

Weekly Fundamental Market Report

February 25-March 1, 2019

Market Update

PRODUCTS	2/25/19	2/26/19	2/27/19	2/28/19	3/1/19
WTI Crude Oil	55.32	55.40	56.92	57.21	55.76
Brent Crude Oil	64.02	64.51	65.55	65.03	63.71
Natural Gas	2.84	2.74	2.89	2.89	3.19

[CME Group](#)

Headlines

North Dakota

- **Meridian acquires midstream partner for Davis Refinery in North Dakota. [Williston Herald](#)**
 - The parent company building the nation's first greenfield refinery since 1976 in North Dakota has secured a silent partner to handle its midstream logistics. Meridian Energy Group, which is building the Davis Refinery in southwestern North Dakota, announced Wednesday that it had signed a letter of intent with an industry leading firm for midstream logistics support. Midstream generally refers to pipeline companies. The unidentified company will build, own and operate the crude oil and refined product midstream and logistics facilities for the greenfield refinery, which will allow Meridian to focus on operations inside the Davis plant. The firm has more than 70 years of midstream experience, according to a media release from the company, but has asked to remain in the background, pending development efforts on assets associated with the agreement. Lance Medlin is chief projects officer for Meridian on the letter of intent. "The award of this contract for the Davis terminal marks the end of a long and intensive bidding and vetting process, and the beginning of what will become an even longer working relationship between our two companies," he said. "This firm will execute a significant role in the Davis Refinery as they develop and operate our crude and refined product terminals and logistics infrastructure. We're excited to start this new phase together as the Davis Refinery nears its full production date." Meridian has already broken ground for the Davis Refinery site, and is working on a final design and equipment fabrication for the plant. The company has said they intend to make the plant a game changer in the industry in terms of environmental impact. Not only will the refinery recycle processed water to minimize water use, with the goal of becoming a sewer discharge facility, but they will use air cooling to minimize water use as well. They will also integrate heat into specific processes, helping to ensure no energy is wasted. Flare stack combustion control will be employed to reduce emissions such as carbon monoxide, sulfur dioxide and nitrous oxides. The project will be the first of its size and complexity to quality as a minor synthetic source by air quality standards. The plant will have a better, more efficient configuration, longer operating cycles, and higher output when compared to legacy refineries-built decades ago. The plant itself has a footprint of 150 acres, but the site is 715 acres in all, so that a buffer zone for wildlife habitat may be created. The company is also exploring partnerships with North Dakota State University to enhance educational and research opportunities. Meridian Chairman and CEO William Prentice said the focus on being the most cost-effective, cleanest refined product producer in the industry means that Meridian needs to focus all its expertise inside the fence. "This emerging partnership allows Meridian to do just that," he said. "With this LOI in place, Meridian is assured that the Davis crude and product handling systems operate in the safest and most efficient manner possible. In addition, the arrangement reduces the capital burden on Meridian substantially, furthering Meridian's objective of seeing Davis become the quality and cost leader in its market. "The Meridian Davis Refinery has attracted protests and legal action as it has sought to build its new refinery in North Dakota, partly

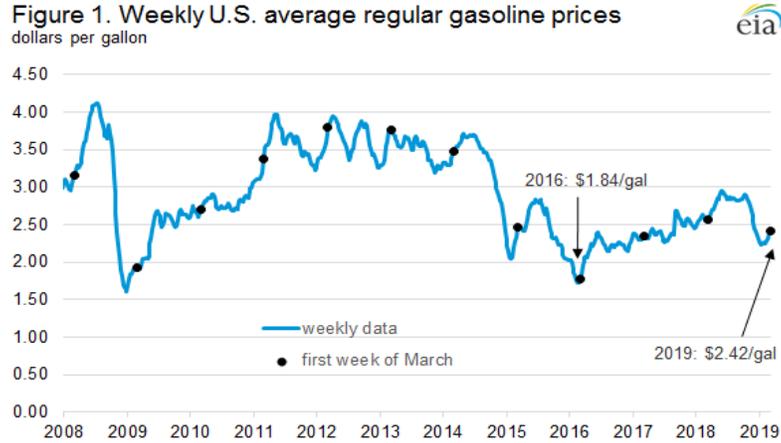
due to its proximity to Theodore Roosevelt National Park. Statewide, however, it has attracted something else — excitement. That’s not just because of the 200 additional, permanent, high-paying jobs that the plant will create for the long haul, but also because the state will finally have a plant to process a substantial portion of North Dakota’s own resource in state. This value-added component for the state’s oil and gas resource has been long-sought. It is also another component that can help reduce flaring, another long-standing effort in the state since the latest oil boom began. “Meridian has a goal,” Hedrington said. “The first is employing North Dakota services and people, as much as we can. And not just people providing services, but employees. They’re going to hire as many people in North Dakota as they can for full-time work.” Hedrington said the backers for the Davis Refinery are from a Belfield-area family, who grew up in North Dakota but had to move away for careers. They want to help create long-term jobs for their home state, so that future generations don’t need to move away for careers. “Those people are in the 70ish area now,” Hedrington said. “They’ve done well in other parts of the country, but their heart is still in North Dakota. They want to come back and develop jobs here that are sustainable.” Davis Refinery has said it would initially produce 27,5000 barrels per day of low sulfur diesel fuel, already contracted. Its output could be expanded to up to 49,500, helping to address a diesel fuel shortage in the state. “We all know that most of the oil in North Dakota is shipped out and brought back in,” Hedrington said. “The bulk of it all leaves and gets refined elsewhere.” Changing that dynamic would help North Dakota not only add value to its own resource, but potentially create new jobs in the process. In addition to the 200 permanent jobs for the plant, economists say up to an additional 12 times that number of jobs would be created in other sectors in the Belfield region. “Meridian has asked for no money from the state for this,” Hendrickson added. “They have not received any tax benefit.” Tax revenue from the plant, however, will more than double Billings County’s general operating fund, Hendrickson said.

- **North Dakota, MHA Nation sign new oil tax compact. [Bismarck Tribune](#)**
 - North Dakota and the Mandan, Hidatsa and Arikara Nation took a major step on Thursday toward resolving a dispute over oil tax revenue, with leaders of both governments signing a new oil tax agreement. The new compact signed by Gov. Doug Burgum and Chairman Mark Fox sends a greater share of oil tax revenue to the tribe, but the agreement still needs approval from North Dakota’s House of Representatives. “This is one great, positive move. It’s historic and it’s going to have great benefits for both the state and the tribal nation,” Fox said after a signing ceremony at the state Capitol. “But we’re not done. We have to keep building this trust.” The agreement changes how oil tax revenue is divided between the state and tribe for oil produced from new wells at Fort Berthold. Currently, that revenue is split 50-50. But tribal leaders objected in 2015 when state lawmakers reduced the overall tax on oil production from 11.5 percent to 10 percent. The agreement would send 80 percent of oil tax revenue from trust lands to the tribe, while 20 percent would go to the state. For fee lands, which are private lands within the reservation, the state would receive 80 percent of the oil tax revenue and the tribe would receive 20 percent. Because more oil development is occurring on trust lands, the tribe is estimated to gain \$33.6 million in the 2019-21 budget cycle, while the state’s revenue would decrease by that amount. However, Burgum emphasized that creating a stable tax and regulatory environment will help the tribe and the state by attracting additional investment. The addition of one drilling rig is estimated to add \$16 million in increased tax revenue per biennium, according to estimates from the state tax commissioner. Burgum said the agreement is the result of building trust between state and tribal leaders. “It’s historic in itself, but it can also be the springboard for even greater cooperation going forward,” Burgum said. The MHA Tribal Business Council unanimously endorsed the agreement in a resolution approved Monday. Fox said MHA plans to use the additional revenue to invest in roads, housing and other infrastructure, as well as stimulate investment to reduce natural gas flaring. “We want to work with the state, work with our industry partners to capture that gas because right now a lot of value is being wasted,” Fox said. Fort Berthold produced nearly 294,000 barrels of oil per day in December, about one-fifth of the state’s overall oil production. The framework for the new agreement is outlined in Senate Bill 2312, which was approved by the Senate last week but is awaiting action by the House. If legislators make any significant changes to the bill, a new compact would need to be signed. House leaders said Thursday they’re hopeful about getting support for the bill. The House Finance and Taxation committee is scheduled to discuss the bill at 10 a.m. Tuesday in the Fort Totten Room of the state Capitol. “This signing goes a long way to show that there’s good faith and trust between the state of North Dakota and the Three Affiliated Tribes,” said Rep. Craig Headland, R-Montpelier, chairman of the committee. “I think it will go a long way in getting the bill passed in the House.”

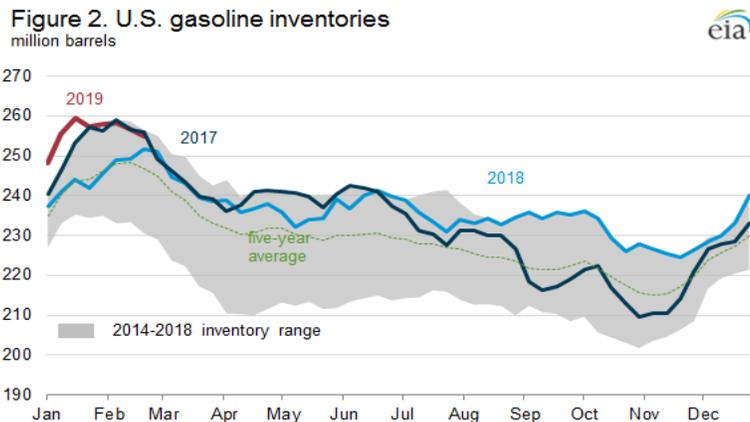
Domestic

○ U.S. retail gasoline prices expected to rise after winter low. [EIA](#)

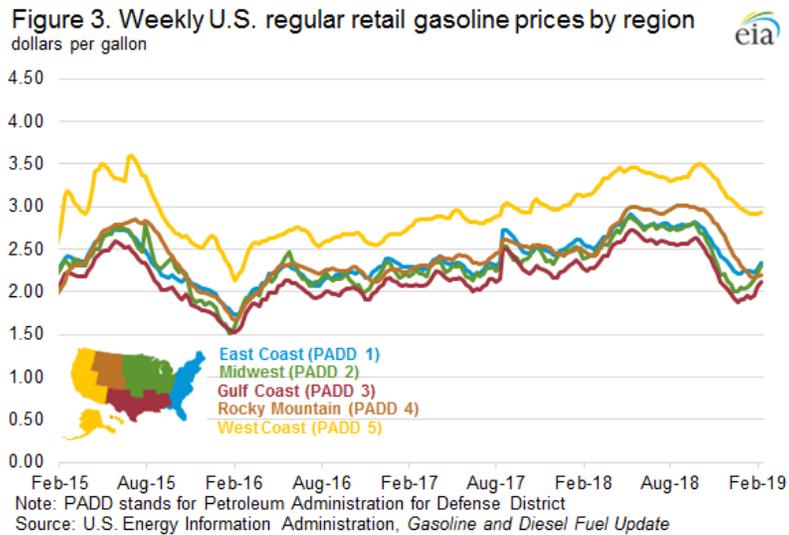
- The U.S. average retail price for regular gasoline on March 4, 2019, was \$2.42 per gallon (gal), an increase of 11 cents/gal from the February average of \$2.31/gal and 14 cents/gal lower than the price at the same time last year (Figure 1). Most of the fluctuation is the result of changes in crude oil prices.



- Retail gasoline prices tend to be lowest in the winter months (December–February) before increasing in the spring. This trend occurs, in part, because refineries begin producing summer-grade gasoline, which is more expensive to manufacture, in February and March after they have produced enough winter-grade gasoline to last through the winter driving season. During the 2018–19 winter driving season, the lowest weekly average price of retail gasoline was in the first week of January at \$2.24/gal. The lowest average price in the past decade occurred in mid-February 2016, when low crude oil prices contributed to retail gasoline prices hitting a low of \$1.72/gal. Large gasoline inventories also put downward pressure on gasoline prices in February 2019. High refinery runs (driven by increased distillate demand) combined with lower demand for gasoline contributed to high gasoline inventory levels, which have been near or greater than their recent five-year (2014–18) highs since August 2018 (Figure 2). High levels of U.S. gasoline production in 2018 and early 2019 have outpaced gasoline consumption, leading to inventories in the last week of February 2019 that were 3 million barrels (1.2%) higher than at the same time in 2018, although about 950,000 barrels (0.4%) lower than in the last week of February 2017.

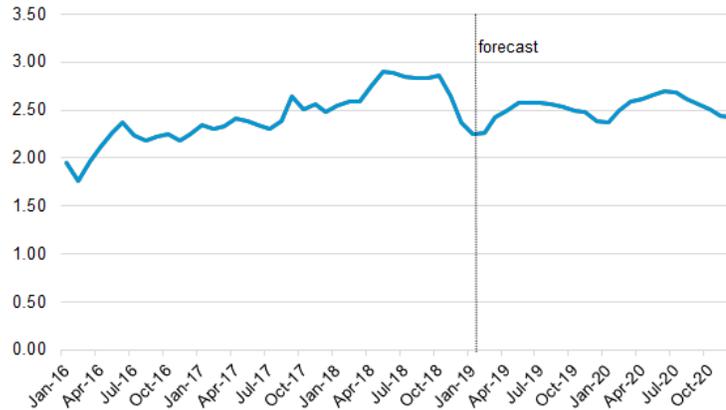


- Although refining seasonality and gasoline inventory levels contribute to gasoline price fluctuations, crude oil has the largest cost share for producing gasoline, and movements in the crude oil price—along with changes in gasoline market conditions—drive changes in wholesale and retail gasoline prices. The U.S. Energy Information Administration (EIA) estimates that, currently, the refinery acquisition cost of crude oil accounts for about half of the price of gasoline at the pump. Because a barrel of oil contains 42 gallons, each dollar per barrel of sustained price change in crude oil and gasoline wholesale margins translates to an average change of about 2.4 cents/gal in petroleum product prices. When the price of crude oil increases, the price of wholesale gasoline adjusts to reflect the increased refinery input cost, other market factors being equal. As of March 4, the international benchmark Brent crude oil spot price, which is more important than the West Texas Intermediate (WTI) spot price as a determinant of U.S. gasoline prices, was \$64.44/per barrel (b), about \$1/b lower than the price at the same time last year and about \$1/b lower than the five-year average for the same day. Retail gasoline prices vary significantly within the United States because of regional supply and demand balances, gasoline specification requirements, and taxes (Figure 3). The U.S. Gulf Coast, Petroleum Administration for Defense District (PADD) 3, typically has the lowest retail gasoline prices in the country because it is home to approximately 50% of U.S. refining capacity and produces more gasoline than it consumes. As of March 4, average Gulf Coast gasoline prices were 24 cents/gal lower than the national average, while West Coast (PADD 5) prices were 52 cents/gal higher.



- West Coast retail gasoline prices are typically higher than the average U.S. price because of several factors. The region has a tight supply and demand balance, and it is geographically isolated from other U.S. refining centers—such as the Gulf Coast—because of very limited gasoline transportation infrastructure. The West Coast also has gasoline specifications that are more costly to manufacture. Since August 28, 2017, weekly West Coast regional gasoline prices have consistently exceeded \$2.90/gal. Although state-level gasoline taxes and fees in California and Washington each approach 50 cents/gal, state-level gasoline taxes and fees across the West Coast average 29 cents/gal, which is less than 1 cent higher than the national average. U.S. regular gasoline prices averaged \$2.31/gal from December 2018 through February 2019. In 2019, EIA expects that the monthly average price of U.S. regular gasoline will peak in June at \$2.57/gal and anticipates that prices will remain relatively flat in the third quarter before decreasing slightly in the fourth quarter to account for the seasonality of gasoline grades and driving seasons. EIA forecasts that U.S. regular gasoline prices will average \$2.47/gal in 2019 and \$2.56/gal in 2020 (Figure 4).

Figure 4. U.S. gasoline price forecast
dollars per gallon



Source: U.S. Energy Information Administration, *Short Term Energy Outlook*, February 2019

- **U.S. average regular gasoline and diesel prices increase**
 - The U.S. average regular gasoline retail price rose more than 3 cents from the previous week to \$2.42 per gallon on March 4, down 14 cents from the same time last year. The Gulf Coast price increased nearly 7 cents to \$2.18 per gallon, the East Coast price increased nearly 4 cents to \$2.39 per gallon, the Midwest price increased over 2 cents to \$2.33 per gallon, the Rocky Mountain price increased nearly 2 cents to \$2.21 per gallon, and the West Coast price increased over 1 cent to \$2.95 per gallon.
 - The U.S. average diesel fuel price rose nearly 3 cents from the previous week to \$3.08 per gallon on March 4, 8 cents higher than a year ago. The Midwest price increased nearly 5 cents to \$3.01 per gallon, the East Coast and Rocky Mountain prices each increased nearly 3 cents to \$3.12 per gallon and \$2.94 per gallon, respectively, the Gulf Coast price increased more than 2 cents to \$2.87 per gallon, and the West Coast price increased 1 cent to \$3.50 per gallon.
- **Propane/propylene inventories decline**
 - U.S. propane/propylene stocks decreased by 2.0 million barrels last week to 51.4 million barrels as of March 1, 2019, 5.1 million barrels (10.9%) greater than the five-year (2014-2018) average inventory levels for this same time of year. Midwest and East Coast inventories decreased by 1.8 million barrels and 0.7 million barrels, respectively, while Gulf Coast inventories increased by 0.4 million barrels and Rocky Mountain/West Coast inventories rose slightly, remaining virtually unchanged. Propylene non-fuel-use inventories represented 12.8% of total propane/propylene inventories.
- **Residential heating oil prices increase, propane prices decrease**
 - As of March 4, 2019, residential heating oil prices averaged \$3.23 per gallon, less than 1 cent per gallon higher than last week's price and almost 16 cents per gallon higher than last year's price at this time. Wholesale heating oil prices averaged \$2.13 per gallon, 2 cents per gallon less than last week but nearly 16 cents per gallon above last year's price.
 - Residential propane prices averaged nearly \$2.43 per gallon, less than 1 cent per gallon lower than last week's price and nearly 11 cents per gallon lower than a year ago. Wholesale propane prices averaged nearly \$0.83 per gallon, 5 cents per gallon lower than last week and 2 cents per gallon below last year's price.

Oil and Gas Analysis

o Rotary Rig Count Summary

Location	Date	Week	+/-	Week Ago	+/-	Year Ago
United States	22-Feb-19	1047	-4	1051	69	978
	1-Mar-19	1038	-9	1047	57	981
North Dakota	22-Feb-19	57	0	57	8	49
	1-Mar-19	56	-1	57	9	47
Canada	22-Feb-19	212	-12	224	-94	306
	1-Mar-19	211	-1	212	-91	302
International	Jan-19	1023	-2	1025	63	960

- Baker Hughes

o Weekly Petroleum Status Report

Stocks (Million Barrels)			
	Four Weeks Ending		
	2/22/2019	2/15/2019	2/23/2019
Crude Oil (Excluding SPR)	445.9	454.5	423.5
Motor Gasoline	254.9	256.8	251.8
Distillate Fuel Oil	138.4	138.7	138.0
All Other Oils	406.0	413.0	389.3
Crude Oil in SPR	649.1	649.1	665.3
Total	1,894.3	1,912.2	1,867.9

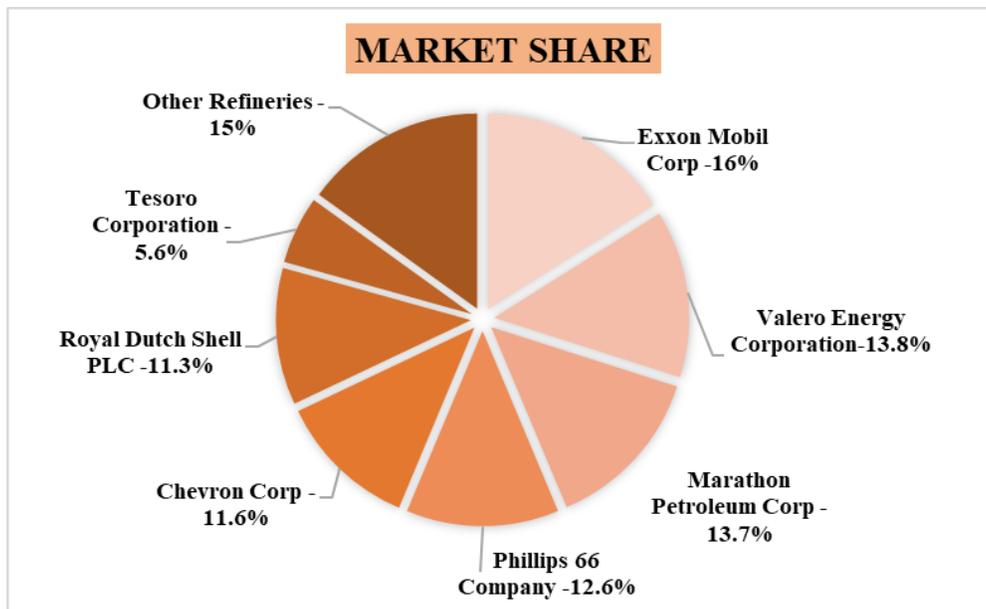
Products Supplied (Thousand Barrels per Day)			
	Four Weeks Ending		
	2/22/2019	2/15/2019	2/23/2019
Motor Gasoline	8,876	9,021	9,008
Distillate Fuel Oil	4,183	4,195	4,001
All Other Products	7,727	7,406	7,354
Total	20,786	20,622	20,363

Refinery Activity (Thousand Barrels per Day)			
	Four Weeks Ending		
	2/22/2019	2/15/2019	2/23/2019
Crude Oil Input to Refineries	16,001	16,144	16,169
Refinery Capacity Utilization	87.4	88.2	89.6
Motor Gasoline Production	9,629	9,717	9,793
Distillate Fuel Oil Production	4,865	4,916	4,725

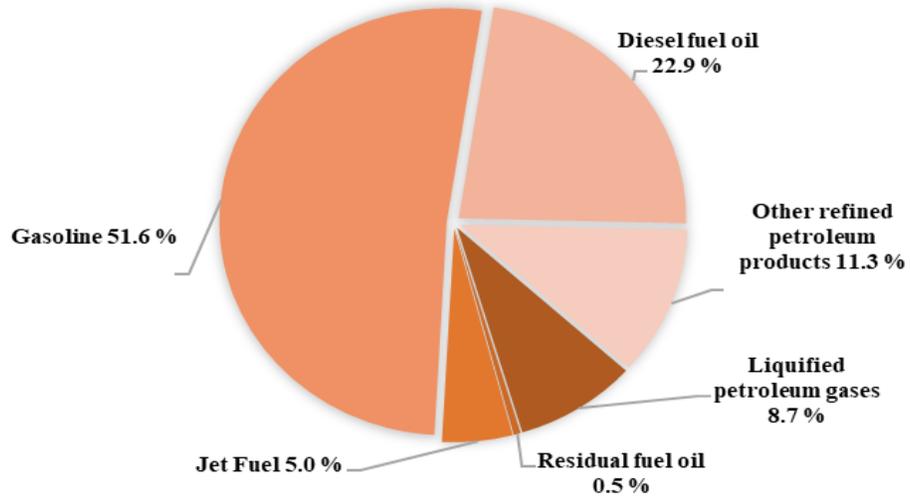
Net Imports (Thousand Barrels per Day)			
	Four Weeks Ending		
	2/22/2019	2/15/2019	2/23/2019
Crude Oil	3,649	4,294	5,996
Petroleum Products	-2,784	-2,961	-2,591
Total	865	1,333	3,406

- [EIA](#)

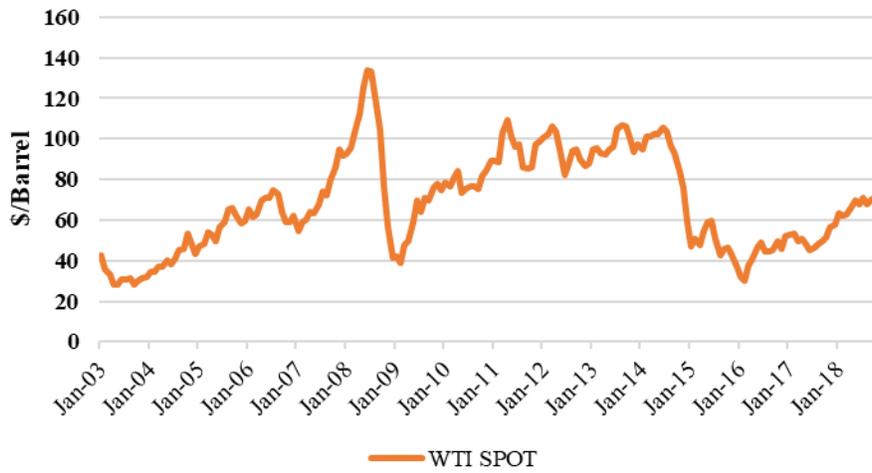
- **US Petroleum Refining at a Glance**



PRODUCTS AND SERVICES SEGMENTATION



WTI Monthly Spot Pricing



- [EIA](#)

o Key External Drivers

- o **World price of crude oil**
 - <http://markets.businessinsider.com/commodities/oil-price?type=wti>
- o **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>
- o **GDP of mainland China**
 - <https://tradingeconomics.com/china/gdp>
- o **Trade-weighted index**
 - <https://www.investing.com/news/economy-news/top-5-things-to-know-in-the-market-on-friday-541066>
- o **Total vehicle miles**
 - <https://www.advisorperspectives.com/dshort/updates/2017/08/31/vehicle-miles-traveled-another-look-at-our-evolving-behavioryuuui>