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EQUITY RESEARCH – VOLVO AB

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IMPACT OF COMPETITION AND ENVIRONMENTAL SUSTAINABILITY ON THE
VALUE OF VOLVO GROUP

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Abstract:

In this report, one will find a description of how competition in the automotive industry has evolved and how it will likely evolve in the future assessing the impact on the value of Volvo Group. Additionally, there will be an assessment of the impact of sustainability goals on the valuation of Volvo Group taking mainly into consideration the literature on this topic. This report was executed by a Nova School of Business and Economics Master's in Finance student, in the context of the equity research thesis.

Keywords: Volvo AB, Competition, Sustainability, Valuation

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1. Introduction

The competition is an intrinsic trait in the automotive industry, stimulating automotive manufacturers to innovate as a way to differentiate themselves from the competitors. In the future, the search for further competitive advantages will continue and, allied to the toughening of environmental regulations, will boost further mutations in the industry. The question that arises is whether in a market which is constantly searching for new developments and is highly competitive, allied to the ever-stricter environmental regulations will hurt Volvo Group's valuation.

2. Competition and Sustainability

Every time there is a competitive disruption such as the release of a new feature, companies tend to focus on producing that feature at the lowest possible price, and thus gaining market share. After the market reaches a saturation point, customers start demanding other factors such as design or technology. Because every good and service's market tends to reach a saturation point, where clients are no longer concerned about a given factor, competitive advantages' benefits tend to be extinct over time. Even though customers are still very sensitive to the price of vehicles, nowadays price is far from being the factor on which OEMs (Original Equipment Manufacturers) compete. Factors such as technology, design, and even sustainability become increasingly important choice factors. Thus, OEMs will be pressured to bring new and better features and models to the market (Holweg & Pil, *The Second Century: Reconnecting Customer and Value Chain through Build-to-Order*, 2004). On the one hand, pioneer OEMs in a given technological or service improvement will gain a competitive advantage which will allow them to exploit higher demand. Nonetheless, they will have a more complicated job to adopt the disruptive technology than the followers, as they will have higher R&D costs to develop the technology but also initial investments to expand

the technology and get customers' confidence. For these reasons, Volvo Group will suffer from a decrease in margins in the medium-long-term as it gets more costly to find competitive advantages in an industry already so mature and with a required high pace of product development. Nonetheless, M&A activity will be a good way for OEMs to minimize risk, by sharing R&D costs to achieve more synergies and develop and implement new features faster. Currently, this strategy has been followed by Volvo Group and it is expected to be maintained. The acquisition in 2019 of the CeDe Group, a small company in Sweden specialized in adapting machines for specialized applications for the construction equipment sector, demonstrates that. Another example is the recent partnership between Volvo Group and Autotech Ventures, a venture capital firm located in Silicon Valley. This alliance will bring more expertise both on the venture capital and transportation sectors.

Competition will continue to be a challenge to Volvo Group, and pressure margins, as it will require adaption of new machinery, more investment in R&D, and higher M&A activity. Thus, a negative impact on valuation should be expected in Volvo Group, however, at a lower scale than in smaller companies. Because of the company's big scale, Volvo Group will be able to invest more in R&D and pay a higher premium for the acquirees.

Even though environmental sustainability might seem to have nothing to do with competition, sustainability is becoming a competition factor. The question is how the investment in sustainability affects the competitive position of Volvo Group and ultimately, its value. Conventional diesel and gasoline engines will continue to constitute a big part of the commercial vehicles fleet. However, Volvo Group already offers a wide range of vehicles running on alternative fuels, such as biodiesel, hydrogenated vegetable oils, natural gas and biogas (e.g.: Volvo FE CNG, Volvo FH LNG and Volvo FM LNG trucks (natural gas and biogas); Volvo FL Electric

and the Volvo FE Electric trucks (all-electric)). The tightening of regulations regarding environmental standards will require further green R&D investment, not only at the level of the emissions of the produced vehicles (95% of the Volvo Group carbon footprint), but also at the level of the production sites. However, the fact that prices in more developed markets, such as in Europe and North America, are expected to keep constant and that the OEM's manufacturing costs increase more than proportionally to reduce CO₂ emissions (Mohr, et al., 2013) will narrow even more the price-cost gap, and thus likely hurt the industry's results. It is important to understand whether the investment in more sustainable technologies at the production site and at the usage phase of its vehicles affects, in fact, Volvo Group's performance. A literature review on the topic demonstrates an absence of consensus on green R&D effect in companies' financial performance. On the one hand, (Gallego-Alvarez , Segura, & Martínez-Ferrero, 2015), which studied the impact of CO₂ emissions on 89 companies' 2006-2009 financial performance, concluded that a reduction of CO₂ emissions increased financial returns. Likewise, (Nishitani, Kaneko, Komatsu, & Fujii, 2011) studied Japanese manufacturing firms over the period 2002–2008, suggesting that decreasing carbon emissions does have a positive effect on financial performance due to the fact that lowering emissions generally improves productivity and increases the demand of environmentally concerned customers. On the other hand, (Rokhmawati, Sathye, & Sathye, 2015) found that higher CO₂ intensity is associated with higher ROA of Indonesian firms. According to this study, this might happen due to that fact that government incentives provided are not enough to compensate and totally internalize the cost of green-house gases (GHG) emissions. Following the (Broadstock, A, Hunt, & Hunt, 2017) suggestion, there is a non-linear relationship between UK

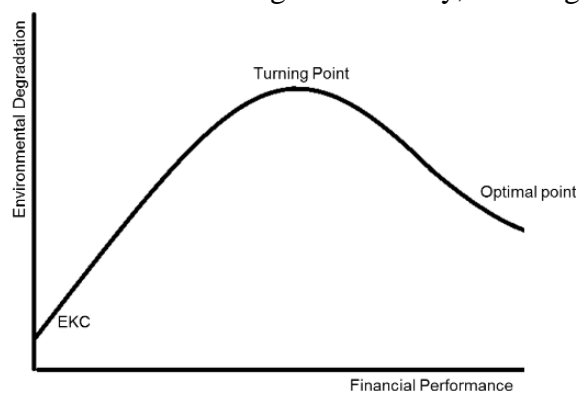


Figure 1 – Environmental Kuznets Curve (EKC).

FTSE-350-listed firms' financial performance and GHG emissions, more particularly an inverted U-shape relationship (figure 1). Meaning that initially the relationship is positive but after companies' performance reached a given level, the relationship became negative. The mixed results in the literature may be due to the way governments apply incentives to companies and internalize carbon costs, but also the way financial benefits and performance are measured. According to a survey conducted by MIT, the investment in sustainability is mainly pursued not because of direct costs savings, but rather because of marketing and brand image benefits. The no-inclusion of the positive effects on customer satisfaction and brand value may explain why some studies conclude that sustainability does not improve financial performance. In the case of Volvo Group, the sustainability image is even more worthy, as it is part of its brand and history image (e.g.: Volvo Group was the first vehicle manufacturer to have CO₂-neutral plant and the first automotive manufacturer to be invited to participate in WWF's Climate Savers). Volvo Group is also developing several outstanding and pioneering green and energy efficient projects (e.g.: Vera a fully autonomous and all-electric; Electric Site aiming to create the first emission free quarry). For this reason, in comparison to some of its competitors, Volvo Group will benefit more from investing in green R&D and decreasing emissions, leveraging indirect benefits on its brand and customer satisfaction.

3. Conclusion

The fiercing competition in price and non-price factors, the fact that the industry is already quite mature and faces low markups will create difficulties to automotive manufactures to keep a high product development pace, to comply with environmental regulations and to still apply competitive prices. Since the industry is capital intensive, current and future disruptions will first require high investments, as well as additional time to adapt. All these factors put a lot of pressure on companies,

mainly the smallest ones. The strongest companies will try to engage in M&A to speed up the release of innovative developments through the acquisition of smaller and weaker competitors, and even vertically acquiring suppliers. Volvo Group understands the importance of R&D investment, and M&A activity to keep in the front line of efficiency, technological improvements and sustainability. Being one of the biggest companies in terms of market share helps mitigating some of the negative effects of increasing competition on Volvo Group valuation. Volvo Group will continue to invest in R&D green related projects as it benefits its performance in terms of efficiency but also of customer satisfaction.

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