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Did ESG data predict Volkswagen?

The Emissions Scandal

On September 18th 2015, Volkswagen (**VW**), a manufacturer of economy and luxury automobiles as well as trucks and commercial vehicles worldwide (see Figure 1), stood accused of employing software on some diesel-powered cars which manipulated the results of routine emissions tests. The US Environment Protection Agency (**EPA**) issued a **notice of violation** of the Clean Air Act along with the California Air Resources Board (**CARB**).

Following this revelation, VW admitted to the installation of a 'defeat device' on certain models, causing industry-wide fallout. VW's share price fell about **30%** in three days, a substantial (initial) provision has been taken, earnings guidance downgraded, the Chief Executive resigned (and is now under investigation) and a warning has been issued that 11 million cars from eight different models may have to be recalled.

But the impact was not confined to VW. Investors and customers fret that other automakers may be involved in emission rigging which was reflected in a marked decline in the SXAP[1] Index which comprises other auto industry companies. Concerns have also been raised about the future of diesel cars. In a number of EU States, **new car registrations** were dominated by diesel engines rather than petrol (gasoline).

Did investors ignore warnings embedded in the mass of data available to them? Particular interest is likely going to focus on the environmental, social and governance (ESG) data and whether this provided insight that was not evident in the mainstream financial filings and reports. We examine this issue herein.

Figure 1: Models in Volkswagen Group[2]

Volkswagen Emissions Scandal
By the Numbers

40
times over the legal standard for nitrogen dioxide was observed by the EPA for certain types of Volkswagen (VW) vehicles.

18
billion US Dollars is the estimated penalty for VW for falsifying emission results, according to the EPA.

11
million vehicles worldwide could be involved in the emission test scandal, according to VW.

7.6
percent was the one day fall in the STOXX Europe 600 auto index in a single day, the sharpest fall since August 2011.

6.5
billion Euros is the present provision level that VW has put aside for the service costs related to the emission scandal.

4
business days between when the EPA concluded that VW had violated the Clean Air Act and when the CEO resigned.

1. The SXAP is the STOXX Europe 600 Automobiles & Parts Index, a market cap weighted price index which comprises autos and auto parts companies. See figure 3.
2. Source: http://www.volkswagenag.com/content/vwcorp/content/en/brands_and_products.html

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Analyzing the ESG Data

What has become clear from the VW emission scandal is that the perceived separation of 'financial' and 'non-financial' data is open to ridicule. ESG data is often used synonymously with the latter. But if such issues as governance within the automaker are seen as weak, possibly leading to an inappropriate company culture, then its impact has had a devastating financial impact.

In this particular instance it can be argued that two 'pillars' of the ESG remit have been impacted. Not only the governance of VW but also the environmental issues. The latter is likely to be the source of substantial financial penalties.

We examined the ESG data of several of the main providers. An initial examination of the ESG scores that were allocated to VW prior to the revelation of this emission violation shows that none appear to have explicitly indicated anything untoward. Broadly the results indicate a middle-of-the-road rating.

However, such a cursory glance is misleading and a greater understanding of the ESG data is required. We explain why herein.

1. Understanding the scoring methodology

What might appear as an average score, could be very different when the methodology of the ESG provider is examined. For example, one data provider had an overall ESG rating of 'D'. With a range of 'A' (the best) to 'F' (the worst), VW appears slightly below average. But actually the company is in the bottom (worst) quartile as the rating structure does not include an 'E' rank.

2. Distribution of Data

The ESG score from another data provider of 52.00 looks very average in a range of 0 (the best companies) to 100 (the worst companies). However, an examination of the score distribution reveals a very different picture. No companies within the MSCI All Countries World Index (ACWI) in the data provider's database presently have a score greater than 75. In terms of percentile ranks a score of 52 would place VW on the 98% percentile, where a higher percentile makes for a worse ESG score. So the average-looking score appears rather exceptional – exceptionally poor.

> "Broadly the results indicate a middle-of-the-road rating...However, such a cursory glance is misleading."

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3. Which score to use?

Subscribers to ESG data are often confronted with an avalanche of data. For example, one data provider covers 96 unique corporate governance and accounting metrics. Even at a fairly high level, the user can choose to monitor just the governance score, omitting the environmental and social pillars. If we look at just the 'G' score, we note that it is particularly high on September 17th for one data provider, placing it in the worst decile for governance measures. As we have discussed earlier, in this particular instance a combination of a 'G' and 'E' score may be most appropriate.

4. Examine the score changes

Perhaps it's not the absolute score on which investors should be focused, but those companies where ratings are changing. An examination of another ESG data provider indicates that since mid-2013 VW's ESG score has been deteriorating albeit slowly. In May 2013, the data provider awarded VW a high (but not the highest) overall ESG rating. By July of the same year, the rating had fallen two further notches where it stayed until August 2015. Subsequent to this, it did tick up a notch in the month before this emission scandal.

Further Considerations

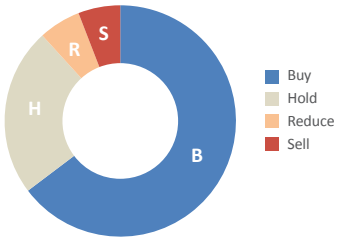
In turn, these observations raise two further issues when using ESG data. Firstly, should investors rely on one data provider or use a variety? Investors need to identify skill within the ESG analyst community and then follow the data.

Secondly, the goal is for the mainstream investor to determine the forecasting power of ESG data. For example, are there particular ESG scores that demonstrate predictive power in terms of share price movements?

Examining the 'mainstream data'

A more traditional place to look for warning signs of a weak or failing company, which would include an assessment of its management and company culture, are the sell-side analysts. We can identify 34 Volkswagen AG sell-side analysts, all at different sell-side institutions, which research and issue reports on this company.

Figure 2: Distribution of sell-side analyst recommendations



Source: SICM's Radar database, as of September 17, 2015

We examined the recommendations of these sell-side analysts on the day before the news of the EPA action appeared on the news wires. Of these, 22 had a 'buy' rating, 8 a 'hold' rating, 2 recommended 'reduce' and two to 'sell'. There were no 'add' recommendations. See Figure 2. So the sell-side research community has been wrong-footed, reasonable in case of alleged 'aggravated fraud', whereby only 12% of the analysts were recommending an underweight position.

Figure 3: Performance of STOXX Europe 600 Automobile & Parts Index, as of 09/29/2015

Source: STOXX Europe, from 09/17/2015 - 09/29/2015

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What lessons should we take from this? Firstly, the more traditional 'experts' on financial analysis, found predicting such an action at VW very difficult. Secondly, the analyst consensus view may provide little investor guidance in circumstances such as this. It's the skilled analyst that investors need to identify.

Summary

1. A cursory glance suggests that the ESG data failed to deliver.
2. A deeper understanding of ESG metrics could have provided clues (although this is a sample of one). A thorough analysis of the data may identify skill from the ESG analysts.
3. The mainstream sell-side analysts were (understandably) wrong-footed. Perhaps investors should avoid the consensus call and look for the skilled analysts.
4. What is beyond doubt is the separation of ESG data from financial data looks absurd.

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