An epitaph for oil?
Not so fast...

The Investment Team at
Walter Scott,
a BNY Mellon company

In our opinion the days of 'big oil' companies denying climate change are behind us. At Walter Scott, we believe their message is changing to one of climate change acceptance and that as leading energy players they will have to be at the forefront of solutions; whether in solar, batteries, windfarms, biofuels or carbon capture.

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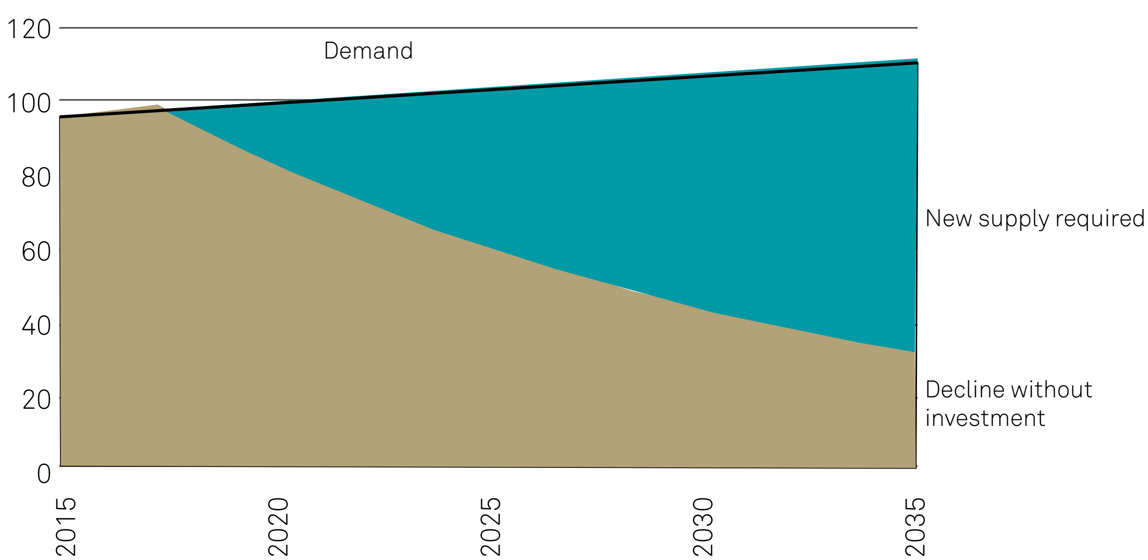
Although we remain in the early stages of the transition away from fossil fuels, two points are clear: One, there is no silver bullet. We need a broad portfolio of renewables and lower carbon options to play a part. Two, this transition will be gradual. We would all love a rapid shift away from fossil fuels, but, ultimately, change takes time.

The outlook for oil is best assessed by considering future demand for the five major end uses for oil. First, we have fuel oil, where demand is actually set to decline as it's replaced by cleaner gas for heating homes, and tighter shipping fuel standards.

Next, is gasoline. When people debate the outlook for oil, the conversation invariably drifts towards electric vehicles (EVs). However, even under highly optimistic EV penetration scenarios, given the established gasoline car fleets along with growth in emerging markets, we believe gasoline demand will remain steady for years to come.

OIL SUPPLY DEMAND ESTIMATES (MILLION BARRELS OF OIL EQUIVALENT)



Source Water Scott, Wood Mackenzie, HIS, as at March 31, 2018.

The same goes for diesel, jet fuel and petrochemicals. The vast majority of heavy-duty buses and trucks will continue to run on diesel for the foreseeable future. Air passenger numbers will potentially double in the next decade or two, and electric planes are clearly a long way off, so jet fuel demand will continue to grow.

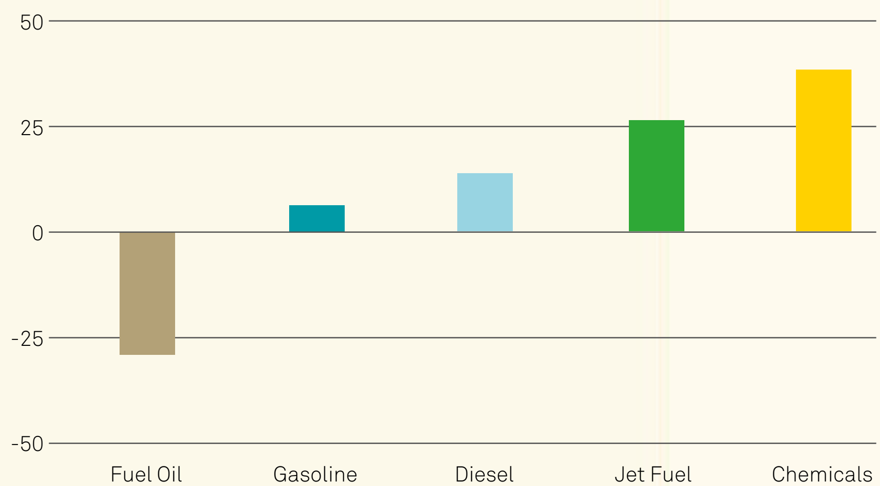
Finally, we have petrochemicals where at present there remain few obvious substitutes for the vast array of materials derived from crude oil.

If we assume oil demand will grow over the next 15 years, the next question is, how will we create new supply?

Oil fields decline by around 5% every year[1] and without new investment, supply will fall fast. By 2035, the vast majority of oil consumed will likely be from entirely new sources of production we have yet to develop, or even discover.

Many people point to the U.S. Permian Basin and its shale oil as a solution. However, this only makes up a very small proportion of oil supply, so we have no choice but to look elsewhere. Meeting future demand will require literally trillions of dollars of investment along with levels of technology and ingenuity we have simply not seen before.

OIL PRODUCT DEMAND SHIFT (% GROWTH ESTIMATES TO 2025)



Source: HIS, Walter Scott as at March 31, 2018.

1 International Energy Agency, January 31, 2018.

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