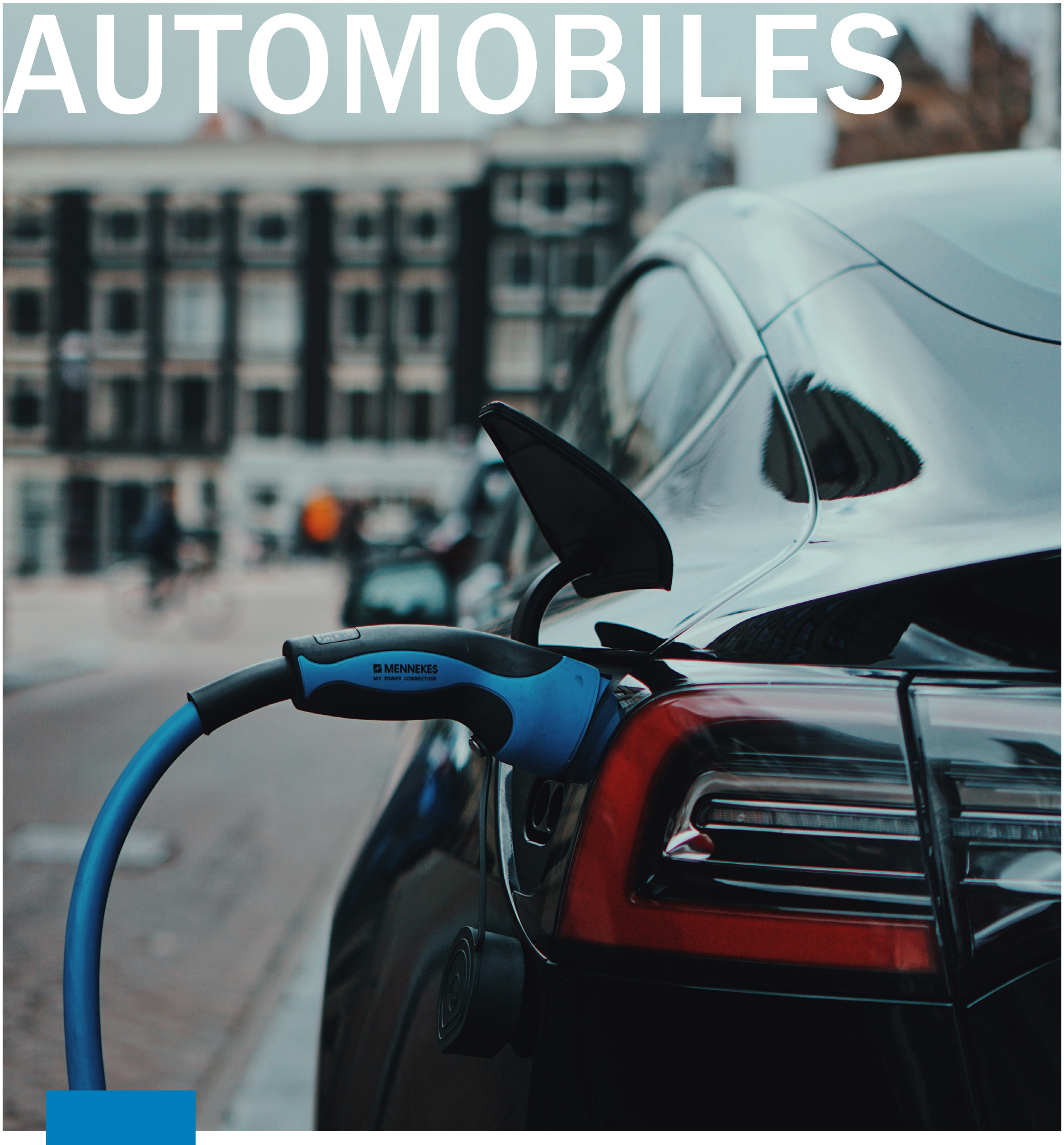
ESG FRAMEWORK

AUTOMOBILES



PZENA Investment Management

www.pzena.com

01 A Strong ESG Proposition Adds Value

As committed value investors, Pzena seeks to buy good businesses at low prices, focusing exclusively on companies that are underperforming their historically demonstrated long-term earnings power. Through bottom-up fundamental research we seek to determine whether such earnings shortfalls are temporary or permanent, and each investment decision weighs risk and return potential by considering all issues material to a company's prospects.

Because ESG issues can have a material impact on a company's earnings over time, they are evaluated like any other investment issue. Pzena's integrated approach to ESG ensures that an understanding of material ESG risks and opportunities is incorporated into the research process. As many ESG issues will play out over a long timeframe, they require a future-oriented perspective, consistent with our long-term, buy-the-whole-business approach to investing.

02 What are ESG Industry Frameworks

ESG frameworks provide an overview of the critical ESG issues relevant to an industry globally, which are part of our bottom-up, company-specific analysis. These frameworks distill material investment issues that can have an impact on a company's financial performance; help identify and quantify additional potential risks and opportunities; and prioritize the most material ESG issues by industry.

Specifically, the frameworks:

1. Ensure coverage of key material ESG issues within an industry;
2. Provide a sound basis for quantifying and assessing these issues;
3. Provide a way of prioritizing issues for each company-specific situation.

While these ESG frameworks are relevant to all companies in a specific industry, company-specific nuances and geographical considerations always determine any variation to, and prioritization of, our research into these areas. The issues highlighted in a framework do not reflect all potential ESG issues for a company but are a guide to what we think are the most common and material issues. Company-specific materiality will always be evaluated on a case-by-case basis by our investment team.

We developed these frameworks from a comprehensive set of inputs that we evaluated as part of our proprietary research process. In so doing we referred to a wide range of third-party ESG data sources, including SASB (the Sustainability Accounting Standards Board), MSCI, RepRisk, and company-reported information.

03 Automobiles Framework

PRIORITY	ISSUE	RELEVANCE TO INVESTMENT THESIS
1	**Electrification**	• ICE to EV transition costs (R&D, capex) • Potential fines for regulatory non-compliance with CO2 emissions standards • Market share loss/gain due to changing consumer adoption of EVs
2	**Product Safety**	• Reputational damage from defective vehicles • Warranty costs • Litigation costs
3	**Labor Relations**	• Flexibility to rightsize cost structure as needed • Business disruption from strikes/collective action
4	**Human Capital**	• Ability to attract and retain top engineering talent, especially as software becomes more important to the automobiles industry
5	**Materials Sourcing**	• Availability and price volatility of raw materials and key components • Reputational damage from unsustainable sourcing practices
N/A	**Governance**	• Company specific

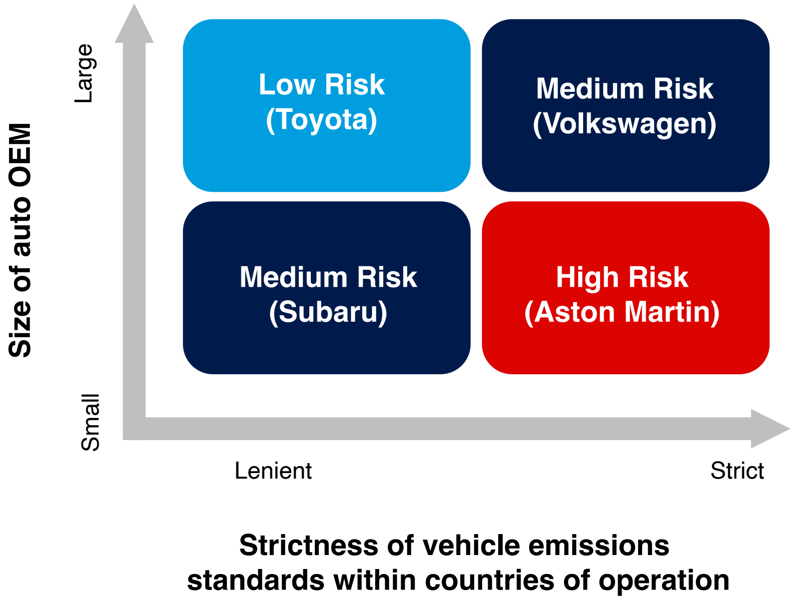
An example of how we apply this framework to electrification — the most critical ESG issue facing the automobiles industry — is outlined below. The path toward electrification for any original equipment manufacturer (OEM) will depend on a wide range of interrelated factors, including technology evolution, changes to regulation, and consumer preferences. As such, while unlikely to capture all these factors here, we highlight how a couple of these factors can create risk or opportunities for incumbent OEM players.

Some OEMs view electrification as an opportunity to tap new markets and expand in existing ones. Others view it as a threat to their current business model. For example, EV-only OEMs see electrification as a big opportunity as they are clearly ahead of the curve and are aiming for greater market share, of which most today have little to none. Even Tesla, the leader in EVs, with 19% of the EV market (70% in the US), produced just 1.8% of total light vehicle sales in North America in 2021. For EV-only challengers, electrification is a chance to break into the automobiles industry and stake a claim in the growing share of EVs on the road.

Meanwhile incumbent OEMs must shift their strategy away from internal combustion engine (ICE) vehicles toward EVs. Incumbent OEMs have had a surprisingly wide range of strategies to transition from ICE to EVs. For example, some have been selling EVs for years while others won't introduce an EV until later this decade.

What strategy an incumbent OEM chooses, and the risk involved, are primarily driven by two factors: (1) size of the OEM and (2) strictness of vehicle emission standards within its core markets (see Figure 1). EV development is inherently expensive — costing tens of billions of dollars in R&D and capex — and, hence, size matters. Larger OEMs have the resources and cash flow to invest in electrification and are typically at the forefront of the transition away from ICE vehicles. Smaller OEMs, on the other hand, lack the resources necessary to overhaul their business. As such, the risk is greater for OEMs that lack scale to manufacture EVs that consumers want.

The second factor impacting an OEM's EV strategy is strictness of vehicle emission standards in its core markets. The risk to valuation is greatest for OEMs that sell ICE vehicles in countries whose governments are pushing a greener, all-electric future. European countries, for example, have been pushing aggressively toward zero emission from road transport, forcing OEMs to make the necessary investments to electrify their fleets or face stiff penalties. The United States and China are following Europe's lead, while emerging economies are generally further behind. The difficulty with assessing this risk is that administrations and policies are constantly changing, coupled with the fact that companies need to plan for these investments over several years.



04 Application of the Framework: Volkswagen

Pzena is bottom-up oriented and, therefore, we look at each company on a case-by-case basis. Below we use Volkswagen to illustrate how our auto framework can be applied to a specific company.

Volkswagen is the second-largest auto manufacturer by sales with brands including Volkswagen, Porsche, Audi, ŠKODA, SEAT, Bentley, Scania, MAN, Lamborghini, Ducati, and Bugatti. Headquartered in Germany, the company's main sales markets are Western Europe and China, with additional volumes spread widely across several other key regions.

How Volkswagen rates on the broad framework issues:

PRIORITY	ISSUE	VW MATERIALITY	ISSUE DETAIL	VW STATUS
1	**Electrification**	**High**	• Transition costs • Compliance with CO_2 emission standards • Positioning for emerging opportunities	**In Line** **In Line** **In Line**
2	**Product Safety**	**Medium**	• Reputation • Warranty costs • Litigation costs	**In Line** **Lagging** **Lagging**
3	**Labor Relations**	**Low**	• Flexibility to right-size cost structure • Risk of business disruption	**In Line** **In Line**
4	**Human Capital**	**Low**	• Ability to attract and retain top engineering talent	**In Line**
5	**Materials Sourcing**	**Low**	• Availability • Risk of reputational damage	**Leading** **Leading**
N/A	**Governance**	**Medium**	• Labor controls supervisory board	**Lagging**

Volkswagen is facing ESG-related challenges to its business model primarily from electrification and product safety, both of which are impacting earnings and the range of outcomes for the business. Volkswagen's management has embarked on a forward-thinking strategy to overcome these challenges, turning them into growth opportunities.

1. Electrification Risk

The greatest risk and opportunity facing Volkswagen is the shift to EVs. While costs to transition the company are massive — Volkswagen is forecasting $86B on future technologies through 2025 — the real risk to Volkswagen is not moving fast enough in its electrification transition. The battle for EV market share has begun, and it is being waged by incumbent OEMs as well as new entrants, most notably Tesla. The increased competition is a result of lower barriers to entry in electrification technology.

Despite increased competition, it is our view that the largest incumbent OEMs like Volkswagen are well positioned to out-compete most newer entrants in the automobile industry from a capital perspective. The EV race is a marathon, and any EV business will require years of negative free cash flow to reach profitability. Having an existing ICE business that generates positive cash flow will allow incumbent OEMs to bear the costs of electrification. EV-only manufacturers must rely on financing from capital markets to get to profitability, and any setback along the way could shut them down.

Europe, Volkswagen's largest market, has been aggressive in setting legislation to accelerate the EV revolution. Tightening of CO_2 emissions for passenger cars means the pace of electrification needs to be stepped up by automakers. Europe's CO_2 emissions target was 95 g/km for 95% of each manufacturers' new passenger cars registered in 2020, increasing to 100% from 2021 onwards. Volkswagen faced a fine of more than 100 million euros for missing the 2020 EU target (manufacturers pay €95 for each g/km exceeding the target per vehicle) but is likely to reach 2021's target. Looking ahead, it should be relatively easy for Volkswagen to comply until 2025, at which point yet-to-be-announced Euro 7 (Europe's auto emissions standards) will take effect. Details of Euro 7 will be influenced by the European Commission's broader "Fit for 55" legislation package, which seeks to cut CO_2 emissions targets by a further 55% by 2030 followed by 100% cut by 2035 — meaning it would be practically impossible to sell internal-combustion engine vehicles in Europe after that.

Volkswagen's electrification push in Europe, to keep up with stricter emissions standards, has created an opportunity to take share in the United States, where emissions standards are less stringent and incumbent OEMs like Ford and GM have been less aggressive in their electrification plans, at least until recently. As a result, Volkswagen has a 9% market share in EVs in the United States compared to its ICE market share of 4%.

2. Product Safety Risk

Volkswagen took a massive hit in 2015 when its Dieselgate emissions scandal came to light. The company has already paid out more than €33 billion in penalties, financial settlements, and warranty costs related to the scandal, with more on the way. Reputational damage, though difficult to quantify, likely cost the company billions of euros more in lost sales as many consumers lost trust in the Volkswagen brand.

The good news is that Volkswagen used Dieselgate to change the culture within the company, reinventing itself as a leader in electrification. Today Volkswagen is seen as the incumbent OEM best positioned to challenge Tesla in electric vehicles — a far cry from where it was six years ago when the name Volkswagen was synonymous with cheater and polluter. Moreover, we believe Volkswagen understands that product safety is a win-win. Safe vehicles save lives and build consumer trust while also lowering warranty and litigation costs. Meanwhile vehicle defects and safety recalls can lead to reputational damage and lower margins.

3. Other ESG Risks

Volkswagen faces other material ESG risks including those associated with labor relations, human capital, materials sourcing, and governance. These risks are difficult to quantify; nevertheless, their importance is real, and they can have a direct impact on financial performance. For example, Volkswagen is often criticized for its governance. The issue is that labor effectively has majority control of the company's supervisory board. As required by German law, Volkswagen's 20-person board is split evenly between labor representatives and shareholder representatives; however, the state of Lower Saxony, where many Volkswagen employees work, appoints two shareholder representatives (through its 20% ownership of the voting shares) and tends to side with the 10 worker representatives. With 12 of the 20 votes, the worker representatives and the state of Lower Saxony together can block efforts to cut jobs and make the company more efficient, creating a long-running conflict between management and labor leaders at Volkswagen.

4. Engagement with Volkswagen

We have had several discussions with management on electrification and how the company's strategy is aligned to mitigate the risks and benefit from this trend. We have met with Volkswagen's CEO and CFO at least once per year, with additional engagements with Investor Relations and the company's ESG team when we are considering how to vote proxies. We believe that the management team is very competent and attuned to facing ESG-related challenges, and we will continue to engage with them frequently.

FURTHER INFORMATION

Data and estimates based on company and industry reports and Pzena analysis as of December 2021.