Redirecting the Loop: The ESG Investing Versus Performance Paradox

MScSM
Master of Science in Sustainability Management

Alexandra Loparto | BBA in Finance, MSc in Sustainability Management | e: alex.loparto@mail.utoronto.ca
Supervisor: Dr. Lisa Kramer
Institute for Management & Innovation
UNIVERSITY OF TORONTO
MISSISSAUGA

RESEARCH QUESTION 1

Why is the answer to whether ESG investing improves portfolio performance still contested?

RESEARCH QUESTION 2

Which portfolio performance methods have produced the most consistent results and why? Do certain methods produce skewed results in terms of positive, negative or neutral findings?

RESEARCH QUESTION 3

Are there methodological similarities between studies that influence the distribution of positive, negative and neutral findings?

Objectives

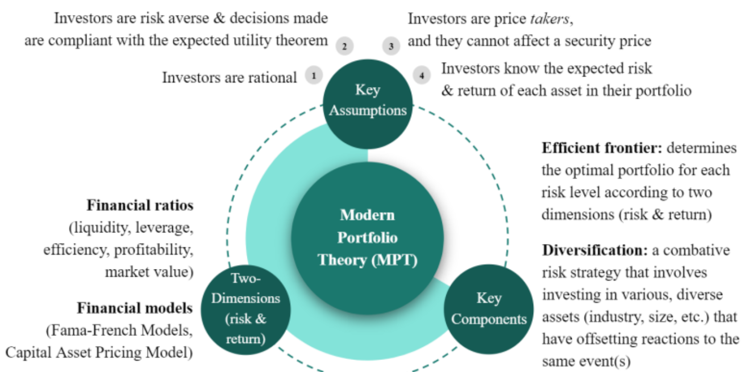
Contribute to finding answers regarding Environmental, Social and Governance (ESG) factors' influence on risk and return aspects of traditional investing that many publications and researchers aim to address, including providing insight that may deliver more consistent and/or informative conclusions concerning the ESG investing and risk-adjusted return (RAR) paradox

Identify what is preventing consistent conclusions to questions surrounding performance and address associated concerns | Identify trends or similarities in research methodologies and findings | Understand how certain recurring methods may influence results in future studies so researchers may be cognizant of such relationships during method formulation | Provide a foundation for future studies to reference

Theoretical

Traditional Investing

Modern Portfolio Theory



(Markowitz, 1952)

ESG Investing

Environmental Factors	Social Factors	Governance Factors
Environmental conservation and protection	Consideration of society, people & communities	Corporate operational standards/responsibility
Ex: Carbon emissions, water management, ecological impacts	Ex: Data security, product quality/safety, company relations	Ex: Board diversity, executive compensation, anti-corruption

ESG Investing

Basis on nonfinancial factors (any investment factor that is not directly related to finances)

Presumed to have financial relevance on a risk and return basis

(Steen et al., 2019)

References

Curtis, D. (2019). Sustainability-Related Indices Should be Attuned to the Cohort Driving Growth in Sustainable Investing-Millennials. Harvard Extension School.
Dunn, J. (2009, July). A Framework for Environmental, Social and Governance Considerations in Portfolio Design: From the Eyes of a Quant where ESG Intersects with Alpha Beta Separation. AQR Capital Management.
Markowitz, H. (1952). Portfolio Selection. *The Journal of Finance, 7*(1), 77-91.
US SIF. (2020). *2020 Report on U.S. Sustainale, Responsible and Impact Investing Trends.* Minneapolis: U.S. SIF.
Steen, M., Moussawi, J. T., & Gjolberg, O. (2019, December 19). Is There a Relationship Between Morningstar's ESG Ratings and Mutual Fund Performance? *Journal of Sustainable Finance and Investment, 10*(4), 349-370.
Fullwiler, S. (2016). Routledge Handbook of Social and Sustainable Finance. In O. M. Lehner (Ed.). Routledge International Publishing.

Moving Forward

ESG investing is anticipated to increase significantly in the coming years as millennials, who value financial return *and nonfinancial return* more so than other generations, are anticipated to inherit ~$30 trillion (Curtis, 2019).

Global ESG AUM have been growing at a significant pace, and as the financial markets globalize, it would be in the US' best interest to understand this form of investing and adapt (US SIF, 2020).

Short Term

Consider the effect of over-diversification on findings pertaining to the relationship between ESG and RAR

Include a more diverse set of methodologies, particularly by including more empirical testing

Long Term

ESG investing contradicts some key assumptions of MPT, suggesting the assumptions may be too rigid and require revisitation.

To account for nonfinancial factors in investing:

Include a third dimension to the efficient frontier
Risk + Return + **IMPACT** (Fullwiler, 2016)

Consider an ESG alpha alongside traditional alpha, measuring the excess nonfinancial utility derived from sustainable investments (Dunn, 2009)

Empirical

Systematic Literature Review Methodology

Classification	Significance	Codes	Significance
1	ESG and RAR Relationship	A	Positive
		B	Negative
		C	Neutral
2	Analysis Period	A	Less than 3 years
		B	Between 3 and 5 years
		C	Between 6 and 10 years
		D	More than 10 years
		E	Multiple
3	Approach	A	Advocates ESG approach
		B	Provides a critique of ESG approach
		C	Assumes a neutral approach
		D	Suggests a new approach
4	Methodology	A	Concept/Model Building
		B	Internal Performance Comparison
		C	Empirical Testing
		D	New or other
4.1	Screening Type Applied	A.1	Positive Screen
		A.2	Negative Screen
		A.3	Distribution
		A.4	Multiple
5	Performance Determinant(s)	A	CAPM
		B	Fama-French 3 Factor Model
		C	Fama-French-Carhart Model
		D	Fama-French 5 Factor Model
		E	Other Regression Analysis
		F	Jensen's Alpha
		G	Sharpe Ratio
		H	Treynor Ratio
		I	Other

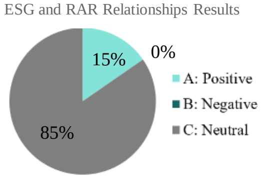
Scope
Papers reviewed conducted studies within the last 5 years to determine the relationship between ESG and RAR within the US equity market.

Methodology
Data gathered from publications were classified and coded so trends, differences, commonalities, and gaps may be identified and analyzed to produce suggestions for future research. The classification includes five subjects, numbered 1-5 and coded by letters A through I. A total of 13 papers were reviewed after exclusions.

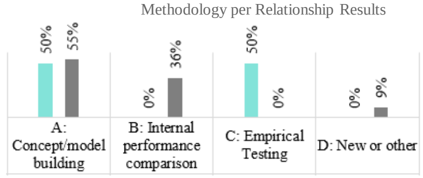
Key Findings

Modern Portfolio Theory

ESG and RAR Relationships Results



Methodology per Relationship Results



85% of the papers reviewed found a neutral ESG and RAR relationship, whereas 15% found a positive relationship
Most papers with neutral findings used a concept/model building or internal performance comparison to find the relationship

Many studies with neutral findings who used methodology codes A and B possibly **over-diversified** their portfolios, with some including 400 assets per portfolio

The only paper using an empirical testing methodology concluded with positive results; the other with positive findings only included ~40 assets per test portfolio