VILNIUS UNIVERSITY
BUSINESS SCHOOL

SUSTAINABLE CORPORATE FINANCE AND INVESTMENTS

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MASTER'S THESIS

ESG poveikis kredito reitingams: Volkswagen ir Ford pateikti duomenys	***The Impact of ESG on Credit Ratings: Evidence from Volkswagen and Ford***

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SUMMARY

VILNIUS UNIVERSITY BUSINESS SCHOOL

SUSTAINABLE CORPORATE FINANCE AND INVESTMENTS

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THE IMPACT OF ESG ON CREDIT RATINGS: EVIDENCE FROM VOLKSWAGEN AND FORD

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This research examines whether the significance of environmental, social, and governance (ESG) events helps account for shifts in credit ratings and rating actions, like upgrades and downgrades, for the automotive companies Ford and Volkswagen. A quarterly panel dataset is used, gathering rating histories and actions from the main agencies, ESG event records from agency news, and publications, as well as Bloomberg financial data, including leverage, profitability and liquidity. In addition, the dataset also incorporates time lags and dummy variables. The analysis contrasts different models, such as an ordered model for rating levels and binary logit models for the likelihood of upgrades and downgrades. Given that most ESG events identified are negative, the central argument is that heightened attention to ESG issues likely corresponds with an increased risk of downgrade, while upgrades depend primarily on financial improvements. In conclusion, the results demonstrate the additional value ESG information provides beyond traditional financial indicators and emphasize potential distinctions between issuers and agencies and also offers evidence on how ESG risk is integrated into the credit rating process.

SANTRAUKA

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MARTA HERNÁNDEZ GONZALO

ESG POVEIKIS KREDITO REITINGAMS: ĮRODYMAI IŠ VOLKSWAGEN IR FORD ĮMONIŲ

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Šiame tyrime nagrinėjama, ar aplinkosaugos, socialinių ir valdymo (ESG) įvykių reikšmė padeda paaiškinti automobilių bendrovių „Ford“ ir „Volkswagen“ kredito reitingų pokyčius ir reitingavimo veiksmus, tokius kaip reitingų padidinimas ir sumažinimas. Naudojamas ketvirtinis panelinis duomenų rinkinys, kuriame renkama pagrindinių agentūrų reitingų istorija ir veiksmai, ESG įvykių įrašai iš agentūrų naujienų ir leidinių, taip pat „Bloomberg“ finansiniai duomenys, įskaitant svertą, pelningumą ir likvidumą. Be to, duomenų rinkinyje taip pat įtraukiami laiko vėlavimai ir fiktyvūs kintamieji. Analizėje lyginami skirtingi modeliai, pavyzdžiui, sutvarkytas modelis reitingų lygiams ir dvejetainiai logitiniai modeliai, skirti reitingų padidinimo ir sumažinimo tikimybei. Atsižvelgiant į tai, kad dauguma nustatytų ESG įvykių yra neigiami, pagrindinis argumentas yra tas, kad didesnis dėmesys ESG klausimams greičiausiai atitinka padidėjusią reitingų pažeminimo riziką, o reitingų padidinimas pirmiausia priklauso nuo finansinių patobulinimų. Apibendrinant, rezultatai rodo papildomą ESG informacijos vertę, viršijančią tradicinius finansinius rodiklius, ir pabrėžia galimus skirtumus tarp emitentų ir agentūrų, taip pat pateikia įrodymų, kaip ESG rizika yra integruota į kredito reitingavimo procesą.

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List of abbreviations

CRA	Credit Rating Agencies
CSR	Corporate Social Responsibility
DBRS	Dominion Bond Rating Service
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
ESG	Environmental, Social and Governance
ESMA	European Securities and Markets Authority
EU	European Union
GFC	Global Financial Crisis
ML	Maximum Likelihood
NRSRO	Nationally Recognised Statistical Rating Organization
OCR	Office of Credit Rating
OECD	Organization For Economic Cooperation and Development
ROA	Return On Assets
SEC	Securities and Exchange Commission
S&P	Standard & Poor's Global Ratings
UN	United Nations
US	United States
VW	Volkswagen

INTRODUCTION

Relevance of the research

Credit ratings are a key signal for issuers and investors nowadays, but non-financial factors found in Environmental, Social and Governance (ESG) frameworks now are taking in consideration. Regulators and market bodies have noted the growing importance of ESG in capital allocation and the need for transparency in how credit rating agencies (CRA) include these factors (OECD, 2020). The automotive sector, which faces significant transition, regulatory, and supply-chain risks, is a strong example for the study. By focusing on Ford and Volkswagen (VW), this research provides a detailed look at how recent rating actions and agency methods show ESG-related factors like governance, climate strategy, and controversies, along with traditional financial measures. This topic is especially relevant now, given ongoing concentration in the ratings industry, different regulatory approaches in the EU and US, and ongoing issues with "greenwashing" and unclear ESG assessment methods.

The novelty of the research

Most earlier studies either look at how credit ratings focus on ESG as a separate rating. This thesis will show how ESG factors are included in CRA decisions for two major car makers, comparing different agencies and regions. Instead of seeing ESG as just an outside score, the research shows how specific ESG factors appear in rating explanations and changes in outlook, and how these patterns differ between Ford and VW. The study also uses the lack of standardization to discuss what this means for transparency in credit ratings.

Research aim

ESG factors can have a significant impact on the credit ratings and outlooks given by major credit rating agencies in the automotive sector.

Research objectives

- To synthesize academic, regulatory, and industry literature on CRA and ESG integration in the automotive sector.
- To assemble and analyze the rating histories and stated rationales for Ford and VW across major CRA.

- To operationalize and code ESG transmission mechanisms observable in rating reports and issuer filings.
- To assess whether the timing and nature of ESG events are associated with rating or outlook changes, using qualitative analysis of the ESG events reported by the CRAs supported by descriptive evidence.
- To compare how different the credit assessment is between agencies and jurisdictions, specifically between the European Union (EU) and the United States (US), highlighting methodological and disclosure differences.

Structure of work

The next chapters review the theory and regulations behind CRA and ESG integration and provide an overview of the global automotive industry. The following chapter explains the data sources, how variables are built, and the coding and event-tracing methods. After that, there are profiles of Ford and VW, including their ESG timelines and rating histories. The analysis then compares how different agencies link ESG events to rating and outlook changes and ends with a discussion of the study's conclusions and recommendations.

Research methods

This research uses two main sources: the Bloomberg programme and materials from credit rating agencies, such as credit opinions, press releases, methods, and outlook actions. The study uses focused document analysis and simple coding to identify ESG signals in rating explanations and to build event timelines. The ESG events and controversies are then connected to later rating and outlook changes, and patterns are compared across agencies, including Moody's Investors, Standard & Poor's (S&P), Fitch Ratings and Dominion Bond Rating Service (DBRS).

Limitations of the research

The results are based on publicly available reports, and some information from credit rating agencies is private, which limits full explanation. Differences in ESG data and how raters judge it can add problems and make it harder to see clear cause-and-effect links. Finally, since the study only looks at two companies, the findings can be applied to similar firms but cannot be used for broad statistical conclusions.

1. THEORETICAL OVERVIEW

1.1. Credit ratings and credit rating agencies

Credit Ratings are defined as relative opinions that assess the creditworthiness of a particular issuer. In other words, the credit ratings measure the likelihood that the issuer is able to meet its debts obligations fully and on the specified date (Mennillo, 2022). These ratings are provided by the Credit Rating Agencies (CRAs), which analyse the quantitative, such as financial data and sector information, and qualitative, such as market position, reputation, or growths prospects, information available of the bond issuers. Therefore, the investor may obtain another useful input to aid them in the decision-making process (Van Gestel & Baesens, 2008).

The financial market in the US and EU had operated efficiently without needing CRAs for centuries, the main reason is the number of traded securities were not too high, and the main issued products were public bonds from the governments which investors were highly confident in. Nevertheless, this situation changed in the first decades of the nineteenth century in the US market, where the construction of railroads throughout the country was financed by the government as well as by private corporations. These companies started to require massive amounts of financing from investors, therefore, they started issuing bonds, and that is when the bond market were created. Due to the expansion of the bond market and the entrance of a large amount of new investors into the financial market, Credit-Reporting Agencies appeared to fulfil the need to provide information about the companies to investors who subscribe their services (García Alcubilla & Ruiz del Pozo, 2012).

In 1900, Moody's was founded by John Moody with the release of "*Moody's Manual of Industrial and Miscellaneous Securities*" to provide information about shares and bonds. On the other hand, in 1868, Henry Poor published the first "*Poor's Manual of Railroads of the United States*" which provided financial and operating statistics, then in 1916 the Poor Company entered the bond market rating and later, in 1941, it merged with Standard Bureau creating Standard & Poor's Corporation. Lastly, in 1913 Fitch Publishing Company was founded through the publication of financial statistics titled "*Fitch Stock and Bond Manual*". Subsequently, in 1924, Fitch Publishing Company introduced the well-known "AAA" to "D" rating scale (Mennillo, 2022).

In the first decades after the creation of CRAs, there operated as a "subscription-paid" model in which the investor paid for manuals containing rating information. However, the distribution in the 1970s of these manuals to non-subscribing investors by new photocopying machines and the aim of achieving higher remuneration due to the increasing complexity of capital markets, led the CRAs to shift to an "Issuer-paid" model where the issuers had to pay for the ratings, however, this model introduced potential conflicts of interest (García Alcubilla & Ruiz del Pozo, 2012).

During the second half of the twentieth century, CRAs ratings gained importance in the financial markets, therefore, several regulations were created to regulate them, such as the Basel II Capital Accord (Van Gestel & Baesens, 2008). As a result, it has led to an oligopolistic market structure in the CRAs formed by the so-called "Big Three" agencies – S&P, Moody's and Fitch – which together control over 90% of the market.

In Table 1, it is shown the percentage of credit ratings issued by the "Big Three" for newly issued bonds by country from year 1994 to 2019. In summary, there is a clear dominance of Moody's, covering 68% of ratings for non-US bonds and 92% for US bonds, and S&P, with 71% in non-US and 93% in US, while Fitch shows a smaller but growing presence in, with 23% in non-US and 41% in US.

Table 1

Market shares of "Big three" CRAs by country

Panel B: Market shares by country			
Country	S&P	Moody's	Fitch
Australia	71%	72%	20%
Austria	55%	63%	20%
Belgium	76%	77%	13%
Canada	70%	50%	12%
Denmark	67%	81%	28%
Finland	65%	62%	18%
France	86%	73%	30%
Germany	82%	81%	24%
Greece	71%	68%	2%
Hong Kong	55%	57%	28%
Ireland	74%	73%	48%
Italy	81%	81%	44%
Japan	48%	57%	0.3%
Korea	27%	25%	5%
Luxembourg	90%	91%	50%
Netherlands	89%	91%	32%
New Zealand	73%	33%	16%
Norway	82%	81%	3%
Poland	78%	82%	12%
Portugal	62%	61%	27%
Singapore	34%	34%	16%
Spain	83%	78%	62%
Sweden	82%	64%	10%
Switzerland	47%	44%	10%
U.K.	86%	84%	38%
Non-U.S.	**71%**	**68%**	**23%**
U.S.	**93%**	**92%**	**41%**

Source: (Hung et al., 2022)

This oligopolistic structure means that new players face significant barriers to enter in the market. These barriers can be explained by the need to build of a strong reputation for been taken in consideration, as well as by the existing position of power of the actual players.

1.1.1. RCAs' credibility and regulations

As mentioned previously, the CRA market is dominated by the "Big Three", Moody's Investors Service, Standard & Poor's Global Ratings (S&P) and Fitch Ratings, creating this oligopolistic structure and playing a crucial role in the financial market by assessing the creditworthiness of issued bonds. Thus, the method of expressing this capacity to meet financial obligations is by the rating scale of the Big Three (Mennillo, 2022). This "Long-term rating scale" rate sovereigns, corporates and insurance companies through alphanumeric symbols that establish an ordinal classification, this means that the order is alphabetical hierarchy from top to bottom, quantifying creditworthiness rather than the probability of default.

Table 2

Long- term rating scales of issuer credit ratings

S&P	*Fitch*	*Moody's*
AAA	AAA	Aaa
AA+	AA+	Aa1
AA	AA	Aa2
AA–	AA–	Aa3
A+	A+	A1
A	A	A2
A–	A–	A3
BBB+	BBB+	Baa1
BBB	BBB	Baa2
BBB–	BBB–	Baa3
BB+	BB+	Ba1
BB	BB	Ba2
BB–	BB–	Ba3
B+	B+	B1
B	B	B2
B–	B–	B3
CCC+	CCC+	Caa1
CCC	CCC	Caa2
CCC–	CCC–	Caa3
CC	CC	Ca
C	C	C
SD/D	RD/D	

Source: Mennillo, 2022

The table 2 shows this scale, where the highest category among the three CRA is "AAA", which indicates that the debt is highly likely to be repaid, while the lowest is "D", which reflects higher risk of default. In addition, S&P and Fitch use "+" and "-" signs to denote rating distinctions while Moody's use an alternative scale combining capital letters with lowercase letters and numerical modifiers instead of signs. These ratings can be divided into two segments, first ratings from AAA to BBB- (or Baa3 for Moody's) represent investment-grade category, which provide strong creditworthiness, and second ratings from BB+ (or Ba1) downwards are speculative grade category which denotes higher risk of default (Fitch Ratings, 2025a) .

As previously discussed, CRAs initially operated under a "subscriber-paid" model. However, this model was replaced by the current "issuer-paid" model where the companies themselves pay for their ratings. This model has been criticized for the potential conflicts of interest that may occur, as CRAs have been accused of deliberately assigning more favourable ratings and delaying downgrading rating when the issuers are deteriorating (Lee et al., 2021) .

Bush (2022) explains that these conflicts of interest are inherent to the issuer-paid model. Therefore, the US and EU regulators have implemented a series of laws and regulations to oversee the CRAs. In US, the Securities and Exchange Commission (SEC) established that a Nationally Recognised Statistical Rating Organization (NRSRO) must determine the initial credit rating of any financial product. However, the lack of US government action in this issue has resulted in unsatisfactory outcomes. In contrast, EU introduced a mandatory rotation rule and the double-rating rule which, instead of trying to change the issuer-paid model, aim to mitigate potential "rating shopping" and inflation of rating problems.

Furthermore, the entry of "investor-paid" CRAs in the market has influenced the performance of the Big Three by providing more accurate and on time ratings in order to maintain their reputation. Initially, due to the first appearance of these investor-paid agencies and the existence of inflated rating for companies that failed, such as Lehman Brothers, professional market players perceived more credibility in these agencies. However, through new regulations and reputational incentives, the issuer-paid companies nowadays remain the ones that players trust the most when signals are positive, whereas, investor-paid are the ones that investors trust when there are negative signals as Nguyen et al. (2024) conclude.

In addition, Attig et al. (2021) observes that during periods of uncertainty the ratings tends to be generally more positive and less informative, which increases the potential for conflicts of interest and emphasizes the necessity for stronger regulations and oversight frameworks.

One crucial period for CRAs were the Global Financial Crisis (GFC) of 2008, where the issuer-paid model and the lack of effective regulation led CRAs to assign very positive credit ratings to financial products as mortgage-backed securities before the market collapse. However, these inflated ratings were the result of pressure from corporations on the agencies, through threats of switching agencies or practicing rating shopping. In addition, with the general optimism of the housing market, due to the existing bubble, CRA inflated their ratings and delayed downgrades reducing market confidence. This failure prompted the US and EU authorities to take action and increase the regulation of the CRAs (White, 2013) .

Consequently, the US government implemented the Dodd-Frank Wall Street Reform and Consumer Protection Act in 2010, as a regulatory instrument to correct conflicts of interest (Bush, 2022) . The SEC created the Office of Credit Rating (OCR) to supervise and evaluate that the NRSROs comply with the new regulations (Toscano, 2020) .

In Securities and Exchange Commission Staff Report (2025), that is the last available annual report that evaluate the performance of the NRSROs, which are composed of 10 agencies including the Big Three. The report shows that the Big Three agencies are still dominating the market maintaining permanent barriers to new entries derived from the compliance costs imposed by the Dodd-Franck Act. Nevertheless, the report also highlights improvements in the transparency of the agencies and ongoing attention to possible conflicts of interest through monetary incentives.

On the other hand, the EU governments introduced Regulation No 1060/2009 to reduce conflicts of interest and impose requirements for CRAs. The main new requirements established in this Regulation for the agencies are the appointment of an independent supervisor to ensure there is no relation between the CRA analysts and the corporations that own the financial products to be rated, and a mandated rotation to improve the quality of the rating (Bush, 2022) . The European Market Report, ESMA (2023) reports on the current situation of the CRAs after the implementation of the

Regulation No 1060/2009. This report highlights the persistence of the oligopolistic structure in the market with the Big Three controlling over 92% of active ratings in the EU market, while 24 agencies are also registered. Furthermore, the report indicates greater control and transparency within the agencies, along with growth in ESG ratings.

Despite all the regulatory reforms, when a new crisis arrived in 2020 with the Covid-19 global pandemic, the CRAs once again delayed downgrades in the credit ratings due to macroeconomic factors (Chodnicka-Jaworska, 2022). This reaffirms that, even though governments had implemented regulations and oversight, there are still systematic reactions during periods of uncertainty, with agencies being less transparent and informative in their ratings (Attig et al., 2021).

1.1.2. ESG and sustainability factors in credit ratings

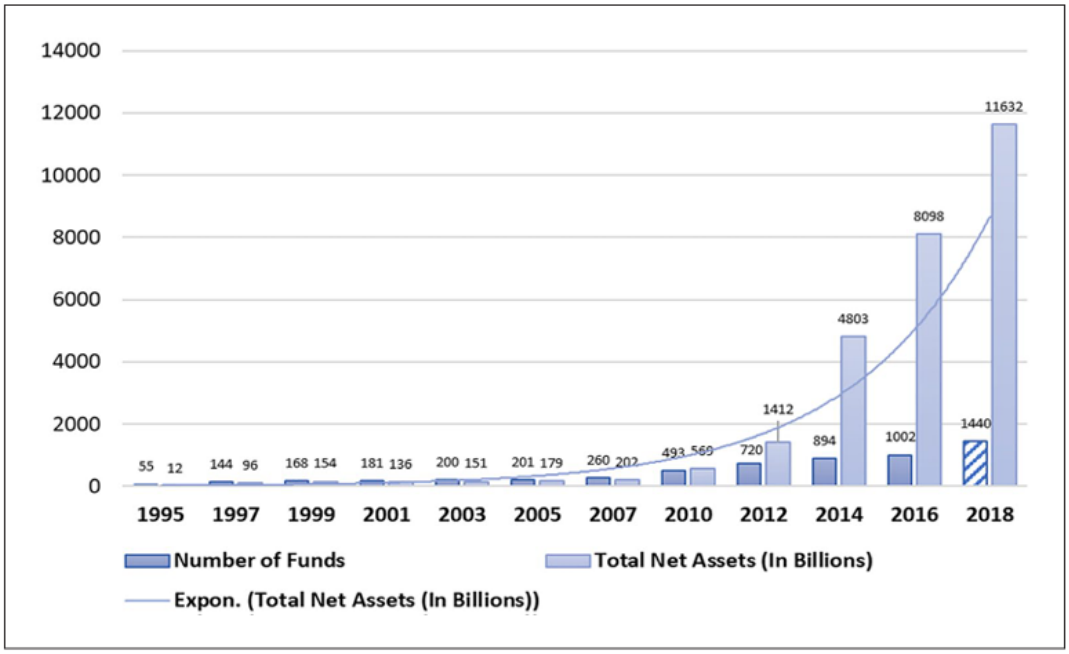
Environmental, Social and Governance (ESG) factors constitute a globally used framework for assessing corporations' performance in managing sustainable risks and opportunities through non-financial indicators. According to OECD (2020), ESG investing is an approach that seeks to incorporate ESG factors into asset allocation and risk management decisions, to generate sustainable long-term financial returns. On the other hand, Eccles et al. (2020) define ESG as a broad concept beyond the combination of three important non-financial categories into one data source. Therefore, if there is no clear definition of ESG each corporation develop its own methodology for measuring ESG data as the objective of the ESG is to combine improved risk management with higher returns and align the results with climate, social and ethical values.

The origins of ESG go back to the nineteenth century when the first notion of Corporate Social Responsibility (CSR) emerged through investor movements against controversial companies whose main activities did not follow the ethical principles, such as those in the weapons, alcohol or tobacco industries. These movements gained importance throughout the years until the year 2004 when the term "ESG" itself first appeared in a United Nations (UN) report titled "*Who Cares Wins: Connecting Financial Markets to a Changing World*". The following year, the financial report *UN Environmental Programme Finance Initiative (UNEP-FI, 2005)* was endorsed by a group of twenty financial institutions, where the ESG factors were relevant for investment decisions (Eccles et al., 2020) .

As the OECD (2020) report highlights the increasing influence of the ESG has caused financial decision-making to shift from a values-based approach to a more structure financially driven model that integrates all ESG factors. In addition, Eccles et al. (2020) analyse two organizations, KLD Research & Analytics Inc. and Innovest Strategic Value Advisors Inc., which are among the oldest ESG data vendors. On one side, KLD operates through a values-driven approach, whereas Innovest focuses more on financial interpretation. Therefore, the convergence of these two approaches has led to the current ESG framework, as mentioned by the (OECD, 2020).

Figure 1

Investment funds incorporating ESG data



Source: (Eccles et al., 2020)

The Figure 1 shows that the number of ESG funds and their total net assets have grown exponentially from year 1995 to 2018, clearly demonstrating the expansion of ESG investing over the last decade.

In the ESG model, there are three main pillars that measure the factors influencing the credit ratings. According to Chodnicka-Jaworska (2021) , the environmental pillar score measures the impact of corporations on ecosystems by mitigating environmental risks and capitalizing on opportunities, this pillar has more influence in the energy, manufacturing and materials sectors. The social score pillar measures the ability of the

company to build trust among employees, customers and society essentially reflecting the company's overall reputation. Finally, the governance score pillar reflects the company capacity to properly manage its systems and processes in order to generate long-term value.

In addition to these three pillars, Chodnicka-Jaworska (2021) also takes into consideration the so-called "ESG Controversies Score" which measures the company exposure to ESG related controversies and negative events that could affect its public image. Therefore, all these factors have become important for assessing credit ratings and complementing the traditional financial methodologies.

The CRA have incorporated these ESG factors into credit rating calculations to better capture non-financial risks and enhance transparency by avoiding "greenwashing" in certain corporations (OECD, 2020). Initially, CRAs focused on quantitative indicators such as profitability or liquidity, however, due to the growing materiality of ESG issues, the qualitative aspects have gained greater relevance in credit ratings, especially in those sectors exposed to environmental risks, such as energy and manufacturing.

Despite this regulation, (ESMA, 2021) highlights the lack of an established regulation and standardized methodology for ESG ratings as well as a not clear introduction to the CRA, that has led some CRAs, such as Moody's and S&P, to acquire specialized ESG rating agencies that potentially reproducing the same oligopolistic structure as traditional CRAs. Therefore, there are some structural divergences among the ESG rating methodologies, due to differences in how aspects are measured, and which indicators are included in the evaluation (Berg et al., 2022).

Table 3 shows the number of indicators provided by the six main ESG rating agencies per categories. Therefore, the differences in indicators among these agencies are evident in the table.

Table 3

Number of indicators per rater and category

Category	Sustainalytics	S&P Global	Refinitiv	Moody's ESG	MSCI	KLD
Access to Basic Services	2		1		1	1
Access to Healthcare	6	3	1		1	1
Animal Welfare	2		1			
Anti-competitive Practices			2	1	1	1
Audit	4		5	1		
Biodiversity	1	1	3	1	1	2
Board	6		25	1	1	
Board Diversity	2		1			3
Business Ethics	4	2	1		1	1
Chairperson-CEO Separation	1		1			
Child Labor			1	1		1
Climate Risk Mgmt.		2	1		1	2
Clinical Trials	1		1			
Collective Bargaining	2		1	1		
Community and Society	3	6	10	1		1
Corporate Governance		1			1	
Corruption	2		1	1	1	1
Customer Relationship	1	1	7	1		2
Diversity	2		9	1		3
ESG Incentives	1	1				
Electromagnetic Fields	1	1				
Employee Development	1	2	13	1	1	3
Employee Turnover	1		1			
Energy	3	6	5	1	2	1
Environmental Fines	1		1			1
Environmental Mgmt. System	2		1			1
Environmental Policy	4	2	4	2		
Environmental Reporting	2	1	1			
Financial Inclusion	1				1	1
Forests	1	1				
GHG Emissions	5		5	1		1
GHG Policies	3	2	4			
GMOs	1	1	1			
Global Compact Membership	1		1			
Green Buildings	5	2	1		1	1
Green Products	7	1	20	1	2	1
HIV Programs	1		1			
Hazardous Waste	1	1	1		1	
Health and Safety	7	1	7	1	1	2
Human Rights	2	1	5	1		5
Indigenous Rights	1		1			1
Labor Practices	3	1	16	4	1	3
Lobbying	3	1		1		
Non-GHG Air Emissions	1		2			
Ozone-Depleting Gases	1		1			
Packaging		1			1	1
Philanthropy	3	1	2	1		1
Privacy and IT	1	3			1	2
Product Safety	2	2	13	3	2	6
Public Health	1	3			1	2
Remuneration	4	1	15	2	1	4
Reporting Quality	3		5			1
Resource Efficiency	1	3	6			
Responsible Marketing	3	3	1	1		1
Shareholders			16	1		
Site Closure	1	1				
Supply Chain	21	3	4	4	3	6
Sustainable Finance	9	5	3		3	4
Systemic Risk		1			1	1
Taxes	2	1	1			
Toxic Spills	1		2			1
Unions			1			1
Waste	3	2	4	1		3
Water	2	2	3	1	1	2
Unclassified	7	7	42	1	35	2
Sum	163	80	282	38	68	78

Source: (Berg et al., 2022)

Furthermore, the commercial relationships between CRA and ESG rating agencies reveal that the ESG scores increased for the clients of Vigeo Eiris and RobecoSAM, acquired by Moody's and S&P respectively. This situation could again lead to potential conflicts of interest, as previously discussed, and highlights the need for stronger regulation.

The EU has established several regulations to avoid conflicts of interest and improve transparency. The European Commission Report (2022) measured the number of member states that supported the creation of legislative action and in response the Council of the European Union Proposal for Regulation (2024) established a framework supervised by the European Securities and Markets Authority (ESMA). Under this regulation, agencies must disclose their methodologies and sources of information to prevent greenwashing and inflated ratings.

On the other side, in the US the ESG regulation remains market-driven due to the believe in self-regulation and market forces. Furthermore, the SEC encourages the voluntary disclosure of ESG information to promote transparency but without any established regulation (OECD, 2020). However, the (OECD, 2025) highlights that the self-regulation approach is limited and may lead to conflicts of interest in the US framework, while the EU is moving toward with a more harmonized approach through its regulations. This divergence between US and EU governance illustrates the lack of a clear global framework for measuring ESG performance, and this could lead to unrealistic assessments of corporations operating in less regulated locations.

1.2. Factors influencing a company's credit profile

1.2.1. Financial factors

Financial indicators represent the most essential quantitative tools in credit rating analysis, as they assess a company's creditworthiness. According to (Altman et al., 2017), who analysed the Altman Z-Score model, that is a financial metric used to predict the likelihood of corporate bankruptcy. Current companies data were used to analyse the Altman Z-Score model, concluded that key ratios such as profitability, liquidity, solvency and leverage ratios remain among the most accurate analysis of the financial situation of a company. These ratios translate the company's financial statements into comparable parameters that allow CRAs to better assess credit ratings. In addition, (Altman et al.,

2017) highlighted the influence of specific factors, such as industry or geographic location, on the model's accuracy in detecting financial distress.

The three essential quantitative sources for credit evaluation are liquidity, leverage, and profitability. Firstly, liquidity is key to determining a company's credit profile as it measures the financial flexibility and their ability to face its obligations. During the COVID-19 crisis, the phenomenon known as "dash for cash" appeared. As companies faced credit risk during this period of uncertainty, they attempted to secure liquidity by using the existing credit lines. This behaviour illustrates the fear of a possible market collapse during times of instability, and the prudent response was to maintain this liquidity back-up to avoid potential downgrading. Therefore, a company's access to credit is also linked to its credit ratings (Acharya & Steffen, 2020).

In addition, since holding excessive liquidity also implies costs for the companies, Atanasova & Willeboordse (2025) conclude that liquidity management is influenced by corporate structure, this is demonstrated by the fact that more diversified companies face fewer liquidity problems through internal capital reallocation among their subsidiaries. Such reallocation requires well-organized governance and coordination and could reduce the dependence on external financing. Furthermore, Altman et al. (2017) note that one of the first signals of financial distress is the decline of liquidity ratios. This evidence confirms that there are lower default risks and more stable credit rating with a stronger liquidity position.

Leverage is the second component of credit rating analysis reflecting the financing structure of a company and its exposure to financial risk. The credit rating of a company directly affects its financing conditions, as Badoer et al. (2019) show that the companies with very positive credit rating have broader access to public bonds markets, benefiting from reduced borrowing costs and longer maturities. In contrast, companies with lower credit rating tend to rely on debt, deteriorating its leverage structure. Therefore, stronger credit ratings enable cheaper borrowing and lower financing costs.

On the other hand, during the COVID-19 crisis, the limited access to external financing and agency conflicts led companies to slow down their leverage adjustments and rely on their liquidity position rather than improving their leverage structures. This period of uncertainty reveals that companies tend to behave more cautiously in leverage

decisions and demonstrate more flexibility through liquidity to secure their market share (Rehman et al., 2024).

Finally, profitability determines the capacity of the company to generate earnings from its assets and meet its debt obligations and complementing liquidity and leverage to complete credit analysis. Altman et al. (2017) demonstrated that profitability indicators, especially EBIT-to-total-assets ratio, that are key components of the Z-Score model to predict default probability and financial distress, with declining profitability often one of the first signals of weak financial health. In addition, profitability is directly related to credit rating quality, since more profitable companies with higher ratings receive better conditions in financing markets, such as longer maturities and lower costs as a result of their strong confidence (Badoer et al., 2019).

Moreover, Acharya & Steffen (2020) highlight that companies with strong profitability after the COVID-19 crisis, faced this period of uncertainty with greater access to capital markets and avoided downgrades due to their strong initial position. Therefore, even in uncertain periods, profitability remains a key determinant of credit quality and a crucial factor against financial distress.

On the other side, corporate governance and financial policies are fundamental determinants in assessing credit rating as they define how the financial management of a company is conducted. As Gennaro & Nietlispach (2021) show that weak governance practices persist in current companies, even after the 2008 crisis exposed their importance. These governance deficiencies are reflected in financial indicators and can damage the rating of the company and its reputation among investors. Nevertheless, an effective governance with independent boards and transparent reporting provide more stability and lower volatility rather than pursuing high short-term returns.

Even though corporate governance practices have improved since the 2008 crisis, there still appear to be problems in putting them into practice. Moreover, the behavioural perspective is also important in the decision-making process in management, as some decisions are influenced by psychological biases and beliefs that could lead to credit deterioration (Raudino, 2023) Therefore, understanding the connection between psychology and corporate management could aid to fully interpret credit rating.

Finally, the macroeconomic environment should also be taken into account to better understand all the above-mentioned financial indicators. As Altman et al. (2017)

highlighted, the financial indicators analysed in the Z-Score model are strongly influenced by the macroeconomic cycle. Therefore, during volatile periods characterized by high liquidity saving strategies and downgrade risks, this environment negatively affects the ratings of the companies, while in periods when the macroeconomic situation is stable, with low interest rates and easy access to capital markets there is less credit risk (Acharya & Steffen, 2020).

1.2.2. Non-financial factors (ESG, regulatory pressures)

Additionally, to traditional quantitative financial factors, the non-financial ones have become an essential component to fully complete the assessment of the credit rating of a company. This can be explained when aforementioned financial indicators vary without any clear empirical explanation, as some factors that affect the company are qualitative. As previously mentioned, CRAs have incorporated these qualitative factors to achieve a broader perspective, in particular the ESG framework has facilitated this process by providing established indicators, which combined with other factors, can reflect the complete rating of a company.

One of the most influential non-financial factors in the assessment of credit rating is corporate reputation as it reflects the company values and transparency. According to Hasan et al. (2022) reputation risk arises from events such as ESG related incidents, for example, pollution or fiscal fraud, or poor corporate management that is not able to meet the expectations of the stakeholders, which damages the public image of the company. Therefore, these companies exposed to reputational risk tend to adopt defensive behaviour by holding more cash to face potential negative events. Consequently, CRAs view having a well-organized and transparent governance structure as a positive signal that are able to avoid these reputational risks.

Furthermore, ESG controversies are key determinants of reputational and credit risk. Aouadi & Marsat (2018) demonstrate that negative market reactions affect companies involved in ESG controversies and those with weak social performance. On the other hand, when a company has strong corporate performance, such controversies reflect underlying internal problems, also companies in this situation tend to adopt precautionary financial behaviour, preserving greater liquidity flexibility to avoid potential shocks. This behaviour can also be explained by the agency motive, where

management make decisions that protect the individual interests rather than maximizing shareholders' value (Hasan et al., 2022).

Climate risk has become one of the most important factors influencing credit assessments. Therefore, companies with high carbon emissions face greater credit risk due to reputational loss and the emerge of policies that penalize environmentally harmful actions such as carbon taxes and emission limits. In addition, after the implementation of stronger regulations such as the 2015 Paris Agreement, climate exposure has been linked to a higher probability of default (Capasso et al., 2020). Therefore, it is important to identify the three main types of climate risks, physical, regulatory and technological, which investors consider financially material in order to incorporate them into risk management and protect the long-term company value. However, as companies have not been able to fully mitigate all these climate risks and they were losing confidence while facing greater restrictions on capital access, some regulations have been established to control them (Krueger et al., 2020)

As previously mentioned, there are still some challenges in the use of qualitative data despite the progress made these decades. Berg et al. (2022) highlight that ESG measures present inconsistencies due to differences in scope and measurement among agencies that emphasize in the importance of the transparency to mitigate potential conflicts of interest and to unify methodologies within regulation. In addition, Aouadi & Marsat (2018) explain that the effective integration of ESG into credit assessment needs to be objective and based on data evidence, so that these qualitative factors provide a more comprehensive understanding of companies' situation.

1.3. Automotive sector and case study companies

1.3.1. Overview of the automotive sector

The automotive industry plays a key role in today's industrial economies. It combines large-scale manufacturing with global supply networks, making it a truly international business. Ford's moving assembly line in the twentieth century made standardized production possible and helped the industry grow. Later, the Sloan model, which focused on product variety and management as the industry expanded after World War II, strengthened the sector's market position (Paul Nieuwenhuis & Peter Wells, 2015).

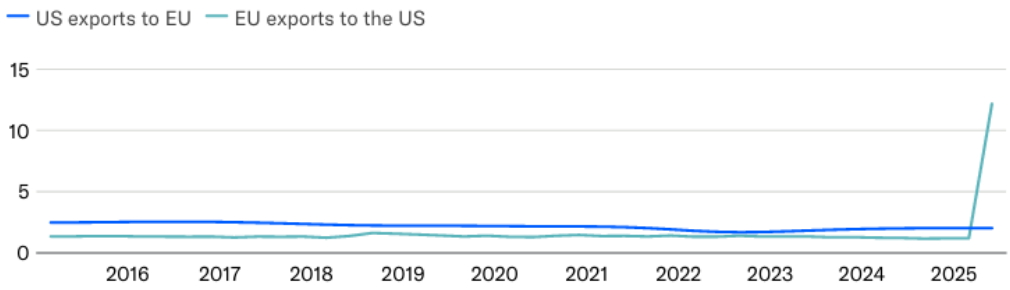
The current competitive landscape is influenced by policy-driven decarbonization, technological innovation in production, evolving business models, and a volatile trading environment that can quickly alter cost structures and capital allocation. Mobility is shifting beyond traditional car ownership toward an ecosystem characterized by advanced, connected, electric, and shared solutions, especially in the metropolitan areas. Heineke et al. (2023) show that regulatory measures, including city access rules, rail network expansion, and parking reform, combined with changing consumer preferences for convenience and sustainability, are promoting increased multimodality in cities. Their global data suggest that, while private cars remain the dominant way of transport, there is considerable potential for public and shared transport modes to expand by 2035, supported by favourable policies and infrastructure improvements.

Given these recent changes, the industry is expected to remain stable but face some challenges in the near future. Fitch Ratings (2024) report predicts a neutral outlook for 2025, with steady production and a 2% rise in light vehicle sales. However, profits are under pressure from more competition and issues with product variety. Lower interest rates might help more consumers buy cars, but this could lead to more sales in less profitable segments. The brands from the EU are still restructuring, which affects cash flow. Even though lower rates may increase demand, protectionist policies could create new problems for the industry.

Trade policy now plays a significant role in the automotive industry. Moody's, (2025a) looked at EU-US import duties since 2016 and found that the 2025 agreement only provides short-term relief, not a permanent fix. While import duties are lower than before, there are still questions about how the rules will be applied and how stable they will be over time. For companies operating between the EU and the US, this change lowers some risks but still leaves their sourcing, location, and inventory plans exposed to policy changes. Figure 1 shows how EU-US import duties have changed, and the moderation seen in the year 2025.

Figure 2

Import duties on EU goods exports to the US have soared this year. Import duties as a % of imports



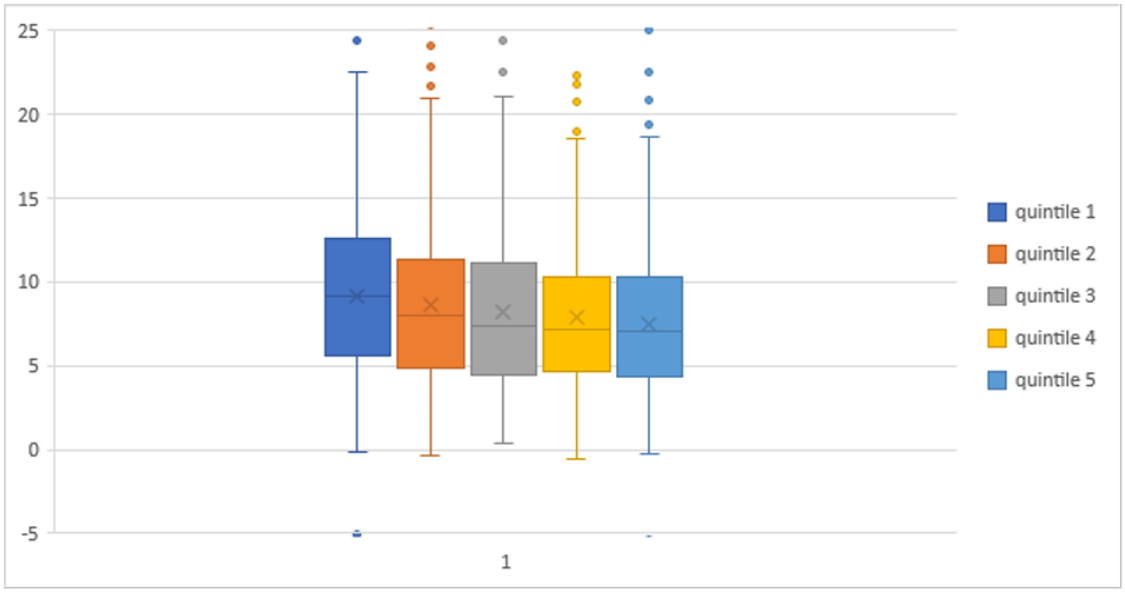
Source: (Moody's, 2025a)

In US, (Moody's, 2025b) describes tariff policy as changeable and politically sensitive. Some tariff cuts and temporary measures, like the "import adjustment amount", help a bit but do not fully ease cost pressures. The mix of tariff rules and local content requirements affects which models are available, where companies source parts, and where they build cars. Even with some tariff relief, the overall effect could still hurt the credit ratings of some companies. Being able to adjust supply chains and manage costs without losing market share is becoming more important for keeping profits steady. Because of this, changes in policy often lead to changes in profits, and credit ratings will reflect how well companies adapt.

Climate transition risk is now a key financial issue that affects credit assessments. Capasso et al. (2020) found that companies with higher carbon emissions face greater credit risk and also showed that changes after the Paris Agreement have made things harder for firms with high emissions. For automakers, most emissions come from the full life cycle of their products, so having strong decarbonization plans is essential. Therefore, steps like making more electric vehicles, using cleaner energy, choosing better materials, and recycling can directly affect credit ratings and access to capital. This means that good environmental performance is crucial for creditworthiness, not just reputation. The Figure 2 shows the distribution of firms' distance-to-default by CO_2-intensity quintiles (Q1 = lowest, Q5 = highest). Boxes represent medians and interquartile ranges, whiskers indicate non-outlier ranges, dots denote outliers, and "x" marks the means. The observed downward shift in central tendency from Q1 to Q5 demonstrates that higher carbon intensity corresponds to lower distance-to-default, indicating increased credit risk.

Figure 3

Distance to default by levels of emissions' quintiles



Source: (Capasso et al., 2020)

Furthermore, the EU and the US are separate but connected markets. In the EU, policies aim to balance strong climate goals with keeping industry competitive. Therefore, companies need to be flexible and invest in infrastructure for electric transport and heating to be ready for the future, this means changing how they make products and use energy to meet new rules. However, moving to electric vehicles and adding more software also requires big investments. Steps like updating factories, building networks of clean-tech suppliers, and keeping models competitive highlight the need for good cash flow and careful spending, both of which are important for credit ratings in the next year or so (Rosslow & Candlin, 2023). In the US, industrial policy, consumer affordability, and tariffs are the main factors shaping short-term plans. Moody's (2025b) notes that even with some tariff relief and temporary measures, some companies may still face high costs. Therefore, the companies that produce more locally and have flexible sourcing in the US are usually better able to handle these challenges.

1.3.2. Volkswagen AG: company overview and sustainability strategy

Volkswagen AG (VW) is a global automotive group with brands in mass, premium, and luxury markets. These include Volkswagen Passenger Cars, Audi, Škoda, SEAT/CUPRA, Porsche, Bentley, Lamborghini, Ducati, and heavy vehicles through TRATON (Scania, MAN, Navistar). In 2024, VW delivered 9 million cars, earned €324.7 billion in sales, and had an operating result of €19.1 billion, giving a 5.9% operating margin. The Automotive Division's net cash flow was €5.0 billion, and net liquidity was

€36.1 billion at year-end, reflecting lower deliveries, changes in product mix, and major investments in the transition (Volkswagen, 2024)

VW's strategy focuses on two main goals. The first is a long-term technology plan that highlights ongoing electrification, PowerCo battery projects, software and digital upgrades, and partnerships for external software and licensing, such as with Rivian. In 2024, these efforts were backed by an Automotive investment ratio of 14.3%. The second goal is to improve cost competitiveness, through the program called "Zukunft Volkswagen", by making structural and labor-cost changes to boost mid-term profitability and cash flow (Volkswagen, 2024).

In 2024, VW made progress in electrification but still faced challenges. The company delivered 744,794 battery-electric vehicles, representing 8.3% of total deliveries, and sold 269,622 plug-in hybrids, with different results by region, with EU and US performing better than Asia. These trends show the need for a broad product range, smart pricing, and a phased rollout plan from 2025 to 2027 (VW SUSTAINABILITY REPORT, 2024).

The large size of VW and the strong liquidity are balanced by lower profitability during industry changes and more competition. On 17 March 2025, Moody's Ratings downgraded VW's long-term issuer rating to Baa1 from A3. The downgrade was due to a lower operating margin and free cash flow, more price pressure, risks in electric vehicle and software projects, and tougher competition in China. Moody's also noted VW's strong liquidity and low leverage at the new rating (Moody's Ratings, 2025).

Fitch Ratings offers a similar view of VW's strengths and risks. On 7 April 2025, Fitch kept VW's Long-Term Issuer Default Rating at A- but changed the Outlook to Negative, pointing to challenges in execution and a slower recovery in margins and free cash flow. Still, VW's broad business model, strong cash flow, and high liquidity help offset these issues (Fitch Ratings, 2025b) . The company's investor-relations "Ratings" page lists the current agency ratings: Fitch A-/Negative, Moody's Baa1/Stable, S&P BBB+/Stable, and DBRS A (low)/Stable, as referenced in this section (Volkswagen, 2024).

Table 4

Big Three Ratings for VW

	VOLKSWAGEN AG		VOLKSWAGEN FINANCIAL SERVICES AG[1]	VOLKSWAGEN BANK GMBH[1]	VOLKSWAGEN FINANCIAL SERVICES OVERSEAS AG[1]	TRATON SE	
	2024	2023	2024	2024	2024	2024	2023
Standard & Poor's							
short-term	A-2	A-2	A-2	A-2	A-2	A-2	-
long-term	BBB+	BBB+	BBB+	BBB+	BBB+	BBB	BBB
outlook	stable	stable	stable	stable	stable	stable	stable
Moody's Investors Service							
short-term	P-2	P-2	P-2	P-1	P-2	P-2	-
long-term	A3	A3	A3	A1	A3	Baa2	Baa2
outlook	negative	stable	negative	negative	negative	positive	stable
Fitch Ratings							
short-term	F1	-	F1	F1	F1	-	-
long-term	A-	-	A-	A-	A-	-	-
outlook	stable	-	stable	stable	stable	-	-

Source: (Volkswagen, 2024).

The Annual Report Volkswagen (2024) brings together financial, operational, and sustainability data, covering the EU Taxonomy, climate action, resource use, and social issues. VW tracks decarbonization with a Decarbonization Index and adds supply-chain CO_2e requirements to new contracts for certain parts, encouraging suppliers to set science-based targets. The Group aims to cut Scope 1 and 2 emissions by 50.4% by 2030 compared to 2018, as confirmed by the Science Based Targets initiative. It is also working to improve energy efficiency and use more renewable electricity at its sites (VW SUSTAINABILITY REPORT, 2024)

Cash flow is still a key factor for VW's credit ratings, as the Automotive Division produced strong gross cash flow, but this was reduced by spending on capital projects and development needed to stay competitive in electric vehicles, batteries, platforms, software, and other investments. The net liquidity of €36.1 billion gives VW flexibility for new product launches and restructuring, while management works to restore margins to earlier levels (Volkswagen, 2024).

1.3.3. Ford Motor Company: company overview and sustainability strategy

Ford Motor Company was founded in 1903, and now it operates under the Ford+ plan, which includes three main segments: Ford Blue (for internal combustion and hybrid vehicles), Ford Model e (for battery-electric vehicles), and Ford Pro (for commercial vehicles and services). This structure is designed to improve accountability and make better use of capital while integrating new software and services. In 2024, Ford reported an adjusted EBIT of about $10.208 billion. Ford Pro contributed around $9.015 billion, Ford Blue $5.284 billion, while Model e had a loss of $5.076 billion due to ongoing

investments in new electric vehicles. Net income for the year was $5.879 billion, and Ford's cash was $28.5 billion, and total company liquidity was $46.7 billion (Ford Motor Company, 2024b)

Ford currently holds ratings at the lower end of investment grade from most agencies, while Moody's assigns a rating one level below investment grade. The ford's NRSRO summary is as follows: S&P: BBB-/Stable; Fitch: BBB-/Stable; DBRS: BBB (low)/Stable; Moody's: Ba1/Stable. For Ford Credit, long-term ratings are BBB- at S&P and Ba1 at Moody's, with short-term ratings of A-3 and NP, respectively (Ford Motor Company, 2024a).Furthermore, these ratings reflect a balance between strong liquidity and cash generation from Ford Pro, and the risks associated with Model e and the ongoing transition to electric vehicles. This assessment aligns with S&P's decision in late 2023 to restore Ford's investment grade status, citing improved margins and increased financial flexibility (S&P Global Ratings, 2023).

Table 5

Credit ratings and outlook presently assigned by these four NRSROs

	NRSRO RATINGS						
	Ford			Ford Credit			NRSROs
	Issuer Default / Corporate / Issuer Rating	Long-Term Senior Unsecured	Outlook / Trend	Long-Term Senior Unsecured	Short-Term Unsecured	Outlook / Trend	Minimum Long-Term Investment Grade Rating
DBRS	BBB (low)	BBB (low)	Stable	BBB (low)	R-2 (low)	Stable	BBB (low)
Fitch	BBB-	BBB-	Stable	BBB-	F3	Stable	BBB-
Moody's	N/A	Ba1	Stable	Ba1	NP	Stable	Baa3
S&P	BBB-	BBB-	Stable	BBB-	A-3	Stable	BBB-

Source: (Ford Motor Company, 2024a)

Ford's sustainability strategy has faced some recent challenges. The Ford+ plan integrates decarbonization efforts with the development of new electric vehicles and an increased emphasis on hybrid models in the near future, with investments scheduled to align with market demand and cost considerations (Ford Motor Company, 2024b). However, several recent events have challenged this view, primarily Ford recalled approximately 694,000 Bronco Sport and Escape SUVs due to cracked fuel injectors that could result in engine fires. The company initially implemented a temporary software solution while pursuing a permanent fix (AP News, 2025). At the same time, Ford postponed the launch of its full-size electric pickup and next-generation electric van to 2028, redirecting focus toward smaller, more affordable electric vehicles (Reuters, 2025).

2. RESEARCH DESIGN AND METHODOLOGY

2.1 Research design and hypotheses

This study will analyse how environmental, social, and governance (ESG) factors influence in the credit ratings of Ford Motor Company and Volkswagen AG. Focusing on long-term issuer ratings and rating actions from the first quarter of 2010 to the third quarter of 2025, drawing this information from major CRA. Financial quarterly date will be also used and count ESG-related news items released by these agencies.

The dataset is set up by issuer, agency, and quarter. In addition, every entry includes the end-of-quarter rating, several financial ratios, and all the negative ESG events reported for each company that quarter.

The analysis revolves around three main hypothesis:

- H1 – Rating level and ESG events: quarters presenting more negative ESG events are associated with lower credit ratings.
- H2 – Rating actions and ESG events: when negative ESG events occur, downgrades are more likely than upgrades.
- H3 – Direction of rating changes and ESG events: if any rating changes, is more likely that quarters with a lot of negative ESG events will see downgrades instead of upgrades.

2.2. Data collection and organisation

The database is built by using two main Excel files. The first one, is called "CRA_ESG_Workbook_Ford_VW", is where the records and codes all the raw data is collected. The second, "Panel_Ford_VW_v1_0", holds the final quarterly panel use for analysis in EViews with all the data and dummies, in the 'Panel_wAgency' sheet. Firstly, this section explains the data collection and transformation into variables.

2.2.1 Credit ratings and rating actions

The rating data is gathered from the public websites of the main CRAs - Moody's Ratings, S&P Global Ratings, Fitch Ratings, DBRS - and from the companies' own credit ratings pages in its annual reports. For each company and agency, every rating action that affected the long-term issuer rating or its outlook is listed from the quarter 1 of 2010 to the quarter 3 of 2025 in the "Ratings_Log" sheet of "CRA_ESG_Workbook_Ford_VW". Every row in this log covers:

- Issuer and Agency
- Action_Date
- Action_Type (Upgrade/Downgrade/Affirmation/Outlook/Watch)
- From_Rating and To_Rating (rating scale symbols)
- Outlook (Negative/Stable/Positive)
- Title and source of the announcement

This sheet is my main record of rating history of the two companies. It is used to later rebuild end-of-quarter ratings and to spot which quarters had changes in the ratings, and it takes two steps to turn the "Ratings_Log" into quarterly data. First, is to make a rating-by-quarter sheet "Panel_Ford_VW_v1_0", where each row stands for a company, an agency, and a quarter. If there's at least one rating action in a quarter, a record is made in the final long-term rating for that period. Second step is combining these quarterly ratings across agencies and companies, then merge them with the ESG and financial data in "Panel_Ford_VW_v1_0", exactly in the "Panel_wAgency" sheet, which is the one that will be used directly in EViews. Finally, the rating actions are turned into yes-or-no variables for each quarter:

- "rating_num_q": numeric coding of the long-term rating in force at quarter-end (see Section 2.3.1).
- "upgrade_q": is 1 if at least one upgrade of the long-term rating occurred during the quarter and is 0 otherwise.
- "downgrade_q": 1 if at least one downgrade occurred (0 otherwise).
- "outlook_pos_q/outlook_neg_q": 1 if there was a change to a positive/negative outlook (0 otherwise).
- "watch_pos_q/watch_neg_q": 1 if there was a positive/negative watch or review (0 otherwise).

These variables provide a clear definition of what constitutes a 'rating action.' Upgrades and downgrades only refer to changes in the long-term rating level, whereas outlook and watch indicators offer more forward-looking information.

2.2.2 ESG events and current ESG situation

The ESG data is gathered entirely from the news and reports published by CRA. The main goal is to understand not just what is reported, but how and when these agencies chose to highlight ESG issues and not mix the information with other external sources

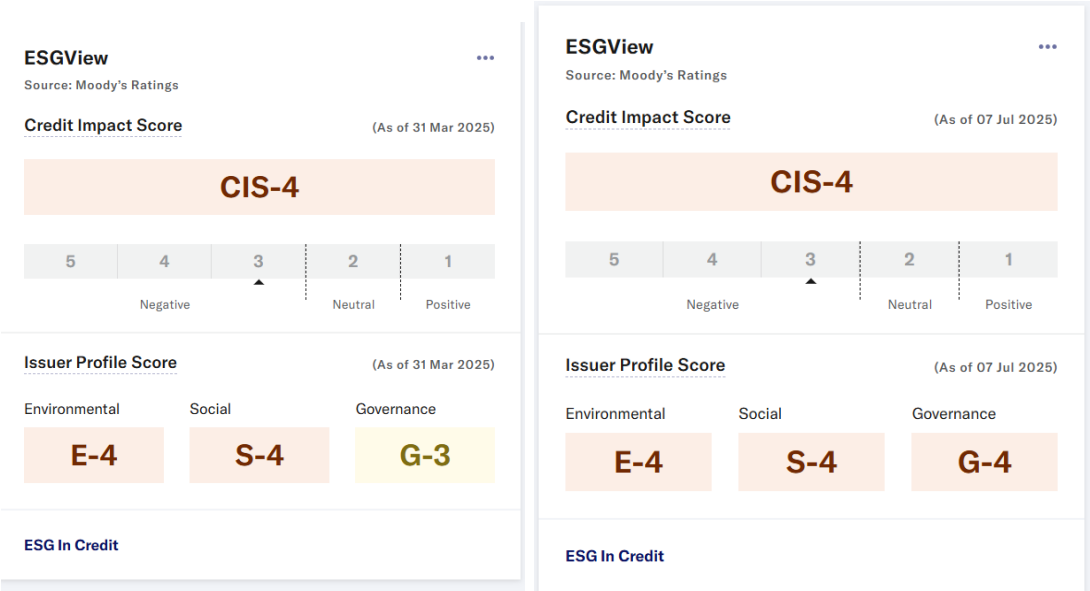
that could take into account different events that are not considered important for the credit assessment. Whenever a press release or credit report included something related to ESG, a new line is added to document in the "ESG_Events_Log" sheet. Every entry includes:

- Issuer
- ESG_Issue_Tag: a short phrase that summarize the main issue.
- Event_Date
- ESG_Pillar (E/S/G): environmental, social or governance.
- Event_Type
- Event_Description: a short explanation of the event.
- Primary_Source: the agency publication where the event is reported.
- Materiality_Tag: High, Medium, or Low, depending on how important the event seemed for credit impact.

The ESG events that affect the credit assessment, or the ones that agencies have reported, are negative events, for example controversies, new regulations or compliance issues. That means the ESG variables used are mainly a record of negative news, not signs of improvement, as these signs usually are slightly mentioned in the reports. In addition, to provide an actual view of ESG profile of both companies there is Moody's ESGView dashboards, which assign each issuer a Credit Impact Score and separate ratings for environmental, social, and governance factors, and also give a vision of Moody's ESG events consideration as the reports of this agency are not public. As of March 31, 2025, both issuers had a CIS-4, suggesting a moderate negative effect from ESG issues. The E-4, S-4, and G-3 scores mean higher risks in environmental and social areas and a medium governance risk. These ratings are not included in the analysis as there is no clear data of the event.

Figure 4

ESG view of Ford and Volkswagen (respectively)



Source: (Ford Motor Company | Overview | Moody's, n.d.) (Volkswagen Aktiengesellschaft | Overview | Moody's, n.d.)

2.2.3 Financial data

All the financial data is collected from Bloomberg, this programme provides the necessary quarterly data for both companies, using the same definitions for things like total assets, total debt, cash and equivalents, EBITDA, net income, interest expense, and sales. In addition, instead of calculating the ratios from raw statements, Bloomberg's ratios will be used ready to avoid introducing mistakes and make them easily comparable between the two companies.

So, all this data is organized in the workbook "Panel_Ford_VW_v1_0". The main panel includes all the data series, and the ratios are added in the "Panel_wAgency" sheet. Therefore, EViews could work right away with the ratios and their lags with this setup.

2.3 Variable construction

2.3.1 Rating level and mapping

To make the ratings easier to analyze, the long-term ratings in From_Rating and To_Rating are converted into a numeric variable called "rating_num_q". As previously explained in this system the lower numbers mean better ratings, and each notch on the agency's scale becomes a one-unit change in my scale. For hence, the comparison of the long-term rating is easier from S&P/Fitch/DBRS and Moody's.

Table 6

Mapping scale for CRA long term issuer rating

Numeric_value	S&P_Fitch	Moodys
1	AAA	Aaa
2	AA+	Aa1
3	AA	Aa2
4	AA−	Aa3
5	A+	A1
6	A	A2
7	A−	A3
8	BBB+	Baa1
9	BBB	Baa2
10	BBB−	Baa3
11	BB+	Ba1
12	BB	Ba2
13	BB−	Ba3
14	B+	B1
15	B	B2
16	B−	B3
17	CCC+	Caa1
18	CCC	Caa2
19	CCC−	Caa3
20	CC	Ca
21	C	C
22	D	—

Source: compiled by the author, based on Moody's, S&P, Fitch and DBRS

2.3.2 Rating-action variables

Rating-action variables in "Panel_wAgency" are constructed by comparing quarterly rating levels using the "Ratings_Log" information. This approach identifies whether an issuer's credit quality improved, deteriorated, or remained unchanged in each quarter for every agency.

- "upgrade_q": is set to 1 when at least one action during the quarter results in a net improvement of the long-term rating (for example, from BB to BB+ or from Ba2 to Ba1). If no such action occurs, it is 0.
- "downgrade_q": is set to 1 if at least one action leads to a net downgrade, such as from BBB− to BB+. If there is no downgrade, it is 0.
- "outlook_pos_q" and "outlook_neg_q" are set to 1 when the agency clearly changes the outlook to Positive or Negative, respectively.

- "watch_pos_q" and "watch_neg_q" indicate when there was a positive or negative watch or review.

In addition, the Model D will use an ordered measure of rating changes, reflecting shifts in "rating_num_q" from one quarter to the next one, distinguishing between quarters with upgrades, quarters with no change, and quarters with downgrades, this will be calculated directly in EViews.

2.3.3 ESG salience index

The ESG salience index is build by the data collected in "ESG_Events_Log", using the "ESG_Quarterly_Summary" sheet as an intermediate stage. Summarize by quarter all the ESG-related items that agencies publish for each issuer and take into account the materiality of each item. For every row in "ESG_Events_Log", there is a column in "ESG_Quarterly_Summary":

- Year, quarter and period start/period end
- ESG event count
- Event type count (E/S/G)
- Materiality level count (High, Medium, or Low)

The events were represented by issuer and by quarter, therefore, in the "ESG_Quarterly_Summary" the events are sum up by total number events for each periods, this means total number of ESG events in that quarter (Total_events_q), environmental events (E_count_q), social events (S_count_q), and governance events (G_count_q). In addition, the materiality of each event each quarter is also sum up in different columns.

These counting are transforms into simple logarithms to create the variables that can be analyze in regressions in Eviews:

- ESG_salience_q = ln(1 + Total_events_q)
- E_salience_q = ln(1 + E_count_q)
- S_salience_q = ln(1 + S_count_q)
- G_salience_q = ln(1 + G_count_q)

This logarithmic transformation make sure that the index rise when more ESG events occur, but it ensures that the quarters with many events will not dominate the

distribution. Additionally, the logarithm transformation is also done in the materiality part, applying an extra importance into the high materiality events (ESG_salience_mat_q).

Once the quarterly ESG salience measures are added into "Panel_wAgency", lagged versions are created, for example, ESG_salience_t1 and ESG_salience_t2 that reflect the values of one and two quarters earlier. These lags are also created for E_salience, S_salience, G_salience and ESG_salience_mat_q.

- ESG_salience_t1 = ESG salience in quarter t−1
- ESG_salience_t2 = ESG salience in quarter t−2

There are two reasons to use the lagged variables. First, agencies sometimes take a while to update their ratings after ESG events occur. Second, using lagged ESG salience avoids any overlap between quarters with ESG events and the actual rating decisions in the same quarter.

2.3.4 Financial ratios and lags

These are the ratios used for the study:

- Leverage: debt_to_assets – total debt divided by total assets.
- Net leverage: net_debt_to_ebitda – net debt divided by EBITDA.
- Profitability: ROA – net income divided by total assets.
- Operating performance: ebitda_margin – EBITDA divided by sales.

These ratios appear in "Panel_wAgency" too, along with their lagged versions of the earlier quarters as abovementioned. These lags are shows as:

- debt_to_assets_t1, net_debt_to_ebitda_t1, roa_t1, ebitda_margin_t1
- debt_to_assets_t2, net_debt_to_ebitda_t2, roa_t2, ebitda_margin_t2

The same that happens with the events, rating committees typically base their decisions on the most recent published accounts, which are always the last accounts published. Therefore, lagging the variables makes sure that the information matches the CRA time of the rating decision.

In addition to these core ratios used in the regressions in Eviews, other two ratios are analyzed in the dataset, firm size and the current ratio, which are included in the descriptive statistics tables but are not included in the models in order to keep degrees of freedom and avoid multicollinearity.

2.3.5 Time dummies

To account for changes in the broader economy and evolving ESG regulations, three time dummy variables are defined directly in "Panel_wAgency" to add more important variables to the final panel:

- The variable "post_2015" will be 1 from 2015Q1 onward and 0 before that. This period is chosen to align with the introduction of stricter emissions standards by the governments, especially in the Paris Agreement, and initial major automotive ESG controversies.
- The variable "post_2020" will be 1 from 2020Q1 onward, this reflects the time when the COVID-19 pandemic and related policies influenced both the automotive sector and rating methodologies. This variable is included to ensure the analysis captures structural breaks due to the pandemic.
- The variable "covid_dummy" takes the value 1 in quarters marked by significant pandemic disruptions and special support measures (from 2020Q2 to 2021Q4).

These dummy variables are not linked to specific hypotheses by themselves. Instead, they are used to capture broad shifts in rating behaviour unrelated to firm-level characteristics, this means to a more macroeconomics conditions that can influence the ratings assessments.

2.4. Descriptive statistics

The final panel is formed by 488 issuer–agency–quarter observations, with the initial quarters excluded for lagged variable construction, because there is not prior period to take into account. The standard descriptive statistics are reported for all key variables which cover combined and separately samples of Ford and VW, these statistics will include means, medians, minimums, maximums, standard deviations, and skewness. The resulting tables summarize distributions of rating levels, rating-action frequencies, ESG salience and financial ratios, this will confirm that the variables are suitable for the ordered and binary response models described below.

2.5. Econometric models

To carried out the econometric analysis, the programme EViews is used, and the final panel for this analysis is the "Panel_wAgency" sheet from "Panel_Ford_VW_v1_0" as input data. All models are estimated by maximum likelihood, relying on the final subset

of observations identified as suitable for modelling, this means the observations where there are enough data (Model_OK = 1). In each model, a rating outcome is related to lagged ESG salience and financial ratios, with possible inclusion of the aforementioned time dummies.

2.5.1. Model A – Rating level (ordered probit)

In Model A, the relationship among rating level is examined with respect to financial fundamentals and ESG salience. The dependent variable is "rating_num_q" is analyzed using an ordered probit model estimated on the subsample containing a representative quarterly rating with the following formula:

$$\begin{aligned} RATING\_NUM \\ &= \beta_0 + \beta_1 ESG\_salience\_t - 1 + \beta_2 ESG\_salience\_t - 2 \\ &+ \beta_3 DEBT\_TO\_ASSETS\_t - 1 + \beta_4 NET\_DEBT\_TO\_EBITDA\_t - 1 \\ &+ \beta_5 ROA\_t - 1 + \beta_6 EBITDA\_MARGIN\_t - 1 + \varepsilon_t \end{aligned}$$

In this specification, the "Rating_num" variable is a continuous credit-quality index, and the error term (ε_t) will follow a standard normal distribution. The outcome will be an observable rating_num_q according to estimated thresholds. If there are positive coefficients will indicate factors associated with worse ratings (higher rating_num_q), while negative coefficients indicate an association with better ratings.

2.5.2. Model B – Probability of upgrade (binary logit)

In Model B, the probability of an upgrade in the rating is evaluated in a given quarter. The dependent variable is "upgrade_q", with explanatory variables equal to those in Model A, and time dummies are added to the equation:

$$\begin{aligned} \Pr(UPGRADE\_Q_t = 1) \\ &= \Lambda(\alpha_0 + \alpha_1 ESG\_salience\_t - 1 + \alpha_2 ESG\_salience\_t - 2 \\ &+ \alpha_3 DEBT\_TO\_ASSETS\_t - 1 + \alpha_4 NET\_DEBT\_TO\_EBITDA\_t - 1 \\ &+ \alpha_5 ROA\_t - 1 + \alpha_6 EBITDA\_MARGIN\_t - 1 + \alpha_7 post\_2015 \\ &+ \alpha_8 post\_2020) \end{aligned}$$

This model follows the logistic cumulative distribution function with Λ and is estimated using all issuer–agency–quarter observations. Since all the ESG are negative events, the upgrades in the models should be explained by other factors as financial improvements.

2.5.3. Model C – Probability of downgrade (binary logit)

Model C follows the same structure of Model B, but here the dependent variables is “downgrade_q”:

$$\begin{aligned}\Pr(DOWNGRADE\_Q_t = 1) &= \Lambda(\gamma_0 + \gamma_1 ESG\_salience\_t-1 + \gamma_2 ESG\_salience\_t-2 \\ &+ \gamma_3 DEBT\_TO\_ASSETS\_t-1 + \gamma_4 NET\_DEBT\_TO\_EBITDA\_t-1 \\ &+ \gamma_5 ROA\_t-1 + \gamma_6 EBITDA\_MARGIN\_t-1 + \gamma_7 post\_2020 \\ &+ \gamma_8 covid\_dummy)\end{aligned}$$

By including “covid_dummy”, the model ensures to capture distinctive rating behaviors during the pandemic. In this model, the hypothesis is that once the leverage and profitability are controlled, the higher lagged ESG salience will increase the downgrade probabilities.

2.5.4 Model D – Direction of rating moves (ordered model)

In Model D, an ordered variable based on notches are used, these notches are constructed directly in EViews from “rating_num_q”, to analyze the direction of rating changes during quarters with rating actions. The model specification is as follows:

$$\begin{aligned}MOVE\_CAT_t^* &= \delta_0 + \delta_1 ESG\_salience\_t-1 + \delta_2 ESG\_salience\_t-2 \\ &+ \delta_3 DEBT\_TO\_ASSETS\_t-1 + \delta_4 NET\_DEBT\_TO\_EBITDA\_t-1 \\ &+ \delta_5 ROA\_t-1 + \delta_6 EBITDA\_MARGIN\_t-1 + u_t\end{aligned}$$

In this model, the categories distinguish between upgrades, no change and downgrades.

CHAPTER 3. EMPIRICAL RESEARCH AND RESULTS

3.1 Estimation dataset in EViews

The estimation dataset that will be used for the analysis in Eviews is the final quarterly issuer-agency panel located in the "Panel_Ford_VW_v1_0" file, on the "Panel_wAgency*"* sheet.

As previously explained, the panel records all the quarterly rating outcomes, this includes the alphanumeric rating levels and rating action changes of the four CRAs from Ford and VW. Then, ESG salience measures are also included for each quarter and their lags, and finally, the financial data from Bloomberg ratios to represent especially leverage and profitability. In addition, time dummy indicators are also added for significant shifts that could affect the ratings, for example post-2015, post-2020, and COVID.

In addition, there are two additional financial variables in this final panel, which are firm size and current ratio as aforementioned, that are just for descriptive statistics, but they are not included as regressors in the econometric models. Therefore, the models will preserve the degrees of freedom, which means that given the limited number of observations each new regressor added reduce effective information and would make it less precise, and reduce the multicollinearity, that could occur when regressors are highly correlated and the standard errors increase. On the other side, leverage and profitability will be the dominant drivers in the models.

In the EViews outputs, the action models use a working sample indicated as "Sample: 1 504 IF T>=3". In this notation, T refers to the time index in the quarterly panel, which will count the quarters for each issuer and agency. The restriction of $T \geq 3$ is necessary because the models incorporate lagged variables, that represent previous quarters as discussed in the methodology, particularly the two-quarter lag ($t-2$) for ESG salience and other variables. For these models with lags (t-1 and t-2), the first two observations in each series lack defined lagged values due to there is no previous period data as the analysis starts in the first quarter of 2010, resulting in missing data for those periods. By limiting the sample to $T \geq 3$, the analysis ensures all lagged explanatory variables are available and produces a consistent sample. Since there are eight issuer–agency series in the dataset, this restriction eliminates 16 cases, two from each series, reducing the original 504 rows to a sample of 488 observations.

3.1.1. Effective sample sizes

Therefore, after applying the lag restriction in Eviews, the panel for rating-action models will contain 488 issuer–agency–quarter observations. This sample will be used for Models B and C.

The other two models use different dependent variables, that will depend on the specific information that is available:

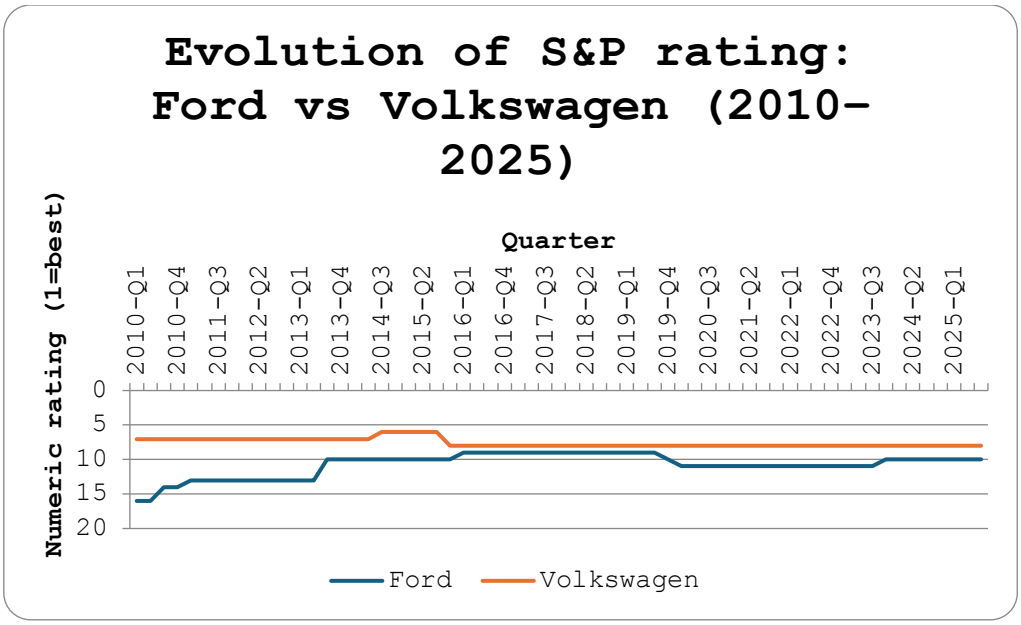
- Model A (rating level): the sample will be 128 issuer-agency-quarter observations because the rating-level variable only appears in some of the quarterly series compiled, this means that in the excel file the variable is only noted when there is a change in the rating but is empty when there is no change so this sum up 134 observations minus 6 due to the lag restriction.
- Model D (notch-category): the sample will be 22 issuer-agency-quarter observations. In this model, the dependent variable is only defined in quarters where I could actually build notch outcomes from the available rating-move data, this means that the notch outcome can be an observation when the rating is observed in two consecutive quarters for the same issuer-agency, therefore, from the 134 observations only 24 fulfil this requirement and 22 is the final sample because of the lag restriction.

3.1.2. First analysis of the panel in Excel

Before the analysis of the EViews model outputs, some figures have been generated from the panel to achieve a first diagnostic view of the collected information. Especially, these figures will show why rating actions and notch moves are less frequent.

Figure 5

Evolution of S&P rating

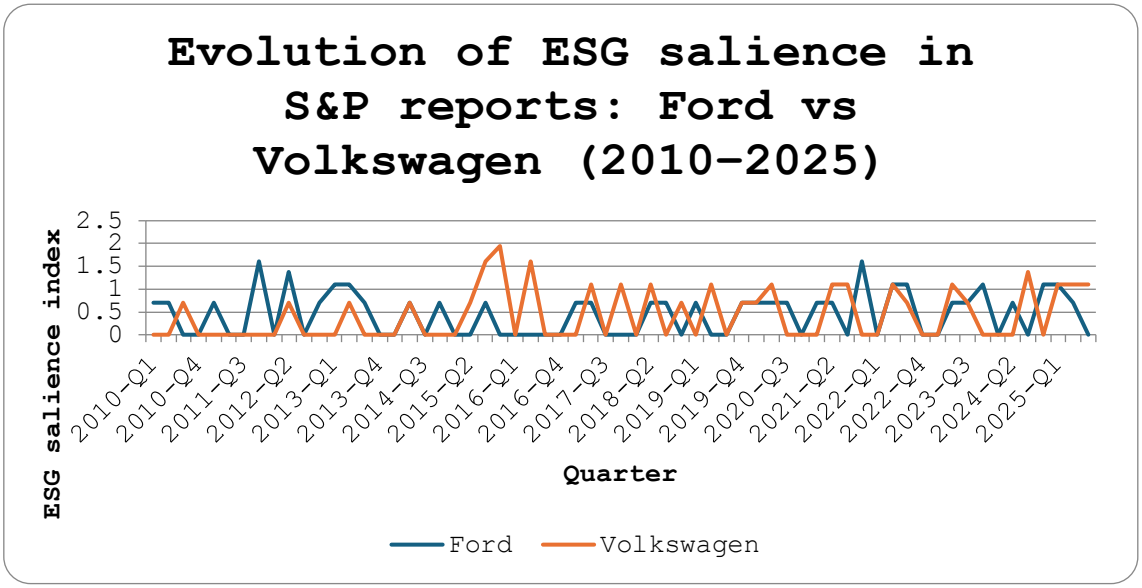


Source: Dataset “Panel_Ford_VW_v1_0”

This figure shows the trajectory of the ratings of both companies from S&P agency from the first quarter of 2010 till the third quarter of 2025. This chart keeps the rating level fixed unless there’s a new decision, this means that if there is no new rating change the rating will be the same as the previous period, showing how agencies usually work by no updating ratings very often. Therefore, this chart clarifies when changes actually happen, and why action-based outcomes are so rare. This idea of 'rating stickiness’ will matter especially for the downgrade and notch models.

Figure 6

Evolution of ESG salience in S&P reports

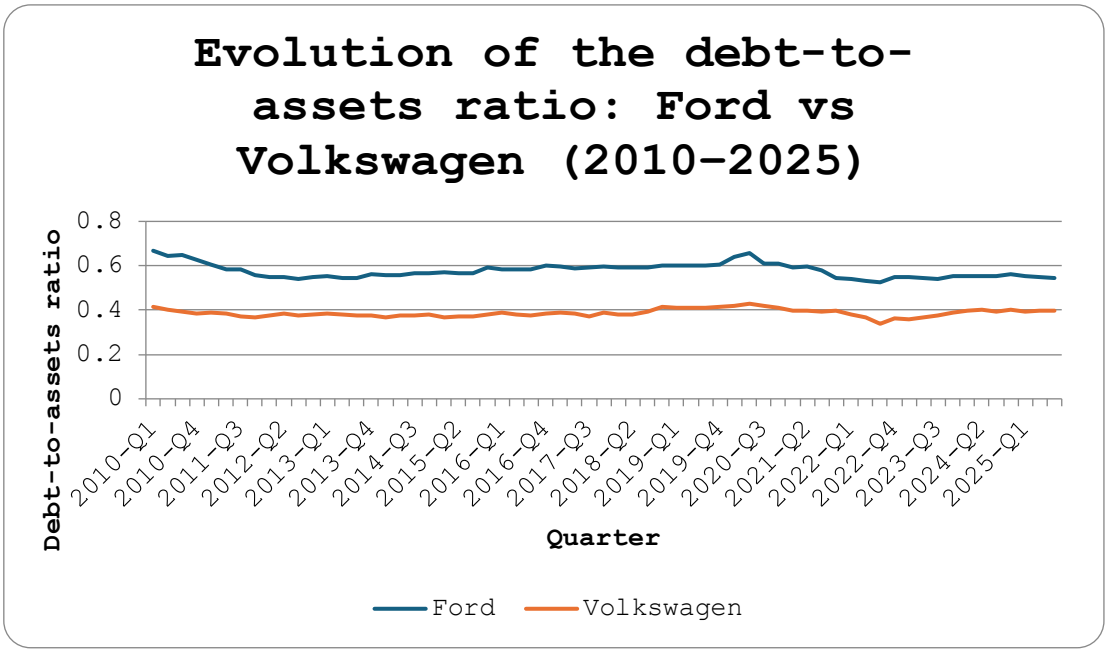


Source: Dataset “Panel_Ford_VW_v1_0”

The ESG salience series shown in this figure includes periods with zeros and some occasional spikes when some ESG events occur. Basically, these ESG controversies seem to appear suddenly around big events, not gradually over the months. Therefore, the lag structure is used for the variables in the regressions because it takes time for a change in ratings to occur after an ESG event. This kind of delay makes sense, since committee-based ratings need time to gather and confirm information before anything changes in the official record.

Figure 7

Evolution of the debt-to-assets ratio



Source: Dataset “Panel_Ford_VW_v1_0”

The company's leverage used to be persistent over time, although there is a gap between the issuers, as is presented in the figure X. This steady trend is why leverage is such an important driver in rating levels, as the rating actions or ESG saliences are rare variables that do not appear every quarter, leverage shifts slowly and helps explain why issuers differ and why credit risk changes over the medium term. In addition, the figure shows why leverage works so well as a predictor in the rating-level model as the main variable changes rarely so the cross-issuer variables will matter more.

To summarize, these figures provide a first visual description of the dataset where is clear that, in both companies, ratings changes are infrequent, ESG salience is episodic, and leverage is persistent. Therefore, the most significant signals in the models will come

from fundamentals variables as leverage and the ESG will have an effect with certain delay.

3.2. Descriptive statistics and correlations

3.2.1. Full-sample descriptive statistics

Figure 8

Descriptive statistics

Date: 12/01/25 Time: 14:06
Sample: 1 504 IF T>=3

	ESG_SALIE	ESG_SALIE	DEBT_TO_A	NET_DEBT_	ROA_T1	EBITDA_MA
Mean	0.435344	0.426339	0.481715	-0.713197	0.028804	0.113138
Median	0.000000	0.000000	0.477200	-0.715000	0.027300	0.124000
Maximum	1.945910	1.945910	0.655200	3.440000	0.117200	0.325800
Minimum	0.000000	0.000000	0.338300	-2.470000	-0.011700	-0.046000
Std. Dev.	0.512424	0.510334	0.098194	0.546537	0.023153	0.055750
Skewness	0.738050	0.776999	0.103810	3.185671	1.446598	-0.038508
Kurtosis	2.435544	2.509595	1.271209	29.66431	5.965307	4.680496
Jarque-Bera	50.78219	53.99322	61.64705	15282.11	348.9938	57.54327
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	212.4479	208.0535	235.0768	-348.0400	14.05640	55.21120
Sum Sq. Dev.	127.8758	126.8346	4.695682	145.4682	0.261067	1.513627
Observations	488	488	488	488	488	488

Source: Eviews

The full-sample table of descriptive statistics provides a first overall understanding of the econometric results. Therefore, this table gives a summary of the ESG salience and ESG salience t-1 and the chosen financial controls - debt to assets t-1, net debt to EBITDA t-1, ROA t-1 and EBITDA margin t-1 - combining data from both of the analysed companies, Ford and VW.

Firstly, in the ESG salience variable there exists a clear pattern, while the mean is 0.435, the median is 0.000. This indicates that for a substantial amount of quarters, there were no records of any ESG events or measured salience, and only in some quarters, there were the non-zero ESG saliences. This has implications for the econometric models, since the median is zero, most of the variation in ESG comes from those quarters where events actually occurred. As a result, the estimates can be less precise unless ESG shocks coincide with the rating changes. In addition, this pattern is the same in the lagged variable as the results are basically the same.

Then turning to leverage, which is measured by debt-to-assets variable, the mean is 0.482 and the median is 0.477, and with a standard deviation of 0.098 that shows a

moderate dispersion. These results indicate a variation in leverage, without the domination of extreme or outlier values. For credit ratings analysis, this means leverage remains a steady and important factor to take in consideration, and the coefficients for leverage are important rather than being driven or altered by the outlier values.

Net debt to EBITDA shows a non-normal distribution, with high kurtosis of 29.664 and very positive skewness of 3.186. This means that in some quarters there are present some extreme values. These situations can occur when EBITDA falls sharply or net debt shifts significantly relative to earnings. Even with well-designed regressions, this makes the effects of net leverage harder to precisely estimate and more sensitive to smaller samples.

Finally, the profitability measures are within a reasonable range, with the mean ROA of 0.0288 and median of 0.0273, and the mean EBITDA margin of 0.113 and median of 0.124. The distribution of ROA is right-skewed with 1.45 and has high kurtosis of 5.97 showing that in some quarters, profitability was unusually high or low, and this could potentially be aligned with rating actions.

Overall, figure 8 suggests that ESG salience tends to be episodic, leverage remains steady, and both net leverage and profitability can show more extreme values. This first view helps frame the results that fundamentals should play the most significant role in broad models, while ESG effects may show up later or in more focused subsamples.

3.2.2 Ford descriptive statistics

Figure 9

Ford's descriptive statistics

Date: 12/01/25 Time: 14:30
Sample: 1 504 IF (T>=3) AND (ISSUER="Ford")

	ESG_SALIE	ESG_SALIE	DEBT_TO_A	NET_DEBT_	ROA_T1	EBITDA_MA
Mean	0.451552	0.451552	0.576762	-0.781148	0.027426	0.076879
Median	0.693147	0.693147	0.572100	-0.800000	0.021100	0.079400
Maximum	1.609438	1.609438	0.655200	0.200000	0.117200	0.163300
Minimum	0.000000	0.000000	0.525500	-2.470000	-0.011700	-0.046000
Std. Dev.	0.474591	0.474591	0.030092	0.422967	0.026158	0.038741
Skewness	0.533602	0.533602	0.601608	-1.308823	1.674976	-0.923288
Kurtosis	2.237012	2.237012	2.795280	8.979134	6.336595	4.673747
Jarque-Bera	17.49760	17.49760	15.14465	433.1214	227.2762	63.14791
Probability	0.000159	0.000159	0.000514	0.000000	0.000000	0.000000
Sum	110.1788	110.1788	140.7300	-190.6000	6.692000	18.75840
Sum Sq. Dev.	54.73252	54.73252	0.220046	43.47288	0.166269	0.364702
Observations	244	244	244	244	244	244

Source: Eviews

The Figure 9 shows Ford's financial profile, which looks noticeably different from the one of VW. This is important to take into consideration, since the pooled estimates capture not just changes within each company, but also the differences between them.

Analysing the table, firstly, Ford's mean debt-to-assets is 0.577 and median is 0.572, that is materially higher than the overall mean. This reinforces the view that Ford consistently carries more leverage, which CRA treat as a permanent limitation on its rating. It also explains why leverage has a strong relationship with rating levels in the ordered probit model, because the leverage differences are structural, not just short-term fluctuations, and they can shift a company's rating category.

Subsequently, Ford's EBITDA margin is on the low side with a mean of 0.0769, and a median of 0.0794, and the negative skewness of −0.92, and also with a minimum of −0.0460, shows that the company had a few quarters with very weak or even negative operating profits. These periods of weak performance are typical for the automotive industry, which tends to have cyclical periods. Since rating downgrades usually come when earnings decrease, this encourages the idea that profitability should be a central factor in downgrade models.

Another important fact is that Ford's ESG salience has a median of 0.693. Therefore, Ford's data shows non-zero ESG salience more often than VW's. This is important because lagged ESG variables will have more variation for Ford than for VW. In pooled models, ESG effects might mostly track Ford variations unless the controls fully account for the differences between the companies.

In summary, Ford's statistics reflect that the company has higher leverage, lower margins, and more frequent ESG salience signals. All these factors together could mean that rating changes are sharper and the company is more sensitive to negative news.

3.2.3 Volkswagen descriptive statistics

Figure 10

VW's descriptive statistics

Date: 12/01/25 Time: 14:33
Sample: 1 504 IF (T>=3) AND (ISSUER="Volkswagen")

	ESG_SALIE	ESG_SALIE	DEBT_TO_A	NET_DEBT_	ROA_T1	EBITDA_MA
Mean	0.419136	0.401126	0.386667	-0.645246	0.030182	0.149397
Median	0.000000	0.000000	0.384100	-0.650000	0.027500	0.146300
Maximum	1.945910	1.945910	0.428900	3.440000	0.082400	0.325800
Minimum	0.000000	0.000000	0.338300	-1.740000	-0.008900	-0.041800
Std. Dev.	0.548155	0.543544	0.016608	0.640673	0.019655	0.045693
Skewness	0.885526	0.968112	0.187706	4.164269	0.958269	-0.248292
Kurtosis	2.532925	2.707412	3.390945	27.81513	3.947885	10.09460
Jarque-Bera	34.10700	38.98482	2.986673	6965.743	46.47793	514.2288
Probability	0.000000	0.000000	0.224622	0.000000	0.000000	0.000000
Sum	102.2691	97.87470	94.34680	-157.4400	7.364400	36.45280
Sum Sq. Dev.	73.01504	71.79185	0.067027	99.74209	0.093871	0.507343
Observations	244	244	244	244	244	244

Source: Eviews

On the other side, Figure 10 shows VW's statistics and, by comparison, has lower leverage and stronger operating profits than Ford. VW's mean debt-to-assets is 0.387 and the median is 0.384, and its mean EBITDA margin is 0.149 and the median is 0.146. These differences are important as they illustrate the image of VW having a stronger credit profile due to healthier margins and less leverage than Ford.

Opposite to Ford, VW's ESG salience has a median of 0.000, even though its mean is similar at 0.419. This indicates that VW's ESG salience are concentrated in fewer quarters but they reach higher level when it occurs, reaching to a maximum of 1.946. The pattern is that ESG events tend to cluster during certain periods but with less presence in other quarters.

In addition, VW's EBITDA margin also shows high kurtosis of 10.095 and a wide range, from −0.0418 to 0.3258. Therefore, even though VW has higher average profits, it still goes through periods of both strong and weak performance. These swings may line up with rating actions and ESG events, so the control of these fundamentals is important when analyzing ESG effects.

3.2.4 Correlations and joint interpretation

Figure 11

Correlations

Correlation

	ESG_SALIE	ESG_SALIE	DEBT_TO_A	NET_DEBT_	ROA_T1	EBITDA_MA
ESG_S	1.000000	-0.085023	-0.000951	-0.081977	-0.031849	-0.152953
ESG_S	-0.085023	1.000000	0.028114	-0.106817	-0.133185	-0.132623
DEBT_	-0.000951	0.028114	1.000000	-0.062664	-0.137691	-0.639293
NET_D	-0.081977	-0.106817	-0.062664	1.000000	0.057035	0.235583
ROA_T1	-0.031849	-0.133185	-0.137691	0.057035	1.000000	0.205504
EBITDA	-0.152953	-0.132623	-0.639293	0.235583	0.205504	1.000000

Source: Eviews

The figure 11 represents the correlation matrix between chosen variables, which shows three main key points that are important for the design and interpretation of the regressions.

First, ESG salience is weakly correlated with the financial controls. For instance, ESG salience is weakly correlated with ROA (−0.032) and net debt to EBITDA (−0.082). This means that the ESG measure is not just repeating what leverage or profitability ratios show, and it removes the uncertainty that ESG coefficients are simply reflecting financial distress already captured by accounting variables.

Second, the strongest relationship in the data is between debt-to-assets and EBITDA margin, with a coefficient of −0.639. This correlation is intuitive as higher leverage is usually associated with weaker profits. For the econometric models, this correlation does not imply a problem, but it can make standard errors larger when working with smaller samples, especially in Model D, which only includes 22 observations.

Finally, there is a slightly negative correlation of −0.085 between the two ESG salience series. This means that ESG salience is not persistent from quarter to quarter. Instead, it tends to cluster in bursts and then go back to zero. That is the reason why both t−1 and t−2 salience are included as separate variables, capturing different details, not just persistence over time.

3.3 Econometric results

All econometrics models are estimated using the student version of EViews. The output tables obtained are presented exactly as exported from EViews, to ensure the estimation details remain accurate.

The models are estimated using maximum likelihood (ML) because the dependent variables, like rating levels, notch categories, and upgrade or downgrade indicators, are all discrete. In addition, least squares estimation is not appropriate in this case, as it can produce values outside the possible range and does not fit the distribution of discrete results. ML estimation works by finding the coefficients that make the observed data most likely, using the logistic function for logit models and the normal cumulative distribution function for probit models.

3.3.1 Model A — Rating level (Ordered Probit)

Figure 12

Ordered probit model for rating level

Dependent Variable: RATING_NUM_Q
Method: ML - Ordered Probit (Newton-Raphson / Marquardt steps)
Date: 12/01/25 Time: 14:49
Sample: 1 504 IF (T>=3)
Included observations: 128
Number of ordered indicator values: 9
Convergence achieved after 8 iterations
Coefficient covariance computed using observed Hessian

Variable	Coefficient	Std. Error	z-Statistic	Prob.
ESG_SALIENCE_T1	0.333047	0.219340	1.518402	0.1289
ESG_SALIENCE_T2	0.911791	0.207527	4.393601	0.0000
DEBT_TO_ASSETS_T1	25.28300	2.907693	8.695210	0.0000
NET_DEBT_TO_EBITDA_T1	-0.159474	0.210463	-0.757732	0.4486
ROA_T1	3.421120	4.958130	0.690002	0.4902
EBITDA_MARGIN_T1	1.801831	2.526913	0.713056	0.4758
Limit Points				
LIMIT_7:C(7)	9.474427	1.394204	6.795580	0.0000
LIMIT_8:C(8)	11.22121	1.430546	7.844004	0.0000
LIMIT_9:C(9)	13.35228	1.701263	7.848449	0.0000
LIMIT_10:C(10)	14.67667	1.849490	7.935523	0.0000
LIMIT_11:C(11)	15.81021	1.867476	8.466086	0.0000
LIMIT_12:C(12)	16.79419	1.910677	8.789653	0.0000
LIMIT_13:C(13)	17.46497	1.946866	8.970810	0.0000
LIMIT_14:C(14)	18.54533	2.056918	9.016077	0.0000

Pseudo R-squared	0.409250	Akaike info criterion	2.492240
Schwarz criterion	2.804181	Log likelihood	-145.5034
Hannan-Quinn criter.	2.618983	Restr. log likelihood	-246.3027
LR statistic	201.5987	Avg. log likelihood	-1.136745
Prob(LR statistic)	0.000000		

Source: Eviews

This Model A applies an ordered probit model, where the numeric rating level is the dependent variable, and lagged ESG salience and financial fundamentals are the regressors. The sample includes 128 observations, reflecting the available data for this analysis. As previously defined, in the dependent variable “RATING_NUM_Q” the lower values of this variable indicate better credit quality, and each increase represents a shift

by one notch. In this model, positive coefficients indicate movement toward weaker rating categories, this means higher RATING_NUM_Q values.

The obtained results reveal a clear link between ESG salience and rating levels two quarters later, this means with the lag variable “ESG_SALIENCE_T2”, that is positive with 0.9118 and highly significant ($p < 0.001$). On the other side “ESG_SALIENCE_T1” is also positive with 0.333, but not statistically significant ($p = 0.1289$).

Therefore, this observed pattern supports the idea that there exists a delay before ESG information affect in the credit ratings. One reason might be that rating committees want to see evidence during several periods, and another possibility is that the ESG salience measure only matters in the credit rating if the information is permanent or repeated. As a result, the positive and significant ESG_SALIENCE_T_2 coefficient means that higher ESG salience two quarters ago is linked to a greater chance of receiving a weaker rating now.

Among the financial variables, “DEBT_TO_ASSETS_T1” is strongly positive with 25.283 and also highly significant ($p < 0.001$). This result highlights the important role of leverage in explaining the rating outcomes, since higher leverage is related to weaker ratings.

In contrast, NET_DEBT_TO_ EBITDA_T1, ROA_T1, and EBITDA_MARGIN_T1 are not so statistically significant in this model as their probability are 0.4486, 0.4902 and 0.4758. One possible reason is that, in this subsample, leverage explains most of the creditworthiness differences and the other profitability variables do not provide much extra explanatory power once leverage is already included.

The Model A demonstrates a strong explanatory power for an ordered response model, with a pseudo R-squared of 0.4092 and a highly significant likelihood ratio statistic. Although pseudo R-squared values are not directly comparable to OLS R-squared, the obtained values suggests that the variables included in the model together explain a meaningful part of the variation in rating categories.

To sum up, this Model A supports the H1 explaining that higher lagged ESG salience, especially at lagged $t-2$, is linked to weaker rating levels after accounting for financial fundamentals.

3.3.2 Model B — Upgrade probability (Binary Logit)

Figure 13

Binary logit model for upgrade probability

Dependent Variable: UPGRADE_Q
Method: ML - Binary Logit (Newton-Raphson / Marquardt steps)
Date: 12/01/25 Time: 01:21
Sample: 1 504 IF T>=3
Included observations: 488
Convergence achieved after 8 iterations
Coefficient covariance computed using observed Hessian

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-8.970576	2.038768	-4.399999	0.0000
ESG_SALIENCE_T1	-0.553743	0.514202	-1.076899	0.2815
ESG_SALIENCE_T2	-0.094492	0.482923	-0.195666	0.8449
DEBT_TO_ASSETS_T1	10.54427	2.710468	3.890201	0.0001
NET_DEBT_TO_EBITDA_T1	0.349669	0.402625	0.868474	0.3851
ROA_T1	2.527055	10.63530	0.237610	0.8122
EBITDA_MARGIN_T1	16.91207	5.592480	3.024073	0.0025
POST_2015	-1.424874	0.605215	-2.354327	0.0186
POST_2020	-0.278365	0.777429	-0.358058	0.7203

McFadden R-squared	0.184980	Mean dependent var	0.053279
S.D. dependent var	0.224819	S.E. of regression	0.212020
Akaike info criterion	0.376028	Sum squared resid	21.53217
Schwarz criterion	0.453309	Log likelihood	-82.75094
Hannan-Quinn criter.	0.406384	Deviance	165.5019
Restr. deviance	203.0649	Restr. log likelihood	-101.5324
LR statistic	37.56298	Avg. log likelihood	-0.169572
Prob(LR statistic)	0.000009		

Obs with Dep=0	462	Total obs	488
Obs with Dep=1	26		

Source: Eviews

The Model B uses a binary logit model on the full lag-consistent panel sample of 488 observations, which includes 26 quarters with upgrades and mean of the dependent variable of 0.0533. Since there is a rarity in the upgrades, it is hard to detect small effects, especially for ESG variables, when the dependent variable equals one in only a few quarters.

The ESG coefficients are negative but not statistically significant, with "ESG_SALIENCE_T1" being −0.554 and p = 0.2815, and "ESG_SALIENCE_T2" being −0.094 and p = 0.8449. Since most ESG events in the salience index are negative, there was no expectation of a positive link with upgrades after controlling for financial fundamentals. Therefore, the lack of a significant ESG effect in this upgrade model is

coherent and matches the previously discussed hypothesis that ESG salience is not the primary explanation for upgrades in this dataset.

There are two variables that are strongly linked to upgrades, “EBITDA_MARGIN_T1” is positive with 16.912 and significant with p = 0.0025, which confirm the idea that better operating performance increases the chance of an upgrade. On the other side, “DEBT_TO_ASSETS_T1” is also positive with 10.544 and significant with p = 0.0001.

Although the sign does not match a straightforward credit-risk perspective, this could be because the sample pools are just two firms, where upgrades occur at certain times and leverage differences partly reflect company structure, not just changes within a single firm. So, in this model, the coefficient shows an association, not proof that higher leverage causes upgrades.

Analysing the time controls variables, “POST_2015” is negative with −1.425 and statistically significant with p = 0.0186. This result suggests that, after accounting for fundamentals variables, upgrades became less common after 2015. This fits with the idea that tougher sector or regulatory conditions, such as new ESG regulations, and stricter rating standards came into play after 2015.

The McFadden R-squared is 0.1849, and the likelihood ratio test is highly significant. These results show that the model fits the data well, even though upgrades are rare.

In summary, the Model B supports the 'upgrade side' of the H2 that upgrades are linked to financial fundamentals, especially operating performance, while ESG salience does not explain upgrades in this dataset.

3.3.3 Model C — Downgrade probability (Binary Logit)

Figure 14

Binary logit model for downgrade probability

Dependent Variable: DOWNGRADE_Q
Method: ML - Binary Logit (Newton-Raphson / Marquardt steps)
Date: 12/01/25 Time: 00:59
Sample: 1 504 IF T>=3
Included observations: 488
Convergence achieved after 10 iterations
Coefficient covariance computed using observed Hessian

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.691446	3.862761	-0.179003	0.8579
ESG_SALIENCE_T1	0.342649	0.750480	0.456572	0.6480
ESG_SALIENCE_T2	-0.184659	0.666394	-0.277101	0.7817
DEBT_TO_ASSETS_T1	-1.777673	5.735289	-0.309953	0.7566
NET_DEBT_TO_EBITDA_T1	0.268981	0.588775	0.456848	0.6478
ROA_T1	-96.82404	33.21279	-2.915264	0.0036
EBITDA_MARGIN_T1	-7.900858	7.987847	-0.989110	0.3226
POST_2020	0.562498	0.833873	0.674560	0.5000
COVID_DUMMY	-1.599819	1.102335	-1.451300	0.1467

McFadden R-squared	0.238705	Mean dependent var	0.022541
S.D. dependent var	0.148587	S.E. of regression	0.145804
Akaike info criterion	0.200975	Sum squared resid	10.18298
Schwarz criterion	0.278255	Log likelihood	-40.03778
Hannan-Quinn criter.	0.231331	Deviance	80.07556
Restr. deviance	105.1834	Restr. log likelihood	-52.59170
LR statistic	25.10784	Avg. log likelihood	-0.082045
Prob(LR statistic)	0.001490		

Obs with Dep=0	477	Total obs	488
Obs with Dep=1	11		

Source: Eviews

This Model C includes 488 observations, where only 11 quarters have downgrades and the mean of the dependent variable has a value of 0.0225. Therefore, downgrades are even less frequent than upgrades. Although, just with 11 downgrade events the model identifies strong connections, particularly with fundamental variables. Still, when several variables are present, it is difficult to isolate the additional impact of ESG events.

The ESG coefficients do not reach statistical significance with "ESG_SALIENCE_T1" being 0.343 and p=0.648 and "ESG_SALIENCE_T2" being −0.185 with p=0.782. In other words, within this sample the ESG salience does not offer clear explanatory value for downgrades once fundamental variables are already included. This does not imply that ESG is irrelevant, in contrast, it suggests that fundamental variables capture most of the downgrade variation, making it challenging to distinguish the effect of the ESG when downgrades are infrequent.

On the other side, profitability shows a strong relationship with downgrade risk. The "ROA_T1" coefficient is negative with -96.824 and statistically significant with p=0.0036. This result aligns with established credit rating logic, where lower profitability increases the likelihood of downgrades. It is also reasonable that other controls are not

significant in a sample with few events, since a dominant factor like profitability can dominate and cover other signals when multiple variables are considered.

The "COVID_DUMMY" dummy time variable is negative with -1.5998, though not statistically significant with p=0.147, while the other variables "POST_2020" is positive but also not significant. These results together indicate that, after taking the fundamentals into account, the model does not identify a clear change in the downgrade patterns that can be attributed uniquely to the pandemic period within this dataset.

The model highlights a McFadden R-squared of 0.239, and the likelihood ratio test is significant with p=0.00149. Despite downgrades are rare, this model still uncovers important information for the research, primarily through the profitability variable.

This Model C provides partial support for the H2, as previously the model B. The analysis demonstrates that downgrades are associated with weaker fundamentals, especially return on assets (ROA), but does not reveal a clear additional effect from ESG salience on downgrade rates.

3.3.4 Model D — Notch-category model (Ordered Probit)

Figure 15

Ordered probit model for notch-category rating moves

Dependent Variable: NOTCHES_CAT
Method: ML - Ordered Probit (Newton-Raphson / Marquardt steps)
Date: 12/02/25 Time: 01:50
Sample: 1 504 IF T>=3
Included observations: 22
Number of ordered indicator values: 3
Convergence achieved after 7 iterations
Coefficient covariance computed using observed Hessian

Variable	Coefficient	Std. Error	z-Statistic	Prob.
ESG_SALIENCE_T1	2.213061	1.075613	2.057489	0.0396
ESG_SALIENCE_T2	3.689053	1.427163	2.584886	0.0097
DEBT_TO_ASSETS_T1	11.24208	6.113392	1.838926	0.0659
NET_DEBT_TO_EBITDA_T1	-0.179314	1.498735	-0.119643	0.9048
ROA_T1	28.16588	25.90941	1.087091	0.2770
EBITDA_MARGIN_T1	-1.725325	8.951611	-0.192739	0.8472
Limit Points				
LIMIT_2:C(7)	9.626130	5.724822	1.681472	0.0927
LIMIT_3:C(8)	11.41820	5.924084	1.927420	0.0539

Pseudo R-squared	0.473544	Akaike info criterion	1.713764
Schwarz criterion	2.110507	Log likelihood	-10.85141
Hannan-Quinn criter.	1.807225	Restr. log likelihood	-20.61220
LR statistic	19.52159	Avg. log likelihood	-0.493246
Prob(LR statistic)	0.003368		

Source: Eviews

Firstly, a "notch" refers to a one-step adjustment in the numeric rating, for example, a change from BBB to BBB− counts as one notch. This concept of notch provides a more structured way to track the direction of rating changes, rather than simply recording when a change occurred. As previously discussed, the Model D uses an ordered measure of quarterly rating changes built in EViews using the quarterly numeric rating series.

Therefore, EViews starts with the quarterly rating level called "RATING_NUM_Q" and calculates the change from one quarter to the next one by comparing the current rating to the previous quarter through the lag operator. This change is then recoded into an ordered category, recorded as "NOTCHES_CAT", with three possible states: upgrade, no change, and downgrade. This method produces three ordered values and enables estimation using the ordered probit model.

Then, the Model D uses a conditional sample of only 22 observations, and the EViews output shows three ordered values for the dependent variable "NOTCHES_CAT". As a result, this model does not describe all quarters, but instead focuses on those quarters where a notch-category outcome can be clearly defined and estimated.

The estimated ESG coefficients are both positive and statistically significant, with the "ESG_SALIENCE_T1" being 2.213 and p=0.0396, and "ESG_SALIENCE_T2" being 3.689 and p=0.0097. In an ordered probit model, positive coefficients increase the likelihood of higher categories. Then, taking in consideration the codification of NOTCHES_CAT, this means that higher lagged ESG salience is associated with a greater probability of ending up in the worse rating-move category or experiencing a more negative movement in this sample.

On the other side, leverage also shows a positive coefficient of 11.242 with a marginal significance of p=0.066, supporting the view that leverage can increase rating pressure during periods of action. However, due to the small sample size, this result should be interpreted with caution. Other financial controls do not reach significance in this model.

The pseudo R-squared for the model is 0.474, and the LR statistic is significant with p=0.00337. These results indicate strong explanatory power within this conditional sample, though the small number of observations should be considered.

In summary, this Model D provides the clearest evidence that ESG salience is linked to negative rating outcomes. Rather than predicting downgrades each quarter across the full panel, the ESG salience is statistically connected to the direction of rating moves in the notch-category model. This implies that ESG information is especially relevant when agencies are actively reviewing credit quality, as it can influence whether that review results in a downgrade.

3.4. Consolidated interpretation

In the analysis of the models for these two issuers, the main factors that drive rating outcomes are based on their financial fundamentals. Among these variables, leverage has the biggest impact on rating levels, while profitability is especially important when there are downgrades. Additionally, ESG salience stands out for its economic connections, which appear in two different ways.

First, the model A that looks at rating levels indicates that when ESG salience is higher two quarters in advance, it tends to correspond to weaker rating categories in the actual quarter. Consequently, this timing fits with the typical rating practices, suggesting that ESG information is incorporated with a bit of a delay rather than immediately.

Second, the model D that focuses on notch categories shows that during quarters when rating changes occur, higher previous ESG salience is linked to a greater likelihood of negative rating changes. This suggests that the ESG salience has more influence on the direction and magnitude of rating changes, rather than on how frequently upgrades or downgrades take place overall.

Nevertheless, liquidity is often discussed in credit research and methodologies, it was not included as a main variable in the EViews models for this study. The final models rely on a straightforward set of quarterly controls that are core drivers fundamentals for credit risk and are not that volatile as liquidity. In addition, there are only two issuers and relatively few rating actions, adding extra measures like liquidity could actually reduce the number of usable data points and make the results less stable. For these reasons, liquidity is addressed in broader credit discussions, but leverage and profitability ratios, which are more reliable for the analysis, remain the main controls in the baseline models.

This summary gathers together the evidence from the econometric models and links it to the final conclusions and recommendations.

3.5 Limitations and practical value of the obtained results

There exist some limitations to this analysis because of the research design and the findings from EViews. On one side, the long-term issuer ratings are designed to be fairly stable and do not usually change from quarter to quarter. As a result, there are fewer quarters in which rating actions actually occur, which reduces the statistical power of the models, especially when for the downgrades, since the main sample includes only 11 quarters with downgrades.

In these rare situations, when additional variables like the ESG salience are not statistically significant, it is important to interpret the results with caution. Due to the fact, that the lack of significance might just reflect the small number of events, rather than the absence of a real economic effect.

This policy of keeping the rating as stable as possible is also the reason why the sample size for notch categories is small. Notch outcomes are only recorded when there is rating data for two consecutive quarters and there is a change from one quarter to the next one. Because rating changes are rare and notch data is not always available, Model D ends up with just 22 observations.

Therefore, this limitation is not just a typical small sample issue, instead, it is a consequence directly from the way CRA ratings change over time and from how the dependent variable is defined.

Despite these limitations, the analysis still supports the aim of the research, by bringing together descriptive evidence, panel checks, and different model outcomes. As a result, it is possible to separate the factors that influence rating levels, the financial reasons behind rating actions, and the role the ESG salience has when ratings change.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1. Credit ratings are still mostly determined by traditional financial credit-risk factors like business risk, leverage, and cash flow strength. However, in recent years, ESG issues have started to appear more often in CRA reports, particularly in industries that face regulatory and transition risks, like the automotive sector. The literature highlights the ongoing challenges that ESG integration is not always clear, and it often appears in qualitative statements rather than as a specific "ESG adjustment," and can be difficult to compare between agencies. ESG should be considered an additional risk factor that informs how fundamentals are judged, not a substitute for financial analysis.

2. The rating histories and explanations of Ford and VW show the different credit profiles and rating paths across rating agencies. These differences come from their size, profitability, and balance sheets. The histories also show that ratings do not shift frequently, instead changes usually come in groups during specific time periods, rather than in response to fundamentals every quarter. Although agencies typically focus primarily on the financial basics, they also consider different qualitative factors based on their priorities.

3. This research shows that it is possible to track how ESG factors influence credit ratings by converting ESG-related statements from agencies into a quarterly ESG salience series and pairing this with a structured panel of issuers, agencies, and reporting periods. This approach is important because it gathers the ESG information that agencies specifically identify as relevant to credit. As a result, the data reveals two main findings: first, ESG salience tends to be episodic, with many quarters not mentioning any ESG items; and second, most of the ESG items recorded are negative, which suggests that ESG salience is more often tied to downside risk than to rating upgrades.

4. The econometric models analysis highlights that ESG does not trigger immediate rating changes but tends to have a delayed and conditional effect. In the rating-level model (Model A), higher ESG salience from two quarters before is linked to weaker rating categories, even after considering the fundamentals. This suggests that agencies need repeated ESG signals before they factor them in. By contrast,

models looking at upgrades and downgrades (Model B and Model C) show that these actions are mostly driven by fundamentals, finding that better operations lead to upgrades, weaker profits to downgrades, and ESG salience adds little extra explanation once other factors are included. The notch-category model (Model D), even though it uses a smaller sample, provides the strongest evidence that ESG affects the direction of changes, with higher lagged ESG salience increasing the chance of a negative move when a change occurs. Overall, these results suggest that ESG plays the biggest role when agencies are already reviewing credit quality, shaping the timing and conditions of changes rather than causing direct rating moves.

5. Finally, comparing agencies and regions, ESG is included for similar reasons, like its impact on credit risk, long-term strength, and governance quality, but it is explained differently. Agencies differ in how clearly they label ESG issues, how much they separate ESG from other factors, and how directly they connect ESG signals to rating decisions. This creates a transparency gap for market participants, making it harder to understand how ESG connects to credit across different agencies. Regional differences also show that the context of the issuer can affect the importance of ESG, even when the core credit framework remains equal.

Recommendations

1. Ford and VW could strengthen their ESG risk management and reporting by adopting the same "credit language" used by CRA. They should aim to make transition execution metrics clear, auditable, and consistent over time. The ESG risk management should also be clearly linked to cash-flow strength and the financial policy. Since most of the ESG focus in this study comes from negative events, reducing operational issues and being more transparent about how problems are addressed could help prevent ESG events from accumulating during key credit reviews.

2. CRA should be more consistent in explaining which ESG issues is important and how these issues affect ratings and outlooks. Also, they could improve th comparability by using standard ways to report which ESG issues are important, how ESG factors affect credit measures such as margins, capital spending, lawsuits, regulatory costs, or demand risk, and whether the ESG factor is a main reason or just a support. This standardization would help close the current gap where ESG is mentioned but not always clearly linked to credit decisions.

3. Regulators and standard setters in the EU and US should aim to make ESG information more comparable and useful for credit analysis, not only for investors. The findings show that regional differences and inconsistent methods for measuring ESG make it difficult to know whether ESG is truly affecting ratings. The policies that require clear, reliable transition and governance disclosures, combined with oversight to prevent greenwashing, would improve the information available to both issuers and CRA and reduce reliance on hardly comparable ESG signals.

4. Future research should include a larger sample and clearly separate the "frequency of actions" from the "direction of actions." Since rating changes are infrequent, it is harder to analyze upgrades and downgrades, but using a bigger group of issuers from the automotive sector or other industries going through transitions would have stronger conclusions about whether ESG salience predicts rating actions. Additionally, models that examine the direction of rating changes during review periods, such as the model D, are especially helpful for understanding when ESG information actually influences credit decisions.

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ANNEXES

Annex 1

Ratings Log

Issuer	Agency	Action_Date	Action_Type	From_Rating	To_Rating	Outlook
Ford	Moody's Ratings	3/17/2010	Upgrade	B3	B2	Stable
Ford	Moody's Ratings	5/18/2010	Upgrade	B2	B1	Stable
Ford	Moody's Ratings	10/8/2010	Upgrade	B1	Ba2	Stable
Ford	Moody's Ratings	10/27/2011	Upgrade	Ba2	Ba1	Positive
Ford	Moody's Ratings	9/9/2019	Outlook	Ba1	Ba1	Negative
Ford	Moody's Ratings	3/25/2020	Downgrade	Ba1	Ba2	Stable
Ford	Moody's Ratings	3/25/2020	Watch	Ba2	Ba2	Stable
Ford	Moody's Ratings	5/27/2020	Affirmation	Ba2	Ba2	Negative
Ford	Moody's Ratings	3/29/2021	Affirmation	Ba2	Ba2	Stable
Ford	Moody's Ratings	7/13/2023	Upgrade	Ba2	Ba1	Stable
Volkswagen	Moody's Ratings	3/16/2015	Upgrade	A3	A2	Stable
Volkswagen	Moody's Ratings	9/24/2015	Affirmation	A2	A2	Negative
Volkswagen	Moody's Ratings	11/4/2015	Downgrade	A2	A3	Negative
Volkswagen	Moody's Ratings	3/20/2018	Affirmation	A3	A3	Stable
Volkswagen	Moody's Ratings	3/25/2020	Watch	A3	A3	Stable
Volkswagen	Moody's Ratings	6/2/2020	Affirmation	A3	A3	Negative
Volkswagen	Moody's Ratings	3/26/2021	Affirmation	A3	A3	Stable
Volkswagen	Moody's Ratings	7/21/2023	Affirmation	A3	A3	Stable
Volkswagen	Moody's Ratings	7/1/2024	Affirmation	A3	A3	Stable
Volkswagen	Moody's Ratings	10/11/2024	Affirmation	Baa1	A3	Negative
Volkswagen	Moody's Ratings	3/17/2025	Downgrade	A3	Baa1	Stable
Ford	S&P Global Ratin	4/29/2010	Outlook	B-	B-	Positive
Ford	S&P Global Ratin	8/2/2010	Upgrade	B-	B+	Positive
Ford	S&P Global Ratin	2/1/2011	Upgrade	B+	BB-	Positive
Ford	S&P Global Ratin	11/29/2011	Watch	BB-	BB-	Positive
Ford	S&P Global Ratin	10/21/2011	Upgrade	BB-	BB+	Positive
Ford	S&P Global Ratin	9/6/2013	Upgrade	BB+	BBB-	Stable
Ford	S&P Global Ratin	11/23/2015	Outlook	BBB-	BBB-	Positive
Ford	S&P Global Ratin	3/11/2016	Upgrade	BBB-	BBB	Stable
Ford	S&P Global Ratin	7/27/2018	Outlook	BBB	BBB	Negative
Ford	S&P Global Ratin	10/25/2019	Downgrade	BBB	BBB-	Stable
Ford	S&P Global Ratin	3/25/2020	Downgrade	BBB-	BB+	Negative
Ford	S&P Global Ratin	8/11/2020	Affirmation	BB+	BB+	Negative
Ford	S&P Global Ratin	10/30/2023	Upgrade	BB+	BBB-	Stable
Ford	S&P Global Ratin	2/6/2025	Outlook	BBB-	BBB-	Negative
Volkswagen	S&P Global Ratin	8/19/2010	Affirmation	A-	A-	Negative
Volkswagen	S&P Global Ratin	8/2/2011	Outlook	A-	A-	Stable
Volkswagen	S&P Global Ratin	6/26/2012	Affirmation	A-	A-	Stable
Volkswagen	S&P Global Ratin	8/27/2012	Outlook	A-	A-	Positive
Volkswagen	S&P Global Ratin	1/24/2013	Affirmation	A-	A-	Positive
Volkswagen	S&P Global Ratin	9/22/2014	Upgrade	A-	A	Stable
Volkswagen	S&P Global Ratin	10/12/2015	Outlook	A	A-	Negative
Volkswagen	S&P Global Ratin	12/1/2015	Downgrade	A-	BBB+	Negative
Volkswagen	S&P Global Ratin	11/6/2017	Outlook	BBB+	BBB+	Stable
Volkswagen	S&P Global Ratin	7/27/2018	Outlook	BBB+	BBB+	Negative

Volkswagen	S&P Global Ratin	3/26/2020	Affirmation	BBB+	BBB+	Negative
Volkswagen	S&P Global Ratin	4/28/2021	Outlook	BBB+	BBB+	Stable
Volkswagen	S&P Global Ratin	10/12/2022	Affirmation	BBB+	BBB+	Stable
Volkswagen	S&P Global Ratin	11/1/2023	Affirmation	BBB+	BBB+	Stable
Volkswagen	S&P Global Ratin	3/27/2025	Affirmation	BBB+	BBB+	Stable
Ford	Fitch Ratings	1/11/2010	Upgrade	CCC	B-	Positive
Ford	Fitch Ratings	4/29/2010	Upgrade	B-	B	Positive
Ford	Fitch Ratings	8/6/2010	Upgrade	B	BB-	Stable
Ford	Fitch Ratings	1/28/2011	Upgrade	BB-	BB	Positive
Ford	Fitch Ratings	10/20/2011	Upgrade	BB	BB+	Positive
Ford	Fitch Ratings	4/24/2012	Upgrade	BB+	BBB-	Stable
Ford	Fitch Ratings	4/22/2013	Affirmation	BBB-	BBB-	Stable
Ford	Fitch Ratings	4/22/2014	Affirmation	BBB-	BBB-	Positive
Ford	Fitch Ratings	10/1/2014	Affirmation	BBB-	BBB-	Positive
Ford	Fitch Ratings	7/20/2015	Affirmation	BBB-	BBB-	Positive
Ford	Fitch Ratings	10/6/2015	Affirmation	BBB-	BBB-	Positive
Ford	Fitch Ratings	5/27/2016	Upgrade	BBB-	BBB	Stable
Ford	Fitch Ratings	9/28/2016	Affirmation	BBB	BBB	Stable
Ford	Fitch Ratings	5/24/2017	Affirmation	BBB	BBB	Stable
Ford	Fitch Ratings	10/16/2017	Affirmation	BBB	BBB	Stable
Ford	Fitch Ratings	5/18/2018	Affirmation	BBB	BBB	Stable
Ford	Fitch Ratings	5/17/2019	Affirmation	BBB	BBB	Negative
Ford	Fitch Ratings	3/23/2020	Downgrade	BBB	BBB-	Negative
Ford	Fitch Ratings	5/7/2020	Downgrade	BBB-	BB+	Negative
Ford	Fitch Ratings	11/6/2020	Affirmation	BB+	BB+	Negative
Ford	Fitch Ratings	5/5/2021	Affirmation	BB+	BB+	Stable
Ford	Fitch Ratings	5/2/2022	Affirmation	BB+	BB+	Positive
Ford	Fitch Ratings	9/8/2022	Affirmation	BB+	BB+	Positive
Ford	Fitch Ratings	9/6/2023	Upgrade	BB+	BBB-	Stable
Ford	Fitch Ratings	1/25/2024	Affirmation	BBB-	BBB-	Stable
Ford	Fitch Ratings	12/18/2024	Affirmation	BBB-	BBB-	Stable
Ford	Fitch Ratings	5/22/2025	Affirmation	BBB-	BBB-	Stable
Volkswagen	Fitch Ratings	7/19/2010	Outlook	BBB+	BBB+	Stable
Volkswagen	Fitch Ratings	6/10/2011	Upgrade	BBB+	A-	Stable
Volkswagen	Fitch Ratings	6/5/2012	Affirmation	A-	A-	Positive
Volkswagen	Fitch Ratings	7/5/2012	Affirmation	A-	A-	Positive
Volkswagen	Fitch Ratings	10/29/2012	Affirmation	A-	A-	Positive
Volkswagen	Fitch Ratings	2/28/2013	Affirmation	A-	A-	Positive
Volkswagen	Fitch Ratings	5/24/2013	Affirmation	A-	A-	Positive
Volkswagen	Fitch Ratings	12/23/2013	Affirmation	A-	A-	Positive
Volkswagen	Fitch Ratings	5/28/2014	Upgrade	A-	A	Stable
Volkswagen	Fitch Ratings	11/17/2014	Affirmation	A	A	Stable
Volkswagen	Fitch Ratings	6/3/2015	Affirmation	A	A	Stable
Volkswagen	Fitch Ratings	9/23/2015	Watch	A	A	Negative
Volkswagen	Fitch Ratings	11/9/2015	Downgrade	A	BBB+	Negative
Volkswagen	Fitch Ratings	6/2/2016	Affirmation	BBB+	BBB+	Negative
Volkswagen	Fitch Ratings	11/30/2016	Affirmation	BBB+	BBB+	Negative
Volkswagen	Fitch Ratings	6/27/2017	Affirmation	BBB+	BBB+	Stable
Volkswagen	Fitch Ratings	10/19/2017	Affirmation	BBB+	BBB+	Stable
Volkswagen	Fitch Ratings	6/6/2018	Affirmation	BBB+	BBB+	Stable

Volkswagen	Fitch Ratings	11/28/2018	Affirmation	BBB+	BBB+	Stable
Volkswagen	Fitch Ratings	6/5/2019	Affirmation	BBB+	BBB+	Stable
Volkswagen	Fitch Ratings	5/26/2020	Affirmation	BBB+	BBB+	Stable
Volkswagen	Fitch Ratings	5/14/2021	Affirmation	BBB+	BBB+	Positive
Volkswagen	Fitch Ratings	5/11/2022	Upgrade	BBB+	A-	Stable
Volkswagen	Fitch Ratings	5/8/2023	Affirmation	A-	A-	Stable
Volkswagen	Fitch Ratings	4/30/2024	Affirmation	A-	A-	Stable
Volkswagen	Fitch Ratings	8/14/2024	Affirmation	A-	A-	Stable
Volkswagen	Fitch Ratings	4/7/2025	Affirmation	A-	A-	Negative
Ford	DBRS	3/30/2010	Downgrade	BB (low)	B	Stable
Ford	DBRS	8/3/2010	Upgrade	B	BB (low)	Stable
Ford	DBRS	9/16/2011	Upgrade	BB (low)	BB	Stable
Ford	DBRS	9/14/2012	Upgrade	BB	BBB (low)	Stable
Ford	DBRS	9/23/2013	Affirmation	BBB (low)	BBB (low)	Stable
Ford	DBRS	10/29/2014	Affirmation	BBB (low)	BBB (low)	Stable
Ford	DBRS	10/9/2015	Outlook	BBB (low)	BBB (low)	Positive
Ford	DBRS	2/17/2016	Upgrade	BBB	BBB	Stable
Ford	DBRS	2/23/2017	Affirmation	BBB	BBB	Stable
Ford	DBRS	2/23/2018	Affirmation	BBB	BBB	Stable
Ford	DBRS	3/8/2019	Outlook	BBB	BBB	Negative
Ford	DBRS	5/21/2020	Downgrade	BBB	BB (high)	Negative
Ford	DBRS	5/17/2021	Outlook	BB (high)	BB (high)	Stable
Ford	DBRS	5/17/2022	Outlook	BB (high)	BB (high)	Positive
Ford	DBRS	6/14/2023	Outlook	BB (high)	BBB (low)	Stable
Ford	DBRS	6/12/2024	Affirmation	BBB (low)	BBB (low)	Stable
Ford	DBRS	5/29/2025	Affirmation	BBB (low)	BBB (low)	Stable
Volkswagen	DBRS	10/21/2010	Affirmation	A (low)	A (low)	Stable
Volkswagen	DBRS	10/6/2011	Affirmation	A (low)	A (low)	Stable
Volkswagen	DBRS	10/5/2012	Outlook	A (low)	A (low)	Positive
Volkswagen	DBRS	10/4/2013	Upgrade	A (low)	A	Stable
Volkswagen	DBRS	10/14/2014	Affirmation	A	A	Stable
Volkswagen	DBRS	9/23/2015	Outlook	A	A	Negative
Volkswagen	DBRS	4/26/2016	Downgrade	A	BBB (high)	Negative
Volkswagen	DBRS	10/10/2017	Outlook	BBB (high)	BBB (high)	Stable
Volkswagen	DBRS	10/25/2018	Outlook	BBB (high)	BBB (high)	Positive
Volkswagen	DBRS	10/25/2019	Upgrade	BBB (high)	A (low)	Stable
Volkswagen	DBRS	8/11/2020	Outlook	A (low)	A (low)	Negative
Volkswagen	DBRS	8/10/2021	Outlook	A (low)	A (low)	Stable
Volkswagen	DBRS	8/10/2022	Affirmation	A (low)	A (low)	Stable
Volkswagen	DBRS	7/24/2023	Affirmation	A (low)	A (low)	Stable
Volkswagen	DBRS	7/24/2024	Affirmation	A (low)	A (low)	Stable
Volkswagen	DBRS	7/31/2025	Outlook	A (low)	A (low)	Negative

Source: Moody's, S&P, Fitch and DBRS

Annex 2

ESG Events Log

Issuer	Event_Date	G_Pillar (E/S	Event_Type	Materiality_Tag
Ford	10/21/2011	S	policy/target	Medium
Ford	7/27/2018	E	transition/technology	Medium
Ford	8/11/2020	S	controversy	Medium
Ford	11/8/2021	E	transition/technology	Medium
Ford	11/18/2021	E	transition/technology	High
Ford	10/30/2023	E	transition/technology	Medium
Ford	10/30/2023	S	policy/target	Medium
Ford	2/6/2025	E	transition/technology	High
Ford	2/6/2025	S	policy/target	High
Volkswagen	8/3/2010	G	governance	Medium
Volkswagen	9/24/2015	E	regulatory/compliance	High
Volkswagen	10/12/2015	G	governance	High
Volkswagen	12/1/2015	E	regulatory/compliance	High
Volkswagen	11/6/2017	E	regulatory/compliance	Medium
Volkswagen	3/26/2020	E	regulatory/compliance	High
Volkswagen	3/27/2025	E	transition/technology	Medium
Volkswagen	3/27/2025	S	policy/target	Medium
Ford	1/11/2010	E	regulatory/compliance	Medium
Ford	4/29/2010	E	regulatory/compliance	Medium
Ford	1/28/2011	S	policy/target	Medium
Ford	10/20/2011	S	policy/target	High
Ford	10/20/2011	E	regulatory/compliance	Medium
Ford	4/3/2012	E	regulatory/compliance	Medium
Ford	4/24/2012	E	regulatory/compliance	Medium
Ford	4/24/2012	S	policy/target	Medium
Ford	1/3/2013	E	regulatory/compliance	Medium
Ford	4/22/2013	E	regulatory/compliance	Medium
Ford	4/22/2013	S	policy/target	Medium
Ford	4/22/2014	S	policy/target	Medium
Ford	7/20/2015	S	policy/target	Medium
Ford	5/24/2017	E	transition/technology	Medium
Ford	5/18/2018	E	transition/technology	Medium
Ford	12/4/2019	G	governance	High
Ford	3/23/2020	G	governance	High
Ford	5/7/2020	G	governance	High
Ford	3/16/2021	G	governance	High
Ford	5/5/2021	G	governance	High
Ford	11/8/2021	G	governance	Medium
Ford	5/2/2022	G	governance	Medium
Ford	5/2/2022	E	transition/technology	Medium
Ford	8/8/2022	E	transition/technology	Medium
Ford	8/16/2022	E	transition/technology	Medium
Ford	9/6/2023	G	governance	Medium
Ford	12/18/2024	S	controversy	High
Ford	12/18/2024	E	transition/technology	Medium
Volkswagen	6/5/2012	G	governance	Medium
Volkswagen	5/24/2013	G	governance	Medium
Volkswagen	5/28/2014	G	governance	Medium

Volkswagen	6/3/2015	G	governance	Medium
Volkswagen	9/23/2015	E	regulatory/compliance	High
Volkswagen	9/23/2015	G	governance	High
Volkswagen	11/9/2015	G	governance	High
Volkswagen	11/9/2015	E	regulatory/compliance	High
Volkswagen	6/2/2016	E	regulatory/compliance	High
Volkswagen	6/2/2016	G	governance	High
Volkswagen	6/27/2017	E	regulatory/compliance	Medium
Volkswagen	6/27/2017	G	governance	Medium
Volkswagen	6/6/2018	E	regulatory/compliance	Medium
Volkswagen	6/6/2018	G	governance	Medium
Volkswagen	6/5/2019	E	regulatory/compliance	Medium
Volkswagen	6/5/2019	G	governance	Medium
Volkswagen	5/26/2020	E	regulatory/compliance	High
Volkswagen	5/26/2020	G	governance	High
Volkswagen	5/14/2021	G	governance	High
Volkswagen	5/14/2021	E	regulatory/compliance	Medium
Volkswagen	5/11/2022	E	regulatory/compliance	Medium
Volkswagen	5/11/2022	G	governance	Medium
Volkswagen	5/8/2023	E	regulatory/compliance	Medium
Volkswagen	5/8/2023	G	governance	Medium
Volkswagen	8/14/2024	E	regulatory/compliance	Medium
Volkswagen	8/14/2024	G	governance	Medium
Volkswagen	4/7/2025	E	regulatory/compliance	Medium
Volkswagen	4/7/2025	G	governance	Medium
Ford	10/20/2011	S	policy/target	High
Ford	10/25/2012	S	policy/target	High
Ford	1/4/2013	G	governance	Medium
Ford	9/23/2013	S	policy/target	Medium
Ford	10/29/2014	S	controversy	Medium
Ford	2/23/2017	E	transition/technology	Medium
Ford	3/8/2019	S	policy/target	High
Ford	11/9/2021	E	transition/technology	Medium
Ford	6/14/2023	E	regulatory/compliance	Medium
Ford	6/12/2024	E	regulatory/compliance	Medium
Ford	5/29/2025	E	regulatory/compliance	Medium
Volkswagen	9/23/2015	E	regulatory/compliance	High
Volkswagen	11/16/2015	E	regulatory/compliance	High
Volkswagen	11/16/2015	G	governance	High
Volkswagen	4/26/2016	E	regulatory/compliance	High
Volkswagen	6/30/2016	E	regulatory/compliance	High
Volkswagen	10/10/2017	E	regulatory/compliance	Medium
Volkswagen	10/25/2018	E	regulatory/compliance	Medium
Volkswagen	10/25/2019	E	regulatory/compliance	Medium
Volkswagen	8/10/2021	E	regulatory/compliance	High
Volkswagen	8/10/2021	G	governance	High
Volkswagen	8/10/2022	E	regulatory/compliance	High
Volkswagen	7/24/2023	E	regulatory/compliance	High
Volkswagen	7/24/2024	E	regulatory/compliance	High

Volkswagen	7/31/2025	E	transition/technology	High
Volkswagen	7/31/2025	G	governance	High

Key	dummy_E	dummy_S	dummy_G	dummy_High	ummy_Medium
Ford_2011_Q4	0	1	0	0	1
Ford_2018_Q3	1	0	0	0	1
Ford_2020_Q3	0	1	0	0	1
Ford_2021_Q4	1	0	0	0	1
Ford_2021_Q4	1	0	0	1	0
Ford_2023_Q4	1	0	0	0	1
Ford_2023_Q4	0	1	0	0	1
Ford_2025_Q1	1	0	0	1	0
Ford_2025_Q1	0	1	0	1	0
Volkswagen_2010_Q3	0	0	1	0	1
Volkswagen_2015_Q3	1	0	0	1	0
Volkswagen_2015_Q4	0	0	1	1	0
Volkswagen_2015_Q4	1	0	0	1	0
Volkswagen_2017_Q4	1	0	0	0	1
Volkswagen_2020_Q1	1	0	0	1	0
Volkswagen_2025_Q1	1	0	0	0	1
Volkswagen_2025_Q1	0	1	0	0	1
Ford_2010_Q1	1	0	0	0	1
Ford_2010_Q2	1	0	0	0	1
Ford_2011_Q1	0	1	0	0	1
Ford_2011_Q4	0	1	0	1	0
Ford_2011_Q4	1	0	0	0	1
Ford_2012_Q2	1	0	0	0	1
Ford_2012_Q2	1	0	0	0	1
Ford_2012_Q2	0	1	0	0	1
Ford_2013_Q1	1	0	0	0	1
Ford_2013_Q2	1	0	0	0	1
Ford_2013_Q2	0	1	0	0	1
Ford_2014_Q2	0	1	0	0	1
Ford_2015_Q3	0	1	0	0	1
Ford_2017_Q2	1	0	0	0	1
Ford_2018_Q2	1	0	0	0	1
Ford_2019_Q4	0	0	1	1	0
Ford_2020_Q1	0	0	1	1	0
Ford_2020_Q2	0	0	1	1	0
Ford_2021_Q1	0	0	1	1	0
Ford_2021_Q2	0	0	1	1	0
Ford_2021_Q4	0	0	1	0	1
Ford_2022_Q2	0	0	1	0	1
Ford_2022_Q2	1	0	0	0	1

Volkswagen_2015_Q2	0	0	1	0	1
Volkswagen_2015_Q3	1	0	0	1	0
Volkswagen_2015_Q3	0	0	1	1	0
Volkswagen_2015_Q4	0	0	1	1	0
Volkswagen_2015_Q4	1	0	0	1	0
Volkswagen_2016_Q2	1	0	0	1	0
Volkswagen_2016_Q2	0	0	1	1	0
Volkswagen_2017_Q2	1	0	0	0	1
Volkswagen_2017_Q2	0	0	1	0	1
Volkswagen_2018_Q2	1	0	0	0	1
Volkswagen_2018_Q2	0	0	1	0	1
Volkswagen_2019_Q2	1	0	0	0	1
Volkswagen_2019_Q2	0	0	1	0	1
Volkswagen_2020_Q2	1	0	0	1	0
Volkswagen_2020_Q2	0	0	1	1	0
Volkswagen_2021_Q2	0	0	1	1	0
Volkswagen_2021_Q2	1	0	0	0	1
Volkswagen_2022_Q2	1	0	0	0	1
Volkswagen_2022_Q2	0	0	1	0	1
Volkswagen_2023_Q2	1	0	0	0	1
Volkswagen_2023_Q2	0	0	1	0	1
Volkswagen_2024_Q3	1	0	0	0	1
Volkswagen_2024_Q3	0	0	1	0	1
Volkswagen_2025_Q2	1	0	0	0	1
Volkswagen_2025_Q2	0	0	1	0	1
Ford_2011_Q4	0	1	0	1	0
Ford_2012_Q4	0	1	0	1	0
Ford_2013_Q1	0	0	1	0	1
Ford_2013_Q3	0	1	0	0	1
Ford_2014_Q4	0	1	0	0	1
Ford_2017_Q1	1	0	0	0	1
Ford_2019_Q1	0	1	0	1	0
Ford_2021_Q4	1	0	0	0	1
Ford_2023_Q2	1	0	0	0	1
Ford_2024_Q2	1	0	0	0	1
Ford_2025_Q2	1	0	0	0	1
Volkswagen_2015_Q3	1	0	0	1	0
Volkswagen_2015_Q4	1	0	0	1	0
Volkswagen_2015_Q4	0	0	1	1	0
Volkswagen_2016_Q2	1	0	0	1	0
Volkswagen_2016_Q2	1	0	0	1	0
Volkswagen_2017_Q4	1	0	0	0	1
Volkswagen_2018_Q4	1	0	0	0	1
Volkswagen_2019_Q4	1	0	0	0	1
Volkswagen_2021_Q3	1	0	0	1	0
Volkswagen_2021_Q3	0	0	1	1	0
Volkswagen_2022_Q3	1	0	0	1	0
Volkswagen_2023_Q3	1	0	0	1	0
Volkswagen_2024_Q3	1	0	0	1	0
Volkswagen_2025_Q3	1	0	0	1	0
Volkswagen_2025_Q3	0	0	1	1	0

Source: S&P, Fitch and DBRS

Annex 3

Final Panel exported to Eviews

Issuer	Year	Quarter	Period_End	assets_ln	debt_to_assets	net_debt_to_ebitda	current_ratio	roa	ebitda_margin	assets_ln_t1	assets_ln_t2	debt_to_assets_t1	debt_to_assets_t2	net_debt_to_ebitda_t1
Ford	2010	1	2010-Q1	12.18	0.6678	0.91	0.74	0.0309	0.1197					
Ford	2010	2	2010-Q2	12.12	0.6426	0.2	0.7	0.0339	0.1314	12.18		0.6678		0.91
Ford	2010	3	2010-Q3	12.10	0.6484	0.03	0.76	0.0339	0.1314	12.12	12.18	0.6426	0.6678	0.2
Ford	2010	4	2010-Q4	12.02	0.6284	-0.18	0.66	0.0364	0.1135	12.10	12.12	0.6484	0.6426	0.03
Ford	2011	1	2011-Q1	12.03	0.6052	-0.36	0.65	0.0386	0.1228	12.02	12.10	0.6284	0.6484	-0.18
Ford	2011	2	2011-Q2	12.04	0.5849	-0.65	0.66	0.0388	0.1041	12.03	12.02	0.6052	0.6284	-0.36
Ford	2011	3	2011-Q3	12.01	0.5819	-0.67	0.66	0.0388	0.1041	12.04	12.03	0.5849	0.6052	-0.65
Ford	2011	4	2011-Q4	12.10	0.5562	-0.82	0.7	0.1172	0.0849	12.01	12.04	0.5819	0.5849	-0.67
Ford	2012	1	2012-Q1	12.12	0.5488	-0.82	0.74	0.1085	0.1024	12.10	12.01	0.5562	0.5819	-0.82
Ford	2012	2	2012-Q2	12.11	0.5477	-0.94	0.77	0.1008	0.0928	12.12	12.10	0.5488	0.5562	-0.82
Ford	2012	3	2012-Q3	12.13	0.5413	-0.93	0.78	0.1008	0.0928	12.11	12.12	0.5477	0.5488	-0.94
Ford	2012	4	2012-Q4	12.16	0.5494	-1.04	0.74	0.0303	0.0416	12.13	12.11	0.5413	0.5477	-0.93
Ford	2013	1	2013-Q1	12.18	0.5516	-0.83	0.74	0.0309	0.0914	12.16	12.13	0.5494	0.5413	-1.04
Ford	2013	2	2013-Q2	12.20	0.545	-1.07	0.76	0.0317	0.0816	12.18	12.16	0.5516	0.5494	-0.83
Ford	2013	3	2013-Q3	12.22	0.5456	-1.07	0.76	0.0317	0.0816	12.20	12.18	0.545	0.5516	-1.07
Ford	2013	4	2013-Q4	12.23	0.5625	-0.78	0.72	0.0364	0.0622	12.22	12.20	0.5456	0.545	-1.07
Ford	2014	1	2014-Q1	12.25	0.5598	-0.92	0.71	0.0325	0.0689	12.23	12.22	0.5625	0.5456	-0.78
Ford	2014	2	2014-Q2	12.27	0.5572	-1.04	0.68	0.0323	0.0974	12.25	12.23	0.5598	0.5625	-0.92
Ford	2014	3	2014-Q3	12.26	0.566	-0.91	0.67	0.0323	0.0974	12.27	12.25	0.5572	0.5598	-1.04
Ford	2014	4	2014-Q4	12.26	0.566	-0.91	0.64	0.0059	-0.0212	12.26	12.27	0.566	0.5572	-0.91
Ford	2015	1	2015-Q1	12.28	0.5721	-0.96	0.69	0.0066	0.0932	12.26	12.26	0.566	0.566	-0.91
Ford	2015	2	2015-Q2	12.30	0.5649	-1.28	0.67	0.0104	0.076	12.28	12.26	0.5721	0.566	-0.96
Ford	2015	3	2015-Q3	12.31	0.5682	-1.31	0.67	0.0104	0.076	12.30	12.28	0.5649	0.5721	-1.28
Ford	2015	4	2015-Q4	12.32	0.5907	-0.72	1.25	0.0339	0.1296	12.31	12.30	0.5682	0.5649	-1.31
Ford	2016	1	2016-Q1	12.39	0.5858	-0.88	0.68	0.0381	0.0941	12.32	12.31	0.5907	0.5682	-0.72
Ford	2016	2	2016-Q2	12.39	0.5838	-0.91	1.24	0.037	0.0765	12.39	12.32	0.5858	0.5907	-0.88
Ford	2016	3	2016-Q3	12.37	0.584	-0.83	1.16	0.037	0.0765	12.39	12.39	0.5838	0.5858	-0.91
Ford	2016	4	2016-Q4	12.38	0.6008	-0.8	1.2	0.0198	0.1633	12.37	12.39	0.584	0.5838	-0.83
Ford	2017	1	2017-Q1	12.41	0.598	-0.87	1.24	0.0154	0.0681	12.38	12.37	0.6008	0.584	-0.8
Ford	2017	2	2017-Q2	12.42	0.59	-0.92	1.2	0.0156	0.0691	12.41	12.38	0.598	0.6008	-0.87
Ford	2017	3	2017-Q3	12.43	0.5934	-0.71	1.19	0.0156	0.0691	12.42	12.41	0.59	0.598	-0.92
Ford	2017	4	2017-Q4	12.46	0.5969	-0.79	1.23	0.0311	0.136	12.43	12.42	0.5934	0.59	-0.71
Ford	2018	1	2018-Q1	12.50	0.5925	-0.9	1.23	0.0308	0.0577	12.46	12.43	0.5969	0.5934	-0.79
Ford	2018	2	2018-Q2	12.46	0.5922	-0.77	1.21	0.0273	0.051	12.50	12.46	0.5925	0.5969	-0.9
Ford	2018	3	2018-Q3	12.46	0.5925	-0.62	1.21	0.0273	0.051	12.46	12.50	0.5922	0.5925	-0.77
Ford	2018	4	2018-Q4	12.46	0.6011	-0.82	1.2	0.0143	0.0656	12.46	12.46	0.5925	0.5922	-0.62
Ford	2019	1	2019-Q1	12.48	0.6016	-0.8	1.22	0.0116	0.0926	12.46	12.46	0.6011	0.5925	-0.82
Ford	2019	2	2019-Q2	12.48	0.5999	-0.66	1.2	0.0083	0.0709	12.48	12.46	0.6016	0.6011	-0.8
Ford	2019	3	2019-Q3	12.46	0.6019	-0.71	1.17	0.0083	0.0709	12.48	12.48	0.5999	0.6016	-0.66
Ford	2019	4	2019-Q4	12.46	0.6062	-0.81	1.16	0.0002	0.0216	12.46	12.48	0.6019	0.5999	-0.71
Ford	2020	1	2020-Q1	12.48	0.6386	-0.65	1.32	-0.0117	0.0258	12.46	12.46	0.6062	0.6019	-0.81
Ford	2020	2	2020-Q2	12.50	0.6552	0.07	1.34	-0.008	-0.0207	12.48	12.46	0.6386	0.6062	-0.65
Ford	2020	3	2020-Q3	12.47	0.61	-0.53	1.2	-0.008	-0.0207	12.50	12.48	0.6552	0.6386	0.07
Ford	2020	4	2020-Q4	12.50	0.6099	-2.37	1.2	-0.0049	-0.046	12.47	12.50	0.61	0.6552	-0.53
Ford	2021	1	2021-Q1	12.47	0.5903	-0.8	1.21	0.0151	0.1261	12.50	12.47	0.6099	0.61	-2.37
Ford	2021	2	2021-Q2	12.42	0.5964	0.1	1.21	0.0132	0.0566	12.47	12.50	0.5903	0.6099	-0.8
Ford	2021	3	2021-Q3	12.44	0.5773	-0.76	1.2	0.0132	0.0566	12.42	12.47	0.5964	0.5903	0.1
Ford	2021	4	2021-Q4	12.46	0.5427	-2.47	1.2	0.0684	0.0684	12.44	12.42	0.5773	0.5964	-0.76
Ford	2022	1	2022-Q1	12.44	0.5415	-0.81	1.17	0.045	0.0928	12.46	12.44	0.5427	0.5773	-2.47
Ford	2022	2	2022-Q2	12.41	0.5299	-0.64	1.16	0.0472	0.1191	12.44	12.46	0.5415	0.5427	-0.81
Ford	2022	3	2022-Q3	12.42	0.5255	-0.9	1.2	0.0472	0.1191	12.41	12.44	0.5299	0.5415	-0.64
Ford	2022	4	2022-Q4	12.45	0.549	-0.88	1.2	-0.0077	0.0803	12.42	12.41	0.5255	0.5299	-0.9
Ford	2023	1	2023-Q1	12.46	0.5487	-0.61	1.2	0.0113	0.0967	12.45	12.42	0.549	0.5255	-0.88
Ford	2023	2	2023-Q2	12.49	0.5446	-0.71	1.2	0.0162	0.0965	12.46	12.45	0.5487	0.549	-0.61
Ford	2023	3	2023-Q3	12.50	0.5392	-0.62	1.21	0.0162	0.0965	12.49	12.46	0.5446	0.5487	-0.71
Ford	2023	4	2023-Q4	12.52	0.5529	-0.63	1.2	0.0164	0.0543	12.50	12.49	0.5392	0.5446	-0.62
Ford	2024	1	2024-Q1	12.52	0.552	-0.37	1.17	0.0148	0.0726	12.52	12.50	0.5529	0.5392	-0.63
Ford	2024	2	2024-Q2	12.53	0.5528	-0.49	1.17	0.0141	0.0794	12.52	12.52	0.552	0.5529	-0.37
Ford	2024	3	2024-Q3	12.57	0.5551	-0.59	1.15	0.0141	0.0794	12.53	12.52	0.5528	0.552	-0.49
Ford	2024	4	2024-Q4	12.56	0.564	-0.6	1.16	0.0211	0.0656	12.57	12.53	0.5551	0.5528	-0.59
Ford	2025	1	2025-Q1	12.56	0.5545	-0.51	1.13	0.018	0.0533	12.56	12.57	0.564	0.5551	-0.6
Ford	2025	2	2025-Q2	12.59	0.5474	-1.1	1.1	0.0111	0.048	12.56	12.56	0.5545	0.564	-0.51
Ford	2025	3	2025-Q3	12.61	0.5461	-0.97	1.12	0.0111	0.048	12.59	12.56	0.5474	0.5545	-1.1

net_debt_to_ebitda_t2	current_ratio_t1	current_ratio_t2	roa_t1	roa_t2	ebitda_margin_t1	ebitda_margin_t2	Key	ESG_salience_q	ESG_salience_t1	ESG_salience_t2	E_salience_q	E_salience_t1	E_salience_t2	S_salience_q
							Ford_2010_Q1	0.693147181	0	0	0.693147181	0	0	0
	0.74		0.0309		0.1197		Ford_2010_Q2	0.693147181	0.693147181	0	0.693147181	0.693147181	0	0
0.91	0.7	0.74	0.0339	0.0309	0.1314	0.1197	Ford_2010_Q3	0	0.693147181	0.693147181	0	0.693147181	0.693147181	0
0.2	0.76	0.7	0.0339	0.0339	0.1314	0.1314	Ford_2010_Q4	0	0	0.693147181	0	0	0.693147181	0
0.03	0.66	0.76	0.0364	0.0339	0.1135	0.1314	Ford_2011_Q1	0.693147181	0	0	0	0	0	0.693147181
-0.18	0.65	0.66	0.0386	0.0364	0.1228	0.1135	Ford_2011_Q2	0	0.693147181	0	0	0	0	0
-0.36	0.66	0.65	0.0388	0.0386	0.1041	0.1228	Ford_2011_Q3	0	0	0.693147181	0	0	0	0
-0.65	0.66	0.66	0.0388	0.0388	0.1041	0.1041	Ford_2011_Q4	1.609437912	0	0	0.693147181	0	0	1.386294361
-0.67	0.7	0.66	0.1172	0.0388	0.0849	0.1041	Ford_2012_Q1	0	1.609437912	0	0	0.693147181	0	0
-0.82	0.74	0.7	0.1085	0.1172	0.1024	0.0849	Ford_2012_Q2	1.386294361	0	1.609437912	1.098612289	0	0.693147181	0.693147181
-0.82	0.77	0.74	0.1008	0.1085	0.0928	0.1024	Ford_2012_Q3	0	1.386294361	0	0	1.098612289	0	0
-0.94	0.78	0.77	0.1008	0.1008	0.0928	0.0928	Ford_2012_Q4	0.693147181	0	1.386294361	0	0	1.098612289	0.693147181
-0.93	0.74	0.78	0.0303	0.1008	0.0416	0.0928	Ford_2013_Q1	1.098612289	0.693147181	0	0.693147181	0	0	0
-1.04	0.74	0.74	0.0309	0.0303	0.0914	0.0416	Ford_2013_Q2	1.098612289	1.098612289	0.693147181	0.693147181	0.693147181	0	0.693147181
-0.83	0.76	0.74	0.0317	0.0309	0.0816	0.0914	Ford_2013_Q3	0.693147181	1.098612289	1.098612289	0	0.693147181	0.693147181	0.693147181
-1.07	0.76	0.76	0.0317	0.0317	0.0816	0.0816	Ford_2013_Q4	0	0.693147181	1.098612289	0	0	0.693147181	0
-1.07	0.72	0.76	0.0364	0.0317	0.0622	0.0816	Ford_2014_Q1	0	0	0.693147181	0	0	0	0
-0.78	0.71	0.72	0.0325	0.0364	0.0689	0.0622	Ford_2014_Q2	0.693147181	0	0	0	0	0	0.693147181
-0.92	0.68	0.71	0.0323	0.0325	0.0974	0.0689	Ford_2014_Q3	0	0.693147181	0	0	0	0	0
-1.04	0.67	0.68	0.0323	0.0323	0.0974	0.0974	Ford_2014_Q4	0.693147181	0	0.693147181	0	0	0	0.693147181
-0.91	0.64	0.67	0.0059	0.0323	-0.0212	0.0974	Ford_2015_Q1	0	0.693147181	0	0	0	0	0
-0.91	0.69	0.64	0.0066	0.0059	0.0932	-0.0212	Ford_2015_Q2	0	0	0.693147181	0	0	0	0
-0.96	0.67	0.69	0.0104	0.0066	0.076	0.0932	Ford_2015_Q3	0.693147181	0	0	0	0	0	0.693147181
-1.28	0.67	0.67	0.0104	0.0104	0.076	0.076	Ford_2015_Q4	0	0.693147181	0	0	0	0	0
-1.31	1.25	0.67	0.0339	0.0104	0.1296	0.076	Ford_2016_Q1	0	0	0.693147181	0	0	0	0
-0.72	0.68	1.25	0.0381	0.0339	0.0941	0.1296	Ford_2016_Q2	0	0	0	0	0	0	0
-0.88	1.24	0.68	0.037	0.0381	0.0765	0.0941	Ford_2016_Q3	0	0	0	0	0	0	0
-0.91	1.16	1.24	0.037	0.037	0.0765	0.0765	Ford_2016_Q4	0	0	0	0	0	0	0
-0.83	1.2	1.16	0.0198	0.037	0.1633	0.0765	Ford_2017_Q1	0.693147181	0	0	0.693147181	0	0	0
-0.8	1.24	1.2	0.0154	0.0198	0.0681	0.1633	Ford_2017_Q2	0.693147181	0.693147181	0	0.693147181	0.693147181	0	0
-0.87	1.2	1.24	0.0156	0.0154	0.0691	0.0681	Ford_2017_Q3	0	0.693147181	0.693147181	0	0.693147181	0.693147181	0
-0.92	1.19	1.2	0.0156	0.0156	0.0691	0.0691	Ford_2017_Q4	0	0	0.693147181	0	0	0.693147181	0
-0.71	1.23	1.19	0.0311	0.0156	0.136	0.0691	Ford_2018_Q1	0	0	0	0	0	0	0
-0.79	1.23	1.23	0.0308	0.0311	0.0577	0.136	Ford_2018_Q2	0.693147181	0	0	0.693147181	0	0	0
-0.9	1.21	1.23	0.0273	0.0308	0.051	0.0577	Ford_2018_Q3	0.693147181	0.693147181	0	0.693147181	0.693147181	0	0
-0.77	1.21	1.21	0.0273	0.0273	0.051	0.051	Ford_2018_Q4	0	0.693147181	0.693147181	0	0.693147181	0.693147181	0
-0.62	1.2	1.21	0.0143	0.0273	0.0656	0.051	Ford_2019_Q1	0.693147181	0	0.693147181	0	0	0.693147181	0.693147181
-0.82	1.22	1.2	0.0116	0.0143	0.0926	0.0656	Ford_2019_Q2	0	0.693147181	0	0	0	0	0
-0.8	1.2	1.22	0.0083	0.0116	0.0709	0.0926	Ford_2019_Q3	0	0	0.693147181	0	0	0	0
-0.66	1.17	1.2	0.0083	0.0083	0.0709	0.0709	Ford_2019_Q4	0.693147181	0	0	0	0	0	0
-0.71	1.16	1.17	0.0002	0.0083	0.0216	0.0709	Ford_2020_Q1	0.693147181	0.693147181	0	0	0	0	0
-0.81	1.32	1.16	-0.0117	0.0002	0.0258	0.0216	Ford_2020_Q2	0.693147181	0.693147181	0.693147181	0	0	0	0
-0.65	1.34	1.32	-0.008	-0.0117	-0.0207	0.0258	Ford_2020_Q3	0.693147181	0.693147181	0.693147181	0	0	0	0.693147181
0.07	1.2	1.34	-0.008	-0.008	-0.0207	-0.0207	Ford_2020_Q4	0	0.693147181	0.693147181	0	0	0	0
-0.53	1.2	1.2	-0.0049	-0.008	-0.046	-0.0207	Ford_2021_Q1	0.693147181	0	0.693147181	0	0	0	0
-2.37	1.21	1.2	0.0151	-0.0049	0.1261	-0.046	Ford_2021_Q2	0.693147181	0.693147181	0	0	0	0	0
-0.8	1.21	1.21	0.0132	0.0151	0.0566	0.1261	Ford_2021_Q3	0	0.693147181	0.693147181	0	0	0	0
0.1	1.2	1.21	0.0132	0.0132	0.0566	0.0566	Ford_2021_Q4	1.609437912	0	0.693147181	1.386294361	0	0	0
-0.76	1.2	1.2	0.0684	0.0132	0.0684	0.0566	Ford_2022_Q1	0	1.609437912	0	0	1.386294361	0	0
-2.47	1.17	1.2	0.045	0.0684	0.0928	0.0684	Ford_2022_Q2	1.098612289	0	1.609437912	0.693147181	0	1.386294361	0
-0.81	1.16	1.17	0.0472	0.045	0.1191	0.0928	Ford_2022_Q3	1.098612289	1.098612289	0	1.098612289	0.693147181	0	0
-0.64	1.2	1.16	0.0472	0.0472	0.1191	0.1191	Ford_2022_Q4	0	1.098612289	1.098612289	0	1.098612289	0.693147181	0
-0.9	1.2	1.2	-0.0077	0.0472	0.0803	0.1191	Ford_2023_Q1	0	0	1.098612289	0	0	1.098612289	0
-0.88	1.2	1.2	0.0113	-0.0077	0.0967	0.0803	Ford_2023_Q2	0.693147181	0	0	0.693147181	0	0	0
-0.61	1.2	1.2	0.0162	0.0113	0.0965	0.0967	Ford_2023_Q3	0.693147181	0.693147181	0	0	0.693147181	0	0
-0.71	1.21	1.2	0.0162	0.0162	0.0965	0.0965	Ford_2023_Q4	1.098612289	0.693147181	0.693147181	0.693147181	0	0.693147181	0.693147181
-0.62	1.2	1.21	0.0164	0.0162	0.0543	0.0965	Ford_2024_Q1	0	1.098612289	0.693147181	0	0.693147181	0	0
-0.63	1.17	1.2	0.0148	0.0164	0.0726	0.0543	Ford_2024_Q2	0.693147181	0	1.098612289	0.693147181	0	0.693147181	0
-0.37	1.17	1.17	0.0141	0.0148	0.0794	0.0726	Ford_2024_Q3	0	0.693147181	0	0	0.693147181	0	0
-0.49	1.15	1.17	0.0141	0.0141	0.0794	0.0794	Ford_2024_Q4	1.098612289	0	0.693147181	0.693147181	0	0.693147181	0.693147181
-0.59	1.16	1.15	0.0211	0.0141	0.0656	0.0794	Ford_2025_Q1	1.098612289	1.098612289	0	0.693147181	0.693147181	0	0.693147181
-0.6	1.13	1.16	0.018	0.0211	0.0533	0.0656	Ford_2025_Q2	0.693147181	1.098612289	1.098612289	0.693147181	0.693147181	0.693147181	0
-0.51	1.1	1.13	0.0111	0.018	0.048	0.0533	Ford_2025_Q3	0	0.693147181	1.098612289	0	0.693147181	0.693147181	0

S_salience_t1	S_salience_t2	G_salience_q	G_salience_t1	G_salience_t2	ESG_salience_mat_q	ESG_salience_mat_t1	ESG_salience_mat_t2	Agency	firm_id	Key_Agency	rating_num_q	post_2015	post_2020	covid_dummy
0	0	0	0	0	1.098612289	0	0	Moody's Ratings	2	Moody's Ratings|Ford_2010_Q1	15	0	0	0
0	0	0	0	0	1.098612289	1.098612289	0	Moody's Ratings	2	Moody's Ratings|Ford_2010_Q2	14	0	0	0
0	0	0	0	0	0	1.098612289	1.098612289	Moody's Ratings	2	Moody's Ratings|Ford_2010_Q3		0	0	0
0	0	0	0	0	0	0	1.098612289	Moody's Ratings	2	Moody's Ratings|Ford_2010_Q4	12	0	0	0
0	0	0	0	0	1.098612289	0	0	Moody's Ratings	2	Moody's Ratings|Ford_2011_Q1		0	0	0
0.693147181	0	0	0	0	0	1.098612289	0	Moody's Ratings	2	Moody's Ratings|Ford_2011_Q2		0	0	0
0	0.693147181	0	0	0	0	0	1.098612289	Moody's Ratings	2	Moody's Ratings|Ford_2011_Q3		0	0	0
0	0	0	0	0	2.397895273	0	0	Moody's Ratings	2	Moody's Ratings|Ford_2011_Q4	11	0	0	0
1.386294361	0	0	0	0	0	2.397895273	0	Moody's Ratings	2	Moody's Ratings|Ford_2012_Q1		0	0	0
0	1.386294361	0	0	0	1.945910149	0	2.397895273	Moody's Ratings	2	Moody's Ratings|Ford_2012_Q2		0	0	0
0.693147181	0	0	0	0	0	1.945910149	0	Moody's Ratings	2	Moody's Ratings|Ford_2012_Q3		0	0	0
0	0.693147181	0	0	0	1.386294361	0	1.945910149	Moody's Ratings	2	Moody's Ratings|Ford_2012_Q4		0	0	0
0.693147181	0	0.693147181	0	0	1.609437912	1.386294361	0	Moody's Ratings	2	Moody's Ratings|Ford_2013_Q1		0	0	0
0	0.693147181	0	0.693147181	0	1.609437912	1.609437912	1.386294361	Moody's Ratings	2	Moody's Ratings|Ford_2013_Q2		0	0	0
0.693147181	0	0	0	0.693147181	1.098612289	1.609437912	1.609437912	Moody's Ratings	2	Moody's Ratings|Ford_2013_Q3		0	0	0
0.693147181	0.693147181	0	0	0	0	1.098612289	1.609437912	Moody's Ratings	2	Moody's Ratings|Ford_2013_Q4		0	0	0
0	0.693147181	0	0	0	0	0	1.098612289	Moody's Ratings	2	Moody's Ratings|Ford_2014_Q1		0	0	0
0	0	0	0	0	1.098612289	0	0	Moody's Ratings	2	Moody's Ratings|Ford_2014_Q2		0	0	0
0.693147181	0	0	0	0	0	1.098612289	0	Moody's Ratings	2	Moody's Ratings|Ford_2014_Q3		0	0	0
0	0.693147181	0	0	0	1.098612289	0	1.098612289	Moody's Ratings	2	Moody's Ratings|Ford_2014_Q4		0	0	0
0.693147181	0	0	0	0	0	1.098612289	0	Moody's Ratings	2	Moody's Ratings|Ford_2015_Q1		1	0	0
0	0.693147181	0	0	0	0	0	1.098612289	Moody's Ratings	2	Moody's Ratings|Ford_2015_Q2		1	0	0
0	0	0	0	0	1.098612289	0	0	Moody's Ratings	2	Moody's Ratings|Ford_2015_Q3		1	0	0
0.693147181	0	0	0	0	0	1.098612289	0	Moody's Ratings	2	Moody's Ratings|Ford_2015_Q4		1	0	0
0	0.693147181	0	0	0	0	0	1.098612289	Moody's Ratings	2	Moody's Ratings|Ford_2016_Q1		1	0	0
0	0	0	0	0	0	0	0	Moody's Ratings	2	Moody's Ratings|Ford_2016_Q2		1	0	0
0	0	0	0	0	0	0	0	Moody's Ratings	2	Moody's Ratings|Ford_2016_Q3		1	0	0
0	0	0	0	0	0	0	0	Moody's Ratings	2	Moody's Ratings|Ford_2016_Q4		1	0	0
0	0	0	0	0	1.098612289	0	0	Moody's Ratings	2	Moody's Ratings|Ford_2017_Q1		1	0	0
0	0	0	0	0	1.098612289	1.098612289	0	Moody's Ratings	2	Moody's Ratings|Ford_2017_Q2		1	0	0
0	0	0	0	0	0	1.098612289	1.098612289	Moody's Ratings	2	Moody's Ratings|Ford_2017_Q3		1	0	0
0	0	0	0	0	0	0	1.098612289	Moody's Ratings	2	Moody's Ratings|Ford_2017_Q4		1	0	0
0	0	0	0	0	0	0	0	Moody's Ratings	2	Moody's Ratings|Ford_2018_Q1		1	0	0
0	0	0	0	0	1.098612289	0	0	Moody's Ratings	2	Moody's Ratings|Ford_2018_Q2		1	0	0
0	0	0	0	0	1.098612289	1.098612289	0	Moody's Ratings	2	Moody's Ratings|Ford_2018_Q3		1	0	0
0	0	0	0	0	0	1.098612289	1.098612289	Moody's Ratings	2	Moody's Ratings|Ford_2018_Q4		1	0	0
0	0	0	0	0	1.386294361	0	1.098612289	Moody's Ratings	2	Moody's Ratings|Ford_2019_Q1		1	0	0
0.693147181	0	0	0	0	0	1.386294361	0	Moody's Ratings	2	Moody's Ratings|Ford_2019_Q2		1	0	0
0	0.693147181	0	0	0	0	0	1.386294361	Moody's Ratings	2	Moody's Ratings|Ford_2019_Q3	11	1	0	0
0	0	0.693147181	0	0	1.386294361	0	0	Moody's Ratings	2	Moody's Ratings|Ford_2019_Q4		1	0	0
0	0	0.693147181	0.693147181	0	1.386294361	1.386294361	0	Moody's Ratings	2	Moody's Ratings|Ford_2020_Q1	12	1	1	0
0	0	0.693147181	0.693147181	0.693147181	1.386294361	1.386294361	1.386294361	Moody's Ratings	2	Moody's Ratings|Ford_2020_Q2	12	1	1	1
0	0	0	0.693147181	0.693147181	1.098612289	1.386294361	1.386294361	Moody's Ratings	2	Moody's Ratings|Ford_2020_Q3		1	1	1
0.693147181	0	0	0	0.693147181	0	1.098612289	1.386294361	Moody's Ratings	2	Moody's Ratings|Ford_2020_Q4		1	1	1
0	0.693147181	0.693147181	0	0	1.386294361	0	1.098612289	Moody's Ratings	2	Moody's Ratings|Ford_2021_Q1	12	1	1	1
0	0	0.693147181	0.693147181	0	1.386294361	1.386294361	0	Moody's Ratings	2	Moody's Ratings|Ford_2021_Q2		1	1	1
0	0	0	0.693147181	0.693147181	0	1.386294361	1.386294361	Moody's Ratings	2	Moody's Ratings|Ford_2021_Q3		1	1	1
0	0	0.693147181	0	0.693147181	2.302585093	0	1.386294361	Moody's Ratings	2	Moody's Ratings|Ford_2021_Q4		1	1	1
0	0	0	0.693147181	0	0	2.302585093	0	Moody's Ratings	2	Moody's Ratings|Ford_2022_Q1		1	1	0
0	0	0.693147181	0	0.693147181	1.609437912	0	2.302585093	Moody's Ratings	2	Moody's Ratings|Ford_2022_Q2		1	1	0
0	0	0	0.693147181	0	1.609437912	1.609437912	0	Moody's Ratings	2	Moody's Ratings|Ford_2022_Q3		1	1	0
0	0	0	0	0.693147181	0	1.609437912	1.609437912	Moody's Ratings	2	Moody's Ratings|Ford_2022_Q4		1	1	0
0	0	0	0	0	0	0	1.609437912	Moody's Ratings	2	Moody's Ratings|Ford_2023_Q1		1	1	0
0	0	0	0	0	1.098612289	0	0	Moody's Ratings	2	Moody's Ratings|Ford_2023_Q2		1	1	0
0	0	0.693147181	0	0	1.098612289	1.098612289	0	Moody's Ratings	2	Moody's Ratings|Ford_2023_Q3	11	1	1	0
0	0	0	0.693147181	0	1.609437912	1.098612289	1.098612289	Moody's Ratings	2	Moody's Ratings|Ford_2023_Q4		1	1	0
0.693147181	0	0	0	0.693147181	0	1.609437912	1.098612289	Moody's Ratings	2	Moody's Ratings|Ford_2024_Q1		1	1	0
0	0.693147181	0	0	0	1.098612289	0	1.609437912	Moody's Ratings	2	Moody's Ratings|Ford_2024_Q2		1	1	0
0	0	0	0	0	0	1.098612289	0	Moody's Ratings	2	Moody's Ratings|Ford_2024_Q3		1	1	0
0	0	0	0	0	1.791759469	0	1.098612289	Moody's Ratings	2	Moody's Ratings|Ford_2024_Q4		1	1	0
0.693147181	0	0	0	0	1.945910149	1.791759469	0	Moody's Ratings	2	Moody's Ratings|Ford_2025_Q1		1	1	0
0.693147181	0.693147181	0	0	0	1.098612289	1.945910149	1.791759469	Moody's Ratings	2	Moody's Ratings|Ford_2025_Q2		1	1	0
0	0.693147181	0	0	0	0	1.098612289	1.945910149	Moody's Ratings	2	Moody's Ratings|Ford_2025_Q3		1	1	0

Issuer	Year	Quarter	Period_End	assets_ln	debt_to_assets	net_debt_to_ebitda	current_ratio	roa	ebitda_margin	assets_ln_t1	assets_ln_t2	debt_to_assets_t1	debt_to_assets_t2	net_debt_to_ebitda_t1
Volkswagen	2010	1	2010-Q1	12.14	0.4147	-1.1	1.15	0.0062	0.1084					
Volkswagen	2010	2	2010-Q2	12.17	0.4028	-1.2	1.09	0.0114	0.1476	12.14	0.00	0.4147	0	-1.1
Volkswagen	2010	3	2010-Q3	12.18	0.3926	-1.18	1.13	0.0216	0.1389	12.17	12.14	0.4028	0.4147	-1.2
Volkswagen	2010	4	2010-Q4	12.20	0.3862	-0.98	1.12	0.0363	0.1445	12.18	12.17	0.3926	0.4028	-1.18
Volkswagen	2011	1	2011-Q1	12.27	0.3901	-0.93	1.12	0.0399	0.1379	12.20	12.18	0.3862	0.3926	-0.98
Volkswagen	2011	2	2011-Q2	12.29	0.3848	-0.88	1.18	0.0556	0.1393	12.27	12.20	0.3901	0.3862	-0.93
Volkswagen	2011	3	2011-Q3	12.34	0.373	-0.91	1.17	0.0771	0.141	12.29	12.27	0.3848	0.3901	-0.88
Volkswagen	2011	4	2011-Q4	12.44	0.3686	-0.7	1.04	0.068	0.1252	12.34	12.29	0.373	0.3848	-0.91
Volkswagen	2012	1	2012-Q1	12.49	0.3777	-0.61	1.13	0.0709	0.1304	12.44	12.34	0.3686	0.373	-0.7
Volkswagen	2012	2	2012-Q2	12.52	0.3849	-0.56	1.1	0.0727	0.1316	12.49	12.44	0.3777	0.3686	-0.61
Volkswagen	2012	3	2012-Q3	12.64	0.3766	-0.29	1.03	0.0824	0.1174	12.52	12.49	0.3849	0.3777	-0.56
Volkswagen	2012	4	2012-Q4	12.64	0.3802	-0.35	1.07	0.0771	0.1317	12.64	12.52	0.3766	0.3849	-0.29
Volkswagen	2013	1	2013-Q1	12.68	0.3835	-0.36	1.07	0.0703	0.1261	12.64	12.64	0.3802	0.3766	-0.35
Volkswagen	2013	2	2013-Q2	12.67	0.3802	-0.39	1.03	0.0598	0.1336	12.68	12.64	0.3835	0.3802	-0.36
Volkswagen	2013	3	2013-Q3	12.69	0.3746	-0.59	1.07	0.0265	0.1358	12.67	12.68	0.3802	0.3835	-0.39
Volkswagen	2013	4	2013-Q4	12.69	0.3746	-0.58	1.03	0.0286	0.1384	12.69	12.67	0.3746	0.3802	-0.59
Volkswagen	2014	1	2014-Q1	12.72	0.367	-0.59	1	0.0288	0.1402	12.69	12.69	0.3746	0.3746	-0.58
Volkswagen	2014	2	2014-Q2	12.73	0.3758	-0.46	1.05	0.0301	0.1432	12.72	12.69	0.367	0.3746	-0.59
Volkswagen	2014	3	2014-Q3	12.76	0.3768	-0.53	1.02	0.0327	0.1546	12.73	12.72	0.3758	0.367	-0.46
Volkswagen	2014	4	2014-Q4	12.77	0.3815	-0.54	1	0.0325	0.1447	12.76	12.73	0.3768	0.3758	-0.53
Volkswagen	2015	1	2015-Q1	12.84	0.3683	-0.62	1.01	0.0324	0.1463	12.77	12.76	0.3815	0.3768	-0.54
Volkswagen	2015	2	2015-Q2	12.83	0.3726	-0.63	1.03	0.031	0.1437	12.84	12.77	0.3683	0.3815	-0.62
Volkswagen	2015	3	2015-Q3	12.83	0.3721	-0.99	1.02	0.0177	0.0396	12.83	12.84	0.3726	0.3683	-0.63
Volkswagen	2015	4	2015-Q4	12.85	0.3812	-1.52	0.98	-0.0037	-0.0418	12.83	12.83	0.3721	0.3726	-0.99
Volkswagen	2016	1	2016-Q1	12.89	0.3893	-1.48	1.01	-0.005	0.1609	12.85	12.83	0.3812	0.3721	-1.52
Volkswagen	2016	2	2016-Q2	12.90	0.3792	-1.74	1.01	-0.0089	0.1254	12.89	12.85	0.3893	0.3812	-1.48
Volkswagen	2016	3	2016-Q3	12.91	0.3747	-1.29	1	0.0014	0.1616	12.90	12.89	0.3792	0.3893	-1.74
Volkswagen	2016	4	2016-Q4	12.92	0.3824	-1.22	0.88	0.0136	0.0724	12.91	12.90	0.3747	0.3792	-1.29
Volkswagen	2017	1	2017-Q1	12.96	0.3876	-0.67	0.96	0.0155	0.1717	12.92	12.91	0.3824	0.3747	-1.22
Volkswagen	2017	2	2017-Q2	12.94	0.3841	-0.67	0.98	0.0202	0.17	12.96	12.92	0.3876	0.3824	-0.67
Volkswagen	2017	3	2017-Q3	12.94	0.3719	-0.75	1	0.017	0.13	12.94	12.96	0.3841	0.3876	-0.67
Volkswagen	2017	4	2017-Q4	12.95	0.3872	-0.84	1	0.0275	0.1518	12.94	12.94	0.3719	0.3841	-0.75
Volkswagen	2018	1	2018-Q1	12.98	0.3818	-0.65	0.98	0.0265	0.1644	12.95	12.94	0.3872	0.3719	-0.84
Volkswagen	2018	2	2018-Q2	13.00	0.3803	-0.39	1.03	0.027	0.1526	12.98	12.95	0.3818	0.3872	-0.65
Volkswagen	2018	3	2018-Q3	13.00	0.3937	-0.67	1.04	0.0308	0.1508	13.00	12.98	0.3803	0.3818	-0.39
Volkswagen	2018	4	2018-Q4	13.03	0.4166	-0.95	1.09	0.0276	0.1482	13.00	13.00	0.3937	0.3803	-0.67
Volkswagen	2019	1	2019-Q1	13.06	0.409	-0.47	1.11	0.0263	0.1632	13.03	13.00	0.4166	0.3937	-0.95
Volkswagen	2019	2	2019-Q2	13.08	0.4109	0.21	1.15	0.0275	0.1715	13.06	13.03	0.409	0.4166	-0.47
Volkswagen	2019	3	2019-Q3	13.10	0.4113	-0.21	1.18	0.0296	0.1769	13.08	13.06	0.4109	0.409	0.21
Volkswagen	2019	4	2019-Q4	13.10	0.4128	-0.86	1.12	0.0294	0.1088	13.10	13.08	0.4113	0.4109	-0.21
Volkswagen	2020	1	2020-Q1	13.10	0.4204	-0.47	1.06	0.0236	0.1334	13.10	13.10	0.4128	0.4113	-0.86
Volkswagen	2020	2	2020-Q2	13.12	0.4289	-0.63	1.12	0.0118	0.104	13.10	13.10	0.4204	0.4128	-0.47
Volkswagen	2020	3	2020-Q3	13.12	0.4182	-0.88	1.13	0.0093	0.1655	13.12	13.10	0.4289	0.4204	-0.63
Volkswagen	2020	4	2020-Q4	13.12	0.4093	-1.1	1.18	0.018	0.2154	13.12	13.12	0.4182	0.4289	-0.88
Volkswagen	2021	1	2021-Q1	13.14	0.3982	-0.6	1.2	0.0234	0.1818	13.12	13.12	0.4093	0.4182	-1.1
Volkswagen	2021	2	2021-Q2	13.16	0.397	-0.74	1.2	0.0358	0.1987	13.14	13.12	0.3982	0.4093	-0.6
Volkswagen	2021	3	2021-Q3	13.16	0.3953	-0.56	1.18	0.0361	0.1675	13.16	13.14	0.397	0.3982	-0.74
Volkswagen	2021	4	2021-Q4	13.18	0.3976	-0.86	1.22	0.03	0.1826	13.16	13.16	0.3953	0.397	-0.56
Volkswagen	2022	1	2022-Q1	13.21	0.3803	-0.64	1.23	0.0355	0.2452	13.18	13.16	0.3976	0.3953	-0.86
Volkswagen	2022	2	2022-Q2	13.21	0.3682	-0.61	1.21	0.0331	0.159	13.21	13.18	0.3803	0.3976	-0.64
Volkswagen	2022	3	2022-Q3	13.26	0.3383	-0.64	1.32	0.0308	0.1975	13.21	13.21	0.3682	0.3803	-0.61
Volkswagen	2022	4	2022-Q4	13.24	0.3633	-1.11	1.23	0.0283	0.1324	13.26	13.21	0.3383	0.3682	-0.64
Volkswagen	2023	1	2023-Q1	13.25	0.357	-0.86	1.23	0.0236	0.1599	13.24	13.26	0.3633	0.3383	-1.11
Volkswagen	2023	2	2023-Q2	13.27	0.3689	-0.69	1.2	0.0223	0.1538	13.25	13.24	0.357	0.3633	-0.86
Volkswagen	2023	3	2023-Q3	13.30	0.3771	-0.77	1.22	0.0249	0.1623	13.27	13.25	0.3689	0.357	-0.69
Volkswagen	2023	4	2023-Q4	13.31	0.3876	-1.11	1.16	0.0284	0.1421	13.30	13.27	0.3771	0.3689	-0.77
Volkswagen	2024	1	2024-Q1	13.34	0.3964	3.44	1.16	0.0262	0.1569	13.31	13.30	0.3876	0.3771	-1.11
Volkswagen	2024	2	2024-Q2	13.35	0.4007	-0.49	1.14	0.0255	0.233	13.34	13.31	0.3964	0.3876	3.44
Volkswagen	2024	3	2024-Q3	13.36	0.3941	-0.27	1.13	0.0208	0.3258	13.35	13.34	0.4007	0.3964	-0.49
Volkswagen	2024	4	2024-Q4	13.36	0.4014	-0.7	1.13	0.0183	0.1487	13.36	13.35	0.3941	0.4007	-0.27
Volkswagen	2025	1	2025-Q1	13.37	0.3942	0.4	1.1	0.0156	0.1376	13.36	13.36	0.4014	0.3941	-0.7
Volkswagen	2025	2	2025-Q2	13.37	0.3958	-0.43	1.09	0.0141	0.14	13.37	13.36	0.3942	0.4014	0.4
Volkswagen	2025	3	2025-Q3	13.37	0.3982	0.61	1.1	0.0115	0.1393	13.37	13.37	0.3958	0.3942	-0.43

net_debt_to_ebitda_t2	current_ratio_t1	current_ratio_t2	roa_t1	roa_t2	ebitda_margin_t1	ebitda_margin_t2	Key	ESG_salience_q	ESG_salience_t1	ESG_salience_t2	E_salience_q	E_salience_t1	E_salience_t2	S_salience_q
							Volkswagen_2010_Q1	0			0			0
0	1.15	0	0.0062	0	0.1084	0	Volkswagen_2010_Q2	0	0	0	0	0	0	0
-1.1	1.09	1.15	0.0114	0.0062	0.1476	0.1084	Volkswagen_2010_Q3	0.693147181	0	0	0	0	0	0
-1.2	1.13	1.09	0.0216	0.0114	0.1389	0.1476	Volkswagen_2010_Q4	0	0.693147181	0	0	0	0	0
-1.18	1.12	1.13	0.0363	0.0216	0.1445	0.1389	Volkswagen_2011_Q1	0	0	0.693147181	0	0	0	0
-0.98	1.12	1.12	0.0399	0.0363	0.1379	0.1445	Volkswagen_2011_Q2	0	0	0	0	0	0	0
-0.93	1.18	1.12	0.0556	0.0399	0.1393	0.1379	Volkswagen_2011_Q3	0	0	0	0	0	0	0
-0.88	1.17	1.18	0.0771	0.0556	0.141	0.1393	Volkswagen_2011_Q4	0	0	0	0	0	0	0
-0.91	1.04	1.17	0.068	0.0771	0.1252	0.141	Volkswagen_2012_Q1	0	0	0	0	0	0	0
-0.7	1.13	1.04	0.0709	0.068	0.1304	0.1252	Volkswagen_2012_Q2	0.693147181	0	0	0	0	0	0
-0.61	1.1	1.13	0.0727	0.0709	0.1316	0.1304	Volkswagen_2012_Q3	0	0.693147181	0	0	0	0	0
-0.56	1.03	1.1	0.0824	0.0727	0.1174	0.1316	Volkswagen_2012_Q4	0	0	0.693147181	0	0	0	0
-0.29	1.07	1.03	0.0771	0.0824	0.1317	0.1174	Volkswagen_2013_Q1	0	0	0	0	0	0	0
-0.35	1.07	1.07	0.0703	0.0771	0.1261	0.1317	Volkswagen_2013_Q2	0.693147181	0	0	0	0	0	0
-0.36	1.03	1.07	0.0598	0.0703	0.1336	0.1261	Volkswagen_2013_Q3	0	0.693147181	0	0	0	0	0
-0.39	1.07	1.03	0.0265	0.0598	0.1358	0.1336	Volkswagen_2013_Q4	0	0	0.693147181	0	0	0	0
-0.59	1.03	1.07	0.0286	0.0265	0.1384	0.1358	Volkswagen_2014_Q1	0	0	0	0	0	0	0
-0.58	1	1.03	0.0288	0.0286	0.1402	0.1384	Volkswagen_2014_Q2	0.693147181	0	0	0	0	0	0
-0.59	1.05	1	0.0301	0.0288	0.1432	0.1402	Volkswagen_2014_Q3	0	0.693147181	0	0	0	0	0
-0.46	1.02	1.05	0.0327	0.0301	0.1546	0.1432	Volkswagen_2014_Q4	0	0	0.693147181	0	0	0	0
-0.53	1	1.02	0.0325	0.0327	0.1447	0.1546	Volkswagen_2015_Q1	0	0	0	0	0	0	0
-0.54	1.01	1	0.0324	0.0325	0.1463	0.1447	Volkswagen_2015_Q2	0.693147181	0	0	0	0	0	0
-0.62	1.03	1.01	0.031	0.0324	0.1437	0.1463	Volkswagen_2015_Q3	1.609437912	0.693147181	0	1.386294361	0	0	0
-0.63	1.02	1.03	0.0177	0.031	0.0396	0.1437	Volkswagen_2015_Q4	1.945910149	1.609437912	0.693147181	1.386294361	1.386294361	0	0
-0.99	0.98	1.02	-0.0037	0.0177	-0.0418	0.0396	Volkswagen_2016_Q1	0	1.945910149	1.609437912	0	1.386294361	1.386294361	0
-1.52	1.01	0.98	-0.005	-0.0037	0.1609	-0.0418	Volkswagen_2016_Q2	1.609437912	0	1.945910149	1.386294361	0	1.386294361	0
-1.48	1.01	1.01	-0.0089	-0.005	0.1254	0.1609	Volkswagen_2016_Q3	0	1.609437912	0	0	1.386294361	0	0
-1.74	1	1.01	0.0014	-0.0089	0.1616	0.1254	Volkswagen_2016_Q4	0	0	1.609437912	0	0	1.386294361	0
-1.29	0.88	1	0.0136	0.0014	0.0724	0.1616	Volkswagen_2017_Q1	0	0	0	0	0	0	0
-1.22	0.96	0.88	0.0155	0.0136	0.1717	0.0724	Volkswagen_2017_Q2	1.098612289	0	0	0.693147181	0	0	0
-0.67	0.98	0.96	0.0202	0.0155	0.17	0.1717	Volkswagen_2017_Q3	0	1.098612289	0	0	0.693147181	0	0
-0.67	1	0.98	0.017	0.0202	0.13	0.17	Volkswagen_2017_Q4	1.098612289	0	1.098612289	1.098612289	0	0.693147181	0
-0.75	1	1	0.0275	0.017	0.1518	0.13	Volkswagen_2018_Q1	0	1.098612289	0	0	1.098612289	0	0
-0.84	0.98	1	0.0265	0.0275	0.1644	0.1518	Volkswagen_2018_Q2	1.098612289	0	1.098612289	0.693147181	0	1.098612289	0
-0.65	1.03	0.98	0.027	0.0265	0.1526	0.1644	Volkswagen_2018_Q3	0	1.098612289	0	0	0.693147181	0	0
-0.39	1.04	1.03	0.0308	0.027	0.1508	0.1526	Volkswagen_2018_Q4	0.693147181	0	1.098612289	0.693147181	0	0.693147181	0
-0.67	1.09	1.04	0.0276	0.0308	0.1482	0.1508	Volkswagen_2019_Q1	0	0.693147181	0	0	0.693147181	0	0
-0.95	1.11	1.09	0.0263	0.0276	0.1632	0.1482	Volkswagen_2019_Q2	1.098612289	0	0.693147181	0.693147181	0	0.693147181	0
-0.47	1.15	1.11	0.0275	0.0263	0.1715	0.1632	Volkswagen_2019_Q3	0	1.098612289	0	0	0.693147181	0	0
0.21	1.18	1.15	0.0296	0.0275	0.1769	0.1715	Volkswagen_2019_Q4	0.693147181	0	1.098612289	0.693147181	0	0.693147181	0
-0.21	1.12	1.18	0.0294	0.0296	0.1088	0.1769	Volkswagen_2020_Q1	0.693147181	0.693147181	0	0.693147181	0.693147181	0	0
-0.86	1.06	1.12	0.0236	0.0294	0.1334	0.1088	Volkswagen_2020_Q2	1.098612289	0.693147181	0.693147181	0.693147181	0.693147181	0.693147181	0
-0.47	1.12	1.06	0.0118	0.0236	0.104	0.1334	Volkswagen_2020_Q3	0	1.098612289	0.693147181	0	0.693147181	0.693147181	0
-0.63	1.13	1.12	0.0093	0.0118	0.1655	0.104	Volkswagen_2020_Q4	0	0	1.098612289	0	0	0.693147181	0
-0.88	1.18	1.13	0.018	0.0093	0.2154	0.1655	Volkswagen_2021_Q1	0	0	0	0	0	0	0
-1.1	1.2	1.18	0.0234	0.018	0.1818	0.2154	Volkswagen_2021_Q2	1.098612289	0	0	0.693147181	0	0	0
-0.6	1.2	1.2	0.0358	0.0234	0.1987	0.1818	Volkswagen_2021_Q3	1.098612289	1.098612289	0	0.693147181	0.693147181	0	0
-0.74	1.18	1.2	0.0361	0.0358	0.1675	0.1987	Volkswagen_2021_Q4	0	1.098612289	1.098612289	0	0.693147181	0.693147181	0
-0.56	1.22	1.18	0.03	0.0361	0.1826	0.1675	Volkswagen_2022_Q1	0	0	1.098612289	0	0	0.693147181	0
-0.86	1.23	1.22	0.0355	0.03	0.2452	0.1826	Volkswagen_2022_Q2	1.098612289	0	0	0.693147181	0	0	0
-0.64	1.21	1.23	0.0331	0.0355	0.159	0.2452	Volkswagen_2022_Q3	0.693147181	1.098612289	0	0.693147181	0.693147181	0	0
-0.61	1.32	1.21	0.0308	0.0331	0.1975	0.159	Volkswagen_2022_Q4	0	0.693147181	1.098612289	0	0.693147181	0.693147181	0
-0.64	1.23	1.32	0.0283	0.0308	0.1324	0.1975	Volkswagen_2023_Q1	0	0	0.693147181	0	0	0.693147181	0
-1.11	1.23	1.23	0.0236	0.0283	0.1599	0.1324	Volkswagen_2023_Q2	1.098612289	0	0	0.693147181	0	0	0
-0.86	1.2	1.23	0.0223	0.0236	0.1538	0.1599	Volkswagen_2023_Q3	0.693147181	1.098612289	0	0.693147181	0.693147181	0	0
-0.69	1.22	1.2	0.0249	0.0223	0.1623	0.1538	Volkswagen_2023_Q4	0	0.693147181	1.098612289	0	0.693147181	0.693147181	0
-0.77	1.16	1.22	0.0284	0.0249	0.1421	0.1623	Volkswagen_2024_Q1	0	0	0.693147181	0	0	0.693147181	0
-1.11	1.16	1.16	0.0262	0.0284	0.1569	0.1421	Volkswagen_2024_Q2	0	0	0	0	0	0	0
3.44	1.14	1.16	0.0255	0.0262	0.233	0.1569	Volkswagen_2024_Q3	1.386294361	0	0	1.098612289	0	0	0
-0.49	1.13	1.14	0.0208	0.0255	0.3258	0.233	Volkswagen_2024_Q4	0	1.386294361	0	0	1.098612289	0	0
-0.27	1.13	1.13	0.0183	0.0208	0.1487	0.3258	Volkswagen_2025_Q1	1.098612289	0	1.386294361	0.693147181	0	1.098612289	0.693147181
-0.7	1.1	1.13	0.0156	0.0183	0.1376	0.1487	Volkswagen_2025_Q2	1.098612289	1.098612289	0	0.693147181	0.693147181	0	0
0.4	1.09	1.1	0.0141	0.0156	0.14	0.1376	Volkswagen_2025_Q3	1.098612289	1.098612289	1.098612289	0.693147181	0.693147181	0.693147181	0

S_salience_t1	S_salience_t2	G_salience_q	G_salience_t1	G_salience_t2	ESG_salience_mat_q	ESG_salience_mat_t1	ESG_salience_mat_t2	Agency	firm_id	Key_Agency	rating_num_q	post_2015	post_2020	covid_dummy
		0			0			Moody's Ratings	6	Moody's Ratings|Volkswagen_2010_Q1		0	0	0
0	0	0	0	0	0	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2010_Q2		0	0	0
0	0	0.693147181	0	0	1.098612289	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2010_Q3		0	0	0
0	0	0	0.693147181	0	0	1.098612289	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2010_Q4		0	0	0
0	0	0	0	0.693147181	0	0	1.098612289	Moody's Ratings	6	Moody's Ratings|Volkswagen_2011_Q1		0	0	0
0	0	0	0	0	0	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2011_Q2		0	0	0
0	0	0	0	0	0	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2011_Q3		0	0	0
0	0	0	0	0	0	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2011_Q4		0	0	0
0	0	0	0	0	0	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2012_Q1		0	0	0
0	0	0.693147181	0	0	1.098612289	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2012_Q2		0	0	0
0	0	0	0.693147181	0	0	1.098612289	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2012_Q3		0	0	0
0	0	0	0	0.693147181	0	0	1.098612289	Moody's Ratings	6	Moody's Ratings|Volkswagen_2012_Q4		0	0	0
0	0	0	0	0	0	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2013_Q1		0	0	0
0	0	0.693147181	0	0	1.098612289	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2013_Q2		0	0	0
0	0	0	0.693147181	0	0	1.098612289	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2013_Q3		0	0	0
0	0	0	0	0.693147181	0	0	1.098612289	Moody's Ratings	6	Moody's Ratings|Volkswagen_2013_Q4		0	0	0
0	0	0	0	0	0	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2014_Q1		0	0	0
0	0	0.693147181	0	0	1.098612289	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2014_Q2		0	0	0
0	0	0	0.693147181	0	0	1.098612289	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2014_Q3		0	0	0
0	0	0	0	0.693147181	0	0	1.098612289	Moody's Ratings	6	Moody's Ratings|Volkswagen_2014_Q4		0	0	0
0	0	0	0	0	0	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2015_Q1	6	1	0	0
0	0	0.693147181	0	0	1.098612289	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2015_Q2		1	0	0
0	0	0.693147181	0.693147181	0	2.564949357	1.098612289	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2015_Q3	6	1	0	0
0	0	1.386294361	0.693147181	0.693147181	2.944438979	2.564949357	1.098612289	Moody's Ratings	6	Moody's Ratings|Volkswagen_2015_Q4	7	1	0	0
0	0	0	1.386294361	0.693147181	0	2.944438979	2.564949357	Moody's Ratings	6	Moody's Ratings|Volkswagen_2016_Q1		1	0	0
0	0	0.693147181	0	1.386294361	2.564949357	0	2.944438979	Moody's Ratings	6	Moody's Ratings|Volkswagen_2016_Q2		1	0	0
0	0	0	0.693147181	0	0	2.564949357	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2016_Q3		1	0	0
0	0	0	0	0.693147181	0	0	2.564949357	Moody's Ratings	6	Moody's Ratings|Volkswagen_2016_Q4		1	0	0
0	0	0	0	0	0	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2017_Q1		1	0	0
0	0	0.693147181	0	0	1.609437912	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2017_Q2		1	0	0
0	0	0	0.693147181	0	0	1.609437912	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2017_Q3		1	0	0
0	0	0	0	0.693147181	1.609437912	0	1.609437912	Moody's Ratings	6	Moody's Ratings|Volkswagen_2017_Q4		1	0	0
0	0	0	0	0	0	1.609437912	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2018_Q1	7	1	0	0
0	0	0.693147181	0	0	1.609437912	0	1.609437912	Moody's Ratings	6	Moody's Ratings|Volkswagen_2018_Q2		1	0	0
0	0	0	0.693147181	0	0	1.609437912	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2018_Q3		1	0	0
0	0	0	0	0.693147181	1.098612289	0	1.609437912	Moody's Ratings	6	Moody's Ratings|Volkswagen_2018_Q4		1	0	0
0	0	0	0	0	0	1.098612289	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2019_Q1		1	0	0
0	0	0.693147181	0	0	1.609437912	0	1.098612289	Moody's Ratings	6	Moody's Ratings|Volkswagen_2019_Q2		1	0	0
0	0	0	0.693147181	0	0	1.609437912	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2019_Q3		1	0	0
0	0	0	0	0.693147181	1.098612289	0	1.609437912	Moody's Ratings	6	Moody's Ratings|Volkswagen_2019_Q4		1	0	0
0	0	0	0	0	1.386294361	1.098612289	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2020_Q1	7	1	1	0
0	0	0.693147181	0	0	1.945910149	1.386294361	1.098612289	Moody's Ratings	6	Moody's Ratings|Volkswagen_2020_Q2	7	1	1	1
0	0	0	0.693147181	0	0	1.945910149	1.386294361	Moody's Ratings	6	Moody's Ratings|Volkswagen_2020_Q3		1	1	1
0	0	0	0	0.693147181	0	0	1.945910149	Moody's Ratings	6	Moody's Ratings|Volkswagen_2020_Q4		1	1	1
0	0	0	0	0	0	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2021_Q1	7	1	1	1
0	0	0.693147181	0	0	1.791759469	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2021_Q2		1	1	1
0	0	0.693147181	0.693147181	0	1.945910149	1.791759469	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2021_Q3		1	1	1
0	0	0	0.693147181	0.693147181	0	1.945910149	1.791759469	Moody's Ratings	6	Moody's Ratings|Volkswagen_2021_Q4		1	1	1
0	0	0	0	0.693147181	0	0	1.945910149	Moody's Ratings	6	Moody's Ratings|Volkswagen_2022_Q1		1	1	0
0	0	0.693147181	0	0	1.609437912	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2022_Q2		1	1	0
0	0	0	0.693147181	0	1.386294361	1.609437912	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2022_Q3		1	1	0
0	0	0	0	0.693147181	0	1.386294361	1.609437912	Moody's Ratings	6	Moody's Ratings|Volkswagen_2022_Q4		1	1	0
0	0	0	0	0	0	0	1.386294361	Moody's Ratings	6	Moody's Ratings|Volkswagen_2023_Q1		1	1	0
0	0	0.693147181	0	0	1.609437912	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2023_Q2		1	1	0
0	0	0	0.693147181	0	1.386294361	1.609437912	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2023_Q3	7	1	1	0
0	0	0	0	0.693147181	0	1.386294361	1.609437912	Moody's Ratings	6	Moody's Ratings|Volkswagen_2023_Q4		1	1	0
0	0	0	0	0	0	0	1.386294361	Moody's Ratings	6	Moody's Ratings|Volkswagen_2024_Q1		1	1	0
0	0	0	0	0	0	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2024_Q2		1	1	0
0	0	0.693147181	0	0	2.079441542	0	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2024_Q3	7	1	1	0
0	0	0	0.693147181	0	0	2.079441542	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2024_Q4	7	1	1	0
0	0	0	0	0.693147181	1.609437912	0	2.079441542	Moody's Ratings	6	Moody's Ratings|Volkswagen_2025_Q1	8	1	1	0
0.693147181	0	0.693147181	0	0	1.609437912	1.609437912	0	Moody's Ratings	6	Moody's Ratings|Volkswagen_2025_Q2		1	1	0
0	0.693147181	0.693147181	0.693147181	0	1.945910149	1.609437912	1.609437912	Moody's Ratings	6	Moody's Ratings|Volkswagen_2025_Q3		1	1	0

Issuer	Year	Quarter	Period_End	assets_ln	debt_to_assets	net_debt_to_ebitda	current_ratio	roa	ebitda_margin	assets_ln_t1	assets_ln_t2	debt_to_assets_t1	debt_to_assets_t2	net_debt_to_ebitda_t1
Ford	2010	1	2010-Q1	12.18	0.6678	0.91	0.74	0.0309	0.1197		0.00		0	
Ford	2010	2	2010-Q2	12.12	0.6426	0.2	0.7	0.0339	0.1314	12.18	0.00	0.6678	0	0.91
Ford	2010	3	2010-Q3	12.10	0.6484	0.03	0.76	0.0339	0.1314	12.12	12.18	0.6426	0.6678	0.2
Ford	2010	4	2010-Q4	12.02	0.6284	-0.18	0.66	0.0364	0.1135	12.10	12.12	0.6484	0.6426	0.03
Ford	2011	1	2011-Q1	12.03	0.6052	-0.36	0.65	0.0386	0.1228	12.02	12.10	0.6284	0.6484	-0.18
Ford	2011	2	2011-Q2	12.04	0.5849	-0.65	0.66	0.0388	0.1041	12.03	12.02	0.6052	0.6284	-0.36
Ford	2011	3	2011-Q3	12.01	0.5819	-0.67	0.66	0.0388	0.1041	12.04	12.03	0.5849	0.6052	-0.65
Ford	2011	4	2011-Q4	12.10	0.5562	-0.82	0.7	0.1172	0.0849	12.01	12.04	0.5819	0.5849	-0.67
Ford	2012	1	2012-Q1	12.12	0.5488	-0.82	0.74	0.1085	0.1024	12.10	12.01	0.5562	0.5819	-0.82
Ford	2012	2	2012-Q2	12.11	0.5477	-0.94	0.77	0.1008	0.0928	12.12	12.10	0.5488	0.5562	-0.82
Ford	2012	3	2012-Q3	12.13	0.5413	-0.93	0.78	0.1008	0.0928	12.11	12.12	0.5477	0.5488	-0.94
Ford	2012	4	2012-Q4	12.16	0.5494	-1.04	0.74	0.0303	0.0416	12.13	12.11	0.5413	0.5477	-0.93
Ford	2013	1	2013-Q1	12.18	0.5516	-0.83	0.74	0.0309	0.0914	12.16	12.13	0.5494	0.5413	-1.04
Ford	2013	2	2013-Q2	12.20	0.545	-1.07	0.76	0.0317	0.0816	12.18	12.16	0.5516	0.5494	-0.83
Ford	2013	3	2013-Q3	12.22	0.5456	-1.07	0.76	0.0317	0.0816	12.20	12.18	0.545	0.5516	-1.07
Ford	2013	4	2013-Q4	12.23	0.5625	-0.78	0.72	0.0364	0.0622	12.22	12.20	0.5456	0.545	-1.07
Ford	2014	1	2014-Q1	12.25	0.5598	-0.92	0.71	0.0325	0.0689	12.23	12.22	0.5625	0.5456	-0.78
Ford	2014	2	2014-Q2	12.27	0.5572	-1.04	0.68	0.0323	0.0974	12.25	12.23	0.5598	0.5625	-0.92
Ford	2014	3	2014-Q3	12.26	0.566	-0.91	0.67	0.0323	0.0974	12.27	12.25	0.5572	0.5598	-1.04
Ford	2014	4	2014-Q4	12.26	0.566	-0.91	0.64	0.0059	-0.0212	12.26	12.27	0.566	0.5572	-0.91
Ford	2015	1	2015-Q1	12.28	0.5721	-0.96	0.69	0.0066	0.0932	12.26	12.26	0.566	0.566	-0.91
Ford	2015	2	2015-Q2	12.30	0.5649	-1.28	0.67	0.0104	0.076	12.28	12.26	0.5721	0.566	-0.96
Ford	2015	3	2015-Q3	12.31	0.5682	-1.31	0.67	0.0104	0.076	12.30	12.28	0.5649	0.5721	-1.28
Ford	2015	4	2015-Q4	12.32	0.5907	-0.72	1.25	0.0339	0.1296	12.31	12.30	0.5682	0.5649	-1.31
Ford	2016	1	2016-Q1	12.39	0.5858	-0.88	0.68	0.0381	0.0941	12.32	12.31	0.5907	0.5682	-0.72
Ford	2016	2	2016-Q2	12.39	0.5838	-0.91	1.24	0.037	0.0765	12.39	12.32	0.5858	0.5907	-0.88
Ford	2016	3	2016-Q3	12.37	0.584	-0.83	1.16	0.037	0.0765	12.39	12.39	0.5838	0.5858	-0.91
Ford	2016	4	2016-Q4	12.38	0.6008	-0.8	1.2	0.0198	0.1633	12.37	12.39	0.584	0.5838	-0.83
Ford	2017	1	2017-Q1	12.41	0.598	-0.87	1.24	0.0154	0.0681	12.38	12.37	0.6008	0.584	-0.8
Ford	2017	2	2017-Q2	12.42	0.59	-0.92	1.2	0.0156	0.0691	12.41	12.38	0.598	0.6008	-0.87
Ford	2017	3	2017-Q3	12.43	0.5934	-0.71	1.19	0.0156	0.0691	12.42	12.41	0.59	0.598	-0.92
Ford	2017	4	2017-Q4	12.46	0.5969	-0.79	1.23	0.0311	0.136	12.43	12.42	0.5934	0.59	-0.71
Ford	2018	1	2018-Q1	12.50	0.5925	-0.9	1.23	0.0308	0.0577	12.46	12.43	0.5969	0.5934	-0.79
Ford	2018	2	2018-Q2	12.46	0.5922	-0.77	1.21	0.0273	0.051	12.50	12.46	0.5925	0.5969	-0.9
Ford	2018	3	2018-Q3	12.46	0.5925	-0.62	1.21	0.0273	0.051	12.46	12.50	0.5922	0.5925	-0.77
Ford	2018	4	2018-Q4	12.46	0.6011	-0.82	1.2	0.0143	0.0656	12.46	12.46	0.5925	0.5922	-0.62
Ford	2019	1	2019-Q1	12.48	0.6016	-0.8	1.22	0.0116	0.0926	12.46	12.46	0.6011	0.5925	-0.82
Ford	2019	2	2019-Q2	12.48	0.5999	-0.66	1.2	0.0083	0.0709	12.48	12.46	0.6016	0.6011	-0.8
Ford	2019	3	2019-Q3	12.46	0.6019	-0.71	1.17	0.0083	0.0709	12.48	12.48	0.5999	0.6016	-0.66
Ford	2019	4	2019-Q4	12.46	0.6062	-0.81	1.16	0.0002	0.0216	12.46	12.48	0.6019	0.5999	-0.71
Ford	2020	1	2020-Q1	12.48	0.6386	-0.65	1.32	-0.0117	0.0258	12.46	12.46	0.6062	0.6019	-0.81
Ford	2020	2	2020-Q2	12.50	0.6552	0.07	1.34	-0.008	-0.0207	12.48	12.46	0.6386	0.6062	-0.65
Ford	2020	3	2020-Q3	12.47	0.61	-0.53	1.2	-0.008	-0.0207	12.50	12.48	0.6552	0.6386	0.07
Ford	2020	4	2020-Q4	12.50	0.6099	-2.37	1.2	-0.0049	-0.046	12.47	12.50	0.61	0.6552	-0.53
Ford	2021	1	2021-Q1	12.47	0.5903	-0.8	1.21	0.0151	0.1261	12.50	12.47	0.6099	0.61	-2.37
Ford	2021	2	2021-Q2	12.42	0.5964	0.1	1.21	0.0132	0.0566	12.47	12.50	0.5903	0.6099	-0.8
Ford	2021	3	2021-Q3	12.44	0.5773	-0.76	1.2	0.0132	0.0566	12.42	12.47	0.5964	0.5903	0.1
Ford	2021	4	2021-Q4	12.46	0.5427	-2.47	1.2	0.0684	0.0684	12.44	12.42	0.5773	0.5964	-0.76
Ford	2022	1	2022-Q1	12.44	0.5415	-0.81	1.17	0.045	0.0928	12.46	12.44	0.5427	0.5773	-2.47
Ford	2022	2	2022-Q2	12.41	0.5299	-0.64	1.16	0.0472	0.1191	12.44	12.46	0.5415	0.5427	-0.81
Ford	2022	3	2022-Q3	12.42	0.5255	-0.9	1.2	0.0472	0.1191	12.41	12.44	0.5299	0.5415	-0.64
Ford	2022	4	2022-Q4	12.45	0.549	-0.88	1.2	-0.0077	0.0803	12.42	12.41	0.5255	0.5299	-0.9
Ford	2023	1	2023-Q1	12.46	0.5487	-0.61	1.2	0.0113	0.0967	12.45	12.42	0.549	0.5255	-0.88
Ford	2023	2	2023-Q2	12.49	0.5446	-0.71	1.2	0.0162	0.0965	12.46	12.45	0.5487	0.549	-0.61
Ford	2023	3	2023-Q3	12.50	0.5392	-0.62	1.21	0.0162	0.0965	12.49	12.46	0.5446	0.5487	-0.71
Ford	2023	4	2023-Q4	12.52	0.5529	-0.63	1.2	0.0164	0.0543	12.50	12.49	0.5392	0.5446	-0.62
Ford	2024	1	2024-Q1	12.52	0.552	-0.37	1.17	0.0148	0.0726	12.52	12.50	0.5529	0.5392	-0.63
Ford	2024	2	2024-Q2	12.53	0.5528	-0.49	1.17	0.0141	0.0794	12.52	12.52	0.552	0.5529	-0.37
Ford	2024	3	2024-Q3	12.57	0.5551	-0.59	1.15	0.0141	0.0794	12.53	12.52	0.5528	0.552	-0.49
Ford	2024	4	2024-Q4	12.56	0.564	-0.6	1.16	0.0211	0.0656	12.57	12.53	0.5551	0.5528	-0.59
Ford	2025	1	2025-Q1	12.56	0.5545	-0.51	1.13	0.018	0.0533	12.56	12.57	0.564	0.5551	-0.6
Ford	2025	2	2025-Q2	12.59	0.5474	-1.1	1.1	0.0111	0.048	12.56	12.56	0.5545	0.564	-0.51
Ford	2025	3	2025-Q3	12.61	0.5461	-0.97	1.12	0.0111	0.048	12.59	12.56	0.5474	0.5545	-1.1

net_debt_to_ebitda_t2	current_ratio_t1	current_ratio_t2	roa_t1	roa_t2	ebitda_margin_t1	ebitda_margin_t2	Key	ESG_salience_q	ESG_salience_t1	ESG_salience_t2	E_salience_q	E_salience_t1	E_salience_t2	S_salience_q
0		0		0		0	Ford_2010_Q1	0.693147181	0	0	0.693147181	0	0	0
0	0.74	0	0.0309	0	0.1197	0	Ford_2010_Q2	0.693147181	0.693147181	0	0.693147181	0.693147181	0	0
0.91	0.7	0.74	0.0339	0.0309	0.1314	0.1197	Ford_2010_Q3	0	0.693147181	0.693147181	0	0.693147181	0.693147181	0
0.2	0.76	0.7	0.0339	0.0339	0.1314	0.1314	Ford_2010_Q4	0	0	0.693147181	0	0	0.693147181	0
0.03	0.66	0.76	0.0364	0.0339	0.1135	0.1314	Ford_2011_Q1	0.693147181	0	0	0	0	0	0.693147181
-0.18	0.65	0.66	0.0386	0.0364	0.1228	0.1135	Ford_2011_Q2	0	0.693147181	0	0	0	0	0
-0.36	0.66	0.65	0.0388	0.0386	0.1041	0.1228	Ford_2011_Q3	0	0	0.693147181	0	0	0	0
-0.65	0.66	0.66	0.0388	0.0388	0.1041	0.1041	Ford_2011_Q4	1.609437912	0	0	0.693147181	0	0	1.386294361
-0.67	0.7	0.66	0.1172	0.0388	0.0849	0.1041	Ford_2012_Q1	0	1.609437912	0	0	0.693147181	0	0
-0.82	0.74	0.7	0.1085	0.1172	0.1024	0.0849	Ford_2012_Q2	1.386294361	0	1.609437912	1.098612289	0	0.693147181	0.693147181
-0.82	0.77	0.74	0.1008	0.1085	0.0928	0.1024	Ford_2012_Q3	0	1.386294361	0	0	1.098612289	0	0
-0.94	0.78	0.77	0.1008	0.1008	0.0928	0.0928	Ford_2012_Q4	0.693147181	0	1.386294361	0	0	1.098612289	0.693147181
-0.93	0.74	0.78	0.0303	0.1008	0.0416	0.0928	Ford_2013_Q1	1.098612289	0.693147181	0	0.693147181	0	0	0
-1.04	0.74	0.74	0.0309	0.0303	0.0914	0.0416	Ford_2013_Q2	1.098612289	1.098612289	0.693147181	0.693147181	0.693147181	0	0.693147181
-0.83	0.76	0.74	0.0317	0.0309	0.0816	0.0914	Ford_2013_Q3	0.693147181	1.098612289	1.098612289	0	0.693147181	0.693147181	0.693147181
-1.07	0.76	0.76	0.0317	0.0317	0.0816	0.0816	Ford_2013_Q4	0	0.693147181	1.098612289	0	0	0.693147181	0
-1.07	0.72	0.76	0.0364	0.0317	0.0622	0.0816	Ford_2014_Q1	0	0	0.693147181	0	0	0	0
-0.78	0.71	0.72	0.0325	0.0364	0.0689	0.0622	Ford_2014_Q2	0.693147181	0	0	0	0	0	0.693147181
-0.92	0.68	0.71	0.0323	0.0325	0.0974	0.0689	Ford_2014_Q3	0	0.693147181	0	0	0	0	0
-1.04	0.67	0.68	0.0323	0.0323	0.0974	0.0974	Ford_2014_Q4	0.693147181	0	0.693147181	0	0	0	0.693147181
-0.91	0.64	0.67	0.0059	0.0323	-0.0212	0.0974	Ford_2015_Q1	0	0.693147181	0	0	0	0	0
-0.91	0.69	0.64	0.0066	0.0059	0.0932	-0.0212	Ford_2015_Q2	0	0	0.693147181	0	0	0	0
-0.96	0.67	0.69	0.0104	0.0066	0.076	0.0932	Ford_2015_Q3	0.693147181	0	0	0	0	0	0.693147181
-1.28	0.67	0.67	0.0104	0.0104	0.076	0.076	Ford_2015_Q4	0	0.693147181	0	0	0	0	0
-1.31	1.25	0.67	0.0339	0.0104	0.1296	0.076	Ford_2016_Q1	0	0	0.693147181	0	0	0	0
-0.72	0.68	1.25	0.0381	0.0339	0.0941	0.1296	Ford_2016_Q2	0	0	0	0	0	0	0
-0.88	1.24	0.68	0.037	0.0381	0.0765	0.0941	Ford_2016_Q3	0	0	0	0	0	0	0
-0.91	1.16	1.24	0.037	0.037	0.0765	0.0765	Ford_2016_Q4	0	0	0	0	0	0	0
-0.83	1.2	1.16	0.0198	0.037	0.1633	0.0765	Ford_2017_Q1	0.693147181	0	0	0.693147181	0	0	0
-0.8	1.24	1.2	0.0154	0.0198	0.0681	0.1633	Ford_2017_Q2	0.693147181	0.693147181	0	0.693147181	0.693147181	0	0
-0.87	1.2	1.24	0.0156	0.0154	0.0691	0.0681	Ford_2017_Q3	0	0.693147181	0.693147181	0	0.693147181	0.693147181	0
-0.92	1.19	1.2	0.0156	0.0156	0.0691	0.0691	Ford_2017_Q4	0	0	0.693147181	0	0	0.693147181	0
-0.71	1.23	1.19	0.0311	0.0156	0.136	0.0691	Ford_2018_Q1	0	0	0	0	0	0	0
-0.79	1.23	1.23	0.0308	0.0311	0.0577	0.136	Ford_2018_Q2	0.693147181	0	0	0.693147181	0	0	0
-0.9	1.21	1.23	0.0273	0.0308	0.051	0.0577	Ford_2018_Q3	0.693147181	0.693147181	0	0.693147181	0.693147181	0	0
-0.77	1.21	1.21	0.0273	0.0273	0.051	0.051	Ford_2018_Q4	0	0.693147181	0.693147181	0	0.693147181	0.693147181	0
-0.62	1.2	1.21	0.0143	0.0273	0.0656	0.051	Ford_2019_Q1	0.693147181	0	0.693147181	0	0	0.693147181	0.693147181
-0.82	1.22	1.2	0.0116	0.0143	0.0926	0.0656	Ford_2019_Q2	0	0.693147181	0	0	0	0	0
-0.8	1.2	1.22	0.0083	0.0116	0.0709	0.0926	Ford_2019_Q3	0	0	0.693147181	0	0	0	0
-0.66	1.17	1.2	0.0083	0.0083	0.0709	0.0709	Ford_2019_Q4	0.693147181	0	0	0	0	0	0
-0.71	1.16	1.17	0.0002	0.0083	0.0216	0.0709	Ford_2020_Q1	0.693147181	0.693147181	0	0	0	0	0
-0.81	1.32	1.16	-0.0117	0.0002	0.0258	0.0216	Ford_2020_Q2	0.693147181	0.693147181	0.693147181	0	0	0	0
-0.65	1.34	1.32	-0.008	-0.0117	-0.0207	0.0258	Ford_2020_Q3	0.693147181	0.693147181	0.693147181	0	0	0	0.693147181
0.07	1.2	1.34	-0.008	-0.008	-0.0207	-0.0207	Ford_2020_Q4	0	0.693147181	0.693147181	0	0	0	0
-0.53	1.2	1.2	-0.0049	-0.008	-0.046	-0.0207	Ford_2021_Q1	0.693147181	0	0.693147181	0	0	0	0
-2.37	1.21	1.2	0.0151	-0.0049	0.1261	-0.046	Ford_2021_Q2	0.693147181	0.693147181	0	0	0	0	0
-0.8	1.21	1.21	0.0132	0.0151	0.0566	0.1261	Ford_2021_Q3	0	0.693147181	0.693147181	0	0	0	0
0.1	1.2	1.21	0.0132	0.0132	0.0566	0.0566	Ford_2021_Q4	1.609437912	0	0.693147181	1.386294361	0	0	0
-0.76	1.2	1.2	0.0684	0.0132	0.0684	0.0566	Ford_2022_Q1	0	1.609437912	0	0	1.386294361	0	0
-2.47	1.17	1.2	0.045	0.0684	0.0928	0.0684	Ford_2022_Q2	1.098612289	0	1.609437912	0.693147181	0	1.386294361	0
-0.81	1.16	1.17	0.0472	0.045	0.1191	0.0928	Ford_2022_Q3	1.098612289	1.098612289	0	1.098612289	0.693147181	0	0
-0.64	1.2	1.16	0.0472	0.0472	0.1191	0.1191	Ford_2022_Q4	0	1.098612289	1.098612289	0	1.098612289	0.693147181	0
-0.9	1.2	1.2	-0.0077	0.0472	0.0803	0.1191	Ford_2023_Q1	0	0	1.098612289	0	0	1.098612289	0
-0.88	1.2	1.2	0.0113	-0.0077	0.0967	0.0803	Ford_2023_Q2	0.693147181	0	0	0.693147181	0	0	0
-0.61	1.2	1.2	0.0162	0.0113	0.0965	0.0967	Ford_2023_Q3	0.693147181	0.693147181	0	0	0.693147181	0	0
-0.71	1.21	1.2	0.0162	0.0162	0.0965	0.0965	Ford_2023_Q4	1.098612289	0.693147181	0.693147181	0.693147181	0	0.693147181	0.693147181
-0.62	1.2	1.21	0.0164	0.0162	0.0543	0.0965	Ford_2024_Q1	0	1.098612289	0.693147181	0	0.693147181	0	0
-0.63	1.17	1.2	0.0148	0.0164	0.0726	0.0543	Ford_2024_Q2	0.693147181	0	1.098612289	0.693147181	0	0.693147181	0
-0.37	1.17	1.17	0.0141	0.0148	0.0794	0.0726	Ford_2024_Q3	0	0.693147181	0	0	0.693147181	0	0
-0.49	1.15	1.17	0.0141	0.0141	0.0794	0.0794	Ford_2024_Q4	1.098612289	0	0.693147181	0.693147181	0	0.693147181	0.693147181
-0.59	1.16	1.15	0.0211	0.0141	0.0656	0.0794	Ford_2025_Q1	1.098612289	1.098612289	0	0.693147181	0.693147181	0	0.693147181
-0.6	1.13	1.16	0.018	0.0211	0.0533	0.0656	Ford_2025_Q2	0.693147181	1.098612289	1.098612289	0.693147181	0.693147181	0.693147181	0
-0.51	1.1	1.13	0.0111	0.018	0.048	0.0533	Ford_2025_Q3	0	0.693147181	1.098612289	0	0.693147181	0.693147181	0

S_salience_t1	S_salience_t2	G_salience_q	G_salience_t1	G_salience_t2	ESG_salience_mat_q	ESG_salience_mat_t1	ESG_salience_mat_t2	Agency	firm_id	Key_Agency	rating_num_q	post_2015	post_2020	covid_dummy
0	0	0	0	0	1.098612289	0	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2010_Q1		0	0	0
0	0	0	0	0	1.098612289	1.098612289	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2010_Q2	16	0	0	0
0	0	0	0	0	0	1.098612289	1.098612289	S&P Global Ratings	1	S&P Global Ratings|Ford_2010_Q3	14	0	0	0
0	0	0	0	0	0	0	1.098612289	S&P Global Ratings	1	S&P Global Ratings|Ford_2010_Q4		0	0	0
0	0	0	0	0	1.098612289	0	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2011_Q1	13	0	0	0
0.693147181	0	0	0	0	0	1.098612289	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2011_Q2		0	0	0
0	0.693147181	0	0	0	0	0	1.098612289	S&P Global Ratings	1	S&P Global Ratings|Ford_2011_Q3		0	0	0
0	0	0	0	0	2.397895273	0	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2011_Q4	13	0	0	0
1.386294361	0	0	0	0	0	2.397895273	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2012_Q1		0	0	0
0	1.386294361	0	0	0	1.945910149	0	2.397895273	S&P Global Ratings	1	S&P Global Ratings|Ford_2012_Q2		0	0	0
0.693147181	0	0	0	0	0	1.945910149	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2012_Q3		0	0	0
0	0.693147181	0	0	0	1.386294361	0	1.945910149	S&P Global Ratings	1	S&P Global Ratings|Ford_2012_Q4		0	0	0
0.693147181	0	0.693147181	0	0	1.609437912	1.386294361	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2013_Q1		0	0	0
0	0.693147181	0	0.693147181	0	1.609437912	1.609437912	1.386294361	S&P Global Ratings	1	S&P Global Ratings|Ford_2013_Q2		0	0	0
0.693147181	0	0	0	0.693147181	1.098612289	1.609437912	1.609437912	S&P Global Ratings	1	S&P Global Ratings|Ford_2013_Q3	10	0	0	0
0.693147181	0.693147181	0	0	0	0	1.098612289	1.609437912	S&P Global Ratings	1	S&P Global Ratings|Ford_2013_Q4		0	0	0
0	0.693147181	0	0	0	0	0	1.098612289	S&P Global Ratings	1	S&P Global Ratings|Ford_2014_Q1		0	0	0
0	0	0	0	0	1.098612289	0	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2014_Q2		0	0	0
0.693147181	0	0	0	0	0	1.098612289	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2014_Q3		0	0	0
0	0.693147181	0	0	0	1.098612289	0	1.098612289	S&P Global Ratings	1	S&P Global Ratings|Ford_2014_Q4		0	0	0
0.693147181	0	0	0	0	0	1.098612289	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2015_Q1		1	0	0
0	0.693147181	0	0	0	0	0	1.098612289	S&P Global Ratings	1	S&P Global Ratings|Ford_2015_Q2		1	0	0
0	0	0	0	0	1.098612289	0	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2015_Q3		1	0	0
0.693147181	0	0	0	0	0	1.098612289	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2015_Q4	10	1	0	0
0	0.693147181	0	0	0	0	0	1.098612289	S&P Global Ratings	1	S&P Global Ratings|Ford_2016_Q1	9	1	0	0
0	0	0	0	0	0	0	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2016_Q2		1	0	0
0	0	0	0	0	0	0	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2016_Q3		1	0	0
0	0	0	0	0	0	0	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2016_Q4		1	0	0
0	0	0	0	0	1.098612289	0	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2017_Q1		1	0	0
0	0	0	0	0	1.098612289	1.098612289	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2017_Q2		1	0	0
0	0	0	0	0	0	1.098612289	1.098612289	S&P Global Ratings	1	S&P Global Ratings|Ford_2017_Q3		1	0	0
0	0	0	0	0	0	0	1.098612289	S&P Global Ratings	1	S&P Global Ratings|Ford_2017_Q4		1	0	0
0	0	0	0	0	0	0	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2018_Q1		1	0	0
0	0	0	0	0	1.098612289	0	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2018_Q2		1	0	0
0	0	0	0	0	1.098612289	1.098612289	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2018_Q3	9	1	0	0
0	0	0	0	0	0	1.098612289	1.098612289	S&P Global Ratings	1	S&P Global Ratings|Ford_2018_Q4		1	0	0
0	0	0	0	0	1.386294361	0	1.098612289	S&P Global Ratings	1	S&P Global Ratings|Ford_2019_Q1		1	0	0
0.693147181	0	0	0	0	0	1.386294361	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2019_Q2		1	0	0
0	0.693147181	0	0	0	0	0	1.386294361	S&P Global Ratings	1	S&P Global Ratings|Ford_2019_Q3		1	0	0
0	0	0.693147181	0	0	1.386294361	0	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2019_Q4	10	1	0	0
0	0	0.693147181	0.693147181	0	1.386294361	1.386294361	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2020_Q1	11	1	1	0
0	0	0.693147181	0.693147181	0.693147181	1.386294361	1.386294361	1.386294361	S&P Global Ratings	1	S&P Global Ratings|Ford_2020_Q2		1	1	1
0	0	0	0.693147181	0.693147181	1.098612289	1.386294361	1.386294361	S&P Global Ratings	1	S&P Global Ratings|Ford_2020_Q3	11	1	1	1
0.693147181	0	0	0	0.693147181	0	1.098612289	1.386294361	S&P Global Ratings	1	S&P Global Ratings|Ford_2020_Q4		1	1	1
0	0.693147181	0.693147181	0	0	1.386294361	0	1.098612289	S&P Global Ratings	1	S&P Global Ratings|Ford_2021_Q1		1	1	1
0	0	0.693147181	0.693147181	0	1.386294361	1.386294361	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2021_Q2		1	1	1
0	0	0	0.693147181	0.693147181	0	1.386294361	1.386294361	S&P Global Ratings	1	S&P Global Ratings|Ford_2021_Q3		1	1	1
0	0	0.693147181	0	0.693147181	2.302585093	0	1.386294361	S&P Global Ratings	1	S&P Global Ratings|Ford_2021_Q4		1	1	1
0	0	0	0.693147181	0	0	2.302585093	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2022_Q1		1	1	0
0	0	0.693147181	0	0.693147181	1.609437912	0	2.302585093	S&P Global Ratings	1	S&P Global Ratings|Ford_2022_Q2		1	1	0
0	0	0	0.693147181	0	1.609437912	1.609437912	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2022_Q3		1	1	0
0	0	0	0	0.693147181	0	1.609437912	1.609437912	S&P Global Ratings	1	S&P Global Ratings|Ford_2022_Q4		1	1	0
0	0	0	0	0	0	0	1.609437912	S&P Global Ratings	1	S&P Global Ratings|Ford_2023_Q1		1	1	0
0	0	0	0	0	1.098612289	0	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2023_Q2		1	1	0
0	0	0.693147181	0	0	1.098612289	1.098612289	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2023_Q3		1	1	0
0	0	0	0.693147181	0	1.609437912	1.098612289	1.098612289	S&P Global Ratings	1	S&P Global Ratings|Ford_2023_Q4	10	1	1	0
0.693147181	0	0	0	0.693147181	0	1.609437912	1.098612289	S&P Global Ratings	1	S&P Global Ratings|Ford_2024_Q1		1	1	0
0	0.693147181	0	0	0	1.098612289	0	1.609437912	S&P Global Ratings	1	S&P Global Ratings|Ford_2024_Q2		1	1	0
0	0	0	0	0	0	1.098612289	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2024_Q3		1	1	0
0	0	0	0	0	1.791759469	0	1.098612289	S&P Global Ratings	1	S&P Global Ratings|Ford_2024_Q4		1	1	0
0.693147181	0	0	0	0	1.945910149	1.791759469	0	S&P Global Ratings	1	S&P Global Ratings|Ford_2025_Q1	10	1	1	0
0.693147181	0.693147181	0	0	0	1.098612289	1.945910149	1.791759469	S&P Global Ratings	1	S&P Global Ratings|Ford_2025_Q2		1	1	0
0	0.693147181	0	0	0	0	1.098612289	1.945910149	S&P Global Ratings	1	S&P Global Ratings|Ford_2025_Q3		1	1	0

Issuer	Year	Quarter	Period_End	assets_ln	debt_to_assets	net_debt_to_ebitda	current_ratio	roa	ebitda_margin	assets_ln_t1	assets_ln_t2	debt_to_assets_t1	debt_to_assets_t2	net_debt_to_ebitda_t1
Volkswagen	2010	1	2010-Q1	12.14	0.4147	-1.1	1.15	0.0062	0.1084					
Volkswagen	2010	2	2010-Q2	12.17	0.4028	-1.2	1.09	0.0114	0.1476	12.14	0.00	0.4147	0	-1.1
Volkswagen	2010	3	2010-Q3	12.18	0.3926	-1.18	1.13	0.0216	0.1389	12.17	12.14	0.4028	0.4147	-1.2
Volkswagen	2010	4	2010-Q4	12.20	0.3862	-0.98	1.12	0.0363	0.1445	12.18	12.17	0.3926	0.4028	-1.18
Volkswagen	2011	1	2011-Q1	12.27	0.3901	-0.93	1.12	0.0399	0.1379	12.20	12.18	0.3862	0.3926	-0.98
Volkswagen	2011	2	2011-Q2	12.29	0.3848	-0.88	1.18	0.0556	0.1393	12.27	12.20	0.3901	0.3862	-0.93
Volkswagen	2011	3	2011-Q3	12.34	0.373	-0.91	1.17	0.0771	0.141	12.29	12.27	0.3848	0.3901	-0.88
Volkswagen	2011	4	2011-Q4	12.44	0.3686	-0.7	1.04	0.068	0.1252	12.34	12.29	0.373	0.3848	-0.91
Volkswagen	2012	1	2012-Q1	12.49	0.3777	-0.61	1.13	0.0709	0.1304	12.44	12.34	0.3686	0.373	-0.7
Volkswagen	2012	2	2012-Q2	12.52	0.3849	-0.56	1.1	0.0727	0.1316	12.49	12.44	0.3777	0.3686	-0.61
Volkswagen	2012	3	2012-Q3	12.64	0.3766	-0.29	1.03	0.0824	0.1174	12.52	12.49	0.3849	0.3777	-0.56
Volkswagen	2012	4	2012-Q4	12.64	0.3802	-0.35	1.07	0.0771	0.1317	12.64	12.52	0.3766	0.3849	-0.29
Volkswagen	2013	1	2013-Q1	12.68	0.3835	-0.36	1.07	0.0703	0.1261	12.64	12.64	0.3802	0.3766	-0.35
Volkswagen	2013	2	2013-Q2	12.67	0.3802	-0.39	1.03	0.0598	0.1336	12.68	12.64	0.3835	0.3802	-0.36
Volkswagen	2013	3	2013-Q3	12.69	0.3746	-0.59	1.07	0.0265	0.1358	12.67	12.68	0.3802	0.3835	-0.39
Volkswagen	2013	4	2013-Q4	12.69	0.3746	-0.58	1.03	0.0286	0.1384	12.69	12.67	0.3746	0.3802	-0.59
Volkswagen	2014	1	2014-Q1	12.72	0.367	-0.59	1	0.0288	0.1402	12.69	12.69	0.3746	0.3746	-0.58
Volkswagen	2014	2	2014-Q2	12.73	0.3758	-0.46	1.05	0.0301	0.1432	12.72	12.69	0.367	0.3746	-0.59
Volkswagen	2014	3	2014-Q3	12.76	0.3768	-0.53	1.02	0.0327	0.1546	12.73	12.72	0.3758	0.367	-0.46
Volkswagen	2014	4	2014-Q4	12.77	0.3815	-0.54	1	0.0325	0.1447	12.76	12.73	0.3768	0.3758	-0.53
Volkswagen	2015	1	2015-Q1	12.84	0.3683	-0.62	1.01	0.0324	0.1463	12.77	12.76	0.3815	0.3768	-0.54
Volkswagen	2015	2	2015-Q2	12.83	0.3726	-0.63	1.03	0.031	0.1437	12.84	12.77	0.3683	0.3815	-0.62
Volkswagen	2015	3	2015-Q3	12.83	0.3721	-0.99	1.02	0.0177	0.0396	12.83	12.84	0.3726	0.3683	-0.63
Volkswagen	2015	4	2015-Q4	12.85	0.3812	-1.52	0.98	-0.0037	-0.0418	12.83	12.83	0.3721	0.3726	-0.99
Volkswagen	2016	1	2016-Q1	12.89	0.3893	-1.48	1.01	-0.005	0.1609	12.85	12.83	0.3812	0.3721	-1.52
Volkswagen	2016	2	2016-Q2	12.90	0.3792	-1.74	1.01	-0.0089	0.1254	12.89	12.85	0.3893	0.3812	-1.48
Volkswagen	2016	3	2016-Q3	12.91	0.3747	-1.29	1	0.0014	0.1616	12.90	12.89	0.3792	0.3893	-1.74
Volkswagen	2016	4	2016-Q4	12.92	0.3824	-1.22	0.88	0.0136	0.0724	12.91	12.90	0.3747	0.3792	-1.29
Volkswagen	2017	1	2017-Q1	12.96	0.3876	-0.67	0.96	0.0155	0.1717	12.92	12.91	0.3824	0.3747	-1.22
Volkswagen	2017	2	2017-Q2	12.94	0.3841	-0.67	0.98	0.0202	0.17	12.96	12.92	0.3876	0.3824	-0.67
Volkswagen	2017	3	2017-Q3	12.94	0.3719	-0.75	1	0.017	0.13	12.94	12.96	0.3841	0.3876	-0.67
Volkswagen	2017	4	2017-Q4	12.95	0.3872	-0.84	1	0.0275	0.1518	12.94	12.94	0.3719	0.3841	-0.75
Volkswagen	2018	1	2018-Q1	12.98	0.3818	-0.65	0.98	0.0265	0.1644	12.95	12.94	0.3872	0.3719	-0.84
Volkswagen	2018	2	2018-Q2	13.00	0.3803	-0.39	1.03	0.027	0.1526	12.98	12.95	0.3818	0.3872	-0.65
Volkswagen	2018	3	2018-Q3	13.00	0.3937	-0.67	1.04	0.0308	0.1508	13.00	12.98	0.3803	0.3818	-0.39
Volkswagen	2018	4	2018-Q4	13.03	0.4166	-0.95	1.09	0.0276	0.1482	13.00	13.00	0.3937	0.3803	-0.67
Volkswagen	2019	1	2019-Q1	13.06	0.409	-0.47	1.11	0.0263	0.1632	13.03	13.00	0.4166	0.3937	-0.95
Volkswagen	2019	2	2019-Q2	13.08	0.4109	0.21	1.15	0.0275	0.1715	13.06	13.03	0.409	0.4166	-0.47
Volkswagen	2019	3	2019-Q3	13.10	0.4113	-0.21	1.18	0.0296	0.1769	13.08	13.06	0.4109	0.409	0.21
Volkswagen	2019	4	2019-Q4	13.10	0.4128	-0.86	1.12	0.0294	0.1088	13.10	13.08	0.4113	0.4109	-0.21
Volkswagen	2020	1	2020-Q1	13.10	0.4204	-0.47	1.06	0.0236	0.1334	13.10	13.10	0.4128	0.4113	-0.86
Volkswagen	2020	2	2020-Q2	13.12	0.4289	-0.63	1.12	0.0118	0.104	13.10	13.10	0.4204	0.4128	-0.47
Volkswagen	2020	3	2020-Q3	13.12	0.4182	-0.88	1.13	0.0093	0.1655	13.12	13.10	0.4289	0.4204	-0.63
Volkswagen	2020	4	2020-Q4	13.12	0.4093	-1.1	1.18	0.018	0.2154	13.12	13.12	0.4182	0.4289	-0.88
Volkswagen	2021	1	2021-Q1	13.14	0.3982	-0.6	1.2	0.0234	0.1818	13.12	13.12	0.4093	0.4182	-1.1
Volkswagen	2021	2	2021-Q2	13.16	0.397	-0.74	1.2	0.0358	0.1987	13.14	13.12	0.3982	0.4093	-0.6
Volkswagen	2021	3	2021-Q3	13.16	0.3953	-0.56	1.18	0.0361	0.1675	13.16	13.14	0.397	0.3982	-0.74
Volkswagen	2021	4	2021-Q4	13.18	0.3976	-0.86	1.22	0.03	0.1826	13.16	13.16	0.3953	0.397	-0.56
Volkswagen	2022	1	2022-Q1	13.21	0.3803	-0.64	1.23	0.0355	0.2452	13.18	13.16	0.3976	0.3953	-0.86
Volkswagen	2022	2	2022-Q2	13.21	0.3682	-0.61	1.21	0.0331	0.159	13.21	13.18	0.3803	0.3976	-0.64
Volkswagen	2022	3	2022-Q3	13.26	0.3383	-0.64	1.32	0.0308	0.1975	13.21	13.21	0.3682	0.3803	-0.61
Volkswagen	2022	4	2022-Q4	13.24	0.3633	-1.11	1.23	0.0283	0.1324	13.26	13.21	0.3383	0.3682	-0.64
Volkswagen	2023	1	2023-Q1	13.25	0.357	-0.86	1.23	0.0236	0.1599	13.24	13.26	0.3633	0.3383	-1.11
Volkswagen	2023	2	2023-Q2	13.27	0.3689	-0.69	1.2	0.0223	0.1538	13.25	13.24	0.357	0.3633	-0.86
Volkswagen	2023	3	2023-Q3	13.30	0.3771	-0.77	1.22	0.0249	0.1623	13.27	13.25	0.3689	0.357	-0.69
Volkswagen	2023	4	2023-Q4	13.31	0.3876	-1.11	1.16	0.0284	0.1421	13.30	13.27	0.3771	0.3689	-0.77
Volkswagen	2024	1	2024-Q1	13.34	0.3964	3.44	1.16	0.0262	0.1569	13.31	13.30	0.3876	0.3771	-1.11
Volkswagen	2024	2	2024-Q2	13.35	0.4007	-0.49	1.14	0.0255	0.233	13.34	13.31	0.3964	0.3876	3.44
Volkswagen	2024	3	2024-Q3	13.36	0.3941	-0.27	1.13	0.0208	0.3258	13.35	13.34	0.4007	0.3964	-0.49
Volkswagen	2024	4	2024-Q4	13.36	0.4014	-0.7	1.13	0.0183	0.1487	13.36	13.35	0.3941	0.4007	-0.27
Volkswagen	2025	1	2025-Q1	13.37	0.3942	0.4	1.1	0.0156	0.1376	13.36	13.36	0.4014	0.3941	-0.7
Volkswagen	2025	2	2025-Q2	13.37	0.3958	-0.43	1.09	0.0141	0.14	13.37	13.36	0.3942	0.4014	0.4
Volkswagen	2025	3	2025-Q3	13.37	0.3982	0.61	1.1	0.0115	0.1393	13.37	13.37	0.3958	0.3942	-0.43

net_debt_to_ebitda_t2	current_ratio_t1	current_ratio_t2	roa_t1	roa_t2	ebitda_margin_t1	ebitda_margin_t2	Key	ESG_salience_q	ESG_salience_t1	ESG_salience_t2	E_salience_q	E_salience_t1	E_salience_t2	S_salience_q
							Volkswagen_2010_Q1	0			0			0
0	1.15	0	0.0062	0	0.1084	0	Volkswagen_2010_Q2	0	0	0	0	0	0	0
-1.1	1.09	1.15	0.0114	0.0062	0.1476	0.1084	Volkswagen_2010_Q3	0.693147181	0	0	0	0	0	0
-1.2	1.13	1.09	0.0216	0.0114	0.1389	0.1476	Volkswagen_2010_Q4	0	0.693147181	0	0	0	0	0
-1.18	1.12	1.13	0.0363	0.0216	0.1445	0.1389	Volkswagen_2011_Q1	0	0	0.693147181	0	0	0	0
-0.98	1.12	1.12	0.0399	0.0363	0.1379	0.1445	Volkswagen_2011_Q2	0	0	0	0	0	0	0
-0.93	1.18	1.12	0.0556	0.0399	0.1393	0.1379	Volkswagen_2011_Q3	0	0	0	0	0	0	0
-0.88	1.17	1.18	0.0771	0.0556	0.141	0.1393	Volkswagen_2011_Q4	0	0	0	0	0	0	0
-0.91	1.04	1.17	0.068	0.0771	0.1252	0.141	Volkswagen_2012_Q1	0	0	0	0	0	0	0
-0.7	1.13	1.04	0.0709	0.068	0.1304	0.1252	Volkswagen_2012_Q2	0.693147181	0	0	0	0	0	0
-0.61	1.1	1.13	0.0727	0.0709	0.1316	0.1304	Volkswagen_2012_Q3	0	0.693147181	0	0	0	0	0
-0.56	1.03	1.1	0.0824	0.0727	0.1174	0.1316	Volkswagen_2012_Q4	0	0	0.693147181	0	0	0	0
-0.29	1.07	1.03	0.0771	0.0824	0.1317	0.1174	Volkswagen_2013_Q1	0	0	0	0	0	0	0
-0.35	1.07	1.07	0.0703	0.0771	0.1261	0.1317	Volkswagen_2013_Q2	0.693147181	0	0	0	0	0	0
-0.36	1.03	1.07	0.0598	0.0703	0.1336	0.1261	Volkswagen_2013_Q3	0	0.693147181	0	0	0	0	0
-0.39	1.07	1.03	0.0265	0.0598	0.1358	0.1336	Volkswagen_2013_Q4	0	0	0.693147181	0	0	0	0
-0.59	1.03	1.07	0.0286	0.0265	0.1384	0.1358	Volkswagen_2014_Q1	0	0	0	0	0	0	0
-0.58	1	1.03	0.0288	0.0286	0.1402	0.1384	Volkswagen_2014_Q2	0.693147181	0	0	0	0	0	0
-0.59	1.05	1	0.0301	0.0288	0.1432	0.1402	Volkswagen_2014_Q3	0	0.693147181	0	0	0	0	0
-0.46	1.02	1.05	0.0327	0.0301	0.1546	0.1432	Volkswagen_2014_Q4	0	0	0.693147181	0	0	0	0
-0.53	1	1.02	0.0325	0.0327	0.1447	0.1546	Volkswagen_2015_Q1	0	0	0	0	0	0	0
-0.54	1.01	1	0.0324	0.0325	0.1463	0.1447	Volkswagen_2015_Q2	0.693147181	0	0	0	0	0	0
-0.62	1.03	1.01	0.031	0.0324	0.1437	0.1463	Volkswagen_2015_Q3	1.609437912	0.693147181	0	1.386294361	0	0	0
-0.63	1.02	1.03	0.0177	0.031	0.0396	0.1437	Volkswagen_2015_Q4	1.945910149	1.609437912	0.693147181	1.386294361	1.386294361	0	0
-0.99	0.98	1.02	-0.0037	0.0177	-0.0418	0.0396	Volkswagen_2016_Q1	0	1.945910149	1.609437912	0	1.386294361	1.386294361	0
-1.52	1.01	0.98	-0.005	-0.0037	0.1609	-0.0418	Volkswagen_2016_Q2	1.609437912	0	1.945910149	1.386294361	0	1.386294361	0
-1.48	1.01	1.01	-0.0089	-0.005	0.1254	0.1609	Volkswagen_2016_Q3	0	1.609437912	0	0	1.386294361	0	0
-1.74	1	1.01	0.0014	-0.0089	0.1616	0.1254	Volkswagen_2016_Q4	0	0	1.609437912	0	0	1.386294361	0
-1.29	0.88	1	0.0136	0.0014	0.0724	0.1616	Volkswagen_2017_Q1	0	0	0	0	0	0	0
-1.22	0.96	0.88	0.0155	0.0136	0.1717	0.0724	Volkswagen_2017_Q2	1.098612289	0	0	0.693147181	0	0	0
-0.67	0.98	0.96	0.0202	0.0155	0.17	0.1717	Volkswagen_2017_Q3	0	1.098612289	0	0	0.693147181	0	0
-0.67	1	0.98	0.017	0.0202	0.13	0.17	Volkswagen_2017_Q4	1.098612289	0	1.098612289	1.098612289	0	0.693147181	0
-0.75	1	1	0.0275	0.017	0.1518	0.13	Volkswagen_2018_Q1	0	1.098612289	0	0	1.098612289	0	0
-0.84	0.98	1	0.0265	0.0275	0.1644	0.1518	Volkswagen_2018_Q2	1.098612289	0	1.098612289	0.693147181	0	1.098612289	0
-0.65	1.03	0.98	0.027	0.0265	0.1526	0.1644	Volkswagen_2018_Q3	0	1.098612289	0	0	0.693147181	0	0
-0.39	1.04	1.03	0.0308	0.027	0.1508	0.1526	Volkswagen_2018_Q4	0.693147181	0	1.098612289	0.693147181	0	0.693147181	0
-0.67	1.09	1.04	0.0276	0.0308	0.1482	0.1508	Volkswagen_2019_Q1	0	0.693147181	0	0	0.693147181	0	0
-0.95	1.11	1.09	0.0263	0.0276	0.1632	0.1482	Volkswagen_2019_Q2	1.098612289	0	0.693147181	0.693147181	0	0.693147181	0
-0.47	1.15	1.11	0.0275	0.0263	0.1715	0.1632	Volkswagen_2019_Q3	0	1.098612289	0	0	0.693147181	0	0
0.21	1.18	1.15	0.0296	0.0275	0.1769	0.1715	Volkswagen_2019_Q4	0.693147181	0	1.098612289	0.693147181	0	0.693147181	0
-0.21	1.12	1.18	0.0294	0.0296	0.1088	0.1769	Volkswagen_2020_Q1	0.693147181	0.693147181	0	0.693147181	0.693147181	0	0
-0.86	1.06	1.12	0.0236	0.0294	0.1334	0.1088	Volkswagen_2020_Q2	1.098612289	0.693147181	0.693147181	0.693147181	0.693147181	0.693147181	0
-0.47	1.12	1.06	0.0118	0.0236	0.104	0.1334	Volkswagen_2020_Q3	0	1.098612289	0.693147181	0	0.693147181	0.693147181	0
-0.63	1.13	1.12	0.0093	0.0118	0.1655	0.104	Volkswagen_2020_Q4	0	0	1.098612289	0	0	0.693147181	0
-0.88	1.18	1.13	0.018	0.0093	0.2154	0.1655	Volkswagen_2021_Q1	0	0	0	0	0	0	0
-1.1	1.2	1.18	0.0234	0.018	0.1818	0.2154	Volkswagen_2021_Q2	1.098612289	0	0	0.693147181	0	0	0
-0.6	1.2	1.2	0.0358	0.0234	0.1987	0.1818	Volkswagen_2021_Q3	1.098612289	1.098612289	0	0.693147181	0.693147181	0	0
-0.74	1.18	1.2	0.0361	0.0358	0.1675	0.1987	Volkswagen_2021_Q4	0	1.098612289	1.098612289	0	0.693147181	0.693147181	0
-0.56	1.22	1.18	0.03	0.0361	0.1826	0.1675	Volkswagen_2022_Q1	0	0	1.098612289	0	0	0.693147181	0
-0.86	1.23	1.22	0.0355	0.03	0.2452	0.1826	Volkswagen_2022_Q2	1.098612289	0	0	0.693147181	0	0	0
-0.64	1.21	1.23	0.0331	0.0355	0.159	0.2452	Volkswagen_2022_Q3	0.693147181	1.098612289	0	0.693147181	0.693147181	0	0
-0.61	1.32	1.21	0.0308	0.0331	0.1975	0.159	Volkswagen_2022_Q4	0	0.693147181	1.098612289	0	0.693147181	0.693147181	0
-0.64	1.23	1.32	0.0283	0.0308	0.1324	0.1975	Volkswagen_2023_Q1	0	0	0.693147181	0	0	0.693147181	0
-1.11	1.23	1.23	0.0236	0.0283	0.1599	0.1324	Volkswagen_2023_Q2	1.098612289	0	0	0.693147181	0	0	0
-0.86	1.2	1.23	0.0223	0.0236	0.1538	0.1599	Volkswagen_2023_Q3	0.693147181	1.098612289	0	0.693147181	0.693147181	0	0
-0.69	1.22	1.2	0.0249	0.0223	0.1623	0.1538	Volkswagen_2023_Q4	0	0.693147181	1.098612289	0	0.693147181	0.693147181	0
-0.77	1.16	1.22	0.0284	0.0249	0.1421	0.1623	Volkswagen_2024_Q1	0	0	0.693147181	0	0	0.693147181	0
-1.11	1.16	1.16	0.0262	0.0284	0.1569	0.1421	Volkswagen_2024_Q2	0	0	0	0	0	0	0
3.44	1.14	1.16	0.0255	0.0262	0.233	0.1569	Volkswagen_2024_Q3	1.386294361	0	0	1.098612289	0	0	0
-0.49	1.13	1.14	0.0208	0.0255	0.3258	0.233	Volkswagen_2024_Q4	0	1.386294361	0	0	1.098612289	0	0
-0.27	1.13	1.13	0.0183	0.0208	0.1487	0.3258	Volkswagen_2025_Q1	1.098612289	0	1.386294361	0.693147181	0	1.098612289	0.693147181
-0.7	1.1	1.13	0.0156	0.0183	0.1376	0.1487	Volkswagen_2025_Q2	1.098612289	1.098612289	0	0.693147181	0.693147181	0	0
0.4	1.09	1.1	0.0141	0.0156	0.14	0.1376	Volkswagen_2025_Q3	1.098612289	1.098612289	1.098612289	0.693147181	0.693147181	0.693147181	0

S_salience_t1	S_salience_t2	G_salience_q	G_salience_t1	G_salience_t2	ESG_salience_mat_q	ESG_salience_mat_t1	ESG_salience_mat_t2	Agency	firm_id	Key_Agency	rating_num_q	post_2015	post_2020	covid_dummy
		0			0			S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2010_Q1		0	0	0
0	0	0	0	0	0	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2010_Q2		0	0	0
0	0	0.693147181	0	0	1.098612289	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2010_Q3	7	0	0	0
0	0	0	0.693147181	0	0	1.098612289	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2010_Q4		0	0	0
0	0	0	0	0.693147181	0	0	1.098612289	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2011_Q1		0	0	0
0	0	0	0	0	0	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2011_Q2		0	0	0
0	0	0	0	0	0	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2011_Q3	7	0	0	0
0	0	0	0	0	0	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2011_Q4		0	0	0
0	0	0	0	0	0	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2012_Q1		0	0	0
0	0	0.693147181	0	0	1.098612289	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2012_Q2	7	0	0	0
0	0	0	0.693147181	0	0	1.098612289	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2012_Q3	7	0	0	0
0	0	0	0	0.693147181	0	0	1.098612289	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2012_Q4		0	0	0
0	0	0	0	0	0	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2013_Q1	7	0	0	0
0	0	0.693147181	0	0	1.098612289	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2013_Q2		0	0	0
0	0	0	0.693147181	0	0	1.098612289	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2013_Q3		0	0	0
0	0	0	0	0.693147181	0	0	1.098612289	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2013_Q4		0	0	0
0	0	0	0	0	0	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2014_Q1		0	0	0
0	0	0.693147181	0	0	1.098612289	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2014_Q2		0	0	0
0	0	0	0.693147181	0	0	1.098612289	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2014_Q3	6	0	0	0
0	0	0	0	0.693147181	0	0	1.098612289	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2014_Q4		0	0	0
0	0	0	0	0	0	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2015_Q1		1	0	0
0	0	0.693147181	0	0	1.098612289	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2015_Q2		1	0	0
0	0	0.693147181	0.693147181	0	2.564949357	1.098612289	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2015_Q3		1	0	0
0	0	1.386294361	0.693147181	0.693147181	2.944438979	2.564949357	1.098612289	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2015_Q4	8	1	0	0
0	0	0	1.386294361	0.693147181	0	2.944438979	2.564949357	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2016_Q1		1	0	0
0	0	0.693147181	0	1.386294361	2.564949357	0	2.944438979	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2016_Q2		1	0	0
0	0	0	0.693147181	0	0	2.564949357	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2016_Q3		1	0	0
0	0	0	0	0.693147181	0	0	2.564949357	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2016_Q4		1	0	0
0	0	0	0	0	0	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2017_Q1		1	0	0
0	0	0.693147181	0	0	1.609437912	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2017_Q2		1	0	0
0	0	0	0.693147181	0	0	1.609437912	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2017_Q3		1	0	0
0	0	0	0	0.693147181	1.609437912	0	1.609437912	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2017_Q4	8	1	0	0
0	0	0	0	0	0	1.609437912	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2018_Q1		1	0	0
0	0	0.693147181	0	0	1.609437912	0	1.609437912	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2018_Q2		1	0	0
0	0	0	0.693147181	0	0	1.609437912	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2018_Q3	8	1	0	0
0	0	0	0	0.693147181	1.098612289	0	1.609437912	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2018_Q4		1	0	0
0	0	0	0	0	0	1.098612289	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2019_Q1		1	0	0
0	0	0.693147181	0	0	1.609437912	0	1.098612289	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2019_Q2		1	0	0
0	0	0	0.693147181	0	0	1.609437912	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2019_Q3		1	0	0
0	0	0	0	0.693147181	1.098612289	0	1.609437912	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2019_Q4		1	0	0
0	0	0	0	0	1.386294361	1.098612289	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2020_Q1	8	1	1	0
0	0	0.693147181	0	0	1.945910149	1.386294361	1.098612289	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2020_Q2		1	1	1
0	0	0	0.693147181	0	0	1.945910149	1.386294361	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2020_Q3		1	1	1
0	0	0	0	0.693147181	0	0	1.945910149	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2020_Q4		1	1	1
0	0	0	0	0	0	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2021_Q1		1	1	1
0	0	0.693147181	0	0	1.791759469	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2021_Q2	8	1	1	1
0	0	0.693147181	0.693147181	0	1.945910149	1.791759469	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2021_Q3		1	1	1
0	0	0	0.693147181	0.693147181	0	1.945910149	1.791759469	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2021_Q4		1	1	1
0	0	0	0	0.693147181	0	0	1.945910149	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2022_Q1		1	1	0
0	0	0.693147181	0	0	1.609437912	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2022_Q2		1	1	0
0	0	0	0.693147181	0	1.386294361	1.609437912	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2022_Q3		1	1	0
0	0	0	0	0.693147181	0	1.386294361	1.609437912	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2022_Q4	8	1	1	0
0	0	0	0	0	0	0	1.386294361	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2023_Q1		1	1	0
0	0	0.693147181	0	0	1.609437912	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2023_Q2		1	1	0
0	0	0	0.693147181	0	1.386294361	1.609437912	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2023_Q3		1	1	0
0	0	0	0	0.693147181	0	1.386294361	1.609437912	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2023_Q4	8	1	1	0
0	0	0	0	0	0	0	1.386294361	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2024_Q1		1	1	0
0	0	0	0	0	0	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2024_Q2		1	1	0
0	0	0.693147181	0	0	2.079441542	0	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2024_Q3		1	1	0
0	0	0	0.693147181	0	0	2.079441542	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2024_Q4		1	1	0
0	0	0	0	0.693147181	1.609437912	0	2.079441542	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2025_Q1	8	1	1	0
0.693147181	0	0.693147181	0	0	1.609437912	1.609437912	0	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2025_Q2		1	1	0
0	0.693147181	0.693147181	0.693147181	0	1.945910149	1.609437912	1.609437912	S&P Global Ratings	5	S&P Global Ratings|Volkswagen_2025_Q3		1	1	0

Issuer	Year	Quarter	Period_End	assets_ln	debt_to_assets	net_debt_to_ebitda	current_ratio	roa	ebitda_margin	assets_ln_t1	assets_ln_t2	debt_to_assets_t1	debt_to_assets_t2	net_debt_to_ebitda_t1
Ford	2010	1	2010-Q1	12.18	0.6678	0.91	0.74	0.0309	0.1197		0.00		0	
Ford	2010	2	2010-Q2	12.12	0.6426	0.2	0.7	0.0339	0.1314	12.18	0.00	0.6678	0	0.91
Ford	2010	3	2010-Q3	12.10	0.6484	0.03	0.76	0.0339	0.1314	12.12	12.18	0.6426	0.6678	0.2
Ford	2010	4	2010-Q4	12.02	0.6284	-0.18	0.66	0.0364	0.1135	12.10	12.12	0.6484	0.6426	0.03
Ford	2011	1	2011-Q1	12.03	0.6052	-0.36	0.65	0.0386	0.1228	12.02	12.10	0.6284	0.6484	-0.18
Ford	2011	2	2011-Q2	12.04	0.5849	-0.65	0.66	0.0388	0.1041	12.03	12.02	0.6052	0.6284	-0.36
Ford	2011	3	2011-Q3	12.01	0.5819	-0.67	0.66	0.0388	0.1041	12.04	12.03	0.5849	0.6052	-0.65
Ford	2011	4	2011-Q4	12.10	0.5562	-0.82	0.7	0.1172	0.0849	12.01	12.04	0.5819	0.5849	-0.67
Ford	2012	1	2012-Q1	12.12	0.5488	-0.82	0.74	0.1085	0.1024	12.10	12.01	0.5562	0.5819	-0.82
Ford	2012	2	2012-Q2	12.11	0.5477	-0.94	0.77	0.1008	0.0928	12.12	12.10	0.5488	0.5562	-0.82
Ford	2012	3	2012-Q3	12.13	0.5413	-0.93	0.78	0.1008	0.0928	12.11	12.12	0.5477	0.5488	-0.94
Ford	2012	4	2012-Q4	12.16	0.5494	-1.04	0.74	0.0303	0.0416	12.13	12.11	0.5413	0.5477	-0.93
Ford	2013	1	2013-Q1	12.18	0.5516	-0.83	0.74	0.0309	0.0914	12.16	12.13	0.5494	0.5413	-1.04
Ford	2013	2	2013-Q2	12.20	0.545	-1.07	0.76	0.0317	0.0816	12.18	12.16	0.5516	0.5494	-0.83
Ford	2013	3	2013-Q3	12.22	0.5456	-1.07	0.76	0.0317	0.0816	12.20	12.18	0.545	0.5516	-1.07
Ford	2013	4	2013-Q4	12.23	0.5625	-0.78	0.72	0.0364	0.0622	12.22	12.20	0.5456	0.545	-1.07
Ford	2014	1	2014-Q1	12.25	0.5598	-0.92	0.71	0.0325	0.0689	12.23	12.22	0.5625	0.5456	-0.78
Ford	2014	2	2014-Q2	12.27	0.5572	-1.04	0.68	0.0323	0.0974	12.25	12.23	0.5598	0.5625	-0.92
Ford	2014	3	2014-Q3	12.26	0.566	-0.91	0.67	0.0323	0.0974	12.27	12.25	0.5572	0.5598	-1.04
Ford	2014	4	2014-Q4	12.26	0.566	-0.91	0.64	0.0059	-0.0212	12.26	12.27	0.566	0.5572	-0.91
Ford	2015	1	2015-Q1	12.28	0.5721	-0.96	0.69	0.0066	0.0932	12.26	12.26	0.566	0.566	-0.91
Ford	2015	2	2015-Q2	12.30	0.5649	-1.28	0.67	0.0104	0.076	12.28	12.26	0.5721	0.566	-0.96
Ford	2015	3	2015-Q3	12.31	0.5682	-1.31	0.67	0.0104	0.076	12.30	12.28	0.5649	0.5721	-1.28
Ford	2015	4	2015-Q4	12.32	0.5907	-0.72	1.25	0.0339	0.1296	12.31	12.30	0.5682	0.5649	-1.31
Ford	2016	1	2016-Q1	12.39	0.5858	-0.88	0.68	0.0381	0.0941	12.32	12.31	0.5907	0.5682	-0.72
Ford	2016	2	2016-Q2	12.39	0.5838	-0.91	1.24	0.037	0.0765	12.39	12.32	0.5858	0.5907	-0.88
Ford	2016	3	2016-Q3	12.37	0.584	-0.83	1.16	0.037	0.0765	12.39	12.39	0.5838	0.5858	-0.91
Ford	2016	4	2016-Q4	12.38	0.6008	-0.8	1.2	0.0198	0.1633	12.37	12.39	0.584	0.5838	-0.83
Ford	2017	1	2017-Q1	12.41	0.598	-0.87	1.24	0.0154	0.0681	12.38	12.37	0.6008	0.584	-0.8
Ford	2017	2	2017-Q2	12.42	0.59	-0.92	1.2	0.0156	0.0691	12.41	12.38	0.598	0.6008	-0.87
Ford	2017	3	2017-Q3	12.43	0.5934	-0.71	1.19	0.0156	0.0691	12.42	12.41	0.59	0.598	-0.92
Ford	2017	4	2017-Q4	12.46	0.5969	-0.79	1.23	0.0311	0.136	12.43	12.42	0.5934	0.59	-0.71
Ford	2018	1	2018-Q1	12.50	0.5925	-0.9	1.23	0.0308	0.0577	12.46	12.43	0.5969	0.5934	-0.79
Ford	2018	2	2018-Q2	12.46	0.5922	-0.77	1.21	0.0273	0.051	12.50	12.46	0.5925	0.5969	-0.9
Ford	2018	3	2018-Q3	12.46	0.5925	-0.62	1.21	0.0273	0.051	12.46	12.50	0.5922	0.5925	-0.77
Ford	2018	4	2018-Q4	12.46	0.6011	-0.82	1.2	0.0143	0.0656	12.46	12.46	0.5925	0.5922	-0.62
Ford	2019	1	2019-Q1	12.48	0.6016	-0.8	1.22	0.0116	0.0926	12.46	12.46	0.6011	0.5925	-0.82
Ford	2019	2	2019-Q2	12.48	0.5999	-0.66	1.2	0.0083	0.0709	12.48	12.46	0.6016	0.6011	-0.8
Ford	2019	3	2019-Q3	12.46	0.6019	-0.71	1.17	0.0083	0.0709	12.48	12.48	0.5999	0.6016	-0.66
Ford	2019	4	2019-Q4	12.46	0.6062	-0.81	1.16	0.0002	0.0216	12.46	12.48	0.6019	0.5999	-0.71
Ford	2020	1	2020-Q1	12.48	0.6386	-0.65	1.32	-0.0117	0.0258	12.46	12.46	0.6062	0.6019	-0.81
Ford	2020	2	2020-Q2	12.50	0.6552	0.07	1.34	-0.008	-0.0207	12.48	12.46	0.6386	0.6062	-0.65
Ford	2020	3	2020-Q3	12.47	0.61	-0.53	1.2	-0.008	-0.0207	12.50	12.48	0.6552	0.6386	0.07
Ford	2020	4	2020-Q4	12.50	0.6099	-2.37	1.2	-0.0049	-0.046	12.47	12.50	0.61	0.6552	-0.53
Ford	2021	1	2021-Q1	12.47	0.5903	-0.8	1.21	0.0151	0.1261	12.50	12.47	0.6099	0.61	-2.37
Ford	2021	2	2021-Q2	12.42	0.5964	0.1	1.21	0.0132	0.0566	12.47	12.50	0.5903	0.6099	-0.8
Ford	2021	3	2021-Q3	12.44	0.5773	-0.76	1.2	0.0132	0.0566	12.42	12.47	0.5964	0.5903	0.1
Ford	2021	4	2021-Q4	12.46	0.5427	-2.47	1.2	0.0684	0.0684	12.44	12.42	0.5773	0.5964	-0.76
Ford	2022	1	2022-Q1	12.44	0.5415	-0.81	1.17	0.045	0.0928	12.46	12.44	0.5427	0.5773	-2.47
Ford	2022	2	2022-Q2	12.41	0.5299	-0.64	1.16	0.0472	0.1191	12.44	12.46	0.5415	0.5427	-0.81
Ford	2022	3	2022-Q3	12.42	0.5255	-0.9	1.2	0.0472	0.1191	12.41	12.44	0.5299	0.5415	-0.64
Ford	2022	4	2022-Q4	12.45	0.549	-0.88	1.2	-0.0077	0.0803	12.42	12.41	0.5255	0.5299	-0.9
Ford	2023	1	2023-Q1	12.46	0.5487	-0.61	1.2	0.0113	0.0967	12.45	12.42	0.549	0.5255	-0.88
Ford	2023	2	2023-Q2	12.49	0.5446	-0.71	1.2	0.0162	0.0965	12.46	12.45	0.5487	0.549	-0.61
Ford	2023	3	2023-Q3	12.50	0.5392	-0.62	1.21	0.0162	0.0965	12.49	12.46	0.5446	0.5487	-0.71
Ford	2023	4	2023-Q4	12.52	0.5529	-0.63	1.2	0.0164	0.0543	12.50	12.49	0.5392	0.5446	-0.62
Ford	2024	1	2024-Q1	12.52	0.552	-0.37	1.17	0.0148	0.0726	12.52	12.50	0.5529	0.5392	-0.63
Ford	2024	2	2024-Q2	12.53	0.5528	-0.49	1.17	0.0141	0.0794	12.52	12.52	0.552	0.5529	-0.37
Ford	2024	3	2024-Q3	12.57	0.5551	-0.59	1.15	0.0141	0.0794	12.53	12.52	0.5528	0.552	-0.49
Ford	2024	4	2024-Q4	12.56	0.564	-0.6	1.16	0.0211	0.0656	12.57	12.53	0.5551	0.5528	-0.59
Ford	2025	1	2025-Q1	12.56	0.5545	-0.51	1.13	0.018	0.0533	12.56	12.57	0.564	0.5551	-0.6
Ford	2025	2	2025-Q2	12.59	0.5474	-1.1	1.1	0.0111	0.048	12.56	12.56	0.5545	0.564	-0.51
Ford	2025	3	2025-Q3	12.61	0.5461	-0.97	1.12	0.0111	0.048	12.59	12.56	0.5474	0.5545	-1.1

net_debt_to_ebitda_t2	current_ratio_t1	current_ratio_t2	roa_t1	roa_t2	ebitda_margin_t1	ebitda_margin_t2	Key	ESG_salience_q	ESG_salience_t1	ESG_salience_t2	E_salience_q	E_salience_t1	E_salience_t2	S_salience_q
0		0		0		0	Ford_2010_Q1	0.693147181	0	0	0.693147181	0	0	0
0	0.74	0	0.0309	0	0.1197	0	Ford_2010_Q2	0.693147181	0.693147181	0	0.693147181	0.693147181	0	0
0.91	0.7	0.74	0.0339	0.0309	0.1314	0.1197	Ford_2010_Q3	0	0.693147181	0.693147181	0	0.693147181	0.693147181	0
0.2	0.76	0.7	0.0339	0.0339	0.1314	0.1314	Ford_2010_Q4	0	0	0.693147181	0	0	0.693147181	0
0.03	0.66	0.76	0.0364	0.0339	0.1135	0.1314	Ford_2011_Q1	0.693147181	0	0	0	0	0	0.693147181
-0.18	0.65	0.66	0.0386	0.0364	0.1228	0.1135	Ford_2011_Q2	0	0.693147181	0	0	0	0	0
-0.36	0.66	0.65	0.0388	0.0386	0.1041	0.1228	Ford_2011_Q3	0	0	0.693147181	0	0	0	0
-0.65	0.66	0.66	0.0388	0.0388	0.1041	0.1041	Ford_2011_Q4	1.609437912	0	0	0.693147181	0	0	1.386294361
-0.67	0.7	0.66	0.1172	0.0388	0.0849	0.1041	Ford_2012_Q1	0	1.609437912	0	0	0.693147181	0	0
-0.82	0.74	0.7	0.1085	0.1172	0.1024	0.0849	Ford_2012_Q2	1.386294361	0	1.609437912	1.098612289	0	0.693147181	0.693147181
-0.82	0.77	0.74	0.1008	0.1085	0.0928	0.1024	Ford_2012_Q3	0	1.386294361	0	0	1.098612289	0	0
-0.94	0.78	0.77	0.1008	0.1008	0.0928	0.0928	Ford_2012_Q4	0.693147181	0	1.386294361	0	0	1.098612289	0.693147181
-0.93	0.74	0.78	0.0303	0.1008	0.0416	0.0928	Ford_2013_Q1	1.098612289	0.693147181	0	0.693147181	0	0	0
-1.04	0.74	0.74	0.0309	0.0303	0.0914	0.0416	Ford_2013_Q2	1.098612289	1.098612289	0.693147181	0.693147181	0.693147181	0	0.693147181
-0.83	0.76	0.74	0.0317	0.0309	0.0816	0.0914	Ford_2013_Q3	0.693147181	1.098612289	1.098612289	0	0.693147181	0.693147181	0.693147181
-1.07	0.76	0.76	0.0317	0.0317	0.0816	0.0816	Ford_2013_Q4	0	0.693147181	1.098612289	0	0	0.693147181	0
-1.07	0.72	0.76	0.0364	0.0317	0.0622	0.0816	Ford_2014_Q1	0	0	0.693147181	0	0	0	0
-0.78	0.71	0.72	0.0325	0.0364	0.0689	0.0622	Ford_2014_Q2	0.693147181	0	0	0	0	0	0.693147181
-0.92	0.68	0.71	0.0323	0.0325	0.0974	0.0689	Ford_2014_Q3	0	0.693147181	0	0	0	0	0
-1.04	0.67	0.68	0.0323	0.0323	0.0974	0.0974	Ford_2014_Q4	0.693147181	0	0.693147181	0	0	0	0.693147181
-0.91	0.64	0.67	0.0059	0.0323	-0.0212	0.0974	Ford_2015_Q1	0	0.693147181	0	0	0	0	0
-0.91	0.69	0.64	0.0066	0.0059	0.0932	-0.0212	Ford_2015_Q2	0	0	0.693147181	0	0	0	0
-0.96	0.67	0.69	0.0104	0.0066	0.076	0.0932	Ford_2015_Q3	0.693147181	0	0	0	0	0	0.693147181
-1.28	0.67	0.67	0.0104	0.0104	0.076	0.076	Ford_2015_Q4	0	0.693147181	0	0	0	0	0
-1.31	1.25	0.67	0.0339	0.0104	0.1296	0.076	Ford_2016_Q1	0	0	0.693147181	0	0	0	0
-0.72	0.68	1.25	0.0381	0.0339	0.0941	0.1296	Ford_2016_Q2	0	0	0	0	0	0	0
-0.88	1.24	0.68	0.037	0.0381	0.0765	0.0941	Ford_2016_Q3	0	0	0	0	0	0	0
-0.91	1.16	1.24	0.037	0.037	0.0765	0.0765	Ford_2016_Q4	0	0	0	0	0	0	0
-0.83	1.2	1.16	0.0198	0.037	0.1633	0.0765	Ford_2017_Q1	0.693147181	0	0	0.693147181	0	0	0
-0.8	1.24	1.2	0.0154	0.0198	0.0681	0.1633	Ford_2017_Q2	0.693147181	0.693147181	0	0.693147181	0.693147181	0	0
-0.87	1.2	1.24	0.0156	0.0154	0.0691	0.0681	Ford_2017_Q3	0	0.693147181	0.693147181	0	0.693147181	0.693147181	0
-0.92	1.19	1.2	0.0156	0.0156	0.0691	0.0691	Ford_2017_Q4	0	0	0.693147181	0	0	0.693147181	0
-0.71	1.23	1.19	0.0311	0.0156	0.136	0.0691	Ford_2018_Q1	0	0	0	0	0	0	0
-0.79	1.23	1.23	0.0308	0.0311	0.0577	0.136	Ford_2018_Q2	0.693147181	0	0	0.693147181	0	0	0
-0.9	1.21	1.23	0.0273	0.0308	0.051	0.0577	Ford_2018_Q3	0.693147181	0.693147181	0	0.693147181	0.693147181	0	0
-0.77	1.21	1.21	0.0273	0.0273	0.051	0.051	Ford_2018_Q4	0	0.693147181	0.693147181	0	0.693147181	0.693147181	0
-0.62	1.2	1.21	0.0143	0.0273	0.0656	0.051	Ford_2019_Q1	0.693147181	0	0.693147181	0	0	0.693147181	0.693147181
-0.82	1.22	1.2	0.0116	0.0143	0.0926	0.0656	Ford_2019_Q2	0	0.693147181	0	0	0	0	0
-0.8	1.2	1.22	0.0083	0.0116	0.0709	0.0926	Ford_2019_Q3	0	0	0.693147181	0	0	0	0
-0.66	1.17	1.2	0.0083	0.0083	0.0709	0.0709	Ford_2019_Q4	0.693147181	0	0	0	0	0	0
-0.71	1.16	1.17	0.0002	0.0083	0.0216	0.0709	Ford_2020_Q1	0.693147181	0.693147181	0	0	0	0	0
-0.81	1.32	1.16	-0.0117	0.0002	0.0258	0.0216	Ford_2020_Q2	0.693147181	0.693147181	0.693147181	0	0	0	0
-0.65	1.34	1.32	-0.008	-0.0117	-0.0207	0.0258	Ford_2020_Q3	0.693147181	0.693147181	0.693147181	0	0	0	0.693147181
0.07	1.2	1.34	-0.008	-0.008	-0.0207	-0.0207	Ford_2020_Q4	0	0.693147181	0.693147181	0	0	0	0
-0.53	1.2	1.2	-0.0049	-0.008	-0.046	-0.0207	Ford_2021_Q1	0.693147181	0	0.693147181	0	0	0	0
-2.37	1.21	1.2	0.0151	-0.0049	0.1261	-0.046	Ford_2021_Q2	0.693147181	0.693147181	0	0	0	0	0
-0.8	1.21	1.21	0.0132	0.0151	0.0566	0.1261	Ford_2021_Q3	0	0.693147181	0.693147181	0	0	0	0
0.1	1.2	1.21	0.0132	0.0132	0.0566	0.0566	Ford_2021_Q4	1.609437912	0	0.693147181	1.386294361	0	0	0
-0.76	1.2	1.2	0.0684	0.0132	0.0684	0.0566	Ford_2022_Q1	0	1.609437912	0	0	1.386294361	0	0
-2.47	1.17	1.2	0.045	0.0684	0.0928	0.0684	Ford_2022_Q2	1.098612289	0	1.609437912	0.693147181	0	1.386294361	0
-0.81	1.16	1.17	0.0472	0.045	0.1191	0.0928	Ford_2022_Q3	1.098612289	1.098612289	0	1.098612289	0.693147181	0	0
-0.64	1.2	1.16	0.0472	0.0472	0.1191	0.1191	Ford_2022_Q4	0	1.098612289	1.098612289	0	1.098612289	0.693147181	0
-0.9	1.2	1.2	-0.0077	0.0472	0.0803	0.1191	Ford_2023_Q1	0	0	1.098612289	0	0	1.098612289	0
-0.88	1.2	1.2	0.0113	-0.0077	0.0967	0.0803	Ford_2023_Q2	0.693147181	0	0	0.693147181	0	0	0
-0.61	1.2	1.2	0.0162	0.0113	0.0965	0.0967	Ford_2023_Q3	0.693147181	0.693147181	0	0	0.693147181	0	0
-0.71	1.21	1.2	0.0162	0.0162	0.0965	0.0965	Ford_2023_Q4	1.098612289	0.693147181	0.693147181	0.693147181	0	0.693147181	0.693147181
-0.62	1.2	1.21	0.0164	0.0162	0.0543	0.0965	Ford_2024_Q1	0	1.098612289	0.693147181	0	0.693147181	0	0
-0.63	1.17	1.2	0.0148	0.0164	0.0726	0.0543	Ford_2024_Q2	0.693147181	0	1.098612289	0.693147181	0	0.693147181	0
-0.37	1.17	1.17	0.0141	0.0148	0.0794	0.0726	Ford_2024_Q3	0	0.693147181	0	0	0.693147181	0	0
-0.49	1.15	1.17	0.0141	0.0141	0.0794	0.0794	Ford_2024_Q4	1.098612289	0	0.693147181	0.693147181	0	0.693147181	0.693147181
-0.59	1.16	1.15	0.0211	0.0141	0.0656	0.0794	Ford_2025_Q1	1.098612289	1.098612289	0	0.693147181	0.693147181	0	0.693147181
-0.6	1.13	1.16	0.018	0.0211	0.0533	0.0656	Ford_2025_Q2	0.693147181	1.098612289	1.098612289	0.693147181	0.693147181	0.693147181	0
-0.51	1.1	1.13	0.0111	0.018	0.048	0.0533	Ford_2025_Q3	0	0.693147181	1.098612289	0	0.693147181	0.693147181	0

S_salience_t1	S_salience_t2	G_salience_q	G_salience_t1	G_salience_t2	ESG_salience_mat_q	ESG_salience_mat_t1	ESG_salience_mat_t2	Agency	firm_id	Key_Agency	rating_num_q	post_2015	post_2020	covid_dummy
0	0	0	0	0	1.098612289	0	0	Fitch Ratings	3	Fitch Ratings|Ford_2010_Q1	16	0	0	0
0	0	0	0	0	1.098612289	1.098612289	0	Fitch Ratings	3	Fitch Ratings|Ford_2010_Q2	15	0	0	0
0	0	0	0	0	0	1.098612289	1.098612289	Fitch Ratings	3	Fitch Ratings|Ford_2010_Q3	13	0	0	0
0	0	0	0	0	0	0	1.098612289	Fitch Ratings	3	Fitch Ratings|Ford_2010_Q4		0	0	0
0	0	0	0	0	1.098612289	0	0	Fitch Ratings	3	Fitch Ratings|Ford_2011_Q1	12	0	0	0
0.693147181	0	0	0	0	0	1.098612289	0	Fitch Ratings	3	Fitch Ratings|Ford_2011_Q2		0	0	0
0	0.693147181	0	0	0	0	0	1.098612289	Fitch Ratings	3	Fitch Ratings|Ford_2011_Q3		0	0	0
0	0	0	0	0	2.397895273	0	0	Fitch Ratings	3	Fitch Ratings|Ford_2011_Q4	11	0	0	0
1.386294361	0	0	0	0	0	2.397895273	0	Fitch Ratings	3	Fitch Ratings|Ford_2012_Q1		0	0	0
0	1.386294361	0	0	0	1.945910149	0	2.397895273	Fitch Ratings	3	Fitch Ratings|Ford_2012_Q2	10	0	0	0
0.693147181	0	0	0	0	0	1.945910149	0	Fitch Ratings	3	Fitch Ratings|Ford_2012_Q3		0	0	0
0	0.693147181	0	0	0	1.386294361	0	1.945910149	Fitch Ratings	3	Fitch Ratings|Ford_2012_Q4		0	0	0
0.693147181	0	0.693147181	0	0	1.609437912	1.386294361	0	Fitch Ratings	3	Fitch Ratings|Ford_2013_Q1		0	0	0
0	0.693147181	0	0.693147181	0	1.609437912	1.609437912	1.386294361	Fitch Ratings	3	Fitch Ratings|Ford_2013_Q2	10	0	0	0
0.693147181	0	0	0	0.693147181	1.098612289	1.609437912	1.609437912	Fitch Ratings	3	Fitch Ratings|Ford_2013_Q3		0	0	0
0.693147181	0.693147181	0	0	0	0	1.098612289	1.609437912	Fitch Ratings	3	Fitch Ratings|Ford_2013_Q4		0	0	0
0	0.693147181	0	0	0	0	0	1.098612289	Fitch Ratings	3	Fitch Ratings|Ford_2014_Q1		0	0	0
0	0	0	0	0	1.098612289	0	0	Fitch Ratings	3	Fitch Ratings|Ford_2014_Q2	10	0	0	0
0.693147181	0	0	0	0	0	1.098612289	0	Fitch Ratings	3	Fitch Ratings|Ford_2014_Q3		0	0	0
0	0.693147181	0	0	0	1.098612289	0	1.098612289	Fitch Ratings	3	Fitch Ratings|Ford_2014_Q4	10	0	0	0
0.693147181	0	0	0	0	0	1.098612289	0	Fitch Ratings	3	Fitch Ratings|Ford_2015_Q1		1	0	0
0	0.693147181	0	0	0	0	0	1.098612289	Fitch Ratings	3	Fitch Ratings|Ford_2015_Q2		1	0	0
0	0	0	0	0	1.098612289	0	0	Fitch Ratings	3	Fitch Ratings|Ford_2015_Q3	10	1	0	0
0.693147181	0	0	0	0	0	1.098612289	0	Fitch Ratings	3	Fitch Ratings|Ford_2015_Q4	10	1	0	0
0	0.693147181	0	0	0	0	0	1.098612289	Fitch Ratings	3	Fitch Ratings|Ford_2016_Q1		1	0	0
0	0	0	0	0	0	0	0	Fitch Ratings	3	Fitch Ratings|Ford_2016_Q2	9	1	0	0
0	0	0	0	0	0	0	0	Fitch Ratings	3	Fitch Ratings|Ford_2016_Q3	9	1	0	0
0	0	0	0	0	0	0	0	Fitch Ratings	3	Fitch Ratings|Ford_2016_Q4		1	0	0
0	0	0	0	0	1.098612289	0	0	Fitch Ratings	3	Fitch Ratings|Ford_2017_Q1		1	0	0
0	0	0	0	0	1.098612289	1.098612289	0	Fitch Ratings	3	Fitch Ratings|Ford_2017_Q2	9	1	0	0
0	0	0	0	0	0	1.098612289	1.098612289	Fitch Ratings	3	Fitch Ratings|Ford_2017_Q3		1	0	0
0	0	0	0	0	0	0	1.098612289	Fitch Ratings	3	Fitch Ratings|Ford_2017_Q4	9	1	0	0
0	0	0	0	0	0	0	0	Fitch Ratings	3	Fitch Ratings|Ford_2018_Q1		1	0	0
0	0	0	0	0	1.098612289	0	0	Fitch Ratings	3	Fitch Ratings|Ford_2018_Q2	9	1	0	0
0	0	0	0	0	1.098612289	1.098612289	0	Fitch Ratings	3	Fitch Ratings|Ford_2018_Q3		1	0	0
0	0	0	0	0	0	1.098612289	1.098612289	Fitch Ratings	3	Fitch Ratings|Ford_2018_Q4		1	0	0
0	0	0	0	0	1.386294361	0	1.098612289	Fitch Ratings	3	Fitch Ratings|Ford_2019_Q1		1	0	0
0.693147181	0	0	0	0	0	1.386294361	0	Fitch Ratings	3	Fitch Ratings|Ford_2019_Q2	9	1	0	0
0	0.693147181	0	0	0	0	0	1.386294361	Fitch Ratings	3	Fitch Ratings|Ford_2019_Q3		1	0	0
0	0	0.693147181	0	0	1.386294361	0	0	Fitch Ratings	3	Fitch Ratings|Ford_2019_Q4		1	0	0
0	0	0.693147181	0.693147181	0	1.386294361	1.386294361	0	Fitch Ratings	3	Fitch Ratings|Ford_2020_Q1	10	1	1	0
0	0	0.693147181	0.693147181	0.693147181	1.386294361	1.386294361	1.386294361	Fitch Ratings	3	Fitch Ratings|Ford_2020_Q2	11	1	1	1
0	0	0	0.693147181	0.693147181	1.098612289	1.386294361	1.386294361	Fitch Ratings	3	Fitch Ratings|Ford_2020_Q3		1	1	1
0.693147181	0	0	0	0.693147181	0	1.098612289	1.386294361	Fitch Ratings	3	Fitch Ratings|Ford_2020_Q4	11	1	1	1
0	0.693147181	0.693147181	0	0	1.386294361	0	1.098612289	Fitch Ratings	3	Fitch Ratings|Ford_2021_Q1		1	1	1
0	0	0.693147181	0.693147181	0	1.386294361	1.386294361	0	Fitch Ratings	3	Fitch Ratings|Ford_2021_Q2	11	1	1	1
0	0	0	0.693147181	0.693147181	0	1.386294361	1.386294361	Fitch Ratings	3	Fitch Ratings|Ford_2021_Q3		1	1	1
0	0	0.693147181	0	0.693147181	2.302585093	0	1.386294361	Fitch Ratings	3	Fitch Ratings|Ford_2021_Q4		1	1	1
0	0	0	0.693147181	0	0	2.302585093	0	Fitch Ratings	3	Fitch Ratings|Ford_2022_Q1		1	1	0
0	0	0.693147181	0	0.693147181	1.609437912	0	2.302585093	Fitch Ratings	3	Fitch Ratings|Ford_2022_Q2	11	1	1	0
0	0	0	0.693147181	0	1.609437912	1.609437912	0	Fitch Ratings	3	Fitch Ratings|Ford_2022_Q3	11	1	1	0
0	0	0	0	0.693147181	0	1.609437912	1.609437912	Fitch Ratings	3	Fitch Ratings|Ford_2022_Q4		1	1	0
0	0	0	0	0	0	0	1.609437912	Fitch Ratings	3	Fitch Ratings|Ford_2023_Q1		1	1	0
0	0	0	0	0	1.098612289	0	0	Fitch Ratings	3	Fitch Ratings|Ford_2023_Q2		1	1	0
0	0	0.693147181	0	0	1.098612289	1.098612289	0	Fitch Ratings	3	Fitch Ratings|Ford_2023_Q3	10	1	1	0
0	0	0	0.693147181	0	1.609437912	1.098612289	1.098612289	Fitch Ratings	3	Fitch Ratings|Ford_2023_Q4		1	1	0
0.693147181	0	0	0	0.693147181	0	1.609437912	1.098612289	Fitch Ratings	3	Fitch Ratings|Ford_2024_Q1	10	1	1	0
0	0.693147181	0	0	0	1.098612289	0	1.609437912	Fitch Ratings	3	Fitch Ratings|Ford_2024_Q2		1	1	0
0	0	0	0	0	0	1.098612289	0	Fitch Ratings	3	Fitch Ratings|Ford_2024_Q3		1	1	0
0	0	0	0	0	1.791759469	0	1.098612289	Fitch Ratings	3	Fitch Ratings|Ford_2024_Q4	10	1	1	0
0.693147181	0	0	0	0	1.945910149	1.791759469	0	Fitch Ratings	3	Fitch Ratings|Ford_2025_Q1		1	1	0
0.693147181	0.693147181	0	0	0	1.098612289	1.945910149	1.791759469	Fitch Ratings	3	Fitch Ratings|Ford_2025_Q2	10	1	1	0
0	0.693147181	0	0	0	0	1.098612289	1.945910149	Fitch Ratings	3	Fitch Ratings|Ford_2025_Q3		1	1	0

Issuer	Year	Quarter	Period_End	assets_ln	debt_to_assets	net_debt_to_ebitda	current_ratio	roa	ebitda_margin	assets_ln_t1	assets_ln_t2	debt_to_assets_t1	debt_to_assets_t2	net_debt_to_ebitda_t1
Volkswagen	2010	1	2010-Q1	12.14	0.4147	-1.1	1.15	0.0062	0.1084					
Volkswagen	2010	2	2010-Q2	12.17	0.4028	-1.2	1.09	0.0114	0.1476	12.14	0.00	0.4147	0	-1.1
Volkswagen	2010	3	2010-Q3	12.18	0.3926	-1.18	1.13	0.0216	0.1389	12.17	12.14	0.4028	0.4147	-1.2
Volkswagen	2010	4	2010-Q4	12.20	0.3862	-0.98	1.12	0.0363	0.1445	12.18	12.17	0.3926	0.4028	-1.18
Volkswagen	2011	1	2011-Q1	12.27	0.3901	-0.93	1.12	0.0399	0.1379	12.20	12.18	0.3862	0.3926	-0.98
Volkswagen	2011	2	2011-Q2	12.29	0.3848	-0.88	1.18	0.0556	0.1393	12.27	12.20	0.3901	0.3862	-0.93
Volkswagen	2011	3	2011-Q3	12.34	0.373	-0.91	1.17	0.0771	0.141	12.29	12.27	0.3848	0.3901	-0.88
Volkswagen	2011	4	2011-Q4	12.44	0.3686	-0.7	1.04	0.068	0.1252	12.34	12.29	0.373	0.3848	-0.91
Volkswagen	2012	1	2012-Q1	12.49	0.3777	-0.61	1.13	0.0709	0.1304	12.44	12.34	0.3686	0.373	-0.7
Volkswagen	2012	2	2012-Q2	12.52	0.3849	-0.56	1.1	0.0727	0.1316	12.49	12.44	0.3777	0.3686	-0.61
Volkswagen	2012	3	2012-Q3	12.64	0.3766	-0.29	1.03	0.0824	0.1174	12.52	12.49	0.3849	0.3777	-0.56
Volkswagen	2012	4	2012-Q4	12.64	0.3802	-0.35	1.07	0.0771	0.1317	12.64	12.52	0.3766	0.3849	-0.29
Volkswagen	2013	1	2013-Q1	12.68	0.3835	-0.36	1.07	0.0703	0.1261	12.64	12.64	0.3802	0.3766	-0.35
Volkswagen	2013	2	2013-Q2	12.67	0.3802	-0.39	1.03	0.0598	0.1336	12.68	12.64	0.3835	0.3802	-0.36
Volkswagen	2013	3	2013-Q3	12.69	0.3746	-0.59	1.07	0.0265	0.1358	12.67	12.68	0.3802	0.3835	-0.39
Volkswagen	2013	4	2013-Q4	12.69	0.3746	-0.58	1.03	0.0286	0.1384	12.69	12.67	0.3746	0.3802	-0.59
Volkswagen	2014	1	2014-Q1	12.72	0.367	-0.59	1	0.0288	0.1402	12.69	12.69	0.3746	0.3746	-0.58
Volkswagen	2014	2	2014-Q2	12.73	0.3758	-0.46	1.05	0.0301	0.1432	12.72	12.69	0.367	0.3746	-0.59
Volkswagen	2014	3	2014-Q3	12.76	0.3768	-0.53	1.02	0.0327	0.1546	12.73	12.72	0.3758	0.367	-0.46
Volkswagen	2014	4	2014-Q4	12.77	0.3815	-0.54	1	0.0325	0.1447	12.76	12.73	0.3768	0.3758	-0.53
Volkswagen	2015	1	2015-Q1	12.84	0.3683	-0.62	1.01	0.0324	0.1463	12.77	12.76	0.3815	0.3768	-0.54
Volkswagen	2015	2	2015-Q2	12.83	0.3726	-0.63	1.03	0.031	0.1437	12.84	12.77	0.3683	0.3815	-0.62
Volkswagen	2015	3	2015-Q3	12.83	0.3721	-0.99	1.02	0.0177	0.0396	12.83	12.84	0.3726	0.3683	-0.63
Volkswagen	2015	4	2015-Q4	12.85	0.3812	-1.52	0.98	-0.0037	-0.0418	12.83	12.83	0.3721	0.3726	-0.99
Volkswagen	2016	1	2016-Q1	12.89	0.3893	-1.48	1.01	-0.005	0.1609	12.85	12.83	0.3812	0.3721	-1.52
Volkswagen	2016	2	2016-Q2	12.90	0.3792	-1.74	1.01	-0.0089	0.1254	12.89	12.85	0.3893	0.3812	-1.48
Volkswagen	2016	3	2016-Q3	12.91	0.3747	-1.29	1	0.0014	0.1616	12.90	12.89	0.3792	0.3893	-1.74
Volkswagen	2016	4	2016-Q4	12.92	0.3824	-1.22	0.88	0.0136	0.0724	12.91	12.90	0.3747	0.3792	-1.29
Volkswagen	2017	1	2017-Q1	12.96	0.3876	-0.67	0.96	0.0155	0.1717	12.92	12.91	0.3824	0.3747	-1.22
Volkswagen	2017	2	2017-Q2	12.94	0.3841	-0.67	0.98	0.0202	0.17	12.96	12.92	0.3876	0.3824	-0.67
Volkswagen	2017	3	2017-Q3	12.94	0.3719	-0.75	1	0.017	0.13	12.94	12.96	0.3841	0.3876	-0.67
Volkswagen	2017	4	2017-Q4	12.95	0.3872	-0.84	1	0.0275	0.1518	12.94	12.94	0.3719	0.3841	-0.75
Volkswagen	2018	1	2018-Q1	12.98	0.3818	-0.65	0.98	0.0265	0.1644	12.95	12.94	0.3872	0.3719	-0.84
Volkswagen	2018	2	2018-Q2	13.00	0.3803	-0.39	1.03	0.027	0.1526	12.98	12.95	0.3818	0.3872	-0.65
Volkswagen	2018	3	2018-Q3	13.00	0.3937	-0.67	1.04	0.0308	0.1508	13.00	12.98	0.3803	0.3818	-0.39
Volkswagen	2018	4	2018-Q4	13.03	0.4166	-0.95	1.09	0.0276	0.1482	13.00	13.00	0.3937	0.3803	-0.67
Volkswagen	2019	1	2019-Q1	13.06	0.409	-0.47	1.11	0.0263	0.1632	13.03	13.00	0.4166	0.3937	-0.95
Volkswagen	2019	2	2019-Q2	13.08	0.4109	0.21	1.15	0.0275	0.1715	13.06	13.03	0.409	0.4166	-0.47
Volkswagen	2019	3	2019-Q3	13.10	0.4113	-0.21	1.18	0.0296	0.1769	13.08	13.06	0.4109	0.409	0.21
Volkswagen	2019	4	2019-Q4	13.10	0.4128	-0.86	1.12	0.0294	0.1088	13.10	13.08	0.4113	0.4109	-0.21
Volkswagen	2020	1	2020-Q1	13.10	0.4204	-0.47	1.06	0.0236	0.1334	13.10	13.10	0.4128	0.4113	-0.86
Volkswagen	2020	2	2020-Q2	13.12	0.4289	-0.63	1.12	0.0118	0.104	13.10	13.10	0.4204	0.4128	-0.47
Volkswagen	2020	3	2020-Q3	13.12	0.4182	-0.88	1.13	0.0093	0.1655	13.12	13.10	0.4289	0.4204	-0.63
Volkswagen	2020	4	2020-Q4	13.12	0.4093	-1.1	1.18	0.018	0.2154	13.12	13.12	0.4182	0.4289	-0.88
Volkswagen	2021	1	2021-Q1	13.14	0.3982	-0.6	1.2	0.0234	0.1818	13.12	13.12	0.4093	0.4182	-1.1
Volkswagen	2021	2	2021-Q2	13.16	0.397	-0.74	1.2	0.0358	0.1987	13.14	13.12	0.3982	0.4093	-0.6
Volkswagen	2021	3	2021-Q3	13.16	0.3953	-0.56	1.18	0.0361	0.1675	13.16	13.14	0.397	0.3982	-0.74
Volkswagen	2021	4	2021-Q4	13.18	0.3976	-0.86	1.22	0.03	0.1826	13.16	13.16	0.3953	0.397	-0.56
Volkswagen	2022	1	2022-Q1	13.21	0.3803	-0.64	1.23	0.0355	0.2452	13.18	13.16	0.3976	0.3953	-0.86
Volkswagen	2022	2	2022-Q2	13.21	0.3682	-0.61	1.21	0.0331	0.159	13.21	13.18	0.3803	0.3976	-0.64
Volkswagen	2022	3	2022-Q3	13.26	0.3383	-0.64	1.32	0.0308	0.1975	13.21	13.21	0.3682	0.3803	-0.61
Volkswagen	2022	4	2022-Q4	13.24	0.3633	-1.11	1.23	0.0283	0.1324	13.26	13.21	0.3383	0.3682	-0.64
Volkswagen	2023	1	2023-Q1	13.25	0.357	-0.86	1.23	0.0236	0.1599	13.24	13.26	0.3633	0.3383	-1.11
Volkswagen	2023	2	2023-Q2	13.27	0.3689	-0.69	1.2	0.0223	0.1538	13.25	13.24	0.357	0.3633	-0.86
Volkswagen	2023	3	2023-Q3	13.30	0.3771	-0.77	1.22	0.0249	0.1623	13.27	13.25	0.3689	0.357	-0.69
Volkswagen	2023	4	2023-Q4	13.31	0.3876	-1.11	1.16	0.0284	0.1421	13.30	13.27	0.3771	0.3689	-0.77
Volkswagen	2024	1	2024-Q1	13.34	0.3964	3.44	1.16	0.0262	0.1569	13.31	13.30	0.3876	0.3771	-1.11
Volkswagen	2024	2	2024-Q2	13.35	0.4007	-0.49	1.14	0.0255	0.233	13.34	13.31	0.3964	0.3876	3.44
Volkswagen	2024	3	2024-Q3	13.36	0.3941	-0.27	1.13	0.0208	0.3258	13.35	13.34	0.4007	0.3964	-0.49
Volkswagen	2024	4	2024-Q4	13.36	0.4014	-0.7	1.13	0.0183	0.1487	13.36	13.35	0.3941	0.4007	-0.27
Volkswagen	2025	1	2025-Q1	13.37	0.3942	0.4	1.1	0.0156	0.1376	13.36	13.36	0.4014	0.3941	-0.7
Volkswagen	2025	2	2025-Q2	13.37	0.3958	-0.43	1.09	0.0141	0.14	13.37	13.36	0.3942	0.4014	0.4
Volkswagen	2025	3	2025-Q3	13.37	0.3982	0.61	1.1	0.0115	0.1393	13.37	13.37	0.3958	0.3942	-0.43

net_debt_to_ebitda_t2	current_ratio_t1	current_ratio_t2	roa_t1	roa_t2	ebitda_margin_t1	ebitda_margin_t2	Key	ESG_salience_q	ESG_salience_t1	ESG_salience_t2	E_salience_q	E_salience_t1	E_salience_t2	S_salience_q
							Volkswagen_2010_Q1	0			0			0
0	1.15	0	0.0062	0	0.1084	0	Volkswagen_2010_Q2	0	0	0	0	0	0	0
-1.1	1.09	1.15	0.0114	0.0062	0.1476	0.1084	Volkswagen_2010_Q3	0.693147181	0	0	0	0	0	0
-1.2	1.13	1.09	0.0216	0.0114	0.1389	0.1476	Volkswagen_2010_Q4	0	0.693147181	0	0	0	0	0
-1.18	1.12	1.13	0.0363	0.0216	0.1445	0.1389	Volkswagen_2011_Q1	0	0	0.693147181	0	0	0	0
-0.98	1.12	1.12	0.0399	0.0363	0.1379	0.1445	Volkswagen_2011_Q2	0	0	0	0	0	0	0
-0.93	1.18	1.12	0.0556	0.0399	0.1393	0.1379	Volkswagen_2011_Q3	0	0	0	0	0	0	0
-0.88	1.17	1.18	0.0771	0.0556	0.141	0.1393	Volkswagen_2011_Q4	0	0	0	0	0	0	0
-0.91	1.04	1.17	0.068	0.0771	0.1252	0.141	Volkswagen_2012_Q1	0	0	0	0	0	0	0
-0.7	1.13	1.04	0.0709	0.068	0.1304	0.1252	Volkswagen_2012_Q2	0.693147181	0	0	0	0	0	0
-0.61	1.1	1.13	0.0727	0.0709	0.1316	0.1304	Volkswagen_2012_Q3	0	0.693147181	0	0	0	0	0
-0.56	1.03	1.1	0.0824	0.0727	0.1174	0.1316	Volkswagen_2012_Q4	0	0	0.693147181	0	0	0	0
-0.29	1.07	1.03	0.0771	0.0824	0.1317	0.1174	Volkswagen_2013_Q1	0	0	0	0	0	0	0
-0.35	1.07	1.07	0.0703	0.0771	0.1261	0.1317	Volkswagen_2013_Q2	0.693147181	0	0	0	0	0	0
-0.36	1.03	1.07	0.0598	0.0703	0.1336	0.1261	Volkswagen_2013_Q3	0	0.693147181	0	0	0	0	0
-0.39	1.07	1.03	0.0265	0.0598	0.1358	0.1336	Volkswagen_2013_Q4	0	0	0.693147181	0	0	0	0
-0.59	1.03	1.07	0.0286	0.0265	0.1384	0.1358	Volkswagen_2014_Q1	0	0	0	0	0	0	0
-0.58	1	1.03	0.0288	0.0286	0.1402	0.1384	Volkswagen_2014_Q2	0.693147181	0	0	0	0	0	0
-0.59	1.05	1	0.0301	0.0288	0.1432	0.1402	Volkswagen_2014_Q3	0	0.693147181	0	0	0	0	0
-0.46	1.02	1.05	0.0327	0.0301	0.1546	0.1432	Volkswagen_2014_Q4	0	0	0.693147181	0	0	0	0
-0.53	1	1.02	0.0325	0.0327	0.1447	0.1546	Volkswagen_2015_Q1	0	0	0	0	0	0	0
-0.54	1.01	1	0.0324	0.0325	0.1463	0.1447	Volkswagen_2015_Q2	0.693147181	0	0	0	0	0	0
-0.62	1.03	1.01	0.031	0.0324	0.1437	0.1463	Volkswagen_2015_Q3	1.609437912	0.693147181	0	1.386294361	0	0	0
-0.63	1.02	1.03	0.0177	0.031	0.0396	0.1437	Volkswagen_2015_Q4	1.945910149	1.609437912	0.693147181	1.386294361	1.386294361	0	0
-0.99	0.98	1.02	-0.0037	0.0177	-0.0418	0.0396	Volkswagen_2016_Q1	0	1.945910149	1.609437912	0	1.386294361	1.386294361	0
-1.52	1.01	0.98	-0.005	-0.0037	0.1609	-0.0418	Volkswagen_2016_Q2	1.609437912	0	1.945910149	1.386294361	0	1.386294361	0
-1.48	1.01	1.01	-0.0089	-0.005	0.1254	0.1609	Volkswagen_2016_Q3	0	1.609437912	0	0	1.386294361	0	0
-1.74	1	1.01	0.0014	-0.0089	0.1616	0.1254	Volkswagen_2016_Q4	0	0	1.609437912	0	0	1.386294361	0
-1.29	0.88	1	0.0136	0.0014	0.0724	0.1616	Volkswagen_2017_Q1	0	0	0	0	0	0	0
-1.22	0.96	0.88	0.0155	0.0136	0.1717	0.0724	Volkswagen_2017_Q2	1.098612289	0	0	0.693147181	0	0	0
-0.67	0.98	0.96	0.0202	0.0155	0.17	0.1717	Volkswagen_2017_Q3	0	1.098612289	0	0	0.693147181	0	0
-0.67	1	0.98	0.017	0.0202	0.13	0.17	Volkswagen_2017_Q4	1.098612289	0	1.098612289	1.098612289	0	0.693147181	0
-0.75	1	1	0.0275	0.017	0.1518	0.13	Volkswagen_2018_Q1	0	1.098612289	0	0	1.098612289	0	0
-0.84	0.98	1	0.0265	0.0275	0.1644	0.1518	Volkswagen_2018_Q2	1.098612289	0	1.098612289	0.693147181	0	1.098612289	0
-0.65	1.03	0.98	0.027	0.0265	0.1526	0.1644	Volkswagen_2018_Q3	0	1.098612289	0	0	0.693147181	0	0
-0.39	1.04	1.03	0.0308	0.027	0.1508	0.1526	Volkswagen_2018_Q4	0.693147181	0	1.098612289	0.693147181	0	0.693147181	0
-0.67	1.09	1.04	0.0276	0.0308	0.1482	0.1508	Volkswagen_2019_Q1	0	0.693147181	0	0	0.693147181	0	0
-0.95	1.11	1.09	0.0263	0.0276	0.1632	0.1482	Volkswagen_2019_Q2	1.098612289	0	0.693147181	0.693147181	0	0.693147181	0
-0.47	1.15	1.11	0.0275	0.0263	0.1715	0.1632	Volkswagen_2019_Q3	0	1.098612289	0	0	0.693147181	0	0
0.21	1.18	1.15	0.0296	0.0275	0.1769	0.1715	Volkswagen_2019_Q4	0.693147181	0	1.098612289	0.693147181	0	0.693147181	0
-0.21	1.12	1.18	0.0294	0.0296	0.1088	0.1769	Volkswagen_2020_Q1	0.693147181	0.693147181	0	0.693147181	0.693147181	0	0
-0.86	1.06	1.12	0.0236	0.0294	0.1334	0.1088	Volkswagen_2020_Q2	1.098612289	0.693147181	0.693147181	0.693147181	0.693147181	0.693147181	0
-0.47	1.12	1.06	0.0118	0.0236	0.104	0.1334	Volkswagen_2020_Q3	0	1.098612289	0.693147181	0	0.693147181	0.693147181	0
-0.63	1.13	1.12	0.0093	0.0118	0.1655	0.104	Volkswagen_2020_Q4	0	0	1.098612289	0	0	0.693147181	0
-0.88	1.18	1.13	0.018	0.0093	0.2154	0.1655	Volkswagen_2021_Q1	0	0	0	0	0	0	0
-1.1	1.2	1.18	0.0234	0.018	0.1818	0.2154	Volkswagen_2021_Q2	1.098612289	0	0	0.693147181	0	0	0
-0.6	1.2	1.2	0.0358	0.0234	0.1987	0.1818	Volkswagen_2021_Q3	1.098612289	1.098612289	0	0.693147181	0.693147181	0	0
-0.74	1.18	1.2	0.0361	0.0358	0.1675	0.1987	Volkswagen_2021_Q4	0	1.098612289	1.098612289	0	0.693147181	0.693147181	0
-0.56	1.22	1.18	0.03	0.0361	0.1826	0.1675	Volkswagen_2022_Q1	0	0	1.098612289	0	0	0.693147181	0
-0.86	1.23	1.22	0.0355	0.03	0.2452	0.1826	Volkswagen_2022_Q2	1.098612289	0	0	0.693147181	0	0	0
-0.64	1.21	1.23	0.0331	0.0355	0.159	0.2452	Volkswagen_2022_Q3	0.693147181	1.098612289	0	0.693147181	0.693147181	0	0
-0.61	1.32	1.21	0.0308	0.0331	0.1975	0.159	Volkswagen_2022_Q4	0	0.693147181	1.098612289	0	0.693147181	0.693147181	0
-0.64	1.23	1.32	0.0283	0.0308	0.1324	0.1975	Volkswagen_2023_Q1	0	0	0.693147181	0	0	0.693147181	0
-1.11	1.23	1.23	0.0236	0.0283	0.1599	0.1324	Volkswagen_2023_Q2	1.098612289	0	0	0.693147181	0	0	0
-0.86	1.2	1.23	0.0223	0.0236	0.1538	0.1599	Volkswagen_2023_Q3	0.693147181	1.098612289	0	0.693147181	0.693147181	0	0
-0.69	1.22	1.2	0.0249	0.0223	0.1623	0.1538	Volkswagen_2023_Q4	0	0.693147181	1.098612289	0	0.693147181	0.693147181	0
-0.77	1.16	1.22	0.0284	0.0249	0.1421	0.1623	Volkswagen_2024_Q1	0	0	0.693147181	0	0	0.693147181	0
-1.11	1.16	1.16	0.0262	0.0284	0.1569	0.1421	Volkswagen_2024_Q2	0	0	0	0	0	0	0
3.44	1.14	1.16	0.0255	0.0262	0.233	0.1569	Volkswagen_2024_Q3	1.386294361	0	0	1.098612289	0	0	0
-0.49	1.13	1.14	0.0208	0.0255	0.3258	0.233	Volkswagen_2024_Q4	0	1.386294361	0	0	1.098612289	0	0
-0.27	1.13	1.13	0.0183	0.0208	0.1487	0.3258	Volkswagen_2025_Q1	1.098612289	0	1.386294361	0.693147181	0	1.098612289	0.693147181
-0.7	1.1	1.13	0.0156	0.0183	0.1376	0.1487	Volkswagen_2025_Q2	1.098612289	1.098612289	0	0.693147181	0.693147181	0	0
0.4	1.09	1.1	0.0141	0.0156	0.14	0.1376	Volkswagen_2025_Q3	1.098612289	1.098612289	1.098612289	0.693147181	0.693147181	0.693147181	0

S_salience_t1	S_salience_t2	G_salience_q	G_salience_t1	G_salience_t2	ESG_salience_mat_q	ESG_salience_mat_t1	ESG_salience_mat_t2	Agency	firm_id	Key_Agency	rating_num_q	post_2015	post_2020	covid_dummy
		0			0			Fitch Ratings	7	Fitch Ratings|Volkswagen_2010_Q1		0	0	0
0	0	0	0	0	0	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2010_Q2		0	0	0
0	0	0.693147181	0	0	1.098612289	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2010_Q3	8	0	0	0
0	0	0	0.693147181	0	0	1.098612289	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2010_Q4		0	0	0
0	0	0	0	0.693147181	0	0	1.098612289	Fitch Ratings	7	Fitch Ratings|Volkswagen_2011_Q1		0	0	0
0	0	0	0	0	0	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2011_Q2	7	0	0	0
0	0	0	0	0	0	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2011_Q3		0	0	0
0	0	0	0	0	0	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2011_Q4		0	0	0
0	0	0	0	0	0	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2012_Q1		0	0	0
0	0	0.693147181	0	0	1.098612289	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2012_Q2	7	0	0	0
0	0	0	0.693147181	0	0	1.098612289	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2012_Q3	7	0	0	0
0	0	0	0	0.693147181	0	0	1.098612289	Fitch Ratings	7	Fitch Ratings|Volkswagen_2012_Q4	7	0	0	0
0	0	0	0	0	0	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2013_Q1	7	0	0	0
0	0	0.693147181	0	0	1.098612289	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2013_Q2	7	0	0	0
0	0	0	0.693147181	0	0	1.098612289	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2013_Q3		0	0	0
0	0	0	0	0.693147181	0	0	1.098612289	Fitch Ratings	7	Fitch Ratings|Volkswagen_2013_Q4	7	0	0	0
0	0	0	0	0	0	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2014_Q1		0	0	0
0	0	0.693147181	0	0	1.098612289	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2014_Q2	6	0	0	0
0	0	0	0.693147181	0	0	1.098612289	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2014_Q3		0	0	0
0	0	0	0	0.693147181	0	0	1.098612289	Fitch Ratings	7	Fitch Ratings|Volkswagen_2014_Q4	6	0	0	0
0	0	0	0	0	0	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2015_Q1		1	0	0
0	0	0.693147181	0	0	1.098612289	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2015_Q2	6	1	0	0
0	0	0.693147181	0.693147181	0	2.564949357	1.098612289	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2015_Q3	6	1	0	0
0	0	1.386294361	0.693147181	0.693147181	2.944438979	2.564949357	1.098612289	Fitch Ratings	7	Fitch Ratings|Volkswagen_2015_Q4	8	1	0	0
0	0	0	1.386294361	0.693147181	0	2.944438979	2.564949357	Fitch Ratings	7	Fitch Ratings|Volkswagen_2016_Q1		1	0	0
0	0	0.693147181	0	1.386294361	2.564949357	0	2.944438979	Fitch Ratings	7	Fitch Ratings|Volkswagen_2016_Q2	8	1	0	0
0	0	0	0.693147181	0	0	2.564949357	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2016_Q3		1	0	0
0	0	0	0	0.693147181	0	0	2.564949357	Fitch Ratings	7	Fitch Ratings|Volkswagen_2016_Q4	8	1	0	0
0	0	0	0	0	0	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2017_Q1		1	0	0
0	0	0.693147181	0	0	1.609437912	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2017_Q2	8	1	0	0
0	0	0	0.693147181	0	0	1.609437912	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2017_Q3		1	0	0
0	0	0	0	0.693147181	1.609437912	0	1.609437912	Fitch Ratings	7	Fitch Ratings|Volkswagen_2017_Q4	8	1	0	0
0	0	0	0	0	0	1.609437912	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2018_Q1		1	0	0
0	0	0.693147181	0	0	1.609437912	0	1.609437912	Fitch Ratings	7	Fitch Ratings|Volkswagen_2018_Q2	8	1	0	0
0	0	0	0.693147181	0	0	1.609437912	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2018_Q3		1	0	0
0	0	0	0	0.693147181	1.098612289	0	1.609437912	Fitch Ratings	7	Fitch Ratings|Volkswagen_2018_Q4	8	1	0	0
0	0	0	0	0	0	1.098612289	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2019_Q1		1	0	0
0	0	0.693147181	0	0	1.609437912	0	1.098612289	Fitch Ratings	7	Fitch Ratings|Volkswagen_2019_Q2	8	1	0	0
0	0	0	0.693147181	0	0	1.609437912	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2019_Q3		1	0	0
0	0	0	0	0.693147181	1.098612289	0	1.609437912	Fitch Ratings	7	Fitch Ratings|Volkswagen_2019_Q4		1	0	0
0	0	0	0	0	1.386294361	1.098612289	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2020_Q1		1	1	0
0	0	0.693147181	0	0	1.945910149	1.386294361	1.098612289	Fitch Ratings	7	Fitch Ratings|Volkswagen_2020_Q2	8	1	1	1
0	0	0	0.693147181	0	0	1.945910149	1.386294361	Fitch Ratings	7	Fitch Ratings|Volkswagen_2020_Q3		1	1	1
0	0	0	0	0.693147181	0	0	1.945910149	Fitch Ratings	7	Fitch Ratings|Volkswagen_2020_Q4		1	1	1
0	0	0	0	0	0	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2021_Q1		1	1	1
0	0	0.693147181	0	0	1.791759469	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2021_Q2	8	1	1	1
0	0	0.693147181	0.693147181	0	1.945910149	1.791759469	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2021_Q3		1	1	1
0	0	0	0.693147181	0.693147181	0	1.945910149	1.791759469	Fitch Ratings	7	Fitch Ratings|Volkswagen_2021_Q4		1	1	1
0	0	0	0	0.693147181	0	0	1.945910149	Fitch Ratings	7	Fitch Ratings|Volkswagen_2022_Q1		1	1	0
0	0	0.693147181	0	0	1.609437912	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2022_Q2	7	1	1	0
0	0	0	0.693147181	0	1.386294361	1.609437912	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2022_Q3		1	1	0
0	0	0	0	0.693147181	0	1.386294361	1.609437912	Fitch Ratings	7	Fitch Ratings|Volkswagen_2022_Q4		1	1	0
0	0	0	0	0	0	0	1.386294361	Fitch Ratings	7	Fitch Ratings|Volkswagen_2023_Q1		1	1	0
0	0	0.693147181	0	0	1.609437912	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2023_Q2	7	1	1	0
0	0	0	0.693147181	0	1.386294361	1.609437912	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2023_Q3		1	1	0
0	0	0	0	0.693147181	0	1.386294361	1.609437912	Fitch Ratings	7	Fitch Ratings|Volkswagen_2023_Q4		1	1	0
0	0	0	0	0	0	0	1.386294361	Fitch Ratings	7	Fitch Ratings|Volkswagen_2024_Q1		1	1	0
0	0	0	0	0	0	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2024_Q2	7	1	1	0
0	0	0.693147181	0	0	2.079441542	0	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2024_Q3	7	1	1	0
0	0	0	0.693147181	0	0	2.079441542	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2024_Q4		1	1	0
0	0	0	0	0.693147181	1.609437912	0	2.079441542	Fitch Ratings	7	Fitch Ratings|Volkswagen_2025_Q1		1	1	0
0.693147181	0	0.693147181	0	0	1.609437912	1.609437912	0	Fitch Ratings	7	Fitch Ratings|Volkswagen_2025_Q2	7	1	1	0
0	0.693147181	0.693147181	0.693147181	0	1.945910149	1.609437912	1.609437912	Fitch Ratings	7	Fitch Ratings|Volkswagen_2025_Q3		1	1	0

Issuer	Year	Quarter	Period_End	assets_ln	debt_to_assets	net_debt_to_ebitda	current_ratio	roa	ebitda_margin	assets_ln_t1	assets_ln_t2	debt_to_assets_t1	debt_to_assets_t2	net_debt_to_ebitda_t1
Ford	2010	1	2010-Q1	12.18	0.6678	0.91	0.74	0.0309	0.1197		0.00		0	
Ford	2010	2	2010-Q2	12.12	0.6426	0.2	0.7	0.0339	0.1314	12.18	0.00	0.6678	0	0.91
Ford	2010	3	2010-Q3	12.10	0.6484	0.03	0.76	0.0339	0.1314	12.12	12.18	0.6426	0.6678	0.2
Ford	2010	4	2010-Q4	12.02	0.6284	-0.18	0.66	0.0364	0.1135	12.10	12.12	0.6484	0.6426	0.03
Ford	2011	1	2011-Q1	12.03	0.6052	-0.36	0.65	0.0386	0.1228	12.02	12.10	0.6284	0.6484	-0.18
Ford	2011	2	2011-Q2	12.04	0.5849	-0.65	0.66	0.0388	0.1041	12.03	12.02	0.6052	0.6284	-0.36
Ford	2011	3	2011-Q3	12.01	0.5819	-0.67	0.66	0.0388	0.1041	12.04	12.03	0.5849	0.6052	-0.65
Ford	2011	4	2011-Q4	12.10	0.5562	-0.82	0.7	0.1172	0.0849	12.01	12.04	0.5819	0.5849	-0.67
Ford	2012	1	2012-Q1	12.12	0.5488	-0.82	0.74	0.1085	0.1024	12.10	12.01	0.5562	0.5819	-0.82
Ford	2012	2	2012-Q2	12.11	0.5477	-0.94	0.77	0.1008	0.0928	12.12	12.10	0.5488	0.5562	-0.82
Ford	2012	3	2012-Q3	12.13	0.5413	-0.93	0.78	0.1008	0.0928	12.11	12.12	0.5477	0.5488	-0.94
Ford	2012	4	2012-Q4	12.16	0.5494	-1.04	0.74	0.0303	0.0416	12.13	12.11	0.5413	0.5477	-0.93
Ford	2013	1	2013-Q1	12.18	0.5516	-0.83	0.74	0.0309	0.0914	12.16	12.13	0.5494	0.5413	-1.04
Ford	2013	2	2013-Q2	12.20	0.545	-1.07	0.76	0.0317	0.0816	12.18	12.16	0.5516	0.5494	-0.83
Ford	2013	3	2013-Q3	12.22	0.5456	-1.07	0.76	0.0317	0.0816	12.20	12.18	0.545	0.5516	-1.07
Ford	2013	4	2013-Q4	12.23	0.5625	-0.78	0.72	0.0364	0.0622	12.22	12.20	0.5456	0.545	-1.07
Ford	2014	1	2014-Q1	12.25	0.5598	-0.92	0.71	0.0325	0.0689	12.23	12.22	0.5625	0.5456	-0.78
Ford	2014	2	2014-Q2	12.27	0.5572	-1.04	0.68	0.0323	0.0974	12.25	12.23	0.5598	0.5625	-0.92
Ford	2014	3	2014-Q3	12.26	0.566	-0.91	0.67	0.0323	0.0974	12.27	12.25	0.5572	0.5598	-1.04
Ford	2014	4	2014-Q4	12.26	0.566	-0.91	0.64	0.0059	-0.0212	12.26	12.27	0.566	0.5572	-0.91
Ford	2015	1	2015-Q1	12.28	0.5721	-0.96	0.69	0.0066	0.0932	12.26	12.26	0.566	0.566	-0.91
Ford	2015	2	2015-Q2	12.30	0.5649	-1.28	0.67	0.0104	0.076	12.28	12.26	0.5721	0.566	-0.96
Ford	2015	3	2015-Q3	12.31	0.5682	-1.31	0.67	0.0104	0.076	12.30	12.28	0.5649	0.5721	-1.28
Ford	2015	4	2015-Q4	12.32	0.5907	-0.72	1.25	0.0339	0.1296	12.31	12.30	0.5682	0.5649	-1.31
Ford	2016	1	2016-Q1	12.39	0.5858	-0.88	0.68	0.0381	0.0941	12.32	12.31	0.5907	0.5682	-0.72
Ford	2016	2	2016-Q2	12.39	0.5838	-0.91	1.24	0.037	0.0765	12.39	12.32	0.5858	0.5907	-0.88
Ford	2016	3	2016-Q3	12.37	0.584	-0.83	1.16	0.037	0.0765	12.39	12.39	0.5838	0.5858	-0.91
Ford	2016	4	2016-Q4	12.38	0.6008	-0.8	1.2	0.0198	0.1633	12.37	12.39	0.584	0.5838	-0.83
Ford	2017	1	2017-Q1	12.41	0.598	-0.87	1.24	0.0154	0.0681	12.38	12.37	0.6008	0.584	-0.8
Ford	2017	2	2017-Q2	12.42	0.59	-0.92	1.2	0.0156	0.0691	12.41	12.38	0.598	0.6008	-0.87
Ford	2017	3	2017-Q3	12.43	0.5934	-0.71	1.19	0.0156	0.0691	12.42	12.41	0.59	0.598	-0.92
Ford	2017	4	2017-Q4	12.46	0.5969	-0.79	1.23	0.0311	0.136	12.43	12.42	0.5934	0.59	-0.71
Ford	2018	1	2018-Q1	12.50	0.5925	-0.9	1.23	0.0308	0.0577	12.46	12.43	0.5969	0.5934	-0.79
Ford	2018	2	2018-Q2	12.46	0.5922	-0.77	1.21	0.0273	0.051	12.50	12.46	0.5925	0.5969	-0.9
Ford	2018	3	2018-Q3	12.46	0.5925	-0.62	1.21	0.0273	0.051	12.46	12.50	0.5922	0.5925	-0.77
Ford	2018	4	2018-Q4	12.46	0.6011	-0.82	1.2	0.0143	0.0656	12.46	12.46	0.5925	0.5922	-0.62
Ford	2019	1	2019-Q1	12.48	0.6016	-0.8	1.22	0.0116	0.0926	12.46	12.46	0.6011	0.5925	-0.82
Ford	2019	2	2019-Q2	12.48	0.5999	-0.66	1.2	0.0083	0.0709	12.48	12.46	0.6016	0.6011	-0.8
Ford	2019	3	2019-Q3	12.46	0.6019	-0.71	1.17	0.0083	0.0709	12.48	12.48	0.5999	0.6016	-0.66
Ford	2019	4	2019-Q4	12.46	0.6062	-0.81	1.16	0.0002	0.0216	12.46	12.48	0.6019	0.5999	-0.71
Ford	2020	1	2020-Q1	12.48	0.6386	-0.65	1.32	-0.0117	0.0258	12.46	12.46	0.6062	0.6019	-0.81
Ford	2020	2	2020-Q2	12.50	0.6552	0.07	1.34	-0.008	-0.0207	12.48	12.46	0.6386	0.6062	-0.65
Ford	2020	3	2020-Q3	12.47	0.61	-0.53	1.2	-0.008	-0.0207	12.50	12.48	0.6552	0.6386	0.07
Ford	2020	4	2020-Q4	12.50	0.6099	-2.37	1.2	-0.0049	-0.046	12.47	12.50	0.61	0.6552	-0.53
Ford	2021	1	2021-Q1	12.47	0.5903	-0.8	1.21	0.0151	0.1261	12.50	12.47	0.6099	0.61	-2.37
Ford	2021	2	2021-Q2	12.42	0.5964	0.1	1.21	0.0132	0.0566	12.47	12.50	0.5903	0.6099	-0.8
Ford	2021	3	2021-Q3	12.44	0.5773	-0.76	1.2	0.0132	0.0566	12.42	12.47	0.5964	0.5903	0.1
Ford	2021	4	2021-Q4	12.46	0.5427	-2.47	1.2	0.0684	0.0684	12.44	12.42	0.5773	0.5964	-0.76
Ford	2022	1	2022-Q1	12.44	0.5415	-0.81	1.17	0.045	0.0928	12.46	12.44	0.5427	0.5773	-2.47
Ford	2022	2	2022-Q2	12.41	0.5299	-0.64	1.16	0.0472	0.1191	12.44	12.46	0.5415	0.5427	-0.81
Ford	2022	3	2022-Q3	12.42	0.5255	-0.9	1.2	0.0472	0.1191	12.41	12.44	0.5299	0.5415	-0.64
Ford	2022	4	2022-Q4	12.45	0.549	-0.88	1.2	-0.0077	0.0803	12.42	12.41	0.5255	0.5299	-0.9
Ford	2023	1	2023-Q1	12.46	0.5487	-0.61	1.2	0.0113	0.0967	12.45	12.42	0.549	0.5255	-0.88
Ford	2023	2	2023-Q2	12.49	0.5446	-0.71	1.2	0.0162	0.0965	12.46	12.45	0.5487	0.549	-0.61
Ford	2023	3	2023-Q3	12.50	0.5392	-0.62	1.21	0.0162	0.0965	12.49	12.46	0.5446	0.5487	-0.71
Ford	2023	4	2023-Q4	12.52	0.5529	-0.63	1.2	0.0164	0.0543	12.50	12.49	0.5392	0.5446	-0.62
Ford	2024	1	2024-Q1	12.52	0.552	-0.37	1.17	0.0148	0.0726	12.52	12.50	0.5529	0.5392	-0.63
Ford	2024	2	2024-Q2	12.53	0.5528	-0.49	1.17	0.0141	0.0794	12.52	12.52	0.552	0.5529	-0.37
Ford	2024	3	2024-Q3	12.57	0.5551	-0.59	1.15	0.0141	0.0794	12.53	12.52	0.5528	0.552	-0.49
Ford	2024	4	2024-Q4	12.56	0.564	-0.6	1.16	0.0211	0.0656	12.57	12.53	0.5551	0.5528	-0.59
Ford	2025	1	2025-Q1	12.56	0.5545	-0.51	1.13	0.018	0.0533	12.56	12.57	0.564	0.5551	-0.6
Ford	2025	2	2025-Q2	12.59	0.5474	-1.1	1.1	0.0111	0.048	12.56	12.56	0.5545	0.564	-0.51
Ford	2025	3	2025-Q3	12.61	0.5461	-0.97	1.12	0.0111	0.048	12.59	12.56	0.5474	0.5545	-1.1

net_debt_to_ebitda_t2	current_ratio_t1	current_ratio_t2	roa_t1	roa_t2	ebitda_margin_t1	ebitda_margin_t2	Key	ESG_salience_q	ESG_salience_t1	ESG_salience_t2	E_salience_q	E_salience_t1	E_salience_t2	S_salience_q
0		0		0		0	Ford_2010_Q1	0.693147181	0	0	0.693147181	0	0	0
0	0.74	0	0.0309	0	0.1197	0	Ford_2010_Q2	0.693147181	0.693147181	0	0.693147181	0.693147181	0	0
0.91	0.7	0.74	0.0339	0.0309	0.1314	0.1197	Ford_2010_Q3	0	0.693147181	0.693147181	0	0.693147181	0.693147181	0
0.2	0.76	0.7	0.0339	0.0339	0.1314	0.1314	Ford_2010_Q4	0	0	0.693147181	0	0	0.693147181	0
0.03	0.66	0.76	0.0364	0.0339	0.1135	0.1314	Ford_2011_Q1	0.693147181	0	0	0	0	0	0.693147181
-0.18	0.65	0.66	0.0386	0.0364	0.1228	0.1135	Ford_2011_Q2	0	0.693147181	0	0	0	0	0
-0.36	0.66	0.65	0.0388	0.0386	0.1041	0.1228	Ford_2011_Q3	0	0	0.693147181	0	0	0	0
-0.65	0.66	0.66	0.0388	0.0388	0.1041	0.1041	Ford_2011_Q4	1.609437912	0	0	0.693147181	0	0	1.386294361
-0.67	0.7	0.66	0.1172	0.0388	0.0849	0.1041	Ford_2012_Q1	0	1.609437912	0	0	0.693147181	0	0
-0.82	0.74	0.7	0.1085	0.1172	0.1024	0.0849	Ford_2012_Q2	1.386294361	0	1.609437912	1.098612289	0	0.693147181	0.693147181
-0.82	0.77	0.74	0.1008	0.1085	0.0928	0.1024	Ford_2012_Q3	0	1.386294361	0	0	1.098612289	0	0
-0.94	0.78	0.77	0.1008	0.1008	0.0928	0.0928	Ford_2012_Q4	0.693147181	0	1.386294361	0	0	1.098612289	0.693147181
-0.93	0.74	0.78	0.0303	0.1008	0.0416	0.0928	Ford_2013_Q1	1.098612289	0.693147181	0	0.693147181	0	0	0
-1.04	0.74	0.74	0.0309	0.0303	0.0914	0.0416	Ford_2013_Q2	1.098612289	1.098612289	0.693147181	0.693147181	0.693147181	0	0.693147181
-0.83	0.76	0.74	0.0317	0.0309	0.0816	0.0914	Ford_2013_Q3	0.693147181	1.098612289	1.098612289	0	0.693147181	0.693147181	0.693147181
-1.07	0.76	0.76	0.0317	0.0317	0.0816	0.0816	Ford_2013_Q4	0	0.693147181	1.098612289	0	0	0.693147181	0
-1.07	0.72	0.76	0.0364	0.0317	0.0622	0.0816	Ford_2014_Q1	0	0	0.693147181	0	0	0	0
-0.78	0.71	0.72	0.0325	0.0364	0.0689	0.0622	Ford_2014_Q2	0.693147181	0	0	0	0	0	0.693147181
-0.92	0.68	0.71	0.0323	0.0325	0.0974	0.0689	Ford_2014_Q3	0	0.693147181	0	0	0	0	0
-1.04	0.67	0.68	0.0323	0.0323	0.0974	0.0974	Ford_2014_Q4	0.693147181	0	0.693147181	0	0	0	0.693147181
-0.91	0.64	0.67	0.0059	0.0323	-0.0212	0.0974	Ford_2015_Q1	0	0.693147181	0	0	0	0	0
-0.91	0.69	0.64	0.0066	0.0059	0.0932	-0.0212	Ford_2015_Q2	0	0	0.693147181	0	0	0	0
-0.96	0.67	0.69	0.0104	0.0066	0.076	0.0932	Ford_2015_Q3	0.693147181	0	0	0	0	0	0.693147181
-1.28	0.67	0.67	0.0104	0.0104	0.076	0.076	Ford_2015_Q4	0	0.693147181	0	0	0	0	0
-1.31	1.25	0.67	0.0339	0.0104	0.1296	0.076	Ford_2016_Q1	0	0	0.693147181	0	0	0	0
-0.72	0.68	1.25	0.0381	0.0339	0.0941	0.1296	Ford_2016_Q2	0	0	0	0	0	0	0
-0.88	1.24	0.68	0.037	0.0381	0.0765	0.0941	Ford_2016_Q3	0	0	0	0	0	0	0
-0.91	1.16	1.24	0.037	0.037	0.0765	0.0765	Ford_2016_Q4	0	0	0	0	0	0	0
-0.83	1.2	1.16	0.0198	0.037	0.1633	0.0765	Ford_2017_Q1	0.693147181	0	0	0.693147181	0	0	0
-0.8	1.24	1.2	0.0154	0.0198	0.0681	0.1633	Ford_2017_Q2	0.693147181	0.693147181	0	0.693147181	0.693147181	0	0
-0.87	1.2	1.24	0.0156	0.0154	0.0691	0.0681	Ford_2017_Q3	0	0.693147181	0.693147181	0	0.693147181	0.693147181	0
-0.92	1.19	1.2	0.0156	0.0156	0.0691	0.0691	Ford_2017_Q4	0	0	0.693147181	0	0	0.693147181	0
-0.71	1.23	1.19	0.0311	0.0156	0.136	0.0691	Ford_2018_Q1	0	0	0	0	0	0	0
-0.79	1.23	1.23	0.0308	0.0311	0.0577	0.136	Ford_2018_Q2	0.693147181	0	0	0.693147181	0	0	0
-0.9	1.21	1.23	0.0273	0.0308	0.051	0.0577	Ford_2018_Q3	0.693147181	0.693147181	0	0.693147181	0.693147181	0	0
-0.77	1.21	1.21	0.0273	0.0273	0.051	0.051	Ford_2018_Q4	0	0.693147181	0.693147181	0	0.693147181	0.693147181	0
-0.62	1.2	1.21	0.0143	0.0273	0.0656	0.051	Ford_2019_Q1	0.693147181	0	0.693147181	0	0	0.693147181	0.693147181
-0.82	1.22	1.2	0.0116	0.0143	0.0926	0.0656	Ford_2019_Q2	0	0.693147181	0	0	0	0	0
-0.8	1.2	1.22	0.0083	0.0116	0.0709	0.0926	Ford_2019_Q3	0	0	0.693147181	0	0	0	0
-0.66	1.17	1.2	0.0083	0.0083	0.0709	0.0709	Ford_2019_Q4	0.693147181	0	0	0	0	0	0
-0.71	1.16	1.17	0.0002	0.0083	0.0216	0.0709	Ford_2020_Q1	0.693147181	0.693147181	0	0	0	0	0
-0.81	1.32	1.16	-0.0117	0.0002	0.0258	0.0216	Ford_2020_Q2	0.693147181	0.693147181	0.693147181	0	0	0	0
-0.65	1.34	1.32	-0.008	-0.0117	-0.0207	0.0258	Ford_2020_Q3	0.693147181	0.693147181	0.693147181	0	0	0	0.693147181
0.07	1.2	1.34	-0.008	-0.008	-0.0207	-0.0207	Ford_2020_Q4	0	0.693147181	0.693147181	0	0	0	0
-0.53	1.2	1.2	-0.0049	-0.008	-0.046	-0.0207	Ford_2021_Q1	0.693147181	0	0.693147181	0	0	0	0
-2.37	1.21	1.2	0.0151	-0.0049	0.1261	-0.046	Ford_2021_Q2	0.693147181	0.693147181	0	0	0	0	0
-0.8	1.21	1.21	0.0132	0.0151	0.0566	0.1261	Ford_2021_Q3	0	0.693147181	0.693147181	0	0	0	0
0.1	1.2	1.21	0.0132	0.0132	0.0566	0.0566	Ford_2021_Q4	1.609437912	0	0.693147181	1.386294361	0	0	0
-0.76	1.2	1.2	0.0684	0.0132	0.0684	0.0566	Ford_2022_Q1	0	1.609437912	0	0	1.386294361	0	0
-2.47	1.17	1.2	0.045	0.0684	0.0928	0.0684	Ford_2022_Q2	1.098612289	0	1.609437912	0.693147181	0	1.386294361	0
-0.81	1.16	1.17	0.0472	0.045	0.1191	0.0928	Ford_2022_Q3	1.098612289	1.098612289	0	1.098612289	0.693147181	0	0
-0.64	1.2	1.16	0.0472	0.0472	0.1191	0.1191	Ford_2022_Q4	0	1.098612289	1.098612289	0	1.098612289	0.693147181	0
-0.9	1.2	1.2	-0.0077	0.0472	0.0803	0.1191	Ford_2023_Q1	0	0	1.098612289	0	0	1.098612289	0
-0.88	1.2	1.2	0.0113	-0.0077	0.0967	0.0803	Ford_2023_Q2	0.693147181	0	0	0.693147181	0	0	0
-0.61	1.2	1.2	0.0162	0.0113	0.0965	0.0967	Ford_2023_Q3	0.693147181	0.693147181	0	0	0.693147181	0	0
-0.71	1.21	1.2	0.0162	0.0162	0.0965	0.0965	Ford_2023_Q4	1.098612289	0.693147181	0.693147181	0.693147181	0	0.693147181	0.693147181
-0.62	1.2	1.21	0.0164	0.0162	0.0543	0.0965	Ford_2024_Q1	0	1.098612289	0.693147181	0	0.693147181	0	0
-0.63	1.17	1.2	0.0148	0.0164	0.0726	0.0543	Ford_2024_Q2	0.693147181	0	1.098612289	0.693147181	0	0.693147181	0
-0.37	1.17	1.17	0.0141	0.0148	0.0794	0.0726	Ford_2024_Q3	0	0.693147181	0	0	0.693147181	0	0
-0.49	1.15	1.17	0.0141	0.0141	0.0794	0.0794	Ford_2024_Q4	1.098612289	0	0.693147181	0.693147181	0	0.693147181	0.693147181
-0.59	1.16	1.15	0.0211	0.0141	0.0656	0.0794	Ford_2025_Q1	1.098612289	1.098612289	0	0.693147181	0.693147181	0	0.693147181
-0.6	1.13	1.16	0.018	0.0211	0.0533	0.0656	Ford_2025_Q2	0.693147181	1.098612289	1.098612289	0.693147181	0.693147181	0.693147181	0
-0.51	1.1	1.13	0.0111	0.018	0.048	0.0533	Ford_2025_Q3	0	0.693147181	1.098612289	0	0.693147181	0.693147181	0

S_salience_t1	S_salience_t2	G_salience_q	G_salience_t1	G_salience_t2	ESG_salience_mat_q	ESG_salience_mat_t1	ESG_salience_mat_t2	Agency	firm_id	Key_Agency	rating_num_q	post_2015	post_2020	covid_dummy
0	0	0	0	0	1.098612289	0	0	DBRS	4	DBRS|Ford_2010_Q1	15	0	0	0
0	0	0	0	0	1.098612289	1.098612289	0	DBRS	4	DBRS|Ford_2010_Q2		0	0	0
0	0	0	0	0	0	1.098612289	1.098612289	DBRS	4	DBRS|Ford_2010_Q3	13	0	0	0
0	0	0	0	0	0	0	1.098612289	DBRS	4	DBRS|Ford_2010_Q4		0	0	0
0	0	0	0	0	1.098612289	0	0	DBRS	4	DBRS|Ford_2011_Q1		0	0	0
0.693147181	0	0	0	0	0	1.098612289	0	DBRS	4	DBRS|Ford_2011_Q2		0	0	0
0	0.693147181	0	0	0	0	0	1.098612289	DBRS	4	DBRS|Ford_2011_Q3	12	0	0	0
0	0	0	0	0	2.397895273	0	0	DBRS	4	DBRS|Ford_2011_Q4		0	0	0
1.386294361	0	0	0	0	0	2.397895273	0	DBRS	4	DBRS|Ford_2012_Q1		0	0	0
0	1.386294361	0	0	0	1.945910149	0	2.397895273	DBRS	4	DBRS|Ford_2012_Q2		0	0	0
0.693147181	0	0	0	0	0	1.945910149	0	DBRS	4	DBRS|Ford_2012_Q3	10	0	0	0
0	0.693147181	0	0	0	1.386294361	0	1.945910149	DBRS	4	DBRS|Ford_2012_Q4		0	0	0
0.693147181	0	0.693147181	0	0	1.609437912	1.386294361	0	DBRS	4	DBRS|Ford_2013_Q1		0	0	0
0	0.693147181	0	0.693147181	0	1.609437912	1.609437912	1.386294361	DBRS	4	DBRS|Ford_2013_Q2		0	0	0
0.693147181	0	0	0	0.693147181	1.098612289	1.609437912	1.609437912	DBRS	4	DBRS|Ford_2013_Q3	10	0	0	0
0.693147181	0.693147181	0	0	0	0	1.098612289	1.609437912	DBRS	4	DBRS|Ford_2013_Q4		0	0	0
0	0.693147181	0	0	0	0	0	1.098612289	DBRS	4	DBRS|Ford_2014_Q1		0	0	0
0	0	0	0	0	1.098612289	0	0	DBRS	4	DBRS|Ford_2014_Q2		0	0	0
0.693147181	0	0	0	0	0	1.098612289	0	DBRS	4	DBRS|Ford_2014_Q3		0	0	0
0	0.693147181	0	0	0	1.098612289	0	1.098612289	DBRS	4	DBRS|Ford_2014_Q4	10	0	0	0
0.693147181	0	0	0	0	0	1.098612289	0	DBRS	4	DBRS|Ford_2015_Q1		1	0	0
0	0.693147181	0	0	0	0	0	1.098612289	DBRS	4	DBRS|Ford_2015_Q2		1	0	0
0	0	0	0	0	1.098612289	0	0	DBRS	4	DBRS|Ford_2015_Q3		1	0	0
0.693147181	0	0	0	0	0	1.098612289	0	DBRS	4	DBRS|Ford_2015_Q4	10	1	0	0
0	0.693147181	0	0	0	0	0	1.098612289	DBRS	4	DBRS|Ford_2016_Q1	9	1	0	0
0	0	0	0	0	0	0	0	DBRS	4	DBRS|Ford_2016_Q2		1	0	0
0	0	0	0	0	0	0	0	DBRS	4	DBRS|Ford_2016_Q3		1	0	0
0	0	0	0	0	0	0	0	DBRS	4	DBRS|Ford_2016_Q4		1	0	0
0	0	0	0	0	1.098612289	0	0	DBRS	4	DBRS|Ford_2017_Q1	9	1	0	0
0	0	0	0	0	1.098612289	1.098612289	0	DBRS	4	DBRS|Ford_2017_Q2		1	0	0
0	0	0	0	0	0	1.098612289	1.098612289	DBRS	4	DBRS|Ford_2017_Q3		1	0	0
0	0	0	0	0	0	0	1.098612289	DBRS	4	DBRS|Ford_2017_Q4		1	0	0
0	0	0	0	0	0	0	0	DBRS	4	DBRS|Ford_2018_Q1	9	1	0	0
0	0	0	0	0	1.098612289	0	0	DBRS	4	DBRS|Ford_2018_Q2		1	0	0
0	0	0	0	0	1.098612289	1.098612289	0	DBRS	4	DBRS|Ford_2018_Q3		1	0	0
0	0	0	0	0	0	1.098612289	1.098612289	DBRS	4	DBRS|Ford_2018_Q4		1	0	0
0	0	0	0	0	1.386294361	0	1.098612289	DBRS	4	DBRS|Ford_2019_Q1	9	1	0	0
0.693147181	0	0	0	0	0	1.386294361	0	DBRS	4	DBRS|Ford_2019_Q2		1	0	0
0	0.693147181	0	0	0	0	0	1.386294361	DBRS	4	DBRS|Ford_2019_Q3		1	0	0
0	0	0.693147181	0	0	1.386294361	0	0	DBRS	4	DBRS|Ford_2019_Q4		1	0	0
0	0	0.693147181	0	0	1.386294361	1.386294361	0	DBRS	4	DBRS|Ford_2020_Q1		1	1	0
0	0	0.693147181	0.693147181	0.693147181	1.386294361	1.386294361	1.386294361	DBRS	4	DBRS|Ford_2020_Q2	11	1	1	1
0	0	0	0.693147181	0.693147181	1.098612289	1.386294361	1.386294361	DBRS	4	DBRS|Ford_2020_Q3		1	1	1
0.693147181	0	0	0	0.693147181	0	1.098612289	1.386294361	DBRS	4	DBRS|Ford_2020_Q4		1	1	1
0	0.693147181	0.693147181	0	0	1.386294361	0	1.098612289	DBRS	4	DBRS|Ford_2021_Q1		1	1	1
0	0	0.693147181	0.693147181	0	1.386294361	1.386294361	0	DBRS	4	DBRS|Ford_2021_Q2	11	1	1	1
0	0	0	0.693147181	0.693147181	0	1.386294361	1.386294361	DBRS	4	DBRS|Ford_2021_Q3		1	1	1
0	0	0.693147181	0	0.693147181	2.302585093	0	1.386294361	DBRS	4	DBRS|Ford_2021_Q4		1	1	1
0	0	0	0.693147181	0	0	2.302585093	0	DBRS	4	DBRS|Ford_2022_Q1		1	1	0
0	0	0.693147181	0	0.693147181	1.609437912	0	2.302585093	DBRS	4	DBRS|Ford_2022_Q2	11	1	1	0
0	0	0	0.693147181	0	1.609437912	1.609437912	0	DBRS	4	DBRS|Ford_2022_Q3		1	1	0
0	0	0	0	0.693147181	0	1.609437912	1.609437912	DBRS	4	DBRS|Ford_2022_Q4		1	1	0
0	0	0	0	0	0	0	1.609437912	DBRS	4	DBRS|Ford_2023_Q1		1	1	0
0	0	0	0	0	1.098612289	0	0	DBRS	4	DBRS|Ford_2023_Q2	10	1	1	0
0	0	0.693147181	0	0	1.098612289	1.098612289	0	DBRS	4	DBRS|Ford_2023_Q3		1	1	0
0	0	0	0.693147181	0	1.609437912	1.098612289	1.098612289	DBRS	4	DBRS|Ford_2023_Q4		1	1	0
0.693147181	0	0	0	0.693147181	0	1.609437912	1.098612289	DBRS	4	DBRS|Ford_2024_Q1		1	1	0
0	0.693147181	0	0	0	1.098612289	0	1.609437912	DBRS	4	DBRS|Ford_2024_Q2	10	1	1	0
0	0	0	0	0	0	1.098612289	0	DBRS	4	DBRS|Ford_2024_Q3		1	1	0
0	0	0	0	0	1.791759469	0	1.098612289	DBRS	4	DBRS|Ford_2024_Q4		1	1	0
0.693147181	0	0	0	0	1.945910149	1.791759469	0	DBRS	4	DBRS|Ford_2025_Q1		1	1	0
0.693147181	0.693147181	0	0	0	1.098612289	1.945910149	1.791759469	DBRS	4	DBRS|Ford_2025_Q2	10	1	1	0
0	0.693147181	0	0	0	0	1.098612289	1.945910149	DBRS	4	DBRS|Ford_2025_Q3		1	1	0

Issuer	Year	Quarter	Period_End	assets_ln	debt_to_assets	net_debt_to_ebitda	current_ratio	roa	ebitda_margin	assets_ln_t1	assets_ln_t2	debt_to_assets_t1	debt_to_assets_t2	net_debt_to_ebitda_t1
Volkswagen	2010	1	2010-Q1	12.14	0.4147	-1.1	1.15	0.0062	0.1084					
Volkswagen	2010	2	2010-Q2	12.17	0.4028	-1.2	1.09	0.0114	0.1476	12.14	0.00	0.4147	0	-1.1
Volkswagen	2010	3	2010-Q3	12.18	0.3926	-1.18	1.13	0.0216	0.1389	12.17	12.14	0.4028	0.4147	-1.2
Volkswagen	2010	4	2010-Q4	12.20	0.3862	-0.98	1.12	0.0363	0.1445	12.18	12.17	0.3926	0.4028	-1.18
Volkswagen	2011	1	2011-Q1	12.27	0.3901	-0.93	1.12	0.0399	0.1379	12.20	12.18	0.3862	0.3926	-0.98
Volkswagen	2011	2	2011-Q2	12.29	0.3848	-0.88	1.18	0.0556	0.1393	12.27	12.20	0.3901	0.3862	-0.93
Volkswagen	2011	3	2011-Q3	12.34	0.373	-0.91	1.17	0.0771	0.141	12.29	12.27	0.3848	0.3901	-0.88
Volkswagen	2011	4	2011-Q4	12.44	0.3686	-0.7	1.04	0.068	0.1252	12.34	12.29	0.373	0.3848	-0.91
Volkswagen	2012	1	2012-Q1	12.49	0.3777	-0.61	1.13	0.0709	0.1304	12.44	12.34	0.3686	0.373	-0.7
Volkswagen	2012	2	2012-Q2	12.52	0.3849	-0.56	1.1	0.0727	0.1316	12.49	12.44	0.3777	0.3686	-0.61
Volkswagen	2012	3	2012-Q3	12.64	0.3766	-0.29	1.03	0.0824	0.1174	12.52	12.49	0.3849	0.3777	-0.56
Volkswagen	2012	4	2012-Q4	12.64	0.3802	-0.35	1.07	0.0771	0.1317	12.64	12.52	0.3766	0.3849	-0.29
Volkswagen	2013	1	2013-Q1	12.68	0.3835	-0.36	1.07	0.0703	0.1261	12.64	12.64	0.3802	0.3766	-0.35
Volkswagen	2013	2	2013-Q2	12.67	0.3802	-0.39	1.03	0.0598	0.1336	12.68	12.64	0.3835	0.3802	-0.36
Volkswagen	2013	3	2013-Q3	12.69	0.3746	-0.59	1.07	0.0265	0.1358	12.67	12.68	0.3802	0.3835	-0.39
Volkswagen	2013	4	2013-Q4	12.69	0.3746	-0.58	1.03	0.0286	0.1384	12.69	12.67	0.3746	0.3802	-0.59
Volkswagen	2014	1	2014-Q1	12.72	0.367	-0.59	1	0.0288	0.1402	12.69	12.69	0.3746	0.3746	-0.58
Volkswagen	2014	2	2014-Q2	12.73	0.3758	-0.46	1.05	0.0301	0.1432	12.72	12.69	0.367	0.3746	-0.59
Volkswagen	2014	3	2014-Q3	12.76	0.3768	-0.53	1.02	0.0327	0.1546	12.73	12.72	0.3758	0.367	-0.46
Volkswagen	2014	4	2014-Q4	12.77	0.3815	-0.54	1	0.0325	0.1447	12.76	12.73	0.3768	0.3758	-0.53
Volkswagen	2015	1	2015-Q1	12.84	0.3683	-0.62	1.01	0.0324	0.1463	12.77	12.76	0.3815	0.3768	-0.54
Volkswagen	2015	2	2015-Q2	12.83	0.3726	-0.63	1.03	0.031	0.1437	12.84	12.77	0.3683	0.3815	-0.62
Volkswagen	2015	3	2015-Q3	12.83	0.3721	-0.99	1.02	0.0177	0.0396	12.83	12.84	0.3726	0.3683	-0.63
Volkswagen	2015	4	2015-Q4	12.85	0.3812	-1.52	0.98	-0.0037	-0.0418	12.83	12.83	0.3721	0.3726	-0.99
Volkswagen	2016	1	2016-Q1	12.89	0.3893	-1.48	1.01	-0.005	0.1609	12.85	12.83	0.3812	0.3721	-1.52
Volkswagen	2016	2	2016-Q2	12.90	0.3792	-1.74	1.01	-0.0089	0.1254	12.89	12.85	0.3893	0.3812	-1.48
Volkswagen	2016	3	2016-Q3	12.91	0.3747	-1.29	1	0.0014	0.1616	12.90	12.89	0.3792	0.3893	-1.74
Volkswagen	2016	4	2016-Q4	12.92	0.3824	-1.22	0.88	0.0136	0.0724	12.91	12.90	0.3747	0.3792	-1.29
Volkswagen	2017	1	2017-Q1	12.96	0.3876	-0.67	0.96	0.0155	0.1717	12.92	12.91	0.3824	0.3747	-1.22
Volkswagen	2017	2	2017-Q2	12.94	0.3841	-0.67	0.98	0.0202	0.17	12.96	12.92	0.3876	0.3824	-0.67
Volkswagen	2017	3	2017-Q3	12.94	0.3719	-0.75	1	0.017	0.13	12.94	12.96	0.3841	0.3876	-0.67
Volkswagen	2017	4	2017-Q4	12.95	0.3872	-0.84	1	0.0275	0.1518	12.94	12.94	0.3719	0.3841	-0.75
Volkswagen	2018	1	2018-Q1	12.98	0.3818	-0.65	0.98	0.0265	0.1644	12.95	12.94	0.3872	0.3719	-0.84
Volkswagen	2018	2	2018-Q2	13.00	0.3803	-0.39	1.03	0.027	0.1526	12.98	12.95	0.3818	0.3872	-0.65
Volkswagen	2018	3	2018-Q3	13.00	0.3937	-0.67	1.04	0.0308	0.1508	13.00	12.98	0.3803	0.3818	-0.39
Volkswagen	2018	4	2018-Q4	13.03	0.4166	-0.95	1.09	0.0276	0.1482	13.00	13.00	0.3937	0.3803	-0.67
Volkswagen	2019	1	2019-Q1	13.06	0.409	-0.47	1.11	0.0263	0.1632	13.03	13.00	0.4166	0.3937	-0.95
Volkswagen	2019	2	2019-Q2	13.08	0.4109	0.21	1.15	0.0275	0.1715	13.06	13.03	0.409	0.4166	-0.47
Volkswagen	2019	3	2019-Q3	13.10	0.4113	-0.21	1.18	0.0296	0.1769	13.08	13.06	0.4109	0.409	0.21
Volkswagen	2019	4	2019-Q4	13.10	0.4128	-0.86	1.12	0.0294	0.1088	13.10	13.08	0.4113	0.4109	-0.21
Volkswagen	2020	1	2020-Q1	13.10	0.4204	-0.47	1.06	0.0236	0.1334	13.10	13.10	0.4128	0.4113	-0.86
Volkswagen	2020	2	2020-Q2	13.12	0.4289	-0.63	1.12	0.0118	0.104	13.10	13.10	0.4204	0.4128	-0.47
Volkswagen	2020	3	2020-Q3	13.12	0.4182	-0.88	1.13	0.0093	0.1655	13.12	13.10	0.4289	0.4204	-0.63
Volkswagen	2020	4	2020-Q4	13.12	0.4093	-1.1	1.18	0.018	0.2154	13.12	13.12	0.4182	0.4289	-0.88
Volkswagen	2021	1	2021-Q1	13.14	0.3982	-0.6	1.2	0.0234	0.1818	13.12	13.12	0.4093	0.4182	-1.1
Volkswagen	2021	2	2021-Q2	13.16	0.397	-0.74	1.2	0.0358	0.1987	13.14	13.12	0.3982	0.4093	-0.6
Volkswagen	2021	3	2021-Q3	13.16	0.3953	-0.56	1.18	0.0361	0.1675	13.16	13.14	0.397	0.3982	-0.74
Volkswagen	2021	4	2021-Q4	13.18	0.3976	-0.86	1.22	0.03	0.1826	13.16	13.16	0.3953	0.397	-0.56
Volkswagen	2022	1	2022-Q1	13.21	0.3803	-0.64	1.23	0.0355	0.2452	13.18	13.16	0.3976	0.3953	-0.86
Volkswagen	2022	2	2022-Q2	13.21	0.3682	-0.61	1.21	0.0331	0.159	13.21	13.18	0.3803	0.3976	-0.64
Volkswagen	2022	3	2022-Q3	13.26	0.3383	-0.64	1.32	0.0308	0.1975	13.21	13.21	0.3682	0.3803	-0.61
Volkswagen	2022	4	2022-Q4	13.24	0.3633	-1.11	1.23	0.0283	0.1324	13.26	13.21	0.3383	0.3682	-0.64
Volkswagen	2023	1	2023-Q1	13.25	0.357	-0.86	1.23	0.0236	0.1599	13.24	13.26	0.3633	0.3383	-1.11
Volkswagen	2023	2	2023-Q2	13.27	0.3689	-0.69	1.2	0.0223	0.1538	13.25	13.24	0.357	0.3633	-0.86
Volkswagen	2023	3	2023-Q3	13.30	0.3771	-0.77	1.22	0.0249	0.1623	13.27	13.25	0.3689	0.357	-0.69
Volkswagen	2023	4	2023-Q4	13.31	0.3876	-1.11	1.16	0.0284	0.1421	13.30	13.27	0.3771	0.3689	-0.77
Volkswagen	2024	1	2024-Q1	13.34	0.3964	3.44	1.16	0.0262	0.1569	13.31	13.30	0.3876	0.3771	-1.11
Volkswagen	2024	2	2024-Q2	13.35	0.4007	-0.49	1.14	0.0255	0.233	13.34	13.31	0.3964	0.3876	3.44
Volkswagen	2024	3	2024-Q3	13.36	0.3941	-0.27	1.13	0.0208	0.3258	13.35	13.34	0.4007	0.3964	-0.49
Volkswagen	2024	4	2024-Q4	13.36	0.4014	-0.7	1.13	0.0183	0.1487	13.36	13.35	0.3941	0.4007	-0.27
Volkswagen	2025	1	2025-Q1	13.37	0.3942	0.4	1.1	0.0156	0.1376	13.36	13.36	0.4014	0.3941	-0.7
Volkswagen	2025	2	2025-Q2	13.37	0.3958	-0.43	1.09	0.0141	0.14	13.37	13.36	0.3942	0.4014	0.4
Volkswagen	2025	3	2025-Q3	13.37	0.3982	0.61	1.1	0.0115	0.1393	13.37	13.37	0.3958	0.3942	-0.43

net_debt_to_ebitda_t2	current_ratio_t1	current_ratio_t2	roa_t1	roa_t2	ebitda_margin_t1	ebitda_margin_t2	Key	ESG_salience_q	ESG_salience_t1	ESG_salience_t2	E_salience_q	E_salience_t1	E_salience_t2	S_salience_q
							Volkswagen_2010_Q1	0			0			0
0	1.15	0	0.0062	0	0.1084	0	Volkswagen_2010_Q2	0	0	0	0	0	0	0
-1.1	1.09	1.15	0.0114	0.0062	0.1476	0.1084	Volkswagen_2010_Q3	0.693147181	0	0	0	0	0	0
-1.2	1.13	1.09	0.0216	0.0114	0.1389	0.1476	Volkswagen_2010_Q4	0	0.693147181	0	0	0	0	0
-1.18	1.12	1.13	0.0363	0.0216	0.1445	0.1389	Volkswagen_2011_Q1	0	0	0.693147181	0	0	0	0
-0.98	1.12	1.12	0.0399	0.0363	0.1379	0.1445	Volkswagen_2011_Q2	0	0	0	0	0	0	0
-0.93	1.18	1.12	0.0556	0.0399	0.1393	0.1379	Volkswagen_2011_Q3	0	0	0	0	0	0	0
-0.88	1.17	1.18	0.0771	0.0556	0.141	0.1393	Volkswagen_2011_Q4	0	0	0	0	0	0	0
-0.91	1.04	1.17	0.068	0.0771	0.1252	0.141	Volkswagen_2012_Q1	0	0	0	0	0	0	0
-0.7	1.13	1.04	0.0709	0.068	0.1304	0.1252	Volkswagen_2012_Q2	0.693147181	0	0	0	0	0	0
-0.61	1.1	1.13	0.0727	0.0709	0.1316	0.1304	Volkswagen_2012_Q3	0	0.693147181	0	0	0	0	0
-0.56	1.03	1.1	0.0824	0.0727	0.1174	0.1316	Volkswagen_2012_Q4	0	0	0.693147181	0	0	0	0
-0.29	1.07	1.03	0.0771	0.0824	0.1317	0.1174	Volkswagen_2013_Q1	0	0	0	0	0	0	0
-0.35	1.07	1.07	0.0703	0.0771	0.1261	0.1317	Volkswagen_2013_Q2	0.693147181	0	0	0	0	0	0
-0.36	1.03	1.07	0.0598	0.0703	0.1336	0.1261	Volkswagen_2013_Q3	0	0.693147181	0	0	0	0	0
-0.39	1.07	1.03	0.0265	0.0598	0.1358	0.1336	Volkswagen_2013_Q4	0	0	0.693147181	0	0	0	0
-0.59	1.03	1.07	0.0286	0.0265	0.1384	0.1358	Volkswagen_2014_Q1	0	0	0	0	0	0	0
-0.58	1	1.03	0.0288	0.0286	0.1402	0.1384	Volkswagen_2014_Q2	0.693147181	0	0	0	0	0	0
-0.59	1.05	1	0.0301	0.0288	0.1432	0.1402	Volkswagen_2014_Q3	0	0.693147181	0	0	0	0	0
-0.46	1.02	1.05	0.0327	0.0301	0.1546	0.1432	Volkswagen_2014_Q4	0	0	0.693147181	0	0	0	0
-0.53	1	1.02	0.0325	0.0327	0.1447	0.1546	Volkswagen_2015_Q1	0	0	0	0	0	0	0
-0.54	1.01	1	0.0324	0.0325	0.1463	0.1447	Volkswagen_2015_Q2	0.693147181	0	0	0	0	0	0
-0.62	1.03	1.01	0.031	0.0324	0.1437	0.1463	Volkswagen_2015_Q3	1.609437912	0.693147181	0	1.386294361	0	0	0
-0.63	1.02	1.03	0.0177	0.031	0.0396	0.1437	Volkswagen_2015_Q4	1.945910149	1.609437912	0.693147181	1.386294361	1.386294361	0	0
-0.99	0.98	1.02	-0.0037	0.0177	-0.0418	0.0396	Volkswagen_2016_Q1	0	1.945910149	1.609437912	0	1.386294361	1.386294361	0
-1.52	1.01	0.98	-0.005	-0.0037	0.1609	-0.0418	Volkswagen_2016_Q2	1.609437912	0	1.945910149	1.386294361	0	1.386294361	0
-1.48	1.01	1.01	-0.0089	-0.005	0.1254	0.1609	Volkswagen_2016_Q3	0	1.609437912	0	0	1.386294361	0	0
-1.74	1	1.01	0.0014	-0.0089	0.1616	0.1254	Volkswagen_2016_Q4	0	0	1.609437912	0	0	1.386294361	0
-1.29	0.88	1	0.0136	0.0014	0.0724	0.1616	Volkswagen_2017_Q1	0	0	0	0	0	0	0
-1.22	0.96	0.88	0.0155	0.0136	0.1717	0.0724	Volkswagen_2017_Q2	1.098612289	0	0	0.693147181	0	0	0
-0.67	0.98	0.96	0.0202	0.0155	0.17	0.1717	Volkswagen_2017_Q3	0	1.098612289	0	0	0.693147181	0	0
-0.67	1	0.98	0.017	0.0202	0.13	0.17	Volkswagen_2017_Q4	1.098612289	0	1.098612289	1.098612289	0	0.693147181	0
-0.75	1	1	0.0275	0.017	0.1518	0.13	Volkswagen_2018_Q1	0	1.098612289	0	0	1.098612289	0	0
-0.84	0.98	1	0.0265	0.0275	0.1644	0.1518	Volkswagen_2018_Q2	1.098612289	0	1.098612289	0.693147181	0	1.098612289	0
-0.65	1.03	0.98	0.027	0.0265	0.1526	0.1644	Volkswagen_2018_Q3	0	1.098612289	0	0	0.693147181	0	0
-0.39	1.04	1.03	0.0308	0.027	0.1508	0.1526	Volkswagen_2018_Q4	0.693147181	0	1.098612289	0.693147181	0	0.693147181	0
-0.67	1.09	1.04	0.0276	0.0308	0.1482	0.1508	Volkswagen_2019_Q1	0	0.693147181	0	0	0.693147181	0	0
-0.95	1.11	1.09	0.0263	0.0276	0.1632	0.1482	Volkswagen_2019_Q2	1.098612289	0	0.693147181	0.693147181	0	0.693147181	0
-0.47	1.15	1.11	0.0275	0.0263	0.1715	0.1632	Volkswagen_2019_Q3	0	1.098612289	0	0	0.693147181	0	0
0.21	1.18	1.15	0.0296	0.0275	0.1769	0.1715	Volkswagen_2019_Q4	0.693147181	0	1.098612289	0.693147181	0	0.693147181	0
-0.21	1.12	1.18	0.0294	0.0296	0.1088	0.1769	Volkswagen_2020_Q1	0.693147181	0.693147181	0	0.693147181	0.693147181	0	0
-0.86	1.06	1.12	0.0236	0.0294	0.1334	0.1088	Volkswagen_2020_Q2	1.098612289	0.693147181	0.693147181	0.693147181	0.693147181	0.693147181	0
-0.47	1.12	1.06	0.0118	0.0236	0.104	0.1334	Volkswagen_2020_Q3	0	1.098612289	0.693147181	0	0.693147181	0.693147181	0
-0.63	1.13	1.12	0.0093	0.0118	0.1655	0.104	Volkswagen_2020_Q4	0	0	1.098612289	0	0	0.693147181	0
-0.88	1.18	1.13	0.018	0.0093	0.2154	0.1655	Volkswagen_2021_Q1	0	0	0	0	0	0	0
-1.1	1.2	1.18	0.0234	0.018	0.1818	0.2154	Volkswagen_2021_Q2	1.098612289	0	0	0.693147181	0	0	0
-0.6	1.2	1.2	0.0358	0.0234	0.1987	0.1818	Volkswagen_2021_Q3	1.098612289	1.098612289	0	0.693147181	0.693147181	0	0
-0.74	1.18	1.2	0.0361	0.0358	0.1675	0.1987	Volkswagen_2021_Q4	0	1.098612289	1.098612289	0	0.693147181	0.693147181	0
-0.56	1.22	1.18	0.03	0.0361	0.1826	0.1675	Volkswagen_2022_Q1	0	0	1.098612289	0	0	0.693147181	0
-0.86	1.23	1.22	0.0355	0.03	0.2452	0.1826	Volkswagen_2022_Q2	1.098612289	0	0	0.693147181	0	0	0
-0.64	1.21	1.23	0.0331	0.0355	0.159	0.2452	Volkswagen_2022_Q3	0.693147181	1.098612289	0	0.693147181	0.693147181	0	0
-0.61	1.32	1.21	0.0308	0.0331	0.1975	0.159	Volkswagen_2022_Q4	0	0.693147181	1.098612289	0	0.693147181	0.693147181	0
-0.64	1.23	1.32	0.0283	0.0308	0.1324	0.1975	Volkswagen_2023_Q1	0	0	0.693147181	0	0	0.693147181	0
-1.11	1.23	1.23	0.0236	0.0283	0.1599	0.1324	Volkswagen_2023_Q2	1.098612289	0	0	0.693147181	0	0	0
-0.86	1.2	1.23	0.0223	0.0236	0.1538	0.1599	Volkswagen_2023_Q3	0.693147181	1.098612289	0	0.693147181	0.693147181	0	0
-0.69	1.22	1.2	0.0249	0.0223	0.1623	0.1538	Volkswagen_2023_Q4	0	0.693147181	1.098612289	0	0.693147181	0.693147181	0
-0.77	1.16	1.22	0.0284	0.0249	0.1421	0.1623	Volkswagen_2024_Q1	0	0	0.693147181	0	0	0.693147181	0
-1.11	1.16	1.16	0.0262	0.0284	0.1569	0.1421	Volkswagen_2024_Q2	0	0	0	0	0	0	0
3.44	1.14	1.16	0.0255	0.0262	0.233	0.1569	Volkswagen_2024_Q3	1.386294361	0	0	1.098612289	0	0	0
-0.49	1.13	1.14	0.0208	0.0255	0.3258	0.233	Volkswagen_2024_Q4	0	1.386294361	0	0	1.098612289	0	0
-0.27	1.13	1.13	0.0183	0.0208	0.1487	0.3258	Volkswagen_2025_Q1	1.098612289	0	1.386294361	0.693147181	0	1.098612289	0.693147181
-0.7	1.1	1.13	0.0156	0.0183	0.1376	0.1487	Volkswagen_2025_Q2	1.098612289	1.098612289	0	0.693147181	0.693147181	0	0
0.4	1.09	1.1	0.0141	0.0156	0.14	0.1376	Volkswagen_2025_Q3	1.098612289	1.098612289	1.098612289	0.693147181	0.693147181	0.693147181	0

S_salience_t1	S_salience_t2	G_salience_q	G_salience_t1	G_salience_t2	ESG_salience_mat_q	ESG_salience_mat_t1	ESG_salience_mat_t2	Agency	firm_id	Key_Agency	rating_num_q	post_2015	post_2020	covid_dummy
		0			0			DBRS	8	DBRS|Volkswagen_2010_Q1		0	0	0
0	0	0	0	0	0	0	0	DBRS	8	DBRS|Volkswagen_2010_Q2		0	0	0
0	0	0.693147181	0	0	1.098612289	0	0	DBRS	8	DBRS|Volkswagen_2010_Q3		0	0	0
0	0	0	0.693147181	0	0	1.098612289	0	DBRS	8	DBRS|Volkswagen_2010_Q4	7	0	0	0
0	0	0	0	0.693147181	0	0	1.098612289	DBRS	8	DBRS|Volkswagen_2011_Q1		0	0	0
0	0	0	0	0	0	0	0	DBRS	8	DBRS|Volkswagen_2011_Q2		0	0	0
0	0	0	0	0	0	0	0	DBRS	8	DBRS|Volkswagen_2011_Q3		0	0	0
0	0	0	0	0	0	0	0	DBRS	8	DBRS|Volkswagen_2011_Q4	7	0	0	0
0	0	0	0	0	0	0	0	DBRS	8	DBRS|Volkswagen_2012_Q1		0	0	0
0	0	0.693147181	0	0	1.098612289	0	0	DBRS	8	DBRS|Volkswagen_2012_Q2		0	0	0
0	0	0	0.693147181	0	0	1.098612289	0	DBRS	8	DBRS|Volkswagen_2012_Q3		0	0	0
0	0	0	0	0.693147181	0	0	1.098612289	DBRS	8	DBRS|Volkswagen_2012_Q4	7	0	0	0
0	0	0	0	0	0	0	0	DBRS	8	DBRS|Volkswagen_2013_Q1		0	0	0
0	0	0.693147181	0	0	1.098612289	0	0	DBRS	8	DBRS|Volkswagen_2013_Q2		0	0	0
0	0	0	0.693147181	0	0	1.098612289	0	DBRS	8	DBRS|Volkswagen_2013_Q3		0	0	0
0	0	0	0	0.693147181	0	0	1.098612289	DBRS	8	DBRS|Volkswagen_2013_Q4	6	0	0	0
0	0	0	0	0	0	0	0	DBRS	8	DBRS|Volkswagen_2014_Q1		0	0	0
0	0	0.693147181	0	0	1.098612289	0	0	DBRS	8	DBRS|Volkswagen_2014_Q2		0	0	0
0	0	0	0.693147181	0	0	1.098612289	0	DBRS	8	DBRS|Volkswagen_2014_Q3		0	0	0
0	0	0	0	0.693147181	0	0	1.098612289	DBRS	8	DBRS|Volkswagen_2014_Q4	6	0	0	0
0	0	0	0	0	0	0	0	DBRS	8	DBRS|Volkswagen_2015_Q1		1	0	0
0	0	0.693147181	0	0	1.098612289	0	0	DBRS	8	DBRS|Volkswagen_2015_Q2		1	0	0
0	0	0.693147181	0.693147181	0	2.564949357	1.098612289	0	DBRS	8	DBRS|Volkswagen_2015_Q3	6	1	0	0
0	0	1.386294361	0.693147181	0.693147181	2.944438979	2.564949357	1.098612289	DBRS	8	DBRS|Volkswagen_2015_Q4		1	0	0
0	0	0	1.386294361	0.693147181	0	2.944438979	2.564949357	DBRS	8	DBRS|Volkswagen_2016_Q1		1	0	0
0	0	0.693147181	0	1.386294361	2.564949357	0	2.944438979	DBRS	8	DBRS|Volkswagen_2016_Q2	8	1	0	0
0	0	0	0.693147181	0	0	2.564949357	0	DBRS	8	DBRS|Volkswagen_2016_Q3		1	0	0
0	0	0	0	0.693147181	0	0	2.564949357	DBRS	8	DBRS|Volkswagen_2016_Q4		1	0	0
0	0	0	0	0	0	0	0	DBRS	8	DBRS|Volkswagen_2017_Q1		1	0	0
0	0	0.693147181	0	0	1.609437912	0	0	DBRS	8	DBRS|Volkswagen_2017_Q2		1	0	0
0	0	0	0.693147181	0	0	1.609437912	0	DBRS	8	DBRS|Volkswagen_2017_Q3		1	0	0
0	0	0	0	0.693147181	1.609437912	0	1.609437912	DBRS	8	DBRS|Volkswagen_2017_Q4	8	1	0	0
0	0	0	0	0	0	1.609437912	0	DBRS	8	DBRS|Volkswagen_2018_Q1		1	0	0
0	0	0.693147181	0	0	1.609437912	0	1.609437912	DBRS	8	DBRS|Volkswagen_2018_Q2		1	0	0
0	0	0	0.693147181	0	0	1.609437912	0	DBRS	8	DBRS|Volkswagen_2018_Q3		1	0	0
0	0	0	0	0.693147181	1.098612289	0	1.609437912	DBRS	8	DBRS|Volkswagen_2018_Q4	8	1	0	0
0	0	0	0	0	0	1.098612289	0	DBRS	8	DBRS|Volkswagen_2019_Q1		1	0	0
0	0	0.693147181	0	0	1.609437912	0	1.098612289	DBRS	8	DBRS|Volkswagen_2019_Q2		1	0	0
0	0	0	0.693147181	0	0	1.609437912	0	DBRS	8	DBRS|Volkswagen_2019_Q3		1	0	0
0	0	0	0	0.693147181	1.098612289	0	1.609437912	DBRS	8	DBRS|Volkswagen_2019_Q4	7	1	0	0
0	0	0	0	0	1.386294361	1.098612289	0	DBRS	8	DBRS|Volkswagen_2020_Q1		1	1	0
0	0	0.693147181	0	0	1.945910149	1.386294361	1.098612289	DBRS	8	DBRS|Volkswagen_2020_Q2		1	1	1
0	0	0	0.693147181	0	0	1.945910149	1.386294361	DBRS	8	DBRS|Volkswagen_2020_Q3	7	1	1	1
0	0	0	0	0.693147181	0	0	1.945910149	DBRS	8	DBRS|Volkswagen_2020_Q4		1	1	1
0	0	0	0	0	0	0	0	DBRS	8	DBRS|Volkswagen_2021_Q1		1	1	1
0	0	0.693147181	0	0	1.791759469	0	0	DBRS	8	DBRS|Volkswagen_2021_Q2		1	1	1
0	0	0.693147181	0.693147181	0	1.945910149	1.791759469	0	DBRS	8	DBRS|Volkswagen_2021_Q3	7	1	1	1
0	0	0	0.693147181	0.693147181	0	1.945910149	1.791759469	DBRS	8	DBRS|Volkswagen_2021_Q4		1	1	1
0	0	0	0	0.693147181	0	0	1.945910149	DBRS	8	DBRS|Volkswagen_2022_Q1		1	1	0
0	0	0.693147181	0	0	1.609437912	0	0	DBRS	8	DBRS|Volkswagen_2022_Q2		1	1	0
0	0	0	0.693147181	0	1.386294361	1.609437912	0	DBRS	8	DBRS|Volkswagen_2022_Q3	7	1	1	0
0	0	0	0	0.693147181	0	1.386294361	1.609437912	DBRS	8	DBRS|Volkswagen_2022_Q4		1	1	0
0	0	0	0	0	0	0	1.386294361	DBRS	8	DBRS|Volkswagen_2023_Q1		1	1	0
0	0	0.693147181	0	0	1.609437912	0	0	DBRS	8	DBRS|Volkswagen_2023_Q2		1	1	0
0	0	0	0.693147181	0	1.386294361	1.609437912	0	DBRS	8	DBRS|Volkswagen_2023_Q3	7	1	1	0
0	0	0	0	0.693147181	0	1.386294361	1.609437912	DBRS	8	DBRS|Volkswagen_2023_Q4		1	1	0
0	0	0	0	0	0	0	1.386294361	DBRS	8	DBRS|Volkswagen_2024_Q1		1	1	0
0	0	0	0	0	0	0	0	DBRS	8	DBRS|Volkswagen_2024_Q2		1	1	0
0	0	0.693147181	0	0	2.079441542	0	0	DBRS	8	DBRS|Volkswagen_2024_Q3	7	1	1	0
0	0	0	0.693147181	0	0	2.079441542	0	DBRS	8	DBRS|Volkswagen_2024_Q4		1	1	0
0	0	0	0	0.693147181	1.609437912	0	2.079441542	DBRS	8	DBRS|Volkswagen_2025_Q1		1	1	0
0.693147181	0	0.693147181	0	0	1.609437912	1.609437912	0	DBRS	8	DBRS|Volkswagen_2025_Q2		1	1	0
0	0.693147181	0.693147181	0.693147181	0	1.945910149	1.609437912	1.609437912	DBRS	8	DBRS|Volkswagen_2025_Q3	7	1	1	0

Source: dataset compiled by the author based on Moody's, S&P, Fitch and DBRS and Bloomberg data