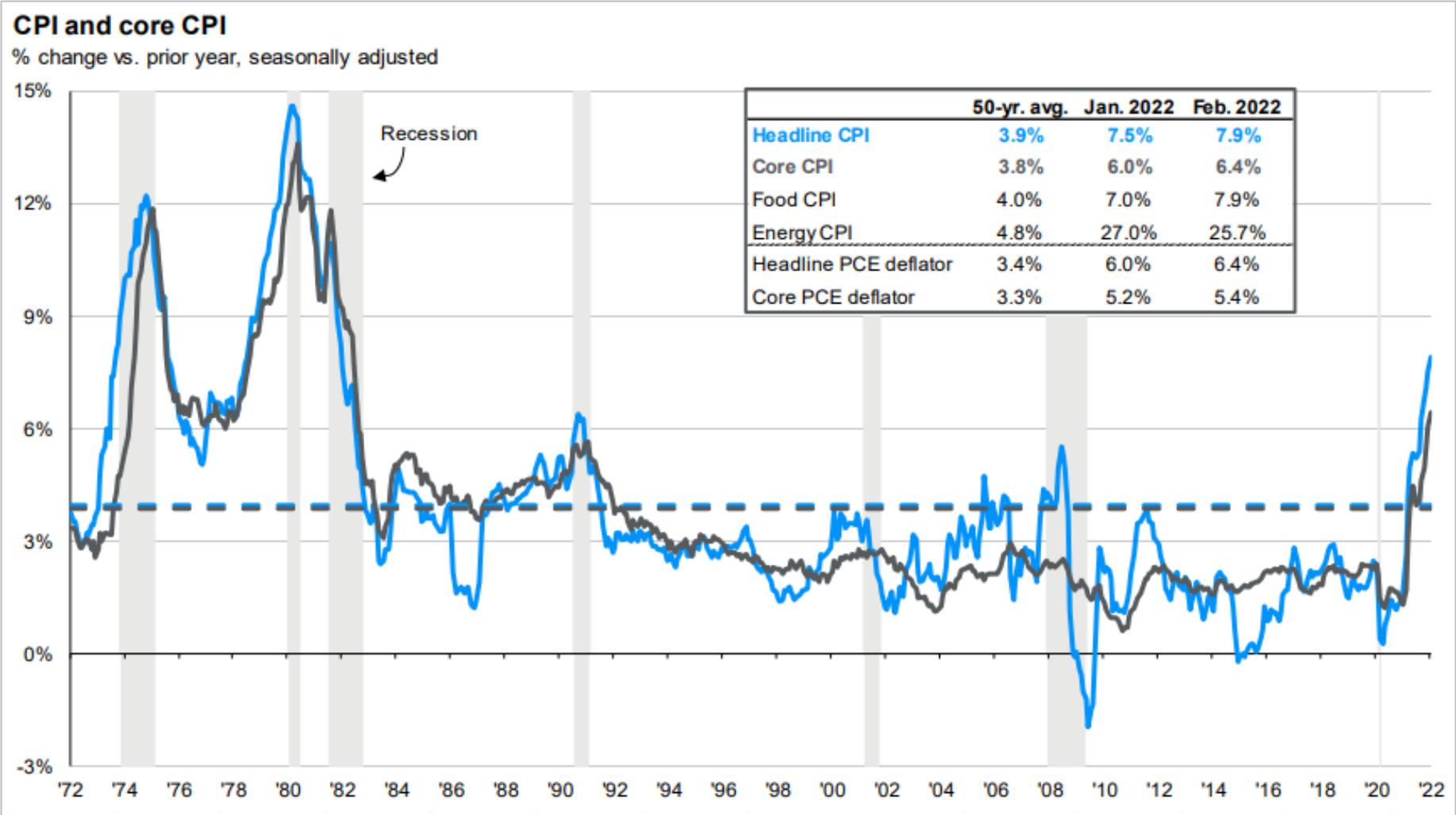


		<u>Mar 2022</u>	<u>YTD</u>	<u>1-Year</u>	<u>3-Years</u>	<u>5-Years</u>	<u>10-Years</u>
U.S. Large Cap Equities	S&P 500	3.71%	-4.60%	15.65%	18.92%	15.99%	14.64%
U.S. Small Cap Equities	Russell 2000	1.24%	-7.53%	-5.79%	11.74%	9.74%	11.04%
Energy Infrastructure Equities	Alerian U.S. Midstream Energy	6.67%	24.42%	48.34%	8.81%	4.84%	-
U.S. Real Estate Equities	Dow Jones U.S. Select REIT	6.71%	-3.71%	27.72%	9.90%	8.89%	9.17%
Global Equities	MSCI All Country World Index	2.17%	-5.36%	7.28%	13.75%	11.64%	10.00%
International Developed Equities	MSCI EAFE	0.64%	-5.91%	1.16%	7.78%	6.72%	6.27%
Emerging Market Equities	MSCI Emerging Markets	-2.26%	-6.97%	-11.37%	4.94%	5.98%	3.36%
U.S. Taxable Fixed Income	Bloomberg U.S. Aggregate	-2.78%	-5.93%	-4.15%	1.69%	2.14%	2.24%
U.S. Tax-Exempt Fixed Income	Bloomberg Municipal Aggregate	-3.24%	-6.23%	-4.47%	1.53%	2.52%	2.88%
High Yield Fixed Income	Bloomberg U.S. Corporate High Yield	-1.15%	-4.84%	-0.66%	4.58%	4.69%	5.75%
Floating Rate Loans	S&P/LSTA Leveraged Loan	0.06%	-0.09%	3.27%	4.23%	4.02%	4.30%
International Fixed Income	Bloomberg Global Aggregate Ex-U.S.	-3.20%	-6.15%	-7.89%	-0.19%	1.27%	0.06%

- Global equity markets partially recovered in March despite no discernable improvement in negotiations between Russia and Ukraine.
- Large cap U.S. equities rose 3.7% during the month but remained down 4.6% year-to-date; value has outperformed growth by 8.3%.
  - In terms of valuations, value ended the quarter more attractively priced at 15.3x earnings, compared to 26.8x for growth.
  - Small cap U.S. stocks have performed less well in 2022, but are the most discounted category, trading at 14.7x (L/T average 17.0x).
- The best performing investment category during the first quarter was energy infrastructure equity, up 24.4% amid higher commodity prices.
- Foreign equity markets held up reasonably well, despite the ongoing war, impact of Russian sanctions and new wave of Covid-19 closures.
  - In terms of valuations, the MSCI AC World Index ex-U.S. was trading at a 32.2% discount to the S&P 500 Index at quarter-end.
- In bond markets, returns were negative as a result of rising yields; investment grade taxable and muni yields were up 1.2% and 1.5% YTD.
  - Nominal U.S. bond yields were 2.3% at month end, while real yields were negative 4.1%, with inflation at 6.4%.
  - Short-term U.S. Treasury yields have risen sharply year-to-date, with the 2-Year rising 1.6% to 2.28% and the 10-Year reaching 2.32%.
  - The yield curve slightly inverted for a short time in early April as the 2-year broke 2.5%.

- The Fed's preferred inflation gauge, Core PCE deflator, increased 5.4% in February from one year prior.
  - Headline CPI reflects the total inflation in an economy, while Core CPI excludes highly variable factors such as food and energy.
- Treasury Futures are pricing in 2-year inflation over 4.35% and 10-year inflation at 2.85% (Bloomberg 4/5/2022).

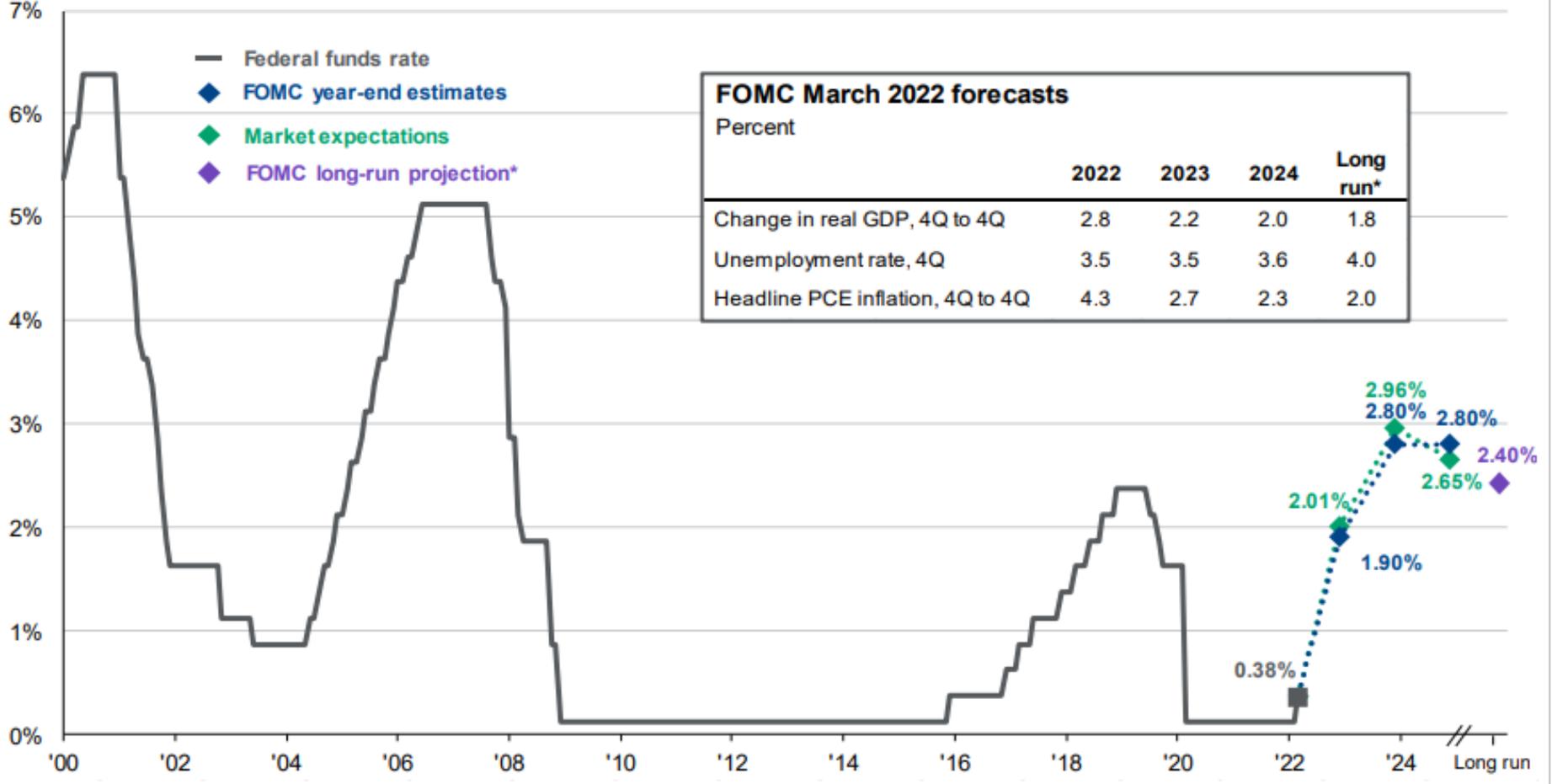


Source: JP Morgan as of March 31, 2022, Bloomberg

- The U.S. Federal Reserve raised interest rates by 0.25% when it met in March.
- The market expectation for Fed Funds rates increased by 1.12%, MoM, rising to 2.0% by the start of 2023 and 2.96% by the end of 2024.
- The yield curve inverted in early April, while the Fed recently announced that “the case for 50 basis points....has grown.”

## Federal funds rate expectations

FOMC and market expectations for the federal funds rate



- The U.S. Federal Reserve's liftoff in March was the start of a well publicized intention to slow down an overheated U.S. economy.
- Prior rate hike cycles of the magnitude currently priced in have typically resulted in a recession after an average of 20-months.
- U.S. stock market returns were positive in 6 of the 8 past rate hiking cycles, which bodes well for investors that stay the course.

## Federal funds rate

Target rate\*, shaded areas denote periods of rate hikes



## Market reaction during previous rate hiking cycles

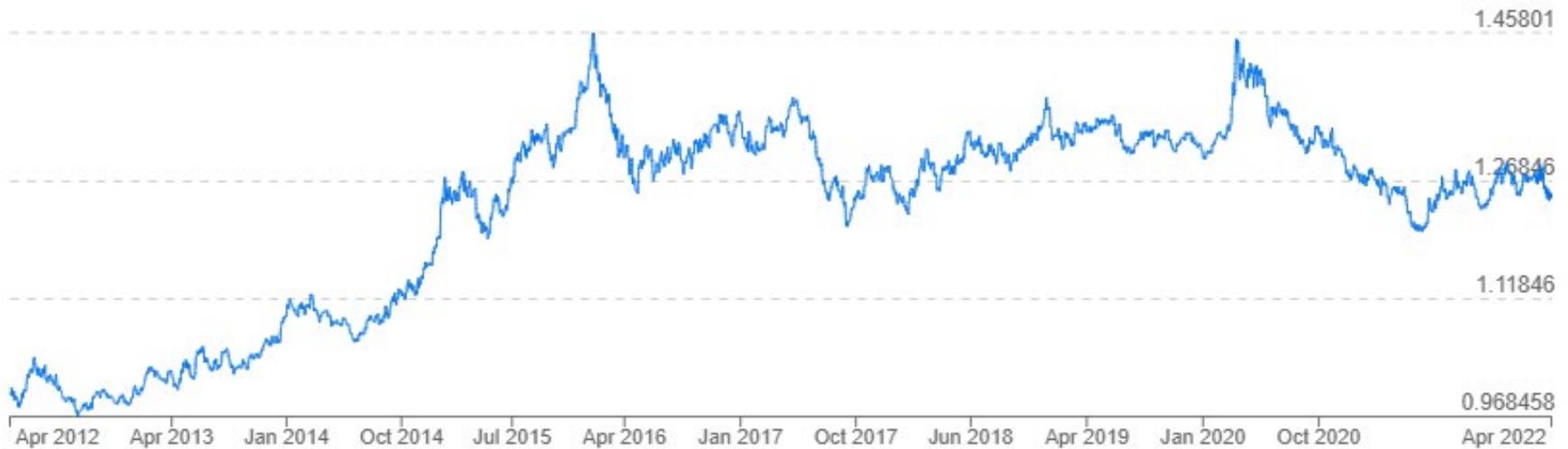
	May 1983 – Jul. 1984	Mar. 1988 – Feb. 1989	Feb. 1994 – Feb. 1995	Jun. 1999 – May 2000	Jun. 2004 – Jun. 2006	Dec. 2015 – Dec. 2018	Mar. 2022 – Present	Avg. of past 6 rate hiking cycles
<b>Yield change (bps)</b>								
<b>Federal funds rate</b>	313	325	300	175	425	200	25	290
<b>2-year Treasury</b>	311	227	305	121	238	165	43	228
<b>10-year Treasury</b>	274	91	185	50	52	49	17	117
<b>S&amp;P 500 return</b>	-9.6%	6.8%	-2.1%	8.5%	12.0%	19.0%	6.3%	5.8%
<b>U.S. dollar</b>	10.4%	1.7%	-4.7%	3.4%	-5.8%	-1.4%	-0.6%	0.6%

- The U.S. dollar weakened 1.4% against the Canadian dollar in March, ending the month with an exchange rate of 1.2482.
- According to the Bank of Canada, in the first quarter 2022 Business Outlook Survey, “reports of labour-related capacity constraints and supply chain challenges remain widespread. Given these pressures and robust demand, businesses anticipate stronger price growth – and they expect the Russian invasion of Ukraine to add more cost pressures. As public health restrictions ease, firms that were hit hard during the pandemic anticipate their sales will pick up.”

### USD to CAD

12H 1D 1W 1M 1Y 2Y 5Y 10Y

Source: www.xe.com



Date Range	USD to CAD	+/-
YTD	1.2655-1.2482	-1.4%
1-Year	1.2571-1.2482	-0.7%
3-Years	1.3341-1.2482	-6.4%

**\$USD 1,000,000**  
 =  
**\$CAD 1,248,272**  
 @ 1.2482  
 (3/31/2022)

CAD Profile	
*Inflation Rate	5.7% (Feb 2022)
Interest Rate	0.50% (Mar 2022)
Information	<a href="http://www.bankofcanada.ca">http://www.bankofcanada.ca</a>

\*Total CPI Inflation

Sources: xe.com, Statistics Canada, bankofcanada.com, Bloomberg



**Independence**

Asset  
Advisors

The larger chart below shows the historical price of copper, which is displayed in U.S. dollars per pound. The chart provides 25 years of price history. The embedded chart provides a zoomed-in image of daily copper price movement over the past 12-months.

Copper prices were up \$0.29 per pound year-to-date, or 6.5% (3/31/2022). Since the \$2.10 low point on March 23, 2020, prices have risen \$2.65 per pound, or 126%.

**The price of copper was \$4.75 per pound as of March 31, 2022.**



## Copper Price Outlook

Copper prices were especially volatile in March, surging to an intra-month high of \$4.94 per pound, or 11.0% higher than the start of the month, before falling 8.7%, and then finally ending the month roughly 7% higher.

The March price increase was attributable to supply concerns in Chile, the world's top producer, and the ongoing conflict in Ukraine.

In February, copper output in Chile declined 7% from one year prior. This followed declines of 7.5% and 1.9% in January and for the year 2021, respectively. In the meantime, concerns have grown over near-term demand in China, which is the world's largest consumer of copper, as the country's financial hub, Shanghai, remains under strict lockdown due to a surge of Covid-19 infections.

Looking ahead, guidance suggests copper will trade at \$4.78 USD per pound by the end of the second quarter, and at \$5.07 12 months from now.

The primary chart below shows the historical monthly price of aluminum for the past 25 years. The secondary chart shows the daily price movement over the past 12 months. Prices are in USD per tonne (London Metal Exchange).

Aluminum prices were up \$683.50 per tonne year-to-date, or 24% (3/31/2022). Since the \$1,472 low point on April 6, 2020, prices have risen \$2,019, or 137%

The former all-time record price of aluminum was \$3,271.25 per tonne, which occurred in July of 2008.



## Aluminum Price Outlook

Aluminum prices were especially volatile in March, surging to an intra-month high of \$3,849 per tonne, or 14.3% higher than the start of the month, before falling 15.3%, and then finally ending the month roughly 4% higher.

Prices surged in March amid supply disruptions and higher production costs, a direct result of Russia's invasion of Ukraine.

During the month, Australia's prime minister banned alumina and aluminum ore exports to Russia, which is meaningful, as Australia supplies almost 20% of Russia's demand.

Looking ahead, aluminum is forecasted to trade at \$3,530.39 USD/tonne by the end of the second quarter. The 12-month forecast shows aluminum trading at \$3,782.

- The price of a barrel of crude oil increased \$4.56 in March, or 4.8%, to \$100.28 (that price had risen to \$103.28 by 4/4).
- The surging prices were the direct result of the Russian invasion of Ukraine, rising demand, and insufficient OPEC+ production capacity.

## Change in production and consumption of liquid fuels

Production, consumption and inventories, millions of barrels per day

Production	2019	2020	2021	2022*	2023*	Growth since '19
U.S.	19.5	18.6	18.9	20.4	21.6	10.8%
OPEC	34.7	30.8	31.7	34.4	34.7	-0.1%
Russia	11.5	10.5	10.8	10.8	10.8	-5.8%
<b>Global</b>	<b>100.3</b>	<b>93.9</b>	<b>95.6</b>	<b>101.0</b>	<b>103.0</b>	<b>2.6%</b>

Consumption	2019	2020	2021	2022*	2023*	Growth since '19
U.S.	20.5	18.2	19.8	20.7	20.8	1.5%
China	14.0	14.4	15.3	15.7	16.2	15.8%
<b>Global</b>	<b>100.7</b>	<b>92.0</b>	<b>97.5</b>	<b>100.6</b>	<b>102.6</b>	<b>1.9%</b>

Inventory Change	2019	2020	2021	2022*	2023*
	-0.3	1.9	-1.9	0.4	0.4

Crude oil prices were especially volatile in March, surging to an intra-month high of \$123.70 per barrel, or 29.2% higher than the start of the month, before falling 23.2%, and then finally ending the month roughly 5% higher. The volatility was directly attributable to reduced production and increased demand. Notably, Iraq pumped 222,000 bpd short of its production quota, which breached an in-force agreement with other OPEC+ producers. Russian production was also meaningfully lower, at 11.01 million bpd, and analysts are warning of further declines. Looking ahead, consensus suggests oil prices will continue to fluctuate, but over the near term they could move slightly lower. This guidance is based on the forthcoming release of 180 million barrels of oil from the U.S. reserve, which will help offset the loss of Russian supply.

## Price of oil

WTI crude, nominal prices, USD/barrel

