

Mark Finley – Speaker notes

Webinar: [Shale's Future: Replay or Swan Song?](#)

Sept. 10, 2020

History

Where are we now?

What are issues going forward?

What does it mean for long-term?

You all know that this is not the first time the US shale patch has taken a hit.

On Thanksgiving Day 2014, OPEC declined to cut production to make room for shale, preferring a price war to reassert their (perceived) competitive advantage. Many observers felt at the time that US shale required high prices—for most of 2014, they had averaged \$100 (and nearly \$100 since 2011). The prevailing sentiment was that prices much below \$80 would spell doom for the US shale patch.

At first, it looked like OPEC would succeed. Prices fell to about \$50 and the US rig count fell 60% by mid-2015.

But something was wrong: US production didn't fall.

It took another downward leg in prices in late 2015-16 to get a supply response. Prices fell to about \$30 in early 2016; the rig count fell by ANOTHER 50%, and finally, (taking 'til mid 2016 to bottom), US crude output fell by about 1 Mb/d.

But by then the damage had been done. With little recovery in sight, OPEC threw in the towel in late 2016, going back into production-cutting mode to boost prices. Admitted defeat of the market share

strategy. Been there ever since, even bringing in non-OPEC players like Russia to help share the pain of production cuts.

The resilience of the US shale patch shocked the world. How did it happen? Matt will have all the details, but in a nutshell: Competition & innovation

- Massive cost-cutting. Many of you remember it.
- Additionally, industry could still access capital (albeit at greatly reduced activity levels)—Matt can describe
- Massive productivity gains. Between the price collapse and the end of 2017, US DOE data shows that per-rig productivity nearly doubled in the Eagle Ford, more than doubled in the Bakken, and nearly tripled in the Permian. Lots of ways to do this—drill faster, longer, better fracturing/completion.
- But the bottom line was: Massive productivity gains, along with cost-cutting, allowed the US shale industry to stay competitive at lower prices.

Indeed, by 2018, with oil prices improved but still well below pre-price-war levels (avg \$65), US crude production had the biggest increase of any country ever: 1.6 Mb/d. (Plus, nearly 600 Kb/d of NGLs growth.)

Fast-forward to 2020. As we've discussed on previous webinars, the COVID-19 pandemic is causing the biggest-ever drop in global oil demand (DOE says over 8 Mb/d this year), and prices have collapsed. At first, a stand-off between Saudi Arabia & Russia actually made things worse, with US prices famously – briefly – falling below zero for the first time ever.

The OPEC+ group subsequently agreed on the biggest coordinated production cuts ever – aided by a timely push from President Trump – but there remains tension within the group. Russia in particular has

been very clear that it doesn't want to lose market share to US shale producers.

But the reality is, they didn't need to worry! The US reaction has been massive.

- The rig count fell by 75% in about four months...a much more rapid reaction than we saw last time.
- With negative prices forcing a number of existing wells to shut in, US production had the fastest drop ever recorded—with L48 onshore crude output falling by almost 2.5 Mb/d between March & May.
- Much of that shut-in production has come back online as prices have recovered...
- ...but the underlying rate of decline for the US shale production base is over 500 Kb/d per month (vs 350 Kb/d during the last downturn).
- As a result, today's weekly estimate of US onshore crude production is 3 Mb/d below pre-pandemic levels. That is a bigger decline than we've seen from either Saudi or Russia.

So, what are the issues going forward, compared with last time?

- Cost-cutting? Some, but not to the extent seen in 2015-16. Simply put, there was more fat in the system when prices were \$100. This time, the industry has already been under pressure: Remember that the rig count peaked in late 2018 (prices weakening following that massive US growth) and was already 25% down BEFORE the pandemic hit. Service companies have already been squeezed.
- Access to capital: Brutal—as many of you know and as Matt will discuss. You all know the stories: Energy sector's share of the US stock market is at record lows; ExxonMobil removed from Dow

Industrials for the first time in nearly a century; ESG pressures on fossil fuel companies.

- And finally, productivity: Like costs, improving but as the technology has matured, pace of learning is not nearly as great as it was five years ago. In the 12 months before the pandemic, DOE data shows that per well productivity in the main shale plays grew by around 10%. We can expect some improvement going forward as pared down activity leaves us only with the best crews, rigs & frac spreads; working only the best prospects. But again, nothing like the doubling/tripling of productivity that we saw in the last price collapse.

We seem to have hit bottom in recent weeks. The rig count has stabilized, and frac spreads are growing. Even so, my numbers show that we're nowhere near the levels of activity needed to even stabilize production. So, the question going forward is, with limited prospects for cost-cutting, greatly restricted access to capital markets, and modest productivity growth, what price will be needed to double or triple drilling/completions?

And stepping back a bit: On the geopolitical front, are Russian/Saudi fears of losing market share to a resilient US shale industry out of date? As the global oil market rebalances, will they be haunted by the ghost of a shale industry that doesn't match today's reality...and what will that mean for global markets & prices?

Let me stop there & give Matt a chance to weigh in.