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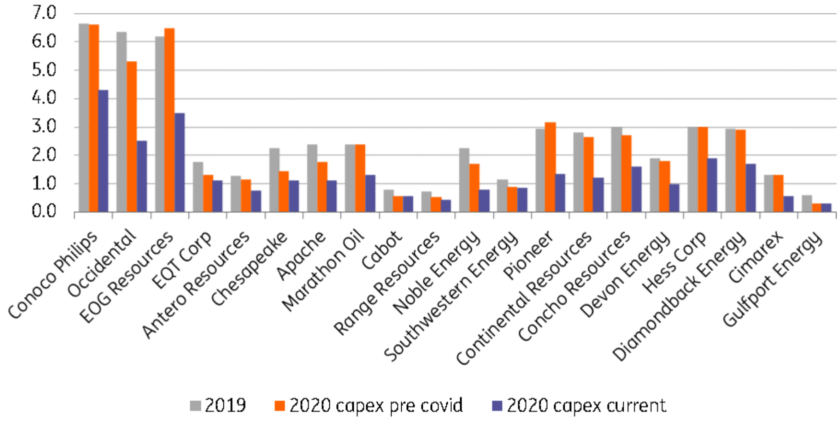
US oil production: Stronger prices still not enough

Covid-19 related demand destruction weighed heavily on oil prices, leading to US producers slashing capital spending and rig activity. Producers have also shut in wells, but with prices now strengthening again, these wells are coming back. However it's still too early to see a turnaround in rig activity, and so US output is likely to remain under pressure

Significant capex cuts

US independent oil and gas producers already entered 2020 with the intention of cutting capital spending for this year, having come under pressure to rein in spending, and generate positive free cash flow. Guidance from the top 20 producers at the start of the year was that spending would decline by around 9% year-on-year for 2020, although the Covid-19 demand hit and resulting price weakness, has seen producers revise lower their spending guidance for this year even further, with capex for the top 20 independent producers now expected to fall by more than 40% YoY.

Top 20 US independent oil & gas producers capex guidance (US$b)



Source: Company reports, ING

What has happened to US oil production?

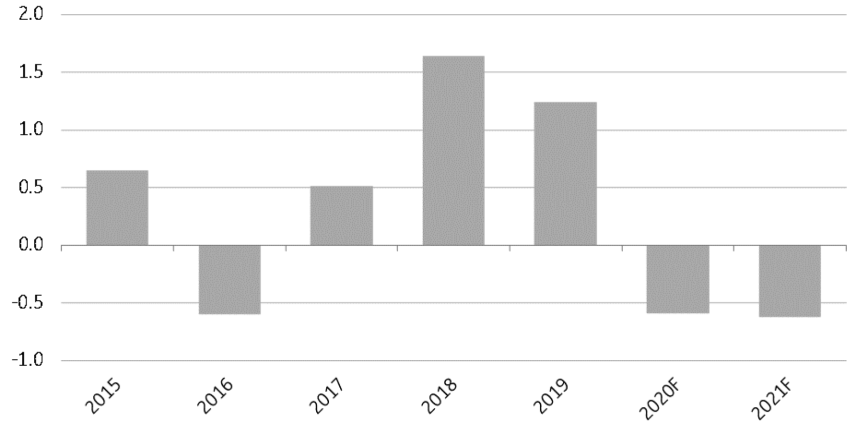
Oil output in the US peaked long before Covid-19 hit the headlines, and well ahead of the sell-off in the oil market. US crude oil output peaked in November 2019, reaching a high of 12.87MMbbls/d, up 4.33MMbbls/d from the lows seen in September 2016.

US producers were putting more of a focus on capital discipline over 2019, and so as a result we were already seeing drilling activity slow over much of last year, which meant that production growth rates were also slowing.

In 2019, annual US output grew by 1.24MMbbls/d, which compares to growth of 1.64MMbbls/d in 2018. Coming into 2020, expectations were that output would grow by a further 1MMbbls/d.

However, clearly the price weakness seen over late 1Q20 / early 2Q20, has seen the pace of decline in the rig count speed up significantly, with producers cutting capital spending, whilst some producers have also been forced to shut in production at existing wells. As a result, the growth that was expected for this year will not happen anymore. Latest monthly data from the Energy Information Administration shows that output in April was down 669Mbbls/d month-on-month, and 805Mbbls/d lower than the November 2019 peak. Clearly, production data for May and June will show even further declines, given that there was a significant amount of production shut in as a result of the price weakness over this period. For full year 2020, production is now forecast to fall by 593Mbbls/d YoY. While for 2021, output is expected to decline by a little over 600Mbbls/d YoY.

US crude oil YoY production change (MMbbls/d)



Source: EIA, ING Research

Producers respond quickly to price

US producers managed to respond fairly quickly to the price collapse, shutting in around 1MMbbls/d of production from existing wells over May and June. However as prices have rallied, these same producers have been fairly quick to bring back these shut-in wells.

According to the last Dallas Fed energy survey, of those producers that shut-in production, 56% have said that that they would bring back the majority of wells by the end of July. Meanwhile, current prices also fall within the range that those interviewed would expect to see shut-in production returning to the market, with 57% believing that this output would come back at a price between US$36-45/bbl.

These views are aligned with announcements from several producers stating their intention to start bringing back these curtailments over July.

Whilst the return of curtailed production may provide a short-term boost to US output (as also highlighted in the latest Short Term Energy Outlook from the EIA), this trend will likely not be sustained, given the steep decline rates seen in US shale, particularly for relatively new wells. In order to see this, we would need to see a pick-up in drilling activity, something we are just not seeing at the moment.

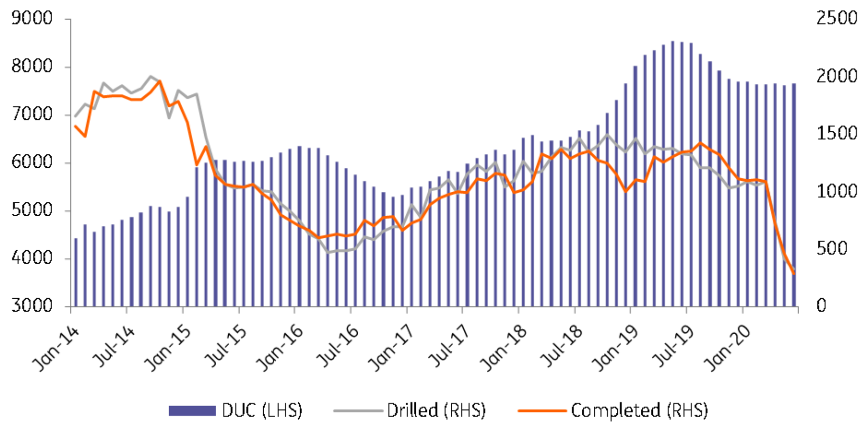
Activity is picking up, but not drilling

While the stronger prices we are seeing at the moment will bring curtailed production back online, current prices are still unlikely to see producers increase drilling. Drilling activity in the US has collapsed since mid-March, with the total number of active oil rigs falling by around 74% since mid-March to stand at just 181 – just two away from the lows seen in 2009. While the decline in the rig count has slowed in recent weeks, and appears to be approaching a bottom, we would need to see even higher WTI prices for drilling activity to pick up meaningfully. Our view is that we would need to see WTI trading around the US$50/bbl level before producers will start to even think about increasing drilling activity, and these are price levels we only expect to see in 2021. Therefore, US output is likely to bottom out sometime over the first half of next year.

Whilst drilling is yet to see a turnaround, there is still scope for US producers to try and sustain production levels. Producers are still sitting on a significant amount of drilled but uncompleted wells (DUCs), and so the completion of these DUCs would help to at least slow the decline in output expected in the coming months. Latest data from the EIA shows that the number of DUC's at the end of June stood at 7,659, up 35 from the previous month, and the largest monthly increase seen since May 2019. The data shows that completions actually lagged drilling last month, and again no surprise given the weakness in prices seen over May.

However, there are signs that these completions will pick up in the coming months. The frac spread count has started picking up since bottoming out in May, which means that the industry should start to draw down the sizeable DUCs inventory.

US drilled but uncompleted wells



Source: EIA

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