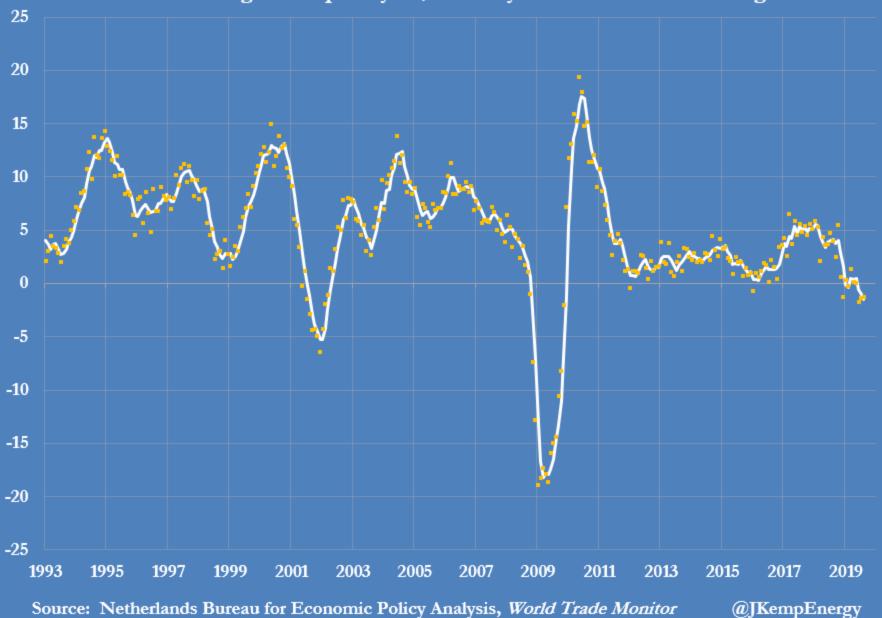
## Global economy Selected indicators

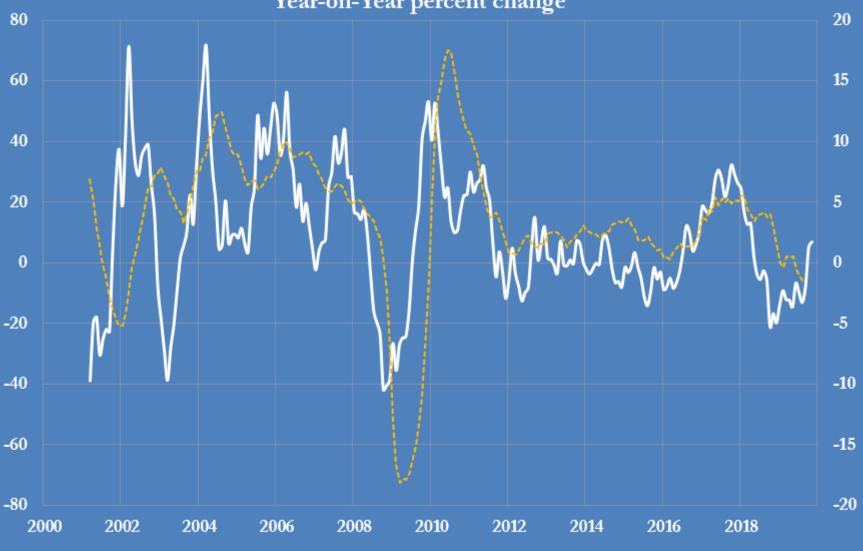
JOHN KEMP REUTERS

19 November 2019

Volume of World Trade, 1993-2019 Percent change from prior year, monthly and three-month average



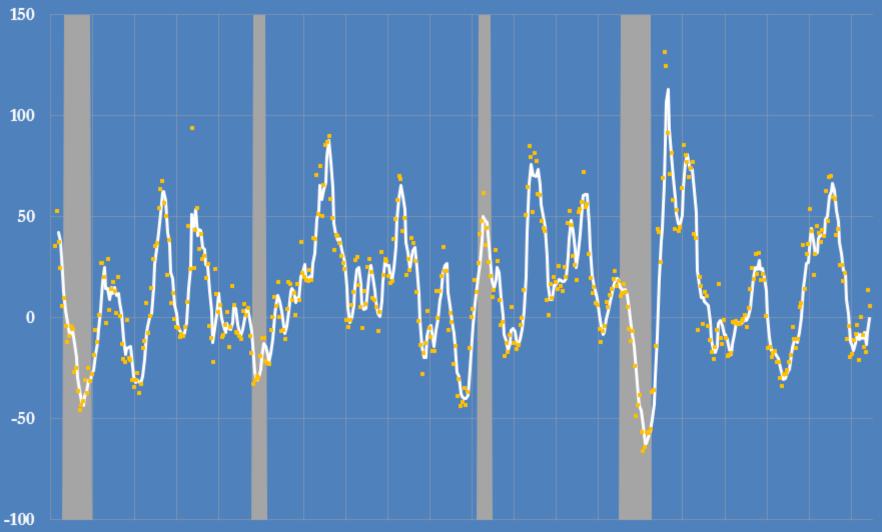
South Korea's KOSPI 100 equity index and world trade Year-on-Year percent change



---- World trade volumes (YoY percent change) (right-axis)

Source: CPB, Refinitiv Eikon @JKempEnergy

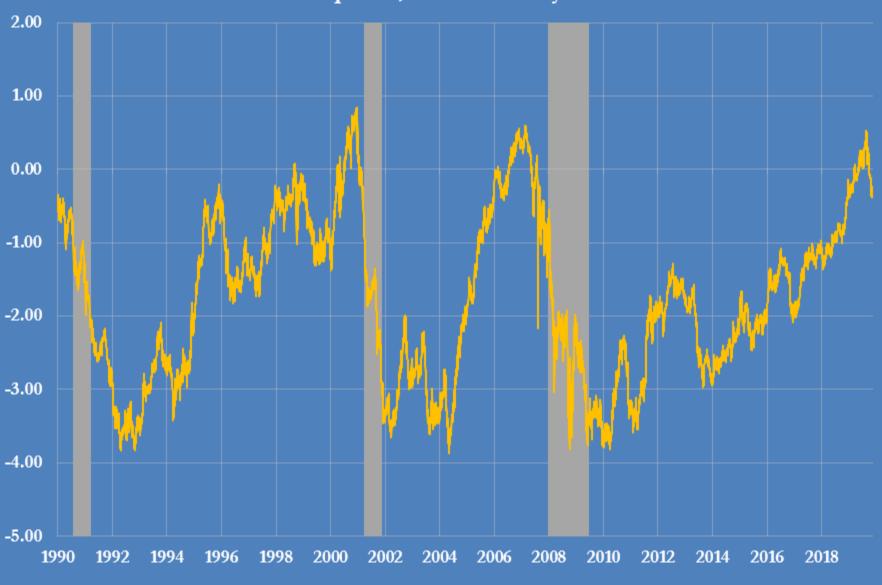
Caterpillar Inc share price, 1981-2019
percent change from prior year, monthly and three-month average
NBER U.S. recessions shown



1981 1983 1985 1987 1989 1991 1993 1995 1997 1999 2001 2003 2005 2007 2009 2011 2013 2015 2017 2019

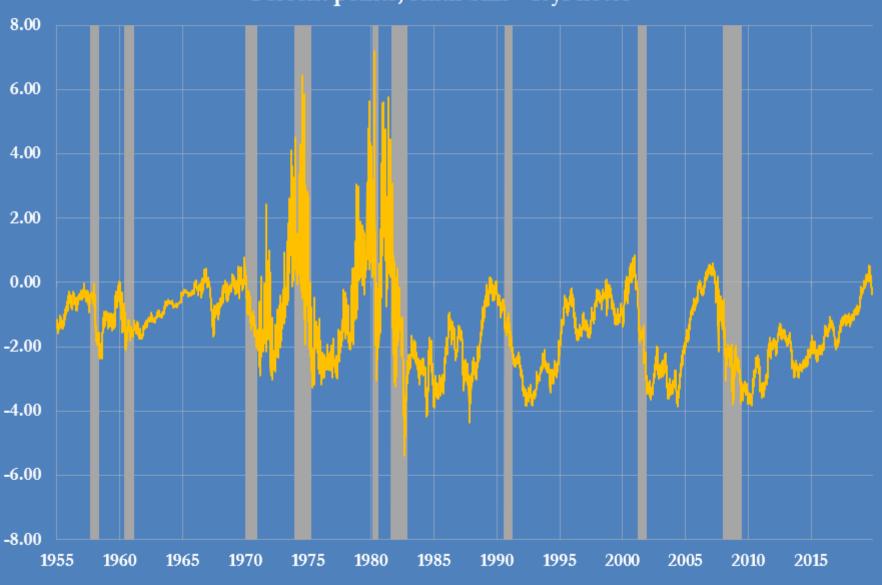
Source: New York Stock Exchange

U.S. Treasury yield curve, 1990-2019 Percent points, 3mth bills - 10yr notes



Source: Refinitiv

U.S. Treasury yield curve, 1955-2019 Percent points, 3mth bills - 10yr notes

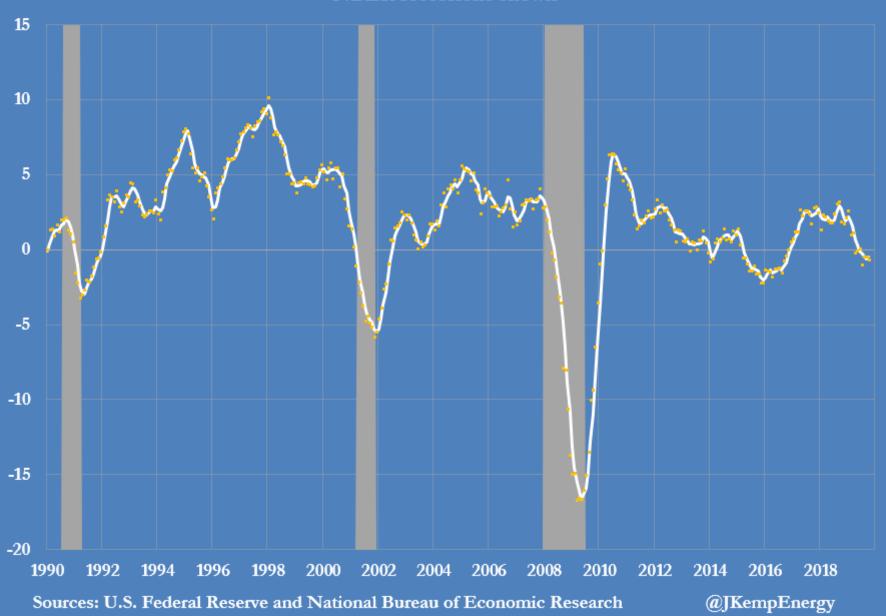


Source: Refinitiv

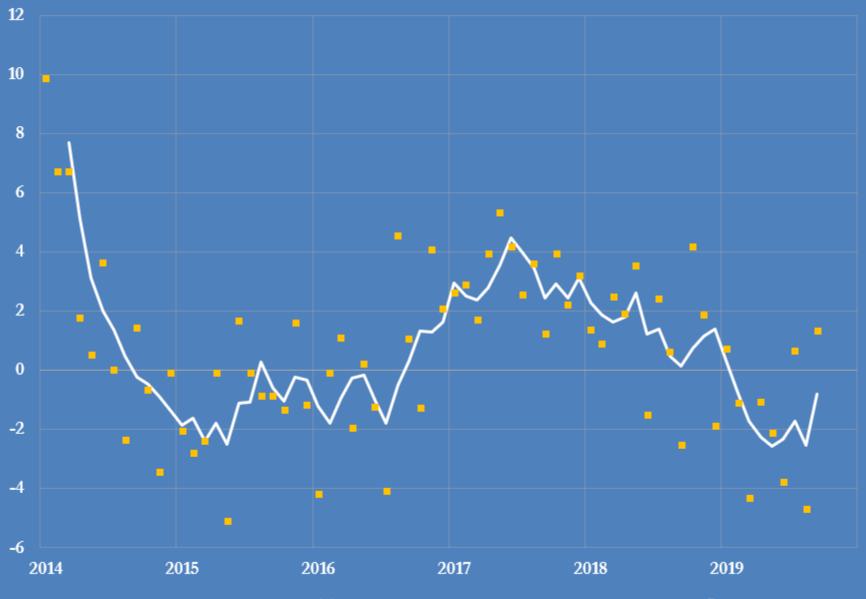
U.S. manufacturing output ex motor vehicles and parts, 1990-2019

Percent change from prior year, monthly and three-month average

NBER recessions shown



Japan manufacturing production, 2014-2019 percent change from prior year, monthly and three-month average



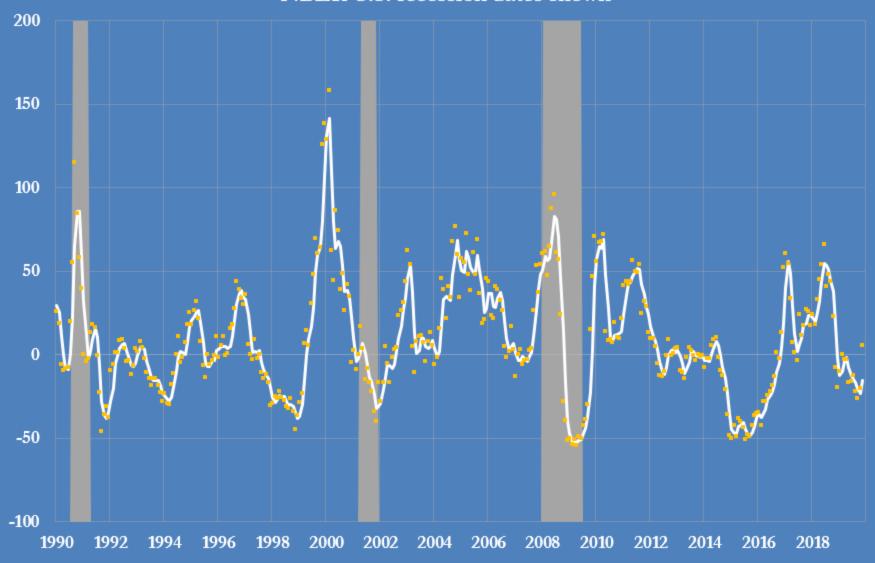
Source: Japan Ministry of Economy, Trade and Industry

Germany industrial output, 1992-2019 Percent change from prior year, monthly and three-month average



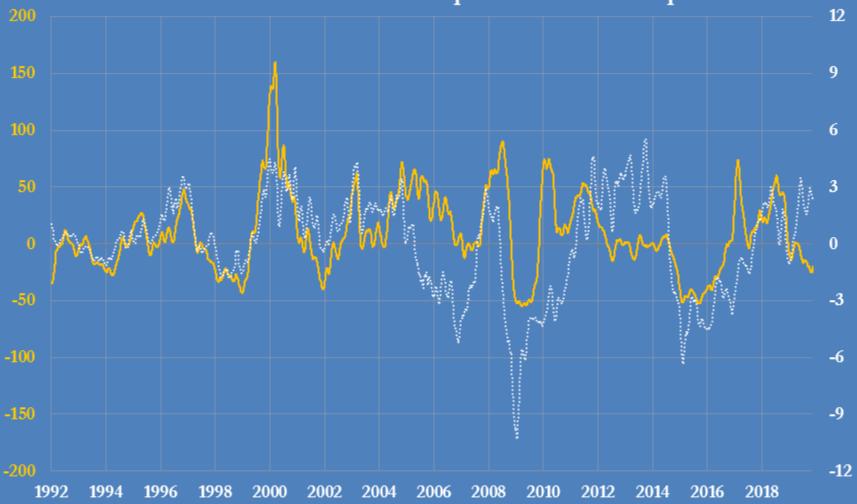
Source: German Federal Statistics Office

Brent spot price, 1990-2019
Percent change from year earlier, monthly and 3-month average
NBER U.S. recession dates shown



Source: ICE Futures Europe, National Bureau of Economic Research

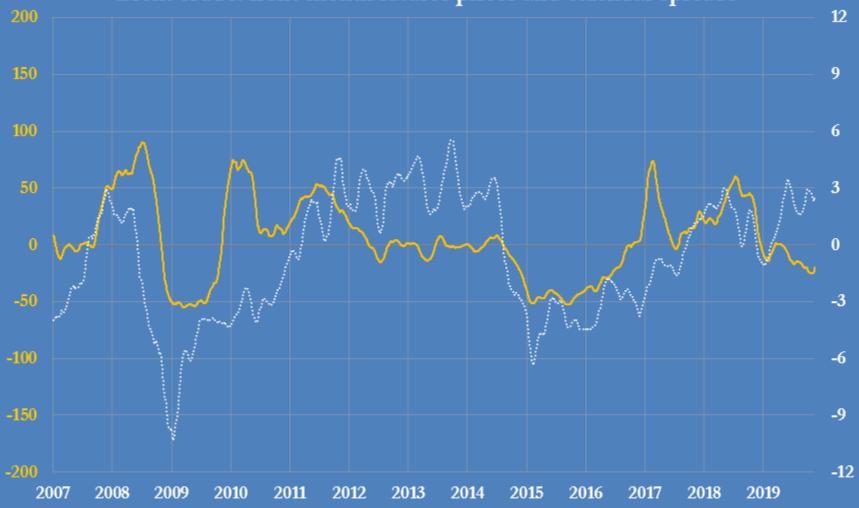
## Cyclical indicators in the oil market, 1992-2019 Brent crude: front-month futures prices and calendar spreads



- L-axis: Brent front-month futures prices (percent change year-on-year)
- ...... R-axis: Brent calendar spread (1st month 7th month future price, U.S.\$ per bbl)

Both series are averaged over 30 trading days to smooth short-term volatility

## Cyclical indicators in the oil market, 2007-2019 Brent crude: front-month futures prices and calendar spreads



L-axis: Brent front-month futures prices (percent change year-on-year)

······· R-axis: Brent calendar spread (1st month - 7th month future price, U.S.\$ per bbl)