

# **Advanced Financial Instruments for Sustainable Business and Decentralized**

## **Markets**

**Prof. Abhinava Tripathi**

**Department of Management Sciences**

**Indian Institute of Technology, Kanpur**

**Lecture 34**

**Week 12**

In this lesson, we will introduce the concept of Sustainable Finance and Sustainable investing. We will also discuss the latest trends, developments and terminologies used in the area of Sustainable investing. We will discuss the concepts of Thematic investing, Impact investing and Sustainable investing. We will also discuss the ESG integration in sustainable investing. Next we will introduce the concept of socially responsible investing in the backdrop of stakeholder value maximization and compare it with shareholder value maximization. We will also discuss the history of socially responsible investing.

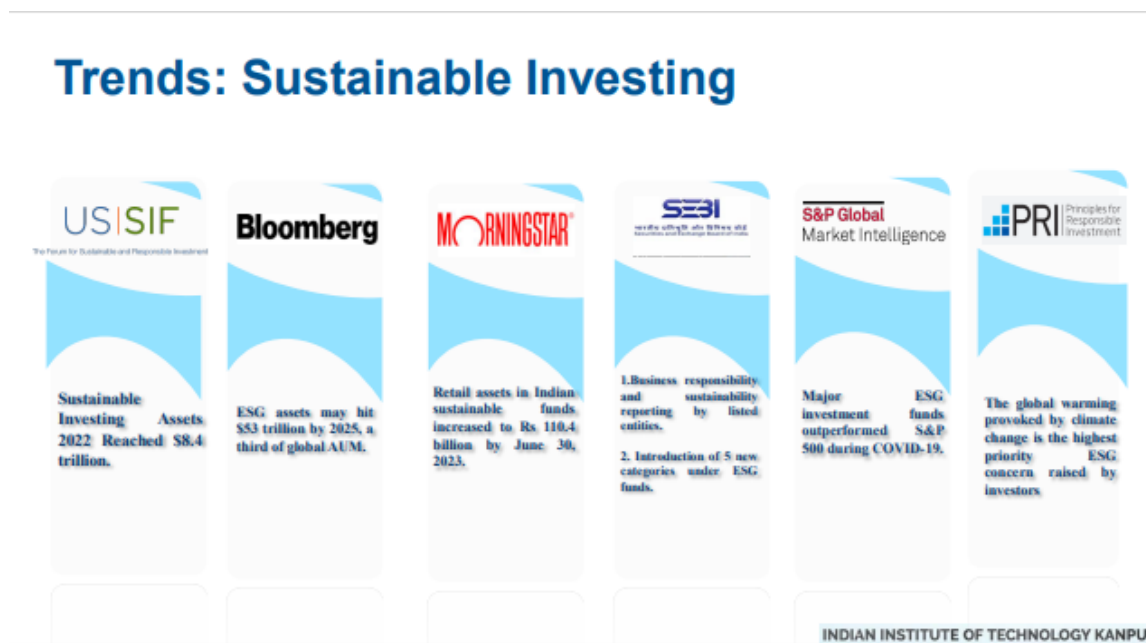
Next we will introduce some of the financial instruments that are a part of SRI including ESG stocks, Thematic funds and Green bonds. Next we will discuss the concept of investment screens and in particular we will discuss positive and negative screening. We will also discuss the third and fourth generation screens and norms based screening. We will discuss the relationship between financial performance and screening intensity and then we will introduce SRI mutual funds that is socially responsible investing based mutual funds.

We will discuss the cost and benefits of SRI based mutual funds and conclude the discussion.



# Sustainable Finance: Socially Responsible Investing

In this video, we will introduce the concepts related to Sustainable finance and socially responsible investments.



Let us discuss some of the trends in Sustainable investing first. Over the past few years, the growth of some types of mutual funds have been particularly remarkable. In particular among these, one may highlight the socially responsible investment mutual funds which have paralleled the growth in the various financial market instruments. These SRI

investment funds even outperformed S&P 500 during the COVID-19 pandemic. As per the principles for responsible investment report, the global warming provoked by climate change is the highest priority and ESG concerns raised by investors. This principle for responsible investment were developed by an international group of institutional investors reflecting the increasing relevance of environmental, social and corporate governance issues to investment practices. The process was convened by the United Nations Secretary General. A recent report by US, the Sustainable Investment Forum SIF highlights that sustainable investing assets reached \$8.4 trillion by 2022. The Bloomberg also expects the ESG funds may hit \$53 trillion by 2025, third of global asset under management. Talking about the growth of such assets in developing nations like India, we can look at the facts of report by Morningstar that highlights that retail assets in Indian sustainable funds have increased to 110 billion rupees by June 2023. The growth of such funds in India could be because of developing rules and regulations regarding SRI particularly by SEBI. For example, business responsibility and sustainability reporting by listed entities made mandatory by SEBI and introduction of different new categories in particularly five by degrees under ESG funds. So these are the initiatives taken by regulatory authorities such as SEBI on developing rules and regulations. So we can see from these reports and developments, the increasing demand for SRI or socially responsible investing across the world including India. As companies are increasingly encouraged to be sustainable, some investors face increased pressure from asset owners to focus more on sustainability. Investing sustainably doesn't mean that you must forfeit financial returns. While it is impossible to always guarantee high returns, ESG funds and investments can perform as well if not better than non ESG funds.

## Sustainable Finance

- Sustainable finance refers to the process of taking environmental, social and governance (ESG) considerations into account when making investment decisions
- Sustainable finance is about financing both what is already environment-friendly today (green finance) and what is transitioning to environment-friendly performance levels over time (transition finance).
- Transition finance is about financing private investments to reduce today's high greenhouse gas emissions or other environmental impacts and transition to a climate neutral and sustainable economy.
- Sustainable finance also encompasses transparency when it comes to risks related to ESG factors

It is important to become familiar with the sustainable investing practices so you can

determine where and if to invest based on your values and investing trends. Sustainable finance refers to the process of taking environmental, social and governance that is ESG considerations into account when making investment decisions in the financial sector, leading to more long-term investments in sustainable economic activities and projects. Sustainable finance is about financing both what is already environment friendly today that is green finance and what is transitioning to environment friendly performance levels over time that is transition finance. Transition finance is about financing private investments to reduce today's high greenhouse gas emissions or other environmental impacts and transition to a climate neutral and sustainable economy. For instance, these could be investments in green production methods or reducing the environmental footprint as far as possible where no green technologies are yet available. Transition finance is urgently needed to reduce greenhouse gas emissions by 55% of our current environmental impact by 2030. It is often needed by companies that want to become sustainable but need to do so in steps over time, in other words, companies with different starting points that want to finance their journey towards a sustainable future. Sustainable finance refers to the process of taking environmental, social and governance considerations into account when making investment decisions, particularly in the financial sector, leading to more long-term investments in sustainable economic activities and projects. Sustainable finance is understood as finance to support economic growth while reducing pressures on the environment to help reach the climate and environmental objectives along with the social and governance aspects. Sustainable finance has a key role to play in delivering on the policy objectives related to achieving social development goals, SDGs and other international commitments on climate and sustainability objectives.

Sustainable finance does this by channeling private investments into the transition to a climate neutral, climate resilient, resource efficient and fair economy as a complement to the public money. Sustainable finance will also help to ensure that investments support a resilient economy and a sustainable recovery from the impact of COVID-19 pandemic. Sustainable finance also encompasses transparency when it comes to risks related to environmental, social and governance i.e. ESG factors that may have an impact on financial system and mitigation of such risks through appropriate governance of financial and corporate sectors. To summarize, in this video, we discussed what is sustainable finance, what are the current developments and how much investment is flowing into this sector and lastly, we also tried to define sustainable finance in common parlance.



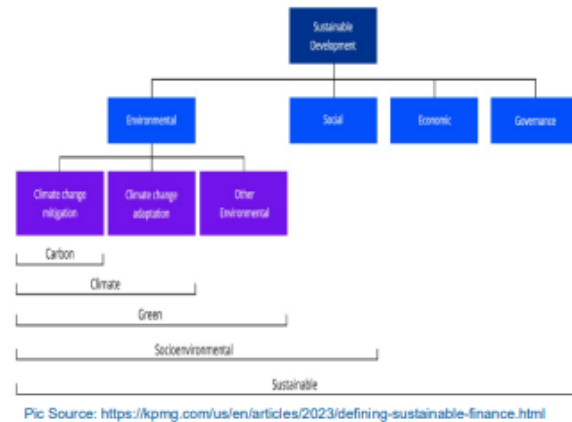
## Sustainable Investing

In this video, we will discuss the concept of sustainable investing. Let us first answer why sustainable finance is relevant. Mounting regulatory and financing pressures are placing sustainability at the forefront of the investment world. Climate regulation has propelled the finance revolution. In the US alone, enhanced SEC Security Exchange Commission climate-related disclosure requirements are there since 2023. They will push organizations to formally adopt sustainability principles. In the European Union, new CSRD standards, Corporate Sustainability Reporting Directive standards supported by the Green New Deal enforce address to strict climate-related rules and targets. Globally, the 2015 Paris Agreement underscored a plethora of countries ready to submit and commit to a greener, cleaner future. The investment requirement to support a decarbonized world is immense.

The UN estimates that global investment needed to achieve UN Sustainable Development Goals is between \$5 trillion to \$7 trillion annually. The capital demanded was the capital supplied towards sustainable development. Given this looming financing gap, coupled with national decrease to achieve climate goals and minimize climate risk, sustainable financing confers an alluring and timely set of solutions. In this backdrop, investors can use several strategies to build and diversify their portfolios to ensure financial success. One emerging trend changing the way businesses and investors think about investing is a concept known as sustainable investing. Sustainable investing has helped shape the world by contributing to positive social change. It is also proven that individuals and businesses can financially benefit by making their investments more sustainable. By solidifying sustainable business strategies, purpose-driven leaders and organizations can thrive as they solve the world's biggest challenges. Here's an overview of what sustainable investing is, what it means for companies and investors and how it can help improve the portfolio and the world.

## Sustainable Investing

- Sustainable investing refers to a range of practices in which investors aim to achieve financial returns while promoting long-term environmental or social value.
- Combining traditional investment approaches with environmental, social, and corporate governance (ESG) insights has led to investors generating more comprehensive analyses and making better investment decisions.



INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Traditional investing delivers value by translating investor capital into investment opportunities that carry risks commensurate with expected returns. Sustainable investing balances traditional investing with environmental, social and governance related insights to improve long-term outcomes. Here, sustainable investing refers to a range of practices in which investors aim to achieve financial returns while promoting long-term environmental or social value. Combining traditional investment approaches with environmental, social and corporate governance i.e. aging insight has led to investors generating more comprehensive analysis and making better investment decisions.

Sustainable investing thus ensures that firms aren't judged solely on short-term financial gains but on a broader picture of what and how they contribute to society. Investors must think carefully and critically about investment potential impact as they relate to environmental, political and societal landscapes. Thus, there are several motivations for sustainable investing including personal value and goals, institutional mission and demands of clients, constituents and plan participants. Sustainable investors aim for strong financial performance but also believe that these investments should be used to contribute to advancements in social, environmental and governance practices. They may actively seek out investments such as community development, loan funds or clean tech portfolios that are likely to provide important societal or environmental benefits. Some investors embrace sustainable investing strategies to manage risks and fulfil fiduciary duties. They review this ESG criteria to assess the quality of management and the likely resilience of their portfolio companies in dealing with future challenges. Some are seeking financial performance over the long term. A growing body of academic

research shows a strong link between ESG and financial performance. In this backdrop, let us understand this three chart. Sustainable finance here is an overarching term referring to investment process accounting for and promoting environmental and social factors. These environmental social factors as illustrated in this diagram. While covering a broad swath of activities, we will also focus on a subject of sustainable development that is environmental and green finance. Environmental finance here represents financing focus solely on environmental issues such as decarbonisation and biodiversity loss. This is environmental finance. It includes an array of financing vehicles that channel capital into green labeled projects. For example, climate change mitigation or adaptation efforts. These efforts and investment activities are often grouped within socio-environmental financing. Socio-environmental financing which directs financing towards social and environmental issues. The various types of environmental finance are as follows. First is socio-environmental finance. Under this type of finance, projects that harm or potentially damage the environment are prohibited from funding. This concept is broader than green finance. It is a broader umbrella under which green finance is there. In that it focuses on economic growth which may not contribute to environmental outcomes as well. Next we have environmental or green finance. This encompasses all types of projects that are concerned with either optimizing environmental benefits or reducing and adapting to environmental risks. Next we have climate finance. Climate finance refers to financing methods that catalyze low carbon and climate resilient developments. There are two important aspects to it. One is climate change mitigation. Climate change mitigation includes avoiding and reducing emissions of heat trapping green house gases into the atmosphere to prevent the planet from warming to more extreme temperatures. And the second is climate change adaptation. Climate change adaptation includes altering of our behavior systems and ways of life to protect the environment from impacts of climate change.

## Sustainable Investing across the Globe

- In November 2023, the Global Sustainable Investment Alliance (GSIA) published the sixth edition of the biennial Global Sustainable Investment Review (GSIR), finding that US\$30.3 trillion is invested in sustainable assets globally.
- Sustainable investment across Europe, Canada, Japan, Australia and New Zealand has reached USD21.9 trillion in assets under management (AUM), having grown by 20% in the last two years.

Snapshot of global sustainable investing assets, 2016- 2022 (USD billions)

REGION	2016	2018	2020	2022
Europe	12,040	14,075	12,017	14,054
Canada	1,086	1,699	2,423	2,358
Australia & New Zealand	516	734	906	1,220
Japan	474	2,180	2,874	4,289
<b>Sub-total (USD Billions)</b>	<b>14,115</b>	<b>18,688</b>	<b>18,220</b>	<b>21,921</b>
% change		32%	-3%	20%
United States	8,723	11,995	17,081	8,400
<b>Total (USD Billions)</b>	<b>22,838</b>	<b>30,683</b>	<b>35,301</b>	<b>30,321</b>
% change		34%	15%	n/a

Pic source: <https://www.gsi-alliance.org/wp-content/uploads/2023/12/GSIA-Report-2022.pdf>

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Let us put some numbers here. In November 2023, the Global Sustainable Investment Alliance published the sixth edition of the Ban E Global Sustainable Investment Review Report, GISIR, finding that approximately 30.3 trillion is invested in global sustainable assets. Sustainable investment across Europe, Canada, Japan, Australia and New Zealand has reached approximately 21.9 trillion in asset under management EU and has grown by 20% in the last two years from 2020 to 2022. In Europe itself, sustainable investing grew from 12 trillion in 2020 to 14 trillion in 2022. However, the growth in sustainable investing failed to keep pace with the broader market growth. This has been a long term trend in Europe where the percentage of assets defined as sustainable has been declining by around 5% each year. This could be in part due to increasing regulatory requirements regarding disclosures and a shift to more risk averse reporting approach as part of an overall picture of increasing maturity of sustainable investing definitions and approaches as the industry develops. This trend is also reflected in Canadian market where the reported sustainable investing assets were broadly starting from 2.42 dollar trillion in 2020 to 2.36 dollar trillion in 2022 due to more conservative reporting. However, the percentage of sustainable investing assets dropped from 62% in 2020 to 47% in 2022. In contrast, there continues to be strong growth in the Japanese market which has seen sustainable investing assets grow from 2.9 trillion in 2020 to 4.3 trillion in 2022. Sustainable investing has grown from 24% of the market in 2020 to 34% in 2022. The Australian and New Zealand market has grown on an absolute basis from 906 billion to 1.22 trillion in 2022. The US market for sustainable investments has dropped materially from 17.1 trillion to approximately 8.4 trillion due to change in metallurgy. To summarize, in this video, we broadly discussed the concept of sustainable investing and the taxonomy of sustainable investing throughout the year structure. We also gave a brief picture of the amount and levels of sustainable investing



across the globe including the major countries such as US, Euro region, Canada, Australia and so on.



In the next two videos, we will discuss some of the terminologies employed in sustainable investing.

## Thematic Investing

- Thematic investing involves constructing a portfolio of assets, chosen via a top-down process, that are expected to benefit from specific medium- to long-term trends.
- Thematic investing enables investors to increase their investment exposure to a trend. Some investors use thematic investing to access specific trends that they believe will shape the medium- to long-term trajectory of the economy and result in higher investment returns.
- There is a distinction between thematic investing, which is an approach for selecting assets to access specified trends, and a “thematic fund,” which is a term often used to characterize a portfolio that is focused on a particular interest or area. Thematic investing often—but not always—results in a focused portfolio, but not all focused portfolios are the result of thematic investing.

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

To begin with, thematic investing involves constructing a portfolio of assets chosen by a top-down process that are expected to benefit from a specific medium to long-term trend. So, we can say that thematic investing is underpinned by the belief that economic, technological, demographic, cultural, political, environmental, social and regulatory

dynamics are key drivers of investment risk and return. Therefore, thematic investing is an approach to selecting assets that are strongly connected to these dynamics. We can say that thematic investing enables investors to increase their investment exposure to a trend. Some investors use thematic investing to access specific trends that they believe will shape the medium to long-term trajectory of the economy and result in higher investment returns. Other investors access specified trends to diversify their portfolio or hedge against specified economic risks. A portfolio of assets selected for their connection to a trend will often have a risk-ridden profile that is different from a broad market index. Finally, some investors access specified trends for the purpose of increasing their association and involvement with those trends. For example, investors may fund a sustainable agricultural project with the aim of supporting the trend toward greater use of these practices in addition to benefiting from future demand for sustainably produced farm products. Now, there is a distinction between thematic investing which is an approach for selecting assets to access specified trends and a thematic fund which is a term often used to characterize a portfolio that is focused on a particular interest or area. Thematic investing often but not always results in a focused portfolio but not all focused portfolios are the result of thematic investing.

So thematic investing focuses on forecasted trends and assets relevant to the trends. Some examples of ESG trends include climate change and the shift to more circular economy. Trends tend to be medium to long-term in duration, regional or global in scope and cross-cutting with respect to traditional industry or sector boundaries. Thematic investing can be focused on a single trend or several related trends. For example, a thematic investor might simultaneously seek to gain exposure to assets that will benefit from an aging population, increasing urbanization and population growth trends. Thematic investing differs from constructing a portfolio with a particular focus. For example, investors may wish to invest in a portfolio of veteran-owned businesses because they want to support veterans while earning a financial return. However, this would not constitute thematic investing unless a case is made for how veteran-owned businesses enable access to a specified trend or trends. Investors should not characterize their approach to asset selection as thematic investing unless they can credibly demonstrate that first, the trends that are considered when selecting assets. So, they need to identify the trend. Second, how significant portion of assets in a portfolio are connected to those trends. And third, how those trends relate to economic, technological, demographic, cultural, political, environmental, social and regulatory dynamics.

## Impact Investing

- Investment enables economic activities, which have positive and negative effects on the environment and society. Impact investing aims to contribute to or catalyze positive effects (e.g., improvements in people's lives and the environment) while achieving a financial return.
- Impact investing requires a “theory of change”—that is, a credible explanation of the investor's contributory and/or catalytic role, as distinct from the investee's impact. Allocating capital to investees that have a net positive impact is not impact investing unless there is a credible expectation that the investor will play a contributory or catalytic role in generating an improvement over the status quo.

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Next we will discuss impact investing. So, investment enables economic activities which have positive and negative effects on environment and society. Impact investing aims to contribute or catalyze positive effects, for example, improvements in people's life and environment while achieving a financial return as well. So, we can say that impact investing pursues two distinct objectives. One, an improvement in social and environmental conditions and two, a financial return on capital investment. Now, it is possible to identify impacts resulting from an investment. It is possible to identify impacts resulting from an investment, but impact investing is investing in order to generate positive impacts. So, impact investing can be pursued across a range of asset classes including fixed income, real assets, private equity and listed equity investments. An intention to generate a positive, measurable social and environmental impact alongside a financial return does not guarantee these outcomes. Here, impact investing requires a theory of change that is a credible explanation of the investor's contribution or catalytic role as distinct from the investor's impact. Adding capital to investees that have a net positive impact is not impact investing unless there is a credible expectation that the investor will play a contributory or catalytic role in generating an improvement over this status quo. So, we can say that impact investing aims to generate positive impact. It requires accounting for whether and to what extent intended environmental or social improvements actually occur. This measurement can be based on generally accepted metrics for impact measurement and management, such as published by IRIS, Global Impact Investing Network or other environmental and social impact metrics such as those of Global Reporting Initiative, GRI and Future Business benchmark. Examples of metrics used to correct positive impact include the following, may be renewable electricity capacity added in megawatt-hours, an increase in water treated or saved in mega-litres, an increase in affordable housing units in terms of number units and so on. Now, to summarize, let us differentiate between thematic investing and

impact investing clearly. So thematic investing, as we discussed earlier, is another way to buy shares or make investments that benefit from a certain trend. This trend does not necessarily have to be related to sustainability or social issues. It can range from hydrogen and electric cars to remote working and meat alternatives. It may also involve higher risk as investments are concentrated in one industry or sector, potentially leading to increased volatility also. Thematic funds focus on an investment theme such as climate change, resource scarcity or energy infrastructure. Now, in contrast, for example, Global Impact Investing Network, GIN, defines impact investing as investments specifically aimed to address social or environmental changes such as changes in education, clean energy and healthcare, more specifically improvement in these aspects. It can therefore be seen as a subset of thematic investing. Furthermore, impact investing particularly draws upon the concept of measurability and quantification of impact. Impact funds strive to make a measurable difference on society and the environment based on specific goals.



## Terms used in Sustainable Investing: Part II

In this video, we will conclude our discussion on sustainable investing terminologies. We will discuss the ESG investment approach.

## ESG Integration

- ESG integration is the incorporation of ESG factors into an investment process, based on the beliefs that ESG factors can affect the risk and return of investments.
- Why is ESG here to stay?
- Our world faces several global challenges: climate change, transitioning from a linear economy to a circular one, increasing inequality, balancing economic needs with societal needs
- More and more investors are incorporating ESG elements into their investment decision making process, making ESG increasingly important from the perspective of securing capital, both debt and equity.

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

An ESG investment approach that focuses on systematic consideration of material ESG factors in a certain location, security selection and portfolio construction decisions for the purpose of achieving the product's stated investment objectives. ESG integration is the incorporation of ESG factors into an investment process based on the belief that ESG factors can affect the risk and return of investments and that ESG factors are not fully reflected in asset prices. ESG integration involves seeking out ESG information, assessing the materiality of that information and integrating information judged to be material into investment analysis and decisions. ESG integration requires that ESG factors be considered in both the analytical and decision making components of the investment process. Analytical components of an investment process include but are not limited to financial analysis, security analysis, issuer analysis, industry analysis, scenario analysis and regression analysis. Decision making components of an investment process can include asset allocation, security selection and portfolio construction decisions. Consideration of ESG factors outside the investment analysis and decision making components of the investment process is not ESG integration. For example, when establishing ESG related investment objectives or constraints using an ESG index as an investment universe or performance benchmark and undertaking proxy voting and engagement. ESG integration is based on the belief that risk adjusted investment returns can be improved through integration of ESG factors that are not fully reflected in asset prices. The ESG factors a manager selects for further analysis therefore reflect their hypothesis about what the factors are. First, potentially material to investment risk and return and second not fully reflected in valuations. The aim to improve risk adjusted return necessitates that only ESG factors that are material to risk and return should be reflected in decision making. Materiality is contextual that is the materiality of ESG factors depends on the investors objectives and time horizon and

the specifics of the investment. Materiality is also dynamic. The materiality of a specific ESG factor may change over time. In ESG integration, investments impact on environmental and social conditions are not reflected in investment decisions unless those impacts are judged to be financially material to the investment. ESG integration does not prescribe or preclude any investment opportunity and is therefore wholly consistent with optimizing investors risk adjusted returns. If a fund or strategy has constraints on the investment universe, ESG integration can be part of a strategy to optimize risk adjusted returns within such constraints. Next, we will answer the question why ESG is here to stay. Our world faces several global challenges. Climate change transition from a linear economy to a circular one, increasing inequality, balancing economic needs with societal needs.

Investors, regulators as well as consumers and employees are now increasingly demanding that companies should not only be good stewards of capital but also of natural and social capital and have the necessary governance framework in place to support this. More and more investors are incorporating ESG elements into the investment decision making process, making ESG increasingly important from the perspective of security capital both debt and equity.

## What falls under the Environmental, Social, Governance (ESG) Pillars?

- **Environment:** Emissions such as greenhouse gases and air, water and ground pollution emissions. Resources use such as whether a company uses virgin or recycled materials in its production processes **From a reporting perspective this is the most complex pillar.**
- **Social:** Under the Social Pillar companies report on how they manage their employee development and labour practices.
- **Governance:** The main issues reported under the Governance Pillar are shareholders rights, board diversity, how executives are compensated and how their compensation is aligned with the company's sustainability performance.



Pic source: <https://www.ussif.org/sribasics>

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

What falls under ESG pillars that is environmental, social and government pillars? As we can see from this circle, we have three components, environmental, governance and social. Let us discuss them one by one. So, the environmental component includes emissions such as greenhouse gases and air, water and ground pollution emissions, resources such as

whether a company uses virgin or recycled materials in the production process.

From reporting perspective, this is the most complex pillar. And again, we reiterate that resources used such as whether a company uses a virgin or recycled material in its production process and how a company ensures that from cradle to grave, the maximum material in their product is cycled back into the economy rather than ending up in a landfill. Similarly, companies are expected to be good stewards of water resources, land use concerns like deforestation and biodiversity disclosures all fall under the environmental pillar. Companies also report on positive sustainability impacts they might have, which may translate into long term business advantage. Again, from a reporting perspective, this is the most complex pillar. So, we have with environmental like pollution, clean technology, climate change, green building, smart growth, water use and conservation, sustainable nature resource, agriculture. Under the social pillar, companies report on how they manage their employee development and labour practices. They report on product liabilities regarding the safety and quality of their product. They also report on their supply chain labour and health safety standards and controversial sourcing issues. Where relevant companies are expected to report on how they provide access to their products and services to underprivileged groups. So, with social you have workplace safety, labour relations, workplace benefits, diversity, community development, human rights, avoidance of tobacco and other harmful products and so on. With governance, the main issues reported under the governance pillar are shareholder rights, board diversity, how executives are compensated and how their compensation is aligned with the company's sustainability performance. It also includes matters of corporate behaviour such as anti-competitive practices and corruption. So, with governance, you have corporate political contributions, executive compensation, board diversity, anti-corruption policies, board independence and so on. Of course, not all sectors of the economy face the same age issues. For example, in the case of banks, the NOF gas emissions are not as important as are in the case of energy.

These differences in what matters to a particular sector from an energy perspective is called materiality. Companies report on issues that are material to them. Typically, materiality is determined based on what energy issue is considered financially material in a given industry. Financial material issues are those that can impact a company's financial performance. For example, unexpected surplus costs, fines, loss of bond value, loss of revenues due to consumers choosing more sustainable alternatives and so on.

Increasingly, double materiality is being recognised as an important concept in choosing what is considered material by a company. Double materiality means alongside financial materiality issues, social material issues are also being treated as material. To summarise this video, we discussed what is EHE investing. It has three components environmental,

corporate governance and social. We discussed all these components individually in grade detail.



## Socially Responsible Investing: Part I

In this video, we will discuss Socially Responsible Investing.

### Socially Responsible Investing (SRI)

- SRI is an investment process that integrates social, environmental, and ethical considerations into investment decision making.
- Unlike conventional types of investments, SRI apply a set of investment screens to select or exclude assets based on ecological, social, corporate governance or ethical criteria
- Why investors invest in SRI? Investors may have a multi-attribute utility function, we expect: (i) further SRI growth even if the risk-adjusted SRI returns are lower than those of conventional investments, and (ii) less sensitive SRI money-flows to past performance.

Over the past decade, socially responsible investments also called ethical investments or sustainable investments have grown rapidly around the world. SRI is an investment process that integrates social, environmental and ethical considerations into investment decision



making. Unlike conventional types of investments, SRI investment suppliers set up investment screens to select or exclude assets based on ecological, social, corporate governance or ethical criteria and often engages in the local communities and in shareholder activism to further incorporate strategies towards the above aims. Now, why invest in SRI? Investors may have a multi attribute utility function that is not only based on the standard risk reward optimisation but also incorporates a set of personal and societal values.

If such values matter to investors, we expect further SRI growth even if the risk adjusted SRI returns are lower than those of conventional investments and less sensitive SRI money flows to past performance.

## Proponents of Stakeholder-value Maximization

- One group of scholars has argued that the better a firm's social performance, the better it can attract resources, obtain quality employees, market its products and services, and even create unforeseen opportunities.
- Also, by anticipating and minimizing the potential conflicts between corporations and society, SRI plays a role in reducing the costs of conflicts.
- Several theoretical studies argue that SRI can be rationalized under asymmetric information in financial or labor markets
- Hence, SRI may soften competition in product markets and lead to higher firm value, signal a firm's product quality and improve reputation, and help to attract motivated employees.

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Now, one group of scholars have argued that a better affirms social performance, the better it can attract resources, obtain quality employees, market its products and services and even create unspourcing opportunities. Thus, social responsibility is a source of competitive advantage and hence increases financial performance. One of the main arguments in favour of SRI is that SRI is consistent with shareholder value maximisation and thus by anticipating and minimising the potential conflicts between corporations and society, SRI plays a very important role in reducing the cost of conflicts.

SRI is in line with profit maximisation in competitive markets. When firms sell products, ethical brands, defined as products branded as organic, environment friendly, durable, sustainable and neutral brands, only those consumers who care about SRI are willing to buy ethical products such that there is no adverse welfare effect on those who do not care. Hence, SRI creates a Pareto kind of improvement for the economy as a whole. Furthermore,

societies with stakeholder oriented firms have higher prices and lower output due to reduced competition in product markets. This leads to higher firm values compared with shareholder oriented economies. And several theoretical studies argue that SRI can be rationalised under asymmetric information in financial or labour markets.

Firms may use SRI as an information signal upon which stakeholders can base their judgments regarding the quality of reputation of those firms. And hence, SRI may often soften their competition in product markets and lead to higher firm value, signalling a firm's product quality and improve reputation and thus helping to attract motivated employees. To summarize, in this video, we introduced and explained SRI investments. We also highlighted some of the motivations why investors would be invested in these investments.



In this video, we will discuss the history and origins and evolution of socially responsible investing.

## History of SRI

- Ethical investing has ancient origins in Jewish, Christian, and Islamic traditions.
- In the 17th century, the Quakers refused to profit from the weapons and slaves trade when they settled in North America. The founder of Methodism, John Wesley (1703–1791), stated in his sermon 'The Use of Money' that people should not engage in sinful trade or profit from exploiting others.
- The first modern mutual fund employing screens based on religious traditions, the Pioneer Fund, was founded in 1928.
- Ethical investing has also origins in the Islamic tradition. Based on the teachings of the Koran and its interpretations, Islamic investors avoid investing in companies involved in pork production, pornography, gambling, and in interest-based financial institutions.

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Ethical investing or socially responsible investing has ancient origins in Jewish, Christian and Islamic traditions. In the 17th century, the Quakers refused to profit from the weapons and slave trade when they settled in North America. The founder of the Methodism, John Beasley, stated in his sermon, The Use of Money that people should not engage in self-untrade or profit from exploiting others. The first modern mutual fund employing screens based on religious traditions, the Piner Fund was founded in 1928. Ethical investing has also origins in the Islamic traditions based on the teachings of Quran and its interpretations.

Islamic investors avoided investing in companies involved in folk, pornography, gambling and in interest-based financial institutions.

## History of SRI

- In contrast to ancient ethical investing which was based on religious traditions, modern SRI is more based on the varying personal ethical and social convictions of individual investors
- Since the 1960s, a series of social campaigns, e.g. the anti-war and the anti-racist movements, have made investors aware of the social consequences of their investments. The first modern SRI mutual fund, the Pax World Fund, was founded in 1971 in the US.
- Since the early 1990s, the SRI industry has experienced strong growth in the US, Europe, and the rest of the world. An important factor behind this growth was ethical consumerism, where consumers pay a premium for products that are consistent with their personal values.

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

In contrast to ancient ethical investing, which was based on religious traditions, modern SRI is more based on the varying personal ethical and social convictions of individual investors. Since 1960s, a series of social campaigns for example, the anti-war and anti-racist investments have made investors aware of the social consequences of the investments. The first modern SRI mutual fund, the Pax World Fund was founded in 1971 in the US. It was created for investors opposed to the Vietnam War and militarism in general. The fund avoided investments in weapon contractors. Since the early 1990s, the SRI industry has also experienced strong growth in the US, Europe and the rest of the world. An important factor behind this growth was the ethical consumerism, where consumers pay a premium for products that are consistent with their personal values. Here issues like environmental protection, human rights and labour relations have become common in the SRI investment screens. In recent years, a series of corporate scandals have turned corporate governance and responsibility into another focal point of SRI investors.

Hence, criteria like transparency, governance and sustainability have emerged as essential SRI screens. To summarize, in this video we discuss the historical evolution of SRI investments. We try to trace back the roots of SRI investments into different religions and the origins of investing in financial instruments.



## Socially Responsible Investing: Part III

In this video, we will conclude our discussion on socially responsible investing in the perspective of social value and stakeholder or shareholder value maximization.

### Critics of Stakeholder-value Maximization

- One group of scholars has argued, simply, that social responsibility detracts from a firm's financial performance. Any discretionary expenditures on social betterment unnecessarily raise a firm's costs, thereby putting it at an economic disadvantage in a competitive market.
- Critics of stakeholder-value maximization argue that the stakeholder theory has problems in terms of accountability and managerial incentive issues.
- Another problem of the stakeholder approach is that in a competitive market, a firm lowering its profits in order to pursue social and environmental goals may not survive the competition and disciplining actions from the market for corporate control.

Let us start our discussion about socially responsible investment with critics of stakeholder or shareholder value maximization. One group of scholars have argued that social responsibility investing detracts from firms' financial performance. Any discretionary expenditure on social betterment unnecessarily raises a firm's cost, thereby putting it at an economic disadvantage in a competitive market. Let's discuss this in more detail. Corporate performance must be measurable. A lack of precisely formulated corporate goals and measures destroys firm value and social welfare in the long run.

Firm value remains the single most important performance measure for management. Maximizing long-run firm value is consistent with maximizing social welfare. It is argued that focusing on shareholder value is the second best optimum once managerial incentive problems like agency costs have been incorporated in a stakeholder framework. Economic theory predicts that companies will be more willing to sacrifice profits in order to be socially responsible only when their management is entrenched or shielded from anti-takeover mechanisms or competition in product markets is not very intense. The reason is that these managers are less likely to be replaced by profit maximizing ones. CSR or corporate social responsibility and stakeholder theories have important implications for socially responsible investing or SRI. SRI portfolio managers pursue both financial goals and social objectives. This multitasking nature of SRI managers may weaken fund managers' incentives to pursue high-risk adjusted returns and hence increase potential agency costs. Furthermore, if SRI fund underperforms conventional portfolios, SRI may be subject to critique that it would be more efficient for SRI investors to invest in better performing conventional funds and use part of the returns to comply to their personal convictions by donating money to good causes. One critique of SRI investing comes from stakeholder value maximization argument that the stakeholder theory has problems in terms of accountability and marginal incentive issues. More specifically, according to the shareholder value concept, managers are expected to invest until the project's marginal return exceeds the cost of capital. In the stakeholder value theory, managers are asked to balance the interests of all stakeholders to the point that the aggregate welfare is maximized.

Still, the stakeholder theory does not define how to aggregate welfare and how to make the trade-off between stakeholders. If the social value of the firms can be maximized, society will by definition benefit. However, the question is whether this goal is achievable and how economic efficiency and managerial incentives are affected by the maximization of stakeholder value, including social and environmental value. For example, Jensen writes in his 2001 article that it is the failure to provide a criteria for making such trade-offs among stakeholders or even to acknowledge the need for them that makes stakeholder theory a prescription for destroying firm value and reducing social welfare. Stakeholder theory also increases the agency costs and weakens the internal control systems of firms since performance measures are only vaguely defined. In a nutshell, management can almost always rationalize any action by invoking its impact on the welfare of some stakeholders. An empire builder can justify a costly acquisition by a claim that the purchase will save a couple of jobs in the acquired firm. Thus, a manager can choose his relatives such as brother-in-law as supplier on the grounds that the latest production process is environmentally friendly. In addition, the absence of a reliable performance measure leads to flat rather than performance-based managerial compensation contracts, which further

weakens managerial incentives. Another problem of the stakeholder approach is that in a competitive market, firm lowering its profit in order to pursue social and environmental goals may not survive the competition and disciplining actions from the market for corporate control. The reason is that another company can acquire this firm and replace the incumbent management with a value maximizing one. A similar argument is made that corporate social responsibility CSR is not feasible in a competitive economy. CSR requires sacrificing profits, which is not possible when competition in product markets is intense. Competitive pressures from markets can enhance unethical corporate behavior. Finally, CSR and the stakeholder models are also subject to Friedman's arguments that companies should only care about profits and therefore their shareholders while governments deal with the provision of public goods and the existence of externalities.

If CSR lowers firms' profits due to compromises with stakeholders, firms should not implement CSR strategies as it is more efficient if firms charge lower prices and allow consumers to make their own charitable contributions based on personal social and ethical values.

## Shareholder Value vs. Social Value?

- At the heart of the SRI movement is a fundamental question: is a firm's aim to maximize shareholder value or social value?
- Classical economics states that there is no conflict between the two goals: in competitive and complete markets, when all firms maximize their own profits (value), the resource allocation is Pareto-optimal and the social welfare and hence social value is maximized.
- However, modern economic theory also tells us that in some circumstances, namely when some of the assumptions of the welfare theorems do not hold, profit-maximizing behavior does not necessarily imply social-welfare maximizing outcomes.
- Economic solutions to the externality problem are based on the principle of internalizing externalities, e.g. by imposing regulations (e.g. quotas or taxes on pollution) and creating a market for externalities (e.g. the trading of pollution permits).

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Thus, at the heart of the SRI movement is a fundamental question whether it is firm same to maximize shareholder value or social value, which is defined as the sum of value generated for all the stakeholders. Now classical economics i.e. Adam Smith's invisible hand and the social welfare theorems states that there is no conflict between these two goals, social and shareholder. In a competitive and complete market, when all firms maximize their own profits i.e. value, the resource allocation is parietal optimal and the social welfare and hence social value is maximized. However, modern economy theory also tells us that in some circumstances, namely when some of the assumptions of the

welfare theorems do not hold, profit maximizing behavior does not necessarily imply social welfare maximizing outcomes. One of such circumstances is the existence of externalities arising when the costs and benefits of an agent's actions are affected by the actions of other external agents in the economy. Now Jensen 2001 article gives a simple example on externalities where a fishy sketch is impaired by the pollution of an upstream chemical plant. When the chemical plant maximizes its profit by increasing pollution as the cost of pollution are not borne by the chemical plant, the fishery in the downstream suffers from catching less fish and the social welfare. In this case, it is equal to the sum of profits of the two stakeholders and the social welfare is not maximized. In practice, the maximization of shareholder value often conflicts with the social welfare criteria represented by the interests of all shareholders of a firm, including employees, customers, local communities, environment and so forth. By maximizing shareholder value, firms may not take care and interest of other stakeholders. Economic solutions to the externality problem are based on the principle of internalizing externalities that is, for example, by imposing regulations or quotas or taxes on pollution and creating a market for externalities. For example, the trading of pollution permits like we have in carbon markets. Furthermore, in continental European corporate governance regimes, a stakeholder approach is more common than in the Anglo-Saxon countries. To summarize, in this video, we discussed socially responsible investing in the backdrop of shareholder value, social value and stakeholder value. We noted that while shareholder value only focuses on the value maximization for shareholders and thus other stakeholders are ignored, in particular, the social externalities are ignored. However, from the perspective of stakeholder theory, one notes that often flimsy and not so solid arguments are given to justify even wasteful expenditure and sometimes unethical expenditure in the name of socially responsible investing and therefore provides an argument counter to the stakeholder theory. So we have provided arguments in pro and con against shareholder value maximization versus stakeholder value in the context of socially responsible investing.





## Financial Instruments for SRI

In this video, we will discuss some of the very important financial instruments that are part of socially responsible investing.

### ESG Stocks

- ESG stocks are shares of companies that excel in ESG criteria, demonstrating a commitment to responsible business practices.
- These stocks can offer both financial and non-financial benefits to investors, making them an attractive option for those seeking to align their investments with their values.
- Companies with strong ESG performance tend to be more resilient to various risks, such as regulatory changes, reputational damage, and environmental liabilities.
- By investing in ESG stocks, investors can reduce their exposure to these risks and create a more stable and sustainable portfolio. Investing in ESG stocks allows investors to make a positive impact on society and the environment.
- To identify high-performing ESG stocks, investors can utilize the ESG ratings and data provided by several organizations. These organizations specialize in analyzing and evaluating the ESG performance of companies, enabling investors to make informed decisions about their investments. Some of the leading providers of ESG ratings and data include MSCI ESG Research, Sustainalytics, Refinitiv, Bloomberg, and Vigeo Eiris.

To begin with, ESG stocks are shares of companies that excel in ESG environmental social governance criteria demonstrating a commitment to responsible business practices. These stocks can offer both financial and non-financial benefits to investors, making them attractive options for those seeking to align their investments with their values. Investing in ESG stocks offers several benefits to investors who are interested in aligning their

investment strategies with their values and long-term goals. Companies with strong ESG performance tend to be more resilient to various risks such as regulatory changes, reputational damage and environmental liabilities. By investing in ESG stocks, investors can reduce their exposure to these risks and creating a more stable and sustainable portfolio.

Investing in ESG stocks allows investors to make a positive impact on society and the environment. By supporting companies that prioritize sustainable business practices, investors can contribute to the transition towards a more sustainable global economy and help address pressing challenges such as climate change, social inequality and corporate governance. Investing in ESG stocks encourages companies to adopt more sustainable practices as these investments signal to the market that responsible behavior is valued. As the more investors prioritize ESG factors, businesses will increasingly compete to improve their ESG performance, driving positive change across industries. It is important to note that ESG performance can vary over time as companies adapt their practices and respond to new challenges. Therefore, investors should continuously monitor the ESG performance of the stocks in their portfolio and consider using ESG ratings and data provided by organizations to stay informed about changes in ESG performance. To identify high performing ESG stocks, investors can utilize ESG ratings and data provided by several organizations. These organizations specialize in analyzing and evaluating ESG performance of companies enabling investors to make informed decisions about their investments. Some of the leading co-authors of ESG ratings are MSCI ESG Research, Sustainalytics, Refintive, Bloomberg and Virgo Analytics. To build a diversified ESG stock portfolio, consider selecting stocks from various sectors and industries that meet your ESG criteria. Diversify your portfolio by market capitalization, incorporating small, mid and large cap ESG stocks. Additionally, consider incorporating global ESG stocks to gain exposure to strong ESG performers outside your home country.

## Thematic Funds

- **SRI Funds:** The SRI mutual funds industry refers to the practice of directing investment funds using techniques that combine investors' financial objectives with their commitments to ESG concerns; for example, social justice, economic development, peace or a healthy environment.
- **Islamic Funds:** Islamic mutual funds, similar to SRI funds, invest in a restricted universe of assets and have very particular screening features, such as investing in Shari'ah-compliant assets. Shari'ah-compliant assets avoid Shari'ah prohibited companies such as those dealing with alcohol, tobacco, arms, biotechnology for human cloning, and companies with heavy debt financing to avoid dealing with interest.
- **Green Funds:** A green mutual fund focuses its investment decisions on environment-related principles and engagements, along with generating long-term competitive financial returns.

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Some alternatives to investing in individual ESG stocks include ESG focused mutual funds, ESG focused exchange traded funds and green and social impact bonds. These investment vehicles offer investors a diversified approach to ESG investing and can be a more accessible and cost effective way to incorporate ESG factors into your investment strategy. Another very important class of funds are thematic funds that are part of SRI investing. So in thematic funds, we have one classification directly as SRI funds. The SRI mutual fund industry refers to the practice of directing investment funds towards techniques that combine investors' financial objectives with their commitment to ESG concerns.

For example, social justice, economic development, peace and healthy environment. SRI mutual funds can freely choose between debt bearing investments and equity bearing investments as long as the stocks chosen adhere to SRI and ESG principles. There are no financial parameters that determine the inclusion of an asset in the SRI index. These are freely decided by the fund manager. Another very important class of funds that Islamic funds though they are different from SRI investing, they are part of thematic funding style or thematic fund style, they have certain overlapping characteristics with SRI funds.

Let's see. Islamic mutual funds appear to be similar to SRI funds in the sense that they invest in a restricted universe of asset and have a very particular screening feature. For example, investing in Sharia compliant assets. Sharia compliant assets avoid Sharia prohibited companies such as those dealing with alcohol, tobacco, arms, bad technology for human cloning and companies with heavy debt financing to avoid dealing with interest. Sharia Supervisory Board whose opinion is binding provides the guidelines to invest in the Islamic funds. This type of fund excludes investments in fixed income instruments such as corporate bonds, certificate of deposits, preferred stocks, warrants and some derivatives.

Equity mutual funds represent the largest portion of Islamic funds. Financial filters determined by Sharia Supervisory Board that is SSB are applied during the stock selection process. The core principles to which the filters are related are leverage, presence of interest bearing assets and liabilities, high level of debt and credit. Lastly, we have green funds. Green funds, a green mutual fund focuses its investment decisions on environment related principles and engagements along with generating long-term competitive financial returns.

A green mutual fund therefore selects companies demonstrating exceptional environment friendly conduct and low environmental impact. Companies selected by green mutual funds would include those demonstrating such characteristics like exceptional environmental friendly conduct and low environmental impact and involvement in natural resource production, energy efficiency projects, clean technology or alternative and renewable energy technologies as well as other environment friendly pursuits.

## Green Bonds

- Green debt: Debt instruments aimed at projects and/or companies combating climate change and environmental degradation.
- Green and sustainable bonds: Green bonds work like regular bonds with one key difference: the money raised from investors is used exclusively to finance projects that have a positive environmental impact, such as renewable energy and green buildings.

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Lastly, we have instruments like green bonds. A green debt is like a debt instrument aimed at projects and companies combating climate change and environmental degradation. Bonds issued in public markets to finance projects aimed at positive environmental change.

Similarly, we have green and sustainable bonds and these green bonds work like regular bonds with one key difference. The money invested from investors is raised exclusively for finance projects that have a positive environmental impact such as renewable energy and green buildings. Social green initiatives such as Paris Agreement on climate change and UN Sustainable Development Goals have helped spur this expansion. Strong demand for green bonds is also driving growth with major investors from asset managers to insurers

and pension funds keen to lap them up. To summarize, in this video, we defined the universe of SRI investments. We noted some of the key characteristics and selection criteria how an asset is selected as a part of SRI investment.



## Investment Screens: Part I

In this video, we will discuss a very important concept called investment screens.

### Investment Screens

- Screening is a process for determining which investments are or are not permitted in a portfolio.
- It is used for a variety of purposes, such as attaining an investment focus, complying with laws and regulations, satisfying investor preferences, and limiting risk.
- Screening criteria can be based on various investment characteristics, including market capitalization, credit ratings, trading volumes, geographical location, and/or environmental, social, and governance (ESG) characteristics.

To begin with, screening is a process for determining which investments are not permitted in a portfolio. It is used for a variety of purposes such as attaining an investment focus, complying with laws and regulations, satisfying investor preferences and limiting risk. Screening criteria can be based on various investment characteristics including market

capitalization, trade ratings, trading volumes, geographical location, environmental, social and governance characteristics i.e. ESG. Let us elaborate it further. Screening rules can be set by clients, chief investment officer, regulators and others. Because screening rules prescribe whether investment is permitted in a portfolio, screening is often subject to compliance oversight. Screening rules may incorporate implementation requirements. For example, they may stipulate the timing or conditions for selling any investments that cease to meet the screening criteria. Screening rules are based on clearly defined criteria which can be qualitative and quantitative. Let us take some examples. Whether the issuer is a constituent of a specific ESG-related index, this sort of qualitative criteria. Next, another criteria would be whether a sovereign issuer achieves a human right performance score of maybe 40 or some cut-off score from a specific rating provider. Another would be whether more than 10% of an issuer's revenue is from production and sale of tobacco products or not.

So, it can be removed if it is more than that. Whether an asset is located on a flood plain as defined by a specific agency. So, similar thresholds are an essential element of any quantitative screening criteria. Threshold can be absolute, relative or related to peers. Let us take some examples. For example, a scope on carbon dioxide emission screen threshold may be a carbon neutrality which is an absolute threshold or another way would be 200 tons per US dollar million revenue, which is a relative threshold or the industry average carbon intensity related to peer threshold. So, similarly one can claim the screening rules. These screening rules categorically determine whether individual investments are permitted in a portfolio. They do not apply to the aggregate portfolio. For example, a screen using governance scores would stipulate the necessary government score of each investment, not the average governance of the investment in a portfolio. The same screening rule can be expressed in terms of what is either permitted or excluded from the portfolio.

Clarity, brevity and marketing objectives often determine how screening rules are communicated.

## Negative Screening

- First, the oldest and most basic SRI strategy is based on negative screening. Negative screening imposes a set of exclusions based on ethical preferences. Negative screening seeks to avoid or minimize exposure to sectors that are more prone to risks, such as regulatory risks within the tobacco sector, or economic risks like fossil fuel-related stranded assets.
- A typical negative screen can be applied on an initial asset pool such as the S&P 500 stocks from which the alcohol, tobacco, gambling and defense industries, or companies with poor performance in labor relations or environmental protection are excluded. Other negative screens may include irresponsible foreign operations, pornography, abortion, poor workplace conditions, violation of human rights and animal testing.
- After performing a negative SRI screening, portfolios are created via a financial and quantitative selection. Some SRI funds only exclude companies from the investment universe when these firms' revenues derived from 'a-social or un-ethical' sectors exceed a specific threshold, whereas other SRI funds also apply negative screens to a company's branches or suppliers.

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Let us try to understand a very important aspect of screening which is negative screening. First, the oldest and most basic SRI strategy is based on negative screening. Negative screening imposes a set of exclusions based on ethical preferences. Negative screening seeks to avoid or minimize exposure to sectors that are more prone to risk such as regulatory risk within the tobacco sector or economic risk like fossil fuel related standard assets. These filters refer to the practice that specific stocks or industries are excluded from SRI portfolios based on social, environmental and ethical criteria. The funds based on such screens account for approximately 2 trillion dollars out of the 2.3 trillion dollar SRI assets in US as per the SIF report. Now, a typical negative screen can be applied on an initial asset pool such as the SMP 500 stocks from which the alcohol, tobacco, gambling and defense industries or companies with poor performance in labor relations or environmental protection are excluded. Other negative screens may include irresponsible foreign operations, pornography, abortion, poor workplace conditions, violation of human rights, animal testing and so on. After performing a negative screening, portfolios are created via a financial and quantitative selection. Some SRI funds only exclude companies from the investment universe when these firms revenues derived from a social or unethical sectors exceed a specific threshold. Whereas other SRI funds also apply negative screen to a company's branches or suppliers as well. We must note that a small number of SRI funds use screens based on traditional ideological or religious convictions. For instance, they exclude investments in firms producing poor products in financial institutions paying interest or savings and in insurance companies insuring non-married companies. The exclusion from a fund or portfolio of certain sectors, companies, countries or other issuers based on activities considered not investable. Exclusion criteria based on norms and values can refer for example to product categories such as weapons, tobacco, company practices

for example animal testing, violation of human rights, corruption and similar controversies. Applying filters to a universe of securities, issuers, investments, sectors or other financial instruments rule them out based on poor performance on age factors related to industry peers or specific environmental, social or governance criteria.

This may include ruling out particular products, services, regions, countries or business practices.

## Positive Screening

- SRI portfolios are nowadays also based on positive screens which in practice boil down to selecting shares that meet superior ESG standards.
- Positive screens are also frequently used to select companies with a good record concerning renewable energy usage or community involvement. The use of positive screens is often combined with a 'best in class' approach. Best-in-class investment involves selecting only the companies that overcome a defined ranking hurdle, established using ESG criteria within each sector or industry.

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Let us discuss positive screening criteria and how do we understand positive screening. So SRI portfolio nowadays also employ positive screens which in fact is boiled down to selecting shares that need a some kind of superior ESG standard. The most common positive screens focus on corporate governance, labor relations, environment, sustainability of investments and stimulation of cultural diversity. Positive screens are also frequently used to select companies with a good record of concerning renewable energy usage or community involvement. The use of positive screens is often combined with the best in class approach. Best in class investment involves selecting only the companies that overcome a defined ranking hurdle established using ESG criteria within each sector or industry. Forms are ranked within each industry or market sector based on CSR criteria. Subsequently, only those forms in each industry are selected which pass a minimum threshold. Best in class investment involves selecting only the companies that overcome a defined ranking hurdle established using ESG criteria within each sector or industry.

To summarize this video, we discussed the concept of investment screen. In particular, we



discussed positive and negative screening process. We noted that certain areas related to environmental, social and governance parameters, they act for creating a quantitative or qualitative criteria for possible negative screen. For example, a negative screen would be some kind of minimum threshold requirement on these parameters, while a positive criteria would, for example, a certain upper limit on superior criteria would be required on the case of positive screening process. These screens are extremely useful for selecting stocks and securities for construction of ESG fund or formulating ESG strategy.



## Investment Screens: Part II

In this video, we will discuss third and fourth generation screens and norms based screens.

## 3<sup>rd</sup> and 4<sup>th</sup> Generation screening

- The third generation of screens refers to an integrated approach of selecting companies based on the economic, environmental and social criteria comprised by both negative and positive screens. This approach is often called “sustainability” or “triple bottom line” (due to its focus on People, Planet and Profit).
- The fourth generation of ethical funds combines the sustainable investing approach (third generation) with shareholder activism. In this case, portfolio managers or the companies specialized in granting ethical labels attempt to influence the company's actions through direct dialogue with the management or by the use of voting rights at Annual General Meetings.

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

The third generation of screen refers to an integrated approach of selecting company based on economic, environmental and social criteria comprised by both negative and positive screens.

This approach is often called sustainability or triple bottom line approach due to its focus on people, planet and profit. The fourth generation of ethical funds combine the sustainable investing approach that is third generation approach with shareholder activism. In this case, portfolio managers or the companies specialized in granting ethical labels attempt to influence the company s actions through direct dialogue with the company management or by use of the voting rights at annual general meetings that is AGM.

## Norms-based screening

- Applies existing normative frameworks in order to screen issuers against internationally recognized minimum standards of business practice.
- Screening generally applies globally recognized frameworks like treaties, protocols, declarations and conventions including: the UN Global Compact, the UN Human Rights Declaration, the ILO's Declaration on Fundamental Principles and Rights at Work, the Kyoto Protocol, and the Organization for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises.

Next, we will discuss norms based screening. Under the norms based screening, it applies existing normative frameworks in order to screen issuers against internationally recognized minimum standards of business practice. For example, screening generally applies to globally recognized frameworks like treaties, protocols, declarations, conventions, including UN General Global Impact, UN Human Rights Declaration, International Level Organizations Declaration on Fundamental Principles and Rights at Work, the Credo Protocol and OECD Organization for Economic and Cooperation and Development Guidelines for Multinational Enterprises. Now applying filters to a universe of securities, issuers, investments, sectors or other financial instruments based on minimum standards of practice aligned with international norms. Widely recognized frameworks for minimum standards of practice include OECD guidelines for multinational enterprises, International Bill of Human Rights, UN Security Council sanctions and UN Global Compact. Subsequently, in next slides, we will also discuss rules and regulations related to sustainable investing across the globe. To summarize, in this video, we discussed the augmentation in screening approach. We discussed the third and fourth generation screening approaches. We also discussed the norms based screening approach.



## Financial Performance And Screening Intensity

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

In this video, we will discuss the relationship between financial performance and screening intensity.

### Financial Performance and Screening Intensity

- If the heterogeneity in the intensity of social screens applied by SRI funds is accounted for, the combination of modern portfolio and stakeholder theories points toward neither a strictly positive nor negative relationship, but a curvilinear relationship between social and financial performance.
- Those stocks in the center of the distribution earn the market return, while those in the left tail earn less, and those in the right tail earn above average returns.
- Since social screening systematically constrains the ability to diversify, an SRI fund is thus expected to underperform the market
- Based on stakeholder theory, we expect that firms engaging in socially responsible practices are more likely to achieve superior long run performance

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

As per some studies, if the heterogeneity in the intensity of social screens applied by SRI funds is accounted for, the combination of modern portfolio and stakeholder theories point toward neither a strictly positive nor negative relationship but a curvilinear relationship between social and financial performance. Based on the efficient market assumption that underlies modern portfolio theory considering the entire universe of stocks to have uniform distribution of returns, those stocks that are in the center of the distribution earn the market

return while those in the left earn less and those in the right earn above average returns. A fund manager taking random draws from her universe can expect to assemble a portfolio that will earn the market return so long as the resulting portfolio is diversified.

If the stocks picked do not sum to a diversified portfolio, the fund carries unsystematic return and it can expect to have risk-adjusted returns that underperform the market. Since social screening systematically constrains the ability to diversify, an SRI fund is thus expected to underperform the market. However, a fund manager using social screens may have better odds of avoiding stocks in the left tail of the distribution and picking stocks in the right tail. Based on the stakeholder theory, we expect that firms engaging in socially responsible practices are more likely to achieve superior returns in long run.

That is superior long run performance. Thus, socially responsible firms are more likely to be in the right tail of the distribution and in contrast, firms with poor stakeholder relations are riskier and more susceptible to crisis and so more likely to gain the left tail of the distribution.

## Financial Performance and Screening Intensity

- SRI fund managers become more likely to select firms that will achieve above average returns
- SRI funds that have relatively weak social responsibility standards will be able to choose from a larger universe of potential investments
- As an SRI fund's social standards increase, its pool of investment opportunities shrinks, and so it will have a decreased likelihood of establishing a well-diversified portfolio.

The effects of social screening on the universe of stock choices

Pic source: Barnett, M. L., & Salomon, R. M. (2006). Beyond dichotomy: The curvilinear relationship between social responsibility and financial performance. *Strategic Management Journal*, 27(11), 1101–1122. <https://doi.org/10.1002/smj.557>

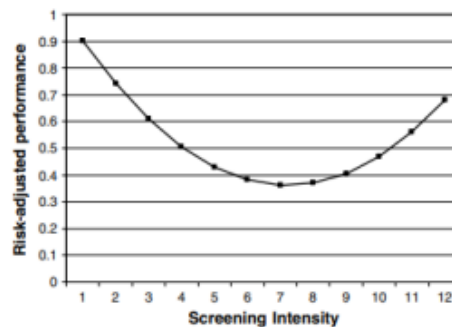
INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Thus, as a result of using social screens that exclude firms with poor stakeholder relations and funnel in firms with good stakeholder relations, we can expect these kind of SRI fund managers to become likely to select firms that will achieve above average returns and less likely to select firms that will earn below average returns and this given figure illustrates the relationship. Here you have unscreened firms at the top, strictly screened firms at the bottom. As you go down, you increase the selectivity, as you go up, you increase the

diversification because you have more stocks to choose from and you achieve diversification but if you increase the number of screens, your screening is strict, you have less number of universal stocks to select from, your diversification will be less. So, the SRI funds that have relatively weak social responsibility standards will be able to choose from a larger universe of potential investments, thereby increasing the odds of achieving ample diversification that means on this side, higher side and hence improving risk adjusted financial performance which is aligned to the market. As an SRI fund, social standards increase that means most screening its pool of investment opportunities shrinks that means we are moving in this direction and so it will have a decreased likelihood of establishing a well diversified portfolio. However, this negative effect is offset as the stringency of social screening intensifies. Those funds that greatly restrict potential investment benefit from improved selection of investment. Though an SRI fund may bear more and more specific risk by choosing from an increasingly smaller pool of stock, so as you go down, the diversification is less. However, the pool from which it chooses becomes more richer, good stocks are here, more socially responsible stocks that give consideration to stakeholders.

## Financial Performance and Screening Intensity

- As a fund manager dips into this increasingly rich pool, she is more likely to pick a stock that will provide above-average financial returns.
- SRI funds that are 'stuck in the middle' may bear all the costs of either pure strategy without gaining any of the benefits
- The combination of modern portfolio theory and stakeholder theory, as well as a long history of mixed empirical findings, then suggest that the relationship between social and financial performance may be curvilinear, not strictly monotonic.



Non-monotonic effects of screening

Pic source: Barnett, M. L., & Salomon, R. M. (2006). Beyond dichotomy: The curvilinear relationship between social responsibility and financial performance. *Strategic Management Journal*, 27(11), 1101–1122. <https://doi.org/10.1002/smj.557>

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Now, as a fund manager dips into this increasingly rich pool at the bottom of the funnel, she is more likely to pick a stock that will provide above average financial returns that means this side, this side of returns. SRI funds that are stuck in the middle may be at all the cost of either pure strategy without gaining any of the benefits that means this side. That is an SRI fund with a moderate level of social screening may be at this specific risk and yet not consistently exclude underperforming firms or consistently select those with above average financial performance. So it is more likely to be here underperforming,

giving lower performance. Thus, the combination of modern portfolio theory and stakeholder theory as well as long history of mixed empirical findings then suggest that the relationship between social and financial performance may be curvilinear, not strictly monotonic, this kind of because on this end, you have more diversified stocks giving performance which is more aligned to market. So we get the relationship like this, which is the intensity of social screening and financial performance of SRI funds which is sort of curvilinear, relationship which is sort of curvilinear. Now we can interpret this graph here the risk adjusted performance declines at first as screening intensity increases reaching a minimum at 7 screens around 7 screens this reaches a minima, but then it increases continuously and it reaches maxima around 12 screens. We note that even at the maximum of 12 screens, however, the performance does not recover to reach the levels achieved those with 1 screen here. So that means this is still lower as compared to this point. In fact, the results suggest that we should expect funds with 12 screens to suffer performance decrements of about 0.2% per month or 2.4% per year versus very diversified fund that is here. We cannot therefore say that screening comes without cost. To summarize, in this video, we examined the relationship between fund performance and screening intensity.

We noted as you increase the thickness or increase more and more screens, the level of diversification decreases. But at the same time, you tend to exclude stock that are poor and have less considerations stakeholders, you get stock that are good and above average performing stocks. In contrast, if you have very less screens like one or two screens, your portfolio includes you have a big universe to choose from. So your portfolio is rather more diversified and its performance is aligned to market. The relationship appears to be curvilinear.

At first, starting from a very few numbers of screens, because of the diversification effect, the performance decreases as we increase the number of screens. At a certain point, a minima is obtained at which this is the place where neither we are able to achieve diversification nor we are able to exclude all the bad stocks or include all the good stocks. So after a certain minima point, as we move ahead, when we increase the strictness of the screen, we tend to choose more and more good stocks and eliminate bad stocks and therefore performance improves. However, at a certain point when maximize achieved, we are still lower in terms of performance compared to a purely diversified portfolio with very few one or two screens.



## SRI Mutual Funds: Introduction

In this video, we will discuss SRI mutual funds, we will discuss their cost benefits, and how to select the appropriate SRI mutual funds.

### SRI Mutual Funds

- Socially responsible mutual funds (SRMFs) are investment vehicles that seek to generate financial returns while adhering to specific environmental, social, and governance (ESG) criteria.
- Mutual funds seek to maximize performance across a portfolio of firms, not within a single firm.
- If a mutual fund implements strict social performance criteria that exclude firms, industries, or sectors from its portfolio, that mutual fund may be unable to adequately diversify.
- SRI proponents argue, though, that while there may be less potential breadth in an SRI fund's portfolio

To begin with, socially responsible mutual funds or SRMFs are investment vehicles that seek to generate financial returns while agreeing to specific environmental, social and governments, that is the ESG criteria. These funds aim to invest in companies that demonstrate ethical and sustainable practices aligning with the values and principles of socially responsible investing, that is SRI investing. Over the years, the popularity of these funds has grown and the range of available funds has expanded to cater to various social and environmental causes. As awareness about the impacts of climate change, social



inequality and corporate governance grows, the demand for SRMFs has surged. These funds allow investors to align their investments with their values and contribute to positive societal change.

Mutual funds seek to maximize performance across portfolio firms not within a single firm. As with the firm level debate, the basic issue concerns whether the costs of social responsibility are offset or exceeded by financial returns over some period of time. However, mutual funds are also concerned with diversification. If a mutual fund implements strict social performance criteria that exclude firms, industry and sectors from its portfolio, that mutual fund may be unable to adequately diversify. Without ample diversification, the fund will be exposed to additional risk for a given level of return and so by definition will incur a loss in risk-adjusted financial returns. SRI proponents argue though that while there may be less potential breadth in an SRI funds portfolio, those firms that are chosen for the portfolio are substantially better managed than the average firm and so tend to generate equal or higher financial returns even on a risk-adjusted basis.

## Benefits and Costs of Investing in SRI MF

### Benefits

- Aligning Investments With Personal Values
- Managing Long-Term Risk and Volatility
- Supporting Positive Societal Change
- Promoting Corporate Transparency and Accountability
- Potential for Competitive Financial Returns

### Costs

- Greenwashing Concerns
- Inconsistency in ESG Evaluation Methodologies
- Limited Diversification
- Higher Management Fees

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Let us discuss some of the benefits and cost of investing in SRI mutual funds. Starting with the benefits, first aligning investments with personal values. So, these SRMFs or socially responsible mutual funds allow investors to support companies and industries aligning with their values, fostering a sense of purpose and satisfaction. Next, managing long-term risk and volatility. Companies with strong AG performance may exhibit lower risk and volatility, contributing to a more stable and resilient investment portfolio. Third, supporting positive societal change. Investing in these mutual funds which are socially responsible can drive positive change by channeling capital towards companies that are committed to social and environmental responsibility. Next, promoting corporate transparency and

accountability. These socially responsible mutual funds encourage companies to adopt more transparent and accountable business practices leading to improve corporate governance and ethical standards. Potential for competitive financial returns. Research suggests that these mutual funds can generate competitive financial returns demonstrating that responsible investing does not necessarily mean sacrificing financial performance.

Next, what are the costs and challenges and criticisms of investing in these socially responsible funds. First and foremost, greenwashing concerns. Some companies may overstate their commitment to AG principles using greenwashing to attract investments. This can make it challenging for investors to identify genuinely responsible companies. Second, inconsistency in AG valuation metallurgy. The lack of standardized AG valuation metallurgy can result in inconsistency across SRMFs, making it difficult for investors to compare funds and make informed decisions. Limited diversification. These mutual funds that are socially responsible may have limited investment options due to their focus on specific industries or criteria, which can lead to reduce diversification and increase portfolio risk. Higher management fees. These socially responsible mutual funds may charge higher management fees than traditional mutual funds as evaluating and selecting investments based on AG criteria can be more labor intensive and costly.

## How to Choose Socially Responsible Mutual Funds

- Assessing Fund Objectives and Strategies
- Examining ESG Ratings and Methodologies
- Evaluating Fund Performance and Risk
- Comparing Management Fees and Other Costs

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Let us discuss how to choose socially responsible mutual fund or SRMFs. First, assessing fund objectives and strategies. Before investing in an SRMF, investors should examine the funds objectives, investment strategies and AG criteria to ensure alignment with their personal value in financial goals. Second, examining AG ratings and metallurgy. Investors should clearly analyze and examine the AG ratings and metallurgy used by the fund to evaluate the underlying investments, ensuring a comprehensive and reliable assessment.

Third, evaluating fund performance and risk. It is crucial to consider the funds historical performance, risk adjusted returns and volatility compared to benchmarking leases and fund peers. Lastly, comparing management fees and other costs. Investors should compare the management fees, expense ratios and other costs associated with these SRMFs under consideration to make cost effective investment decisions. To summarize, in this video, we briefly introduced SRI mutual funds. We also discussed the benefits, cost challenges and criticism of these SRI mutual funds. And we also discussed how to select these mutual funds.

INDIAN INSTITUTE OF TECHNOLOGY KANPUR



## Financial Cost and Benefit in SRI Mutual Funds

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

In the next series of videos, we will discuss the financial cost and benefit of SRI mutual funds in great detail.

## Financial Cost in SRI Mutual Funds

- Critics of corporate social responsibility point out that it is costly and administratively burdensome for a firm to engage in socially responsible practices such as doling out corporate philanthropy, providing employee day care, granting paid parental leave, and reducing environmental impact.
- These additional costs and administrative burdens directly detract from the bottom line and so can put socially responsible firms at a competitive disadvantage relative to rivals who do not engage in such practices.

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

In this video, we will discuss the financial cost and benefits of SRI mutual funds in great detail. Let us start with the financial costs of SRI mutual funds. Critics of corporate social responsibility point out that it is costly and administratively burdensome for a firm to engage in socially responsible practices such as doling out corporate philanthropy, providing employee daycare, granting paid parental leave and reducing environmental impact. These additional costs and administrative burdens directly detract from the bottom line and so can put socially responsible firms at a competitive disadvantage related to rivals who do not engage in such practices.

## Financial Cost in SRI Mutual Funds

- According to modern portfolio theory, an investment portfolio bears two types of risk: systematic and unsystematic, or 'specific,' risk (Markowitz, 1952; Sharpe, 1964; Fama, 1971).
- Systematic risk is the risk inherent in the volatility of the entire capital market, while specific risk is associated with the volatility of an individual security.
- Investors may assemble portfolios in such a way that the specific risk carried by any individual security within the portfolio is offset by the specific risk carried by another. This is referred to as diversification.
- Efficient capital markets reward investors for bearing systematic risk, but because diversification is possible, investors are not rewarded for bearing specific risk. That is, when a fund carries specific risk, it fails to reach the efficient frontier, wherein the risk/return trade-off is optimized.
- SRI Funds exclude certain firms, industries, and sectors, and hence tend to bear a substantial degree of specific risk, and experience decreased risk-adjusted returns.

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

According to modern portfolio theory, an investment bears two types of risks, systematic and unsystematic risk or specific risk. Systematic risk is the risk inherent in the volatility of the entire capital market, while specific risk is associated with the volatility of an individual security. Investors may assemble portfolios in such a way that the specific risk carried by an individual security within the portfolio is offset by the specific risk carried by another. This is referred to as diversification. Efficient capital markets reward investors for bearing systematic risk, but because diversification is possible, investors are not rewarded for bearing specific risk. That is when a fund carries a specific risk, it fails to reach the efficient frontier wherein the risk-ridden trade-off is optimized. Now, SRI funds exclude certain firms, industries and sectors and hence tend to bear that substantial degree of specific risk and hence decrease risk-adjusted return. This is precisely so because their universe of stocks is limited because they have to find certain specific stocks with socially responsible characteristics. So their universe of stocks is limited.

## Financial Benefits in SRI Mutual Funds

- Though modern portfolio theory rightfully assesses the costs to limiting investment choices through social screening, it does not account for the benefits that social screening may bring.
- Portfolio theory assesses only the ability of a given stock to push a portfolio toward or away from the efficient frontier, wherein risk-adjusted return is maximized.
- However, it takes no account of any variation in the ability of a firm upon which a stock's value is based to create value.
- SRI proponents counter that, while SRI portfolio managers are constrained from choosing amongst the entire universe of stocks, the pool of stocks from which they do choose is superior to that of the overall market and therein more likely to provide favorable financial returns over time.

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Now, coming to the financial benefits of SRI mutual funds, though modern portfolio theory rightfully assesses the cost limiting investment choices through social screening, it does not account for the benefits that social screening may bring. Portfolio theory assesses only the ability of a given stock to push a portfolio toward or away from the efficient frontier wherein risk-adjusted return is maximized. However, it takes no account of any variation in the ability of a firm upon which a stock's value is based to create value. SRI proponents counter that while SRI portfolio managers are constrained from choosing amongst the entire universe of stocks, that is the pool of stocks from which they do choose is superior to that of the overall market and there in more likely to provide favorable financial returns over time. Firms are embedded in social environment. In order to maintain legitimacy and effectively attract resources, firms must build favorable relations with those groups that

constitute this environment. Strong social performance is an indicator that a firm possesses superior management talent that understands how to improve the internal and external relationships through socially responsible activities. Thus, SRI proponents argue that because social relationships matter to financial performance, social responsibility is not merely a cost but a wise investment. This basic rationale is supported by stakeholder theory, which suggests that the better a firm manages its relationship with the myriad groups that have some interest or stake in the firm, the better its financial performance over time. A favorable social agent valuable good will that can buffer a firm from unforeseen problems and even provide valuable new opportunities that are not available to less socially responsible firms. To summarize, in this video, we discuss the costs and benefits of SRI mutual funds in financial sense denoted because of these additional screens and selectivity. There's a very small number of universe to choose from and therefore it may happen that the SRI mutual funds may not be as diversified as a comparable stocks, which has a larger universe of securities to choose.

However, the benefits are that socially responsible stocks are more acceptable in multiple groups or investments. And at the same time, chances are that these socially responsible investments or secured socially responsible securities have wider acceptability. They are less exposed to certain risks such as environmental social governance risks, and they often offer higher returns to investors. So they have both their benefits and costs associated with them. Sustainable finance refers to the process of taking environmental, social and governance, that is, AG considerations into account when making investment decisions in the financial sector. Sustainable investing refers to a range of practices in which investors aim to achieve financial returns while promoting long term environmental or social value. SRI, that is, socially responsible investing is an investment process that integrates social, environmental and ethical considerations into investment decision making. Over the last 10 years, there has been considerable progress in scope and understanding of sustainable investing across the world. Thematic investing involves constructing a portfolio of assets chosen by a top-down process that are expected to benefit from a specific medium to long term trend. Impact investing aims to contribute to or catalyze positive effects, that is, improvements in people's life and the environment while achieving a financial return.

Impact investing requires a credible explanation of the investor's contributory or catalytic role as distinct from the investor's impact. EAG integration is the incorporation of EAG factors into an investment process based on the belief that EAG factors can affect the risk and return of investments. As per the stakeholder value maximization argument, the better a firm's social performance, the better it can attract resources, obtain quality employees, market its products and services, and even create unforeseen opportunities. A contrary view suggests that social responsibility detracts from a firm's financial performance. Any discrepancy on expenditures on social betterment unnecessarily raise a firm's cost, thereby

putting it an economic disadvantage in a competitive market. At the heart of the SRA movement is a fundamental question, whether a firm's aim is to maximize shareholder value or social value. Modern economic theory also tells us that in some circumstances, namely when some of the assumptions of the welfare theorems do not hold, then profit making behavior does not necessarily employ social welfare maximizing outcomes. The key instruments of SRA investing include EAG stocks, thematic funds and green bonds.

EAG stocks are shares of companies that excel in EAG criteria, demonstrating a commitment to responsible business practices. Next, we have green bonds. Green bonds work like regular bonds with one key difference. The money raised from investors is used exclusively to finance projects that have a positive environmental impact such as renewable energy and green buildings. Screening here is a process for determining which investments are not permitted in a portfolio. Negative screening imposes a set of exclusions based on ethical preferences. Positive screening aims to select shares that meet superior EAG standards. Since social screening systematically constrains the ability to diversify, an SRA fund is thus affected to underperform the market. As an SRA fund's social standards increase, its pool of investment opportunities shrinks and so it will have a decreased likelihood of establishing a well-diversified portfolio. Socially responsible mutual funds that is SRMF are investment vehicles that seek to generate financial returns while adhering to specific environmental, social and governance that is EAG criteria. Critics of corporate social responsibility point out that it is costly and administratively burdensome for a firm to engage in socially responsible practices such as doling out corporate philanthropy, providing employee daycare, granting paid parent leaves and reducing environmental impact. SRA proponents counter that while SRA portfolio managers are constrained from choosing amongst the entire universe of stocks, the pool of stocks from which they do choose is superior to that of the overall market and they are more likely to provide favorable financial returns over time. This is ascribed to the argument that in order to maintain legitimacy and effectively attract resources, firms must build relations with those groups that compose its environment. .