

RESPONSIBLE INVESTING

Girish, Kinjal, Pallavi,
Rachna, Sagar

Team – SMART Street





**THE WAY TO
GET STARTED
IS TO QUIT
TALKING AND
BEGIN
DOING.**

Walt Disney

Agenda

Responsible Investing

Problem Statement

Data Description

Tableau Dashboard

Jupyter Notebook





Responsible Investing

Definition



Responsible Investing

Responsible Investing is an approach to investment that explicitly acknowledges the relevance to the investor of environmental, social and governance factors, and of the long-term health and stability of the market.

ESG stands for **Environmental, Social, and Governance**. Investors are increasingly applying these non-financial factors as part of their analysis process to identify material risks and growth opportunities.





Problem Statement

Responsible Investing



Problem Statement

In recent years, data science has served as an indispensable tool when taking into consideration investment decisions. With a growing awareness of corporate social and environmental accountability, potential investors can harness the power of data to enact responsible investing.

RMDS Lab is hosting its data science competition, Brace for Impact: Creating a Dashboard for Responsible Investing Using Machine Learning. This special competition's contestants will be challenged with collecting data sets and creating a dashboard that can help potential investors to review the social and environmental impacts of companies in which they might invest.





Data Description

Dataset



Data Description

Main Dataset (funds.csv) contains around 6,003 datapoints related to Funds curated by Morningstar with 29 available features.

It contains following variable types:

Categorical: 10

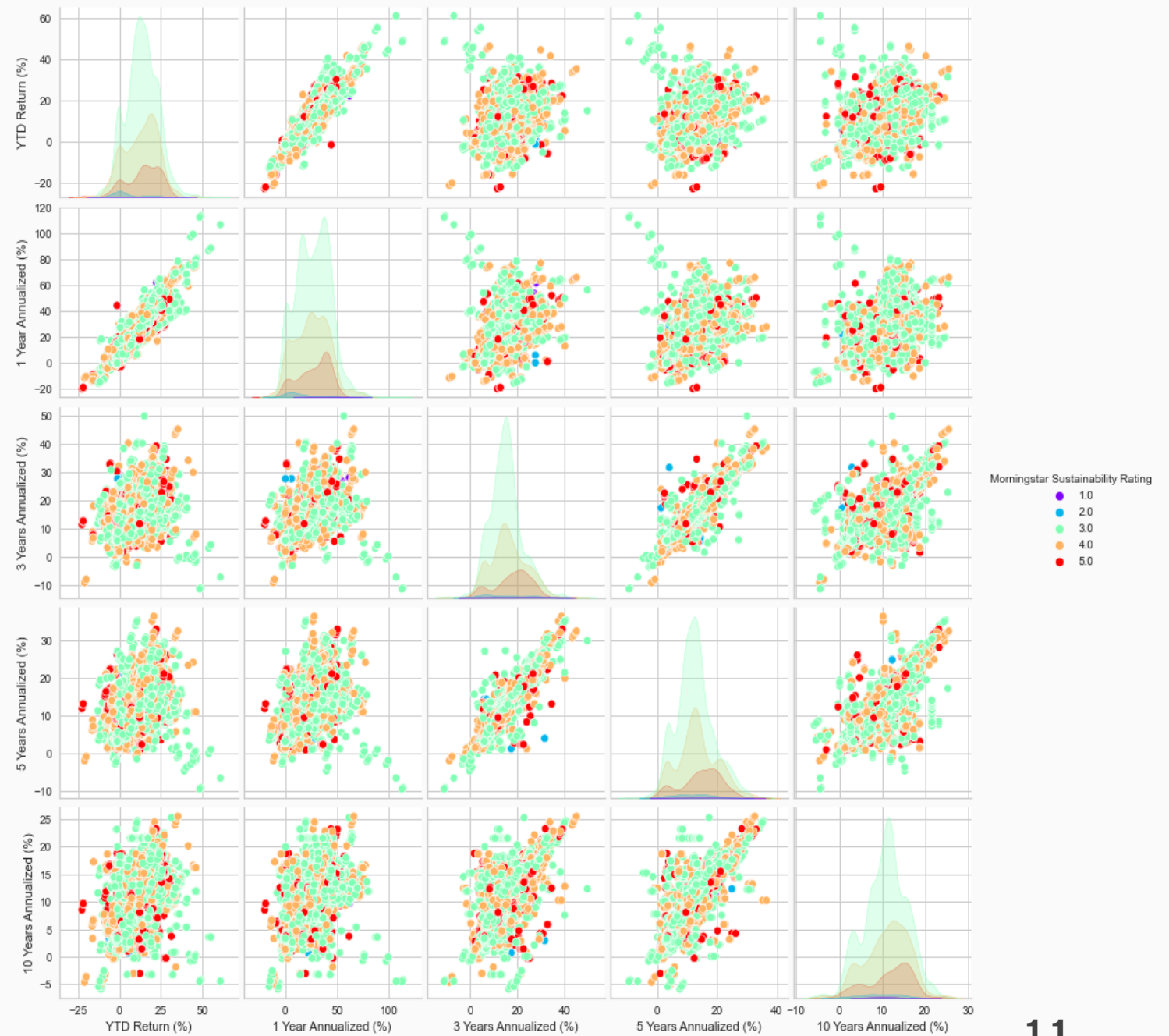
Numeric: 15

Boolean: 4

Data Description

Statistics	Description
Number of Variables	29
Number of Observations	6003
Missing Cells (%)	3.0%
Duplicate Rows (%)	0.0%
Total size in memory	1.3 MB
Average record size in memory	232 Byte

PAIR PLOT



HEAT MAP

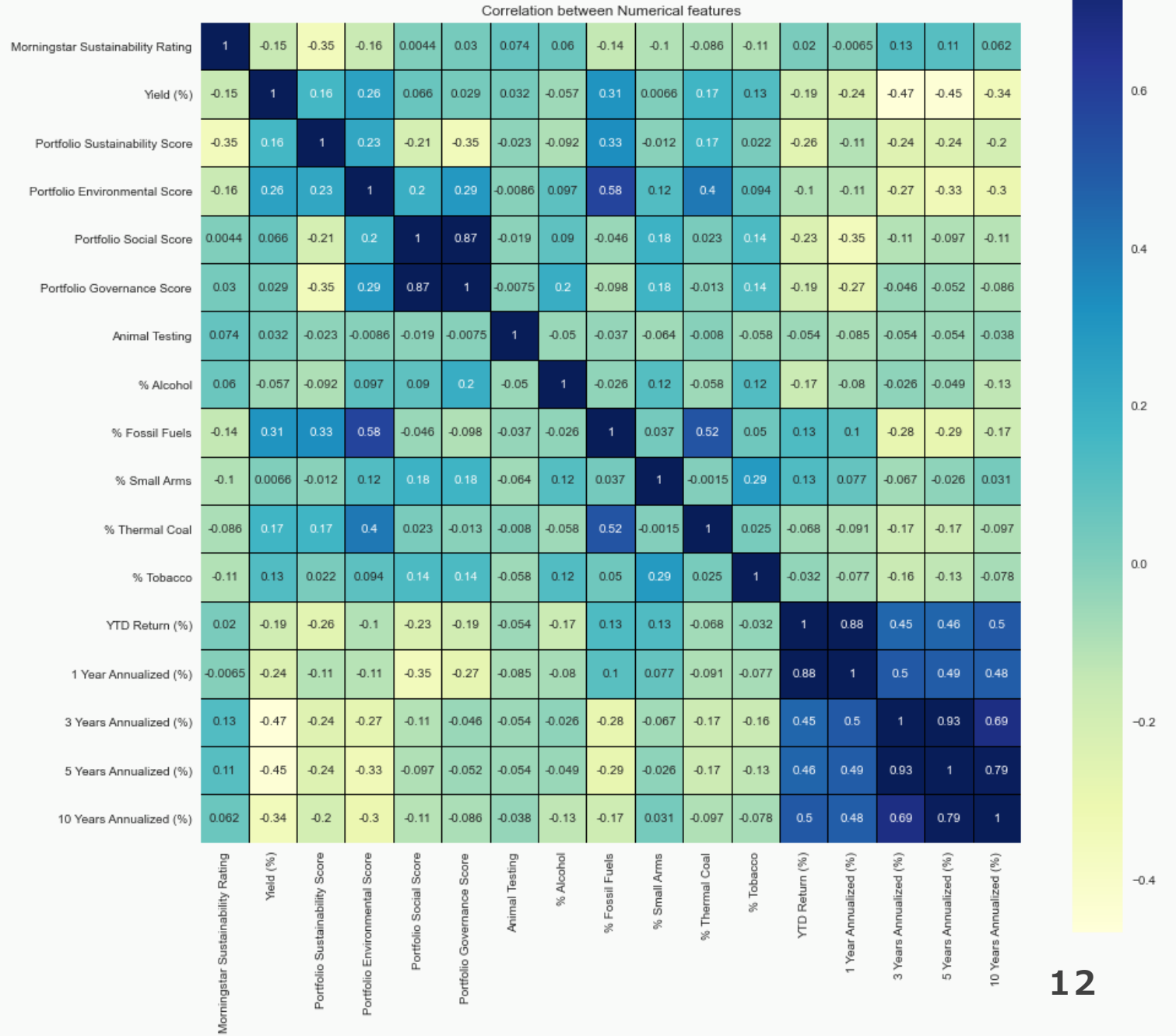




Tableau Dashboard

Responsible Investing
Dashboard

Responsible Investing Dashboard

Comparison between Large, Medium and Small Core

- [Based on Returns, Sustainability Score, Market cap](#)
- [Based on % 3 Years Annualized Ratings and Morningstar Sustainability Rating](#)

Based on Investment

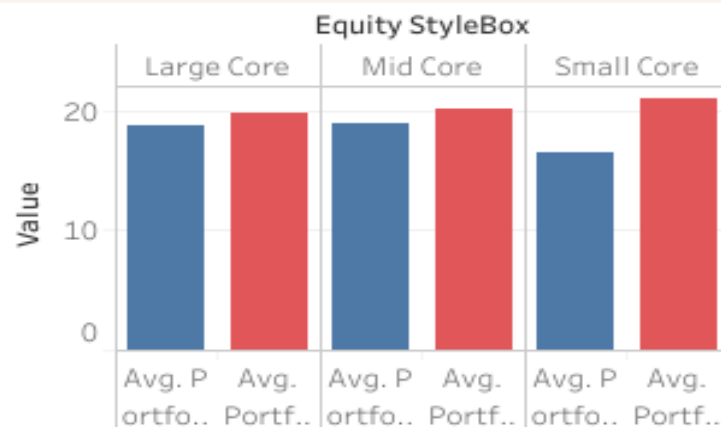
- Top Funds based on zero investment in Alcohol, Small Arms, Animal testing, Fossil Fuels, Thermal Coal and Tobacco based on ESG Score. Only funds with Morningstar Sustainability Rating = 5 have been taken into considerations
 - [Large Core Funds](#)
 - [Mid Core Funds](#)
 - [Small Core Funds](#)

Responsible Investing

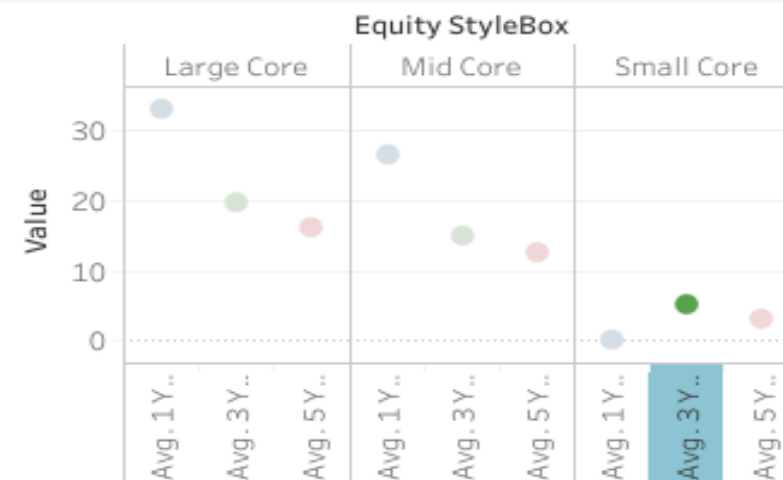
- Comparison between Large, Medium and Small Core

Comparison between Large Core, Mid Core and Small Core

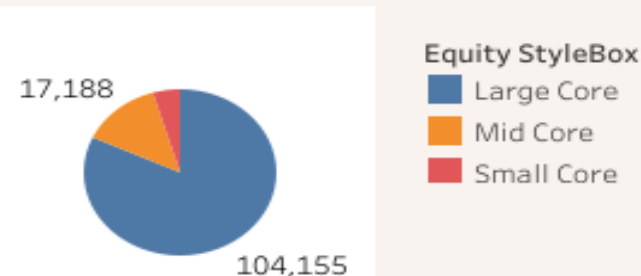
Portfolio Sustainability Score Vs Portfolio ESG Score



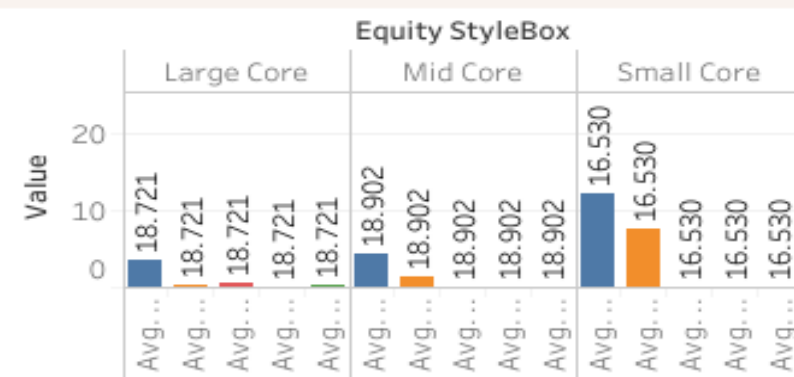
% Annualised returns



Average Market Cap



% of Investments done



Responsible Investing

- Comparison between Large, Medium and Small Core based on 3 Years Annualized (%) and Morningstar Sustainability Rating.

Comparison between Large Core, Mid Core, Small Core based on % 3 Years Annualized Returns and Morningstar Sustainability Rating



Responsible Investing - Insights

- Number of Large Core Funds with Morning Star Sustainability Rating 5 are higher compared to others and they are giving higher returns also
- There are no Small Core Funds that do not invest in Thermal Core and Fossil Fuel
- The ratio of funds which are claiming to be ESG Sustainable is very less
- Top funds with Morningstar Sustainability Rating 5 are having ESG score approximately between 16 to 22

Top 3 Large Core Funds which investors can choose for Sustainable Investment are:

1. Morgan Stanley
2. Pax Large Cap fund
3. BlackRock Advantage ESG US Eq

Top 3 Mid Core Funds which investors can choose for Sustainable Investment are:

1. Cavana Hill Mid Cap
2. Parnassus Mid cap
3. Neuberger Berman US Equity

Top Small Core Funds which investors can choose for Sustainable Investment is:

1. Calvert Green

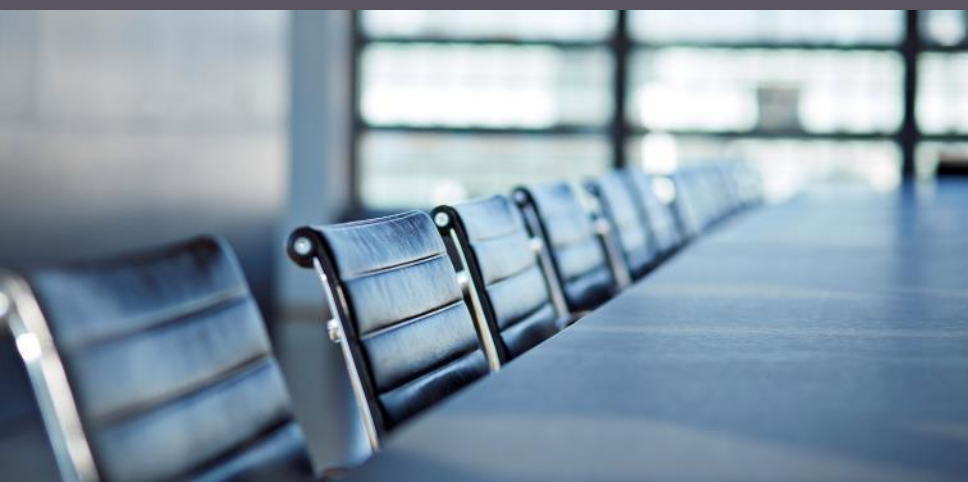


Jupyter Notebook

EDA and Model Building

Jupyter Notebook – Team SMART Street

Notebook	Description
Responsible_Investing1_Girish	EDA
Responsible_Investing2_Kinjal	Model Building/Prediction
Responsible_Investing3_Pallavi	EDA
Responsible_Investing4_Sagar	EDA and Model Building/Prediction



Summary

As a responsible citizen we should push towards investing and promoting ESG Funds which are addressing Environment, Social and Governance issues.

As a responsible business we should encourage sustainability driven growth which involves limiting Co2 Emission, Transparency and helping more and social cause.

Team – SMART Street

THANK YOU



Reduce
Reuse
Recycle

Team – SMART Street

