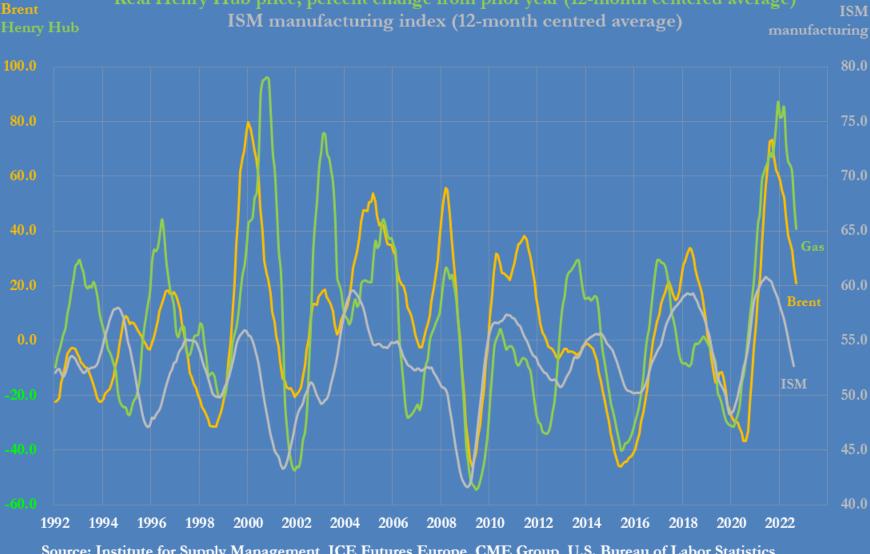
U.S. manufacturing and energy price cycles Selected indicators

JOHN KEMP REUTERS 21 February 2023

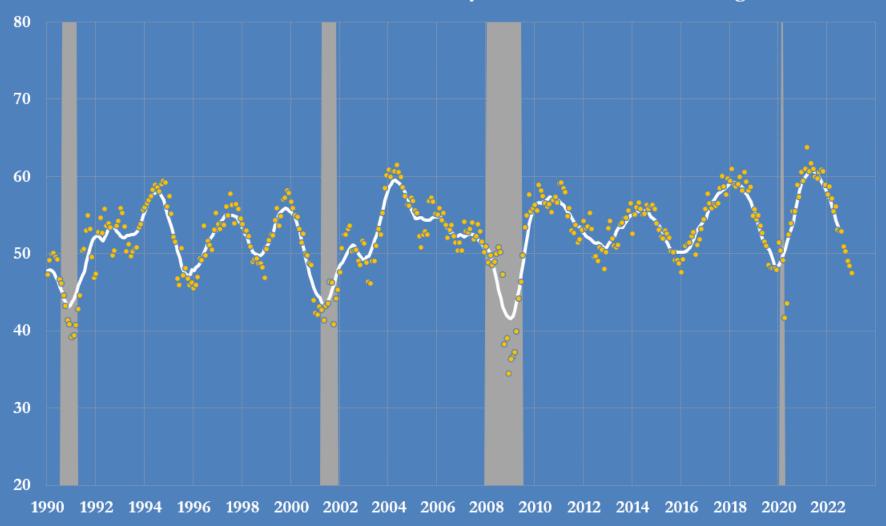
U.S. manufacturing activity and energy prices, 1992-2023

Real Brent price, percent change from prior year (12-month centred average)



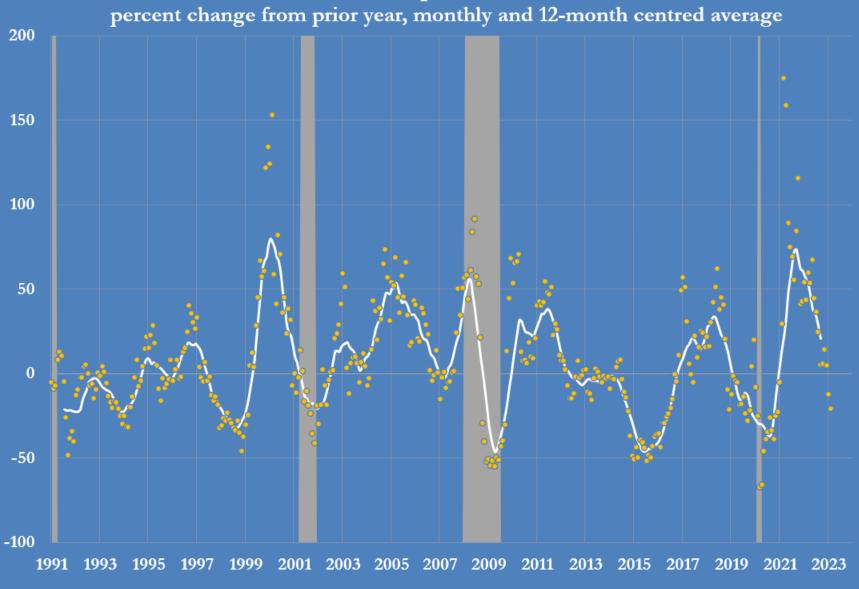
Source: Institute for Supply Management, ICE Futures Europe, CME Group, U.S. Bureau of Labor Statistics @JKempEnergy

U.S. manufacturing purchasing managers' index, 1990-2023 diffusion index, base = 50, monthly and 12-month centred average



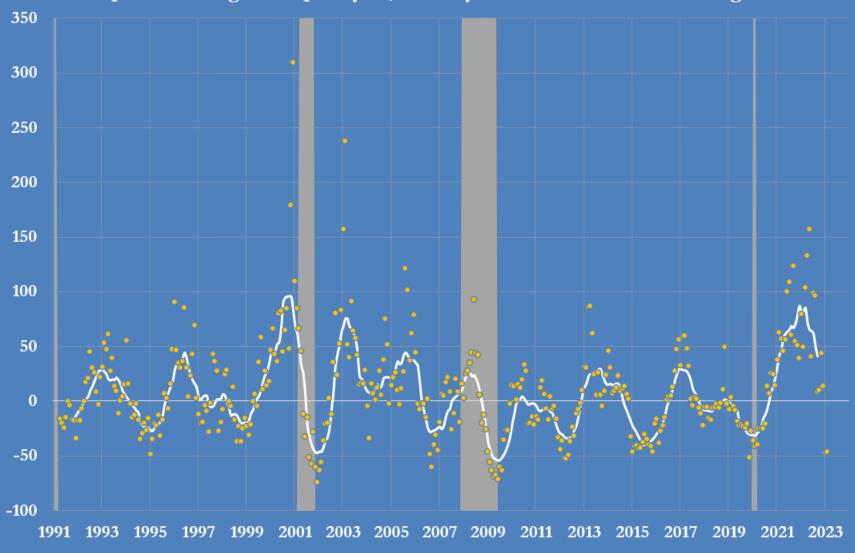
Source: Institute for Supply Management, Manufacturing Report on Business

Real Brent prices 1991-2023



Sources: ICE Futures Europe, U.S. Bureau of Labor Statistics

U.S. real natural gas price, 1991-2023 percent change from prior year, monthly and 12-month centred average



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

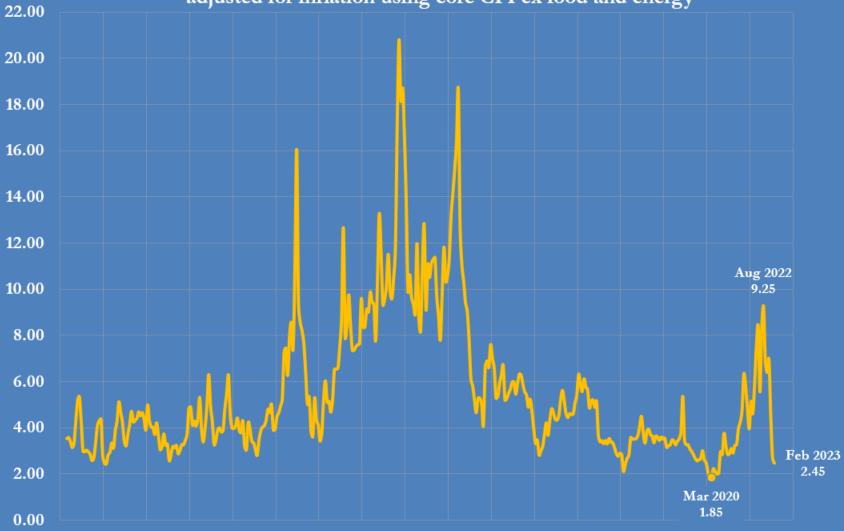
Real Brent crude prices, 1990-2023 end-month, except most recent month, adjusted for inflation, 2022 U.S.\$/bbl



Source: ICE Futures Europe, U.S. Bureau of Labor Statistics

U.S. real natural gas price, 1990-2023

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



1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020 2022

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