Lubes growth opportunities remain despite switch to electric vehicles

Lubricating oils have traditionally been one of the most attractive areas in the oil and gas value chain, but disruption is on the horizon with the rise of electrification in the transport sector.

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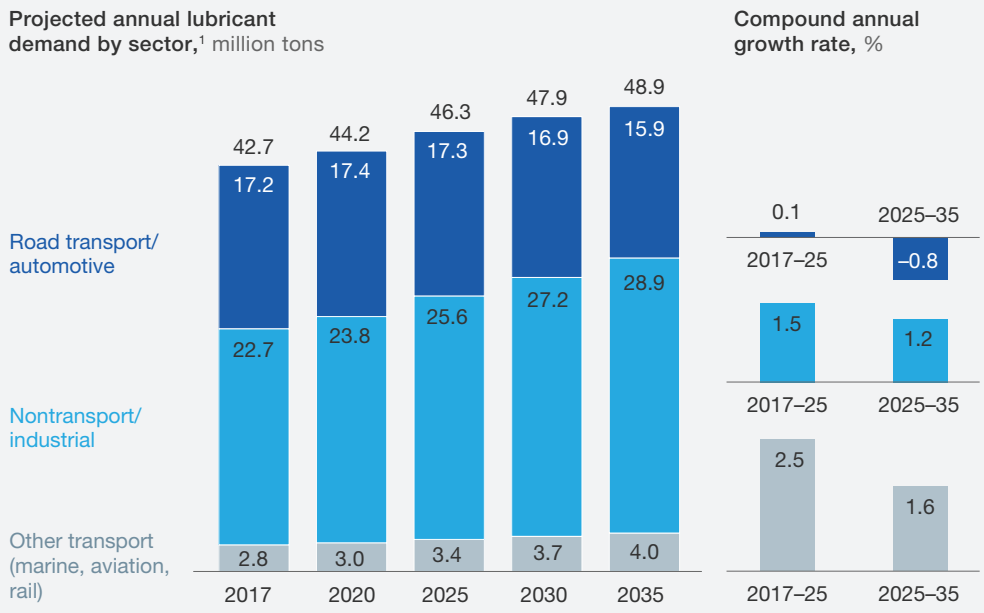
With consistently high margins overall, lubricating oils have traditionally been one of the most attractive areas in the oil and gas value chain. However, looking ahead, we could see disruption as electrification takes hold in the transport sector. To assess what may be on the horizon, we conducted an in-depth market study and developed granular projections out to 2035. The main finding was that, while volume growth may be flattening, there is still room for value-pool expansion. This will, however, be highly variable by region, market segment, and product type, so where to play matters. This growth is also subject to some significant risks, so investors will need to keep a close eye on developments in areas such as technology and policy.

The study confirmed our expectation that lubes volume growth would continue but at a slightly slower rate over coming years, with road-transport demand (currently 40 percent of the total) likely to peak within the next five years (Exhibit 1). From then on, transport demand will decline slowly as

Exhibit 1 Lubricants volume growth will slow slightly, and road-transport demand could peak in the next five years.



[1]Figures may not sum, because of rounding.

McKinsey&Company | **Source:** Energy Insights by McKinsey; McKinsey analysis

Top-branded products will achieve the highest premiums, although whether this can be sustained remains to be seen.

the share of electric vehicles (EVs), car sharing, and hailing increases and as we see longer change intervals for remaining internal-combustion-engine (ICE) vehicles.

Demand from other transportation sectors—such as marine, aviation, and rail—is less significant and will continue to grow. Nontransport and industrial consumption, which makes up the majority of lubes demand, should also keep growing steadily, tracking global GDP per capita growth and more than making up for the decline in transport demand.

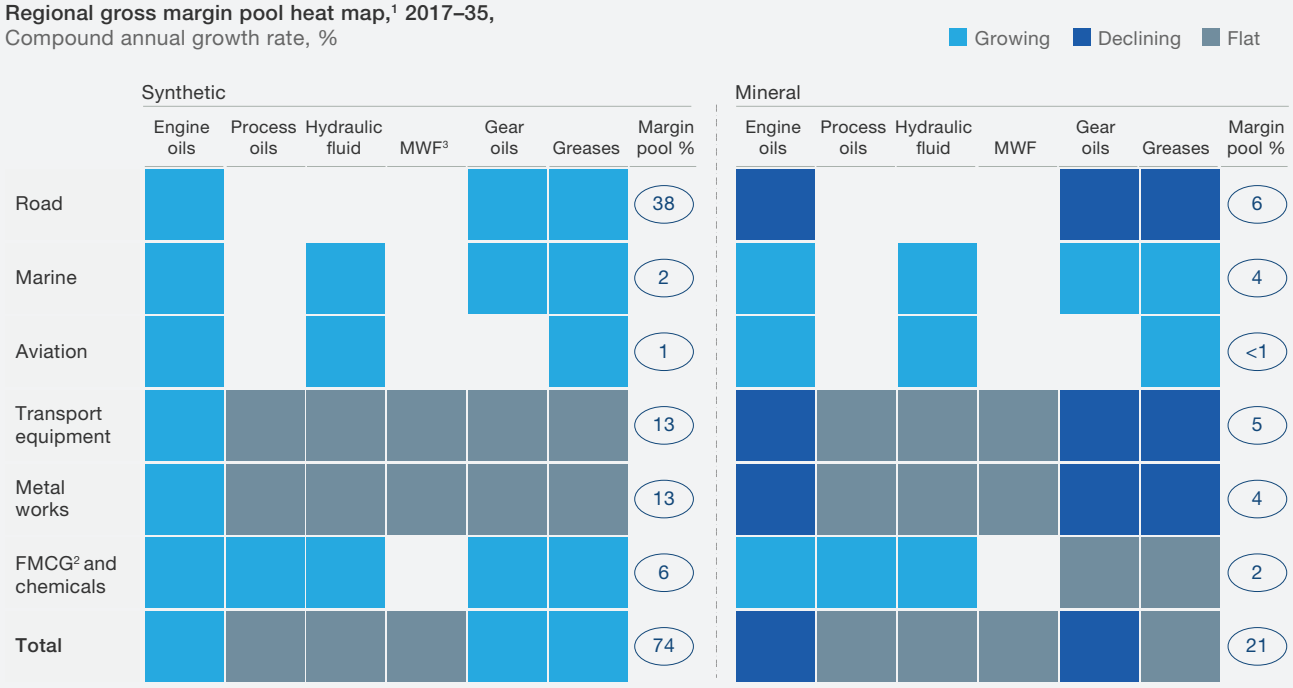
Looking at margins, the road-transport sector will perform favorably as higher-margin synthetic lubes expand sharply to take a 70 percent market share by 2035. Top-branded products will achieve the highest premiums, although whether this can be sustained remains to be seen.

Margins will also rise significantly in smaller industrial sectors, such as fast-moving consumer goods (FMCG) and chemicals, but will stagnate in the key industrial sectors of transport equipment and metal works—which together account for more than 30 percent of the global value pool (Exhibit 2).

Exhibit 2

Margins for lubes will vary by sector.

Regional gross margin pool heat map,[1] 2017–35,
Compound annual growth rate, %



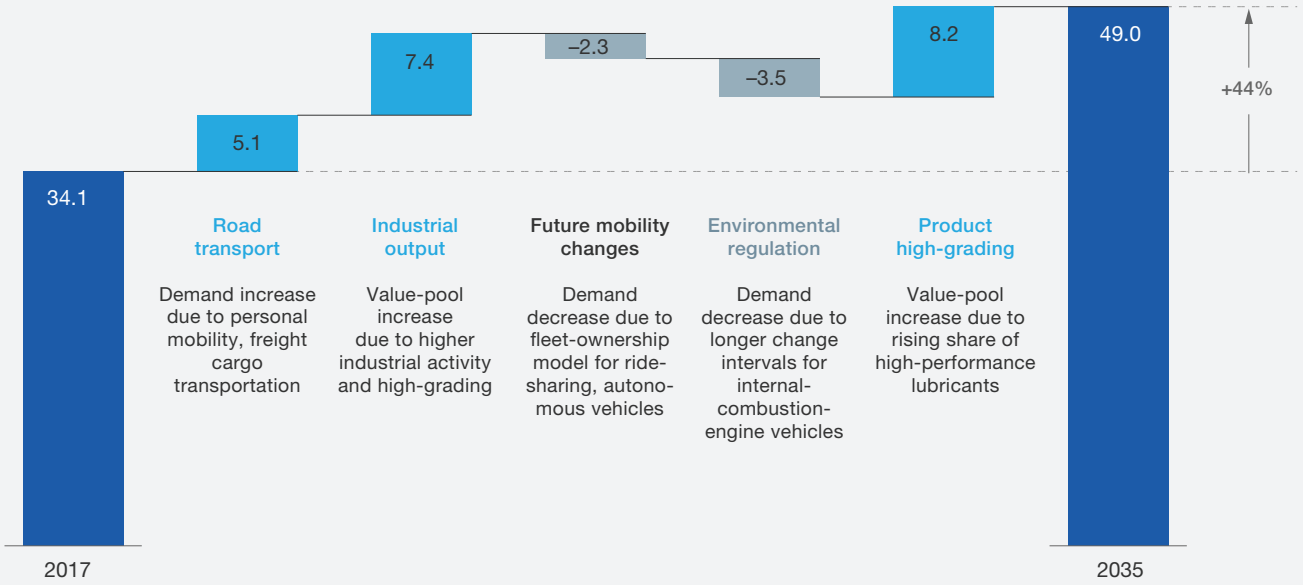
[1]Flagging out distinctive (GDP-plus) regions/products, and underperformers (lower than average lubricant growth rate).
[2]Fast-moving consumer goods.
[3]Metalworking fluids.

McKinsey&Company | **Source:** Energy Insights by McKinsey; McKinsey analysis; Jagger Advisory; Expert interviews

Exhibit 3

The lubricants value pool could grow almost 45 percent by 2035.

BASE CASE: Lubricants marketing gross margin pool, 2017–35, $ billion per year



McKinsey&Company | **Source:** Energy Insights by McKinsey; McKinsey analysis; Jagger Advisory; Expert interviews

Industrial demand and higher transport margins to drive value-pool growth

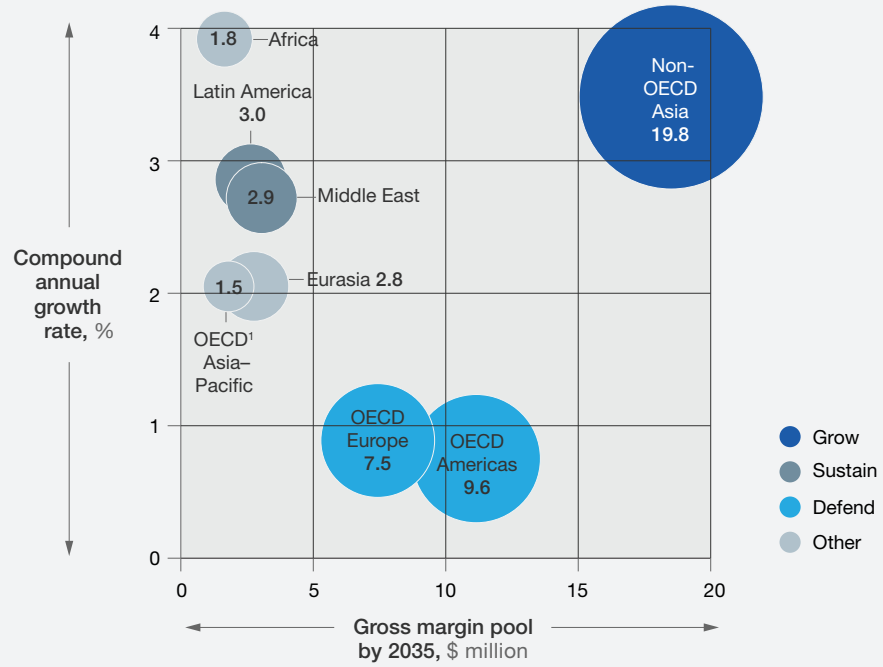
In our base case, the global lubricants value pool is expected to grow 44 percent by 2035, driven primarily by increased penetration of higher-margin branded or advanced products, typically synthetics, along with growth in demand from industry (Exhibit 3). Road transport, transport equipment, and FMCG are the sectors most likely to offer the fastest-growing value pools.

Geographically, Asian countries that aren't a part of the Organisation for Economic Co-operation and Development (OECD), including China, represent the largest, fastest-growing value pool, driven by volume growth in all sectors—including road transport—and higher margins. In Europe and the Americas, on the other hand, slower value-pool growth as road-transport volume declines means investors need to adopt a more defensive strategy (Exhibit 4). Emerging markets are expected to grow at 3 percent per year, or three times the rate of developed countries, adding $8 billion in market value by 2035. China remains the biggest single growth market, but rising margins in China by switching to advanced formulations and synthetics are expected to lag about five years behind OECD countries, with other non-OECD countries five years behind China.

Developed countries will contribute just 20 percent, or $3 billion, of the market growth up to 2035,

Exhibit 4 Growth in the lubrication value pool will vary by region.

Gross margin pool growth, base case, 2017–35, by volume demand circles, million tons



[1]Organisation for Economic Co-operation and Development.
Source: Energy Insights by McKinsey; McKinsey analysis; Jagger Advisory; Expert interviews

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mainly through higher margins from branding, as most products are already advanced formulations.

Disruptive factors to watch out for

Despite this generally positive outlook, three potential disruptions—battery technology, green regulation, and industry consolidation—could lead to lower volume growth and commoditization, which pose significant threats to profitability. Altogether, these factors could erode up to $17 billion (35 percent) from the anticipated global value pool ($49 billion) in 2035 (Exhibit 5).

The most likely disruption is from a breakthrough in battery technology that reduces cost per kilowatt-hour to below $100—the point at which EVs and ICE vehicles reach cost parity—by 2020 instead of our base-case assumption of 2025. This would accelerate adoption of EVs, leading EVs to take 25 percent of the market by 2035, compared with around 15 percent in our base case.

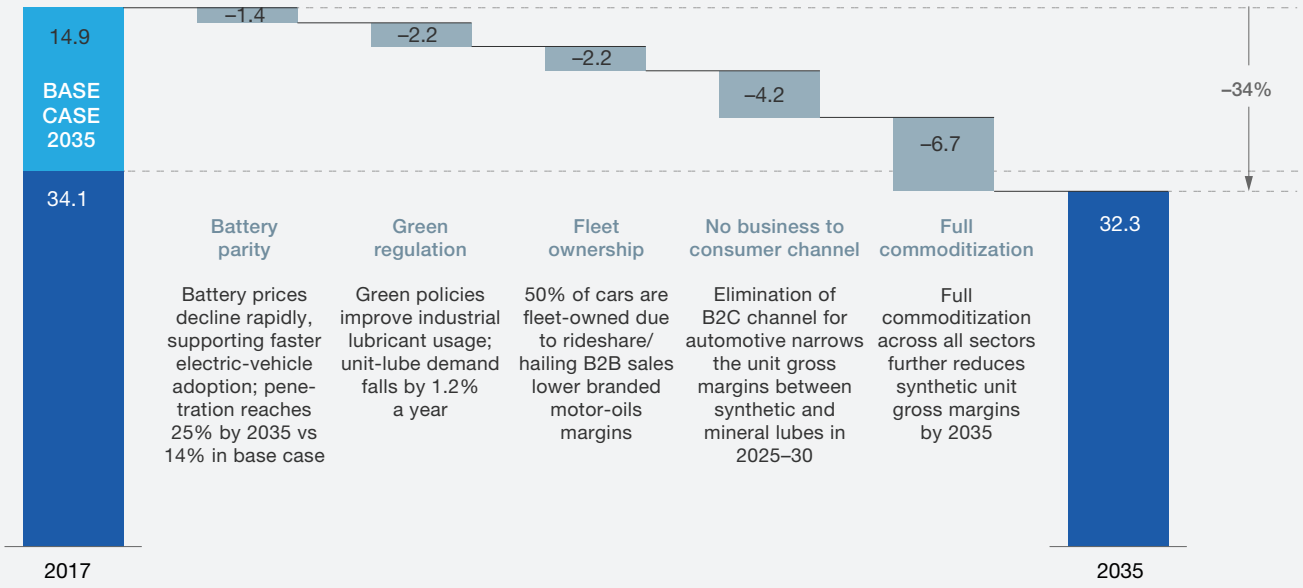
Next on the risk list is an acceleration of green regulation, which could hit industrial demand in particular. Tougher environmental policies would likely lead to industrial process improvements, greater recycling, and a rise in circular economies.

There is also a margin threat from faster switching away from personal vehicle ownership to

Exhibit 5

Disruptions could erode more than a third of the projected 2035 value pool.

DISRUPTION CASE: Lubricants marketing gross margin pool, 2017–35, $ billion per year



McKinsey&Company | **Source:** Energy Insights by McKinsey; McKinsey analysis; Jagger Advisory; Expert interviews

ridesharing and other fleet-car use, because lube sales to fleet buyers (B2B) tend to have a lower branded markup. The move to fleets could be driven by tighter regulatory restrictions in urban areas, and if half of cars switch by 2035, the greater bargaining power enjoyed by fleet owners could reduce advanced product margins by up to 15 percent.

This leads to the risk of a collapse in the B2C channel in automotive lubes, with fleet owners and other supergroups, such as maintenance centers, becoming the main customers. This strengthened bargaining power on the part of buyers would lead to partial commoditization and a further decline in brand premiums, with the difference between synthetic and mineral product margins falling by up to 30 percent.

The biggest risk to margins is from full product commoditization, linked to the switch to fleet ownership, falling B2C sales, and OEM preference for "genuine oils."

Under full commoditization, synthetic margins are unlikely to be more than three times those of mineral-based products. Group IV/V base stocks producers would benefit from the tighter balance created under this scenario, but commoditization of this sort could wipe $4 billion off lubes' gross margin pool—compared to about $2 billion each for the other potential disruptive factors.

In the forthcoming article, "Positioning for growth in the fast-changing lubes market," we will look at how companies should best position themselves

for value-pool growth and guard against these potential threats. ■

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