April Newsmaker Breakfast
Putin's War of Choice: Impacts on Utah's Energy Prices
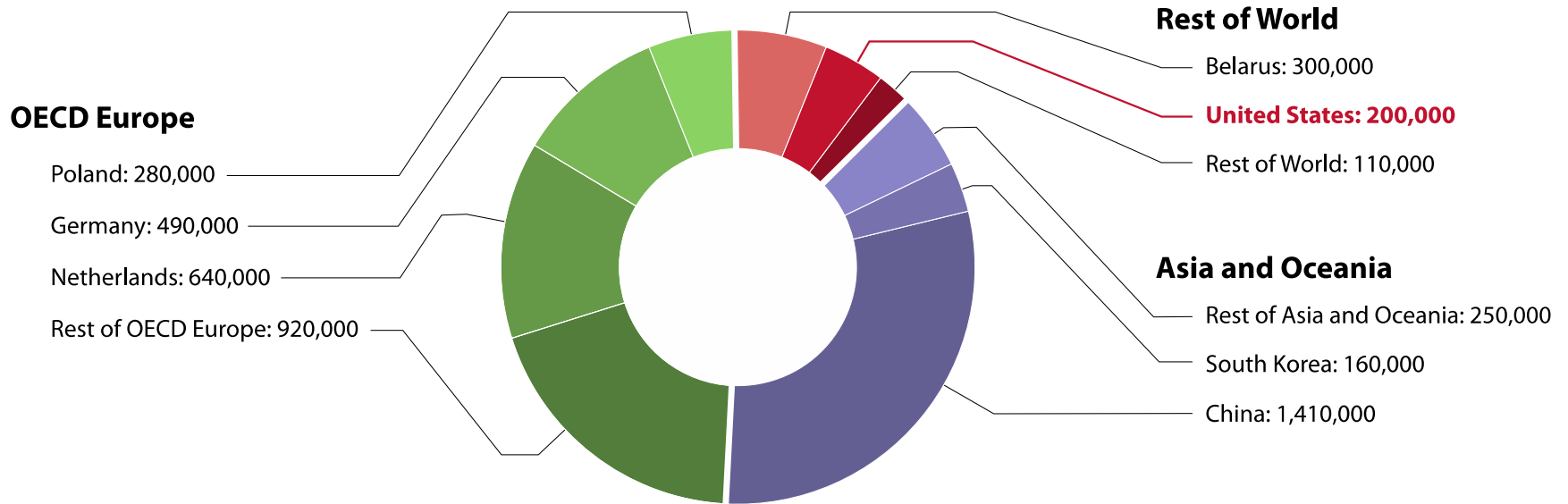
April 13, 2022

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POLICY INSTITUTE
THE UNIVERSITY OF UTAH
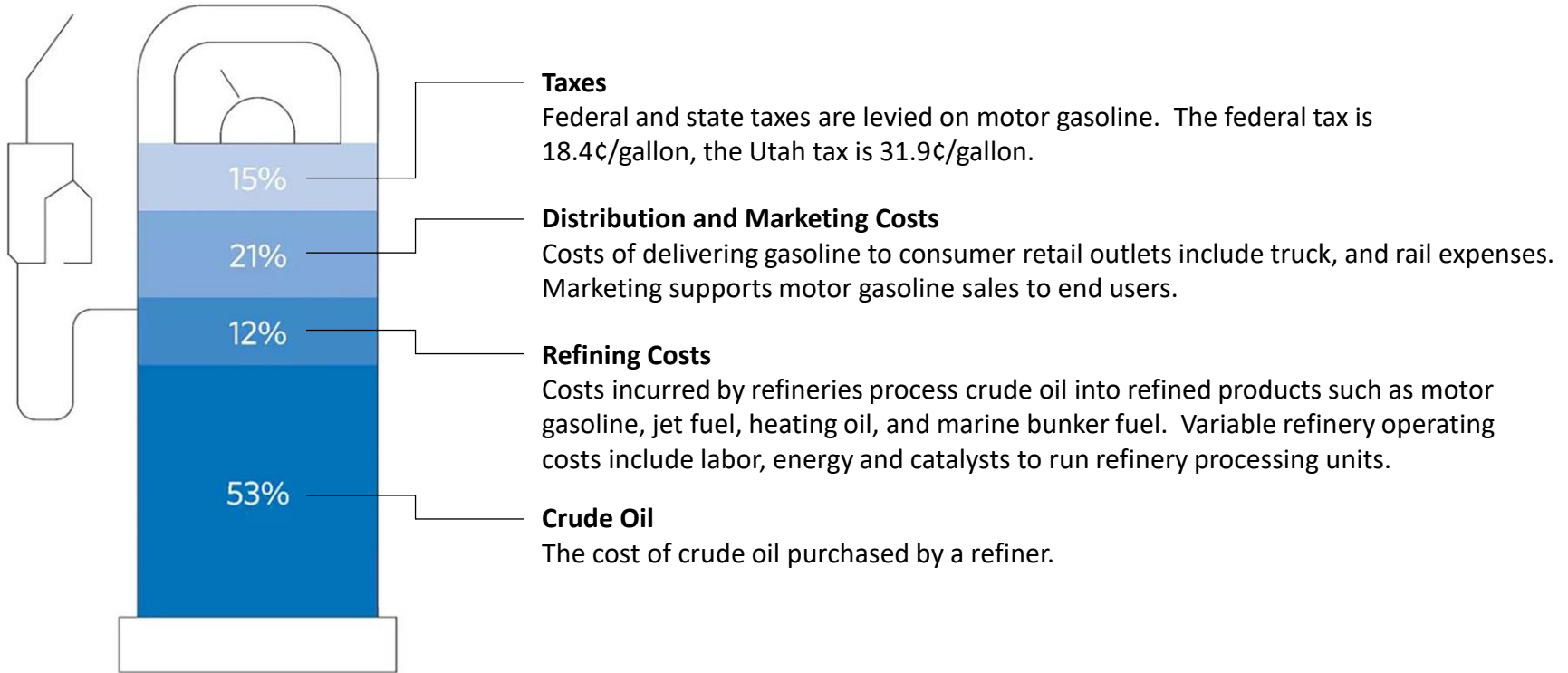
DAVID ECCLES SCHOOL OF BUSINESS

INFORMED DECISIONS™

US exposure to Russian energy exports is smaller than Europe and Asia

Crude oil and condensate exports from Russia, barrels per day (2021)

OECD Europe

Poland: 280,000

Germany: 490,000

Netherlands: 640,000

Rest of OECD Europe: 920,000

Rest of World

Belarus: 300,000

United States: 200,000

Rest of World: 110,000

Asia and Oceania

Rest of Asia and Oceania: 250,000

South Korea: 160,000

China: 1,410,000

Sources: U.S. Energy Information Administration

Kem C. Gardner Policy Institute   D A V I D   E C C L E S   S C H O O L   O F   B U S I N E S S   U N I V E R S I T Y   O F   U T A H

What Drives Prices at the Pump?

Taxes
Federal and state taxes are levied on motor gasoline. The federal tax is 18.4¢/gallon, the Utah tax is 31.9¢/gallon.

Distribution and Marketing Costs
Costs of delivering gasoline to consumer retail outlets include truck, and rail expenses. Marketing supports motor gasoline sales to end users.

Refining Costs
Costs incurred by refineries process crude oil into refined products such as motor gasoline, jet fuel, heating oil, and marine bunker fuel. Variable refinery operating costs include labor, energy and catalysts to run refinery processing units.

Crude Oil
The cost of crude oil purchased by a refiner.

15%
21%
12%
53%

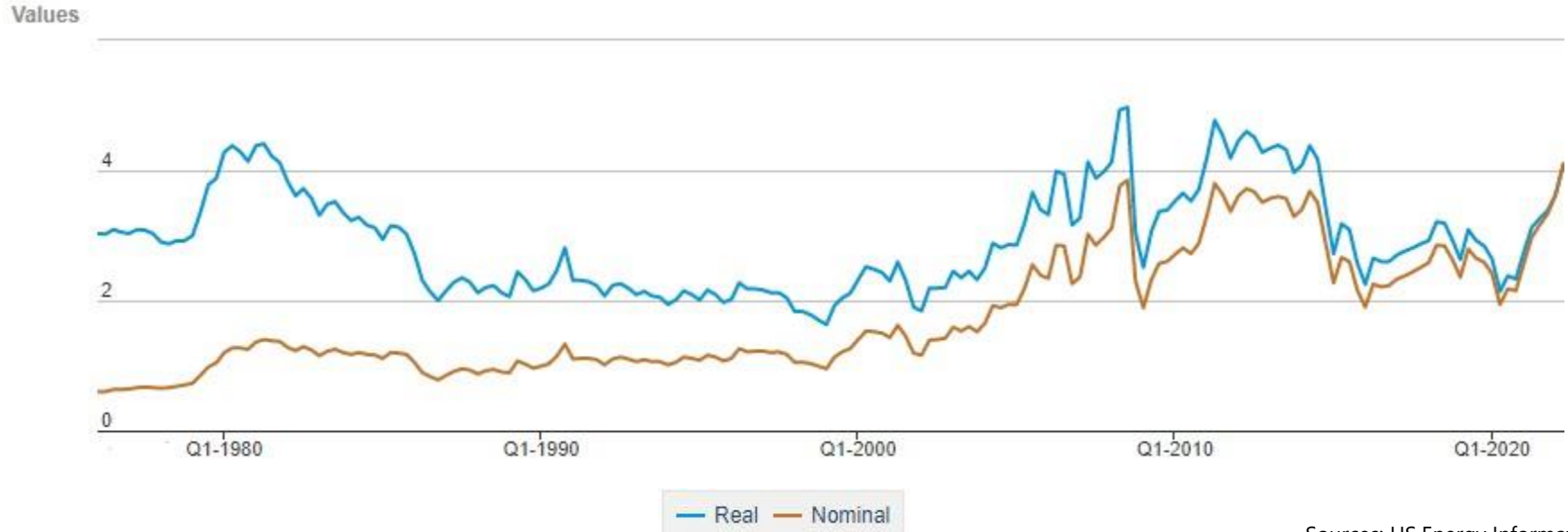Sources: American Fuel and Petrochemical Manufacturers

Intermountain West Retail Prices for Regular Motor Gasoline
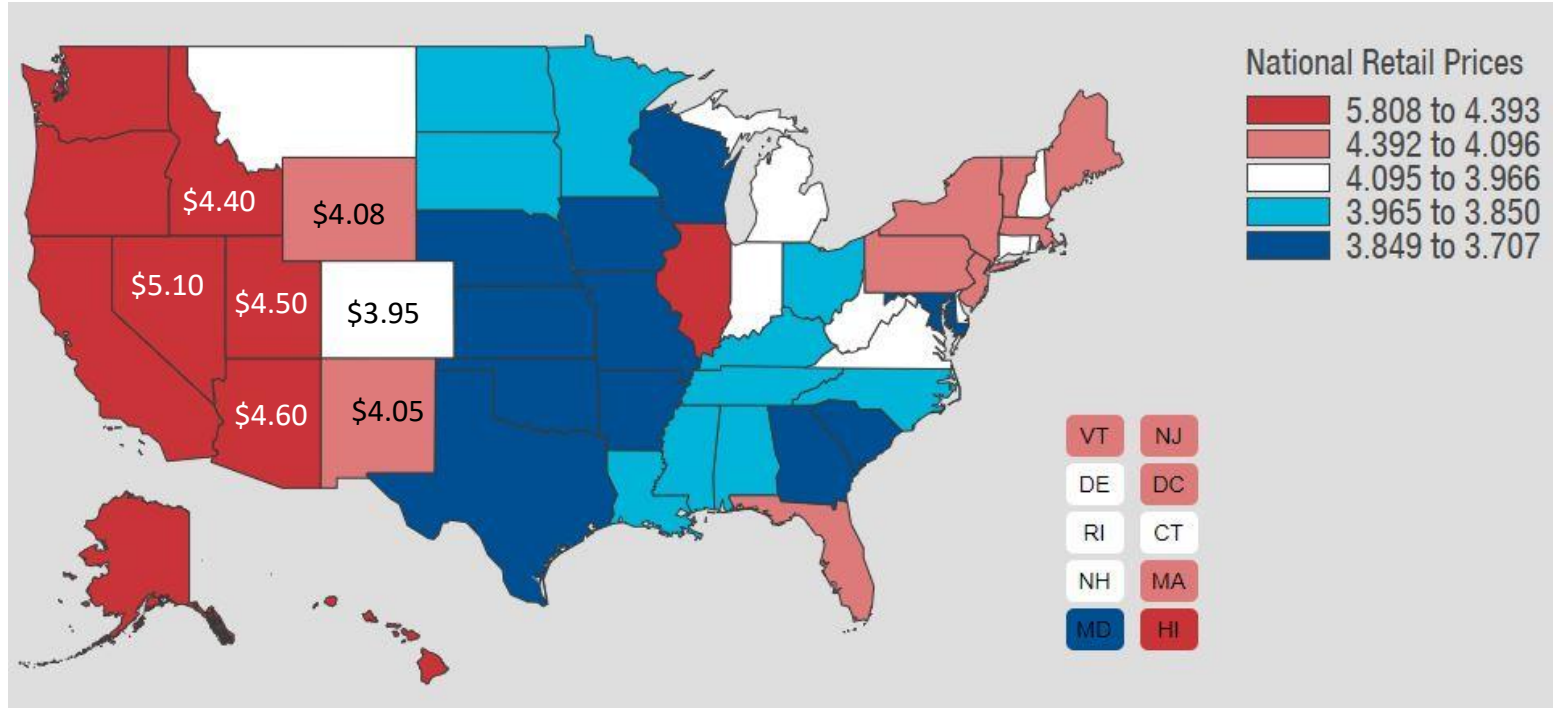
Sources: AAA Gas Prices (12 April 2022)

Current National Gasoline Prices have <u>not</u> reached levels of the 1980 Global Recession and the 2008 Great Recession
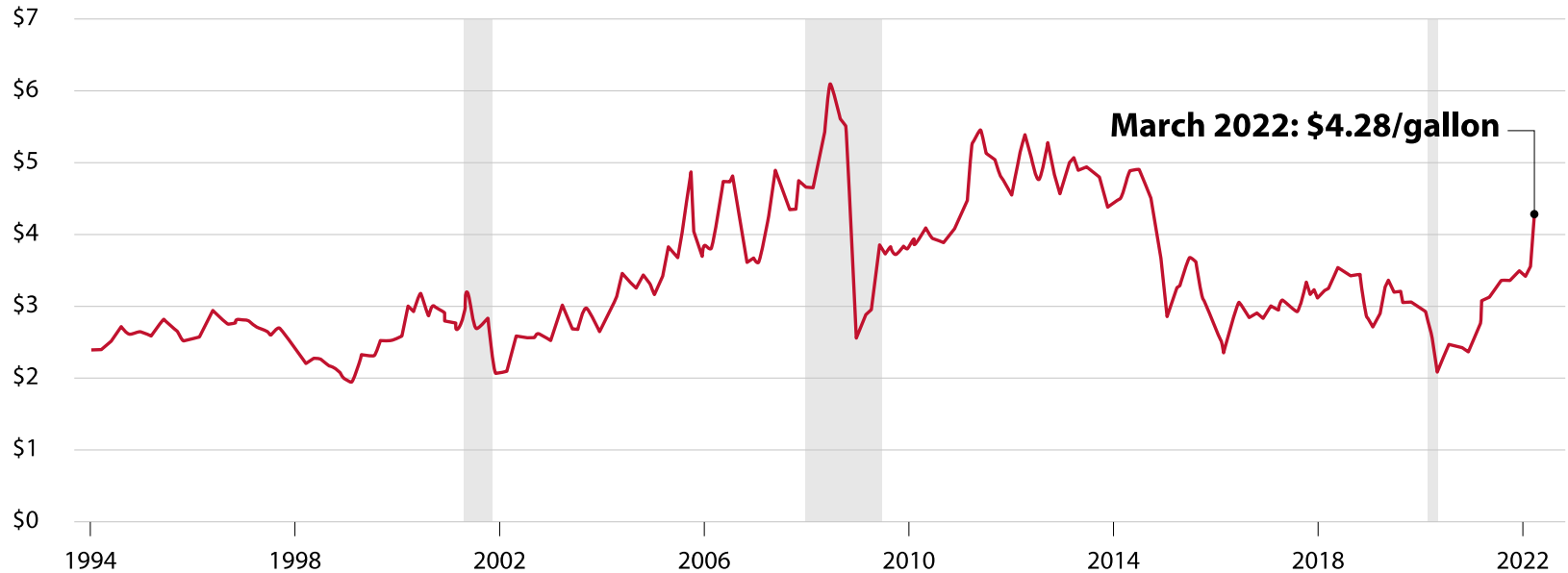

Regular Gasoline Retail Prices

Sources: US Energy Information Administration
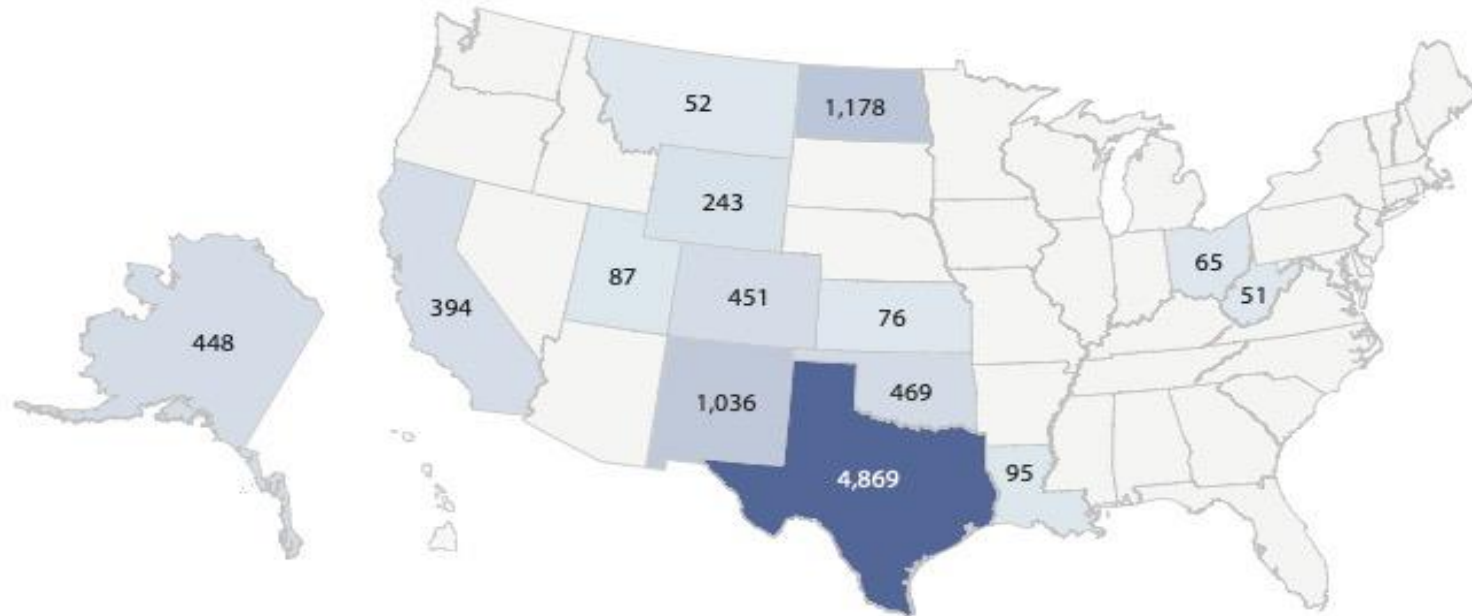
Gasoline Prices Adjusted for Wages

U.S. Retail Gasoline Prices Adjusted using Average Hourly Earnings of Private Sector Production and Nonsupervisory Workers

March 2022: $4.28/gallon

Source: U.S. Energy Information Association (EIA), Department of Labor and Wells Fargo Economics

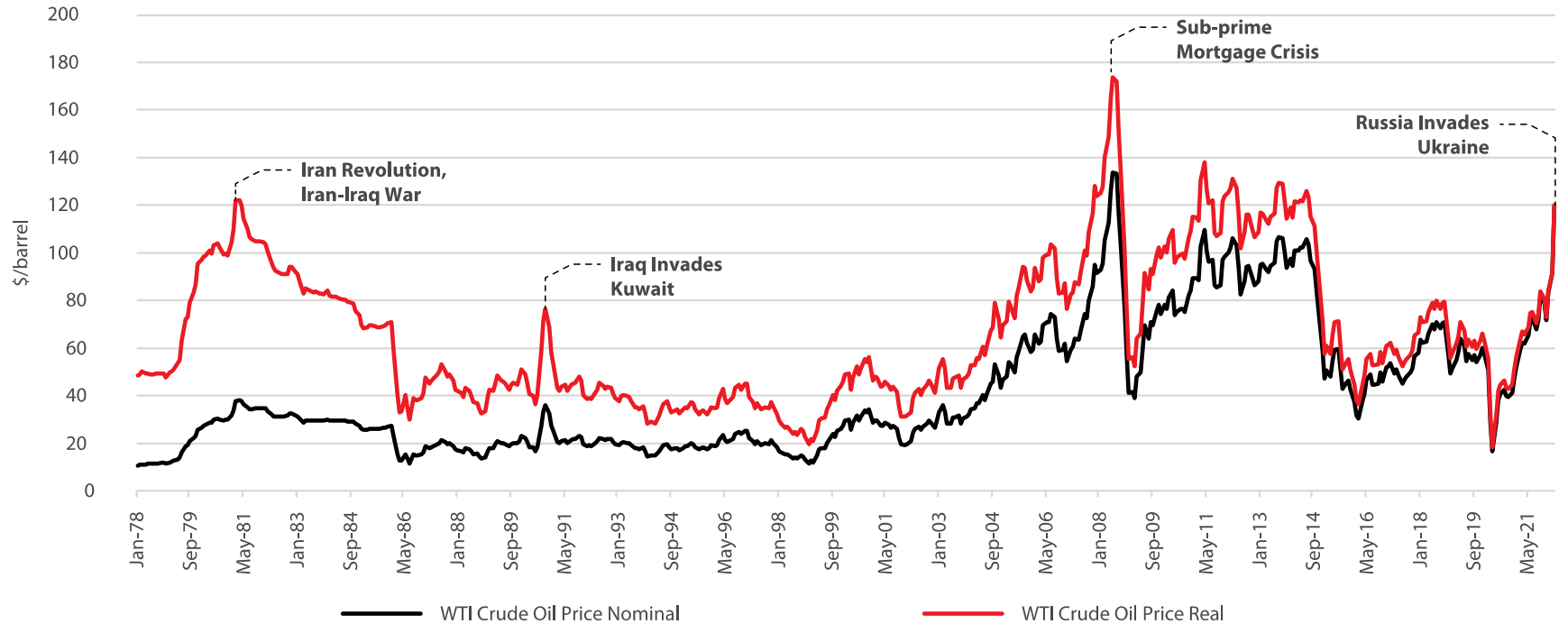# Oil Production by State

Thousands of barrels per day, 2020

USA produces more crude oil than Saudi & Russia
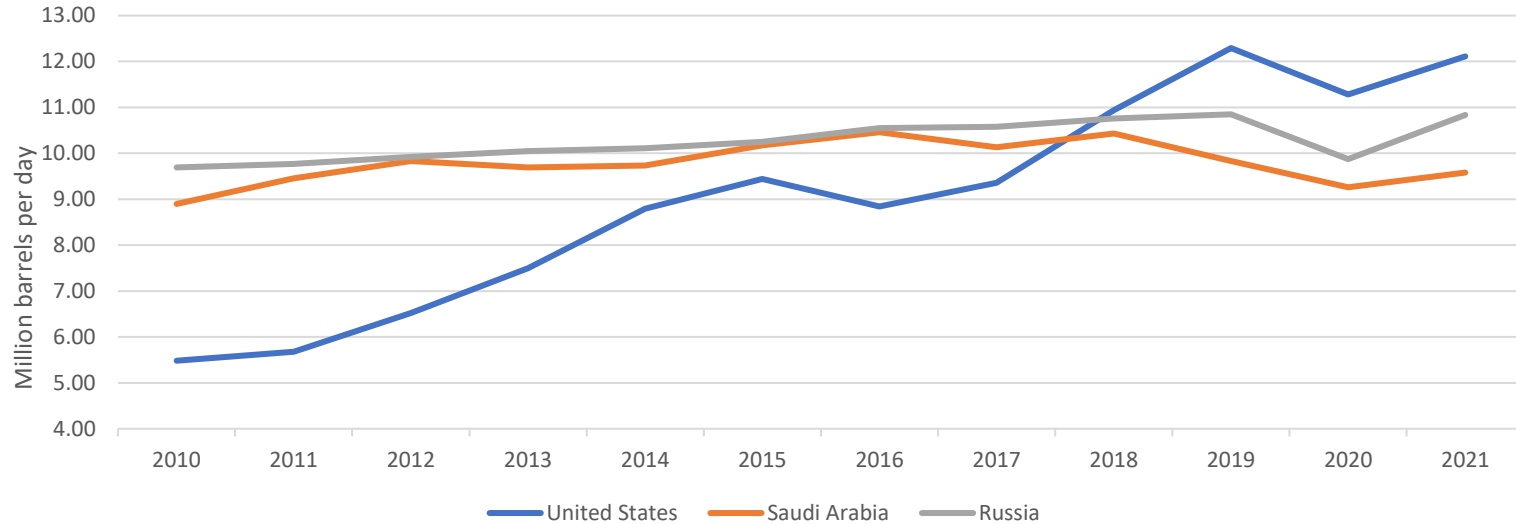
Sources: US Energy Information Administration

Crude Oil Prices (1978-present)

Chart annotations:
- Iran Revolution, Iran-Iraq War
- Iraq Invades Kuwait
- Sub-prime Mortgage Crisis
- Russia Invades Ukraine

Y-axis: $/barrel (0 to 200)

X-axis: Jan-78 to May-21

Legend: WTI Crude Oil Price Nominal (black) — WTI Crude Oil Price Real (red)

Sources: US Energy Information Administration

Crude Oil prices projected at $80/bbl in 2024

Legend:
- West Texas Intermediate (WTI) spot price
- STEO forecast
- NYMEX futures price
- 95% NYMEX futures price confidence interval:
  - Upper bound
  - Lower bound
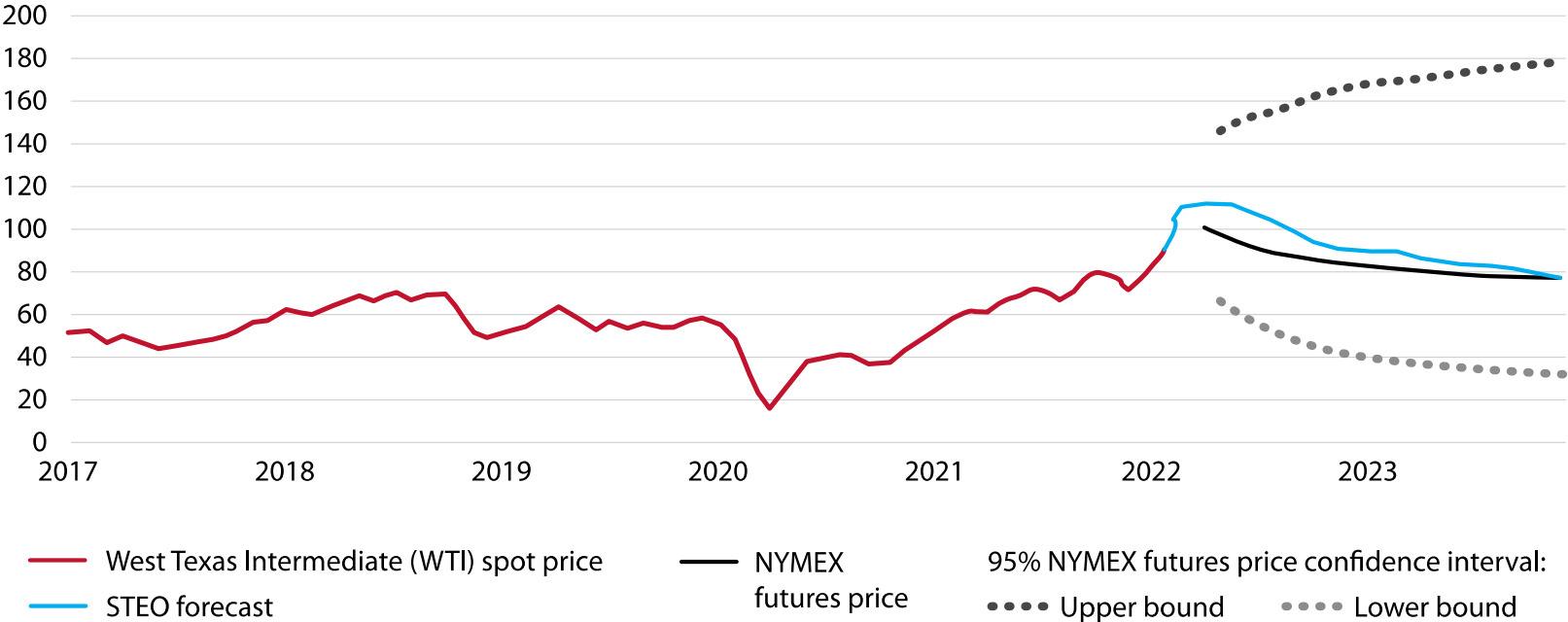
Sources: US Energy Information Administration, Short-Term Energy Outlook (8 March 2022)

US Rig Counts have _**not**_ responded to WTI prices post-2020

(pre-2020, WTI @ $80 mobilized 1100 rigs; post-2020, only 500 rigs)

January 2013 – June 2020

July 2020 – March 2022

Oil Rigs ▬▬▬ WTI Lagged (2 months)
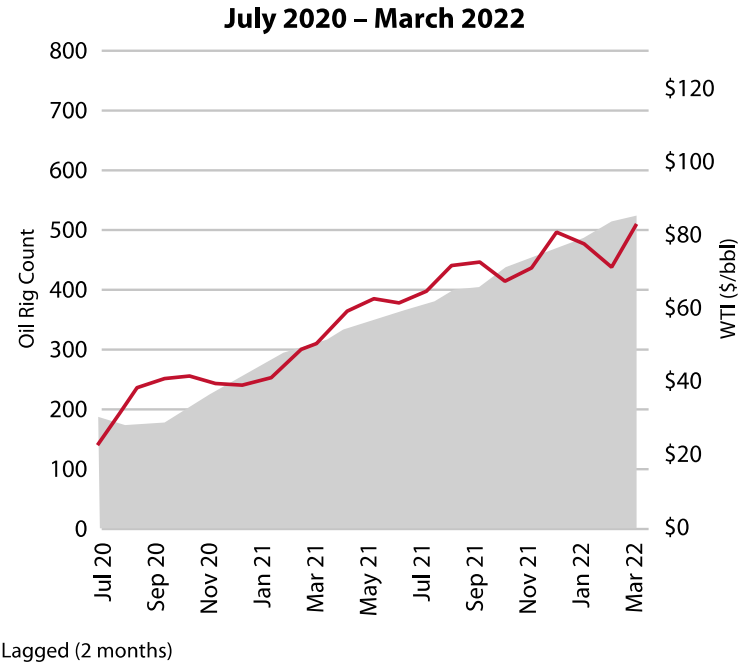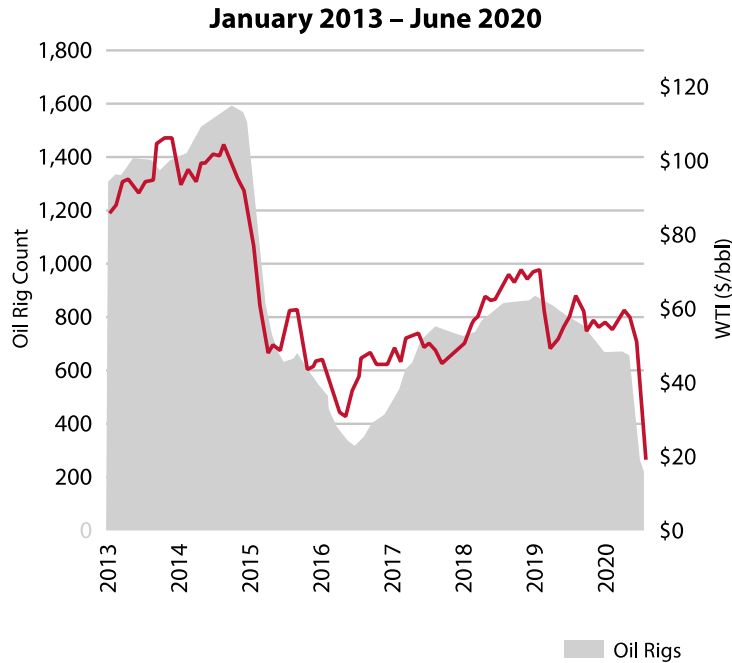
Sources: RBN Energy

Proposed Solutions to High Motor Gasoline Prices (1975-2022)

POLICY	IMPACTS
Ban exports of US crude oil. *(Implemented in 1975; revoked in 2015.)*	U.S. crude oil producers supply light, sweet crude oil. However, some U.S. refineries do not accept light, sweet crude oil causing crude oil prices to go down. Lower prices for U.S. crude oil producers causes lower drilling activity, making less crude oil available to make motor gasoline.
Set price ceiling on motor gasoline. *(U.S. House of Representatives convened a hearing on gasoline* *price controls in July 1978; no action was taken.)*	When the market value of motor gasoline exceeds the price ceiling, crude oil refiners lose incentive to produce motor gasoline.
Set a windfall profits tax on oil companies to recoup revenues earned by oil producers when oil prices have spiked. *(Implemented in 1980; revoked in 1988.)*	The windfall profits tax makes energy companies less profitable in periods of high crude oil prices, dampening incentives for crude oil drilling. The windfall profits tax eliminates oil companies' upside potential in a high-risk industry where only one in seven exploration wells is commercially viable.
Create a Strategic Petroleum Reserve (SPR). *(Implemented in 1975; still in force.)*	The SPR is a buffer for emergencies such as acts of war (e.g., Russian invasion) and natural disasters (e.g., Hurricane Katrina). SPR entered crude oil exchange agreements with refiners in response to seven emergency supply disruptions. Without SPR assistance, citizens in the Gulf Coast region would have faced larger gasoline price hikes. President Biden authorized release of 180MM barrels of SPR reserves over a six-month period.
Eliminate motor gasoline taxes levied by State of Utah. *(Currently under consideration.)*	Motor gasoline taxes (18.4¢ per gallon) finance road repairs. Decreasing Utah gasoline prices directionally spurs more travel, causing more road damages.
Increase crude oil production.	United States' rig counts have not responded to increased crude oil prices post-2020. Mixed signals from the Federal Government on oil & gas leases has created uncertainty.

Sources: Gardner Policy Institute