Weekly Fundamental Market Report April 23-27, 2018

Market Update

PRODUCTS	4/23/18	4/24/18	4/25/18	4/26/18	4/27/18
WTI Crude Oil	68.64	67.70	68.05	68.19	68.10
Brent Crude Oil	74.71	73.86	74.00	74.74	74.64
Natural Gas	2.74	2.78	2.79	2.82	2.77

- **CME Group**

Headlines

Local North Dakota

- **North Dakota oil tax revenues surge ahead of forecasts.** **Bismarck Tribune**
  - "When North Dakota's oil and gas tax revenues have exceeded expectations so far this budget cycle, prompting tempered optimism from state lawmakers. Oil and gas tax collections surpassed $1.4 billion through April, 22.8 percent above forecasted totals. That's due to better-than-anticipated oil production and prices, according to a report sent to state lawmakers Friday. The report covered the first nine months of the biennium that started in July 2017. Revenue collections reflect oil production and prices from two months prior. Republican state Sen. Ray Holmberg, chairman of the Senate Appropriations Committee, said legislators were "more conservative" with their forecast. But he also credited a healthy oil industry that propelled unprecedented growth in state revenues just a few years ago. "It's good news, but one doesn't need to start ringing church bells," Holmberg said. A downturn in oil and farm commodity prices prompted budget cuts in 2016 under then-Gov. Jack Dalrymple. During Gov. Doug Burgum's first legislative session last year, lawmakers trimmed budgets again. While noting the robust oil tax figures this month, Burgum pointed to depleted reserve funds in recommending cuts for the two-year budget cycle that will start in July 2019. Much of the state's oil and gas tax revenues are tied to constitutional pots like the Legacy Fund, which was valued at more than $5.2 billion at the end of last year. Some lawmakers have proposed tapping that fund for infrastructure projects. General fund revenues, meanwhile, were 2 percent ahead of forecast in March, according to a Legislative Council report. Republican state Rep. Roscoe Streyle, a member of the House Appropriations Committee, said the additional oil revenue will help balance the budget next biennium. But he agreed with Burgum that "further cuts are needed" to "create a sustainable budget well into the future. "House Minority Leader Corey Mock, D-Grand Forks, said "the oil activity is going to, I would presume … soften the blow" to some extent. "I still think we'll have some difficult decisions to make," he said. Ron Ness, president of the North Dakota Petroleum Council, said oilfield technology has "advanced rapidly," and he predicted the industry would "likely" exceed the production record of 1.2 million barrels per day in the coming months. "We have really, through the downturn, been able to grow production back to its peak," he said.

Domestic U.S.

- **Oil prices gain on Iran sanctions worries.** **Reuters**
  - Oil prices gained on Thursday as the risk of renewed U.S. sanctions on Iran, plunging Venezuelan output, and robust global demand shook off the effects of a strong dollar. Global benchmark Brent crude futures LCOc1 gained 74 cents to settle at $74.74 a barrel, while U.S. West Texas Intermediate (WTI) crude CLc1 were up 14 cents to $68.19 a barrel. "Oil has had a very good week so far given what the dollar has done," said Bill Baruch, president of Blue Line Futures in Chicago. The dollar against a basket of currencies. DXY hit its highest since

mid-January. A stronger greenback makes it more expensive to buy dollar-denominated commodities like oil. “The dollar has held crude back from gaining further ground. I expect the market to have a good finish for the week given the uncertainty around the Iran deal,” Baruch said. A top adviser to Iran’s supreme leader said Tehran would not accept any change to the 2015 nuclear deal, as Western signatories prepare a new package in the hope of persuading U.S. President Donald Trump to stick with the accord. This comes a day after French President Emmanuel Macron said he expected Trump to pull out of the agreement. Trump will decide by May 12 whether to restore the sanctions, which would probably result in a reduction of Iranian oil exports. Brent has gained about 6 percent this month thanks to expectations that the United States could do so. “The rally seems to be intact and is looking for the next spark to push it higher. That spark could come from reinstituting sanctions. But not only is there the possibility of sanctions on Iran, but there’s also the possibility of Venezuelan and Russian sanctions,” said Gene McGillian, manager of market research at Tradition Energy in Stamford, Connecticut. Venezuelan oil output PRODN-VE has already tumbled forty percent in two years, and the European Union said earlier this month it could impose further sanctions on Venezuela if it believes democracy is being undermined there. Trade data in Thomson Reuters Eikon shows seaborne imports of crude by Asia’s main buyers will hit a record this month. By end-April, China will likely have taken in more than 9 million bpd of crude - its most ever and nearly 10 percent of global consumption. The equities market, with all three major indexes up], was also supporting oil, said Walter Zimmerman, chief technical analyst at United. “Crude needs help from the stock market to sustain any new highs,” he said. Meanwhile, surging U.S. production, which hit 10.59 million bpd last week, has encouraged record-high U.S. exports.

- **Oil Prices Spike as OPEC Compliance Hits New Record. Oil Price**
  - OPEC’s oil production continues to decline, hitting a one-year low in April. Compliance with the OPEC/non-OPEC deal hit yet another record high because of a 70,000-bpd dip in April, putting collective production levels at 32.12 million barrels per day (mb/d). The losses are largely the result of ongoing declines in Venezuela, plus deteriorating production from aging oil fields in Angola. The strong cohesion among OPEC’s other members helped push the group’s compliance rate in April jumped to 162 percent, according to a Reuters survey, up slightly from March. The production losses in Venezuela are not a surprise. Output has plunged below 1.5 mb/d, down 600,000 bpd since 2016. The country is in crisis and the recent crackdown on Chevron employees in the country presages more production declines, particularly if the remaining private companies start to cut back on their personnel and spending. But another source of production declines has gone largely unnoticed in western media. Angola is producing 260,000 bpd less than its OPEC production target, according to Reuters. Its oil fields are suffering from natural declines, a problem that will be difficult to reverse. Angola’s offshore oil fields are costly to maintain, and there is little sign that the necessary investment is forthcoming. Overall, OPEC collectively produced 610,000 bpd less than its stated target in April. That is significant gap. Because most oil market forecasts assumed OPEC would adhere closely to the production targets, and not under produce, most analysts predicted at the start of 2018 that the oil market would see inventory builds again in the second quarter. The severe production losses in Venezuela and Angola, combined with strong demand, suggests that won’t be the case. The strong compliance rate is rapidly tightening the oil market. Global inventories are likely close to their five-year average, although because data is published with two-month lag, it is hard to tell in real time. That raises the possibility that the cuts will overtighten the oil market, as OPEC is essentially looking through a rear-view mirror when it assesses the status of supply and demand. And things will only get tighter as the year wears on. The narrative surrounding explosive U.S. shale growth largely centered on when and by how much shale drillers would flood the market. Aggressive oil market forecasts predicted that U.S. shale would grow so fast that it would not only offset OPEC cuts, but it could bring back a supply surplus, pushing oil prices back down. But sentiment has notably changed in the past few weeks. Now, a growing number of analysts see U.S. shale growth as necessary to prevent a supply shortage and subsequent price spike. “[H]higher US oil production is needed to plug the supply gap,” Commerzbank wrote in a note on Monday. One key bullish wildcard for oil is the potential for U.S. shale to underperform. Concerns have grown about the possible bottlenecks in the Permian, which could slow growth. To be sure, it is still a little too early to tell if shale drilling will bump up against some production constraints. Weekly EIA surveys continue to show rapid growth. However, steep discounts for oil in Midland, TX suggest that the pipeline bottlenecks are real. It could be a few months before the full extent of the problem becomes visible, but if U.S. shale growth slows sooner and by a larger magnitude than most forecasts assume, oil prices will almost certainly move higher. Still, in the short run, all eyes will be on the Trump administration as it mulls the fate of the Iran nuclear deal. “The increased drilling activity in the US should not pose any excessive obstacle to oil prices, in other words, especially as there are no signs of any solution to the dispute over the nuclear deal with Iran,” Commerzbank

said in a note. The oil market is on the verge of overtightening even before we consider Iran. When adding in potential production losses from the Islamic Republic, which could hypothetically reach 500,000 bpd within the first year after sanctions are re-imposed, the potential for a price spike grows significantly. Israeli Prime Minister said on Monday that he had evidence that Iran is cheating on the nuclear deal. Whether or not the evidence has merit, the announcement will have the effect of ratcheting up tensions between Iran and the U.S. ahead of a key decision by the Trump administration to withdraw from the nuclear accord. The list of bullish factors for oil continues to grow, while the bearish side of the ledger looks thinner by the day.

Oil and Gas Analysis

Rotary Rig Count Summary

Location	Date	Week	+/-	Week Ago	+/-	Year Ago
United States	20-Apr-18	1013	5	1008	156	857
	27-Apr-18	1021	8	1013	151	870
North Dakota	20-Apr-18	52	-2	54	8	44
	27-Apr-18	55	3	52	11	44
Canada	20-Apr-18	93	-9	102	-6	99
	27-Apr-18	85	-7	979	0	85
International	Mar-18	972	-7	979	29	943

- Baker Hughes

WTI & Bakken Spot Price

April 2018 Daily Spot Prices					
	Mon	**Tue**	**Wed**	**Thu**	**Fri**
Bakken (FH)					
2018 April-9 to April-13	56.88	56.88	57.39	57.65	58.53
2018 April-16 to April-20	58.53	58.53	58.64	58.93	58.93
2018 April-23 to April-27	59.63	59.63	59.63	59.82	59.82
WTI					
2018 April-9 to April-13	63.4	65.48	66.81	67.07	67.35
2018 April-16 to April-20	66.23	66.5	68.44	68.3	68.26
2018 April-23 to April-27	67.61	67.66	68	68.18	68.11
Differentials					
2018 April-9 to April-13	6.52	8.6	9.42	9.42	8.82
2018 April-16 to April-20	7.7	7.97	9.8	9.37	9.33
2018 April-23 to April-27	7.98	8.03	8.37	8.36	8.29

- Flint Hills Resource
- EIA

o **Weekly Petroleum Status Report**

Stocks (Million Barrels)			
	Four Weeks Ending		
	4/20/2018	4/13/2018	4/21/2017
Crude Oil (Excluding SPR)	429.7	427.6	528.7
Motor Gasoline	236.8	236.0	241.0
Distillate Fuel Oil	122.7	125.3	150.9
All Other Oils	393.1	392.1	417.0
Crude Oil in SPR	664.7	665.5	690.8
Total	1,847.1	1,846.4	2,028.5

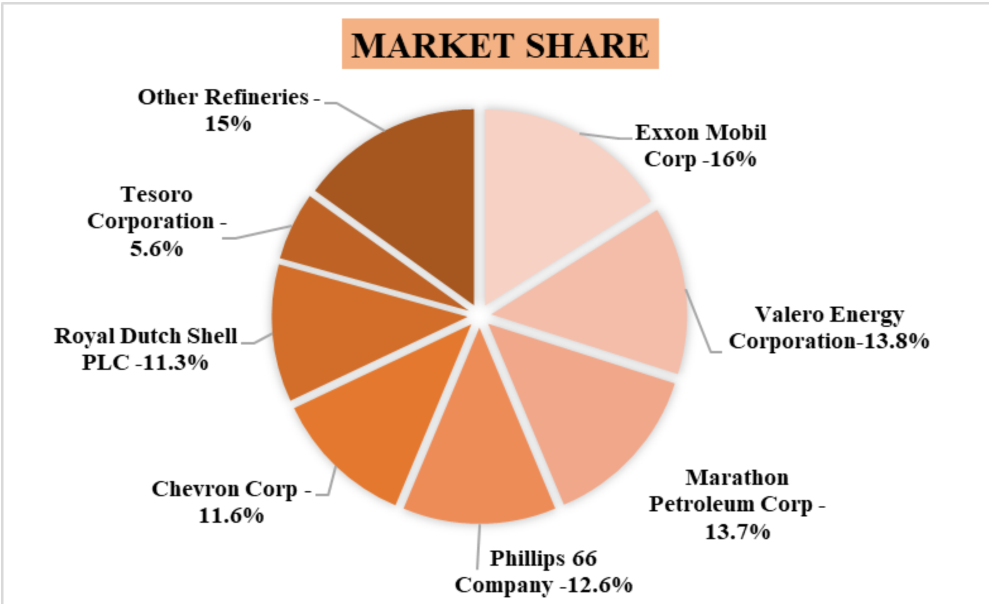
Products Supplied (Thousand Barrels per Day)			
	Four Weeks Ending		
	4/20/2018	4/13/2018	4/21/2017
Motor Gasoline	9,354	9,385	9,237
Distillate Fuel Oil	4,041	4,197	4,144
All Other Products	6,971	7,263	6,152
Total	20,366	20,845	19,533

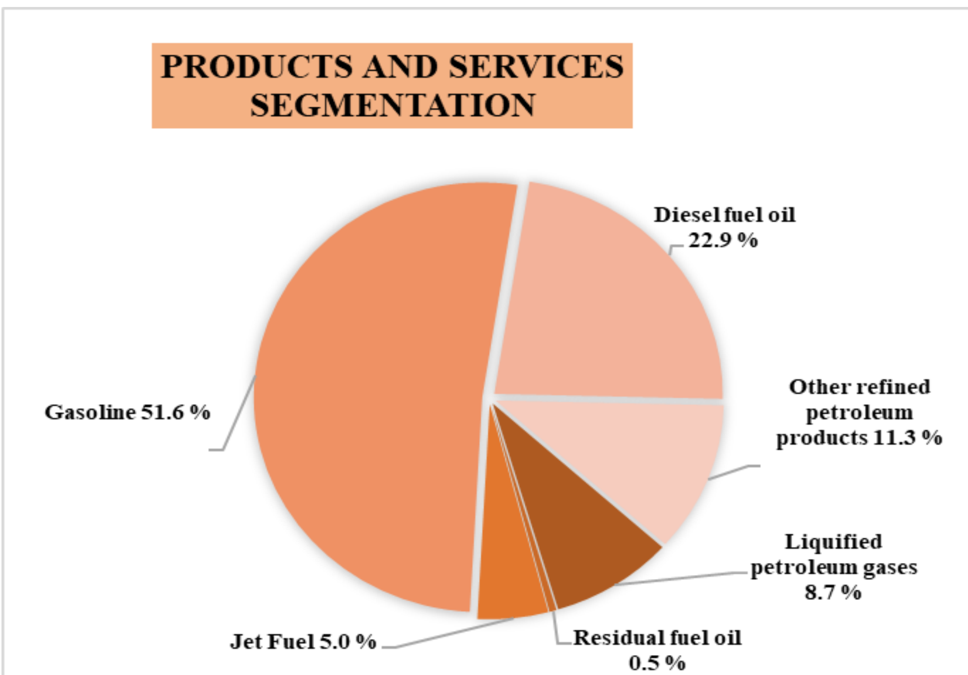
Refinery Activity (Thousand Barrels per Day)			
	Four Weeks Ending		
	4/20/2018	4/13/2018	4/21/2017
Crude Oil Input to Refineries	16,881	16,925	16,837
Refinery Capacity Utilization	92.4	92.8	92.2
Motor Gasoline Production	10,089	10,193	9,736
Distillate Fuel Oil Production	5,086	5,052	5,060

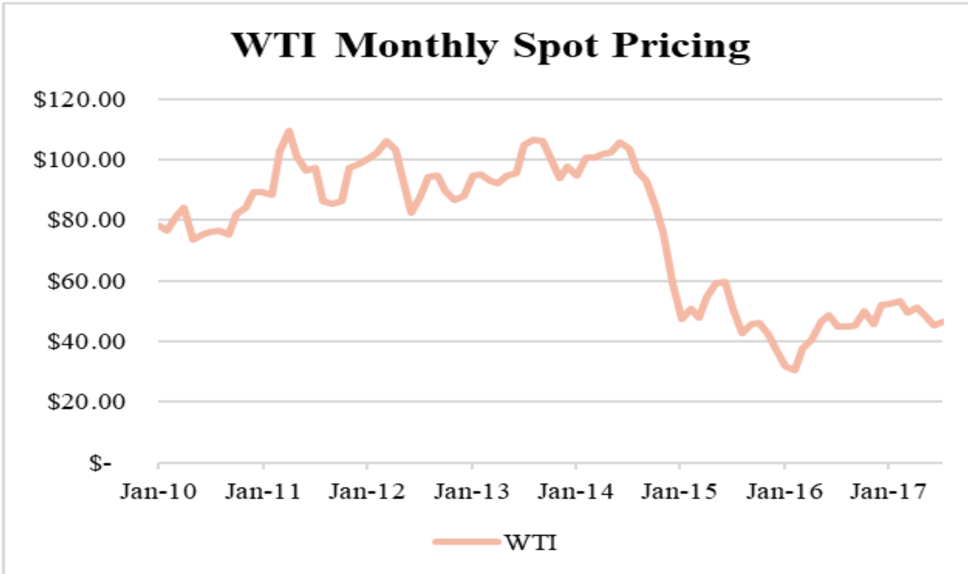
Net Imports (Thousand Barrels per Day)			
	Four Weeks Ending		
	4/20/2018	4/13/2018	4/21/2017
Crude Oil	6,372	6,480	7,367
Petroleum Products	-3,061	-2,760	-2,808
Total	3,311	3,720	4,560

- **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