

Petroleum & Other Liquids

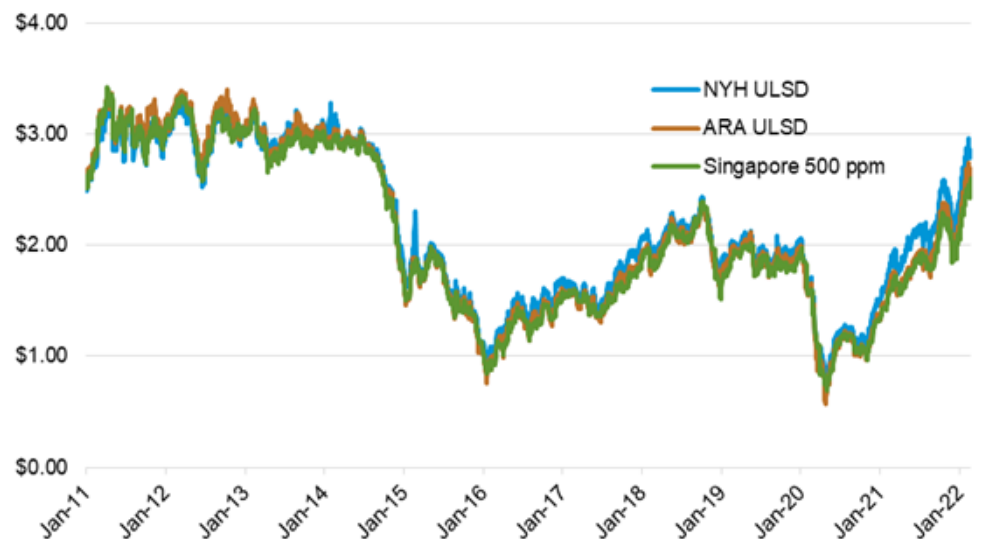
This Week in Petroleum

Release Date: February 24, 2022 | Next Release Date: March 2, 2022

Low inventories and high demand boost global distillate crack spreads

Rising crude oil prices, low refinery production, and high consumption of distillate fuel, which includes diesel fuel and heating oil, have contributed to the highest nominal (not adjusted for inflation) middle distillate prices since 2014 (Figure 1). The front-month futures price for ultra-low sulfur diesel (ULSD) for delivery in New York Harbor (NYH ULSD) reached as high as \$2.96 per gallon (gal) on February 14, 2022. On that same day, ULSD priced in the Amsterdam, Rotterdam, and Antwerp (ARA) hubs of Northwest Europe reached \$2.74/gal, and distillate fuel oil priced in Singapore (Singapore 500 ppm) reached \$2.54/gal. Prior to October 2021, distillate prices had not exceeded \$2.50/gal in any of these three major pricing hubs since 2014.

Figure 1. Nominal global distillate prices
dollars per gallon



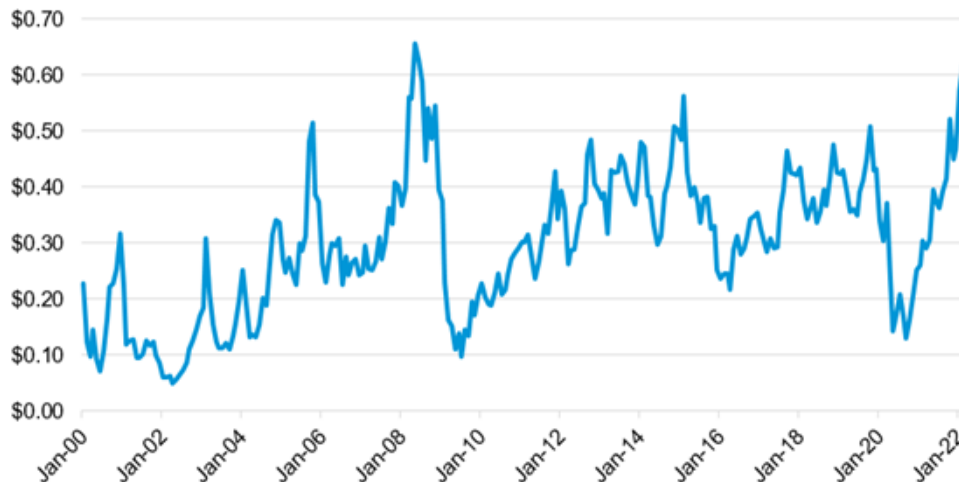
Source: Graph by the U.S. Energy Information Administration, based on data compiled by Bloomberg L.P.
Note: ULSD = ultra-low sulfur diesel

Rising crude oil prices account for much of the increase in distillate prices. However, distillate prices, particularly in the United States, have increased relative to Brent crude oil prices. In February 2022 to date, the difference between the price of ULSD and the price of Brent crude oil, or the ULSD–Brent crack spread, has averaged 62 cents/gal (Figure 2). By comparison, in 2014, when ULSD prices were last higher than the current prices, the widest monthly average ULSD–Brent crack spread was 51 cents/gal. Furthermore, since 2000, the monthly average crack spread has been wider only in May 2008, when [global distillate demand was high](#), partly because of a [transition in Europe to diesel-powered cars and light trucks](#).

Figure 2. Nominal historical monthly average NYH ULSD crack spread versus Brent



dollars per gallon



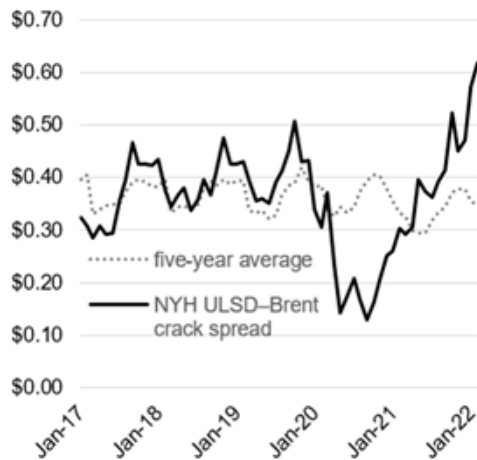
Source: Graph by the U.S. Energy Information Administration, based on data compiled by Bloomberg L.P.
 Note: NYH ULSD = New York Harbor ultra-low sulfur diesel

The crack spread for NYH ULSD has been generally increasing as a monthly average since June 2020 and recently increased significantly with increasing demand (Figure 3). After distillate stocks in the U.S. East Coast (PADD 1) peaked at 52% above their five-year (2015–19) average in June 2020, they sharply decreased as [distillate demand returned to pre-pandemic levels in early 2021](#). U.S. demand for distillate fuel has remained high due to high demand for trucking and rail freight transport in 2021 and 2022. Furthermore, cold weather in January 2022 contributed to greater demand in the Northeast, a region that relies on heating oil to heat [almost 20% of its homes](#). Despite increased distillate demand, refinery utilization is still less than pre-pandemic levels, partly because of comparatively slower demand growth in other petroleum products. Furthermore, as [jet fuel demand and crack spreads increase](#), refiners are shifting more of their production away from distillate in favor of jet fuel. This dynamic of high distillate demand and low production has contributed to persistent distillate stock draws in the United States. According to weekly data in our [Weekly Petroleum Status Report](#) (WPSR), distillate stocks in the U.S. East Coast were at 34 million barrels on February 18, 32% below their five-year (2017–2021) average for that time of year.

Figure 3. NYH ULSD crack spread versus Brent and U.S. East Coast distillate stocks



monthly average crack spread
dollars per gallon



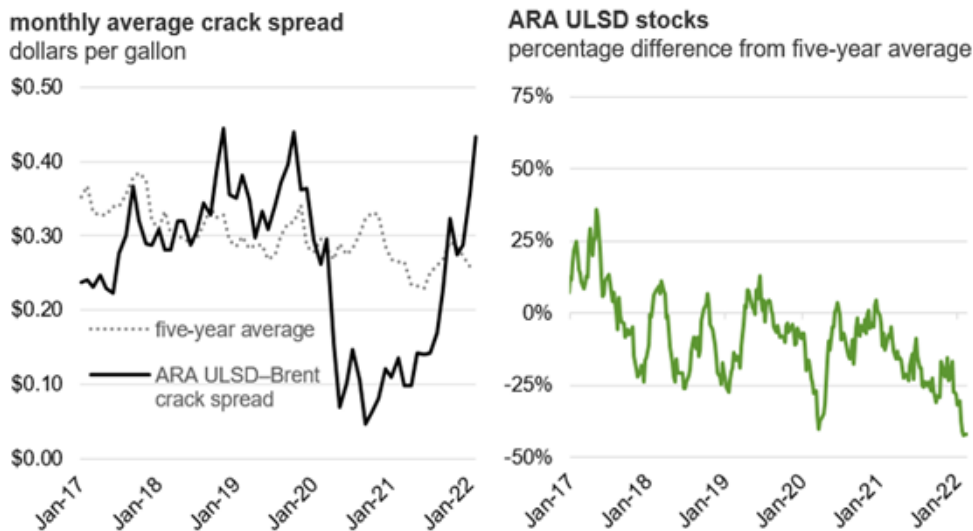
U.S. East Coast distillate stocks
percentage difference from five-year average



Source: Graph by the U.S. Energy Information Administration, based on data compiled by Bloomberg L.P.
 Note: NYH ULSD = New York Harbor ultra-low sulfur diesel

Europe and Asia are also experiencing trends of low distillate stocks and high prices. Partially because of lower refinery output and high U.S. demand and prices, other countries have been importing less distillate fuel oil from the United States. Furthermore, comparatively higher ULSD prices at New York Harbor have made it economical for countries to increase exports to the United States, despite low distillate stocks globally. As of February 17, ARA ULSD stocks were 11.5 million barrels, 42% lower than the five-year February average (Figure 4). ARA ULSD stocks have not been this low, on either an absolute basis or in comparison with five-year averages, since April 2014. European ULSD stock draws may have also increased recently as a result of large planned refinery outages, including Shell's 400,000-barrel-per-day (b/d) [Pernis refinery](#) in Rotterdam. In addition, a [cyberattack](#) on storage terminals at the ARA trading hub in early February disrupted normal inventory operations. In addition, ULSD demand is likely increasing as [much of Europe lifts COVID-19-related travel restrictions](#). Lastly, like in the United States, [high consumption in the Middle East and Asia](#) has prompted countries in those regions to consume their products domestically rather than export to Europe. As a result of all of these factors, the ARA ULSD–Brent crack spread has averaged 43 cents/gal in February so far, 17 cents/gal higher than its five-year average for these days in February and the widest crack spread differential in our data going back to 2013.

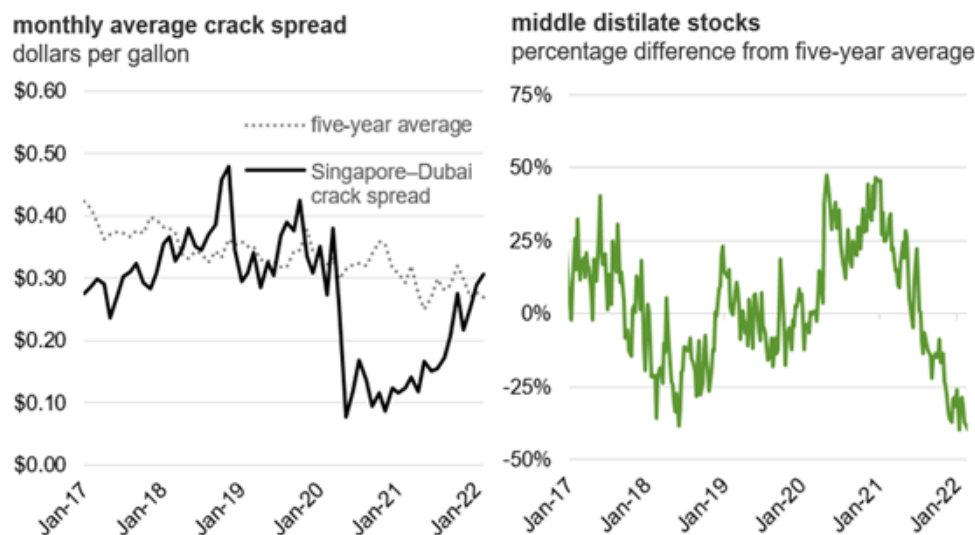
Figure 4. ARA distillate crack spread versus Brent and ARA ULSD stocks



Source: Graph by the U.S. Energy Information Administration, based on data compiled by Bloomberg L.P.
Note: ARA ULSD = Amsterdam, Rotterdam, and Antwerp ultra-low sulfur diesel

At the Singapore trading hub, the distillate crack spread relative to Dubai crude oil has increased from as low as 8 cents/gal in May 2020 to 31 cents/gal in February 2022 (to date), which is higher than the five-year February average but lower than the crack spreads at the NYH and ARA trading hubs (Figure 5). Middle distillate stocks are 40% below their five-year average as of February 23. Similar to other markets, rising demand in Asia is likely contributing to high distillate stock draws. In addition, middle distillate crack spreads in Singapore may also be widening because the region has been receiving fewer imports from China, due to [China's lower export quotas](#) and changes to China's domestic distillate supplies and [trade patterns](#) since the middle of 2021.

Figure 5. Singapore distillate crack spread versus Dubai and middle distillate stocks



Source: Graph by the U.S. Energy Information Administration, based on data compiled by Bloomberg L.P.

U.S. average regular gasoline and diesel prices increase

The U.S. average regular gasoline retail price increased more than 4 cents to \$3.53 per gallon on February 21, 90 cents higher than a year ago. The Gulf Coast price increased more than 5 cents to \$3.24 per gallon, the East Coast price increased 5 cents to \$3.50 per gallon, the West Coast price increased more than 4 cents to \$4.23 per gallon, the Midwest price increased more than 3 cents to \$3.35 per gallon, and the Rocky Mountain price increased nearly 2 cents to \$3.34 per gallon.

The U.S. average diesel fuel price increased nearly 4 cents to \$4.06 per gallon on February 21, \$1.08 higher than a year ago. The East Coast and Gulf Coast prices each increased nearly 5 cents to \$4.11 per gallon and \$3.83 per gallon, respectively, the West Coast price increased nearly 3 cents to \$4.68 per gallon, the Midwest price increased more than 2 cents per gallon to \$3.91 per gallon, and the Rocky Mountain price increased 2 cents per gallon to \$3.93 per gallon.

Residential heating oil prices decrease, propane prices increase

As of February 21, 2022, residential heating oil prices averaged more than \$3.94 per gallon, more than 1 cent per gallon below last week's price but almost \$1.14 per gallon higher than last year's price at this time. Wholesale heating oil prices averaged nearly \$2.97 per gallon, almost 18 cents per gallon below last week's price but nearly \$1.01 per gallon above last year's price.

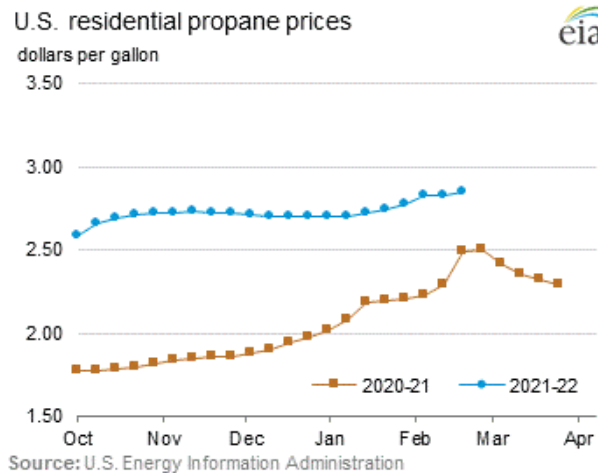
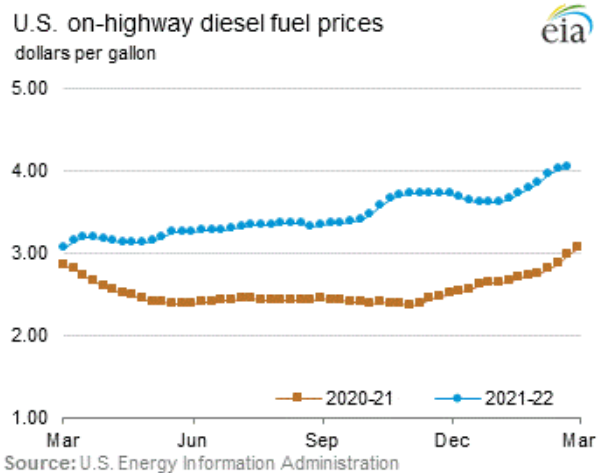
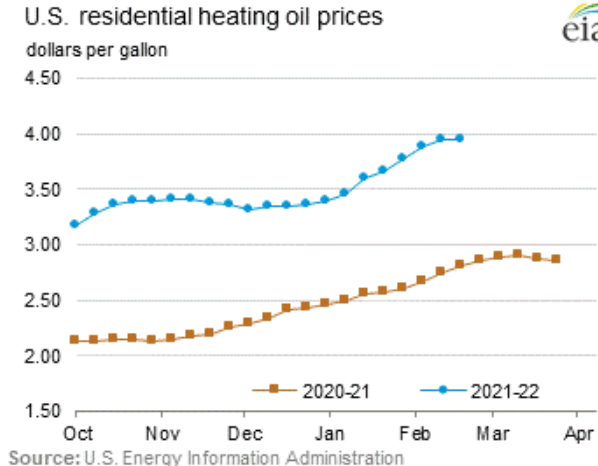
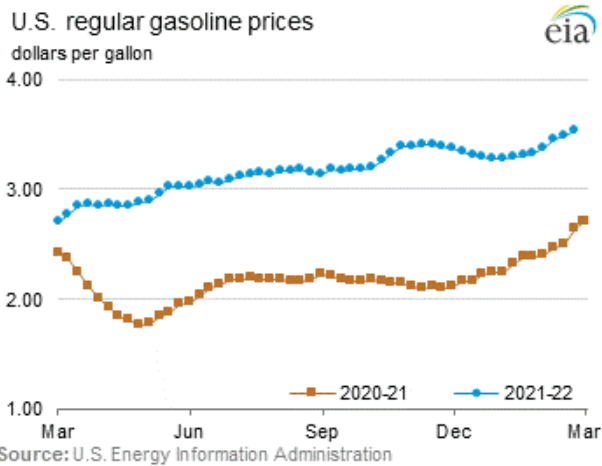
Residential propane prices averaged almost \$2.85 per gallon, more than 1 cent per gallon above last week's price and more than 35 cents per gallon above last year's price. Wholesale propane prices averaged nearly \$1.55 per gallon, almost 7 cents per gallon above last week's price, and more than 7 cents per gallon above last year's price.

Propane/propylene inventories decline

U.S. propane/propylene stocks decreased by 3.9 million barrels last week to 38.0 million barrels as of February 18, 2022, 10.9 million barrels (22.3%) less than the five-year (2017-2021) average inventory levels for this same time of year. Gulf Coast, East Coast, Rocky Mountain/West Coast, and Midwest inventories decreased by 2.2 million barrels, 0.9 million barrels, 0.4 million barrels, and 0.3 million barrels, respectively.

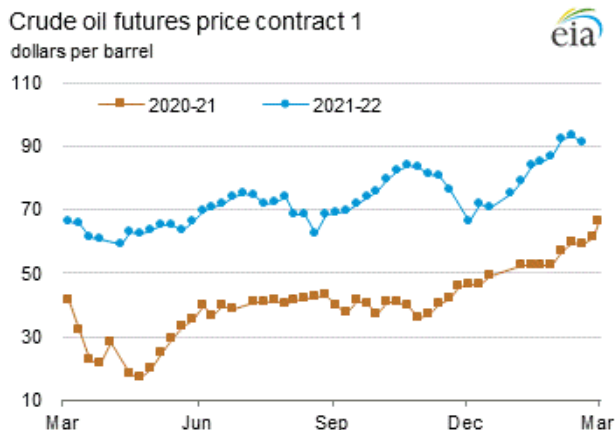
For questions about This Week in Petroleum, contact the Petroleum Markets Team at 202-586-4522.

Retail prices (*dollars per gallon*)

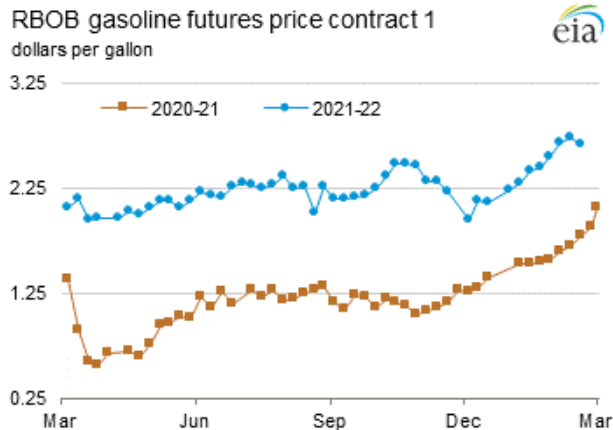


	Retail prices 02/21/22	Change from last	
		Week	Year
Gasoline	3.530	0.043 ▲	0.897 ▲
Diesel	4.055	0.036 ▲	1.082 ▲
Heating Oil	3.943	-0.013 ▼	1.135 ▲
Propane	2.845	0.014 ▲	0.353 ▲

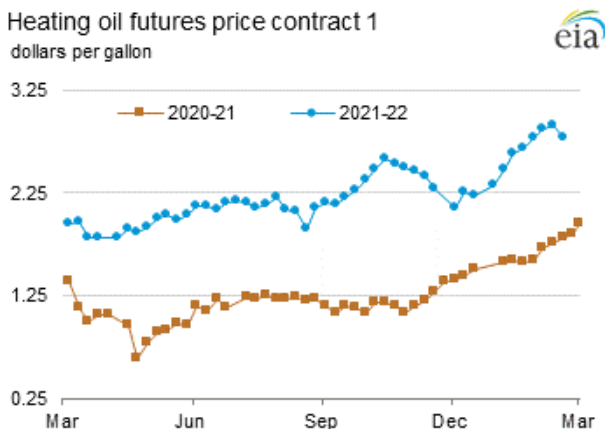
Futures prices (*dollars per gallon**)



Source: U.S. Energy Information Administration, New York Mercantile Exchange (NYMEX)



Source: U.S. Energy Information Administration, Refinitiv An LSEG Business

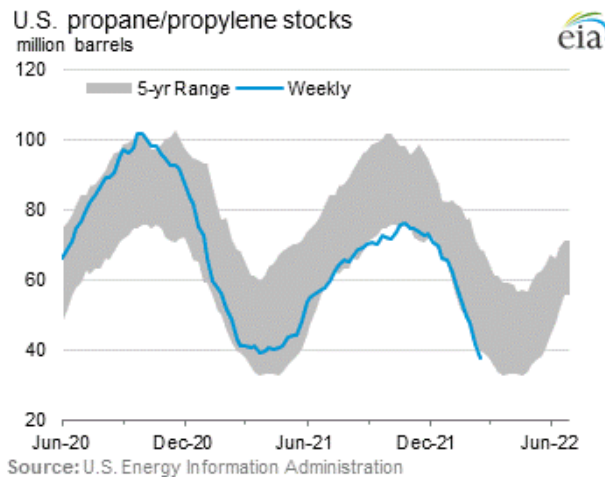
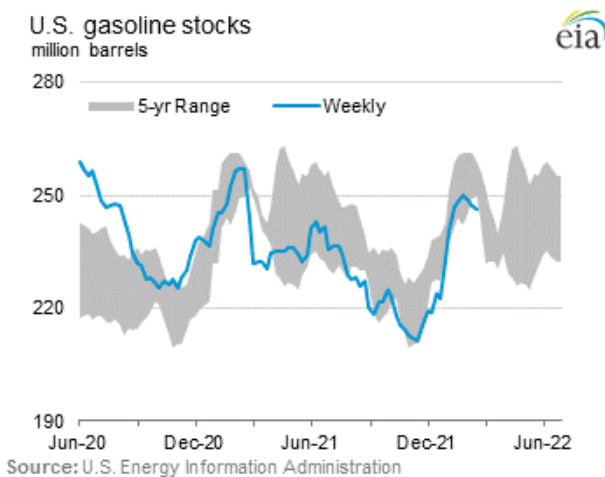
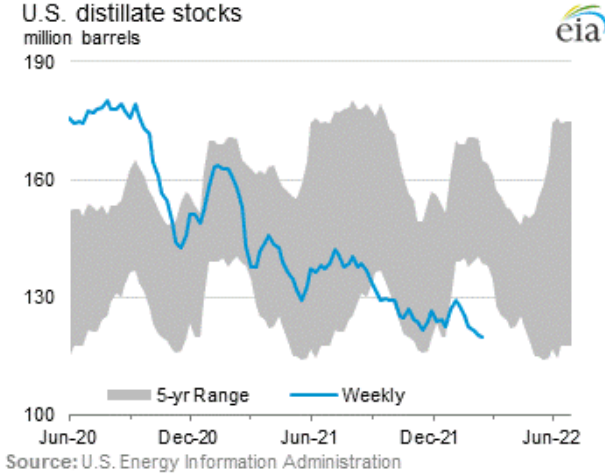
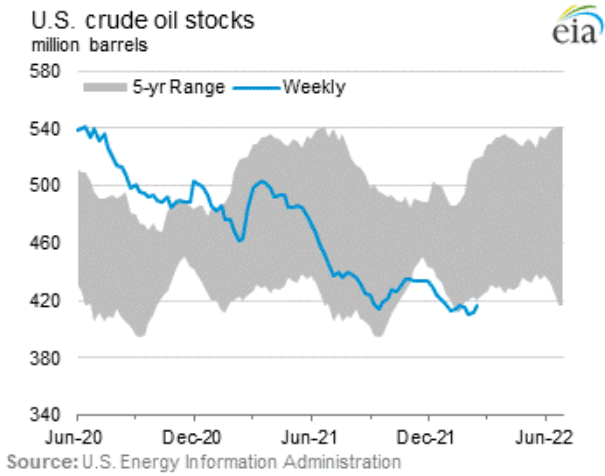


Source: U.S. Energy Information Administration, Refinitiv An LSEG Business

	Futures prices 02/18/22	Change from last	
		Week	Year
Crude oil	91.07	-2.03 ↓	31.83 ↑
Gasoline	2.670	-0.069 ↓	0.863 ↑
Heating oil	2.782	-0.129 ↓	0.959 ↑

*Note: Crude oil price in dollars per barrel.

Stocks (million barrels)



	Stocks	Change from last	
		02/18/22	Week
Crude oil	416.0	4.5 ↑	-47.0 ↓
Gasoline	246.5	-0.6 ↓	-10.6 ↓
Distillate	119.7	-0.6 ↓	-33.0 ↓
Propane	38.002	-3.901 ↓	-5.490 ↓