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Long-Term WFH Impacts of COVID-19 on Fuel Demand May Be Mild, But Will Add to OECD Refiners' Misery

Stratas Advisors

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As global oil product demand continues to be weighed down by poor economic conditions and social distancing measures, a key question looming in refiners' minds is the likely duration of COVID-19 mitigation responses such as working-from-home (WFH) and their potential continuation even after vaccines are available and the world returns to "normal." The likelihood of extended or permanent WFH conditions for many companies has been hypothesized as a potential game-changing outcome by a number of media outlets and analysts, and indeed some high profile companies have already announced plans to permanently adopt WFH.

Stratas Advisors has sought to quantify the ultimate impact of these moves towards expanded WFH, specifically the impact on road sector fuel demand of this potential trend over the long term. Estimates of long-term WFH effects have been incorporated into our Energy Demand Model and our base case demand outlook at the country level. In addition, for this analysis Stratas Advisors has modeled two alternative cases with stronger WFH assumptions.

Our estimates by country were developed using three main variables: 1) the level of economic development as a proxy for the potential proportion of the workforce that would be able to work from home or work remotely, 2) the expected prevalence/impact of COVID-19 on the country over the course of the pandemic, and 3) the type and stringency of policy response adopted for COVID-19.

In the base case outlook, Stratas Advisors anticipates that WFH may become a permanent mode of operation for a small subset of companies, while the vast majority will either return to office environments as normal or see limited WFH days offered per month as a type of employee benefit. As the pandemic drags on, it is expected that many people currently working from home will have an interest in returning to working in-person with colleagues once it is safe to do so. In the base case, for employees where remote working is feasible, it is expected that in the aggregate, less than one day per month of WFH will be added post-pandemic compared to a baseline where the coronavirus pandemic never occurred.

Two alternative cases were also modeled, showing the impact of one and two full additional WFH days versus a no-COVID baseline.
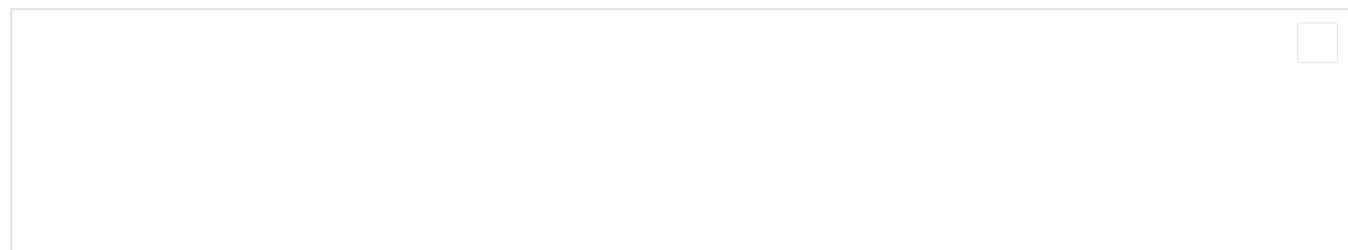
As might be expected, the results indicate the largest volumetric impacts on demand predominantly in OECD markets, especially North America. This is due to both lower average fuel economy of US vehicles versus Europe and other markets, as well as a high volume of miles driven annually per vehicle. In the base case, overall impacts are relatively minimal, with a global average demand loss of less than 0.2% (versus a baseline scenario without any COVID-related impacts on commuting behavior), and demand reductions of 0.4% and 0.3% in the US and Europe, respectively. In the alternative cases, the volumes expand significantly, and the WFH 2 days/month scenario sees roughly a 400 thousand bbl/d global demand loss versus a no-COVID baseline. The anticipated base case impact is small, but still adds to a litany of risks to market demand faced by refiners supplying these regions, with other threats ranging from tightening fuel economy standards to surging EV growth and increasing alternative fuels penetration.

Stratas Advisors Forecast Models - Client Access

This analysis was developed using Stratas Advisors' proprietary Energy Demand Model. Stratas Advisors licenses this model to clients, who use it to generate forecasts and sensitivities based on their own assumptions across the full range of input variables, from price to fundamental drivers and behavioral assumptions.

Using an array of macro-level drivers along with Stratas Advisors' extensive vehicle fleet data, the Energy Demand Model forecasts global energy demand for 38 energy types at the sector-level within countries (124 countries broken out, each further subdivided into 21 economic sectors). The model uses statistical relationships between key drivers and sector-level energy demand, along with price relationships and regulatory constraints, to create a comprehensive energy consumption forecast. Vehicle fleet data from Stratas Advisors' Automotive Interactive Model (AIM) is used in the Energy Demand Model's road sector demand forecast, supporting fuel demand modeling broken down for 20 light- and heavy-duty vehicle types. Stratas Advisors' licensed models include baseline assumptions and forecasts, and are highly customizable.

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