A Rolling Loan Gathers No Loss: Fracking, COIVD 19, and Zombie Finance[1]

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In 2000 the United States was the world's largest importer of petroleum, taking in over 10 million barrels/day (bbl/d), consuming one-quarter of the world's petroleum output but producing less than 10% of global bbl/d.[2] in 2019 the United States was a net exporter of petroleum and petroleum products – and the world's largest producer.

What happened?

In two words: hydraulic fracturing, or in one word, fracking.

Oil is the largest commodity in global trade, and access to and control over oil producing regions has been a major goal of U.S. foreign policy since at least WWII. Fracking was always controversial but it also held out the allure of "energy independence," or, as carried to the extreme by Trump, "energy dominance."

In the halcyon years of oil prices in the $80s, $90s, and over $100/barrel, fracking appeared to be a profitable path to energy independence. This optimism seemed plausible, even though fracking costs of production are considerably higher than oil production costs in either Saudi Arabia or Russia, the other major players in the global oil political economy. Neither the Russian nor the Saudis were enthusiastic about the increased oil production in the United States, the resulting loss of a potential buyer and emergence of a new competitor. But, with high oil prices and a growing global demand for the stuff, there was (relative) peace in the global oil market.

COVID 19 has changed all that – and probably for the duration.

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[1] This article was written on April 15, 2020 and reflects information available at that time.

[2] https://www.bts.gov/content/overview-us-petroleum-production-imports-exports-and-consumption-million-barrels-day

U.S. frackers are being squeezed in two ways: the overhang of debt coming due and the collapse of global demand. Fracking has a high production cost because the wells deplete rapidly. Thus new drilling is a constant of the industry. And new wells cost money. How to get it? Borrow – that is, issue debt. U.S. corporations have gorged on debt in the decade after the Great Financial Crisis (GFC) because the cost of new money, the interest that must be paid on bonds, has been low, reflecting the slow growth of the U.S. economy since the GFC. The fossil fuel industry, led by the demand of fracking enterprises, has been at the forefront of this debt orgy. In the past decade, the industry has issued more than $400 billion in new debt.

The amount of new debt is itself a problem, with over $200 billion maturing in the 2020-2024 period.[3] But the problem is deeper: the debt issued by the industry is almost exclusively BBB-rated, the lowest step before junk bond status.

Of course, if fracking were a profitable operation, the debt could be gradually retired. But it is not. During much of the past decade frackers have at best broken even and mostly lost money. During the past 5 years there have been 215 bankruptcies in oil and gas, accounting for more than $130 billion in debt.[4] This number will likely seem small compared to what is to come.

Why then, you ask, have they been able to borrow so heavily? Largely for two reasons. First, frackers argued that new technology that would make them profitable was just around the corner. Second, and probably more important, a decade of low interest rates and thus low returns to bond investors has left everyone searching for higher yields. Seeking higher yields means walking down the ratings ladder – to BBB-rated debt. Encouraged by the hedge fund managers that they have (foolishly) hired, pension funds and other investors have bought much of this debt. While promising yields higher than debt from more viable issuers, the interest costs have been manageable, because, until very recently, frackers have been able to finance their operations and additional drilling by rolling over old debt into new debt: as the saying goes, "a rolling loan gathers no loss."

But that is changing – rapidly. In March of 2020, BBB-rated issuers could borrow new money for about 2.6%; in April the rate demanded is over 4% – and may go higher.[5]

This financial model under which fracking (and some other parts of the U.S. petroleum industry) have been operating is described by the Bank for International Settlements (BIS) as "zombie financing." BIS analysts have concluded that about 1 in every 6 publicly listed companies in the

[3] https://www.nytimes.com/2020/03/20/business/energy-environment/coronavirus-oil-companies-debt.html
[4] https://www.nytimes.com/2020/04/10/opinion/sunday/coronavirus-texas-fracking-layoffs.html
[5] The uncertainty here is the extent to which the Fed will purchase debt from these issues. It appears that, if the debt was still rated BBB or higher on April 2, it is eligible for the Fed's program.

United States are zombies: their earnings are insufficient to cover interest on their outstanding debt, much less pay down the principle.[6] Many of these zombies haunt the fossil fuel industry.

The other half of the vice squeezing frackers is the collapse of demand for oil that has been driven by COVID-19. The resulting price declines are drowning fracking operations.

And this collapse takes us back to fantasy of energy independence. Both Russia and Saudi Arabia have born the brunt of production cuts over the past decade. This time around, the Russians saw an opportunity: to undermine and possibly destroy the fracking industry in the United States (the Saudis probably saw the same opportunity but are more dependent on the U.S. military). Thus they initially refused to go along with the cuts proposed by the Saudis, and both countries instead ramped up production. The Saudis promised an additional 2.5 million bbl/d and Russia, with less additional capacity, another 300,000 bbl/d. As a result, oil prices declined by almost 25% on March 11, the second largest decline on record. This strategy was not viable for either country over even the short term. Both are primarily large petro states, and their national budgets are tied closely to the price of oil.[7]

So, in April, producers have agreed to a major production cut, about 10% below cut levels – starting in May! But this has not lifted oil prices: west Texas intermediate crude (the benchmark for much U.S production) remains barely above the $20/barrel level. The immediate problem – for frackers and other producers and not addressed by the recent agreement – is that there is simply too much of the stuff already above ground. We are literally running out of places to store oil: more than 80 tankers are sitting offshore with no place to unload their oil.

While the longer-term outcome of the oil crisis is yet to come into focus, there are already several facts in place. First, in the United States the fracking industry generates about 2.5 million jobs; many of these will not come back.[8] Second, the United States will again become net importer of oil. Third, the limited gains that the Trump administration has touted in reducing the trade deficit in goods will be reversed: oil exports were the difference between the 2018 record trade deficit and the still big, but smaller 2019 trade deficit. Finally, fracking is very unlikely to return as a major source of oil production in the United States. It is an ill wind that blows nobody any good.

[6] Hyman Minsky referred to this state of affairs as "Ponzi finance."
[7] By one estimate, $42/bbl for Russia and an astounding $80/bbl for Saudi Arabia. See https://www.foreignaffairs.com/articles/2020-04-02/oil-collapse
[8] https://www.foreignaffairs.com/articles/2020-04-02/oil-collapse