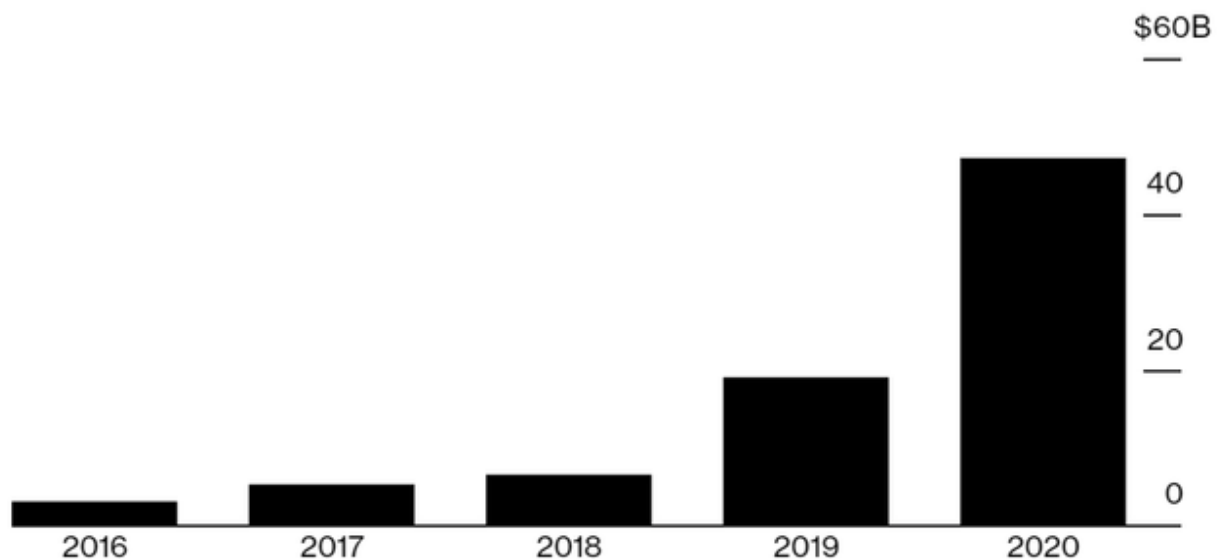


ESG, or environmental, social, and governance, investing has exploded in recent years, but especially during this pandemic.

- ESG ETF assets have grown about 100% annually since 2016
- though off a base of just \$3 billion

Green Giant

ESG ETF assets have more than doubled so far this year



Source: Bloomberg

ESG is becoming a major focus of investment decisions for some of the world's richest millennials, as well as Gen Zers.

- In the US millennials and Gen Z number about 150 million, 2X baby boomers
- Morgan Stanley estimates that in the coming decade's US millennials will inherit \$30 trillion
- globally about \$65 trillion
- the greatest wealth transfer in human history

At the time of this publication (June 2020), over 2,200 investment managers have signed on to the United Nations (UN) PRI, Principles for Responsible Investing, which encourages signatories to “incorporate ESG issues into investment analysis and decision-making processes.”

Indeed, investment manager signatories managed approximately **US\$80 trillion as of March 31, 2020.**⁷ Such widespread use of ESG criteria in the investment management process **means that identifying ESG skill will likely be as difficult as identifying other types of investor skill...**

A large shift in investor preference toward ESG is occurring as two distinct groups—women and millennials—take greater control of household assets. Accordingly, Bank of America (2019) recently noted a “tsunami of assets is poised to invest in ‘good’ stocks” and concluded that “three critical investor cohorts care deeply about ESG: women, millennials, and high net worth individuals.

Based on demographics, we conservatively estimate over \$20tn of asset growth in ESG funds over the next two decades—equivalent to the S&P 500 today.”⁹ Similarly, an Accenture study concluded that US\$30 trillion in assets will change hands, a staggering amount which, at its peak between 2031 and 2045, will witness 10% of total US wealth transferred every five years.” - [Research Affiliates](#) (emphasis added)

Here are four facts you need to know about the complex world of ESG investing.

- to minimize the risks of being left behind in the coming decades
- while maximizing safe income
- and maximizing the chance of achieving strong long-term returns and the rich retirement you deserve

Fact 1: ESG Is Popular But Complex

A 2018 survey indicated that 87% of high net worth (HNW) millennials considered a company's ESG track record an important consideration in their decision about whether to invest in it or not, while another found that 90% of millennials wanted to tailor their investments to their values.” - MSCI

From 2019 to 2020 ESG fund assets doubled to just over \$40 billion. They just hit \$2 trillion, with over \$120 billion in Q1 inflows alone.

Sustainability-focused funds attracted record inflows during the first quarter, pushing global assets under management in ESG funds to nearly \$2 trillion, according to a [report](#) from Morningstar released Friday...

The rise underscores the momentum behind ESG investing, or when environmental, social and governance factors are considered. Assets in these types of funds first topped \$1 trillion in the second quarter of 2020.

Global sustainable funds attracted a record \$185.3 billion during the first quarter of 2021, up 17% quarter over quarter. Overall, assets in ESG funds jumped 17.8% compared to the fourth quarter of 2020." - [CNBC](#)

In the US over 33% of all active fund assets are now using ESG risk analysis.

Between 2018 and 2020, total U.S.-domiciled sustainably invested assets under management, both institutional and retail, grew 42%, to \$17.1 trillion, up from \$12 trillion, according to the Forum for Sustainable and Responsible Investment's 2020 trends report.

The latter number represents 33% of the \$51.4 trillion in total U.S. assets now under professional management." - [CNBC](#)

Today almost 3,000 asset managers running over \$80 trillion in assets at least partially consider ESG risk in their investment decisions.

- about 75% of all active fund assets are now considering ESG in their investment decisions.

Of course, just because a trend is popular, doesn't mean it's necessarily easy to cash in on it.

Complicating socially conscious investing is the fact the Securities and Exchange Commission doesn't regulate how the ESG label is applied, though it's considering adding rules for funds that call themselves ESG or sustainable.

Independent ESG rating companies around the world have sprung up to fill the gap. But they don't always see eye-to-eye. A 2019 [paper](#) from MIT Sloan School of Management found the correlation of five raters' ESG scores averaged 0.61, compared with a 0.99 correlation of credit ratings from Moody's Investor Services and S&P Global Ratings." - [Bloomberg](#)

It's important to understand that ESG investing isn't necessarily about "evil" or "good" companies. Those classifications are very subjective and based on personal ethics.

BlackRock Inc.'s iShares ESG Aware MSCI USA ETF ([ESGU](#)) includes stakes in Exxon Mobil Corp. and Chevron Corp., for example, while its biggest holdings are in tech companies [under investigation](#) for monopoly abuse.

Stocks in Xtrackers MSCI USA ESG Leaders Equity ETF ([USSG](#)) include McDonald's Corp., which has come under scrutiny for its treatment of [employees](#)." - Bloomberg

This brings us to Fact #2, which is perhaps the most important fact of all.

Fact 2: ESG Risk Analysis Is An Important Component Of A Company's Overall Financial Risk Profile

In today's hyperpolarized political climate, some investors consider ESG to be political/personal ethics/opinion-driven nonsense.

ESG as measured by institutions is NOT simply the concern of "woke" and "on-trend" hippy millennials trying to virtue signal to impress Silicon Valley venture capitalists or social media followers.

Companies with strong ESG profiles may be better positioned for future challenges and experience fewer instances of bribery, corruption, and fraud." - MSCI

Bank of America's research finds that ESG metrics also help improve the long-term profitability and outcomes at companies.

“Punchline: higher ROE, lower risk & lower cost of capital

We find that companies with greater gender diversity at the board/management level typically see higher ROE and lower earnings risk than peers.

Moreover, based on disclosure data from ICE, we find gender diversity in management is associated with a ~20% premium on P/E on an overall and sector-neutral basis.

Ethnic and racial workforce diversity shows similarly strong results: higher ROE, lower risk, and significant premia on P/E and P/BV." - Bank of America (emphasis original)

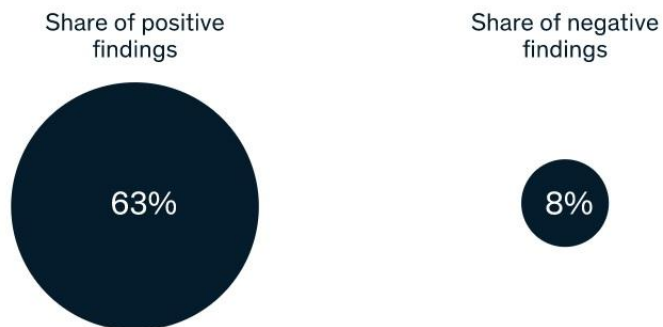
According to the world's best risk-assessors, ESG metrics are a critical component of a company's overall risk profile. Here's who considers ESG important and builds it into their safety models and ratings.

- BlackRock - #1 asset manager in the world
- MSCI - #1 indexing giant
- Morningstar
- Reuters'/Refinitiv
- ISS (Institutional Shareholder Services) - #1 corporate proxy firm on earth
- S&P
- Fitch
- Moody's
- DBRS (Canadian credit rating agency)
- AMbest (insurance industry rating agency)
- Bank of America- one of the 16 most accurate economic/analyst teams in the world according to Market Watch

- Bloomberg
- FactSet Research
- State Street - one of the largest custodial banks on earth
- Wells Fargo - one of the 16 most accurate economic/analyst teams in the world according to Market Watch
- NAREIT

Paying attention to environmental, social, and governance (ESG) concerns does not compromise returns—rather, the opposite.

Results of >2,000 studies on the impact of ESG propositions on equity returns



Source: Gunnar Friede et al., "ESG and financial performance: Aggregated evidence from more than 2000 empirical studies," *Journal of Sustainable Finance & Investment*, October 2015, Volume 5, Number 4, pp. 210–33; Deutsche Asset & Wealth Management Investment; McKinsey analysis

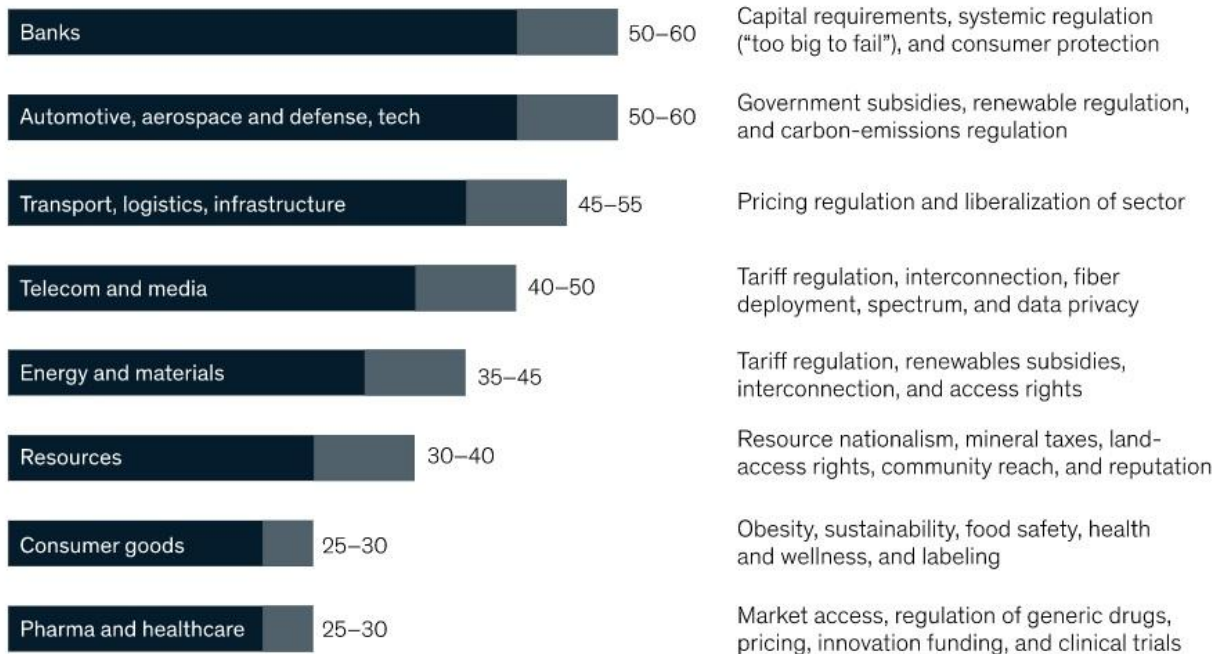
McKinsey
& Company

A strong environmental, social, and governance (ESG) proposition links to value creation in five essential ways.

	Strong ESG proposition (examples)	Weak ESG proposition (examples)
Top-line growth	Attract B2B and B2C customers with more sustainable products Achieve better access to resources through stronger community and government relations	Lose customers through poor sustainability practices (eg, human rights, supply chain) or a perception of unsustainable/unsafe products Lose access to resources (including from operational shutdowns) as a result of poor community and labor relations
Cost reductions	Lower energy consumption Reduce water intake	Generate unnecessary waste and pay correspondingly higher waste-disposal costs Expend more in packaging costs
Regulatory and legal interventions	Achieve greater strategic freedom through deregulation Earn subsidies and government support	Suffer restrictions on advertising and point of sale Incur fines, penalties, and enforcement actions
Productivity uplift	Boost employee motivation Attract talent through greater social credibility	Deal with “social stigma,” which restricts talent pool Lose talent as a result of weak purpose
Investment and asset optimization	Enhance investment returns by better allocating capital for the long term (eg, more sustainable plant and equipment) Avoid investments that may not pay off because of longer-term environmental issues	Suffer stranded assets as a result of premature write-downs Fall behind competitors that have invested to be less “energy hungry”

In many industries, a large share of corporate profits are at stake from external engagement.

Estimated share of EBITDA¹ at stake, %



¹Earnings before interest, taxes, depreciation, and amortization.

McKinsey
& Company

Analyst firm McKinsey has done several studies on this topic and concluded that between 25% and 60% of cash flows are affected by ESG risk.

It also did a meta-analysis of over 2,000 studies and found the ESG risk mitigation was 8X as likely to boost a company's bottom line as hurt it.

The reason some investors consider ESG to be political is that some investors consider some industries to be inherently "evil" such as tobacco, energy, big tech, pharma, health insurers, fast-food, snack foods, and defense contractors.

- such opinions are personal and based on individual ethics
- **ESG scores as calculated by institutions are quantitatively based and focused on only fundamental financial risks to the underlying business**

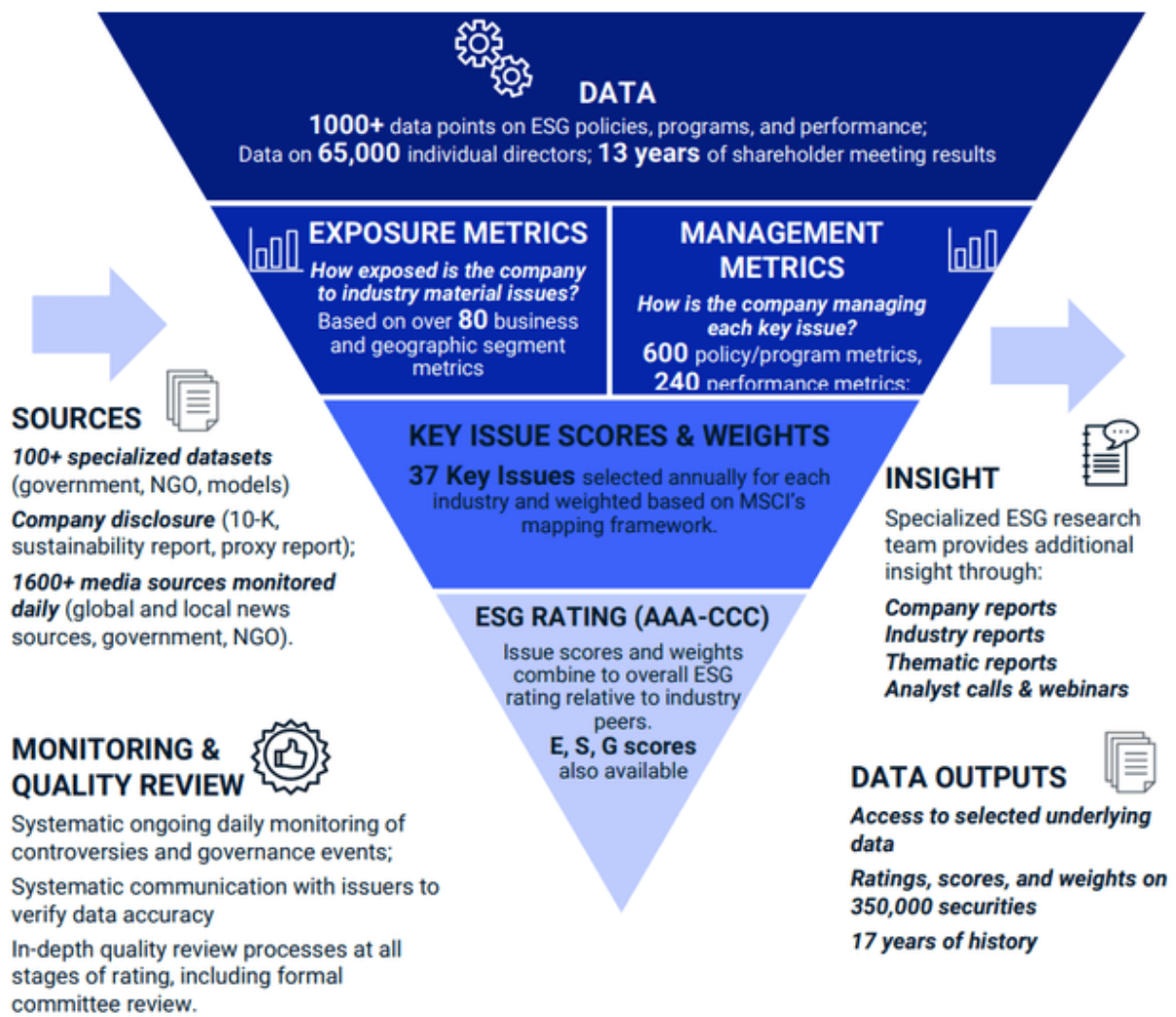
- they are compared against industry peers and as objective as can be realistically expected

Personal ethical or political opinions are not what rating agencies or asset managers care about.

MSCI rates over 2,800 global companies on 37 ESG metrics, using a quantitative and qualitative approach, just as all the rating agencies do, and Ben Graham recommended.

Our global team of 185 experienced research analysts assesses thousands of data points across 37 ESG Key Issues, focusing on the intersection between a company's core business and the industry issues that can create significant risks and opportunities for the company. Companies are rated on an AAA-CCC scale **relative to the standards and performance of their industry peers...**

Figure 1: ESG Rating Framework and Process Overview



The MSCI ESG rating model seeks to answer four key questions about companies:

- What are the most significant ESG risks and opportunities facing a company and its industry?
- How exposed is the company to those key risks and/or opportunities?
- How well is the company managing key risks and opportunities?
- What is the overall picture for the company and how does it compare to its global industry peers?" - MSCI

3 Pillars	10 Themes	37 ESG Key Issues	
Environment	Climate Change	Carbon Emissions Product Carbon Footprint	Financing Environmental Impact Climate Change Vulnerability
	Natural Resources	Water Stress Biodiversity & Land Use	Raw Material Sourcing
	Pollution & Waste	Toxic Emissions & Waste Packaging Material & Waste	Electronic Waste
	Environmental Opportunities	Opportunities in Clean Tech Opportunities in Green Building	Opp's in Renewable Energy
Social	Human Capital	Labor Management Health & Safety	Human Capital Development Supply Chain Labor Standards
	Product Liability	Product Safety & Quality Chemical Safety Financial Product Safety	Privacy & Data Security Responsible Investment Health & Demographic Risk
	Stakeholder Opposition	Controversial Sourcing	
	Social Opportunities	Access to Communications Access to Finance	Access to Health Care Opp's in Nutrition & Health
Governance	Corporate Governance*	Board* Pay*	Ownership* Accounting*
	Corporate Behavior	Business Ethics Anti-Competitive Practices Tax Transparency	Corruption & Instability Financial System Instability

** Corporate Governance Theme carries weight in the ESG Rating model for all companies. In 2018, we introduce sub-scores for each of the four underlying issues: Board, Pay, Ownership, and Accounting.*

(Source: MSCI)

The ESG scores you find from the best risk-assessors in the world are not opinions based on political correctness. They use a quantitative approach to fundamental

company risk analysis. One based on decades of historical data pertaining to minimizing the risk of fundamental deterioration, bankruptcy, and stock/bond investors getting wiped out.

- ESG risk ratings + trends make up about 20% of the overall DK quality score for most companies that have an ESG rating from MSCI, Reuters' & Morningstar/Sustainalytics

Here is an example of how MSCI's 185 industry experts rate Enbridge ([ENB](#)), the North American pipeline giant.

Enbridge Inc. (ENB)

Industry: Oil & Gas Refining, Marketing, Transportation & Storage

Country/Region: Canada

MSCI
ESG RATINGS



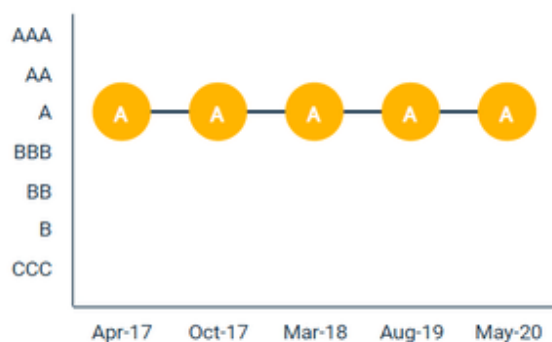
CCC	B	BB	BBB	A	AA	AAA
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Enbridge's rating remains unchanged since October, 2017.

Enbridge is **average** among 41 companies in the **oil & gas refining, marketing, transportation & storage** industry.

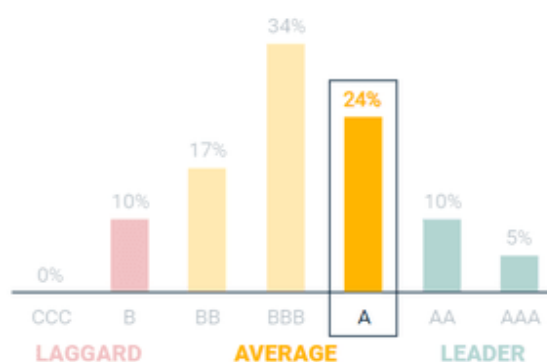
ESG Rating history

MSCI ESG Rating history data over the last five years or since records began.

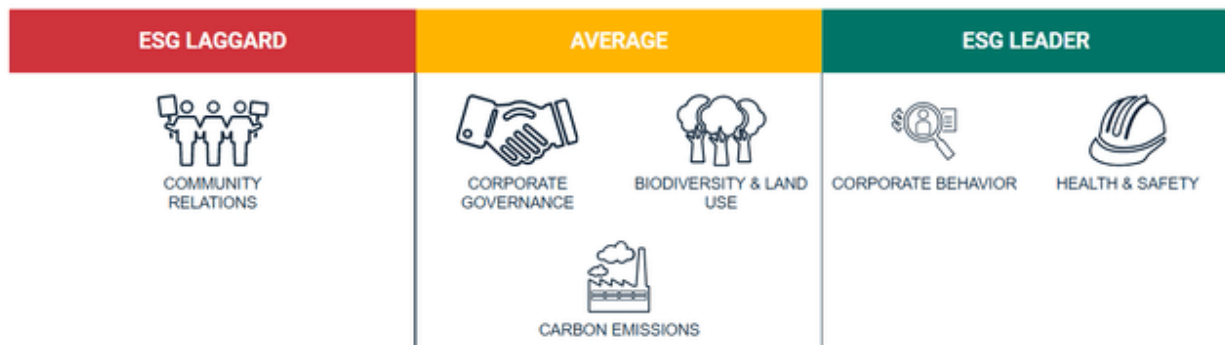


ESG Rating distribution

Universe: MSCI ACWI Index constituents oil & gas refining, marketing, transportation & storage, n=41.



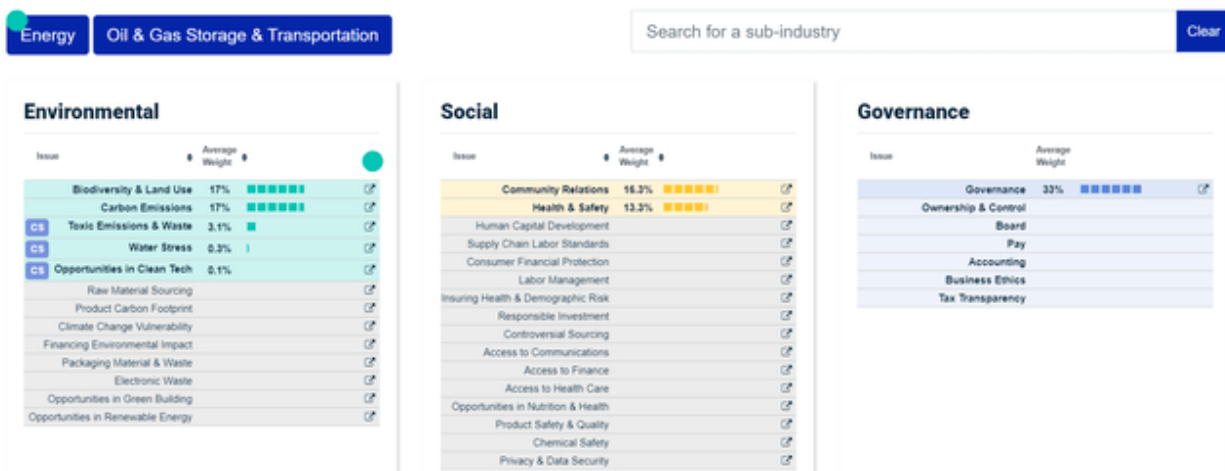
We focus on the key issues material to the **oil & gas refining, marketing, transportation & storage industry**. Here is how **Enbridge** compares to industry peers. MSCI also evaluates companies on their controversial business activities (weapons, tobacco, gambling, global norms and principles etc) and sustainable impact solutions (renewable energy, health, education etc). This information is only factored into the MSCI ESG Ratings from a financial risk perspective. For more details, visit the [ESG investing page](#).



ESG Industry Materiality Map

MSCI ESG Ratings provide an assessment of the long-term resilience of companies to environmental, social, and governance (ESG) issues. Our ESG Industry Materiality Map is a representation of the current Key ESG Issues and their contribution to companies' ESG Ratings. It is part of our ESG Ratings transparency initiatives, through which we have made ESG Ratings of [companies](#) and [funds](#) accessible to the public.

To see the Key Issues assessed for companies in a specific GICS® sub-industry or sector, find the industry in the dropdown list or use the search bar on the right. [Click here](#) for more information.



(Source: MSCI)

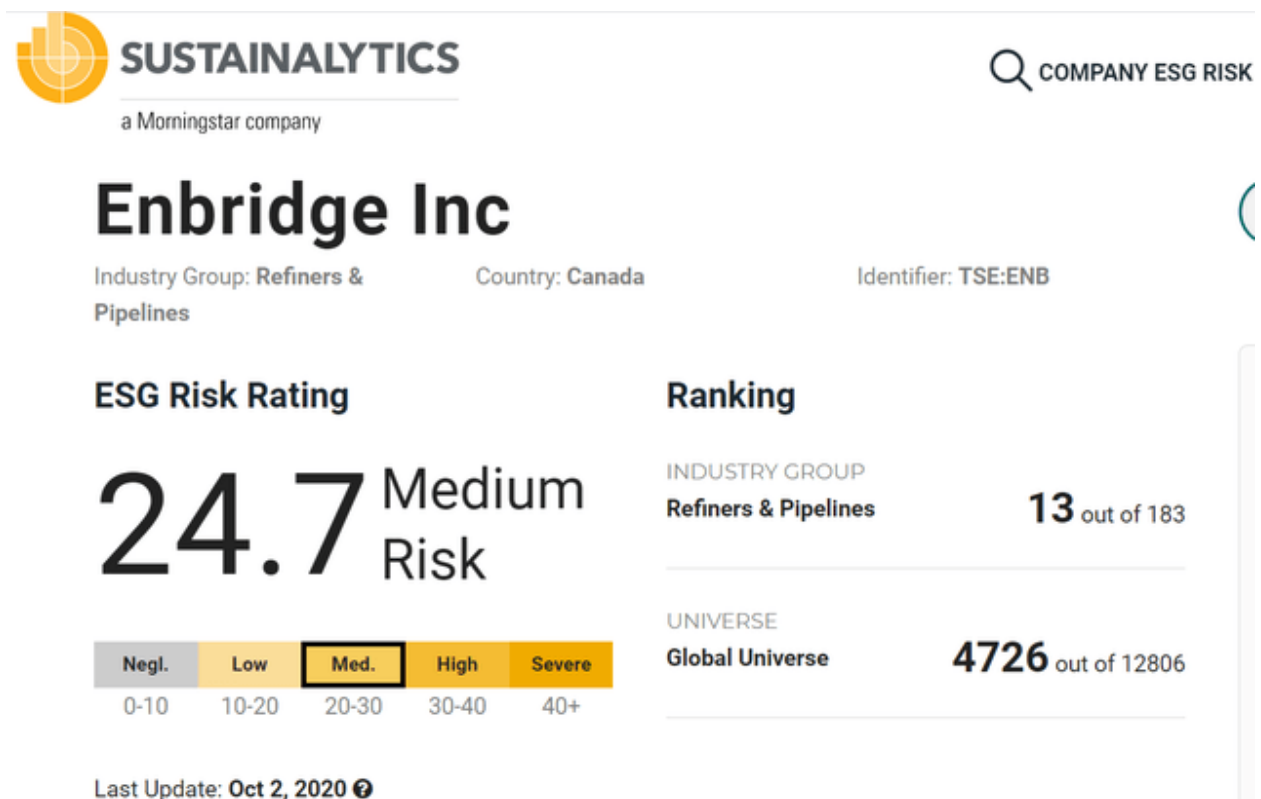
- based on the 9 material sustainability factors MSCI's 185 industry experts believe is important to financial risk for midstream companies, ENB scores is in the top 39% of its peers (about average)
- that score is stable over the last four years

How Morningstar/Sustainalytics Assesses Long-Term ESG Financial Risk

- Morningstar/Sustainalytics cares about 20 material ESG variables that are historically correlated to a company's enterprise value (market cap + net debt)
- Financial risk NOT political/personal ethical opinions are what Morningstar assesses
- Morningstar/Sustainalytics uses a 100 point material ESG risk scale

Again, note the comparison between industry peers.

- industry inherent ESG risk is always considered but no industry is inherently "evil"





SUSTAINALYTICS

a Morningstar company

Industry Comparison

	ESG RISK RATING		INDUSTRY RANK
The Williams Cos., Inc.	24.0		Med. 9 out of 183
Kinder Morgan, Inc.	18.8		Low 1 out of 183
Enbridge Inc	24.7		Med. 13 out of 183
TC Energy Corp.	26.2		Med. 20 out of 183



SUSTAINALYTICS

a Morningstar company



COMPANY ESG RISK

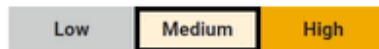
Our Approach to Calculating ESG Risk

The ESG Risk Ratings measure a company's exposure to industry-specific material ESG risks and how well a company is managing those risks.

Exposure

Exposure refers to the extent to which a company is exposed to different material ESG issues. Our exposure score takes into consideration subindustry and company-specific factors such as its business model.

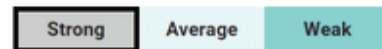
Enbridge Inc's Exposure is **Medium**



Management

Management refers to how well a company is managing its relevant ESG issues. Our management score assesses the robustness of a company's ESG programs, practices and policies.

Enbridge Inc's Management of ESG Material Risk is **Strong**



SUSTAINALYTICS

a Morningstar company



COMPANY ESG RISK

Top Material ESG Issues for Enbridge Inc

Understand how exposed companies are to specific material ESG issues and how well companies are managing these issues.



Corporate Governance



Carbon - Own Operations



Community Relations

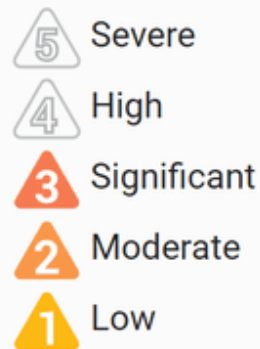


Emissions, Effluents and
Waste

Controversy Rating

Highest Controversy level that has impacted Enbridge Inc's ESG Risk Rating in the last three years

Highest Controversy Level



Contributing Events

Society & Community Incidents -
Community Relations

- Morningstar considers ENB's inherent ESG exposure to be medium risk and management is doing a very good job of managing that risk.

Every controversy surrounding ENB is factored into Morningstar ESG risk rating. That includes the controversies around pipeline projects that environmentalists have been trying to kill for decades.

- Morningstar considers this to be a medium ESG risk industry
- and management is doing an average job of managing that risk
- Morningstar scores ENB 24.7 "medium risk" in the top 7% of peers and in the **top 37% of all companies Morningstar rates**
- ESG risk score less than Facebook
- despite all the regulatory risks it's faced in recent months

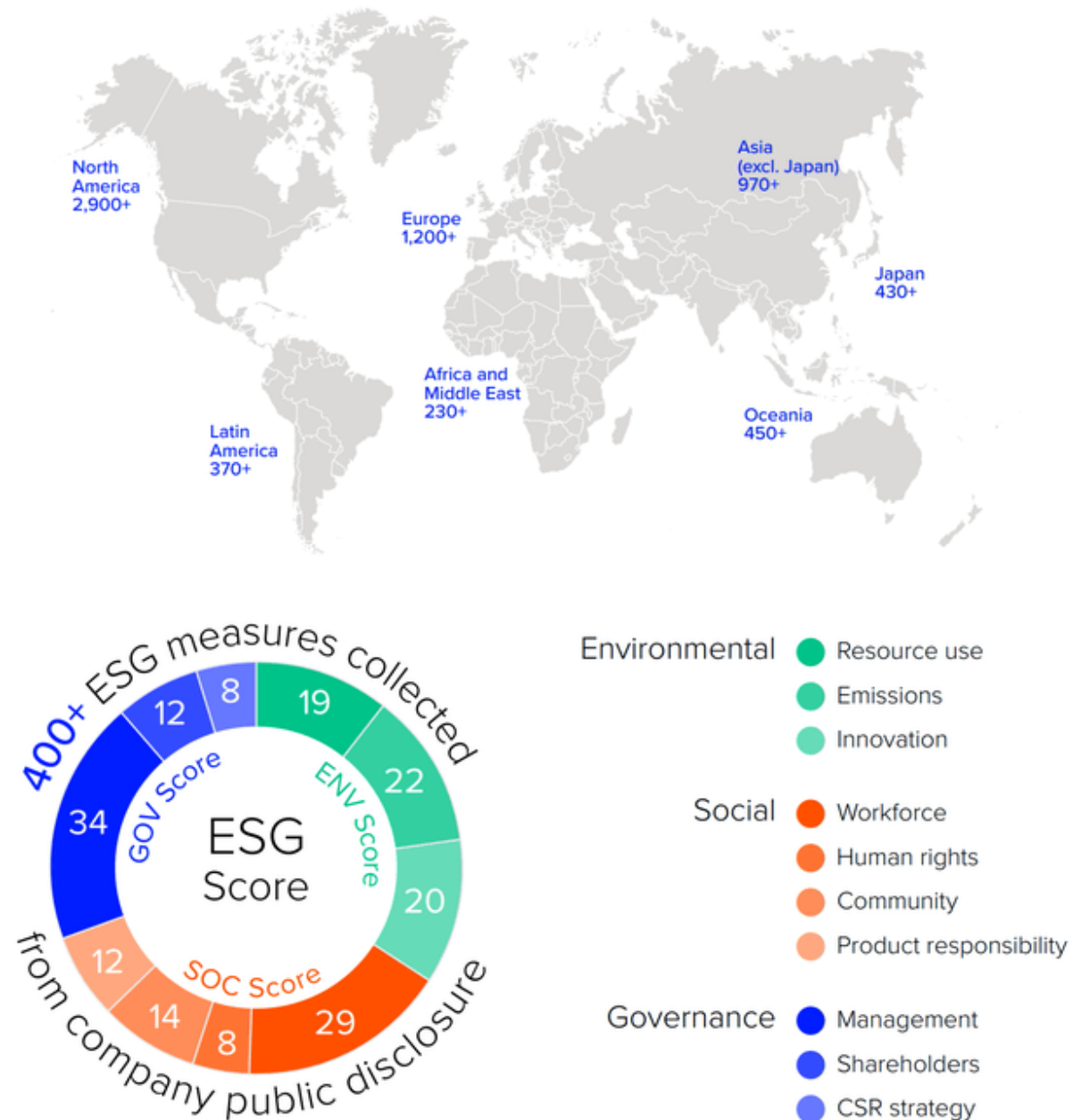
Reuters'/Refinitive also provides ESG financial risk ratings.

- over 150 industry experts covering over 7,000 global companies
- based on 400+ fundamental metrics

- and 178 materially important financial ESG risk factors

Global coverage

The ESG universe of companies for which ESG data is maintained and ESG Scores are calculated consists of more than 7,000 companies globally. Regional breakdown is provided in the illustration below:



Company reports



Refinitiv ESG data (400 measures)



ESG Score comprised of 178 critical ESG measures

Environmental

Social

Governance

ESG Controversies category

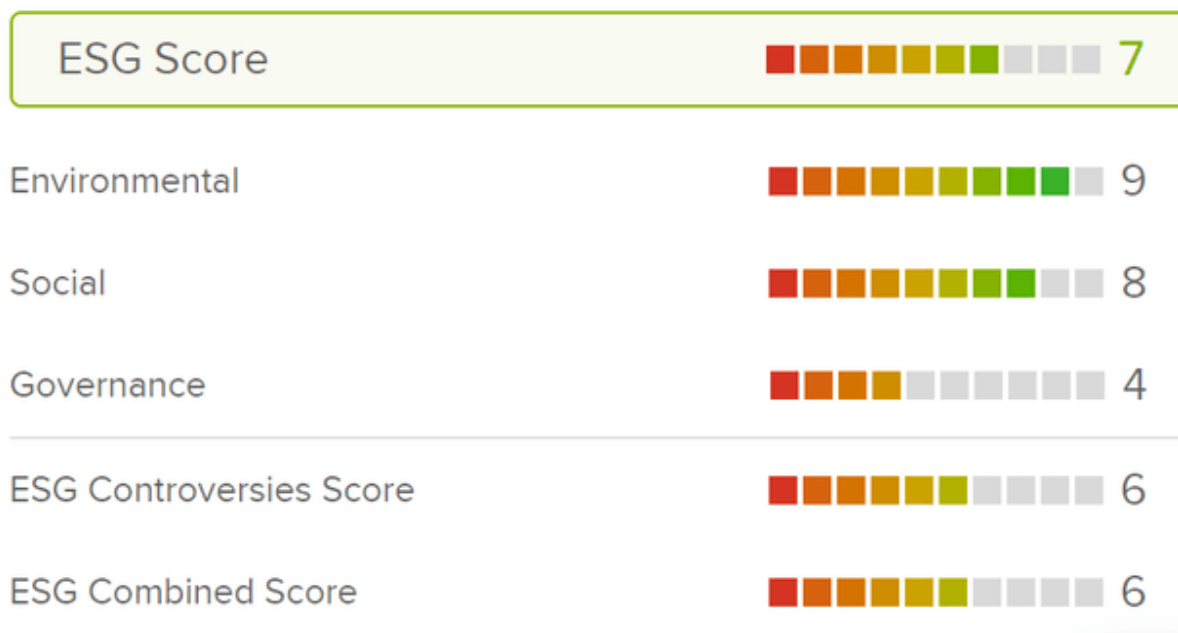
23 Controversy Measures



ESG Combined Score from Refinitiv

(Source: Refinitiv)

ESG Scores Principles



(Source: Interactive Brokers)

- Reuters's ranks ENB in the top 30% of overall ESG financial risk (lowest risk)
- Reuters' ranks ENB in the top 10% of its peers on actual environmental risk
- and in the top 20% for social risks (including lawsuits to block projects)
- and in the bottom 40% in terms of corporate governance
- and in the top 40% in terms of fewer short-term controversies (including Line 5 and Line 3 legal fights)
- for a combined score that's in the top 40% of its peers

Notice how ENB, not a company that many people would consider a strong candidate for an ESG portfolio, scores above average to very well on 400 total ESG criteria according to MSCI, Morningstar, and Reuters'.

- BlackRock uses the same approach, which is why names like Exxon and Chevron can end up in some of its ESG ETFs.

Fact 3: ESG Is NOT Yet A Proven Alpha Factor

Alpha factor investing, also called rules-based, or "smart beta" investing, means following time tested strategies that have outperformed the market over decades.

7 Proven Ways To Beat The Market Over Time

	Size	Value	Low Volatility	Dividend Growth	Equal Weighting	Momentum	Quality	S&P 500
Last Month	8.32%	4.09%	2.13%	1.59%	4.27%	3.48%	3.88%	3.84%
Last 3 Months	31.31%	25.88%	5.31%	11.57%	18.46%	9.40%	9.33%	12.15%
Last 6 Months	35.48%	30.09%	14.37%	20.32%	26.45%	23.22%	19.92%	22.16%
<i>Annualized Returns</i>								
Trailing 1 Years	11.29%	-8.71%	-1.11%	8.68%	12.83%	29.62%	17.55%	18.40%
Trailing 3 Years	7.71%	0.26%	8.32%	10.57%	10.41%	17.72%	13.59%	14.14%
Trailing 5 Years	12.36%	7.25%	10.50%	12.97%	12.94%	18.78%	13.93%	15.20%
Trailing 10 Years	11.92%	10.49%	12.20%	13.68%	12.66%	17.18%	14.23%	13.88%
Trailing 20 Years	9.97%	9.16%	9.17%	10.47%	9.41%	9.98%	9.64%	7.47%

(Source: Ploutos) data as of December

There are a handful of true alpha factors and many now consider ESG to be one as well.

Frequency of Negative Premiums (%) June 1927-December 2018

	Market Beta	Size	Value	Profitability
One Year	30	43	39	33
Five Years	21	37	25	15
Ten Years	15	27	16	1

(Source: Larry Swedroe) - beta = low volatility, profitability = quality

Determining whether or not a particular strategy truly is worth following can be tricky because even the most time-tested strategies can underperform for a decade or more.

- only because no strategy works all of the time do any strategies work over time

Research Affiliates, who pioneered smart beta alpha-factor investing, recently did a study looking at ESG and whether or not it's a strategy that, on its own, is likely to outperform over time.

Factors are stock characteristics associated with a long-term risk-adjusted return premium...

Popular factors, such as value, low beta, quality, and momentum, have been well documented and vetted by both academics and practitioners. Research by [Beck et](#)

al. (2016) provides a useful framework for determining if a factor is robust. For ESG to be a factor, it should satisfy these three critical requirements:

1. A factor should be grounded in a long and deep academic literature.
2. A factor should be robust across definitions.
3. A factor should be robust across geographies." - Research Affiliates

Metrics of Six Popular Factors

Factor Jul 1963–Mar 2020	Year of Discovery	Average Return	Standard Deviation	t-value	CAPM Alpha	t-value
Market	1964	6.1%	15.3%	3.0		
Value	1977/1990	3.2%	9.8%	2.5	4.1%	3.2
Size	1975	2.1%	10.3%	1.5	0.9%	0.7
Operating Profitability	2013	2.8%	7.7%	2.7	3.5%	3.5
Investment	2003	2.6%	6.4%	3.0	3.4%	4.3
Momentum	1989	7.9%	14.5%	4.1	8.8%	4.6
Low Beta	1966	0.6%	15.3%	0.3	5.0%	3.5

Note: All factors are long-short strategies.

Source: Arnott et al. (2019).

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Basically, RA is saying that if a factor is a true factor, it must show statistically significant outperformance over time.

In examining the vast body of research on ESG, we find little agreement regarding its robustness in earning a return premium for investors... Research by Clark, Feiner, and Viehs (2015), Friede, Busch, and Bassen (2015), and Khan, Serafeim, and Yoon (2016) finds that ESG is additive to returns, while research by Brammer, Brooks, and Pavelin (2006), Fabozzi, Ma, and Oliphant (2008), and Hong and Kacperczyk (2009) demonstrates that ESG detracts from returns. Neither is there evidence to suggest a risk-based or behavioral-based explanation for the ESG factor.

Arguments are put forth that certain situations could lead to positive ESG-related stock price movements, such as increased popularity of strong ESG companies as more investors adopt ESG (more on this topic later). These price movements, however, would be one-time adjustments and cannot be expected to deliver a reliable and robust premium over time.

“ESG is not an equity return factor in the traditional, academic sense... ESG does not need to be a factor for investors to achieve their ESG and

performance goals... This is classic thematic investing, following in the footsteps of cloud, artificial intelligence, and robotics themes, but it's not factor investing. ” - Research Affiliates (emphasis original)

In addition, if a factor is a true factor ("robust") then one's definition should not create statistically significant differences in long-term returns.

Factors should be robust across definitions. Slight variations in the definition of a factor should still produce similar performance results. Using the value factor as an example, the three valuation metrics of price-to-book ratio, price-to-earnings ratio, and price-to-cash flow ratio all yield similar performance results in assessing the factor's long-horizon performance.

ESG has no common standard definition and is a broad term that encapsulates a range of themes and subthemes.³ ESG ratings providers examine hundreds of metrics when determining a company's ESG score. Conducting a quick web search yields several ESG strategies whose underlying themes are quite distinct and different. These index strategies align more closely with investor preferences than with a particular factor." - Research Affiliates (emphasis original)

Every rating agency considers ESG important...but they all use various methods to estimate material financial ESG risk. This means that ESG products, such as ETFs, are similarly created using dozens of different approaches.

Types of ESG Index Strategies Available to Investors by ESG Theme

Broad ESG Theme	Environmental	Social	Governance
Exclusionary Screening	Low Carbon	Gender Diversity	Governance Leaders
ESG Integration	Water	Minority Empowerment	
Green Revenues	Clean Energy/Solar	Conscious Companies	
Impact Investing	Ex Fossil Fuels	China ex State Owned Enterprises	
		Faith Based	
		Ex Controversies	
	Environmentally and Socially Responsible		
		Diversity and Governance	

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With over 400 ESG criteria (according to Reuters) there is almost an infinite way to create and manage an ESG fund.

To illustrate this, we construct a simple test on four variants of ESG definitions. We build long-short portfolios by selecting the top 30% and bottom 30% of US companies by market capitalization each year, after ranking by overall ESG rating. We also build three similarly constructed long-short portfolios, ranking companies on each individual ESG characteristic of environmental, social, and governance.⁴ None of these strategies displays a materially positive CAPM alpha except for the environmental long-short strategy, and **no strategy is statistically significant at the 95% t-stat level (1.96).**" - Research Affiliates (emphasis added)

Statistical significance simply means something is not likely the result of random chance. In the case of factor studies, and academic studies in general, 90% and 95% statistical levels are the standard.

- in other words, if a t-value is 1.96 or higher then there is a 95+% probability that a proposed factor is real and likely to generate strong returns for you in the future

Long-Short ESG Index Strategies: Return, Standard Deviation, and Alpha, United States, Jul 2009–Jun 2020

Index	Average Return	Standard Deviation	t-value	CAPM Alpha	t-value
Market	13.7%	14.0%	3.2		
ESG Strategy	-1.6%	5.5%	-1.0	0.9%	0.6
Environmental Strategy	0.1%	5.5%	0.1	1.7%	1.0
Social Strategy	-2.6%	6.8%	-1.3	0.5%	0.3
Governance Strategy	-2.4%	4.4%	-1.8	-1.4%	-1.0

Source: Research Affiliates, LLC, based on data from FactSet and Vigeo Eiris.

Long-Short ESG Index Strategies: Return, Standard Deviation, and Alpha, Europe, Jul 2009–Jun 2020

Index	Average Return	Standard Deviation	t-value	CAPM Alpha	t-value
Market	7.1%	17.3%	1.4		
ESG Strategy	−0.1%	5.3%	−0.1	0.1%	0.1
Environmental Strategy	2.2%	5.6%	1.3	2.9%	1.8
Social Strategy	−0.9%	5.3%	−0.5	−1.1%	−0.7
Governance Strategy	−1.9%	5.1%	−1.3	−1.3%	−0.9

Source: Research Affiliates, LLC, based on data from FactSet and Vigeo Eiris.

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In the case of ESG, there is no statistical significance, either in the US or Europe. But that doesn't mean it might not be a proven factor in the future.

Unfortunately, none of the simulated strategies we tested has a long track record because the ESG data history is quite short. This lack of history is a significant impediment to conducting research in ESG investing, limiting our study period to 11 years from July 2009 to June 2020. Because multiple decades of data are needed to conduct a proper test, the lack of significance in the *t*-values is not surprising.

Only after several decades of quality ESG data will it be possible to accurately test the claim that ESG is a robust factor." - Research affiliates
(Emphasis added)

What this basically means is that it will be a few more decades before we can know where ESG is a true alpha factor in its own right.

- ESG funds of the past were tech-laden
- GOOG, AMZN, MSFT, AAPL, FB, were all former ESG darlings
- Some of the highest quality and fastest-growing companies on earth
- so it's not clear that ESG was what made them successful

Having put ESG investing strategies through a framework to assess factor robustness, we find that ESG fails all three tests outlined by [Beck et al.](#) (2016): 1) evidence of an ESG return premium is not supported by a long and deep academic literature, 2) ESG performance results are not robust across definitions, and 3) ESG performance results are not robust across regions." - Research Affiliates

But just because ESG isn't yet a proven factor doesn't mean it's not worth considering.

At Research Affiliates, we believe ESG is an important investing consideration despite dismissing it as a factor or lacking confidence in its ability to currently deliver as a theme. **Investors can satisfy their ESG preferences while still maintaining the characteristics of their preferred investment strategy.**" - Research Affiliates (emphasis added)

A recent study from NYU came to the same conclusion.

A recent NYU paper found that the majority of more than 200 studies published since 2015 concluded that ESG boosted returns. These studies have helped open the floodgates to ESG investing, with self-proclaimed ESG funds attracting \$340bn of inflows over the past two years, according to EPFR.

However, fresh analysis by Scientific Beta, a "smart beta" index provider linked to the Edhec Research Institute, a French academic think-tank, disputes the claims that ESG funds have tended to outperform the wider market, or, in industry jargon, generate "alpha"...

Scientific Beta analyzed 24 ESG strategies that have been shown to outperform in other academic papers. **It did find evidence that ESG funds have tended to outperform, with ESG leaders typically beating ESG laggards by almost 3 percentage points a year...**

However, in both the US and other developed markets, it found that **three-quarters of the outperformance is due to "quality" metrics**, such as high profitability and conservative investment...

"Despite relying on the analysis of non-financial information by hundreds of ESG analysts, ESG strategies perform like simple quality strategies mechanically constructed from accounting ratios," the paper said.

"Of the 24 strategies, not one has significantly outperformed when you adjust for this factor and that to me is quite striking," said Goltz. "It's just the case that over the last decade quality has outperformed and **if you use ESG scores that inherently tilts [a portfolio] to quality.**" - [Financial Times](#) (emphasis added)

So does this mean ESG should be ignored?

At Research Affiliates, we believe **ESG is an important investing consideration** despite dismissing it as a factor or lacking confidence in its ability to currently deliver as a theme.

Investors can satisfy their ESG preferences while still maintaining the characteristics of their preferred investment strategy." - Research Affiliates (emphasis added)

And here is what Research Affiliates said about this new study from NYU.

Vitali Kalesnik, director of research in Europe at Research Affiliates, a pioneer in smart beta, said Scientific Beta's conclusion was "quite consistent with much of what we have written. **The overlap between ESG, especially measures related to the 'G' [or governance], and quality is pretty large.**" - Financial Times (emphasis added)

Basically, Research Affiliates and NYU found that ESG is an important fundamental risk measurement and quality metric though not one that by itself is likely to outperform. If you want to outperform over time you need to use proven alpha factors.

If people "want to invest [in ESG] purely because it will drive performance then I think it is bad news. **If they want to outperform they should target factors that achieve that goal.**" - Vitali Kalesnik, director of research in Europe at Research Affiliates (emphasis added)

Basically, use ESG as one of many components to measure quality and risk.

Think of it like this using credit ratings as an example.

- is a strong credit rating an alpha factor?
- credit ratings are very strongly correlated with long-term bankruptcy risk

Credit Rating	30-Year Bankruptcy Probability
---------------	--------------------------------

AAA	0.07%
-----	-------

AA+	0.29%
-----	-------

AA	0.51%
----	-------

AA-	0.55%
-----	-------

A+	0.60%
----	-------

A	0.66%
---	-------

A-	2.5%
----	------

BBB+	5%
------	----

BBB	7.5%
-----	------

BBB-	11%
------	-----

BB+	14%
-----	-----

BB	17%
BB-	21%
B+	25%
B	37%
B-	45%
CCC+	52%
CCC	59%
CCC-	65%
CC	70%
C	80%
D	100%

(Sources: S&P, University of St. Petersburg)

- Companies with A-credit ratings have a 2.5% or less risk of going bankrupt over the next 30 years.
- The average dividend aristocrat's credit rating is A- stable
- The top tech firms in the world (big 5) are all A, AA, or AAA-rated
- aristocrats outperform the S&P 500 by 2% to 2.5% annually over time
- the big five tech giants have crushed the market over the last 20 years
- so did I just prove A-credit ratings are the path to riches?
- or that quality and dividend growth (two proven alpha factors) are closely correlated with strong credit ratings

So does this mean that ESG is nothing but "woke hippy nonsense"?

Absolutely not. We've already seen that according to 10 of the world's premier risk assessment agencies, ESG is critically important to a company's long-term fundamental health, and thus investor success.

- ESG is not currently a proven alpha factor
- BUT it is a fundamental measure of risk
- when analyzed via a statically robust quantitative method by the likes of S&P, Fitch, Moody's, MSCI, Reuters', Bloomberg, BlackRock, Morningstar, ISS, etc.
- not the political opinions of any single individual

Even though we are unable to apply the factor framework to ESG, these strategies, however heterogeneous, may still produce superior returns...

There may be latent risks in companies that rate poorly on ESG metrics (Orsagh et al., 2018). In other words, **ESG risk needs to be incorporated into security selection.**" - Research Affiliates (emphasis added)

So how do I recommend you put ESG to work for you?

Fact 4: The Prudent Way To Invest In ESG Involves Combining Alpha Factors

Remember how no alpha-factor works all of the time?

Equal Weighting Of All Alpha Factors 1997 to 2018

Year	S&P 500	Equal Weight of '7 Ways'
Return*	8.3%	10.9%
Risk**	17.9%	16.1%
Sharpe***	0.247	0.434
Max	33.4%	35.8%
Min	-37.0%	-33.8%

(Source: Ploutos)

Since we can never ahead of time which strategies will work in the short-term it is reasonable and prudent to diversify by alpha factor.

I call this "stacking the deck" in your favor and turning yourself into a casino.

- Wall Street is absolutely a casino
- in the short-term crazy stuff will happen all the time
- in the long-term, outcomes are a function of probability, statistics, and math
- short-term traders = gamblers in the casino
- prudent long-term investing = you ARE the casino
- the house always wins in the end



(Source: Imgflip)

ESG might one day prove to be an alpha factor, just like quality (based on profitability metrics vs peers) is.

But since it will be a few decades before we know for sure, the way the Dividend Kings and I approach ESG is purely from a risk assessment point of view.

The Dividend Kings overall quality scores factors in about 100 fundamental metrics covering

- dividend safety

- balance sheet strength
- short and long-term bankruptcy risk
- accounting and corporate fraud risk
- profitability and business model
- long-term sustainability (including ESG scores and trends from 3 rating agencies)
- management quality
- dividend friendly corporate culture/income dependability

Let's turn back to Enbridge, one of the Dividend Kings' favorite high-yield blue-chip recommendations right now, to see how we incorporate ESG risk into our overall quality score and recommendation.

Enbridge Overall Quality: 83% = 12/12 Ultra SWAN

ENB	Final Score	Rating
Safety (includes some ESG)	83%	5/5
Business Model	60%	3/3
Dependability (includes significant ESG)	88%	4/4
Total	83%	12/12 (Ultra SWAN)

(Source: Dividend Kings Safety & Quality Tool) updated at the start and end of each day

- 20% of ENB's quality score is based on MSCI, Morningstar, and Reuters' material ESG financial risk assessments of Enbridge.
- which is how we conclude it's one of the highest quality and most dependable companies on earth

Enbridge Is the 95th Highest Quality Master List Company (Out of 483)

1	Color Coding	Potential Good	Hold	Potential Trim	Sell	Last Edited	2/4/2021			
2	Company	Ticker	Yield	Safety Score	Safety Rating	(C) Dependability	(S) Dependability Rating	Business Model Score	Quality Score	Quality
92	Nestle	NSRGY	2.07%	88%	5	81%	4	3	84%	12
93	Medtronic	MDT	1.99%	88%	5	81%	4	2	84%	11
94	BlackRock	BLK	2.26%	88%	5	81%	4	3	84%	12
95	Casey's General Stores	CASY	0.72%	84%	5	88%	4	3	84%	12
96	Costco	COST	0.79%	91%	5	76%	3	3	84%	11
97	Enbridge	ENB	7.50%	83%	5	88%	4	3	83%	12
98	UGI Corp	UGI	3.66%	90%	5	79%	3	2	83%	10
99	Cardinal Health	CAH	3.49%	83%	5	86%	4	2	83%	11
100	AvalonBay Communities	AVB	3.72%	87%	5	81%	4	3	83%	12
101	Enterprise Products Partners (uses K-1 tax EPD	EPD	8.65%	86%	5	83%	4	3	83%	12
102	Black Hills Corp	BKH	3.72%	83%	5	90%	4	2	83%	11
103	Snap-on	SNA	2.56%	91%	5	74%	3	3	83%	11
104	Coca-Cola	KO	3.35%	79%	4	91%	4	3	83%	11
105	Amphenol	APH	0.91%	87%	5	76%	3	3	83%	11
106	Parker-Hannifin	PH	1.26%	83%	5	83%	4	3	83%	12
107	Honeywell	HON	1.86%	85%	5	81%	4	3	83%	12
108	General Dynamics	GD	2.83%	87%	5	78%	3	3	82%	11

(Source: [DK Safety & Quality Tool](#)) updated twice a day, sorted by overall quality score

ENB's 83% quality score means its similar in quality to such 11/12 Super SWANs and 12/12 Ultra SWANs as

- Consolidated Edison - dividend aristocrat
- Enterprise Products Partners (uses K-1 tax form)
- Coca-Cola - dividend king
- Medtronic - dividend aristocrat
- BlackRock
- Costco

The quality rating is what we use to determine an appropriate margin of safety to classify companies and color code them in our Research Terminal and tools.

Dividend Kings Valuation Classification Scale

Quality Score	Meaning	Max Invested Capital Risk Recommendation	Margin Of Safety Potentially Good Buy	Strong Buy	Very Strong Buy	Ultra-Value Buy
3	Terrible, Very High Long-Term Bankruptcy Risk	0%	NA (avoid)	NA (avoid)	NA (avoid)	NA (avoid)
4	Very Poor	0%	NA (avoid)	NA (avoid)	NA (avoid)	NA (avoid)
5	Poor	0%	NA (avoid)	NA (avoid)	NA (avoid)	NA (avoid)
6	Below-Average, Fallen Angels (very speculative)	1%	45%	55%	65%	75%
7	Average (Relative to S&P 500)	2.5%	35%	45%	55%	65%

8	Above-Average	5% (unless speculative then 2.5%)	25% to 30%	35% to 40%	45% to 50%	55% to 60%
9	Blue-Chip	7% (unless speculative then 2.5%)	20% to 25%	30% to 35%	40% to 45%	50% to 55%
10	SWAN (a higher caliber of Blue-Chip)	7% (unless speculative then 2.5%)	15% to 20%	25% to 30%	35% to 40%	45% to 50%
11	Super SWAN (exceptionally dependable blue-chips)	7% (unless speculative then 2.5%)	10% to 15%	20% to 25%	30% to 35%	40% to 45%
12	Ultra SWAN (as close to perfect companies as exist)	7% (unless speculative then 2.5%)	5% to 10%	15% to 20%	25% to 30%	35% to 40%

ENB, when factoring in almost 100 fundamental metrics, including ESG risk scores that include up to 400 individual criteria, rates a 12/12 Ultra SWAN. Thus a 5% discount to fair value is appropriate to compensate for its overall risk profile.

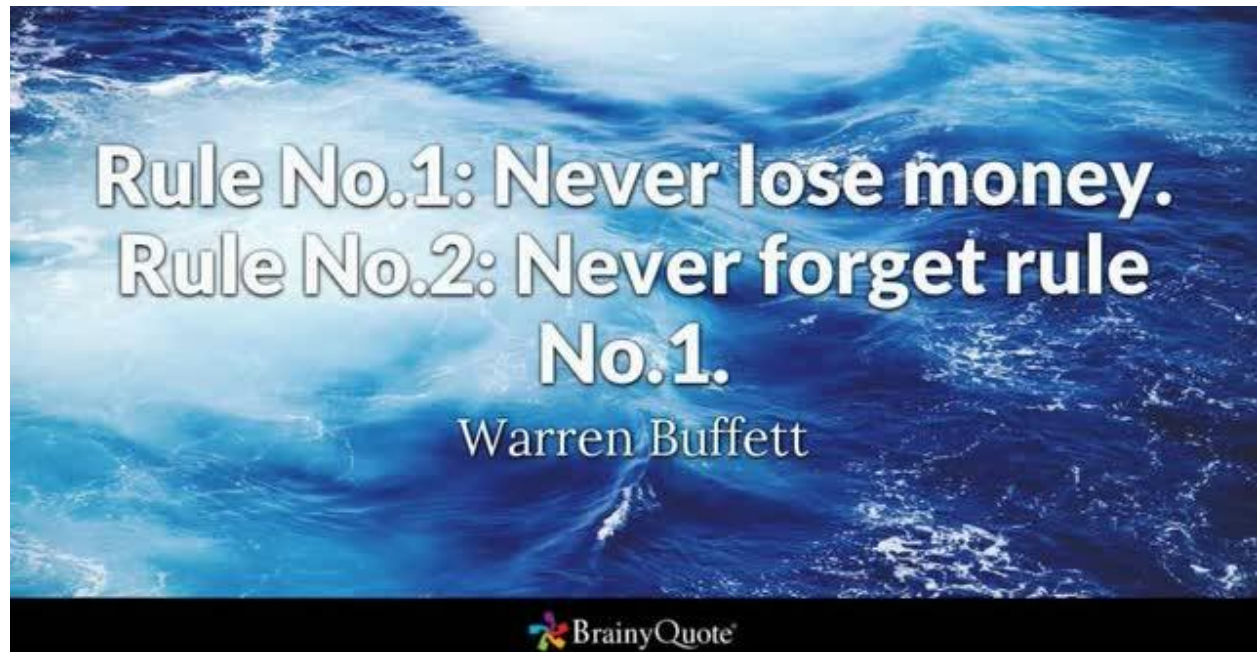
- the DK Phoenix approach of quality first, prudent valuation, and sound risk management always, factors in every important fundamental
- including ESG material financial risk

Bottom Line: ESG Is Important To Understanding A Company's Risk And Overall Quality

Don't get me wrong, it's very possible that \$65 trillion in inherited wealth, in the hands of ESG focused Millenials and Gen Zers, will turn ESG into a proven Alpha factor over time.

- though a standard definition may never be available

What I can say with high confidence is that according to the world's most respected risk rating agencies, ESG financial risk is an important component of a company's overall risk profile.



Risk-adjusted returns are not actually based on volatility, but the long-term probability of losing 100% of your capital.

Thus, understanding a company's entire risk profile, including ESG criteria such as governance risk, corporate fraud risk, and regulatory risk, is something that all prudent long-term investors should do.

The Dividend Kings strive to help our subscribers find the best quality companies, available at reasonable to attractive valuations, for any given goal, risk profile, or need.

In 2021 we will be launching two new specialty watchlists to join our dozen existing watchlists which include hyper-growth stocks, dividend aristocrats, dividend champions, dividend kings, and 12/12 Ultra SWANs.

- foreign dividend growth stocks (including the European and global aristocrats)
- Strong ESG watchlist

The ESG watchlist will include all companies with above-average ratings from all three rating agencies.

- Enbridge is just one of the roughly 40 or so companies that will be on the strong ESG watchlist

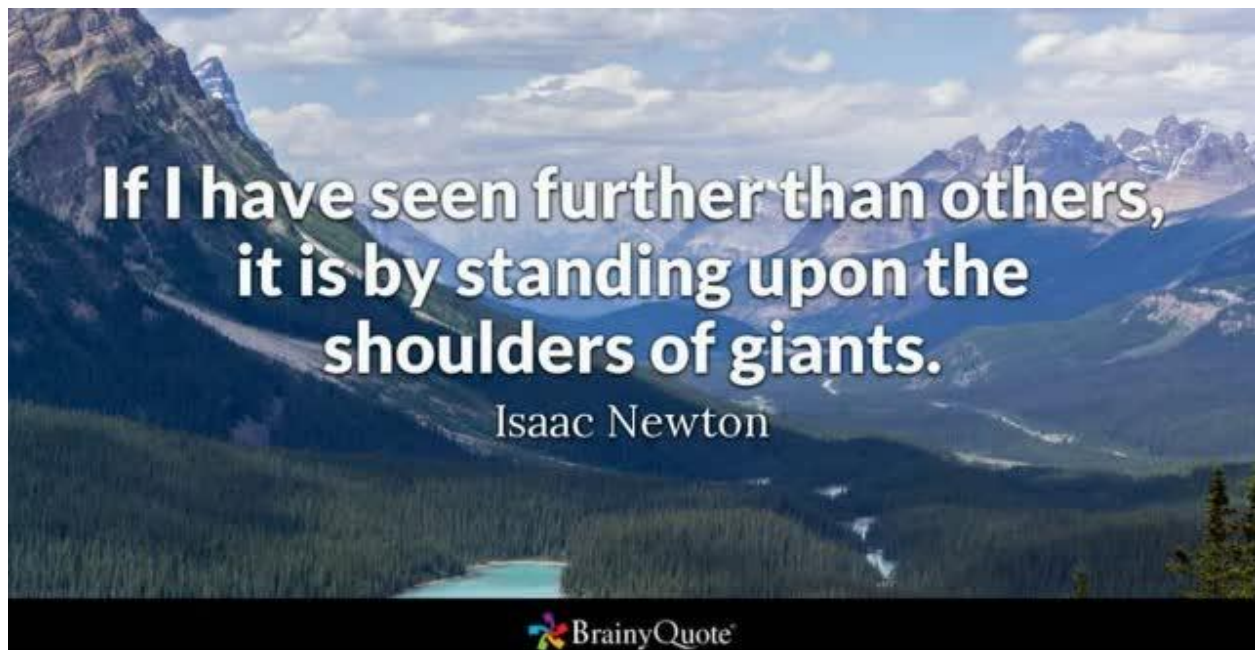
Ultimately whether or not ESG proves to be an alpha factor in its own right, doesn't matter to the prudent long-term investor.

- any more than credit ratings not being an alpha factor means you should ignore credit ratings and long-term bankruptcy risk

The Dividend Kings approach to investing is holistic and all-encompassing.

If decades of data, academic studies, the world's premier rating agencies, and history's greatest investors say something is important then we incorporate it into our recommendations and overall portfolio investments.

- 100% of my life savings are invested into our DK Phoenix portfolios
- I eat my own cooking



To summarize, ESG may or may not be an alpha factor. However, as Research Affiliates concludes, in the coming decades it will be an important tool in selecting quality companies that meet our specific investing needs.