Investment Project

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ESG Risk Rating

What is an ESG rating?

An ESG rating evaluates a company’s performance in environmental, social, and governance (ESG) practices, as well as its operational efficiency. It reflects the company’s exposure to ESG risks and how well it manages them, resulting in a single score that indicates its overall ESG risk level.

How to interpret the score?

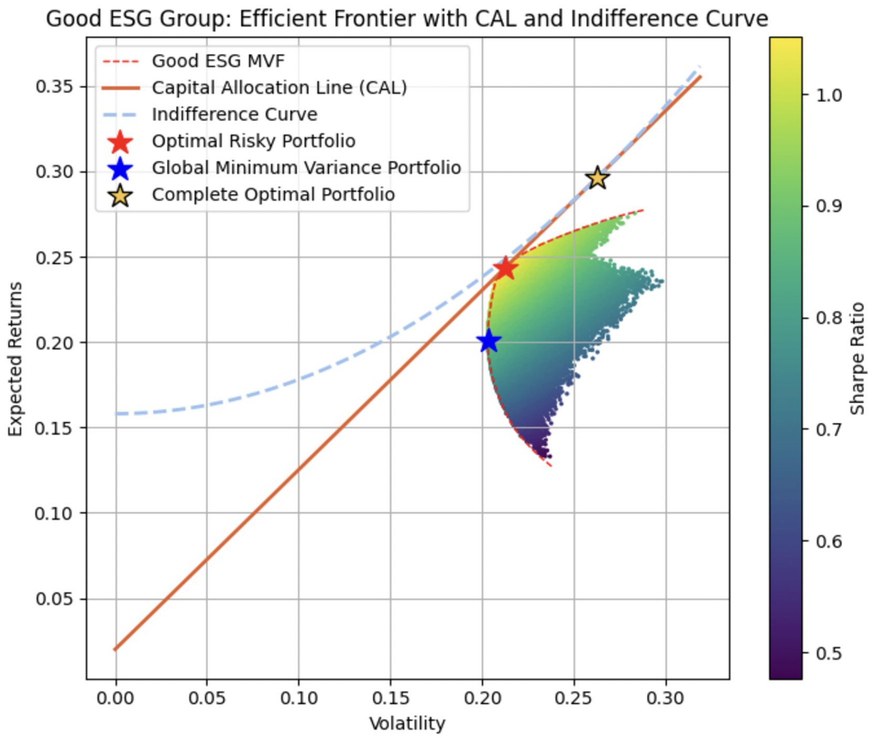
The higher the score, the greater the risk.

Negligible	Low	Medium	High	Severe
0-10	10-20	20-30	30-40	40+

Companies with Good ESG Ratings

Company	Ticker	Industry	ESG Risk Rating
American Express Co.	AXP	Diversified Financials	18.3
Blackrock Finance, Inc.	BLK	Diversified Financials	18.4
Visa	V	Software & Services	15.4
International Business Machines Corp.	IBM	Software & Services	13.3
Apple	AAPL	Technology Hardware	16.8

Performance of Good ESG Portfolios

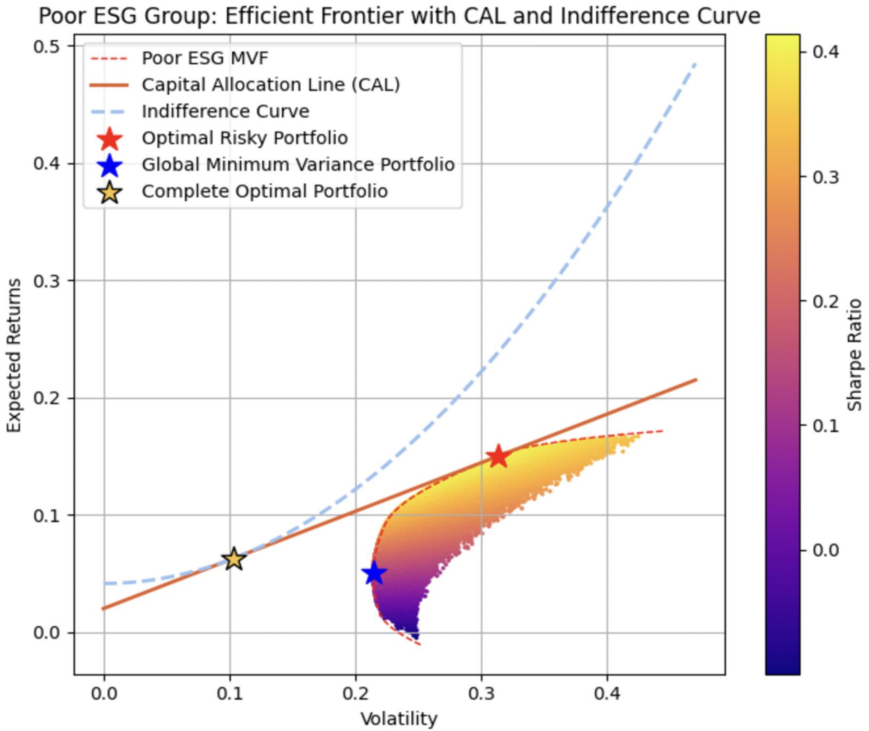


Portfolio Info	Global Minimum Variance Portfolio	Optimal Risky Portfolio	Complete Portfolio
Return	20.07 %	24.35 %	29.60 %
Risk	20.33 %	21.27 %	26.27 %

Companies with Poor ESG Ratings

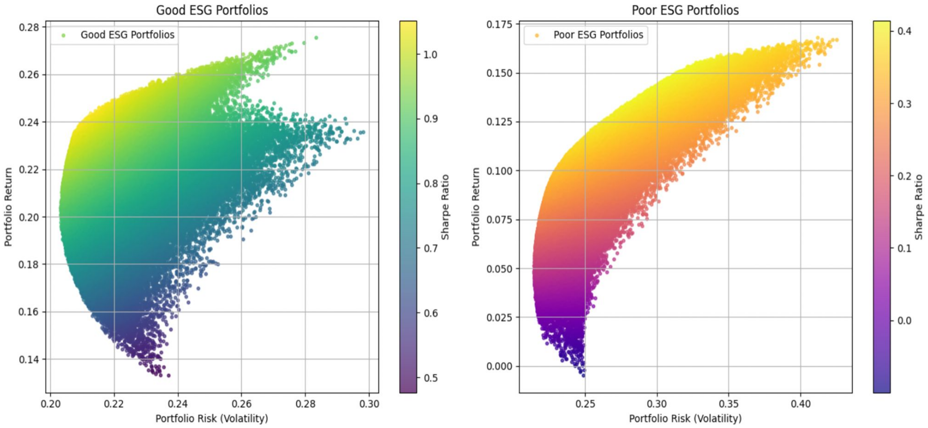
Company	Ticker	Industry	ESG Risk Rating
Wells Fargo & Co.	WFC	Banks	34.4
Cadence Bank	CADE	Banks	30.3
Delta Air Lines, Inc.	DAL	Transportation	30.4
Tyson Foods, Inc.	TSN	Food Products	36.8
The Kraft Heinz Co.	KHC	Food Products	30.7

Performance of Poor ESG Portfolios



Portfolio Info	**Global Minimum Variance Portfolio**	**Optimal Risky Portfolio**	**Complete Portfolio**
Return	5.10 %	15.0 %	6.29 %
Risk	21.46 %	31.40 %	10.35 %

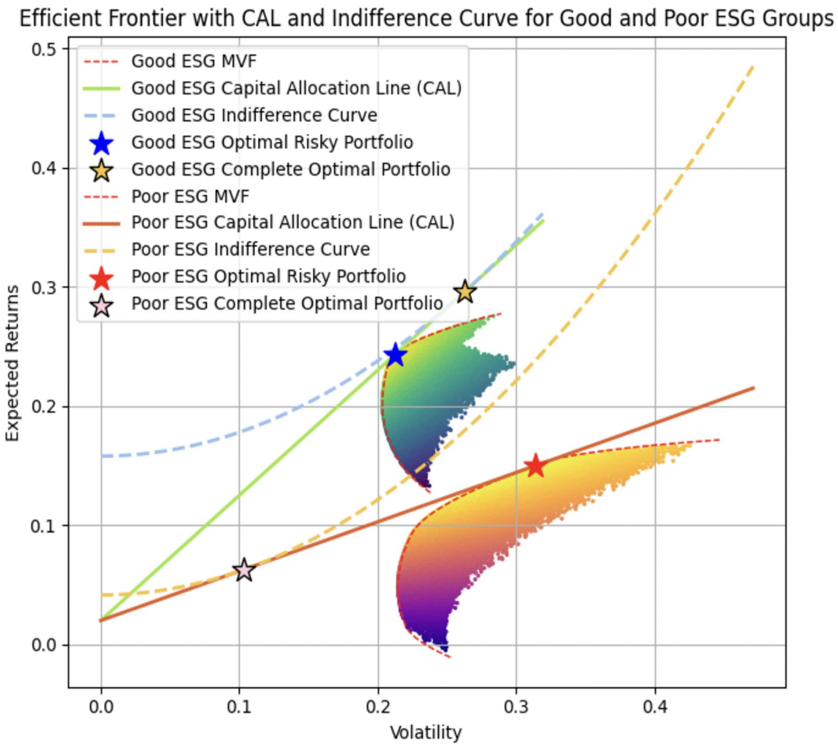
Comparison: Good ESG Portfolios Are More Concentrated and Less Volatile



Good ESG portfolios (left) exhibit a **more compact spread** along the efficient frontier, reflecting **lower risk and return variability**. In contrast, **poor ESG portfolios** (right) display a **broader distribution**, indicating **higher volatility and greater return uncertainty.**

This underscores the risks that investors may face when engaging with poor ESG companies, while highlighting the **inherent stability and lower volatility** of **good ESG portfolios**.

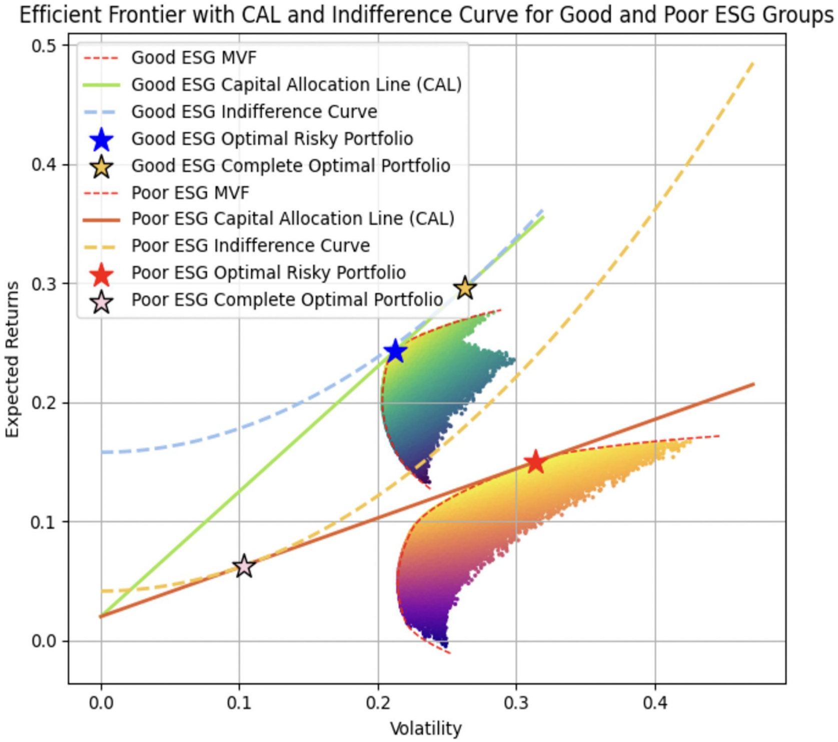
Comparison: Good ESG Optimal Risky Portfolio Achieve Higher Returns with Lower Risk



Optimal Risky Portfolio	Good ESG	Poor ESG
Return	24.35 %	15.0 %
Risk	21.27 %	31.40 %

The **optimal risky portfolio** for the **good ESG group** (blue star) achieves **higher expected returns** and exhibits a **lower risk** compared to the poor ESG group (red star). This highlights the ability of **good ESG portfolios** to deliver **superior returns with reduced risk.**

Comparison: Good ESG Complete Portfolio Deliver Higher Returns with Superior Risk Efficiency



Complete Portfolio	Good ESG	Poor ESG
Risky Asset %	123.50 %	32.96 %
Return	29.60 %	6.29 %
Risk	26.27 %	10.35 %

The **complete portfolio** (yellow star) for the **good ESG group** demonstrate **higher returns accompanied by higher risk**, reflected in a greater standard deviation.

The **good ESG group** features a **steeper CAL**, indicating **greater return per unit of risk**. In contrast, the **poor ESG group** requires **more risk to achieve comparable return.** This inefficiency is further highlighted by the indifference curve, where the **poor ESG portfolio** provides **lower utility for the same risk-return balance**.

Conclusion: Good ESG Portfolios Are Superior for Long-Term Investment

This analysis shows the benefits of investing in companies with strong ESG performance. **Good ESG portfolios** not only **deliver higher returns** but also **exhibit superior risk efficiency**, reflecting their ability to **optimize risk-adjusted performance**. In contrast, **poor ESG portfolios** are characterized by **inefficiency and heightened uncertainty, posing greater risks to investors**.

These findings highlight the strategic value of prioritizing ESG factors, as they align with both financial returns and long-term stability, making good ESG portfolios a more prudent and attractive investment choice.