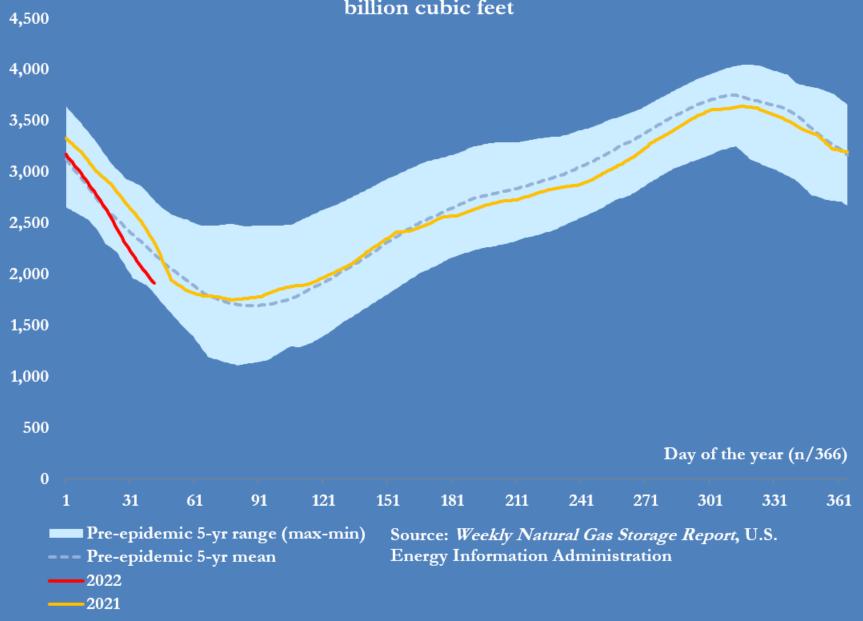
U.S. gas inventories and prices Selected indicators

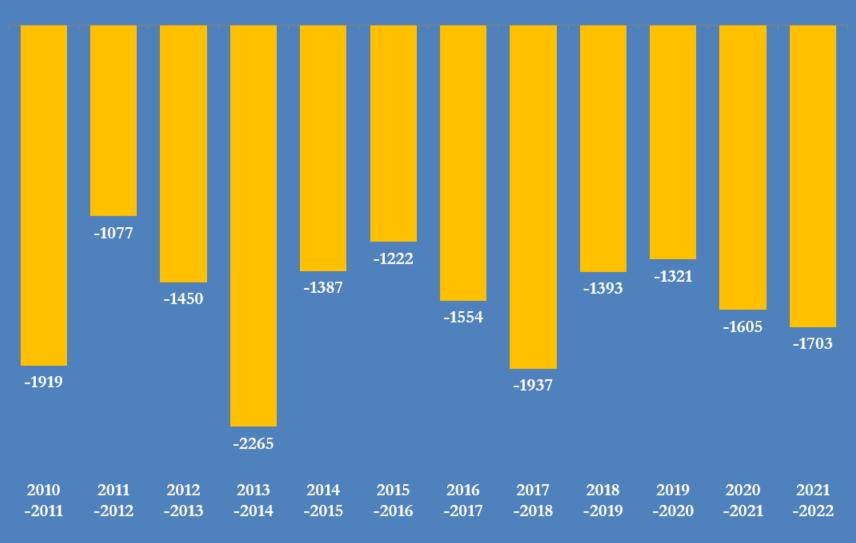
JOHN KEMP REUTERS 18 Feb 2022

U.S. working gas stocks in underground storage (billion cubic feet) 4,500 4,000 3,500 3,000 2,500 2,000 1,500 1,000 500 0 2015 2016 2017 2018 2021 2022 2019 2020 Prior 5-year range (max-min) Prior 5-year average Current year Source: U.S. Energy Information Administration

U.S. working gas stocks in underground storage billion cubic feet

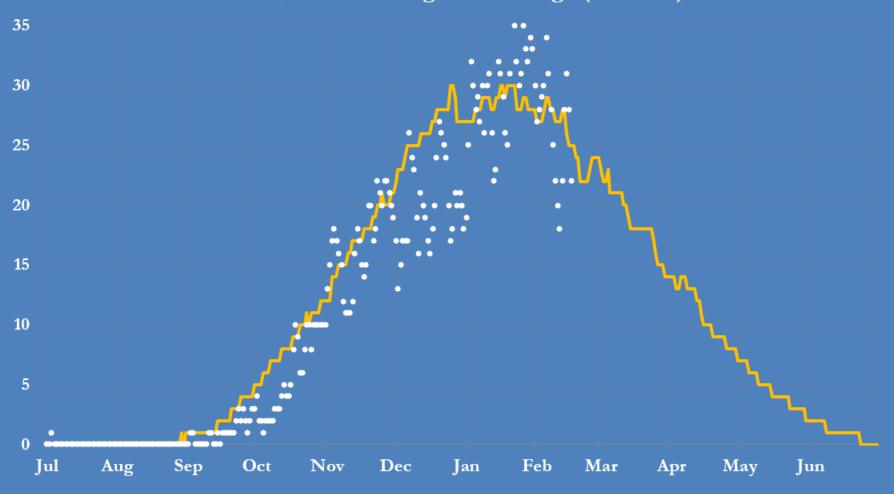


Decrease in U.S. natural gas stocks between Nov 1 and Feb 11 billion cubic feet, heating years shown



Source: US Energy Information Administration

U.S. heating demand: daily population-weighted heating degree days in 2021/22 versus long-term average (CONUS)

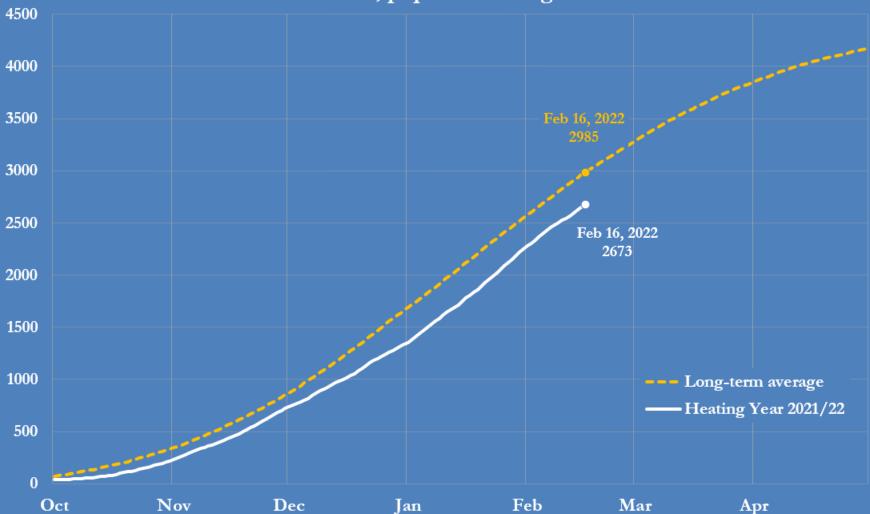


—Long-term average

• 2021/22 actuals

Source: Climate Prediction Center, US National Oceanic and Atmospheric Administration @JKempEnergy

U.S. cumulative heating degree days since start of heating year Lower 48 states, population-weighted HDDs



Source: Climate Prediction Center, US National Oceanic and Atmospheric Administration

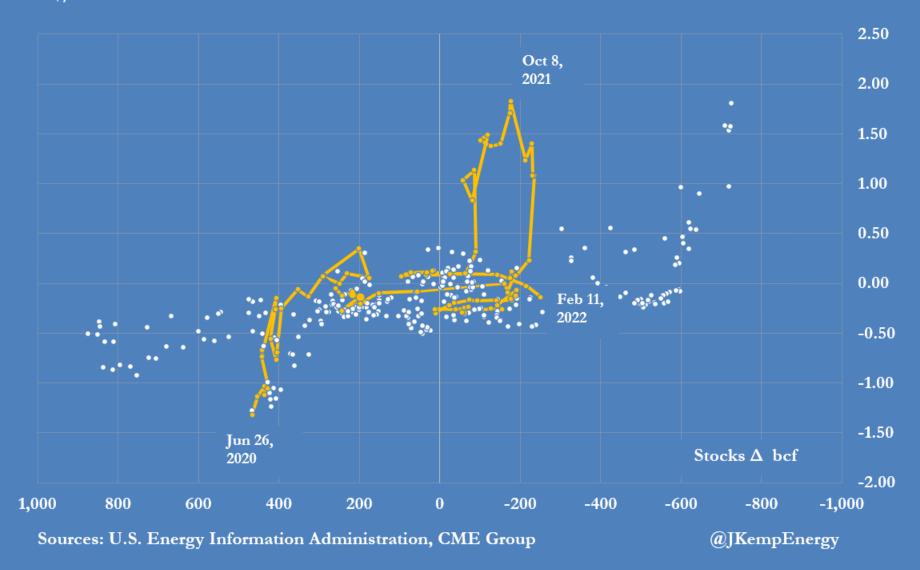
<u>@JKempEnergy</u>

U.S. natural gas futures calendar spread March-April 2022 U.S.\$ per million British thermal units, contango (-) or backwardation (+)

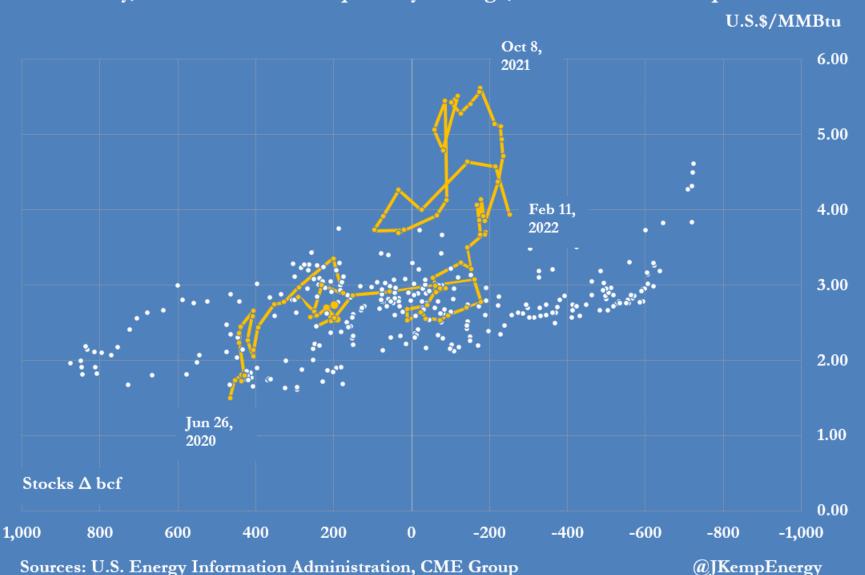


Source: CME Group

U.S. natural gas stocks and calendar spreads, 2015-2022 weekly, stock deviation from prior 5-yr average, six-month calendar spread U.S.\$/MMBtu

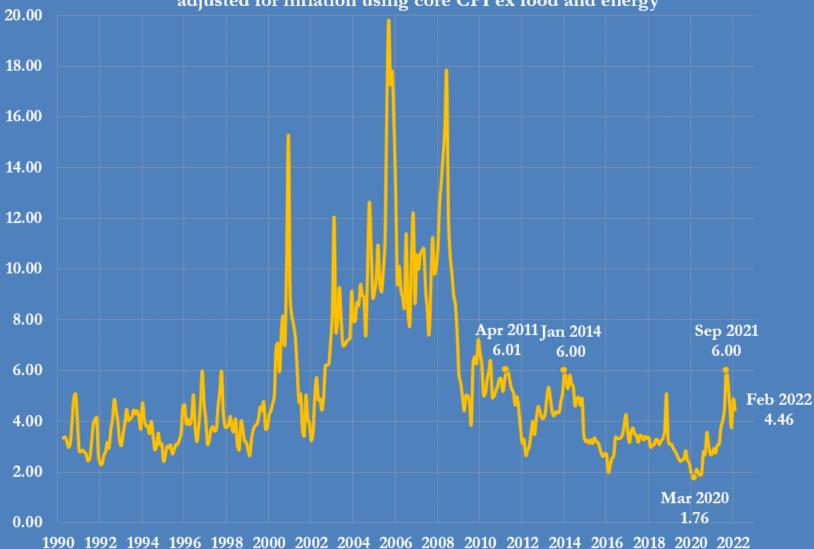


U.S. natural gas stocks and prices, 2015-2022 weekly, stock deviation from prior 5-yr average, front-month futures price



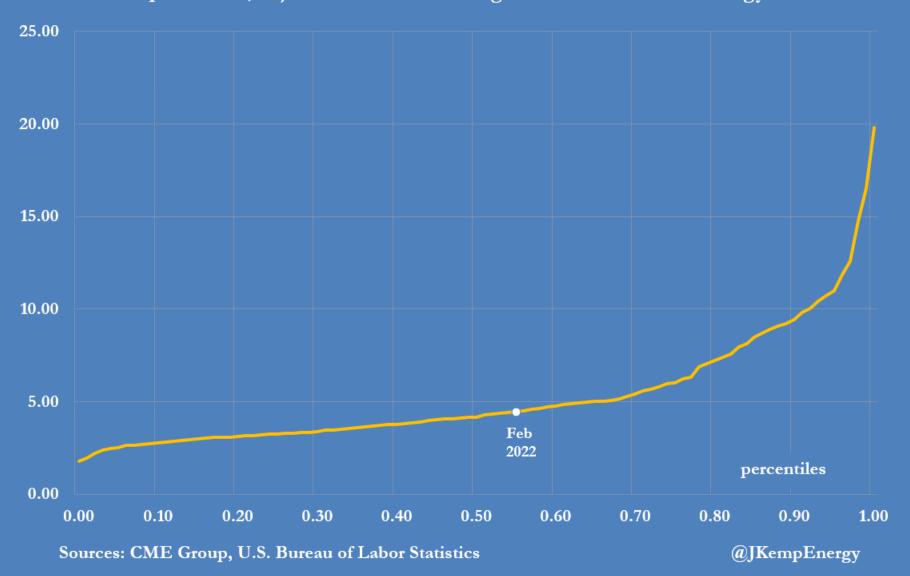
U.S. real natural gas price, 1990-2022

front-month futures, U.S.\$ per million British thermal units, month-end adjusted for inflation using core CPI ex food and energy



Sources: CME Group, U.S. Bureau of Labor Statistics

U.S. real natural gas price, 1990-2022 front-month futures, U.S.\$ per million British thermal units, month-end percentiles, adjusted for inflation using core CPI ex food and energy



U.S. electricity generators' fuel costs, 1997-2022 average fuel acquisition cost, U.S.\$ per million British thermal units



Source: U.S. Energy Information Administration, Short-Term Energy Outlook

Number of rigs drilling for gas in the United States, 1990-2022



U.S. natural gas production, 2000-2021

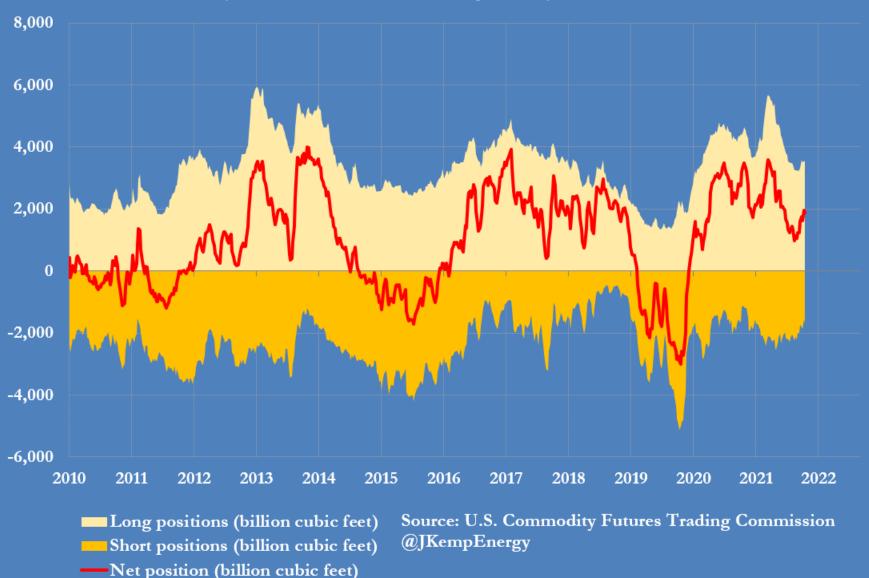
Dry gas, billion cubic feet, monthly and 12-month centred average



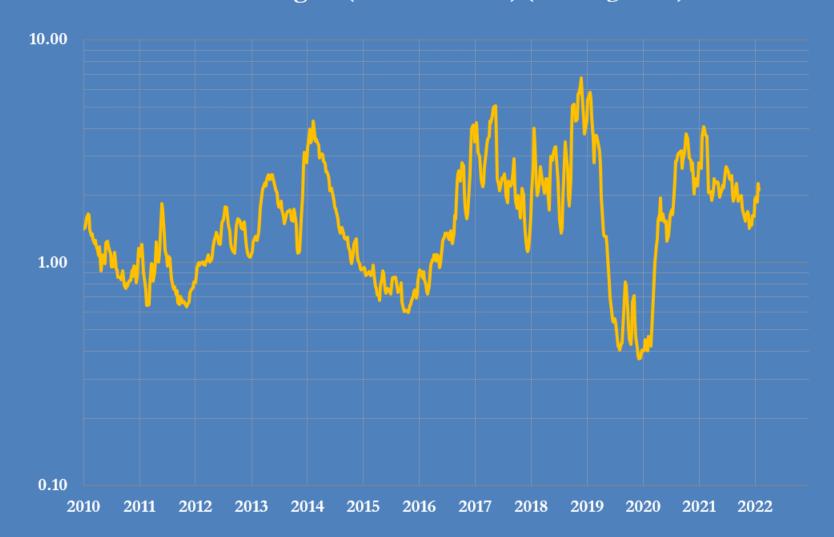
U.S. LNG exports, 2014-2021 monthly, waterborne exports, billion cubic feet



## Money managers' long and short positions in US natural gas futures (NYMEX + ICE Henry Hub) billion cubic feet

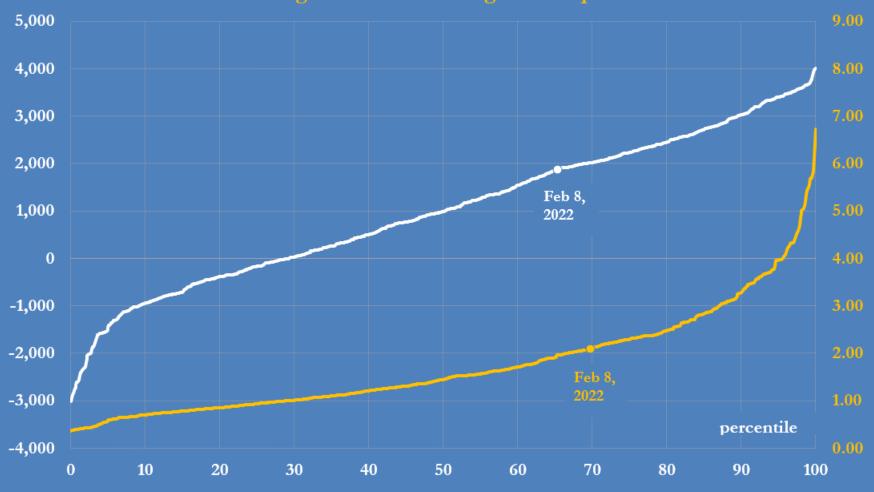


## Ratio of money managers' long to short positions in U.S. natural gas (NYMEX +ICE) (semi-log scale)



Source: US Commodity Futures Trading Commission @JKempEnergy

## Money managers' positions in U.S. natural gas (NYMEX +ICE) percentile distribution, 2010-2022 left-axis net position in billion cubic feet right-axis ratio of long to short positions



Source: U.S. Commodity Futures Trading Commission

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