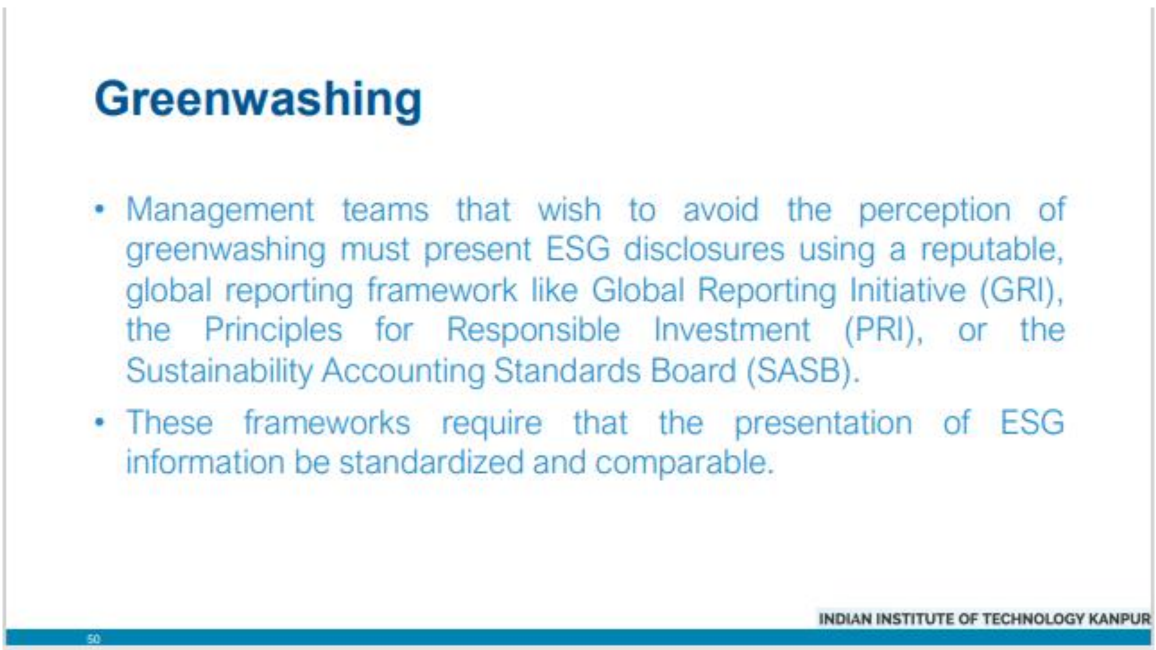
The term greenwashing was first coined in 1980s by J. Westwell and it implies any of dishonest practices used by businesses to represent themselves as more sustainable either by giving a false impression or providing misleading information as to the sustainability of their product and service.Let us try to answer the question why greenwashing matters. As emphasized in UK's financial services authority FCA ESG strategy, the increase in demand for private sector products with sustainable credentials is increasing exponentially. Currently, 35 trillion dollars of asset under management, ALM, are ESG labeled funds. While this in mind, it is everyone's interest that the market for sustainable financial products are robust and trusted. Greenwashing is a priority issue for financial services sector in most jurisdictions. The risk of greenwashing and consequently the focus by regulators, consumers and environmental groups has increased exponentially as consumers, investors, productively seek sustainable green and planet-friendly products and investments.

They are also challenging greenwashing by regulatory complaints, lawsuits and other actions. For example, the critical media attention experienced by producers and funders of single-use plastics. Next, the asset management sector is actively marketing ESG funds. However, such ESG funds may represent their ESG criteria and regulators worldwide are clamping down on these incidents of greenwashing. Last year, the UK's competition and market authority CMA published generic guidance on sustainability goals. Additionally, CMA's green claims code aims to protect consumers from misleading environmental claims and greenwashing.It also provides six key principles which serve as a valuable tool to help business avoid greenwashing. Similarly, US Securities and Exchange Commission, SEC is focusing on ESG issues. Its newly formed ESG task force will prioritize the investigation of climate and ESG-related misconduct this year. The FCA recognizes that over the last few years, their financial services sector has seen a dramatic rise in ESG and sustainable investments, which has led to increasing concerns about firms confusing or even misleading consumers about the nature of some of these investments. The next important question to be answered is how do you avoid it? So, although greenwashing is not easy to avoid, you can take certain steps to mitigate the risk of greenwashing claims.

First, through education by implementing programs to upskill the board and employees on the fundamentals of ESG and the risk of greenwashing. Next is ESG governance. Embed ESG criteria and existing risk management procedures and controls consider introducing a B-scope ESG policy. ESG governance can assist the businesses to follow and have evidence of robust process to make accurate public statements and claim about how green or sustainable your products and services are. Third, evolving regulation. Regulations will likely help avoid the risk of greenwashing. For example, the EC, European Commission is seeking to strengthen national authorities ability to deal with greenwashing in a coordinated manner. And lastly, regulator industry guidance. So, one needs to be mindful to help ensure that any green or sustainable claims comply with the CME Green Claim Code principles as well as any guidance released by industry. The next question is to be answered is why do management teams engage in greenwashing? So, collectively global efforts for greater sustainability have created the need for firms of all sizes to be more transparent about what they are doing to manage environmental, social and governance risks.As a result, stock changes, regulatory bodies and other government agencies have mandated ESG related reporting. This reporting is widely known as ESG disclosures. Management teams, particularly of publicly traded companies must now disclose information about the firm s environmental stewardship, its social impact and its corporate governance practices and those that do not are suffering serious reputational and consequences in the market. And in this backdrop, greenwashing may be the result of management team that does not understand the level of rigor required to prepare and prevent high quality ESG disclosure. Alternatively, some management teams may insist on including vague or false claims about sustainability efforts in their annual reporting in order to appear like they are engaging in the legitimate ESG analysis. This too is also greenwashing. In this backdrop, one can understand the greenwashing is when a management team makes incomplete, unsubstantiated and outright false claims around the sustainability characteristics of a product service or a firm s actual operations.



Thus, greenwashing tends to occur when management teams wish to appear that they are engaged in rigorous ESG analysis given the presence to do so in today s business environment. So, the management teams that wish to avoid the perception of greenwashing must present ESG disclosures using a reputable global reporting framework like Global Reporting Initiative of GRI, Principles for Responsible Investment, PRI or the Sustainability Accounting Standards Board, SASB. These frameworks require that the presentation of the information should be standardized and comparable. To summarize this video, we try to answer three questions. First, what is greenwashing? Second, why do firms engage in greenwashing and falsify information? And lastly, what is the right approach to present accurately the ESG-related and socially responsible investing practices in the firm s books?

Future Course of Action and Way Forward

In this video, we ll discuss the future course of action and way forward in the context of socially responsible investing. The growth of sustainable investment market is poised to accelerate with institutional investors increasingly embracing sustainable investment, more sustainable investment products being developed, and the proliferation of green initiatives and regulations.

A Triple Challenge

- The niche market risk: As long as it remains a niche market, there is a risk that sustainable funds become a vehicle merely designed to meet the market need for sustainability-aligned products, while other funds continue investing in not so sustainable but potentially profitable opportunities.
- The geographical imbalance: Sustainable funds largely remain a developed country phenomenon.
- Sustainability washing concerns: The credibility of sustainable funds needs to be enhanced to attract investment flows to support the growth of the market.

However, the global sustainable fund market needs to address a triple challenge in order to fully unleash the potential to finance sustainable development. First, the niche market risk. As long as it remains a niche market, there is a risk that sustainable funds become a vehicle merely designed to meet the market need for sustainability aligned products, while other funds continue investing in not so sustainable but potentially profitable opportunities. This will hold down the sustainable performance of overall fund market and also calls into question the impact of sustainable funds. Next, we have geographical imbalance.

Sustainable funds largely remain a developed country phenomena. The vast majority of these funds are domiciled in developed countries and therefore, largely remain a developed country phenomena. And therefore, before developing countries are engaged in and benefit from the development of the sustainable fund market, the development impact of sustainable funds remain doubtful. Lastly, sustainability washing concerns. The wide differences in the sustainability ratings of the underperforming sustainable funds suggest that a large share of these funds may not meet their self-declared sustainable credentials. The credibility of sustainable funds needs to be enhanced to attract investment flows to support the growth of this market.

In this backdrop, the following three course of action or areas of action and associated measures could help address the challenges that we discussed. First, the growth of the sustainable fund market depends on and benefits from continuous improvement in the sustainability of overall global fund market. And therefore, sustainability integration should not be limited to the sustainable funds. Instead, all market players should strive to make all financial instruments in the market meet minimum standards of EAG compliance in the long run and take actions to channel more investment into a TIG that is sustainable development goals related sectors and areas with the need to generate positive development impact from the ground. Second, the market share of developing and transition economies needs to be significantly enhanced in order to fully harness the potential of the sustainable fund market for sustainable development.For this purpose, measures should be taken by developing and transition economies to jumpstart their domestic sustainable fund market. For example, stock changes in developing and transition economies could set up a dedicated sustainable exchange traded fund CTF segment to support the growth of sustainable funds as China and India are doing for their green bond segment. Incentives could be provided for the development of and investment in sustainability aligned funds. Meanwhile, more funds targeting developing and transition economies need to be launched in developed markets. Lastly, the best way to enhance the credibility of the sustainable fund market and thus address sustainability washing concerns is to improve transparency through reporting not only on ESG issues but also on SBG alignment.

Today, most of the world's largest company report on ESG or SBG issues but very few funds are reporting on their own sustainability performance. To summarize, in this video, we will discuss the challenges and way forward. First, we noted the three key or triple challenge associated with sustainable investing. First is the niche market risk, geographical imbalances and sustainability washing concerns. Next, we also discussed the key areas of action that could help avoid or circumvent these triple challenges. First, we noted that all market players should strive to make financial instruments in the market with minimum standards of ESG compliance.Second, we noted that the market share of developing and transition economies needs to be enhanced. And lastly, we also noted the third course of action is to enhance the credibility of the sustainable fund market to address the sustainability washing concerns. To summarize this lesson, we noted that green investments include a large number of activities including green projects, green jobs, green assets, for example green buildings, green security, green company, green bank and green funds among others. It can be depicted through a green investment pyramid with green fund and green investment manager at the top.One can use pharma-french three-factor models and similar other models for performance evaluation of green funds vis-a-vis conventional funds. The two key performance parameters are referred to as timing and selectivity. Selectivity involves identifying underpriced or overpriced securities while timing involves predicting the performance of a particular risk or style and taking long or short positions in the same. We also noted that the universe of sustainable investments is limited which may result in less diversification of the portfolio and thus than the performance. However, over time green fund managers become more specialized and choose good performing stocks.We also noted that shift towards sustainable investments can transform economy through two channels. First, the supply of capital and cost of capital channel. It results in firm investments towards desirable sustainable projects. Next, we have through stewardship activities by the fund sector. It can also push the corporate sector to implement policies that can drive this desirable transformation towards sustainable project activities. Next, we discuss the rules and regulations related to SRI in major economies such as US, EU, European Union, Canada, Japan, India, Australia, New Zealand. We noted that all these major economies have taken considerable steps to promote green and sustainable investments.

In this backdrop, various green and HD investment avenues include green indices, soaring green bond and sustainable real estate. Another major development is the creation of sustainability stock exchanges. We also noted that shareholder engagement can provide the much desirable push to sustainable investment activities. One concern in this investment domain is green washing which is defined as any dishonest practices used by businesses to represent themselves as more sustainable either by giving a false impression or providing misleading information as to the sustainability of products and services. A concerted effort from all the stakeholders including corporates, regulators and investors is required to ensure the reliability and validity of green metrics such as AIG scores. The market for sustainable funds faces the triple challenge of first A being a niche market, B the geographical imbalance and C sustainability washing concerns. The key areas of action to improve the landscape are first, concerted efforts by all the market participants, B increasing the roles of developing and transition economies and C a comprehensive approach to improve the credibility of sustainable fund market and lay the concerns related to sustainability washing concerns. .