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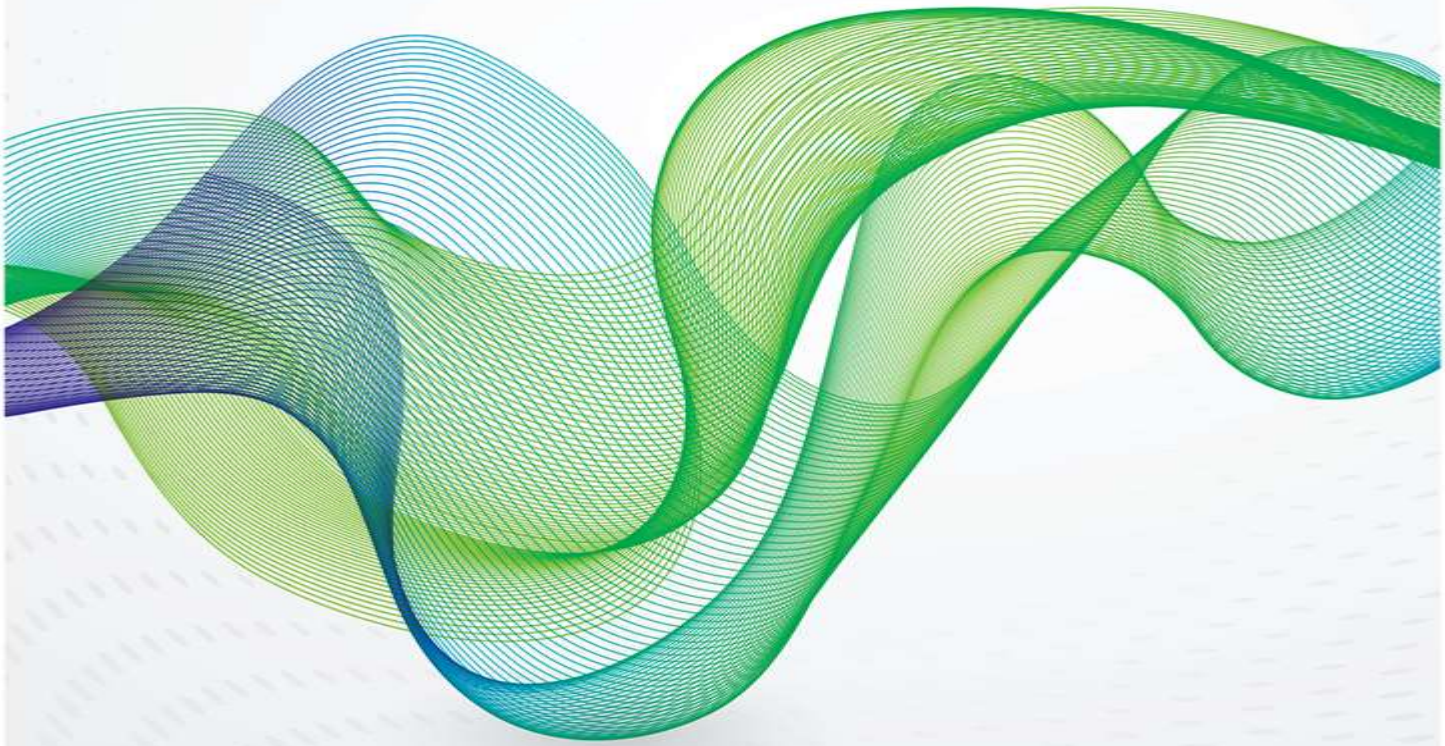
China's rocky road to recovery



OXFORD ENERGY COMMENT

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After almost two months of a government-mandated lockdown to stem the spread of COVID-19, China is now gradually returning to work. With expectations of imminent government stimulus, all eyes are on China to support the recovery in oil markets. But China's crude buying or oil demand may not be as strong as some are expecting (or hoping). In fact, China's oil product demand is likely to contract this year, for the first time in thirty years, and despite some opportunistic crude purchases to fill up domestic oil reserves, both commercial and strategic, crude imports could be flat or even fall from 2019 levels.

To be sure, even following the publication of official energy data, assessing the demand impact in Q1 20 remains challenging. Macroeconomic data and high frequency metrics pointed to steep declines in freight and transport demand of between 50 and 80 per cent y/y, but official energy demand data pointed to more modest contractions. These are also at odds with Chinese industry estimates. Some of the weakness in energy demand is likely to show up in the official data in the coming months, as crude and product imports start to weaken—following large run cuts—and as refiners continue to destock, increasing product outflows. Still, with limited data on domestic crude and product stocks, actual demand in Q1 20 remains hard to gauge. To date, though, it would seem that the demand loss has been greater than official data suggests and greater than run cuts, suggesting a few more months of lower throughputs and high product exports.

Even low oil prices are unlikely to change the outlook. This is because demand is recovering only gradually and product stocks are already high, so China has to destock before it can restock. Yet with weak global product cracks, the state-owned majors face an unenviable choice of exporting at a loss or selling into an increasingly saturated domestic market. So, even though refiners will want to take advantage of low crude costs and fill stocks, we estimate they can fill roughly 300 mb this year (of strategic and commercial tanks combined). Given these limitations, runs will struggle to exceed 2019 levels when throughputs averaged 13.1 mb/d. Finally, the government's cautious stimulus programme suggests that even though product demand could already start to recover and rise y/y towards the end of Q2 20, demand this year would still be around 0.1–0.25 mb/d lower than 2019 levels.

Softer than expected

As China starts to get back to work after the coronavirus (COVID-19) outbreak crippled its economy, all eyes are on the recovery. In mid-February, Beijing had started to discuss efforts to reinvigorate the economy, generating hopes that a large stimulus was imminent. Yet the return to work has been gradual and more subdued than the official messaging in February portended, with officials both in Beijing and in the localities erring on the side of caution, balancing virus containment efforts with economic growth.[1] In light of this, and given the weak macroeconomic data for January-February (which was published in mid-March as is usually the case due to the Chinese New Year), many global economic forecasters and financial institutions have revised down their GDP forecasts for the quarter and the year.

Indeed, the January-February macroeconomic data was much weaker than many had expected: PMIs dropped in February, industrial value added dropped by 13.5 per cent y/y, fixed asset investment fell 24.5 per cent (Figure 1) while retail sales also plunged by 20.5 per cent y/y. Imports held up, likely due to the strength of the pre-Lunar New Year buying, but exports also fell by 17 per cent y/y.[2] As a result, Oxford Economics, for example, expected China's GDP to plunge by 5 per cent y/y in Q1 20 before revising that further down to 8.5 per cent y/y, recovering gradually in H2 20.[3] Ultimately, the official GDP reading for Q1 20, released on Friday 17 April, showed a y/y contraction of 6.8 per cent (Figure 2), the weakest on record.

[1] Louis Kuijs, Research Briefing – China: 1% growth in 2020, but a strong rebound in 2021, *Oxford Economics*, 19 March 2020
[2] China Jan-Feb exports tumble, imports down as coronavirus batters trade and business, Reuters, 8 March 2020
[3] Ben May, World Economic Prospect Monthly Overview: World GDP now seen falling 2.8% in 2020, *Oxford Economics*, 8 April 2020

Figure 1: Fixed asset investment, y/y change, %

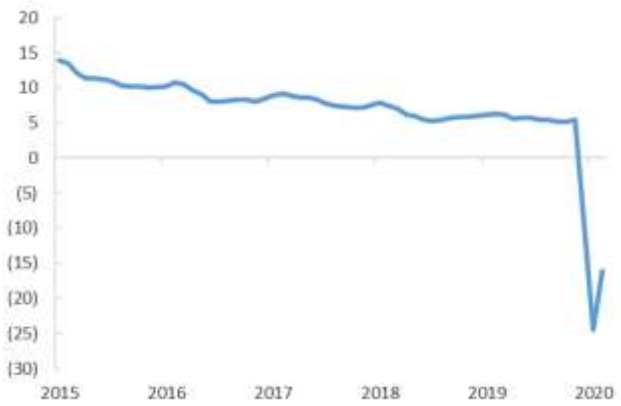
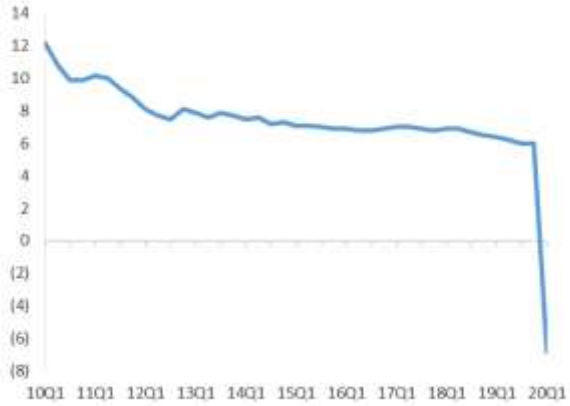


Figure 2: GDP, y/y change, %



Source: NBS, OIES

Gauging the impact on energy demand

Much like macroeconomic data, China's energy demand data (trade and production) were also published in mid-March. High frequency data for freight and passenger traffic (Figure 3) as well as coal consumption at power plants (Figure 4) already provided some insight in February into the extent of the slowdown, and while the macroeconomic data highlighted the economic inactivity, official energy data suggests a more muted downturn in demand. For example, industrial electricity consumption, according to the China Electricity Council, fell by 12.9 per cent y/y,[4] compared to a 6.7 per cent uptick in 2019.[5]

China's runs, according to NBS, averaged 12.03 mb/d in Q1 20, a y/y decline of 0.6 mb/d, or 5 per cent, yet industry reports point to steeper drops of almost 1 mb/d (10 per cent) lower y/y (Figure 5).[6] Official data may be revised in the coming months, but for now, it potentially understates crude stockbuilds.

Indeed, implied crude demand has held up well since imports into China remained strong in Q1 20 (averaging 10.5 mb/d, up y/y by 0.60 mb/d, Figure 6) given that they were booked in Q4 19 when refiners were expecting an uptick in demand and strong margins. But in light of the run cuts in Q1 20, crude inventories have filled, estimated to have increased by 50 mb between the end of February and mid-March alone.[7] Refiners are likely to have stored similar volumes in February too, while logistical constraints at the ports led refiners to divert cargoes or cut nominations through April and May.

[4] National Power Industry Statistics, January-February 2020 (Chinese), http://www.cec.org.cn/d/file/guihuayutongji/tongjxinxi/yuedushuju/2020-03-24/9a6e888692bfaa3d85e73bea5470137d.pdf

[5] National Power Industry Statistics, January-February 2019 (Chinese), http://www.cec.org.cn/d/file/guihuayutongji/tongjxinxi/yuedushuju/2019-03-21/40a80ae1e6b9ab5325e7a5df30e3edfa.pdf

[6] Chen Aizhu, Shu Zhang, "China "teapot" refiners crank up run rates as oil price war boosts margins", Reuters, 11 March 2020, https://www.reuters.com/article/global-oil-china-demand/china-teapot-refiners-crank-up-run-rates-as-oil-price-war-boosts-margins-idUSL4N2B32R8; Asian refiners cut runs, shut down as demand destruction intensifies, Platts S&P Global, 6 April 2020, https://www.spglobal.com/platts/en/market-insights/latest-news/oil/040620-asian-refiners-cut-runs-shut-down-as-demand-destruction-intensifies; Chen Azihu, "UPDATE 1-China's top refiners to hike output 10% in April as domestic fuel demand rises –sources", 3 April 2020, https://uk.reuters.com/article/china-oil-refinery-output/update-1-chinas-top-refiners-to-hike-output-10-in-april-as-domestic-fuel-demand-rises-sources-idUKL4N2BR1ER

[7] Erica Downs, Antoine Halff, David Sandalow and Erin Blanton, "China and the oil price war: A mixed blessing", Columbia SIPA Center on Global Energy Commentary, March 2020, https://energypolicy.columbia.edu/research/commentary/china-and-oil-price-war-mixed-blessing

Figure 3: Passenger traffic

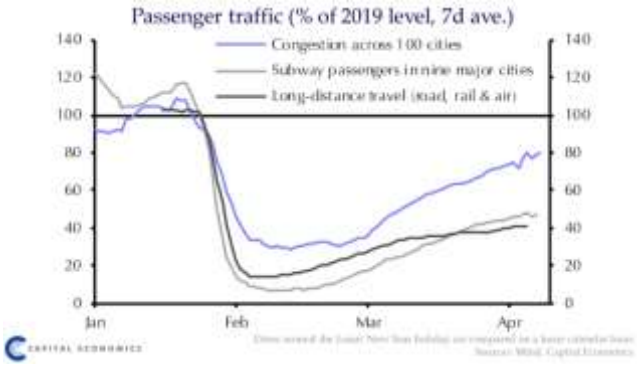
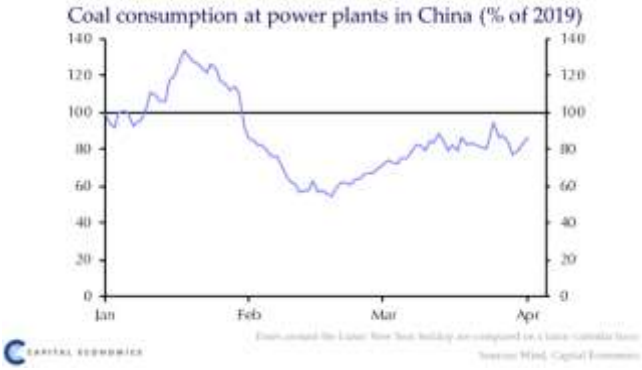


Figure 4: Coal consumption at power plants



Source: Capital Economics

Figure 5: China runs, mb/d

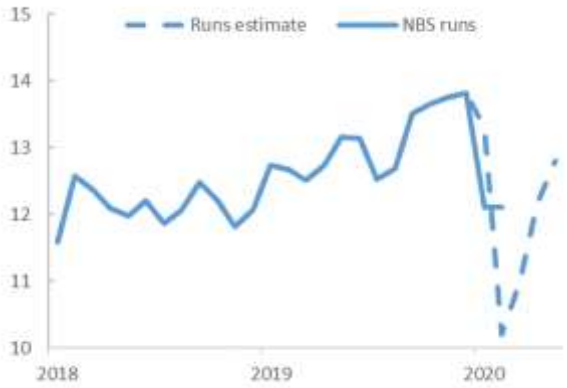
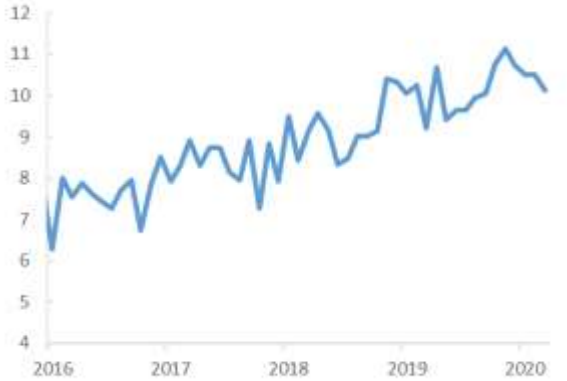


Figure 6: Crude imports, mb/d



Source: China Customs, NBS, OIES

End product demand likely fell more dramatically than throughput reductions. According to official sources (NBS and Customs), implied product demand fell by 13 per cent on average, or 1.7 mb/d in January-February 2020 (Figure 7). But the economic standstill would suggest a steeper drop in end-user demand and even CNPC's research institute, the Economics and Technology Research Institute (ETRI), assessed in February that demand for gasoline, diesel and jet would fall by 31 per cent y/y in Q1 20.[8] In the same vein, other industry sources estimated that oil product demand fell by anywhere from 3-5 mb/d y/y in February alone (or closer to 50 per cent)[9], which, assuming a slight recovery in March, would suggest a 20 per cent demand drop in Q1 20 from Q1 19 levels.

The biggest demand drops were seen in transport fuels, followed by diesel as industrial demand also ground to a halt. This was reflected in refiners' shut downs as the majors reportedly shut catalytic cracking units as well as desulphurisation units to minimise output of transport fuels, while diverting naphtha and unfinished gasoil to ethylene steam crackers in order to reduce diesel production. Refiners

[8] Wang Lining, "An analysis of the impact of COVID-19 on the oil market", CNPC ETRI Presentation, 19 February 2020
[9] China Day takeaways; for a more bearish assessment of the demand loss see Fenglei Shi, Xiaonan Feng, "The COVID-19 outbreak and its aftermath, what does it mean for China's oil demand and performance of its oil industry", IHS Refining and Marketing Insight, 18 March 2020.

have also raised yields of very light sulphur fuel oil (VLSFO), using the excess vacuum gasoil diverted from gasoline production, taking advantage of the tax rebates on VLSFO.

Is official data underestimating the demand hit?

It seems hard to reconcile the weakness in macroeconomic data with the official energy statistics and various oil industry assessments. A number of factors suggest that official data is understating the demand hit, even though there is some debate about which macroeconomic indicators offer insights into oil demand.[10] Historically, diesel demand has been sensitive to PMIs and rail freight movements. Jet fuel, similarly, is closely related to both freight and passenger aviation movements. When looking at these indicators then, the official oil data seems to understate the impact of the sharp drop in freight and passenger transport on jet and diesel demand. The travel restrictions and, to a lesser extent, the collapse in car sales should also lead to a material drop in gasoline demand.

Figure 7: Demand by product, y/y change, mb/d

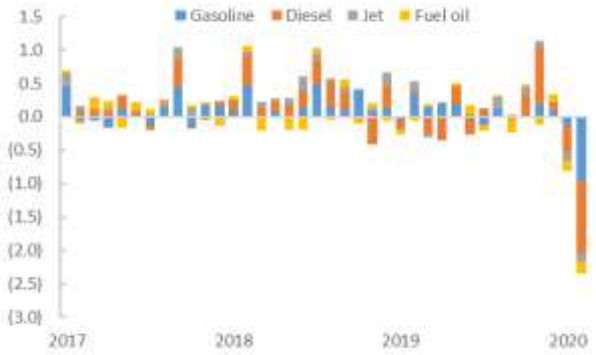
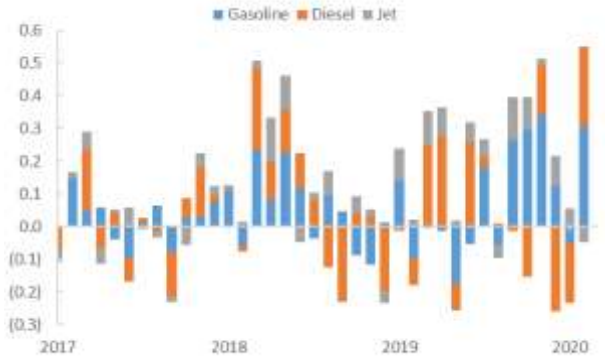


Figure 8: Product exports, y/y change, mb/d



Source: China Customs, NBS, OIES

The official data is also likely to lag actual consumption because of storage trends, as refiners destock and export more products. Indeed, storage data for various commodities in China is imperfect or nonexistent so actual demand observations probably differ quite substantially from implied readings. If we assume industry estimates, and roughly a 30 per cent y/y drop in product demand, refiners would have had to place large volumes of products in storage bringing them close to tank tops, especially given that COVID-19 hit just before the Chinese New Year when many refiners stock up seasonally to ensure smooth supplies over the holiday period. This led to the large volumes of diesel and gasoline exports in February. Jet outflows, however, were soft (Figure 8) so additional exports of all products are also likely in March and April.

So, without accurate stocks data, the full extent of the weakness in oil product demand seems understated in official data and could become visible in the coming months through a combination of reduced imports and higher outflows of oil products.

[10] Gabe Collins, "China's Evolving Oil Demand Slowing Overall Growth, Gasoline Replacing Diesel as Demand Driver, Refined Product Exports Rising Substantially", Baker Institute Working Paper 2016, https://www.bakerinstitute.org/media/files/files/e0b5a496/WorkingPaper-ChinaOil-093016.pdf; Michal Meidan, Amrita Sen, Robert Campbell, "China – the 'new normal'; Oxford Energy Comment, February 2015, https://www.oxfordenergy.org/publications/china-the-new-normal/?v=79cba1185463; Anupama Sen, Michal Meidan, Miswin Mahesh, "Gasoline Demand in Non-OECD Asia: Drivers and Constraints", OIES Working Paper 74, November 2017, https://www.oxfordenergy.org/wpcms/wp-content/uploads/2017/11/Gasoline-Demand-in-Non-OECD-Asia-Drivers-and-Constraints-WPM-74.pdf?v=79cba1185463

China's consumption stimulus unlikely to deliver a V-shaped recovery

Just as assessing the demand impact in Q1 20 is challenging, so too is estimating the demand response as China begins to recover. The weakness in Q1 20 macroeconomic data has led a number of forecasters to revise their GDP growth forecast lower for the year. Oxford Economics, for example, expects China's GDP growth for the year to contract by 0.2 per cent.[11] Goldman Sachs expected a Q1 20 GDP drop of 9 per cent y/y but a stronger rebound in the latter part of the year, with GDP growth at 3 per cent y/y for 2020. The IMF, in its April World Economic Outlook forecast the Chinese economy would expand by 1.2 per cent y/y in 2020. In short, if in early 2020 the consensus GDP growth forecast for China this year hovered between 4 and 5 per cent growth, it is now substantially lower.

Moreover, even as China gradually returns to work, with many indicators suggesting that in mid-March the economy was around 70-80 per cent back to average levels seen during 2017-2019, and March PMIs showing signs of a tepid recovery (albeit the indicator rose strongly from an extremely weak February base), the rapid spread of COVID-19 and the looming global recession suggest that China's initial (assumed) goal of 5.6-6 per cent GDP growth this year is out of reach. Policy makers in Beijing are reportedly also considering issuing a more modest growth target for the year,[12] or scrapping it altogether.[13] In terms of overall growth, the best guidance will come from the national parliamentary session where the top leadership issue their macroeconomic targets for the year. Usually, these are released during the National People's Congress meeting (NPC) in early March. This year, the NPC was postponed and a new date has yet to be issued, but when it finally convenes, the various metrics set for the year will be telling indicators of the government's policy approach.

Regardless of official growth targets, any recovery will be complicated by policy makers' need to restart economic activities while also preventing another round of infections domestically. Achieving these twin goals has made the road to recovery bumpier than many had expected. Moreover, as COVID-19 spreads around the world, China's own recovery will be marred by the looming global recession, which will inevitably weigh on China's manufacturing industry. Given concerns about rising unemployment, the government is now focusing primarily on supporting small and medium enterprises (SMEs) and domestic consumption through a number of measures:

- The central bank will continue to **loosen monetary policy**, but it is likely to adopt a more moderate approach than many other central banks as it looks to (still) strike a balance between stable growth, risk prevention and inflation control.
- Decision makers are looking to **accelerate lending to SMEs.** Private companies are the country's biggest employers and have been among the hardest hit by the economic downturn. Yet many SMEs rely on local consumption for their cash flow, and that remains constrained by social distancing measures, and they do not borrow from banks as heavily as their state-owned peers, complicating regulators' efforts to support them. At the same time, the government has reduced electricity rates and city gate benchmark gas prices to ease the burden on businesses. Nonetheless, SMEs still present a large hurdle to a strong recovery.
- The government has been using **fiscal policies** such as drastically reducing corporate contributions for social security programmes, lowering VAT rates and deferring tax payments to support growth. Provincial governments are also cutting port and harbour duties, slashing security charges while the central government is issuing export tax rebates to help supply chains recover.

[11] Ben May, World Economic Prospect Monthly Overview: World GDP now seen falling 2.8% in 2020, Oxford Economics, 8 April 2020

[12] Kevin Yao, "Exclusive: China to ramp up spending to revive economy, could cut growth target – sources", Reuters, 19 March 2020, https://www.reuters.com/article/us-china-economy-stimulus-exclusive/exclusive-china-to-ramp-up-spending-to-revive-economy-could-cut-growth-target-sources-idUSKBN2161NW

[13] Frank Tang, "Coronavirus: China should drop 2020 GDP target as pandemic stokes uncertainty, says central bank adviser", South China Morning Post, 31 March 2020, https://www.scmp.com/economy/china-economy/article/3077733/coronavirus-china-should-drop-2020-gdp-target-pandemic-stokes?mc_cid=fef690d655&mc_eid=1f5ebaac4b

But this will do little to offset the weakness in European demand while tariffs still weigh on many Chinese exports to the US.

- A growing number of cities and companies introduced **consumer subsidies or voucher programmes** to boost consumption, which in turn, should help business activity recover.
- The central government is promoting **infrastructure spending** in new industries such as 5G and information data centres, but, for now, there is little focus on traditional infrastructure (roads, highways, bridges, etc).

Additional policies are likely to be introduced in the coming weeks, but to begin with the government's support measures do not point to a commodity-intensive stimulus. The fate of the real estate sector will be critical in this context. Already, developers are facing limitations on financing and are struggling with debt sustainability. New construction starts fell by 25.9 per cent y/y as migrant workers were kept off construction sites and with developers shutting showrooms, sales of finished homes dropped by a third from year-ago levels. Property developers have responded by slashing prices, but the risk now is that buyers will wait for further price cuts amid a long-awaited correction in the property market, leading to a steeper decline in the property sector which would further weigh on industrial production in steel, cement, plastic, glass, and aluminium.[14] Property, therefore, remains a key downside risk.

Since restrictions on migration remain, and with the central bank treading carefully with monetary easing, recovery rates will differ across provinces and industries. Infrastructure and transportation are more likely to pick up first given state support, financing conditions, and lower exposure to exports. Manufacturing of consumer goods will be constrained by migration restrictions and weaker external demand for exports, although the government's focus on domestic demand will allow manufacturing to grow gradually. A recovery in freight and passenger transport will help diesel demand (Figure 9) while income support combined with concerns about taking public transportation will lead to stronger gasoline demand.

But with a large number of private companies going bankrupt in China and the export sector still struggling as the global economy decelerates, and uptick in gasoline and chemicals consumption will still be subdued. The first products to recover are therefore likely to be diesel, followed by gasoline, with consumer surveys pointing to massive deferrals of travel plans for Q2 20, suggesting that jet consumption will take time to recover (Figure 10). So, even though crude buying and oil demand may see some y/y increases in the second half of the year as the economy regains momentum, China's crude imports and end product demand in 2020 may well fall from 2019 levels.

Figure 9: PMI, diesel demand y/y change, %

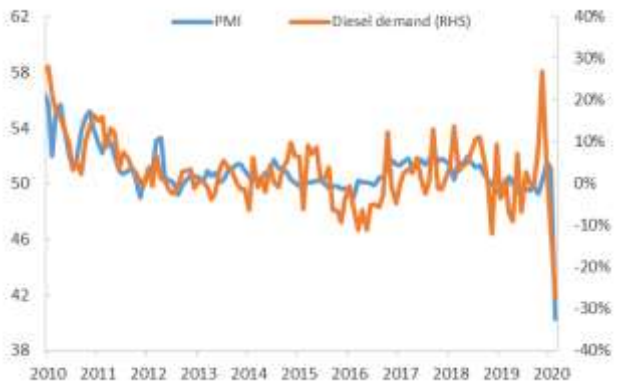
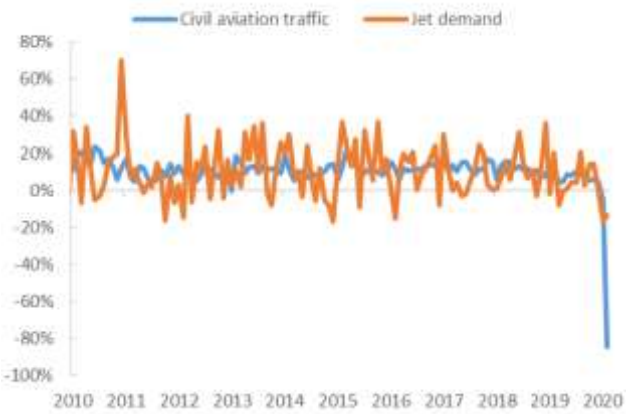


Figure 10: Civil aviation traffic, jet demand, y/y, %



Source: China Customs, NBS, OIES

[14] Lauren Gloudeman, "Deconstructing the Virus Impact: How China's Recovery Will Unfold", Rhodium Group, April 10, 2020, https://rhg.com/research/deconstructing-the-virus-impact-how-chinas-recovery-will-unfold/

Figure 11: Gasoline demand, car sales, y/y change, %

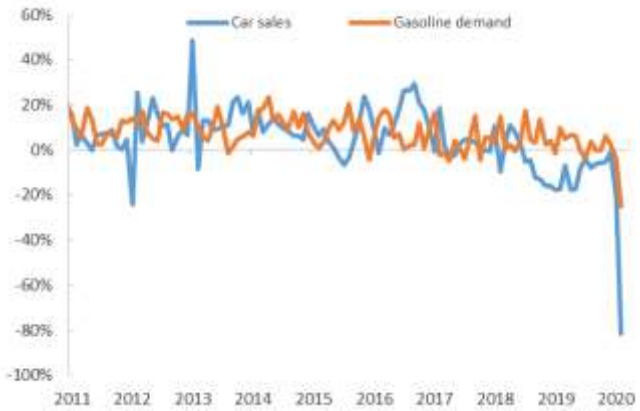
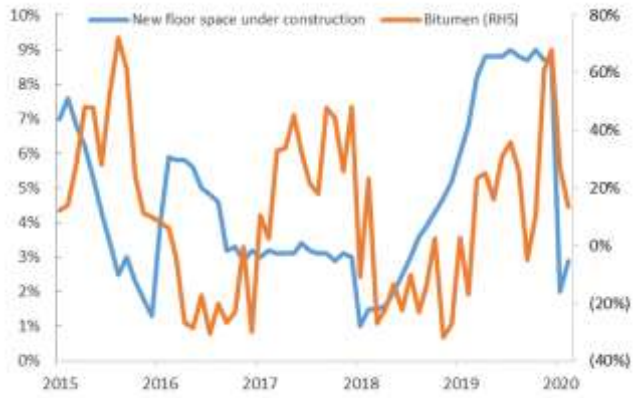


Figure 12: Real estate starts, bitumen demand, y/y, %



Source: China Customs, NBS, OIES

This is despite the fact that any forecast based on GDP growth levels would suggest that oil demand could still expand this year. Taking the IMF's 1.2 per cent GDP growth forecast for the year, for example, and assuming that every billion RMB's worth of GDP requires a certain volume of oil, any economic expansion this year would lead to higher oil demand. Yet when considering the demand loss in Q1 20, only an average 7 per cent increase in oil use from May onwards would lead to a small uptick in China's oil demand for the year. But in light of the government's current support measures, the growth levels in H2 20 will likely be softer than 7 per cent. And even though product demand could rise y/y already in late Q2 20, assuming a constructive 4–5 per cent y/y growth in H2 20 (which is the average growth levels seen over the past five years), China's oil demand would still be 0.1–0.25 mb/d lower than 2019 levels.

Even crude bargain hunting will be limited

Lower demand expectations will feed through to refiners' throughput plans. Given that refiners are running close to product tank tops, despite higher export programmes, they will likely need to extend their run cuts through April and perhaps early May, coinciding with peak maintenance season. Sinopec has already announced that it expects its throughputs to be lower y/y[15] although it has not issued its guidance for the year. Sinopec's assessment comes despite the fact that the company is still planning to start up 0.24 mb/d of new crude distillation capacity this year. And while PetroChina and CNOOC have not issued guidance either, the companies are unlikely to raise runs massively, given the pressure on inventories and the subdued demand outlook. For example, PetroChina's product inventories in mid-February were 70 per cent full, double the fill levels at this time of the year[16] with Sinopec stating in early April that its inventories were returning to 'more normal levels', expecting demand would recover towards the third quarter.[17]

Even as the majors limit their runs, they will face mounting pressure from the Shandong independents and new refiners, Rongsheng and Hengli. The latter are now looking to return to 100 per cent utilisation rates and Rongsheng is widely expected to receive export quotas, which will further boost its plans to

[15] Muyu Xu, Shivani Singh, "Sinopec expects lower 2020 refining runs as coronavirus hits demand", Reuters, 30 March 2020, https://www.reuters.com/article/us-health-coronavirus-china-sinopec/sinopec-expects-lowers-2020-refining-runs-as-coronavirus-hits-demand-idUSKBN21H07H

[16] "Chinese state firms face oil product inventory pressure", Argus, 18 February 2020

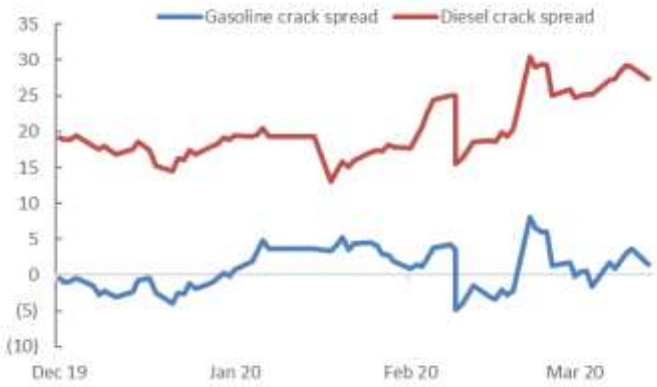
[17] "Signs of Chinese recovery", Argus, 3 April 2020

raise runs. Sinochem is also still planning its upgrade plans for the Quanzhou refinery in Guangdong province this year, suggesting higher runs.

But even though the independent refiners will want to stock up on cheap crude, their imports will be constrained by limited storage capacity for both products and crude. And with limited retail outlets, they need to sell products to the majors in order to free up space and raise runs. Storage constraints and weak demand will therefore cap any upside to refiners' appetite for crude.

Moreover, low global crude costs are not fully passed on to end users, and ongoing travel restrictions will slow the uptick in demand. Under China's current oil product pricing mechanism, the government adjusts domestic gasoline and diesel prices every 10 working days, in line with international crude prices when they are in a range of $40–$130 per barrel. If crude prices fall below $40 per barrel domestic prices are no longer adjusted lower, protecting refining margins (Figure 13), even though they are (in theory) required to pay the additional earnings from the higher oil product price into a special fund.

Figure 13: Shandong gasoline and diesel margins, $ per barrel



Source: Argus

Historically, the independents have avoided paying into the fund, allowing them to discount products which the majors have bought. But with a muted recovery in domestic demand and intensifying competition for market share, the majors may not buy products from the independents, hoping to force them into run cuts. Alternatively, the majors will need to choose between exports, despite their weak economics, or another build up in domestic stocks. As a result, Chinese runs are likely to come in lower y/y, but the majors may lose further market share.

Chinese buyers' ability to engage in speculative crude buying to fill storage is also limited, even though the government has reportedly asked buyers to step up purchases to fill the country's strategic petroleum reserve (SPR).[18] We estimate China's commercial crude tank space at 800–850 million barrels, with an additional 230–250 mb expected to start up in 2020. The country also has close to 400 mb of SPR tanks, of which more than 100 mb have yet to be filled. So, Chinese refiners can potentially fill up to 300 mb of crude this year and can move barrels between designated SPR tanks and commercial storage. The country also has 'social storage' some of which may not be accounted for in the commercial tank farms given their small size, suggesting some upside to this number, but that too will be limited. Anecdotal evidence suggests tank space is filling up rapidly. For example, in early April, when price differentials between the Shanghai futures contract (INE) and Omani crude futures encouraged sales into the INE, storage capacity became a bottleneck. The June contract on the Shanghai INE settled at $42 per barrel, $14 per barrel above the DME Oman contract, but traders could not sell into the contract as tank space that should theoretically be made available to the INE was full

[18] "China to Start Buying Oil for State Reserves After Crash", Bloomberg, 2 April 2020, https://finance.yahoo.com/news/china-starts-buying-oil-state-060909680.html

or already leased.[19] While this accounts for under 30 mb of capacity along the coast, it highlights the challenges importers and refiners face.

So refiners will have to spread their crude purchases out over several months. While they will want to draw down the more expensive crude and make room for the cheaper cargoes, their ability to fill up additional crude stocks is limited by soft domestic demand and weak export arbs. Moreover, even as the independent refiners will bring forward crude buying, this will eventually reduce their crude intake later in the year. As a result, China's crude buying could fall below the 10.1 mb/d seen in 2019, its first y/y drop since 2001.

The rocky road to recovery

Any expectations that China will come to the oil markets' rescue may be misplaced. The economy is gradually recovering from the Q1 20 shock, but the road to recovery is slower and bumpier than many, perhaps even in Beijing, had assumed. Many travel restrictions remain in place as local officials remain cautious about a second wave of infections. Consumer demand too is only gradually improving, with schools now set to return in early May. And the global slowdown will continue to hamper China's own recovery. The ramp up in government support measures is by no means a repeat of the 2008–2009 stimulus and policies are currently geared toward supporting domestic consumption and "new" infrastructure. In short, any stimulus will be less commodity-intensive than in 2008–2009.

When considering the demand shock in Q1 20, even assuming a return to average oil demand growth rates in H2 20 (4–5 per cent y/y), China's oil demand may well fall this year from 2019 levels. Refiners have trimmed runs and will continue to limit throughputs through year-end, weighing on China's appetite for crude, despite the collapse in crude prices. Indeed, Chinese buyers will rush to take advantage of $30 oil, but storage capacity is limited. And while refiners and importers can still fill as much as 350 mb this year, they have already stored more than 100 mb. More importantly, with already high product stocks (and lower overall clean product storage capacity than crude), runs growth is limited by demand growth and exports. Weak Asian and global product margins mean that exports are not economically appealing. Refiners will still export, in order to use up their quotas and relieve pressure on their stocks, but their options are limited. The initial readings from China's recovery suggest, therefore, that China won't save the oil market this year.

[19] Florence Tan, Chen Aizhu, "RPT-Traders unable to deliver oil into Shanghai exchange as investors hog storage tanks – sources", Reuters, 6 April 2020, https://www.reuters.com/article/global-oil-china-futures/rpt-traders-unable-to-deliver-oil-into-shanghai-exchange-as-investors-hog-storage-tanks-sources-idUSL4N2BT1RF; "INE under pressure as Chinese crude storage struggles", Argus, 8 April 2020; "China's Shanghai energy exchange adds to Sinopec oil warehouse storage capacity", 9 April 2020, https://uk.reuters.com/article/uk-china-crude-warehouse/chinas-shanghai-energy-exchange-adds-to-sinopec-oil-warehouse-storage-capacity-idUKKCN21R1BN