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The Power of Prediction of ESG Ratings: The Equifax Case

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ABSTRACT

Nowadays, awareness about sustainable and socially responsible investing (SRI) is experiencing a sharp rise. COVID-19 has provided a further boost to the market momentum around ESG funds. In fact, many policymakers and investors are viewing the crisis as a wake-up call. We need a change in the approach to investing. Of course, many observers have highlighted the similarities between the unforeseen risks of a pandemic and issues such as climate change. “Over the long run, COVID-19 could prove to be a major turning point for ESG investing, or strategies that consider a company’s environmental, social and governance performance alongside traditional financial metrics,” said Jean-Xavier Hecker and Hugo Dubourg, Co-Heads of ESG & Sustainability within J.P. Morgan EMEA Equity Research. Furthermore, the raising awareness of social and racial issues in the US and worldwide has produced an additional shift in perspective. While ESG investing was generally associated with the Environmental issues, the recent protests following George Floyd’s murder have pushed investors to flock towards companies that show major commitment in Social and Governance aspects as well. A PwC research shows that, in a best-case scenario, the sector might experience a jump in the share of the European fund sector from 15% to 57%.

There are many factors suggesting the potential growth path of this sector. It is worth considering that 87% of millennials and 64% of women agree that ESG plays an important role in their investment decisions. In this “ESG-euphoric” environment, ESG rating agencies are rapidly emerging as an important and recognized player in determining investment strategies of many institutional market participants, and not only. In particular, these agencies offer a deeper and more specific assessment on the “sustainability profile” of companies in order to discriminate between them. As Savita Subramanian (Head of Global ESG research Bank of America) put it, in a world of companies that just “talk the talk”, it is important to individuate those who actually “walk the walk”. What is yet to be proved is: are these agencies really helpful and accurate in their analysis? The Equifax case provides clear evidence in that sense, showing how reports may have an anticipating power in predicting future risks and potentially harmful circumstances.

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ESG RATINGS: AN OVERVIEW

It is clear today that company valuations on the public markets are not precisely accounting for all the costs/benefits concerning ESG measures. In fact, ESG criteria has turned out to be incredibly valuable, with ESG portfolios continually outperforming traditional ones.

These factors have given rise to the inevitable appearance of ESG rating agencies. These ratings are helping investors to understand the economic, social and governance risks and opportunities that companies have to face. They solve the problem of the lack of information on crucial topics to assess a company, as the ESG reports address essential information which is not required in any accounting statement. For investors, ratings give a standardized evaluation of sustainability which is comparable among peers for investment allocation. On the other hand, they are also positive for companies, as they get an outside-in benchmarking tool that can be used for internal advisors to support the sustainability metrics of the company and ultimately enhance operating performance.

THE EVOLUTION OF THE ESG RESEARCH ECOSYSTEM

iShares describes the evolution of the ESG data into three main periods:
Scarcity: The first generation of ESG research was limited to media, regulatory documents, NGOs and government publications. Research firms used this information and manually included in company reports in an unstructured way without providing a concise rating. This was the only public information available for company screening.
Abundance: In the early 2000s more information got available which permitted research firms to start interpreting larger information sets and give raise to the rating agencies we have today. With the more sophisticated reports, the general adoption of ESG criteria increased thanks to an increasing financial attractiveness.
Superabundance: New technologies leveraging artificial intelligence have been used to analyze alternative data that will enhance the risk signals for ESG investors.
Nowadays, the ESG research ecosystem is robust and incorporates different parties that collaborate for the development of the topic. The main constituents of the ecosystem can be split into four classifications based on their core business. Firstly, Standard setters which are organizations that intend to provide sustainability accounting standards such as SASB (Sustainability Accounting Standards) and the GRI (Global Reporting Initiative). In addition, data aggregators which are data platforms that provide ESG raw information, assist asset managers so that they can incorporate the data into their own investment methodologies. Among others we have Bloomberg and Morningstar. Next, there are specialized firms which are focused on particular ESG issues, that usually incorporate artificial intelligence to source unstructured information on topics such as business conduct risks or environment degradation. Finally, rating agencies like Sustainalytics (owned by Morningstar), MSCI (owned by Morgan Stanley) and RepRisk offer a standardized evaluation on ESG matters, so that investors can understand, compare, and rank companies.
It is worth mentioning that a key shortfall of ESG ratings is the lack of consistency among the different providers as they evaluate intangible and hard to measure criteria hence the results are incompatible. Due to the limitans, we present the

methodology used by the two main agencies as we deem it is crucial to understand the criteria behind ratings issued by these firms to properly assess the message that the rating conveys.

METHODOLOGIES OF ESG RATING

MSCI Rating

The MSCI ESG Ratings model focuses on issues that are determined as material for the industry, meaning that companies could capitalize on them for profit. The overall score ranges from CCC to AAA based on a weighted average of the economic, social and governance individual assessment of a company. Additionally, it takes into account both the environmental and social impact at industry level as well as the timing until which the risk is expected to materialize. These assessments of company performance are not absolute but are explicitly intended to be relative to the standards and performance of company's industry peers. The methodology follows a computation of risk exposure metrics which measures the sensitivity of a company to ESG risks, and risk management metrics which measures how well a company is dealing with the exposure. Likewise, the opportunities analyzed by exposure and management indicates the relevance of the opportunity to a given company based on its current business and geographic segments.

Finally, governance is rated through a corporate governance score. This an absolute assessment of a company's governance that utilizes a universally applied 0-10 scale. Each company starts with a "perfect 10" score and scoring deductions are then applied to derive the final Score.

Sustainalytics

Sustainalytics ratings report the degree in which the risk of unmanaged ESG matters affect the economic value of a company. The rating is given on a scale from 0 (no risk) to a maximum of 100. Companies are then categorized into 5 risk categories: negligible, low, medium, high and severe risk. Different to the MSCI output, these risk categories reflect a comparable degree of unmanaged ESG risk across all sub industries covered for which companies under different industries can be compared instinctively.
The rating is built from 3 main pillars, first and in a similar way to MSCI, the Material ESG issues which are the core of the rating and comprehends multiple sets of industry specific topics that require management's attention, further and coherent again with MSCI, corporate governance issues which contributes for ~ 20% to the overall score, and lastly Idiosyncratic issues which accounts for unforeseen and industry unrelated events. As MSCI does, the analysis of these pillars incorporates two dimensions of analysis, exposure and management. Finally, the overall score is composed of the unmanageable risk plus the manageable risk that the company is not managing properly.

	MSCI	Sustainalytics
Score	CCC-AAA	0-100
Output	Absolute ESG rating at industry le	Comparable ESG rating and risk gro
Materiality	Proprietary definitionof materialit	IFRS definition of materiality
Aggregation	37 variables	80 variables

EQUIFAX CASE

Brief Overview

Equifax is one of the three largest consumer credit reporting agencies in the United States. In September 2017, Equifax faced a cyber-attack that led to a breach of sensitive personal information of 148 million Americans. The Equifax breach is unprecedented in scope and severity.

Equifax happened to be downgraded by MSCI in 2016, exactly one year before the data breach. In the report published in August 2016, MSCI's analysts pointed out how weak Equifax's security systems were. Regardless of this downgrade, both investors and the company itself showed little to no response to this warning, without giving too much relevance to the report outcome.

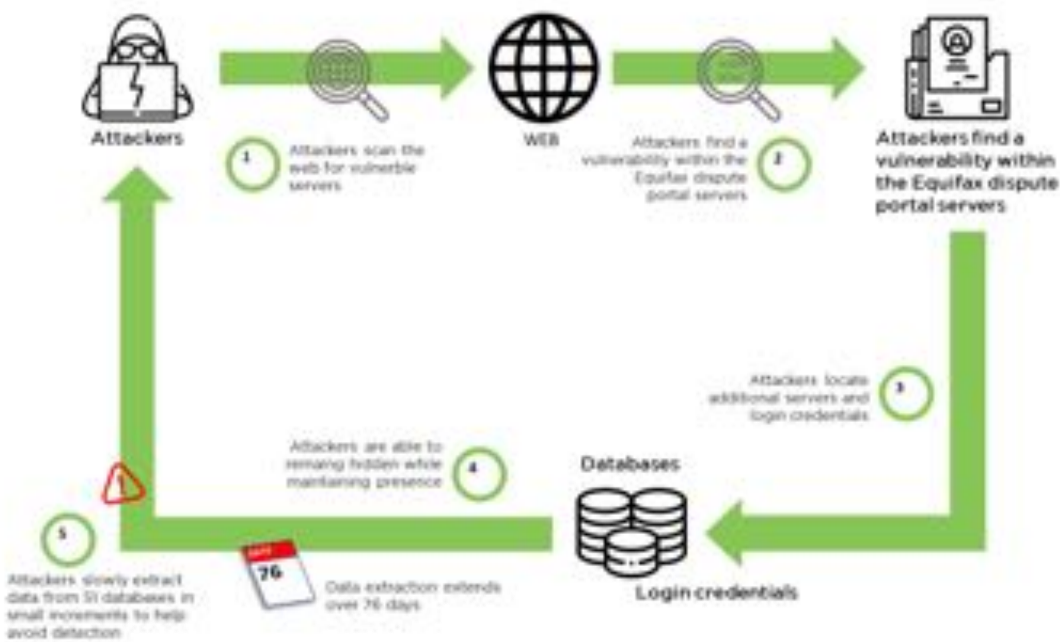
Although this is probably an extreme case of the predicting power of ESG ratings, we believed it was worth analyzing this case as it provides evidence of how helpful ESG risk assessment might be even from the investors' perspective.

The Equifax Data Breach

As a credit reporting agency, Equifax produces reports on individuals giving a detailed picture of a person's credit history, including information of loans and credit card payments. On September 7th, 2017, the company announced an unauthorized access occurred from mid may through July 2017. The hackers accessed Equifax databases through their online dispute portal web application. On March 7th, the Apache Software Foundations, which provided the software to Equifax, issued a statement where they announced the vulnerability of their system, releasing a patch on the same day. Consequently, the department of homeland security notified Equifax of the potential risk of the system and required them to take measures to tackle the problem promptly. On March 15th, Equifax ran scans to spot potential pain points of their security systems, however identified no weakness.

The system was left untouched until July 29th, when the security department of Equifax found out suspicious network traffics on their online portal. In order to stop these strange activities, they applied the Apache patch. A few days later,

Equifax also performed a forensic investigation of the breach discovering that the total amount of profile violated during the attack amounted to approximately 145.5 million.
The following graph summarizes the same steps followed by the hackers to steal the data.



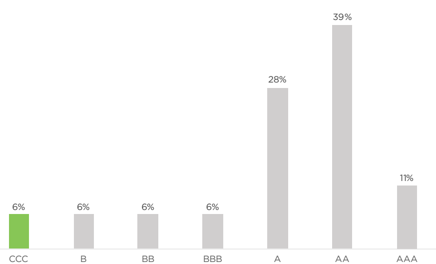
Equifax's Response and Customers Reaction

After having publicized the breach on September 8, Equifax had to handle all the bad consequences of the hack but unfortunately, dealing with the issue was even worse than they could have imagined.
First of all, the company had to create a separate domain and web page to deal with all of the information that needed to be spread and to communicate with affected users. Other parties immediately initiated fake settlement sites and information sites creating additional opportunities for fraud, especially phishing scams, and cybercrime. The context created additional public confusion and, given the huge amount of people potentially affected by the breach, some customers panicked.
Furthermore, Equifax customer service directed potential victims to one of the illicit phishing sites via their Twitter feed. As customers flocked to freeze their

credit reports, they were given PINs with naming conventions based on the date the accounts were frozen. This unfortunately made them easy for cyberattacks to attack - enabling once again more potential and devastating attacks.

PREDICTING POWER OF ESG RATING: EMPIRICAL EVIDENCE

In the middle of July 2017, MSCI published a report on Equifax in which they provided the latest rating comments and updates. Initially, they presented the industries rating distribution which is crucially important because it represents the correct ESG-environment in which a specific company of an industry has to be analyzed. The industry rating distribution can help both the rating agencies to create a benchmark and the investors to understand and interpret correctly the rating assigned to the company with respect to its competitors.



In the figure there is a comparison between Equifax and its industry peers. More in detail, in 2017 MSCI divided the distribution into 3 different classes based on their ESG rating:

•ESG LAGGARD (first two columns from left to right: CCC, B)

•AVERAGE (three columns in the middle: BB, BBB, A)

•LEADER (last two columns: AA, AAA)

It is clear that Equifax took a bad position with respect to its peers, as a matter of fact the rating analyst Georgina Ryan gave the following rating comment:
"Equifax's data security and privacy measures have proved insufficient in mitigating data breach events. The company's credit reporting business faces a high risk of data theft and associated reputational consequences. The 2016 breach of tax and salary data of 431,000 employees' belonging to its key client (Kroger's) is a key example of this risk materializing. The company has also been needed for marketing practices of its credit score products. Governance concerns include

ongoing CEO pay issues, with the CEO's total summary pay for 2015 being five times the median for executive officers".

But what was the ESG rating history of the company before the data breach?
The picture shows how MSCI downgraded Equifax the year before the hack to the lowest level of their rating. The change in the valuation was centered on the basis of them having already bad track records in managing their data security and on the fact that the companies in this sector should have fairly robust practices in this area.
Furthermore, the rating provider stressed what the main risks faced by the company were at the time through the following explanation: "The company's data and privacy policies are limited in scope and Equifax shows no evidence of data breach plans or regular audits of its information security policies and systems".

CONCLUSION

The Equifax case represents a clear and undeniable story where ESG rating showed to be powerful in terms of prediction. Although extreme, this case shows how relevant and insightful ESG ratings can be. And there is no doubt this can be considered one of the many reasons behind the current spreading of ESG rating practices. Nonetheless, it is worth noting that the development process of these practices is still at an initial stage. In fact, the heterogeneity among the various reporting agencies is still a matter of discussion. For the time being, what is clear is that the birth of ESG data providers is a further necessary step towards the integration of ESG issues in investment practices.

BIBLIOGRAPHY

ESG ratings: an overview: iShares, An Evolution in ESG Indexing

MSCI rating: ESG Investing: ESG Ratings available at <https://www.msci.com/our-solutions/esg-investing/esg-ratings>

Sustainalytics: Sustainalytics, the ESG risk rating, version 2.0, November 2019

ESG Risk Ratings available at <https://www.sustainalytics.com/esg-risk/>, (Accessed 21 November 2020)