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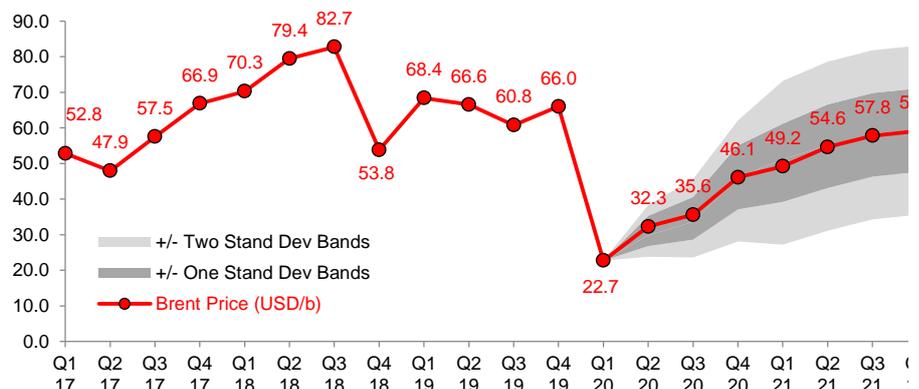
MUFG Bank, Ltd.
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Leading indicators signal rebound from oil demand trough – setting the stage for a firm price rally

- Leading indicators signal that global oil demand is recovering at an uneven pace.** The nadir in COVID-19-led demand evisceration was in April at -26.1m b/d, according to our models (see [here](#)). A de-synchronised recovery is now underway as lockdown measures begin to ease. High frequency data indicates that oil consumption is improving in most key regions, and has almost recovered to 2019 levels in mainland China. First, Apple’s mobility trends statistics suggests driving activity is now recovering in the US, Europe and most of Asia, although many countries are coming off exceptionally low levels. Second, the latest weekly US EIA data supports this view, with gasoline demand seemingly having bottomed out in April. Third, flight tracking data is demonstrating that aviation activity is rebounding, albeit from a very low base.
- Global oil demand will not return back to pre-COVID-19 levels until Q3 2021.** Oil market fundamentals are set to become instantaneously balanced, with our models pointing to the inflection point being reached in late May – early June, with a deficit thereafter (see [here](#)). Having said that, although signs of a recovery in physical oil markets are emerging and supply is responding, the fall-out from COVID-19 will be lasting. A combination of weaker growth and lingering impacts of COVID-19 mobility restrictions will still be a drag on the recovery in oil demand, especially jet fuel. As such, we forecast the damage will persist into next year, with oil demand only reaching a pre-COVID-19 run-rate by Q3 2021.
- Brent crude prices to average USD43/b and USD55/b in 2020 and 2021, respectively.** During the cyclical stage of the recovery, we expect the inventory normalisation process to drive a flattening of the Brent forward curve ~USD30/b in Q3 2020. As the deficit widens, this will be followed by a move higher in spot prices due to a steepening level of backwardation through H1 2021. Higher decline rates, lost shut-in capacity and a materially higher cost of capital for global oil markets will set the stage for lower supply and with it higher oil prices, with the structural outcome of the ongoing rebalancing leading our models to forecast Brent averaging USD43/b and USD55/b in 2020 and 2021, respectively.

BRENT QUARTER END PRICES (USD/B) WITH STANDARD DEVIATION BANDS



Source: Bloomberg, EIA, IEA, OPEC, MUFG MENA Research

Leading indicators signal rebound from oil demand trough – setting the stage for a firm price rally

Global oil demand has turned

The nadir in COVID-19-led demand evisceration was in April at -26.1m b/d, according to our models (see [here](#)). A de-synchronised recovery is now underway as lockdown measures begin to ease. Our bottom-up country-by-country modelling estimates point to global oil demand printing at -17.2m b/d and -12.1m b/d for May and June, respectively. For Q2 2020, our global oil demand estimates are for a decline of -17.3m b/d, with some estimates putting the demand contraction even more destructive – the IEA's most recent assessment is that demand will decline by 23.1m b/d in Q2 2020. For 2020 as a whole, we see demand down 7.8m b/d – the largest contraction on record. The premise of our estimates are first built on the experience of the Chinese demand recovery – approximately a halving of demand hit in each month. In addition, we factor in idiosyncratic adjustments for each country factoring in the timing and magnitude of the specific lockdown measures, in order to develop a firm gauge of the pace of the expected demand recovery in each country.

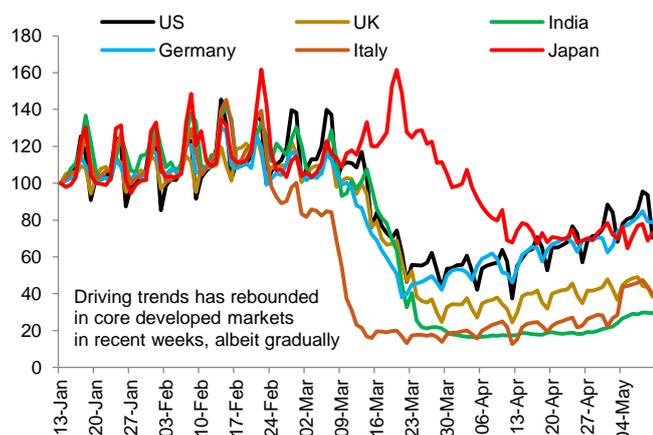
Leading indicators signal that global oil demand is recovering at an uneven pace

High frequency data indicates that oil consumption is improving in most key regions, and has almost recovered to 2019 levels in mainland China. The Apple mobility trends statistics suggests driving activity is ticking up in the US, Europe and most of Asia, although many countries are coming off exceptionally low levels. Our expectations are for these indicators to continue to see improvements over the coming weeks as lockdowns are eased. The rise in mobility data correlates with the rise in gasoline demand at the end of April in the US and comments from numerous large distributors which have started to see demand for their products recover.

Easing of lockdown restrictions still suggests a gradual demand rebound

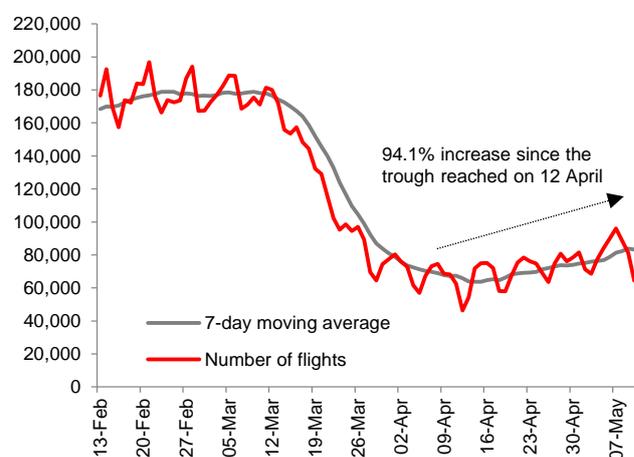
Even though we are likely past the worst of the demand destruction, the path to recovery will not be as straightforward as some might expect. Gasoline demand should continue to rebound as mobility restrictions are eased but journey frequency and distance will most likely be lower for many months to come, given the spike in unemployment rates and various work from home measures staying in place. Jet fuel is the most noticeable area where consumption will take a longer time to recover. Prior to COVID-19, global consumption of jet fuel was around 7m b/d, and Rystad Energy estimates that it fell to only 2.1m b/d in April. While jet fuel consumption will likely rise from these levels, the recovery will probably be more gradual than gasoline due to government mandated and self-imposed restrictions on air travel.

APPLE MOBILITY STATISTICS – DRIVING INDEX (100 = 13 JANUARY 2020)



Source: Apple Mobility Statistics, MUFG MENA Research

TOTAL NUMBER OF FLIGHTS GLOBALLY PER DAY



Source: Flightradar24, MUFG MENA Research

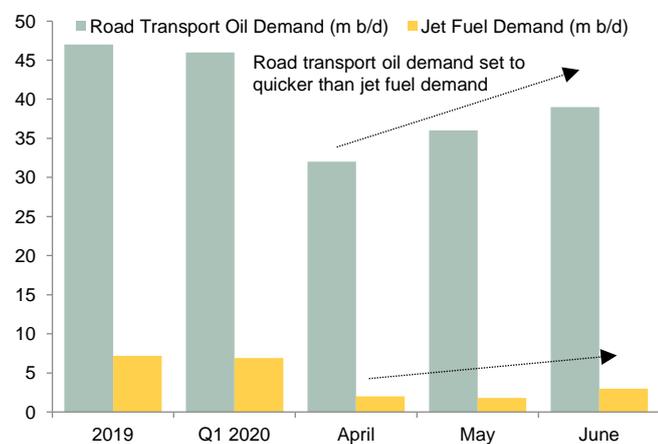
Nevertheless, we have already started to see the total number of flights on a global basis start to rise, suggesting we could be past the worst for global jet fuel demand with the number of flights taken worldwide reaching over 90,000 at the start of May compared to the trough of 46,294 in the week ending 12 April.

Regional and core country assessment on how oil demand has been performing

To further gauge how oil demand has been performing, we examine how core regions and countries have been faring up. What is clear is that a de-synchronised recovery is now underway with some countries ahead whilst others remain laggards:

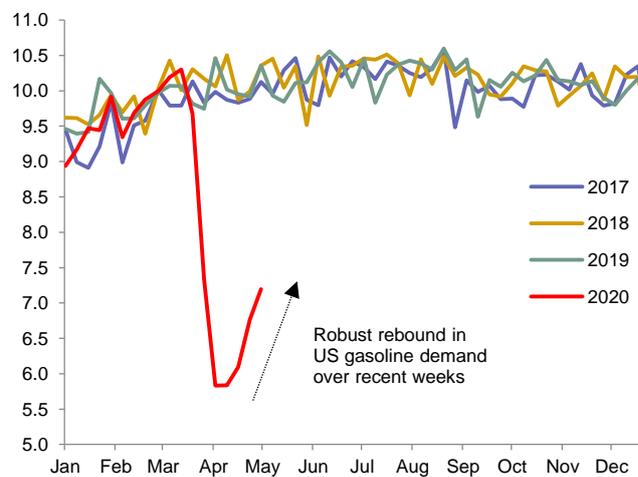
1. **US.** Overall US product demand was down ~5m b/d (25%) y/y in April with the sharpest falls in gasoline and jet fuel. US gasoline demand averaged 5.7m b/d in the week ending 1 May, up from a low of 5.1m b/d at the beginning of April. The rebound in gasoline corresponds with the uptick recorded by the Apple mobility trend statistics that demonstrates driving in the US and Canada rising towards the end of April.
2. **China.** Mainland China was one of first territories to ease travel restrictions and is a useful case study for how oil demand could recover once restrictions are eased elsewhere. While comprehensive demand data is difficult to obtain for mainland China, the alternative mobility data sets suggest that activity is close to normal for most industries. Traffic congestion data from Beijing, Shanghai and Guangzhou shows activity is now at or above 2019 levels, while shipping and freight indicators also show a similar recovery. Aviation is the only sector that is clearly lagging behind and remains a drag on mainland Chinese oil demand with flight numbers still below 40% of 2019 levels.
3. **Asia ex-China.** The Apple mobility trend statistics for the rest of Asia is mixed with wide heterogeneity and large variances in the response to COVID-19 across countries and the overall stage of recovery:
 - o **Japan.** Japanese driving activity has remained relatively flat over April. The overall level still remains high compared to many other economies, but there was dip at the start of May as lockdowns continue. Idemitsu has projected Japan's oil product demand falling 20% in April-June.
 - o **Hong Kong.** Hong Kong has had restrictions in place since the end of January and driving has remained fairly flat since the lockdown started.
 - o **India.** As the second largest consumer of oil in Asia, India has had one of the steepest downturns in driving across the region, with activity remaining at a very low level throughout April. However,

GLOBAL ROAD TRANSPORT OIL DEMAND AND JET FUEL DEMAND (MILLION B/D)



Source: Rystad Energy, MUFG MENA Research

US GASOLINE DEMAND (MILLION B/D)



Source: Bloomberg, EIA, MUFG MENA Research

driving activity appears to have ticked up at the start of May.

4. **Europe.** The mobility data for Europe paints a more homogenous picture. Apple mobility trend statistics in the largest five consumer-led economies all bottomed out at the end of March-early April and has steadily recovered since then. Activity levels in Italy and Spain remain at the lowest levels, with Germany operating the closest to January levels.
5. **South America.** The trends across much of South America are similar, with most countries experiencing the largest drop-off in driving at the end of March. Driving mobility has increased since then and most countries either are in the process of easing lockdowns or are expected to do so during May.

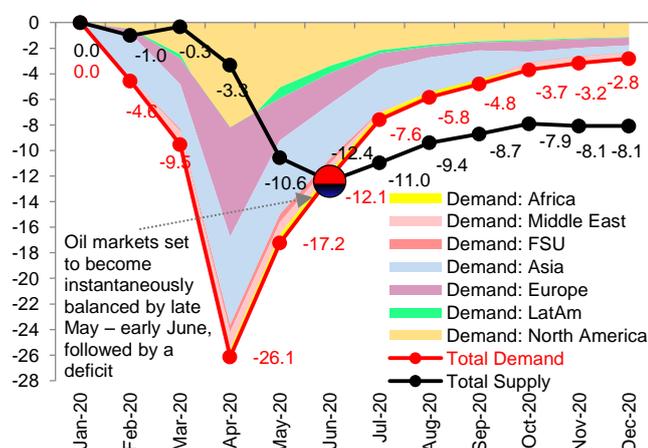
Global oil demand will not return back to pre-COVID-19 levels until Q3 2021

On net, whilst we are witnessing greenshoots on global oil demand across various regions and core countries globally, we view that global oil demand will not return back to pre-COVID-19 levels until Q3 2021. As the world emerges from lockdowns, a combination of weaker economic growth and lingering impacts of COVID-19 mobility restrictions will still be a drag on the recovery in oil demand, especially in jet fuel. As such, we forecast the damage will persist into next year, with oil demand only reaching a pre-COVID-19 run-rate by Q3 2021.

Brent to average USD43/b in 2020 and USD55/b in 2021

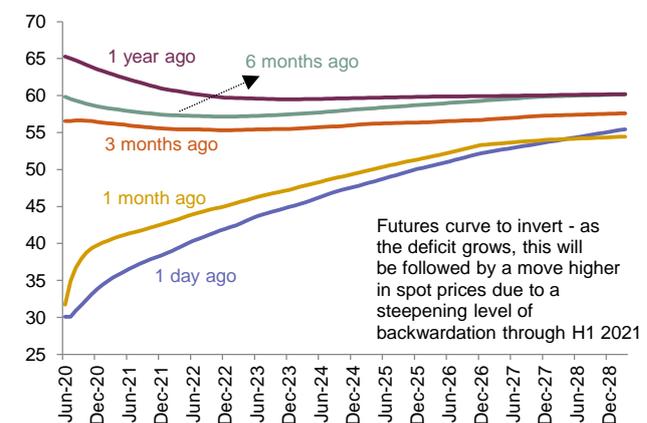
Although there still remains high uncertainty on how oil demand and supply dynamics will play out in the coming weeks, months and indeed the rest of 2020, our expectation is that once oil markets reach the inflection point of the equilibrium of supply equating demand in late May – early June, with a deficit set to follow. It is at this point that we believe that the oil price rally will take a firm hold, and continue to see upside risks to our end Q2 2020 Brent and WTI forecasts of USD32/b and USD28/b, respectively. Thereafter, this sets the stage for structurally higher oil prices heading into H2 2020 with our current Brent price forecasts of USD36/b and USD46/b in Q3 and Q4 2020, respectively – with upside risks to these forecasts. Thereafter, as the deficit grows, this will be followed by a move higher in spot prices due to a steepening level of backwardation through H1 2021. Higher decline rates, lost shut-in capacity and a much higher cost of capital for the industry will set the stage for higher oil prices, with the structural outcome of the ongoing rebalancing leading our models to forecast Brent averaging USD43/b and USD55/b in 2020 and 2021, respectively,

GLOBAL OIL DEMAND, MILLION B/D



Source: Bloomberg, EIA, IEA, OPEC, MUFG MENA Research

BRENT FUTURES CURVE, 1 DAY, 1 MONTH, 3 MONTHS, 6 MONTHS AND 1 YEAR AGO (USD/B)



Source: Bloomberg, IMF, MUFG MENA Research

Ranges & Outlook for the week ahead

BRENT – BEARISH BIAS – (24.00-35.00)

WTI – BEARISH BIAS – (20.00-31.00)

	Spot close 13.05.20	Q2 2020	Q3 2020	Q4 2020	Q1 2021
Brent	29.24	32.30	35.60	46.10	49.20
NYMEX	25.47	27.80	30.60	41.60	45.20
		Range	Range	Range	Range
Brent		15.80-42.80	24.35-46.85	35.10-57.10	37.70-60.70
NYMEX		12.30-32.30	19.35-41.85	30.60-52.60	33.70-56.70

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