

## Press Release

Zurich, Switzerland, and Washington, DC, October 30, 2003

### ***New Study Forecasts Competitive Re-Alignment In Global Auto Industry***

Sustainable Asset Management (SAM) and the World Resources Institute (WRI) today released a detailed analysis of how emerging climate change policies, or carbon constraints, will affect the financial performance and competitiveness of ten leading global auto companies.

The report, *Changing Drivers: The Impact of Climate Change on Competitiveness and Value Creation in the Automotive Industry*, uses new indicators of a company's performance. It will help investors make better-informed decisions regarding investments in automotive companies.

"The global auto market in which companies compete is increasingly being defined by concern over climate change," said Jonathan Lash, president of the World Resources Institute. "From Europe to Japan to California, new policies and commitments are challenging companies to make less carbon-intensive and more fuel-efficient vehicles."

As a growing number of countries adopt measures to address climate change, auto company profits will become increasingly sensitive to pressures to reduce vehicle carbon dioxide (CO<sub>2</sub>) emissions and improve fuel economy. Investors and portfolio managers will need to start considering these influences and their impact on company finances when buying and selling stocks.

Though carbon constraints create both risks and opportunities for the industry as a whole, the risks and opportunities fall differentially on the ten companies that the report assesses: BMW, DaimlerChrysler, Ford, General Motors, Honda, Nissan, PSA Peugeot Citroën, Renault, Toyota, and Volkswagen.

According to the report, companies producing low-carbon vehicles and possessing superior carbon-reducing technologies should see market share increase and competitive advantage grow as these developments take hold. In contrast, companies that have more carbon-intensive vehicles and that are lagging behind in the race to develop lower-carbon technologies could suffer from lower sales, increased costs, and reduced profits. Hence, carbon constraints could have a strong influence on competition within the industry.

SAM and WRI have developed new indicators to quantify the risks and opportunities that carbon constraints create. The two key measurements of the risk facing companies are "carbon intensity of profits" and "value exposure."

The carbon intensity of profits captures the degree to which current profits are derived from high carbon-emitting vehicles. Comparing the carbon intensity of profits for different companies allows investors to assess the relative ease or difficulty that a manufacturer faces in responding to carbon constraints. Value exposure is an estimate of the costs manufacturers face in meeting new carbon constraints. The report finds that the costs incurred in meeting carbon constraints could vary by a factor of 25 across the industry.

Offsetting the risks are important new opportunities for car companies to capitalize on carbon constraints by developing new technologies. In a management quality assessment, the report analyzes which companies have the best opportunity to benefit from carbon constraints by developing and commercializing key lower-carbon technologies – clean diesel, hybrids and fuel cells – ahead of their competitors.

SAM and WRI found that Toyota has the strongest management quality score regarding lower-carbon technologies, with a strong position in all three technologies likely to confer competitive advantage. Investors and portfolio managers will need to monitor closely the management quality of companies regarding lower-carbon technologies, so that they can invest in those companies best positioned to capitalize on carbon constraints.

While carbon constraints appear to be a material issue for value creation in the automotive industry, institutional investors and financial analysts do not currently take these aspects into account when valuing companies. WRI and SAM also assess what impact the risks and opportunities will have for companies' estimated earnings between now and 2015. While some companies' earnings could increase by up to 8 percent because of carbon constraints, others may decline by as much as 10 percent – indicating just how important this issue is for investors and portfolio managers.

"Carbon constraints could significantly affect earnings and competitiveness in the global auto industry," said Alois Flatz, Head of SAM Research "It is critical that portfolio managers understand the implications of carbon constraints and begin to differentiate carmakers on the grounds of their relative carbon positioning."

If you have any queries, please contact:

Niki Rosinski, Senior Sustainability Analyst, SAM Research, +41 1 397 10 45  
[niki.rosinski@sam-group.com](mailto:niki.rosinski@sam-group.com)

---

SAM Sustainable Asset Management (<http://www.sam-group.com>) is an independent asset management company headquartered in Zurich, Switzerland. Established in 1995, SAM was among the first asset managers to specialize in the field of sustainability-driven investments. SAM manages institutional and private mandates in line with sustainability criteria. And together with Dow Jones & Company, SAM launched the world's first index to track the performance of sustainability-driven companies worldwide.

The World Resources Institute (<http://www.wri.org/wri>) is an environmental research and policy organization that creates solutions to protect the Earth and improve people's lives.