

2022 Gasoline price primer

March 2022

Key points

- ❑ Since the U.S. shale revolution, energy has been a source of lower consumer expenditures for more than a decade
- ❑ Gasoline prices – along with virtually everything else – recently have risen due amid the highest consumer price inflation in 40 years
- ❑ State and Federal taxes and fees add an average of 57 cents per gallon, but vary by state
- ❑ As crude oil has remained the #1 input in making gasoline (EIA), gasoline prices have historically moved with oil prices
- ❑ Oil prices are established by global markets and influenced by many uncertain factors that can affect current conditions and future expectations
- ❑ EIA estimates that global oil demand averaged 100 million barrels per day (mb/d) in Q1 2022 and could grow along with the economy and reach a record-high 104 mb/d by December 2023
- ❑ EIA has also shown that demand outpaced supply through Q1 2022, which supported prices, but generally anticipate that market conditions could ease in coming quarters if the economy remains on track
- ❑ In the U.S., oil demand exceeded 21 mb/d and remained more than 5% above its pre-pandemic levels in Q1 2019
- ❑ By contrast, domestic production decreased in the wake of the pandemic, due to work force, supply chain, financial and policy headwinds – and has yet to fully recover
- ❑ On the positive side, U.S. oil drilling accelerated in Q1 2022 and could bode well for production increases as EIA expects
- ❑ U.S. refineries have also remained global leaders that generally increased their capacity to make petroleum fuels and other consumer products despite operating at fewer refineries

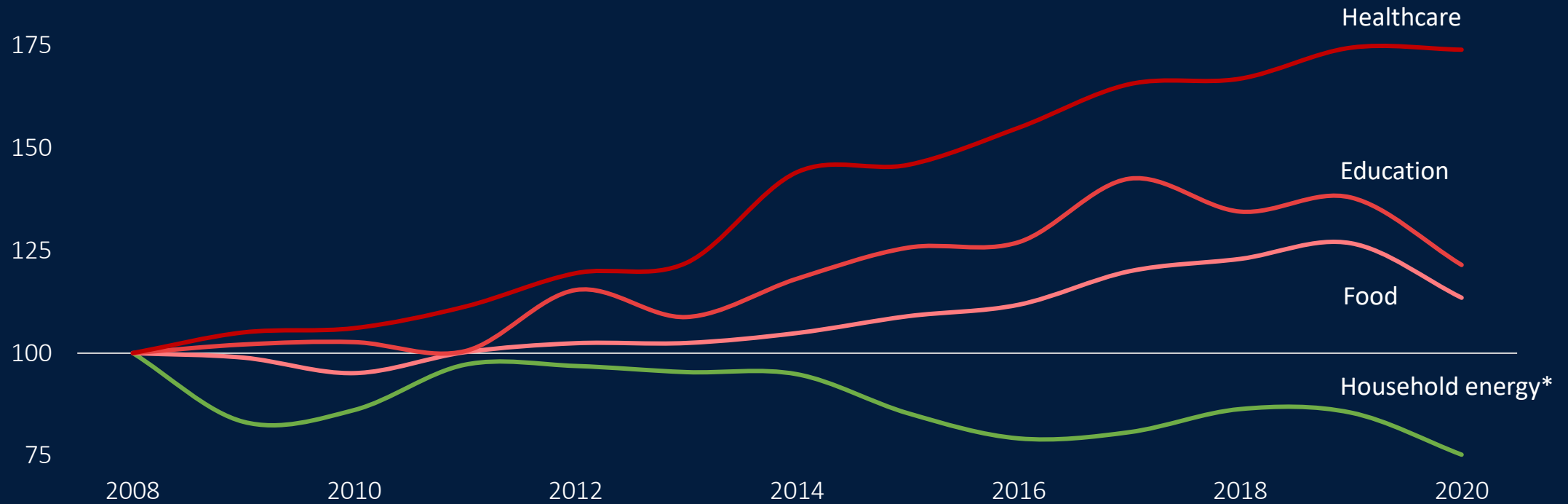
Energy has historically been a source of lower consumer expenditures



Household expenditures by category

Index (2008=100)

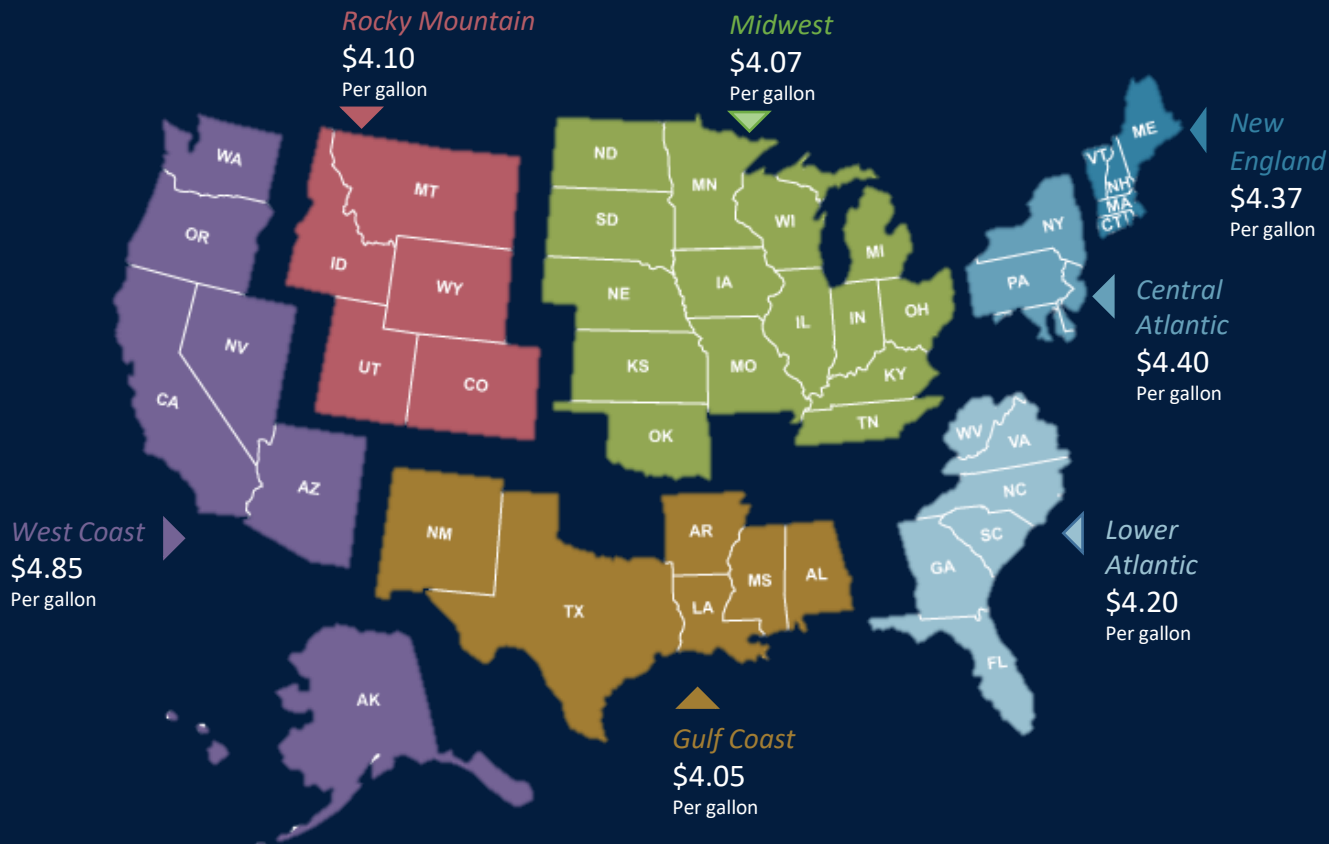
200



source: Bureau of Labor Statistics

Recent gasoline prices and what influences them

U.S. average (Mar. 8, 2022): \$ 4.32



Note: prices adjusted for inflation
source: AAA Gasoline

What we pay for in a gallon of:

Regular Gasoline

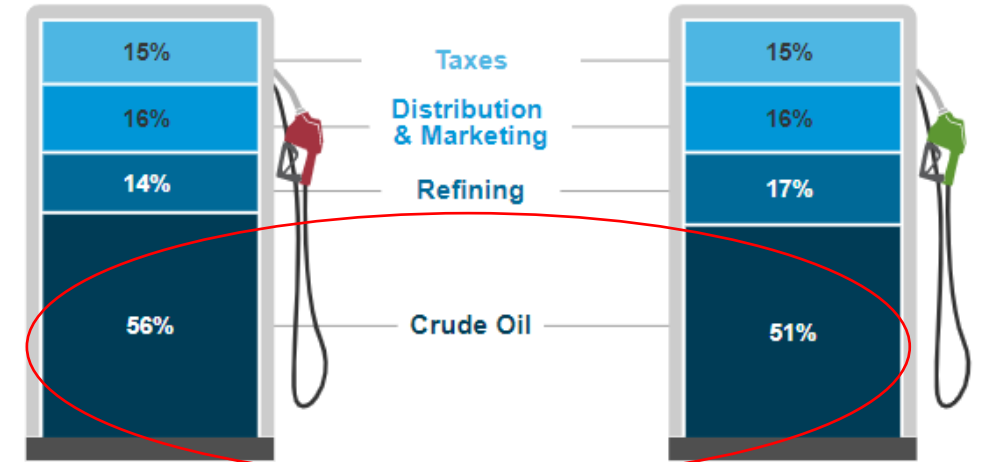
January 2022

Retail price: \$3.41/gallon

Diesel

January 2022

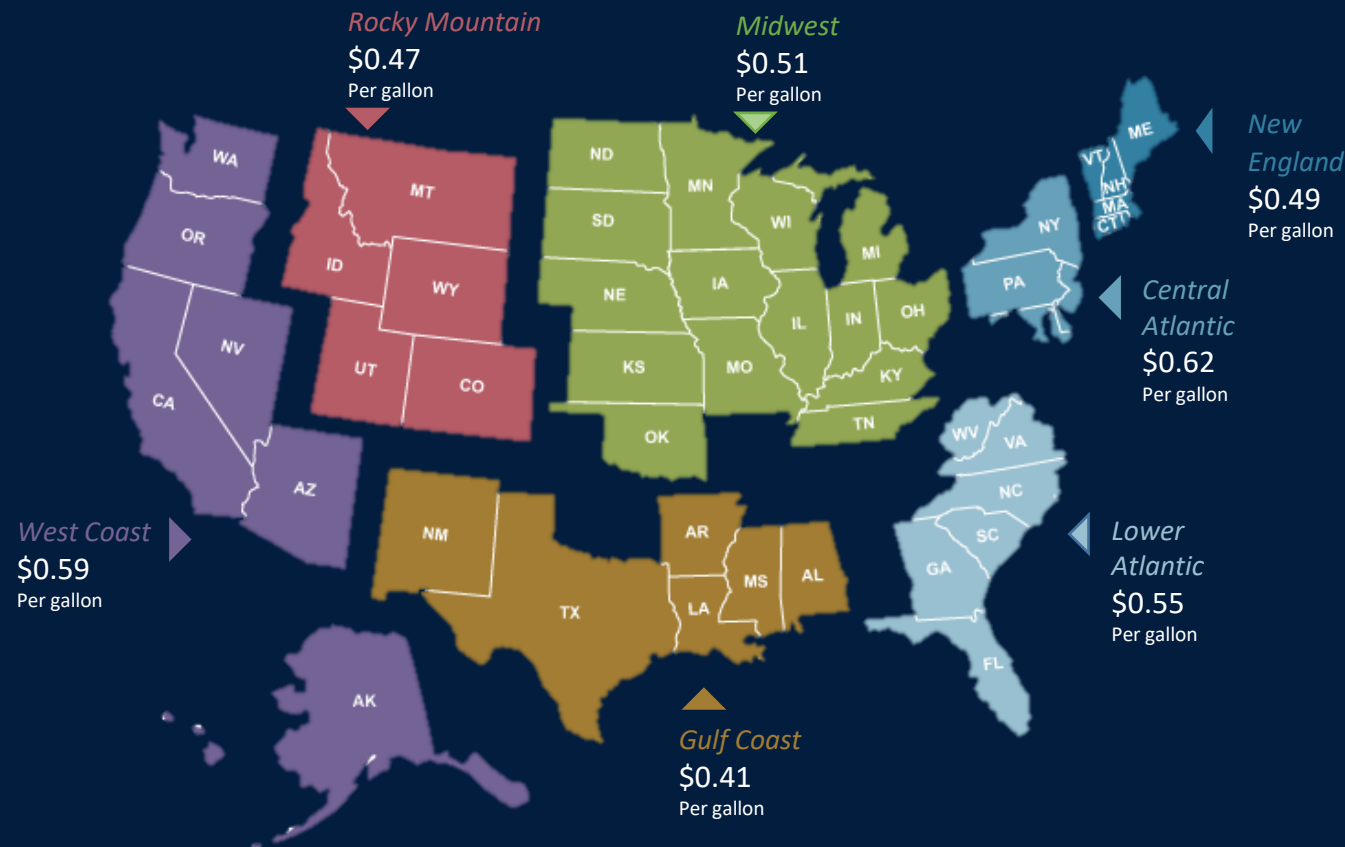
Retail price: \$3.72/gallon



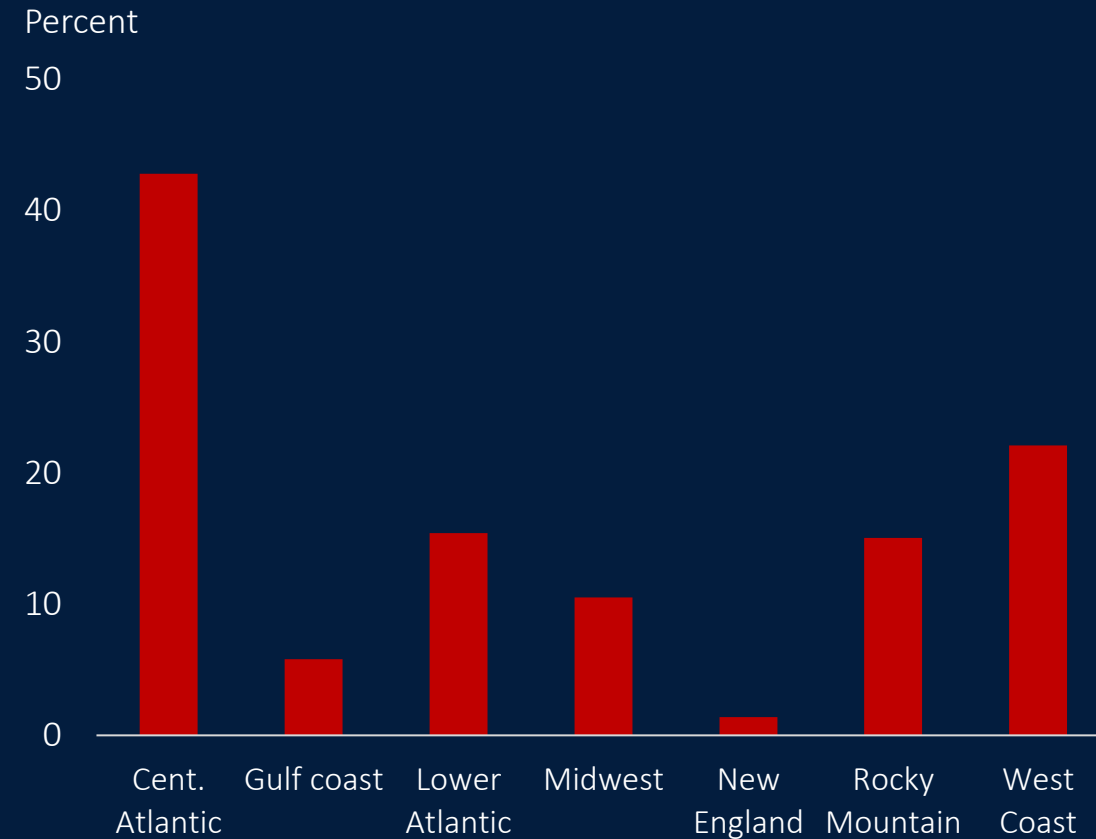
Source: U.S. Energy Information Administration, *Gasoline and Diesel Fuel Update*

State gasoline taxes have varied but risen relatively more in regions that consequently have seen their gasoline prices exceed the nationwide average

Average state and federal gasoline taxes by region, Q1 2022
U.S. average 57.09 cents per gallon



Changes in state gasoline excise taxes, by region 2013 - 2022

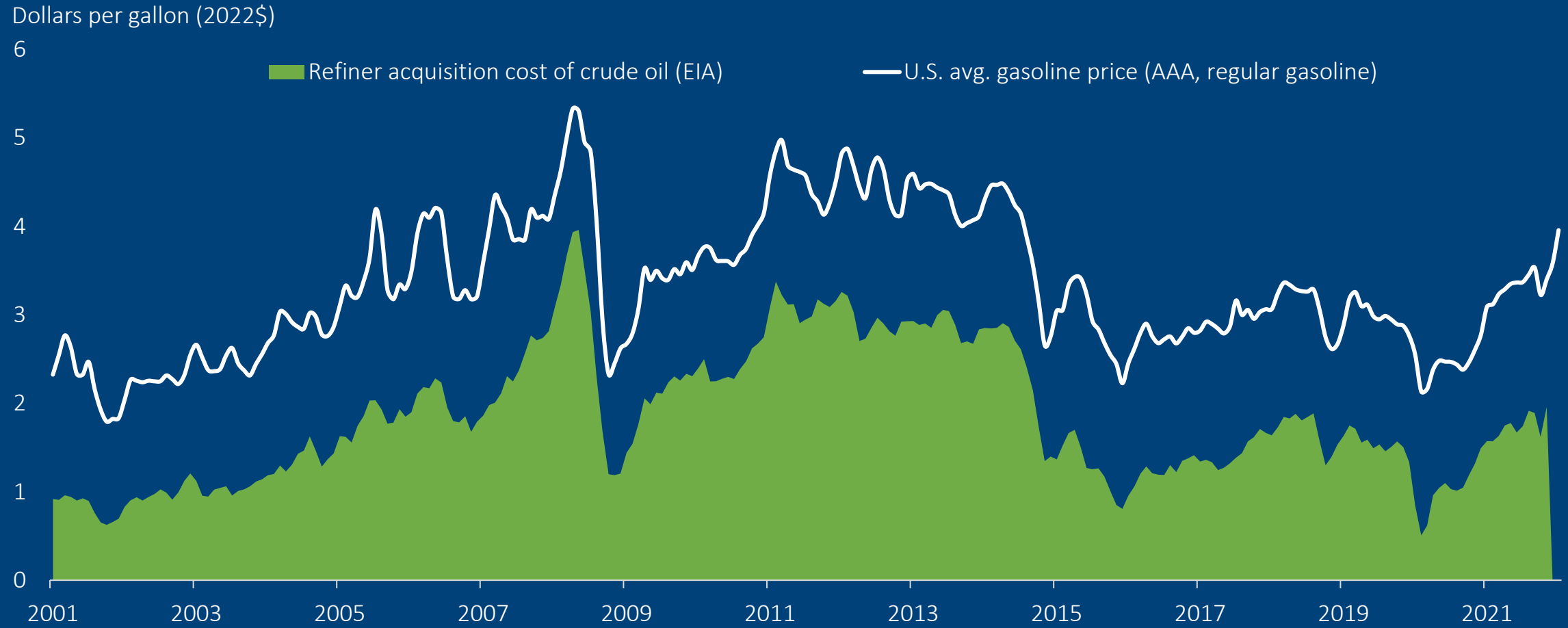


*The taxes shown here are inclusive of the federal excise tax at 18.4 cents per gallon and other state tax fees.

Gasoline prices have historically reflected those of oil, which remained relatively low since 2015 but recently climbed to their highest levels since 2014



Refiner acquisition cost of crude oil prices versus U.S. average gasoline prices, adjusted for price inflation



sources: Bloomberg; EIA; AAA; Bureau of Labor Statistics; API Team analysis

Oil prices have historically related to many uncertain factors

CURRENT FACTORS

FUTURE EXPECTATIONS



FINANCIAL MARKETS

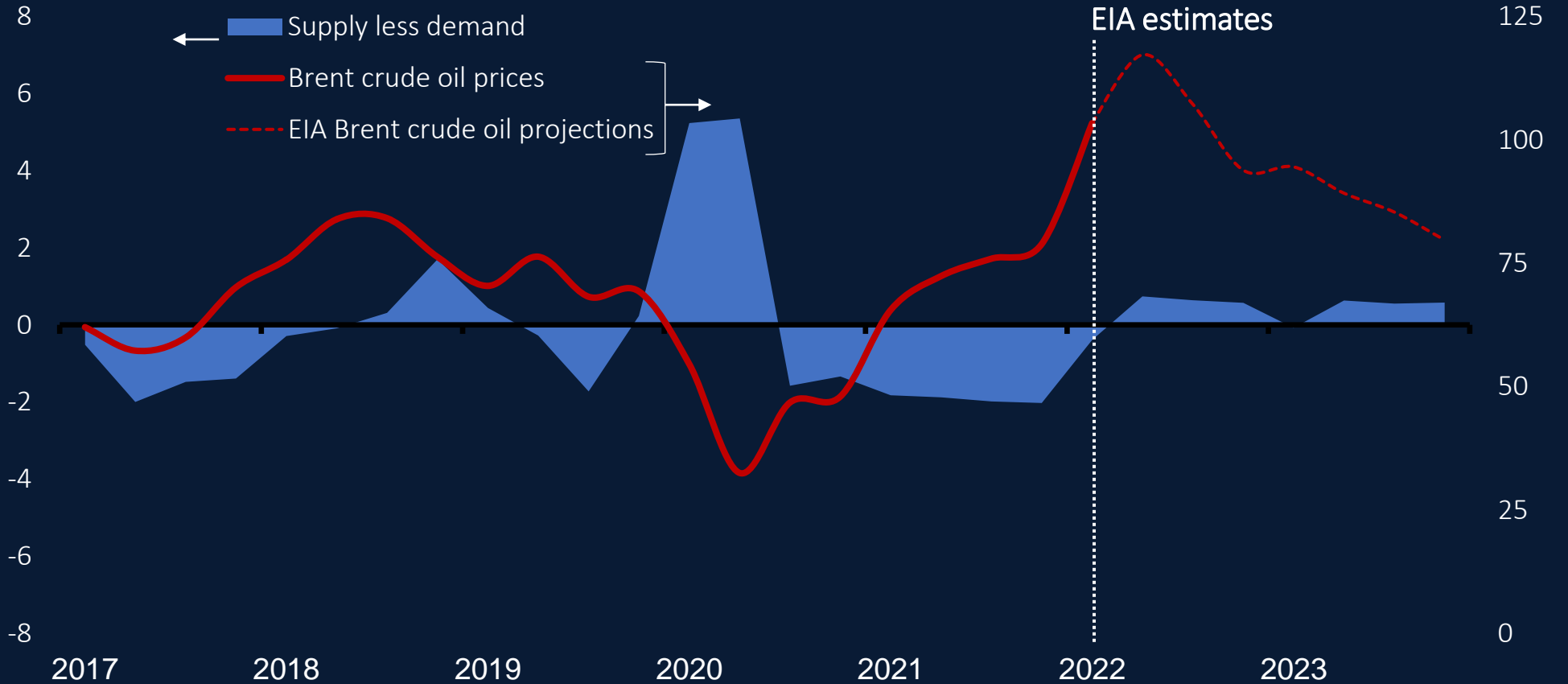
interest rates, foreign exchange rates, equity markets

EIA expects the global oil supply/demand balance to support prices of \$105 per barrel in 2022 and \$89 per barrel in 2023



EIA global supply/demand and Brent price estimates as of March 2022

Million barrels per day (mb/d)



sources: EIA STEO (Mar. 2022); CME Group; Bloomberg; Bureau of Labor Statistics

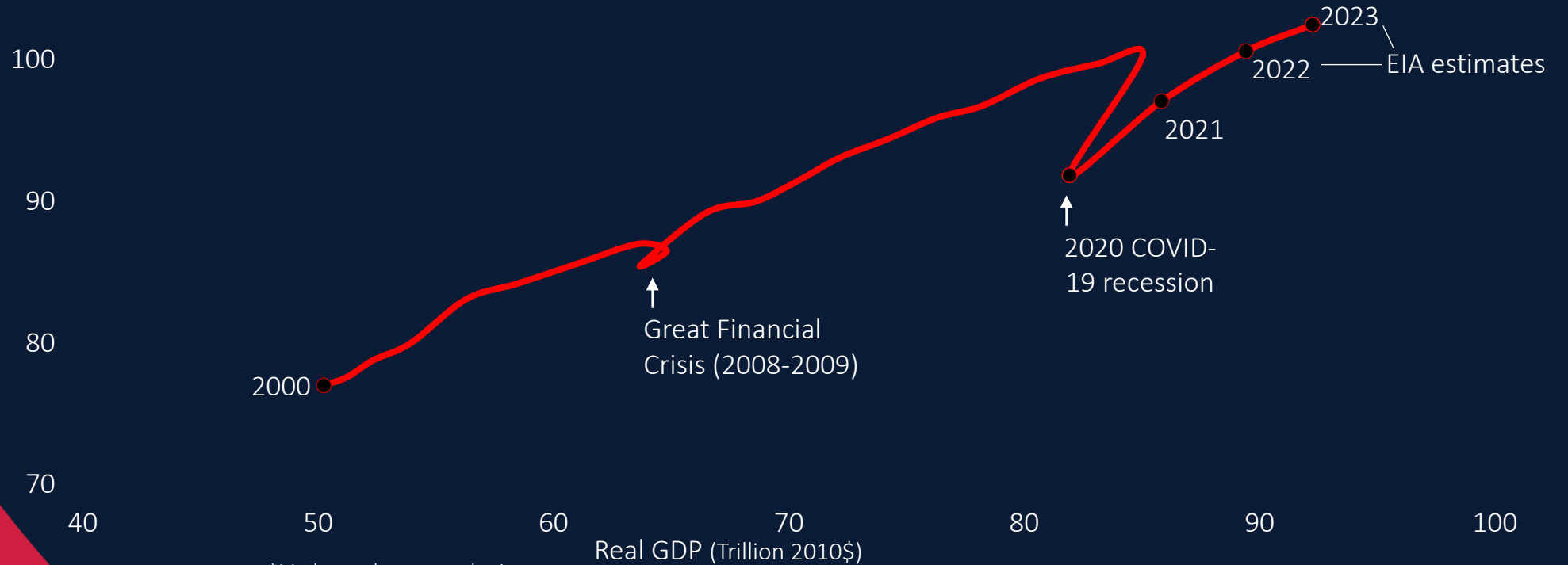
Global oil demand could achieve a record high in 2023 per EIA



▶ EIA expects record-high global oil demand 102.6 mb/d in 2023, exiting the year at 104 mb/d in Dec. 2023

Global oil demand and GDP

Million barrels per day
110



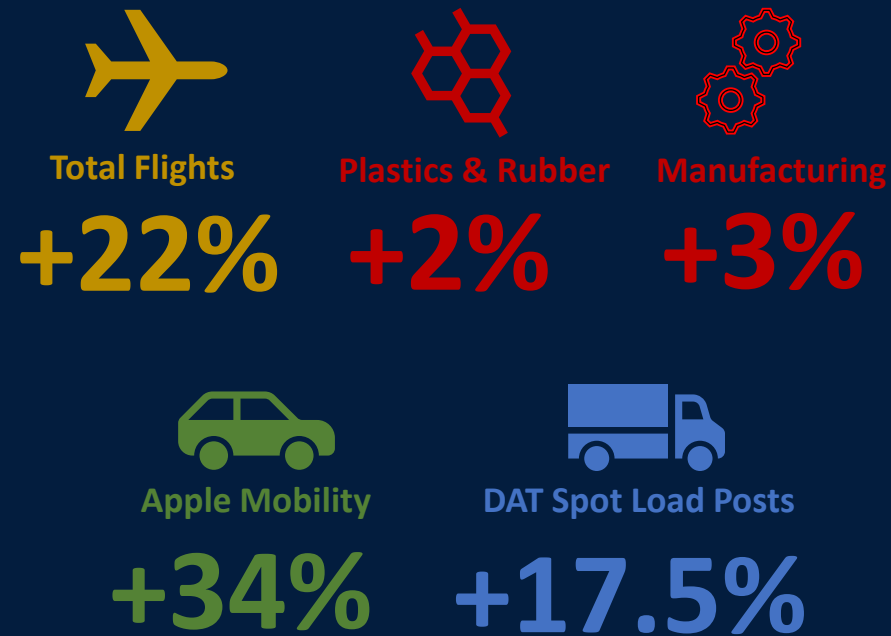
*Market exchange rate basis
sources: EIA; Bloomberg; IMF; API Team calculations

U.S. liquid fuels consumption could grow to record levels in 2023 per EIA



- ▶ High-frequency indicators of transportation and industrial activity continued to improve in early 2022
- ▶ EIA projects U.S. annual oil consumption growth of 4.4% (0.9 mb/d) y/y to 20.7 mb/d in 2022 and another 1.4% y/y (0.3 mb/d) to 21.0 mb/d in 2023, which could set a new record high

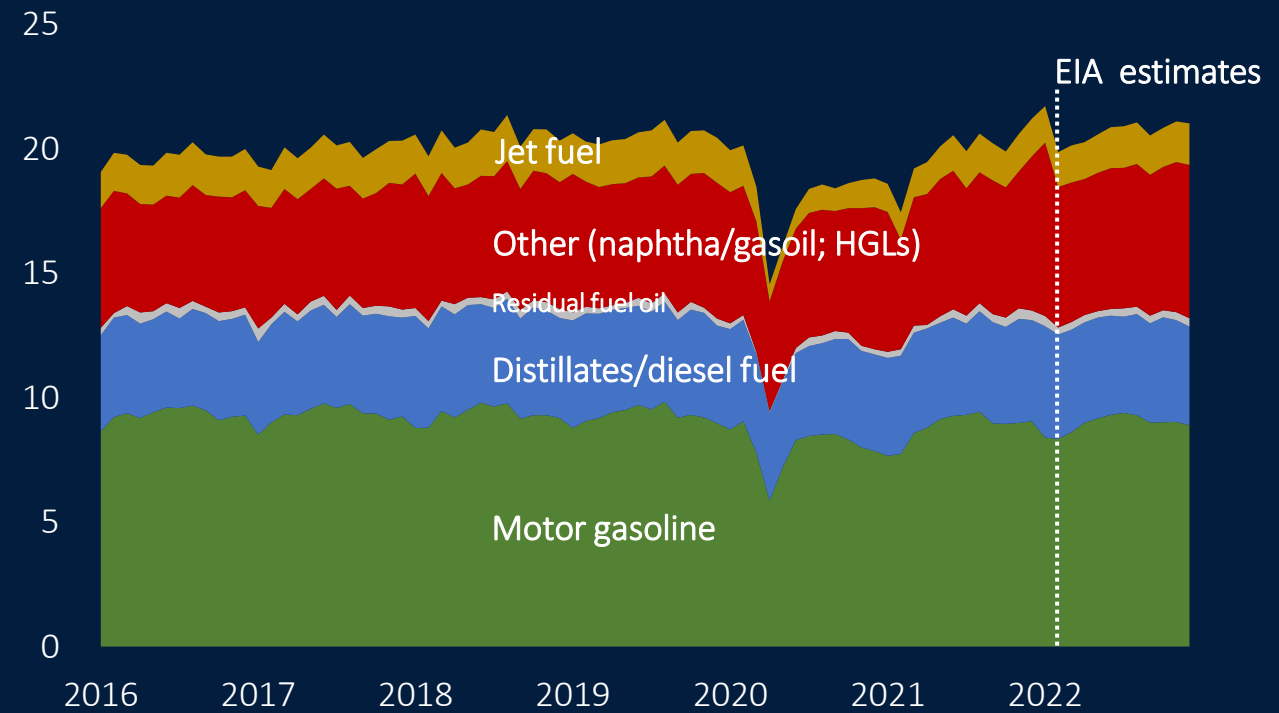
U.S. demand indicators, Jan. 2022 vs. Jan. 2021, y/y%



sources: FlightRadar24; FRB; Apple; DAT Trendlines

U.S. liquid fuel consumption by fuel

Million barrels per day



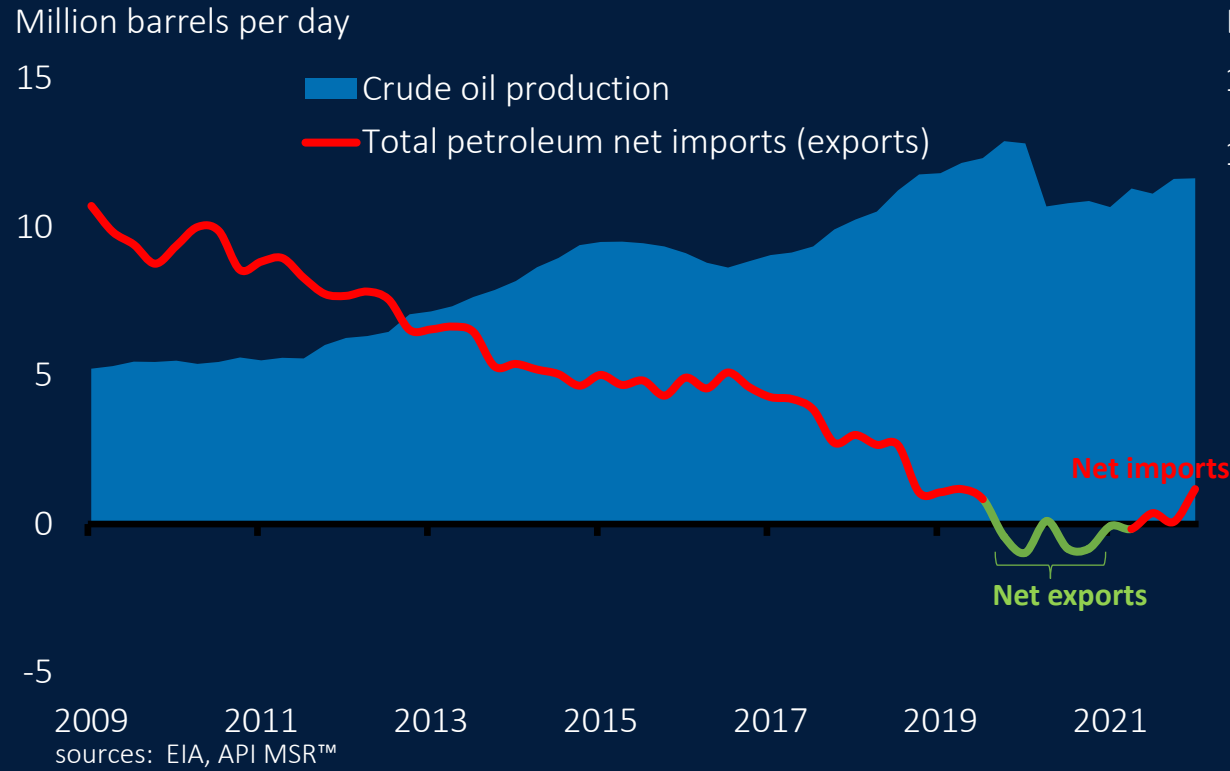
sources: EIA; API MSR

In 2020, the U.S. became a net exporter of petroleum for the first time since 1958. In 2017 the US became a net exporter of natural gas

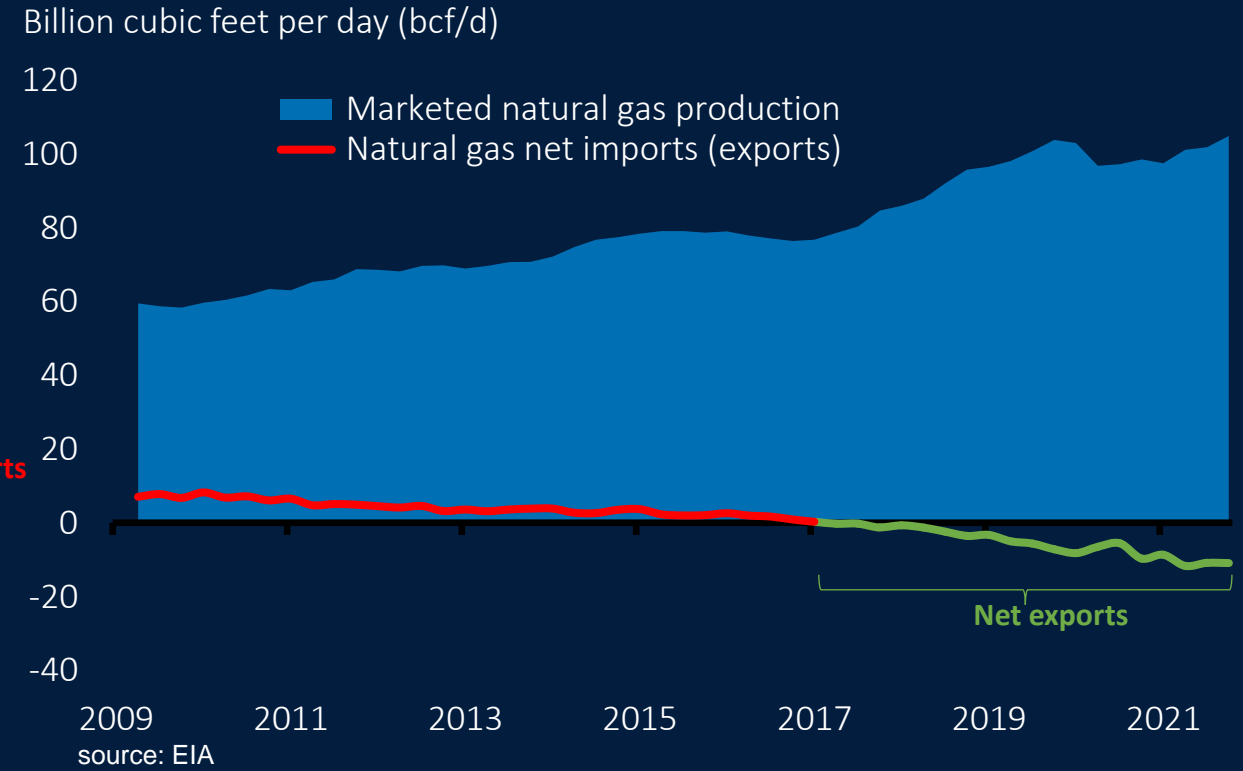


- The U.S. has returned to being net importer of petroleum and is projected by EIA to remain one for 2022

U.S crude oil production and net imports (exports)



U.S natural gas production and net imports (exports)

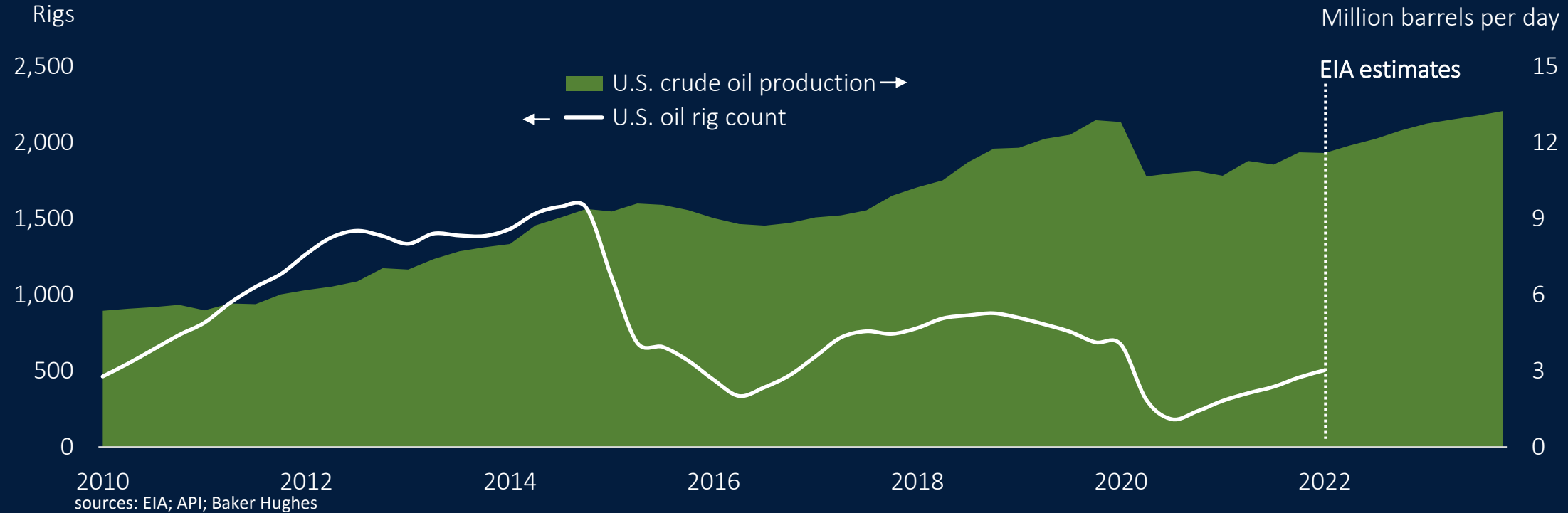




U.S. oil production has sustained solid levels despite historically low drilling activity, and growth likely requires greater drilling activity

- ▶ U.S. oil drilling in March 2022 remained nearly 40% lower than its level at the same point in 2019
- ▶ With historically low drilling, the inventory of drilled but uncompleted wells has helped to sustain oil production

U.S. oil drilling and production

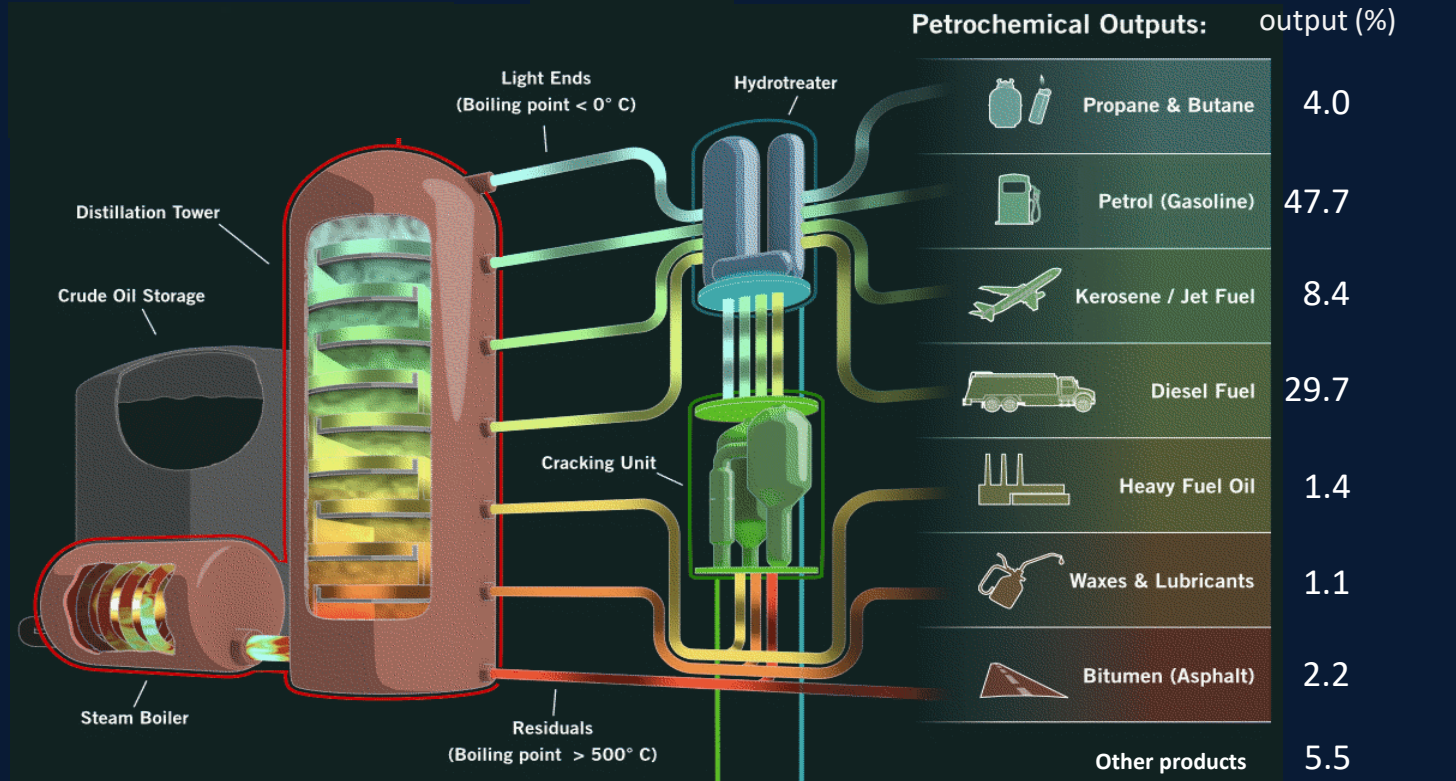




U.S. refining has remained globally competitive by expanding existing facilities and becoming a preferred provider to the rest of the world

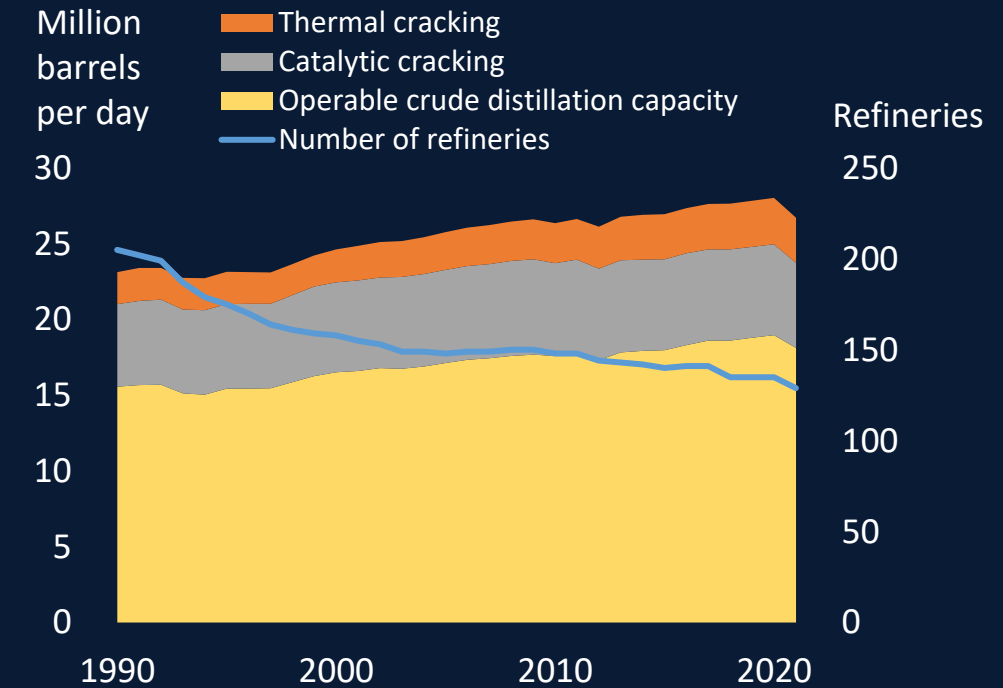
- › The U.S. refining complex produces a variety of petroleum-based products and materials to meet society's needs
- › Although the number of refineries has decreased over time — currently at 129 — their capacity has grown through continued investments that have been enabled by infrastructure and markets

Oil refining – an illustrative depiction



sources: Fes Tanks Australia; EIA

U.S. refineries and their capacity



source: EIA

API economics resources available at www.api.org

The screenshot shows the API website homepage. At the top, the API logo and "American Petroleum Institute" are on the left. The navigation menu includes "Home", "About", "Membership", "API Careers", "Chief Economist" (circled in red with an arrow pointing to it), and "Contact". Below the navigation, there are dropdown menus for "Natural Gas & Oil", "Products & Services", "Policy & Issues", "Climate Action", and "Blog, News & Media". A search icon is on the right. The main banner features a photo of two workers in a refinery and the text "Home / Products & Services / Statistics Reports & Surveys / API's Economic Industry Outlook". Below the banner is a large heading "API's Economic Industry Outlook" and a sub-heading "The API Industry Outlook, developed by API's Dean Foreman, is a quarterly report that provides natural gas and oil industry as it relates to the economies." To the right of this text is a "Downloads" section with links to various reports and their file sizes. On the left side, there are several "Data Visualization" cards, each with a title, a brief description, and a link to "Explore Visualization". A red arrow points to the "Chief Economist" link in the top navigation. Another red arrow points to the "Data Visualization" link in the left sidebar.

Data Visualization

Explore API's Interactive Data Visualizations.

Tracking U.S. Oil Demand
Primary monthly API data tracking refined product consumption
[Explore Visualization .url](#)

U.S. Consumer Expenditure Summary
Summarizing leading U.S. consumer expenditure categories over time
[Explore Visualization .url](#)

API's Distillate Economic Indicator™
API's proprietary Distillate Economic Indicator™ leverages refined product demand estimates to broadly track economic activity
[Explore Visualization .url](#)

U.S. Consumer Expenditure Flows By Income Level
Mapping U.S. consumer expenditure flows by income level and spending category
[Explore Visualization .url](#)

U.S. Consumer Expenditure Burden By Income Level
Measuring U.S. consumer expenditure burden by spending category and income level
[Explore Visualization .url](#)

Reports & Surveys

- Weekly Statistical Bulletin
- Monthly Statistical Report
- Economic Outlook**
- Data Visualization

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[Chief Economist's Posts on the Energy Tomorrow blog](#)

Read The News Releases:
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[Chief Economist's News Releases, 2020](#)

Downloads

- [Monthly Statistical Report](#)
File Size: .4 MB
- [Q2 2020 Quarterly Outlook \(Jun 2020\)](#)
File Size: 1.9 MB
- [Q3 2020 Quarterly Outlook \(Sep 2020\)](#)
File Size: 1.9 MB
- [Q4 2020 Quarterly Outlook \(Dec 2020\)](#)
File Size: 2.4 MB
- [Q1 2021 Quarterly Outlook \(Mar 2021\)](#)