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Energy super-bulls

Two Wednesdays ago, Occidental Petroleum Corp. topped Chevron Corp.'s $65 bid for Anadarko Petroleum Corp. with a $76 bid of its own. In response to which, Leigh Goehring, one-half the eponym of Goehring & Rozencwajg Associates, LLC, spoke these words in a meeting at the *Grant's* offices in the Woolworth Building in lower Manhattan: "When this is all over, every publicly traded Permian Basin name will be taken over." The meaning of the word "this," along with an assortment of bullish investment ideas related to that suggestive pronoun, is the theme of the essay in progress.

Goehring, age 60, is one of Wall Street's most knowledgeable, experienced and resilient thinkers about commodities. As his parents met in the 1940s while working at what is today Exxon Mobil Corp., the table talk in his childhood home naturally concerned oil and gas. Goehring is still talking about it, and investing in it, too. He and his partner, Adam Rozencwajg, 35, manage a commodities mutual fund, Goehring & Rozencwajg Resources Fund, which they founded two years ago and which today has assets of $38 million. It's early days for the fund and for what history will identify as a new bull market in commodities in general and energy in particular, the partners say.

It's a contrary position, though for Goehring and Rozencwajg, since January 2016, a familiar and characteristic one. Their bullishness toward the Permian Basin is part and parcel of their unorthodox view on energy. "You don't want to write this," says Goehring, "because you don't want to be branded as a nut, but the thing is, maybe we have gone over Hubbert's peak, and people were just 20 years too early."

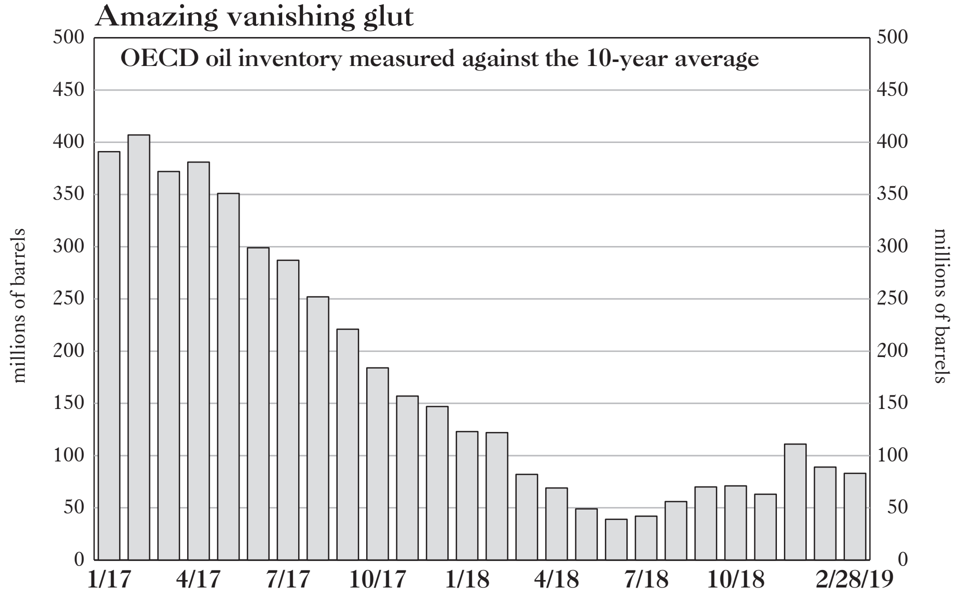
Despite the brief inversion of the dollar-denominated yield curve and the well-ventilated concerns about worldwide growth and trade, demand for oil is on the upswing. It rose by 1.3 million barrels per day in 2018 and is expected to climb by 1.4 mbpd in 2019 to 100.6 mbpd, according to the International Energy Agency. You can see it in the drawdown of world inventories, to 83 million barrels above the long-term average in February from 407 million barrels over that average two years earlier.

"We're entering what we're calling the golden age of energy demand," says Rozencwajg. "You have 4 billion people going through the meaty part of their economic development who all need more energy, and it is really starting to show up in the numbers."

Of course, past patterns could be put to the test if China's debt-driven investment bubble pops. Alternatively, in case of popping, the People's Republic could emulate Japan, where demand for crude oil continued to grow in the five years after the 1989 high in the Nikkei index. Suffice it to say that there are risks to the bullish oil story.

As there are to the bearish one. "In the international markets outside the Middle East and Russia," Schlumberger Ltd. CEO Paal Kibsgaard told listeners-in on the oilfield-service giant's April 18 earnings call, "the inevitable production decline resulting from the record-low investment levels seen in the past four years is now becoming increasingly

Amazing vanishing glut



sources: IEA Oil Market Report, Goehring & Rozencwajg Associates visible. First-quarter oil production in the international markets outside OPEC was down 400,000 barrels a day versus Q1 of 2018 and 900,000 barrels a day versus Q1 of 2017."

Venezuelan production has slowed to a trickle. Libya is on the brink of civil war. Not even Saudi Arabia is the gusher it used to be. "The Ghawar," says Goehring, referring to the Saudis' pride and joy, "has been babied because that field is not run by Saudi Arabia. That field is run by Schlumberger and Halliburton Co. Every proper oilfield and geological-reservoir management technique is applied to the field. So, it is what a field when properly managed every step of the way can do, and it is in decline. It peaked at around 5.2 mbpd probably back in 2004, and it is 3.8 mbpd now." The remaining Saudi fields, some of them remotely situated, are smaller and less productive than the storied Ghawar.

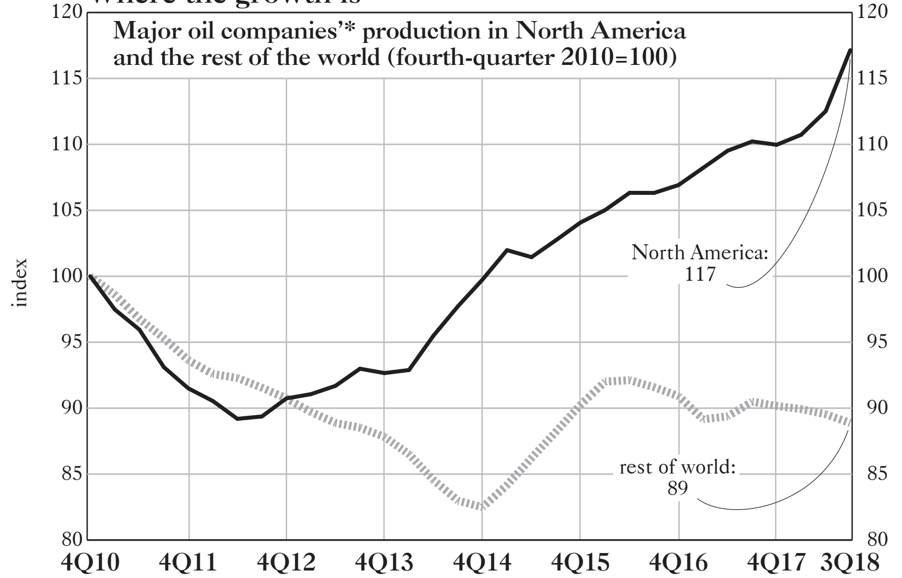
The waivers to President Donald Trump's sanction on Iranian exports expire on May 2. Might Saudi Arabia, under American pressure, fill the resulting supply void? "In 2018, OPEC essentially pushed an incremental 200 million barrels into global oil markets to provide a buffer for the anticipated Iranian embargo that never materialized," says Rozencwajg. "Incredibly, the majority of this extra oil was absorbed by strong demand."

So, for now, it falls to American shale to fill the gap. It's a tall order, and just how tall Rozencwajg set out to determine. He purchased descriptive data on 160,000 unconventional oil and gas wells and fed those figures into a machine learning program.

"We came away with a couple of really interesting conclusions," Rozencwajg says. "The first was that the impact of the bigger fracks was not as big as we would have thought. So, instead of a 100% increase in frack size leading to a 50% increase in productivity, it was leading to a 20% increase in productivity. If you think through the math, what that means is that the tier-1 to tier-2 migration couldn't have been that big. As it turns out, the tier-2 wells are in fact—on a constant completion basis—exactly 50% as good as the tier-1 wells. But what is interesting is that the tier-1 to tier-2 shift hasn't happened yet."

Based on this work, Rozencwajg finds that the Permian Basin has another five to six years of tier-1 well inventory left to drill. Older shale basins, like the Eagle Ford, have already peaked. Contrast the new forecast of the U.S. Energy Information Administration, which concludes that American shale production can grow without interruption through 2030.

Where the growth is



*Exxon Mobil Corp., Royal Dutch Shell plc, Chevron Corp., Eni S.p.A., Total S.A. and BP plc
source: Goehring & Rozencwajg Associates

Bear in mind, says Rozencwajg, that shale fields are highly sensitive to the productivity of new wells: "You don't need a huge change in drilling productivity to offset the net production of the field because the underlying decline rates are very, very high. If you shaved off 15% of the productivity of the new wells coming on, that is enough to basically roll over production on the field. It is a very fine, sensitive margin."

Schlumberger seems to concur—at least, it says it doesn't expect America's shale producers to flood the market with oil. "[I]n North America . . . the higher cost of capital, lower borrowing capacity and investors looking for increased returns suggest that future E&P investments will likely be at levels dictated by free cash flow," Kibsgaard told his earnings-call audience. "We therefore see land E&P investment in North America down 10% in 2019."

The backdrop of still-growing demand alongside, at least for now, subdued supply growth explains the contest for Anadarko—there are few places on Earth so prolific as the Permian Basin. You can justify that $76 bid, Goehring contends, if you assume that the price of West Texas intermediate rises to $75 a barrel, from $63.47 today. Assuming the same oil price, Goehring continues, Pioneer Natural Resources Co. (PXD) and Parsley Energy, Inc. (PE; both on the New York Stock Exchange) are worth $310 and $95, respectively, vs. current share prices of $166.46 and $19.96. (Pioneer and Parsley are 5% and 3% positions in the Goehring & Rozencwajg Resources Fund.)

The value of the Permian pair derives from the prime acreage positions they hold; the shares are hardly cheap on current earnings. Thus, Pioneer trades at 26.5 times trailing net income and 20.4 times the 2019 estimate; Parsley at 22 times trailing earnings and 12.8 times the estimate. The market is well-disposed to the two: short interest amounts to 2.2% and 3.2% for PXD and PE, and no analyst rates either stock a sell.

Pioneer was born in the 1997 merger of Parker & Parsley Petroleum Co. and T. Boone Pickens's MESA, Inc. It holds 680,000 net acres in the Midland Basin, the largest position of any E&P firm in the biggest of the three basins that constitute the Permian, as well as non-core acreage in the Eagle Ford in South Texas. Pioneer bought its Midland mineral rights on the cheap in the 1990s in the course of drilling conventional, vertical oil wells. It just so happens that those wells sat on top of oil-rich geological formations that required the development of hydraulic fracturing to unlock their value.

At the 2015 Ira Sohn Conference, David Einhorn, president of Greenlight

Capital, Inc., labeled Pioneer the avatar of the money-losing shale industry. Not even $100 crude could push the "Mother Fracker" or its peers into the black, he said.

However, counters Rozencwajg, the fact is that Pioneer was a victim of its own serendipity. The conventional oil wells that had established its claim in the Permian were only marginally economic. And as Pioneer invested in horizontal shale wells, it wrote off and shut down its conventional drilling program. Now that costly and necessary transition is over.

Recent detractors may point to Pioneer's apparently anemic reserve growth. The one billion barrels of oil equivalent in proved reserves booked at year-end were only slightly greater than the 959.6 million in proved reserves registered on Dec. 31, 2008. "Everyone says," Rozencwajg goes on, "'this is the crown jewel of the industry, they are spending hand over fist, they are tier-1 acres and they are basically just running to stand still.' That is not 100% true because they sold a substantial amount of net assets and they wrote down a substantial amount of net assets. You take that out of the starting point, and they've also been growing proved, developed reserves at a 26% compound annual growth rate over the last five years."

The asset sales have put Pioneer in a position to pay a semiannual dividend of 32 cents per share, for a 0.4% yield, up from four cents a share two years ago. They have also made possible a $2 billion buyback program, of which, by the Feb. 14 earnings call, less than three months after the authorization date, $328 million's worth of stock had been repurchased. Net debt amounts to $1 billion, or 33% of trailing earnings before interest, taxes, depreciation and amortization, and management has pledged to hold leverage in check.

In the fourth quarter, Pioneer expanded its oil-equivalent production by 4.8% year-over-year to 319.6 thousand bpd. Owing in part to a decline in realized prices (to $38.16 per barrel of oil equivalent from $38.68, largely in consequence of a plunge in realized gas prices to $1.75 from $2.53), adjusted earnings per share fell to $1.18 from $1.22 from the year-earlier period. Pioneer laid out $540 million more on capital expenditures in 2018 than it generated in cash flow from operations. On Feb. 13, the company estimated that, with $53 oil and $3 natural gas, cash flow from operations of $3.2 billion would just about cover the $3.1 to $3.4 billion in capital expenditures. The Street pencils in positive free cash flow of $294 million in 2019.

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Parsley's history is intertwined with Pioneer's. Bryan Sheffield, Parsley's founder and chairman, is the son of Scott Sheffield, the CEO of Pioneer, and the grandson of Joe Parsley, cofounder of Parker & Parsley Petroleum Co., the predecessor company to Pioneer. Bryan founded Parsley in 2008 by taking over 109 wells that his grandfather had drilled in the 1960s and 1970s. He took his company public in 2014.

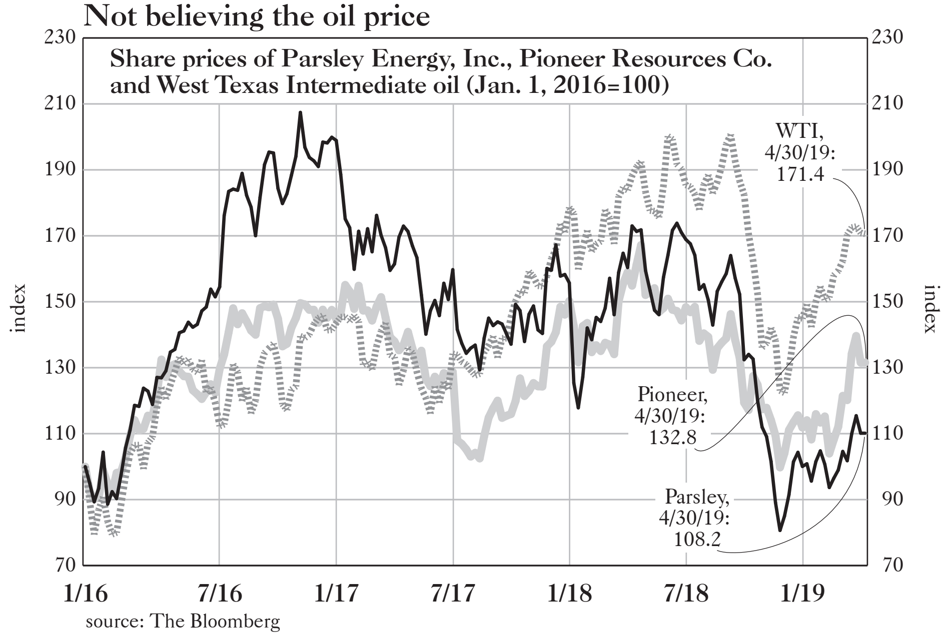
As of Dec. 31, Parsley held mineral rights to 198,946 net acres in the Permian Basin. "As far as we can tell, that acreage is almost as good as Pioneer's," says Goehring. "Parsley's economics are just about as good as Pioneer's. Sheffield tried to grow a little too fast. He didn't end up in any trouble, but people got upset about his finding and development costs."

The company is more focused on the bottom line now. In the fourth quarter, as the price of oil dropped to a low of $42.53 from $76.41, Parsley cut the number of rigs it plans to deploy in 2019 to 13 or so from 16 and refocused its efforts on wells with the quickest payback to reach positive free cash flow. Despite the swoon in energy prices, Parsley increased oil-equivalent production by 49% year-over-year in the fourth quarter, to 119.8 thousand bpd. Earnings per share rose to 19 cents in the final three months of 2018 from 16 cents a year earlier.

Like Pioneer, Parsley spent more on capex last year than it generated in cash flow (the deficit in Parsley's case was $799 million). Also like Pioneer, Parsley forecasts improvement. With an oil price in the mid $50s, says CEO Matthew Gallagher, "we now expect to turn the corner to sustainable free cash flow during the fourth quarter of 2019. . . . We have the core inventory depth in the right ZIP Codes, which allows us to adapt, and we have the short-cycle projects that allow us to be nimble."

Despite the current lack of cash flow, the company has had a good record of expanding production in a rocky market. "If you look at Parsley, over the last five years in a very poor oil-price environment, on a debt-adjusted, per-share basis, they've been able to compound their proved, developed reserves per share by 30%," says Rozencwajg.

Not believing the oil price



source: The Bloomberg

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Range Resources Corp. (RRC on the Big Board) is a prolific, leveraged, hairy, heavily shorted oil and gas producer not in the currently red-hot Permian Basin but rather the Marcellus Shale in Pennsylvania and the Lower Cotton Valley formation in Louisiana. Net debt comes to 3.6 times estimated 2019 Ebitda, and 19.7% of the shares are sold short. Another 16% of the stock is held long by SailingStone Capital Partners, LLC, a long-only investment fund that, since 2017, has suffered a 57% decline in assets under management, to $1.5 billion from $3.5 billion. Widows and orphans may now avert their eyes.

Nevertheless, says Goehring, "Range Resources has some of the best rock in the world. They were the first people to get involved in the Southwestern Marcellus Shale. They have prime acreage, huge inventories, and they have incredibly low finding and development costs." So low, in fact, Goehring adds, that profit for each barrel equivalent of oil extracted covers the finding and development costs of three additional barrels—a 3:1 "recycle ratio," as the adepts say.

In the first quarter, Range boosted production by 3% from the year-ago period to 203 billion cubic feet equivalent of natural gas (including gas itself, natural gas liquids and oil). Net income fell 97% to $1.4 million from $49.2 million thanks to a $61.7 million loss on derivatives used to hedge gas and oil sales (futures prices rose since the company put the hedge on). For 2019, Range has hedged over 80% of natural-gas production at an average floor of $2.86 and over 70% of oil at an average floor of $56.29.

Oil and gas companies annually disclose the present value of their discounted and taxed cash flows from proven reserves (as distinct from the merely probable or possible ones). PV-10 is the name of this informative estimate.

As of Dec. 31, Range's PV-10, calculated using 2018 average oil and gas prices and adjusted for net debt of $3.8 billion, stood at $7.3 billion, about $29 a share, compared with the current price of $9.04 a share. For perspective, Pioneer trades at a 272% premium to its PV-10 value; Parsley, at a 133% premium. The 10 largest E&P companies by market cap in the U.S. trade at a median 221% of their debt-adjusted PV-10 values, and none trades at a discount.

"I've never seen value in a stock like this—never," Goehring marvels. "You could make the case that this is the best rock in the whole world, and it is trading a 69% discount to its PV-10 value. I tell people that we're going to wake up one day and Aramco is going to buy Range. Something crazy like that is going to happen."

Range has produced positive free cash flow over the past three quarters—the first such string of months since the second quarter of 2006. Debt reduction, too, is on the corporate agenda; since June 30, 2018, management has paid down $375 million or 9% of net debt.

"I'll reiterate," CEO Jeffrey Ventura told dialers-in on the April 23 earnings call, "Range will not outspend our $756 million capital budget for 2019. I also want to reiterate Range's commitment to generating free cash flow as strip pricing [i.e., commodity futures] improves over the course of the five-year outlook. We will not increase growth, but will instead look to generate additional free cash flow and reduce debt faster, which could position us to return cash to shareholders sooner in the form of buybacks and/or increased dividends." In 2019, 20% of executive incentive compensation is tied to debt reduction.

While the Street is broadly neutral (12 buys, 17 holds and three sells), bears sniff trouble. Perhaps the short-sellers expect that SailingStone will have no choice but to liquidate a good part of its 40.1 million share position—to judge by the latest 13F, Range represents 25% of SailingStone's assets under management. A call to the fund went unreturned.

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