

Global economy and oil market

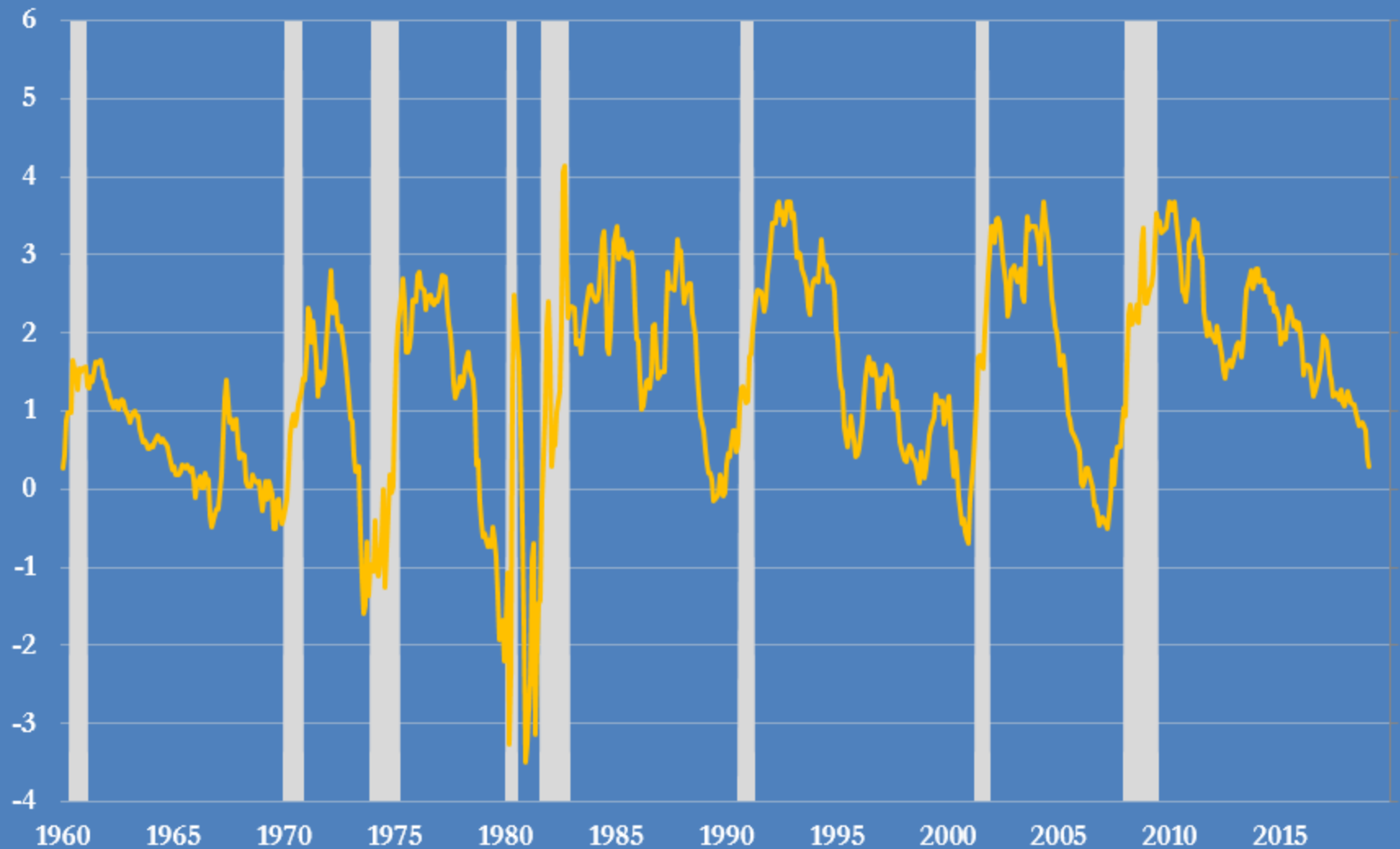
Principal cyclical indicators

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REUTERS

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U.S. Treasury Yield Curve and Recessions, 1960-2019

Spread between 3-month Treasury bills and 10-year Treasury Notes

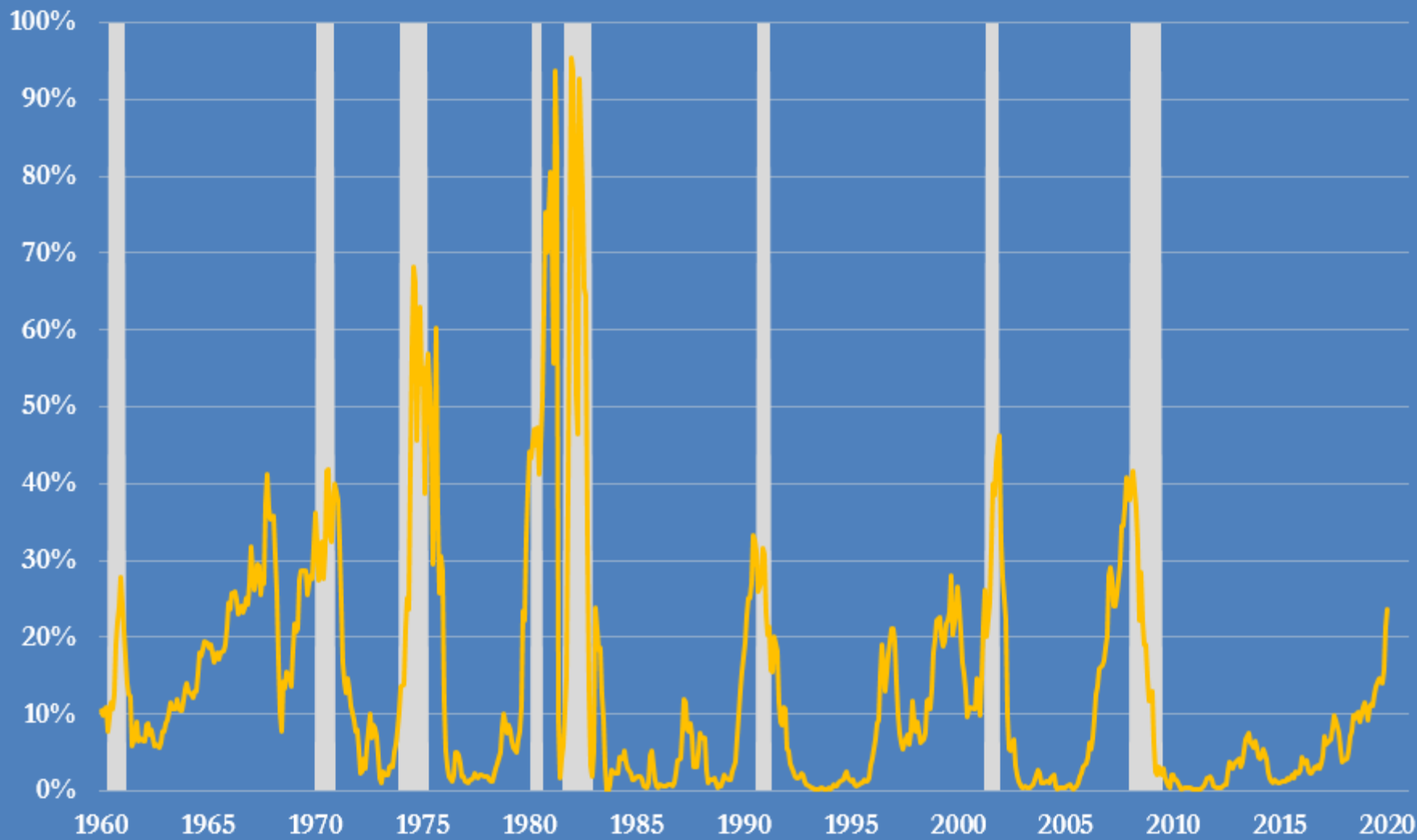


■ Recessions (NBER definition)
— Yield curve spread (10yr-3mth)

Source: Federal Reserve Bank of New York
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Probability of U.S. recession 12-months ahead, 1960-2020

Based on Federal Reserve Bank of New York's yield-curve model
Using spread between 3-month Treasury bills and 10-year Treasury Notes

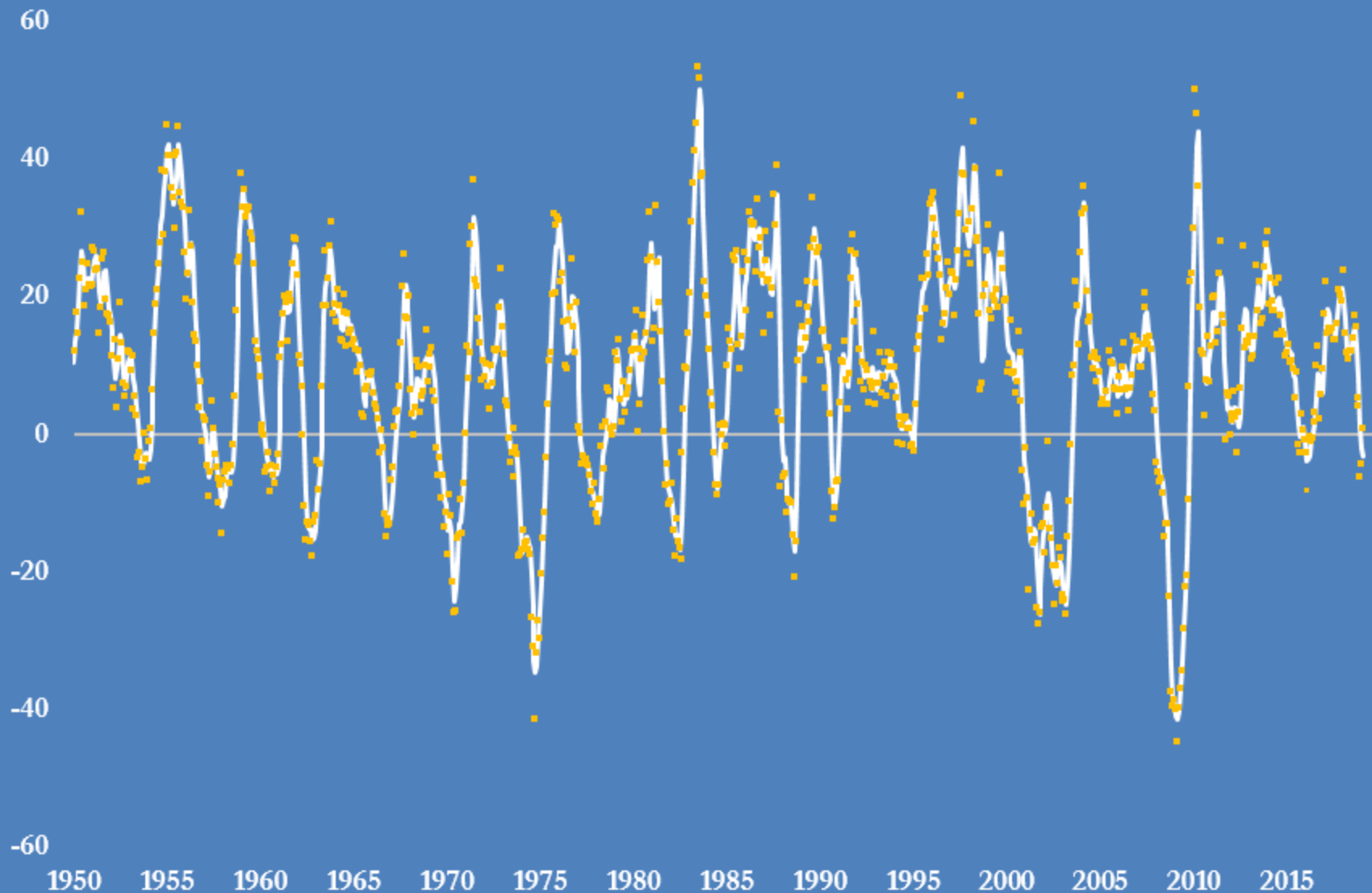


■ Recessions (NBER definition)
— Recession implied probability

Source: Federal Reserve Bank of New York
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S&P500 equity index, 1950-2019

Percent change from prior year, individual months and 3-month average

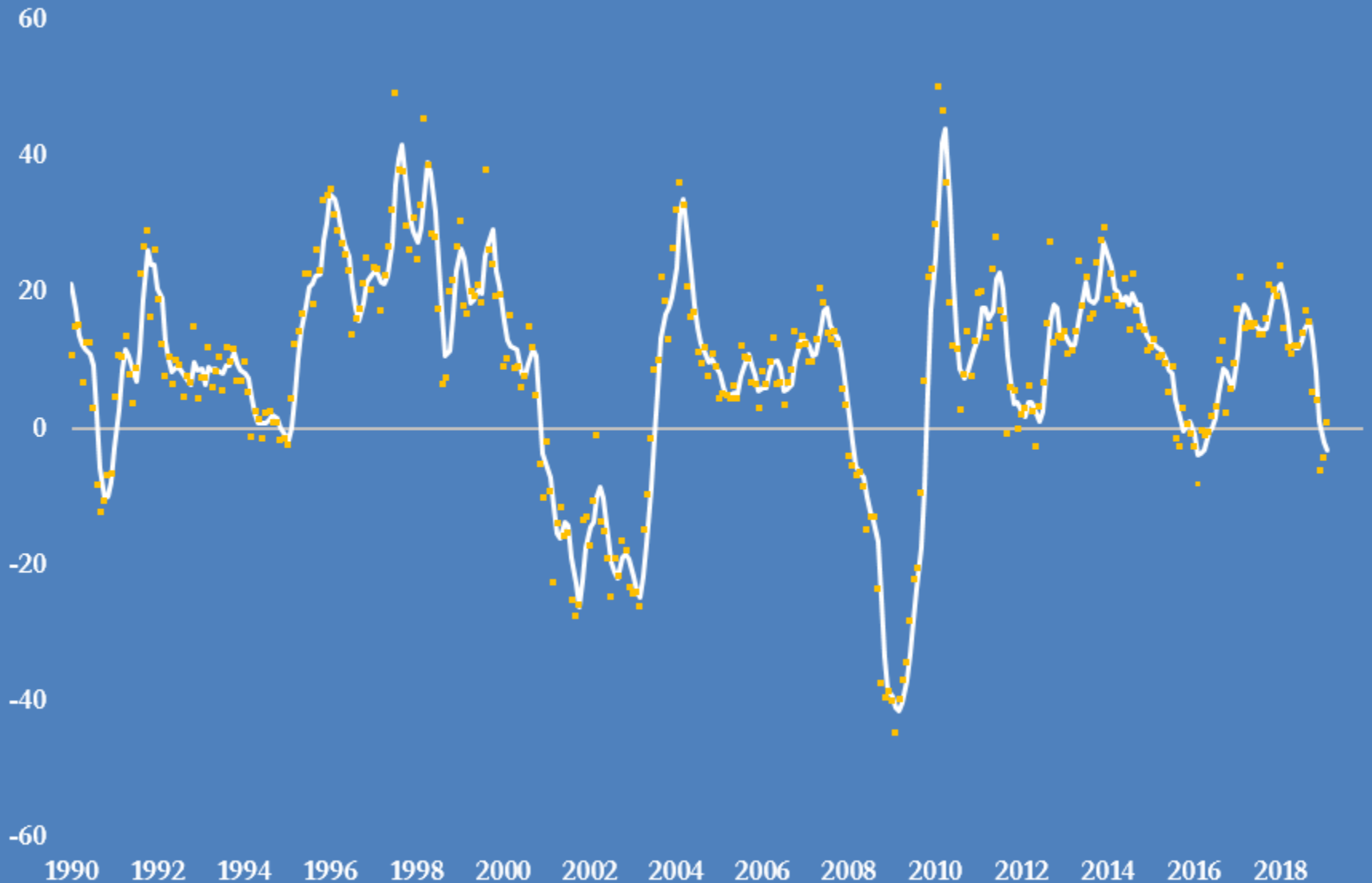


Source: Refinitiv Eikon

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S&P500 equity index, 1990-2019

Percent change from prior year, individual months and 3-month average

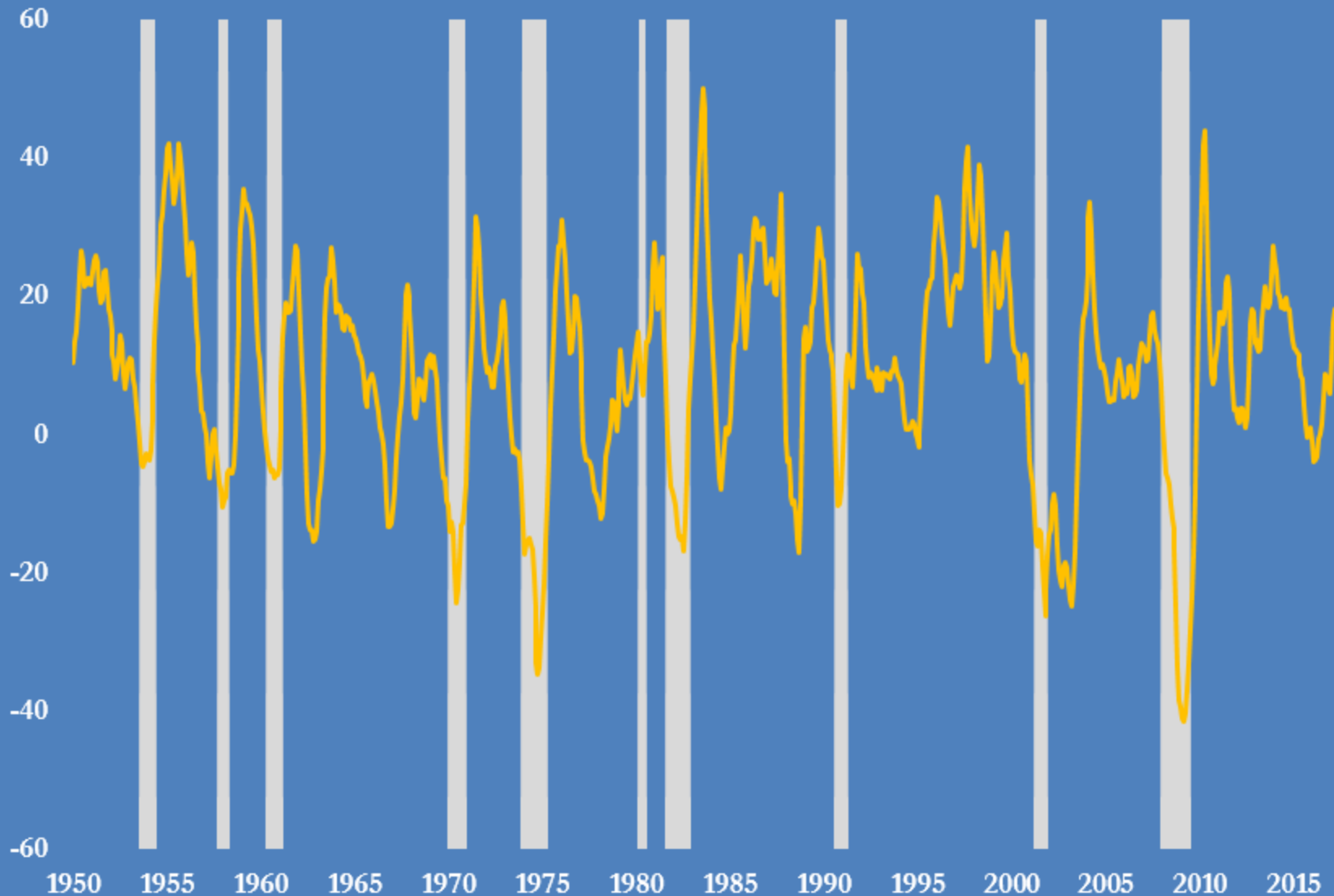


Source: Refinitiv Eikon

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S&P500 equity index, 1950-2019

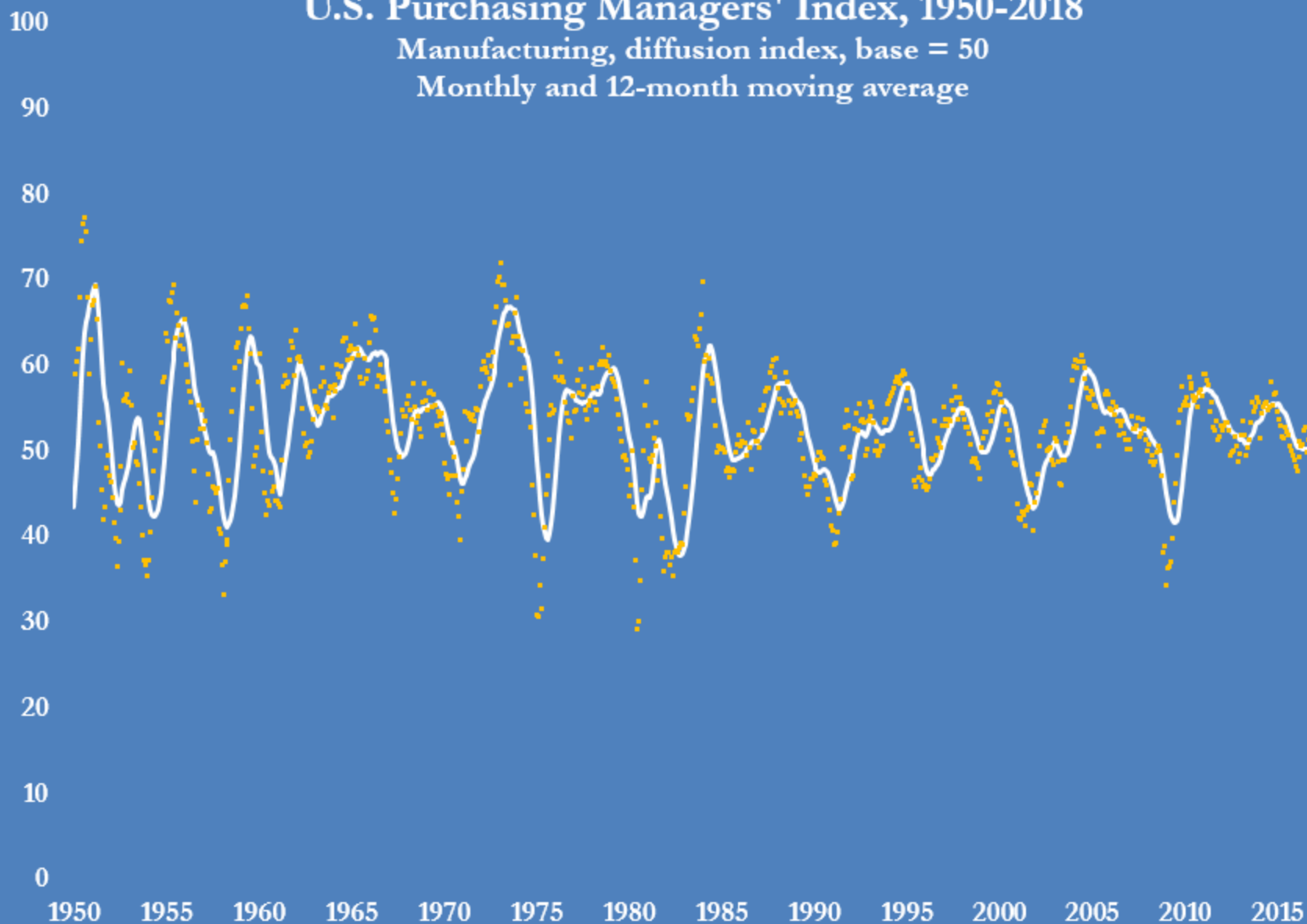
Percent change from prior year, 3-month average, with NBER recessions



U.S. Purchasing Managers' Index, 1950-2018

Manufacturing, diffusion index, base = 50

Monthly and 12-month moving average

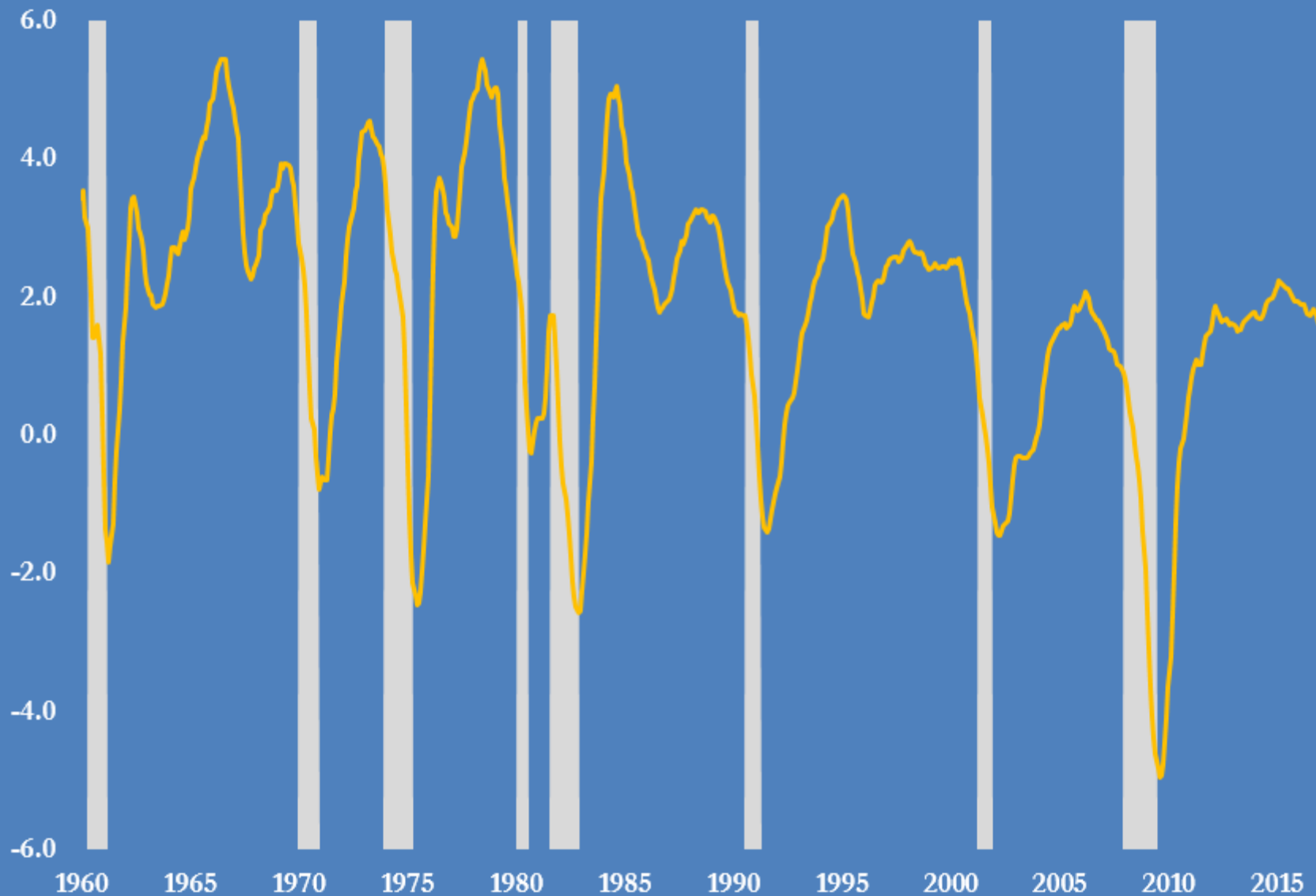


Source: Institute for Supply Management, *Manufacturing Report on Business*

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U.S. nonfarm payrolls, 1960-2019

Percent change compared with previous year, averaged over 3 months

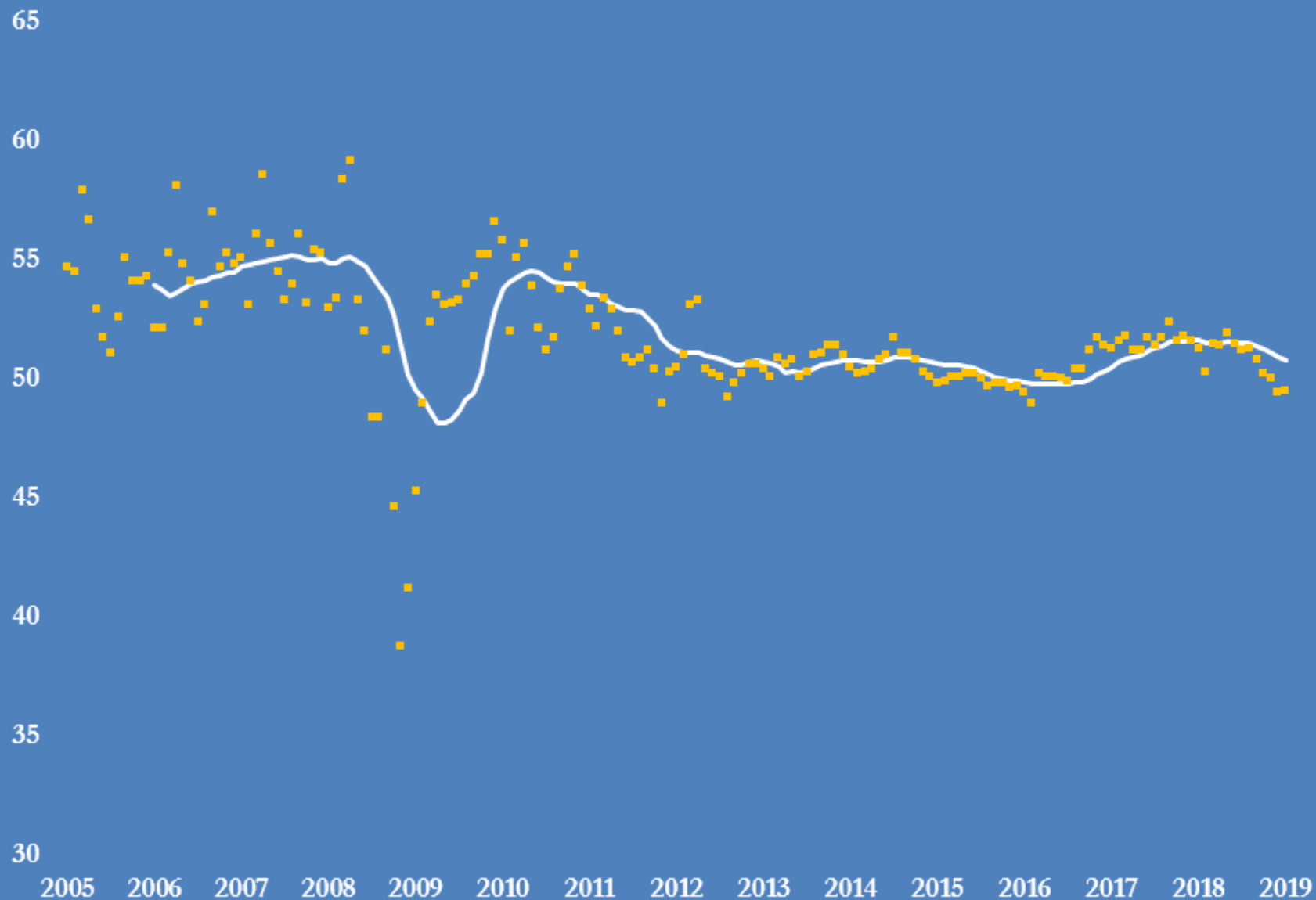


Source: U.S. Bureau of Labor Statistics

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China purchasing managers' index, 2005-2019

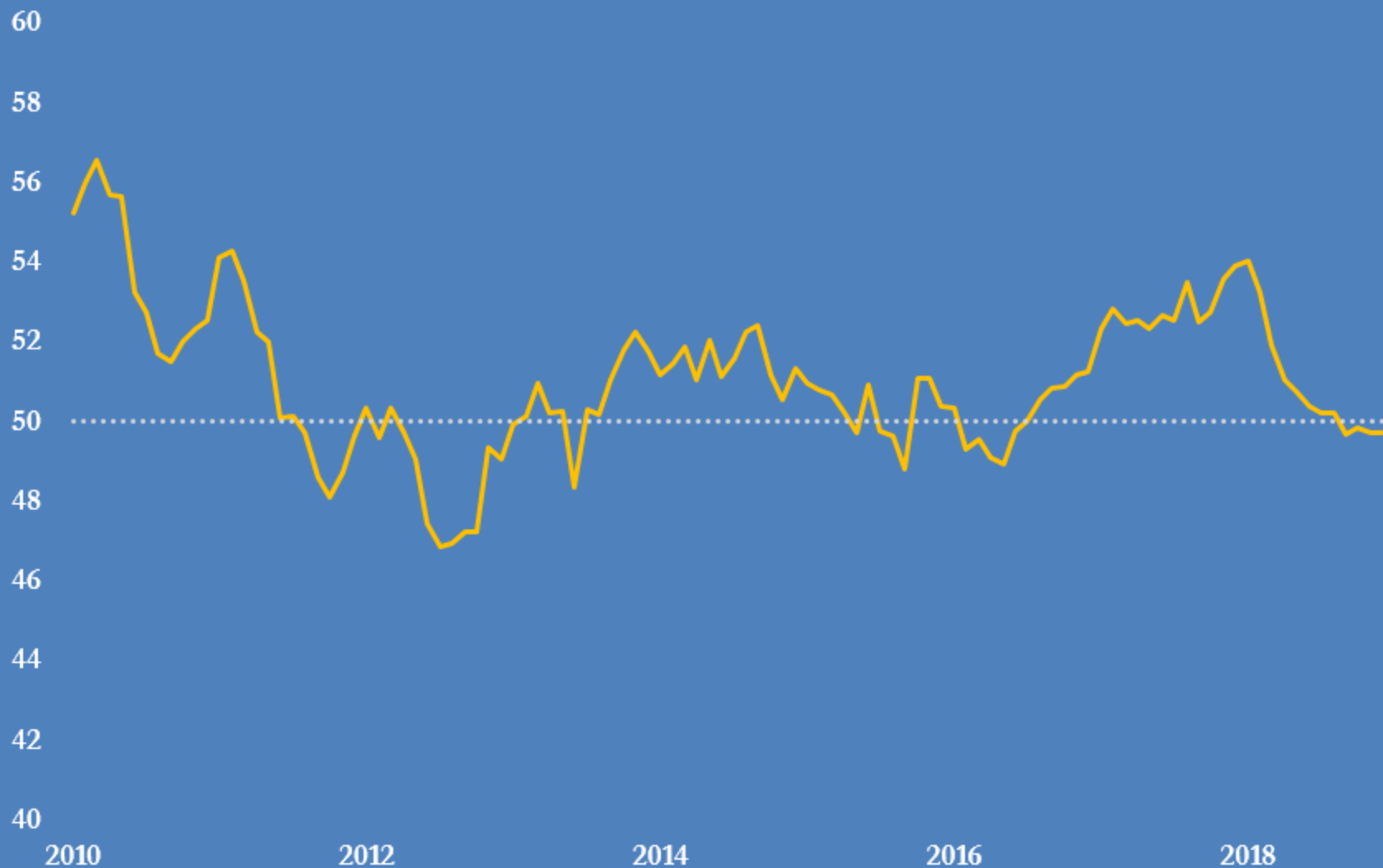
Manufacturing sector, monthly and 12-month average



Source: China National Bureau of Statistics

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JPMorgan Global PMI New Export Orders Sub-index, 2010-2018

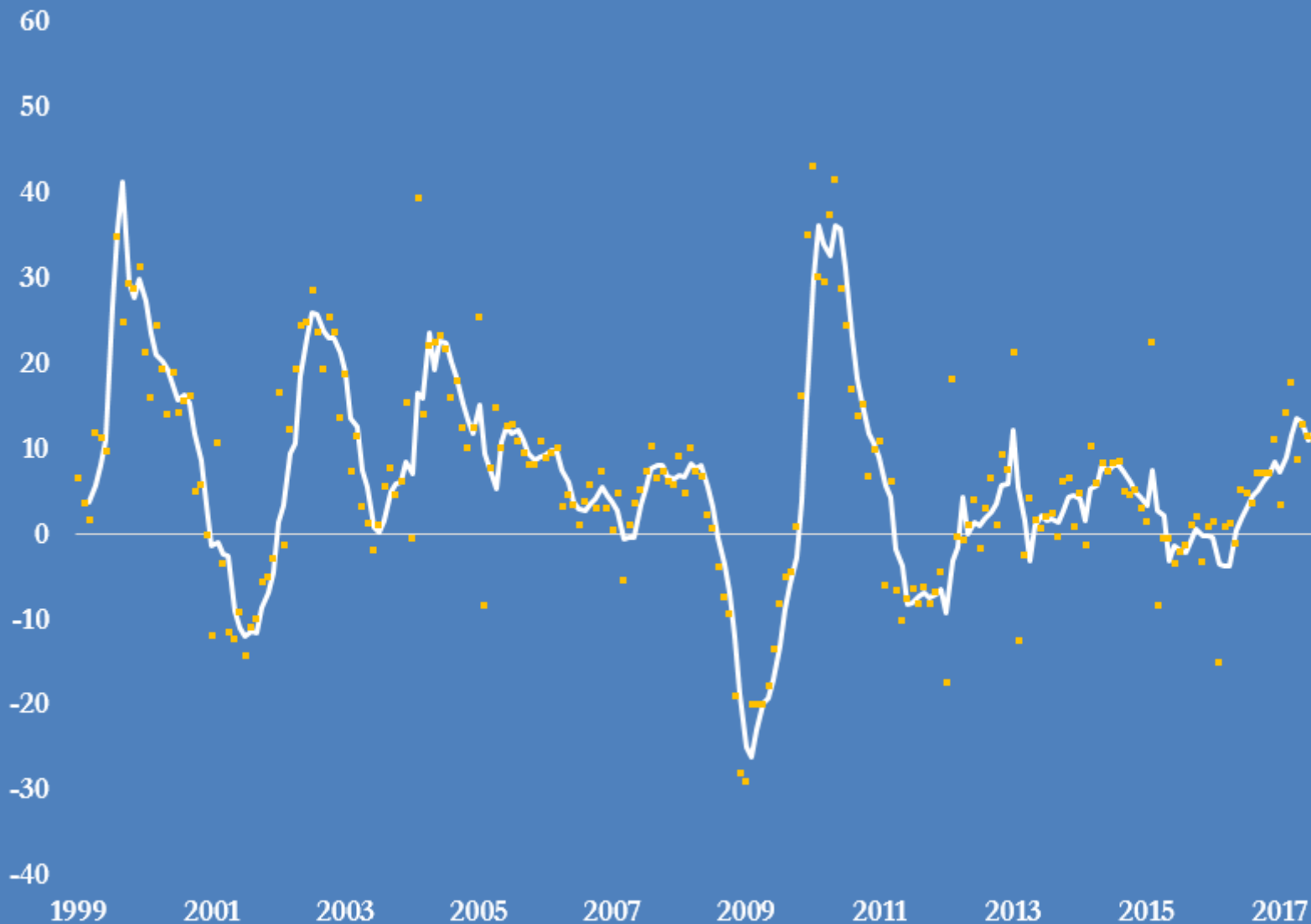


Source: Refinitiv Datastream

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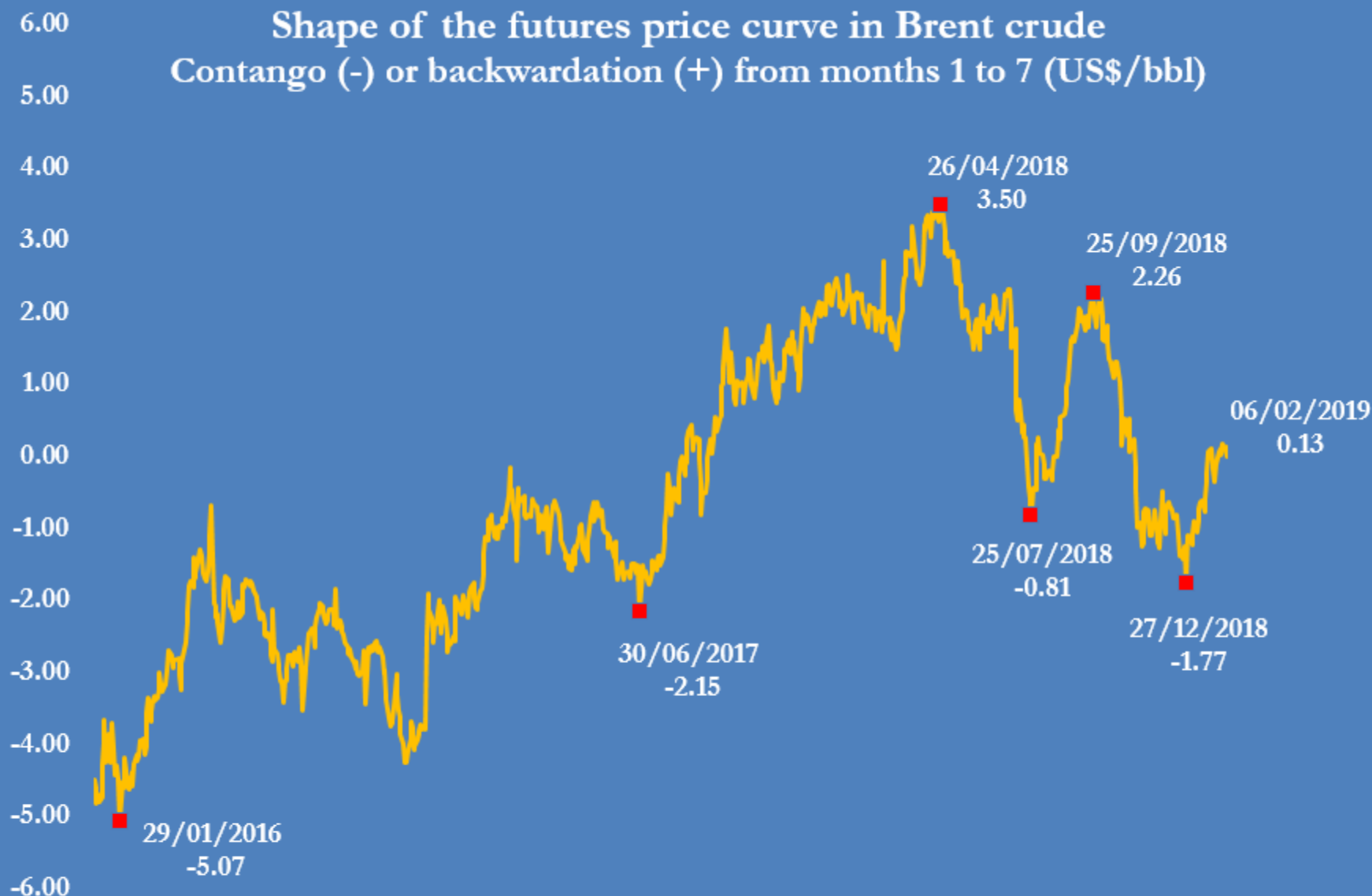
Hong Kong air freight volume, 1998-2018

Percent change compared with prior year, monthly and 3-month average



Source: Civil Aviation Department of Hong Kong Special Administrative Region
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Shape of the futures price curve in Brent crude Contango (-) or backwardation (+) from months 1 to 7 (US\$/bbl)

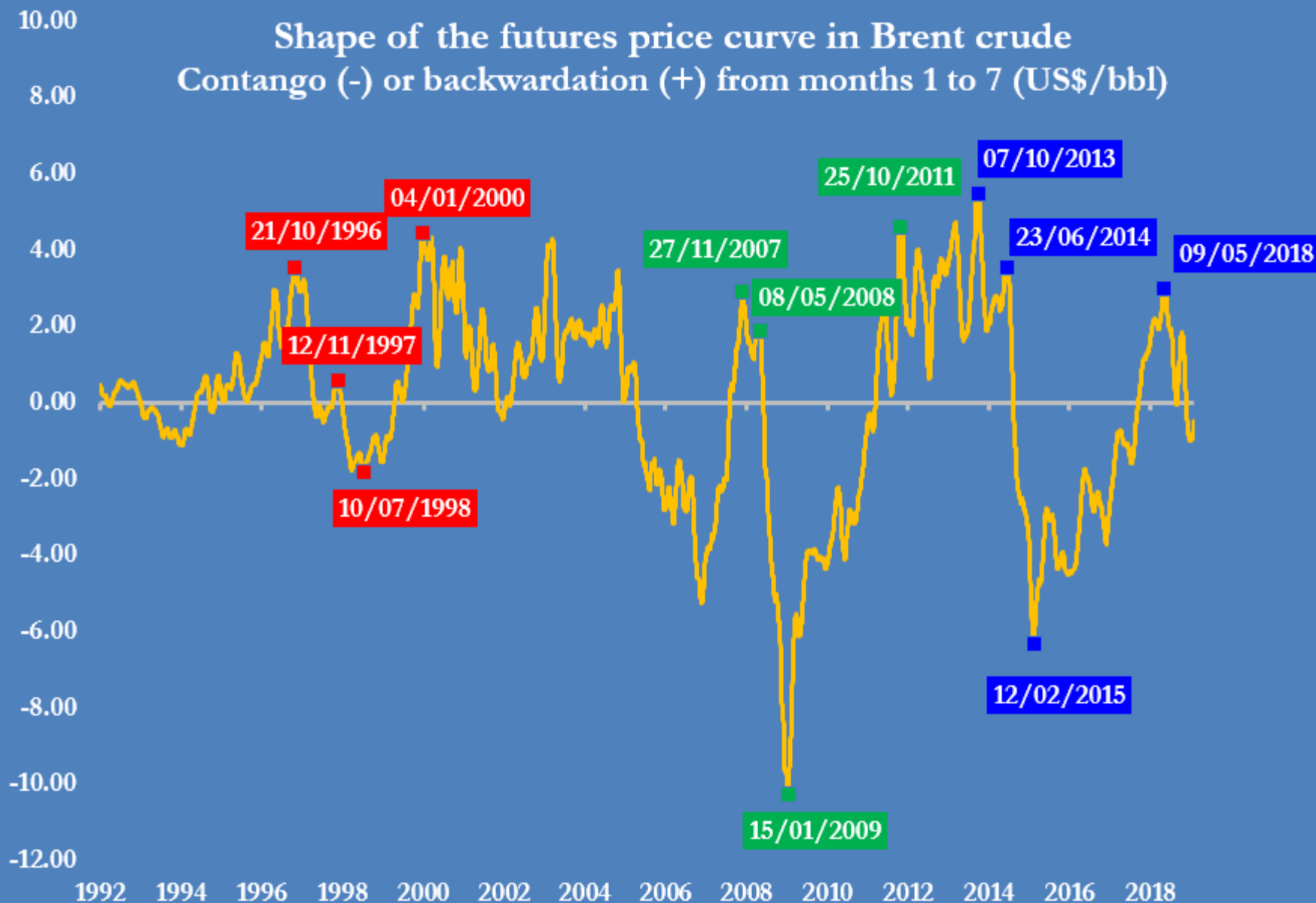


Price difference Brent month 1 and month 7 (U.S.\$/bbl)
Contango (-) or backwardation (+)

Source: ICE Futures, @JKempEnergy

Shape of the futures price curve in Brent crude

Contango (-) or backwardation (+) from months 1 to 7 (US\$/bbl)



Price difference between 1st listed contract month and 7th listed contract month for Brent futures (U.S.\$/bbl)
Contango (-) or backwardation (+) averaged over 30 days

Source: Thomson Reuters Eikon, ICE Futures
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Principal influences on oil prices in 2019

External variables

(mostly independent of oil prices)

(1) Global economy

- ❖ U.S./China trade war
- ❖ Financial conditions
- ❖ Global business cycle
- ❖ Oil-exporting countries
- ❖ Commodity-dependent economies

Internal variables

(mostly dependent on oil prices)

(2) U.S. shale production growth

- ❖ Reaction to lower prices

(3) OPEC+ output reductions

- ❖ Reaction to lower prices
- ❖ Group discipline
- ❖ Trump pressure

(4) U.S. sanctions on Iran

- ❖ Renewal of waivers
- ❖ Availability of replacement bbl
- ❖ Price impact

(5) U.S. sanctions on Venezuela

- ❖ Availability of replacement bbl