Weekly Fundamental Market Report April 16-20, 2018

Market Update

PRODUCTS	4/16/18	4/17/18	4/18/18	4/19/18	4/20/18
WTI Crude Oil	66.23	66.5	68.44	68.30	68.26
Brent Crude Oil	72.05	71.71	73.73	74.85	74.62
Natural Gas	2.88	2.84	2.85	2.80	2.78

- **CME Group**

Headlines

Local North Dakota

- **The return of the Bakken.** **Minot News**
  - "When we say the Bakken is back what I say is I think there's so much potential and so much work yet to do," Kathy Neset who is the vice chair for the North Dakota Petroleum Council. There's a lot that's been learned since the boom that slowed about five years ago. "It's much more measured this time it looks like we're ramping up but in a much more orderly measured fashion," said Neset. Neset says there is still so much oil to extract from the Bakken. "Five years ago, we were in wow hold on, we were just coming off with the big news from the U.S. geological survey about how much oil was truly in the reserves and what is technically recoverable," said Neset. And Neset says what the industry scratched is nothing compared to what's out there. "We're still low on the percentage of oil that we're extracting, in some areas we're still in the 8-10 percent oil extraction," said Neset. The goal is to get to 20 percent. "We need crude oil, we need natural gases and we need a reliable supply of crude oil and if we don't provide it someone else will," said Neset. The key to success is efficiency and Neset points to new technology like nano sensors as a way to stay on top of what's going on underground. "Now you are on another playing field for making this oil industry that much more efficient," said Neset. Residents who own land that is being developed for oil purposes agree. "I am for oil development, if it's done right," said landowner Larry Peterson. He adds that this time around everyone is working together... "Coming in on these new wells is a lot different than it was when they first came in and companies are more working with the land owners the they were when it first started," said Peterson. Innovation and community support is what's needed for oil to succeed these coming years.

- **Flaring policy changes keep benchmarks but give ND oil industry flexibility.** **The Dickinson Press**
  - North Dakota regulators are keeping current benchmarks for reducing wasteful flaring of excess natural gas but are giving industry more flexibility to comply. The North Dakota Industrial Commission voted unanimously Tuesday, April 17, to adopt changes to the gas capture policy, many of which were recommended by an industry task force. “They’re saying they will get to 88 percent by Nov. 1," said Lynn Helms, director of the Department of Mineral Resources. The changes expand some the caveats that allow industry to be in compliance with the gas capture policy even if a company's flaring rate exceeds the benchmark. For example, industry can exclude flared volumes from the first 14 days of production. The revised policy increases that to the first 60 days. In addition, the commission will change how it treats flared gas outside of the Bakken core where infrastructure is underdeveloped, and gas is considered "stranded." Allowing some temporary exemptions for stranded gas aims to incentivize pipeline development in those areas, Helms said. The revised policy also focuses more scrutiny on operators who fail to meet the gas capture targets, requiring them to submit gas capture improvement plans and meet with regulators twice a year. "We think that refocusing our efforts and industry's efforts on stranded gas and on people who are not meeting the gas capture goals, keeping the

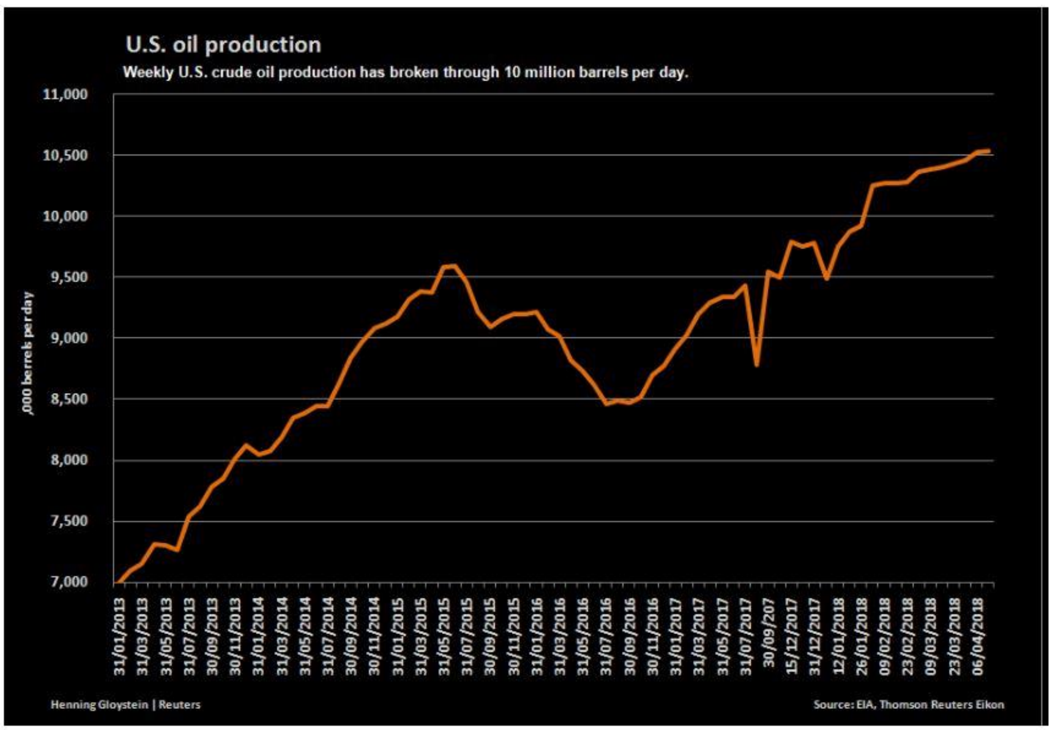
goals in place, holding their feet to the fire, is the right way to go now," Helms said.Gov. Doug Burgum, chairman of the three-member Industrial Commission, described the changes as "very common-sense, practical tweaks" that are a combination of incentives and penalties. Burgum noted industry's multi-billion-dollar investment to decrease the percentage of gas that's flared even as volumes of gas production continue to increase. North Dakota produced record 2.1 billion cubic feet per day of natural gas in February. The state's natural gas production is projected to double to more than 4 billion cubic feet per day by 2035, in part because Bakken wells produce more gas as they age, according to the North Dakota Pipeline Authority. "As we're chasing this flaring problem, we're chasing a growing amount of gas, almost double the amount of gas for the same amount of oil," Burgum said. In February, 256 cubic feet per day was flared, or about 12 percent of gas statewide. Flaring was at a high of 36 percent in September 2011. Attorney General Wayne Stenehjem said he's pleased the industry did not ask to change the goals, but instead suggested "reasonable" efforts to tweak the policy. Operators are required to capture 85 percent of Bakken natural gas, or limit flaring to 15 percent. The benchmarks increase to 88 percent in November and 91 percent in 2020. Nicole Donaghy, field organizer for the Dakota Resource Council, said members who live with oil and gas development and are surrounded by flaring would have liked the opportunity to comment on the proposed changes. The commission heard from Helms, who presented findings from a North Dakota Petroleum Council task force, and Justin Kringstad, director of the North Dakota Pipeline Authority, on the outlook for natural gas. The commission did not invite input from other stakeholders. "I see this as another opportunity to give the industry what it wants," Donaghy said. "I do see it as changing the goalposts." Burgum said after the meeting that the process was public and the "door is always open" for feedback from the public. "Any ideas people have of how to do it better, we're always open," Burgum said.

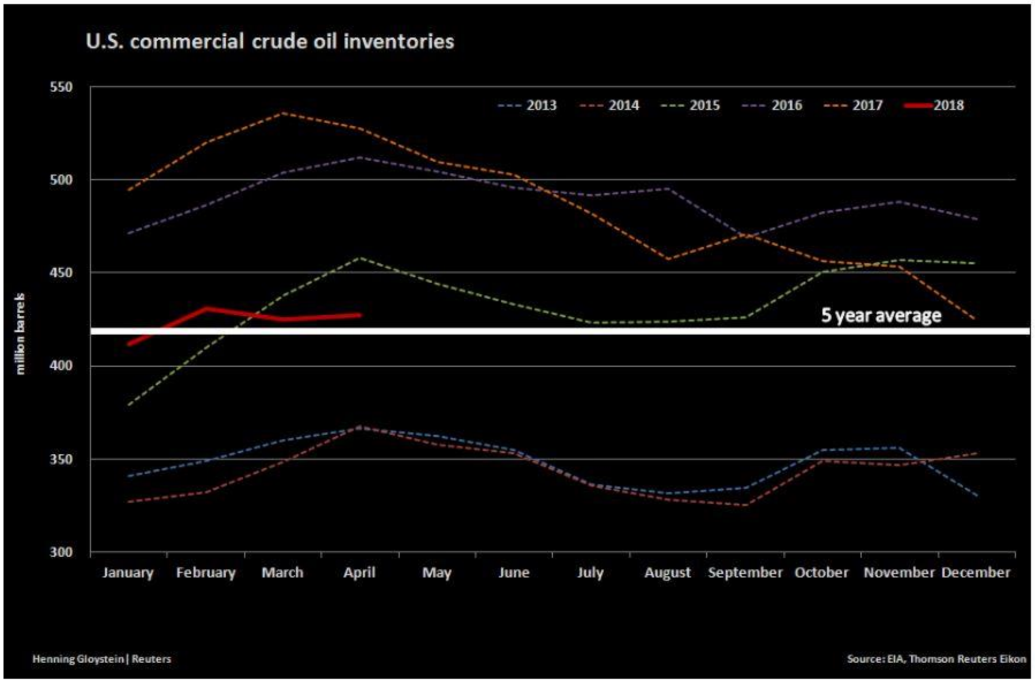
Domestic U.S.

- **Oil prices rise on crude supply worry, Wall Street strength. Reuters**
  - Oil prices rose on Tuesday, as support from the possibility of supply disruptions and a strong equities market offset the effects of profit-taking following last week's rally above three-year highs. Brent crude oil futures LCOc1 gained 16 cents to settle at $71.58 a barrel, while U.S. crude futures CLc1 rose 30 cents to settle at $66.52. "It seems as though the volatility has, for the most part, dissipated and part of that can be attributed to the lack of escalation in the events over the weekend, and we have an S&P that's a little bit stronger today," said Brian LaRose, technical analyst at United-ICAP. The S&P 500. SPX and the Dow Jones Industrial Average. DJI were both up about 1 percent Tuesday. Over the weekend, the United States and allies launched air strikes on Syria, raising concerns about continued access to regional crude supplies. Such concerns compounded existing supply worries related to the possibility of renewed U.S. sanctions against Iran and falling output in troubled Venezuela. Brent has risen 1.8 percent so far this month. It hit a peak last week of $73.09, the highest since late 2014. "The rally upwards was purely on geopolitical risk and if now we haven't had any further stimulus, we're seeing prices slip off a bit," Natixis commodities strategist Joel Hancock said. Still, analysts expected uncertainty over the Iran nuclear deal to continue to support prices through May 12, the deadline that U.S. President Donald Trump gave to Congress and European allies to "fix" the deal. If Washington does not renew sanctions relief, Iran may have difficulty exporting crude. Bullish enthusiasm over the outlook for oil prices, however, might be contained by an increase in supplies in Cushing, Oklahoma, the delivery point for U.S. crude futures. "We've seen that front May-June spread in WTI swing back into contango today. And that's somewhat of a bearish...it implies a continued-up trend in Cushing crude supply," said Jim Ritterbusch, president of Ritterbusch and Associates. "There's not much volatility today, as we wait for API and EIA data," Ritterbusch said. The American Petroleum Institute publishes weekly U.S. inventory data later on Tuesday, while data from the Energy Information Administration (EIA) is due Wednesday. "If we can...move higher tomorrow that would be a constructive sign," said LaRose. "We want to see follow through in order to be sure that this is a break out and not a fake out," he said.

- **Oil pulls back from gains; OPEC says glut nearly gone. Reuters**
  - Oil prices on Thursday hit highs not seen since 2014, built on the ongoing drawdowns in global supply and as Saudi Arabia looks to push prices higher, though U.S. crude gave back gains in the afternoon to finish lower. A global oil glut has been virtually eliminated, according to a joint OPEC and non-OPEC technical panel, two sources familiar with the matter said, thanks in part to an OPEC-led supply cut deal in place since January 2017. U.S. West Texas Intermediate (WTI) crude futures CLc1 settled 18 cents lower at $68.29 a barrel after earlier hitting $69.56, their highest since Nov. 28, 2014. WTI has gained nearly 8 percent in the last eight days

of trading. Brent crude futures LCOc1 ended at $73.78 a barrel, up 30 cents. The global benchmark touched $74.75 a barrel, its highest since Nov. 27, 2014 - the day OPEC decided to pump as much as it could to defend market share. “Overall the supply-demand equation is fairly balanced,” said Anthony Scott, managing director at BTU Analytics in Denver. “It depends on expectations at this point - bullishness may be stalling out, and people are asking, ‘What’s the next leg; you need to see the next signal, whether it’s a bullish or bearish signal.’” Traders said speculators continue to bet on further upside, expecting potential supply disruptions and further drawdowns, driven by strong demand. More than 830,000 front-month contracts changed hands on CME Group’s New York Mercantile Exchange on Thursday, compared with a daily average of about 615,000. Investors are eyeing the $70 level on U.S. crude, but said that would likely face resistance, particularly as the speed and magnitude of the recent rally would augur for selling pressure before long. “I do think we could see $70 pretty quick, but I want to caution that maybe we’ll see the market level out a little bit in a few weeks,” said Phil Flynn, analyst at Price Futures Group in Chicago. The Organization of the Petroleum Exporting Countries’ Joint Technical Committee, meeting this week in Jeddah, found that inventories in developed nations in March were at just 12 million barrels above the five-year average, according to a source familiar with the matter. However, Oman’s oil minister, Mohammed bin Hamad Al Rumhi, said he still thinks the oil market is oversupplied. Reuters reported on Wednesday that Saudi Arabia would be happy for crude to reach $80 or even $100 a barrel, viewed as a sign that Riyadh will not seek changes to the supply pact. Also supporting prices is the possibility that the United States might reimpose sanctions on Iran, OPEC’s third-largest producer, which could result in further supply reductions.




U.S. commercial crude oil inventories
2013
2014
2015
2016
2017
2018
5 year average
million barrels
550
500
450
400
350
300
January February March April May June July August September October November December
Henning Gloystein | Reuters
Source: EIA, Thomson Reuters Eikon

Oil and Gas Analysis

- **Rotary Rig Count Summary**

Location	Date	Week	+/-	Week Ago	+/-	Year Ago
United States	13-Apr-18	1008	15	1003	161	847
	20-Apr-18	1013	5	1008	156	857
North Dakota	13-Apr-18	54	0	54	11	43
	20-Apr-18	52	-2	54	8	44
Canada	13-Apr-18	102	-7	109	-16	118
	20-Apr-18	93	-9	102	-6	99
International	Mar-18	972	-7	979	29	943

- **Baker Hughes**

- **Weekly Petroleum Status Report**

Stocks (Million Barrels)			
	Four Weeks Ending		
	4/13/2018	**4/6/2018**	**4/14/2017**
Crude Oil (Excluding SPR)	427.6	428.6	532.2
Motor Gasoline	236.0	238.9	237.7
Distillate Fuel Oil	125.3	128.4	148.3
All Other Oils	392.1	395.5	412.8
Crude Oil in SPR	665.5	665.5	691.3
Total	1,846.4	1,857.0	2,022.4

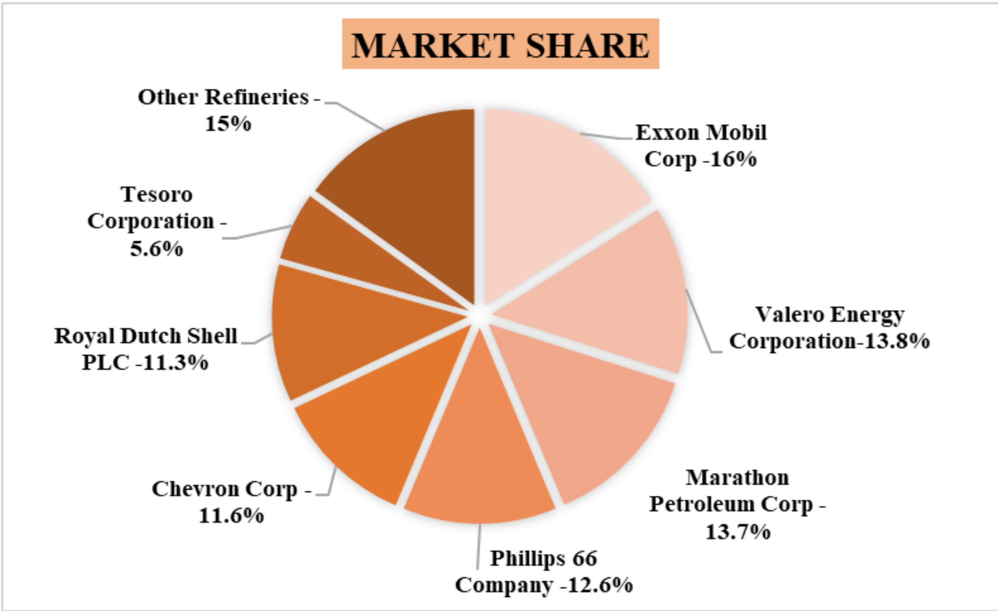
Products Supplied (Thousand Barrels per Day)			
	Four Weeks Ending		
	4/13/2018	**4/6/2018**	**4/14/2017**
Motor Gasoline	9,385	9,252	9,317
Distillate Fuel Oil	4,197	4,087	4,283
All Other Products	7,263	7,316	6,124
Total	20,845	20,655	19,724

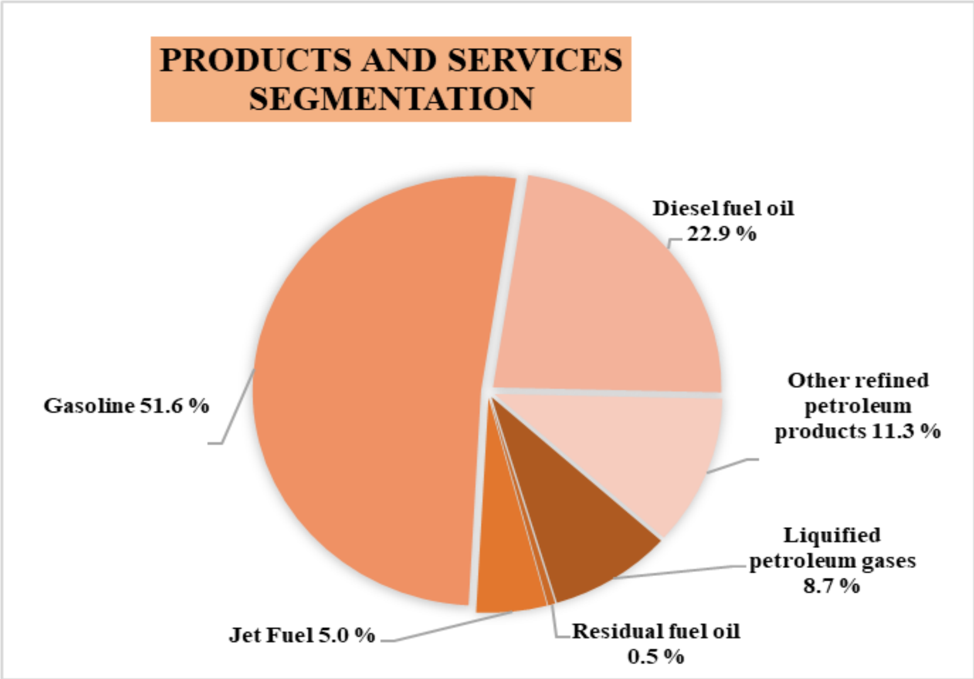
Refinery Activity (Thousand Barrels per Day)			
	Four Weeks Ending		
	4/13/2018	**4/6/2018**	**4/14/2017**
Crude Oil Input to Refineries	16,925	16,882	16,573
Refinery Capacity Utilization	92.8	92.6	91.0
Motor Gasoline Production	10,193	10,125	9,816
Distillate Fuel Oil Production	5,052	4,905	5,012

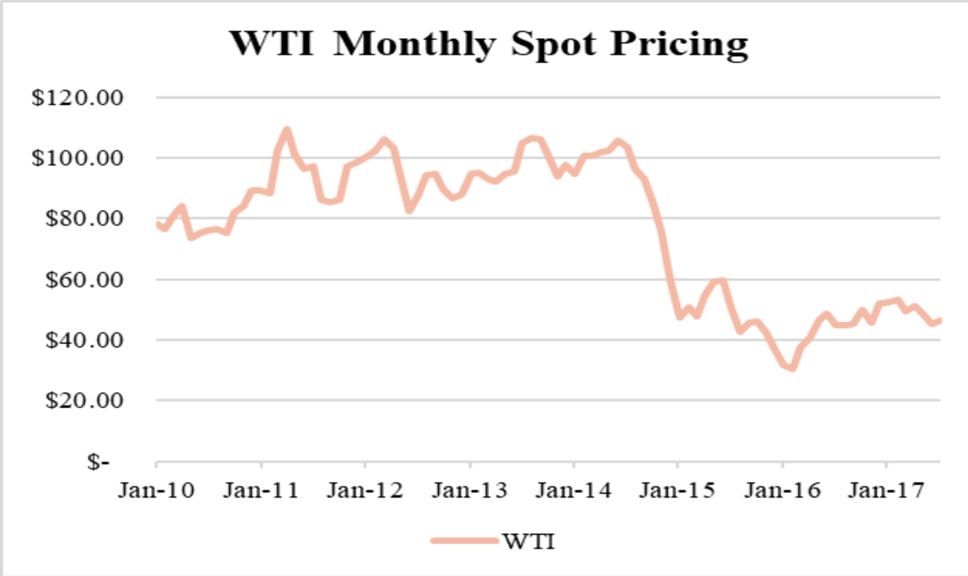
Net Imports (Thousand Barrels per Day)			
	Four Weeks Ending		
	4/13/2018	**4/6/2018**	**4/14/2017**
Crude Oil	6,480	6,311	7,231
Petroleum Products	-2,760	-2,760	-2,898
Total	3,720	3,550	4,333

- **EIA**

- **US Petroleum Refining at a Glance**







- **EIA**

o Key External Drivers

- **World price of crude oil**
  - http://markets.businessinsider.com/commodities/oil-price?type=wti
- **Demand from gasoline and petroleum bulk stations**
  - https://www.reuters.com/article/us-usa-natgas-kemp/u-s-natural-gas-prices-rise-as-winter-stocks-look-tight-kemp-idUSKCN1BU1RK
- **GDP of mainland China**
  - https://tradingeconomics.com/china/gdp
- **Trade-weighted index**
  - https://www.investing.com/news/economy-news/top-5-things-to-know-in-the-market-on-friday-541066
- **Total vehicle miles**
  - https://www.advisorperspectives.com/dshort/updates/2017/08/31/vehicle-miles-traveled-another-look-at-our-evolving-behavior