



Capital
Markets

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Oil Strategy: US Demand Destruction, It Begins...

- Given the rapid development of the coronavirus (COVID-19) pandemic, this report is a supplemental update to the several [reports](#) that we have published on the topic, including [Oil Strategy – The Artificial Intelligence Approach to Quantifying the Coronavirus](#). ^E
- President Trump's pledge to buy large quantities of oil to fill the **US Strategic Petroleum Reserve** is a constructive headline. However, given current stockpiles of 634 mb, relative to nameplate SPR capacity of 714 mb, the 80 mb of government buying helps to clean up 20 days of the global overhang based on our estimate of a [market imbalance](#) of approximately 4 mb/d. While helpful on the margin, such policy pales in comparison to a coronavirus-plagued market that is measured in months or a price war that is expected to last several quarters or longer. That said, if conducted over a six-month period, a consistent physical bid of ~450 kb/d is incrementally helpful for a market that has lacked consistent buying pressure.
- Gasoline demand destruction** has arrived in the US. Traffic is tapering in several cities. For example, congestion during peak hours in NYC is about 20% lighter than normal. By the same metrics, Seattle, which is situated in the state hit hardest by COVID-19, has declined by more than one-third (see Figures 1 and 2). Preventative measures like social distancing and working from home mean that gasoline consumption will see further weakness in the coming days.
- The US is the world's largest gasoline consumption country, by a long shot, which is concerning given that demand destruction remains likely in the early innings. Given the lack of historical comparisons to the current events, a COVID-19 impact on domestic gasoline demand to the same degree as China could send US demand sharply lower to the tune of 4–4.5 mb/d given that China saw vehicle traffic contract by 40–50%.
- US gasoline demand is more than three times larger than that of China. This means that while China lost about 1.4 mb/d of gasoline consumption during much of February as a function of the widespread country-level lock-down, a reduction in road travel by 15% in the US would equate to the same notional degree of demand that was lost in China. Scale matters, and the amount that could be lost due to a protracted slowing of US activity could have a devastating impact on global oil demand given that America comprises nearly 20% of world consumption. Put another way, the entirety of China could cease driving and that would amount to a demand hit that is softer than if US gasoline demand were curbed by 30%.
- The recent suspension of travel into the US from Europe in an attempt to halt the spread of COVID-19 will impact **jet fuel demand**, but by how much? The US is the world's largest consumer of aviation fuel, and flight activity has yet to see meaningful deviation from normal weekend seasonality, though we anticipate that flight activity will ease in the coming weeks (see Figure 4). Nearly 400 daily flights depart for the US from Europe, and while those are being halted, the percentage of flights departing from major North American airports en route to Europe equates to only 3% of total US flight traffic. This means that only a sliver of the 1.9 mb/d of US jet fuel demand will be impacted by a disruption to cross-Atlantic travel.
- European-bound flights from **East Coast hubs** such as New York's JFK airport comprise a significantly larger number closer to 12%, but cross-Atlantic departures from other major flight hubs such as Denver, Houston, and Atlanta comprise less than 2% of total flight activity at each airport, respectively. The recent halting of flights from the UK is meaningful given that 18% of flights from Heathrow are earmarked for the US.
- While Chinese flight cancellations bottomed in late February and are on a path, albeit a slow one, toward normalizing, flight traffic continues to trend softer in most other regions. Our weighted average index of flight activity from major European airports is down 21% relative to normal levels. Italy, unsurprisingly, leads the way with flight traffic down more than 80%. Similarly, activity in South Korea has fallen 76%, and our composite of Asian flights ex China is softer by 28% (see Figures 5 and 6). Middle East flight activity, which is a [small sliver](#) of global flight traffic, is down meaningfully, and we anticipate the softness continue given that Saudi recently banned international flights while Kuwait suspended flights for two weeks.

RBC Capital Markets, LLC
Michael Tran
Commodity Strategist
(212) 266-4020
michael.tran@rbccm.com

Helima Croft
Head of Global Commodity Strategy
and MENA Research
(212) 618-7798
helima.croft@rbccm.com

Christopher Louney
Commodity Strategist
(212) 437-1925
christopher.louney@rbccm.com

Megan Schippmann
Associate Strategist
(212) 301-1531
megan.schippmann@rbccm.com

All values in USD unless otherwise noted.

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^E Learn more about
RBC Elements on page 3.

Figure 1: New York City Road Congestion Index*

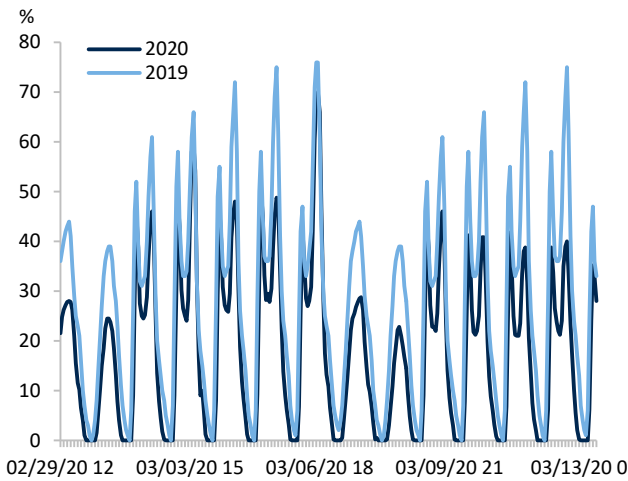


Figure 2: Seattle Road Congestion Index*

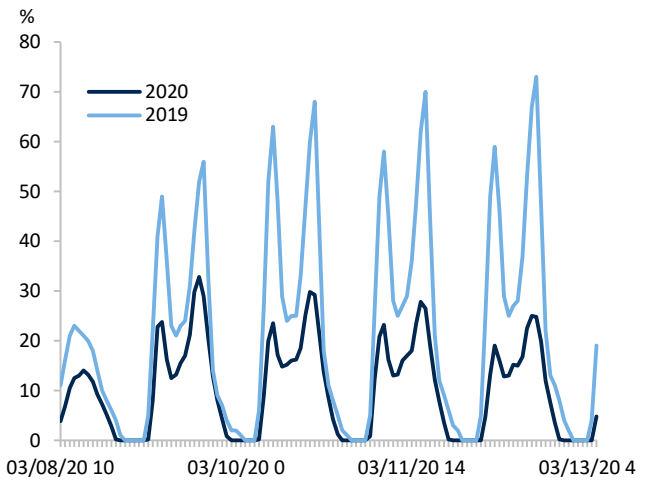


Figure 3: Shanghai Road Congestion Index*

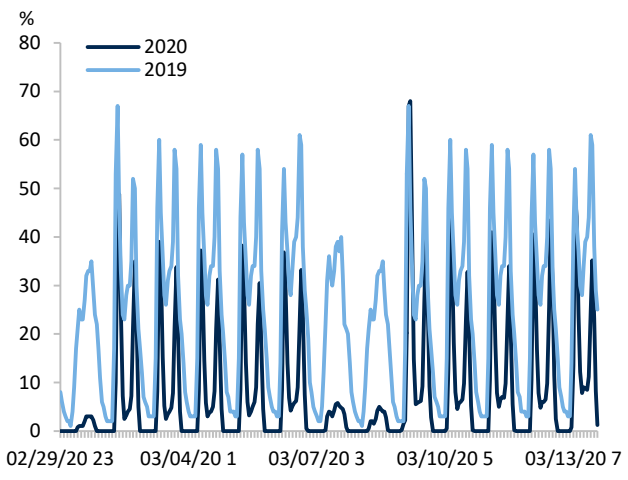


Figure 4: Departures from Top US Airports

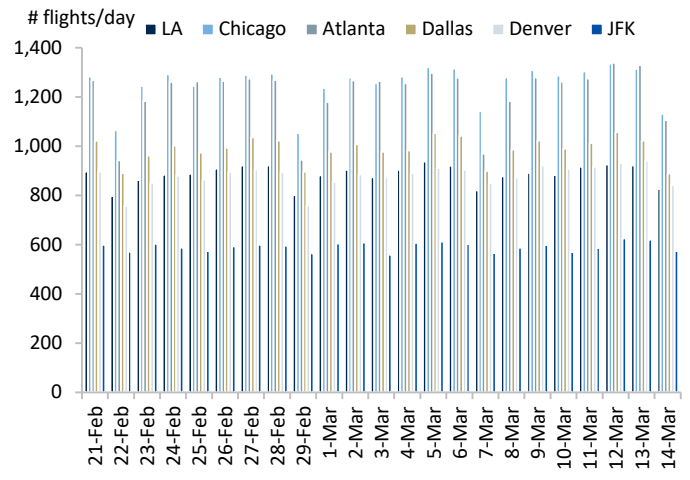


Figure 5: Departures from Major Asian Airports ex. China

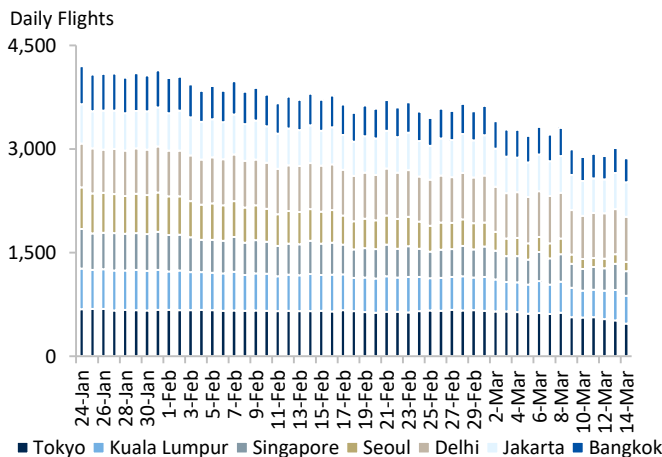
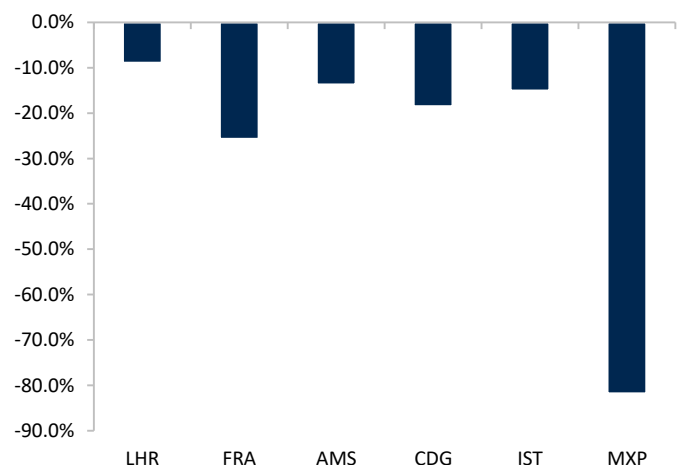


Figure 6: Major European Airport Flight Departures



Source: RBC Capital Markets, FlightAware, CAAC, OAG, Nat Bureau of Statistics of China, Bloomberg, Reuters, Refinitiv, TomTom

*The Traffic Congestion Index tracks the additive amount of time it takes to complete a journey relative to a non-congested time frame. Chart notation includes date followed by hour of day



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Global Macro, Economics & Rates Strategy Research Team

Europe

RBC Europe Limited:

Vatsala Datta	UK Rates Strategist	+44 20 7029 0184	vatsala.datta@rbccm.com
Cathal Kennedy	European Economist	+44 20 7029 0133	cathal.kennedy@rbccm.com
Megum Muhic	Associate	+44 20 7029 0092	megum.muhic@rbccm.com
Peter Schaffrik	Global Macro Strategist	+44 20 7029 7076	peter.schaffrik@rbccm.com

Asia-Pacific

Royal Bank of Canada – Sydney Branch:

Su-Lin Ong	Head of Australian and New Zealand FIC Strategy	+612-9033-3088	su-lin.ong@rbccm.com
Robert Thompson	Macro Rates Strategist	+612 9033 3088	robert.thompson@rbccm.com

North America

RBC Dominion Securities Inc.:

Mark Chandler	Head of Canadian Rates Strategy	(416) 842-6388	mark.chandler@rbccm.com
Simon Deeley	Rates Strategist	(416) 842-6362	simon.deeley@rbccm.com

RBC Capital Markets, LLC:

Jacob Oubina	Senior US Economist	(212) 618-7795	jacob.oubina@rbccm.com
Tom Porcelli	Chief US Economist	(212) 618-7788	tom.porcelli@rbccm.com

Global Commodity Strategy and MENA Research Team

North America

RBC Capital Markets, LLC:

Helima Croft	Head of Global Commodity Strategy and MENA Research	(212) 618-7798	helima.croft@rbccm.com
Christopher Louney	Commodity Strategist	(212) 437-1925	christopher.louney@rbccm.com
Michael Tran	Commodity Strategist	(212) 266-4020	michael.tran@rbccm.com
Megan Schippmann	Associate	(212) 301-1531	megan.schippmann@rbccm.com