

Oil market impact from coronavirus, lockdowns and volume war

Selected indicators

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REUTERS

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Oil market narrative has shifted radically since start of year

Cyclical economic recovery → coronavirus threat → volume war → economic lockdown

Early Jan (Brent at almost \$70)

- U.S./China trade tensions ease
- Cyclical economic recovery expected
- Oil consumption set to accelerate
- Oil producers extend production limits

Mid Mar (Brent below \$35)

- Saudi Arabia switches to punishment mode
- Volume warfare breaks out
- Oil production to rise 2-3 million b/d
- Coronavirus becomes pandemic

Late Jan (Brent at \$60)

- Coronavirus epidemic not contained
- China in lockdown
- Oil consumption forecasts cut
- Oil producers uncertain to extend cuts

Late Mar (Brent at \$25)

- G7 economies move to lockdown
- Oil consumption falls 20-30 million b/d
- Refineries cut crude processing
- Oil storage fills rapidly

Early Mar (Brent at \$50)

- Coronavirus epidemic goes global
- Oil consumption falling sharply
- Russia and KSA fail to extend output limits

Early April (Brent at \$30)

- Oil industry in unprecedented crisis
- Focus on cash conservation
- U.S. shale drilling slows sharply
- White House presses for output cuts

Oil prices hit by combination of volume war, coronavirus and lockdowns

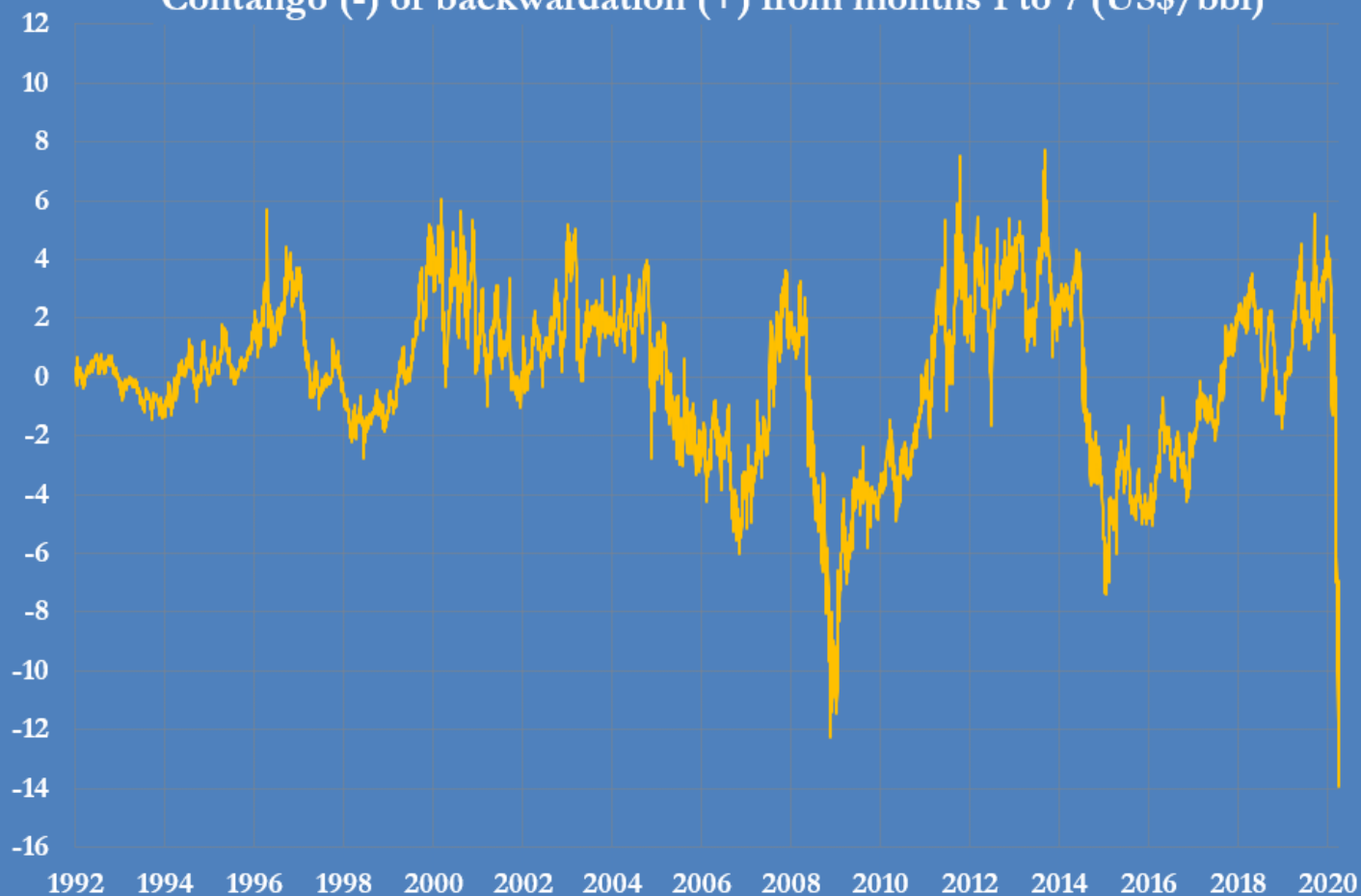
Brent down -\$21 before collapse of OPEC⁺ agreement, a further -\$20 afterwards

Brent crude futures price for June 2020
U.S.\$ per barrel



Traders now anticipate record production surplus, after earlier expecting deficit
Brent's six-month calendar spread weakens to largest contango on record by end-March

Shape of the futures price curve in Brent crude
Contango (-) or backwardation (+) from months 1 to 7 (US\$/bbl)



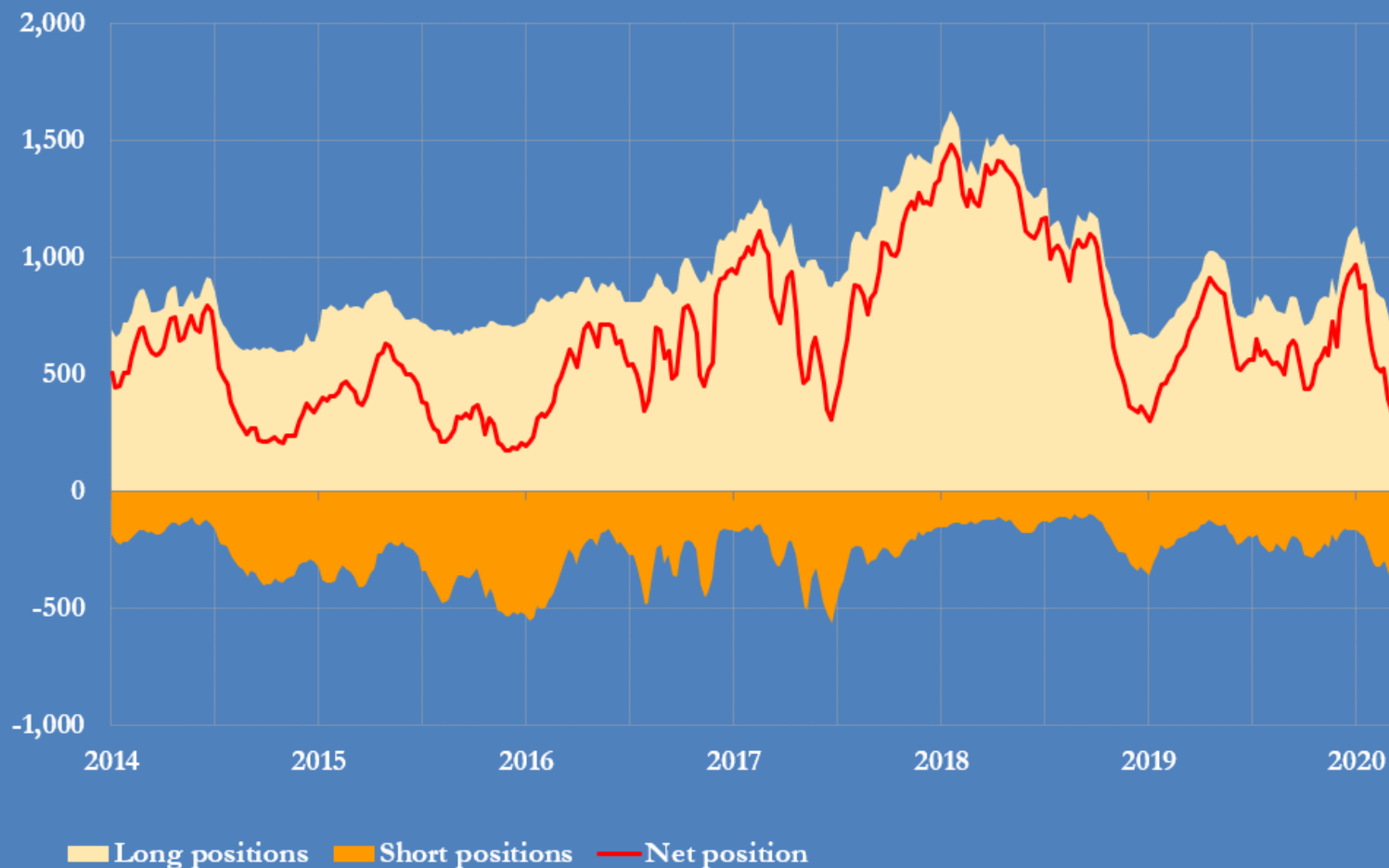
Price difference Brent month 1 and month 7 (U.S.\$/bbl)
Contango (-) or backwardation (+)

Source: ICE Futures, @JKempEnergy

Hedge funds have cut former bullish positions and added bearish ones

Combined position down from 970 million bbl at start of Jan to 282 million near end Mar

Money managers' total long and short positions in Brent, WTI, U.S. gasoline, U.S. heating oil and European gasoil (million bbl)

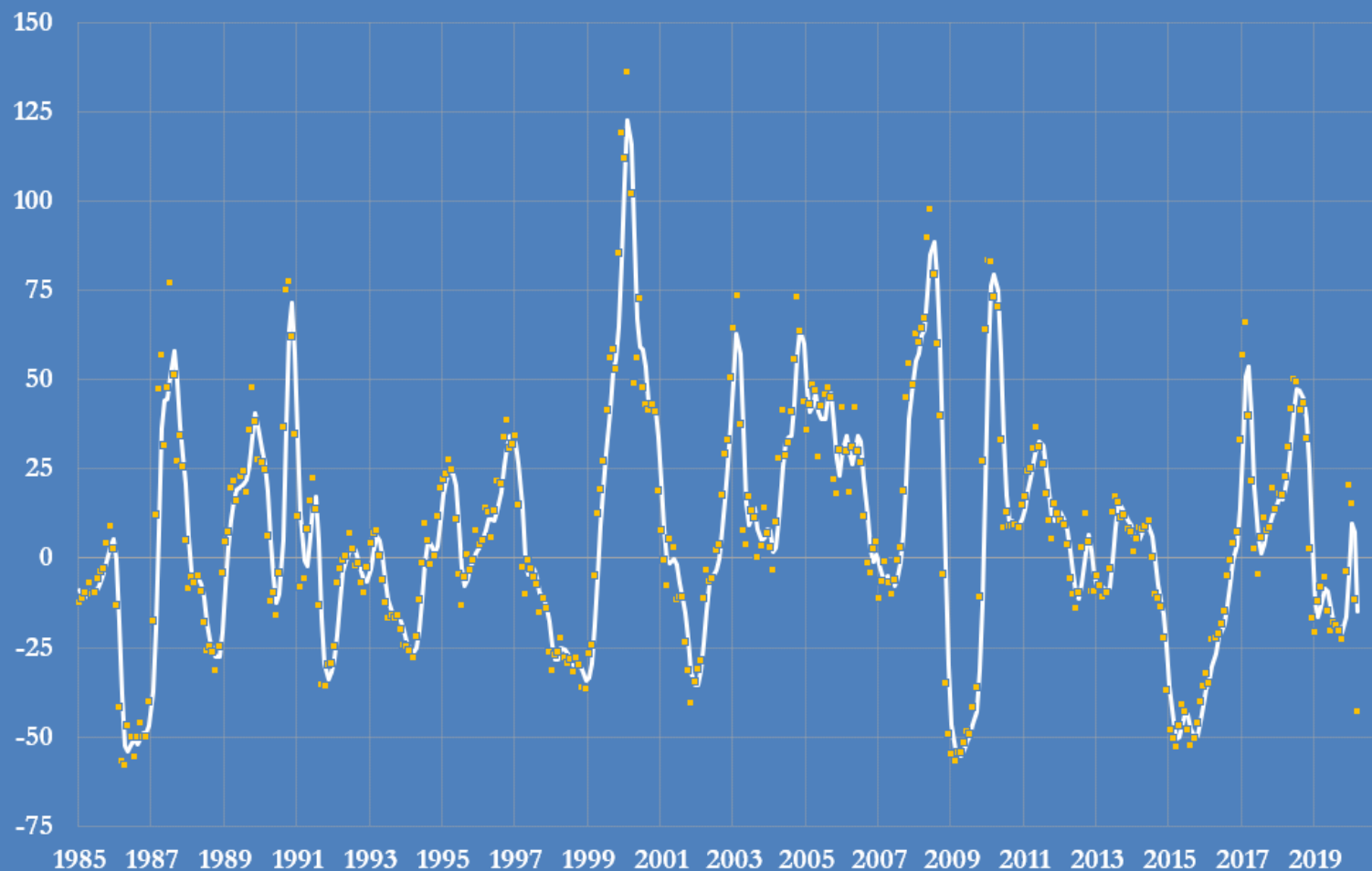


U.S. crude futures hit by some of sharpest falls for decades

Front-month WTI futures down -43% year-on-year at end of Mar

U.S. crude futures prices, 1985-2020

percent change from prior year, monthly and three-month average
front-month WTI contract



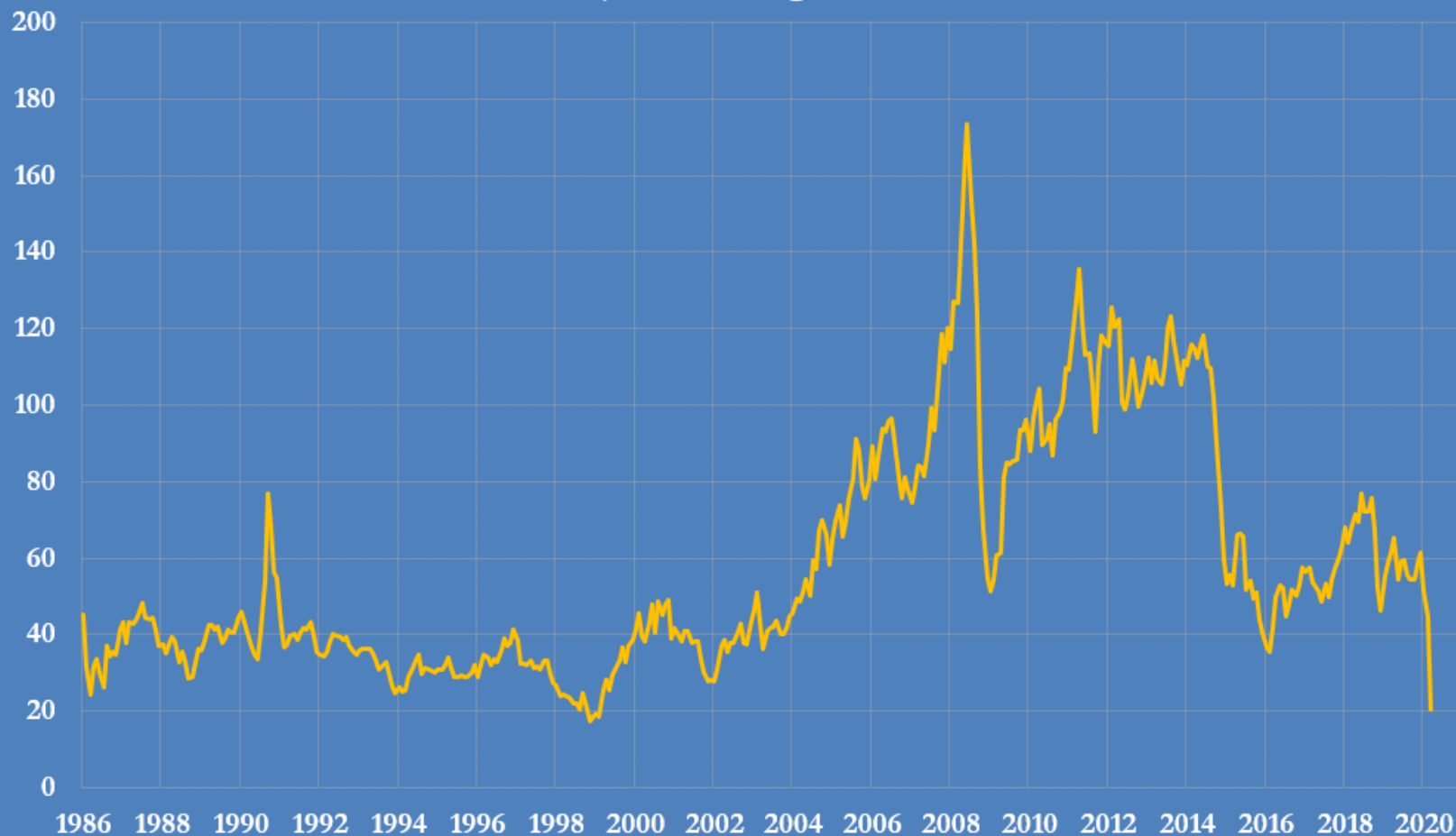
Source: CME Group

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U.S. physical crude prices fall close to multidecade lows

Cash crude for immediate delivery at Cushing falls below \$20/bbl

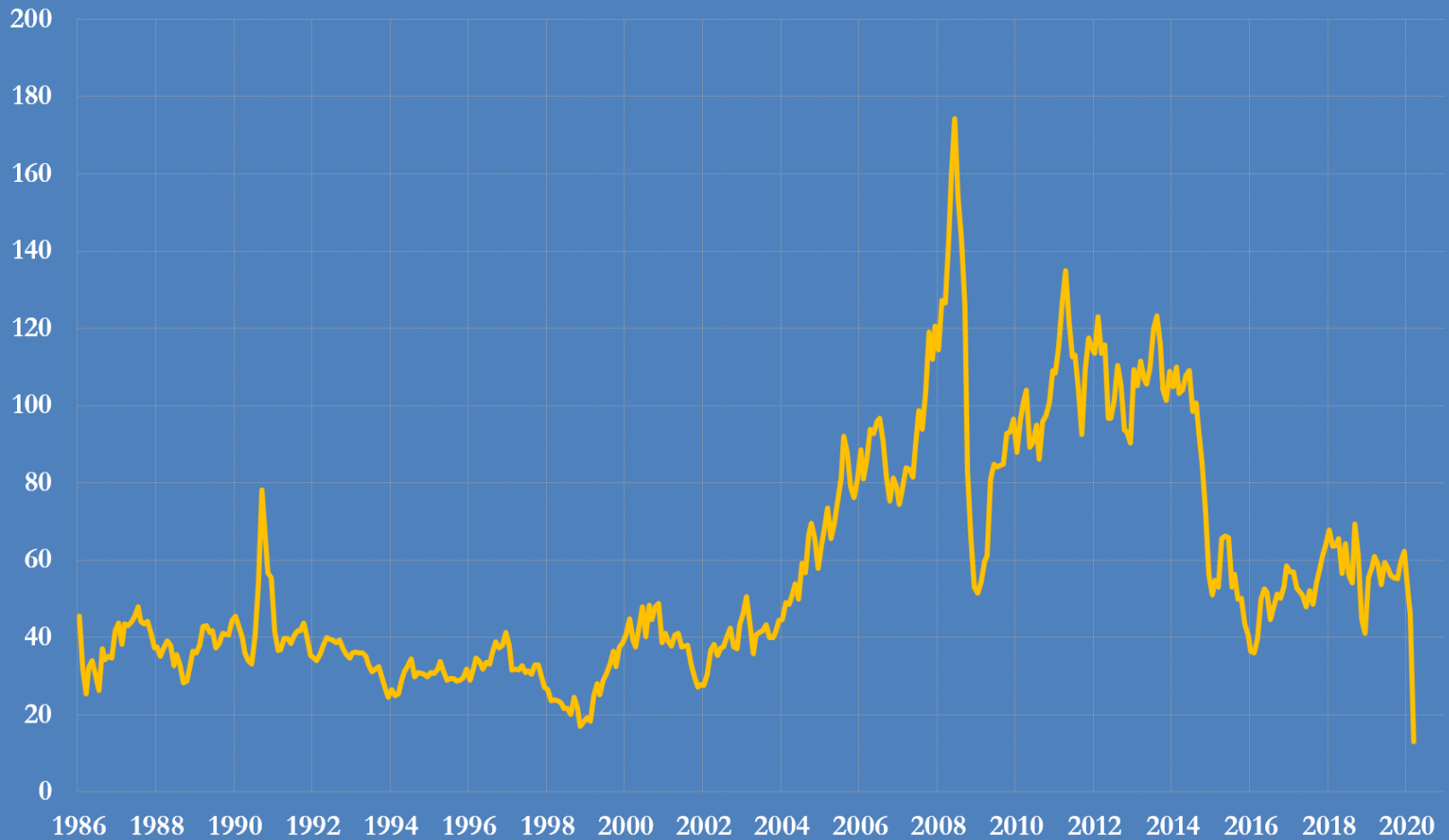
U.S. cash crude price at Cushing storage hub, 1986-2020
2020 U.S.\$ per barrel, month end
inflation-adjusted using U.S. core CPI



Crude prices near wellhead in Permian also close to multidecade lows

U.S. shale producers unable to cover operating costs

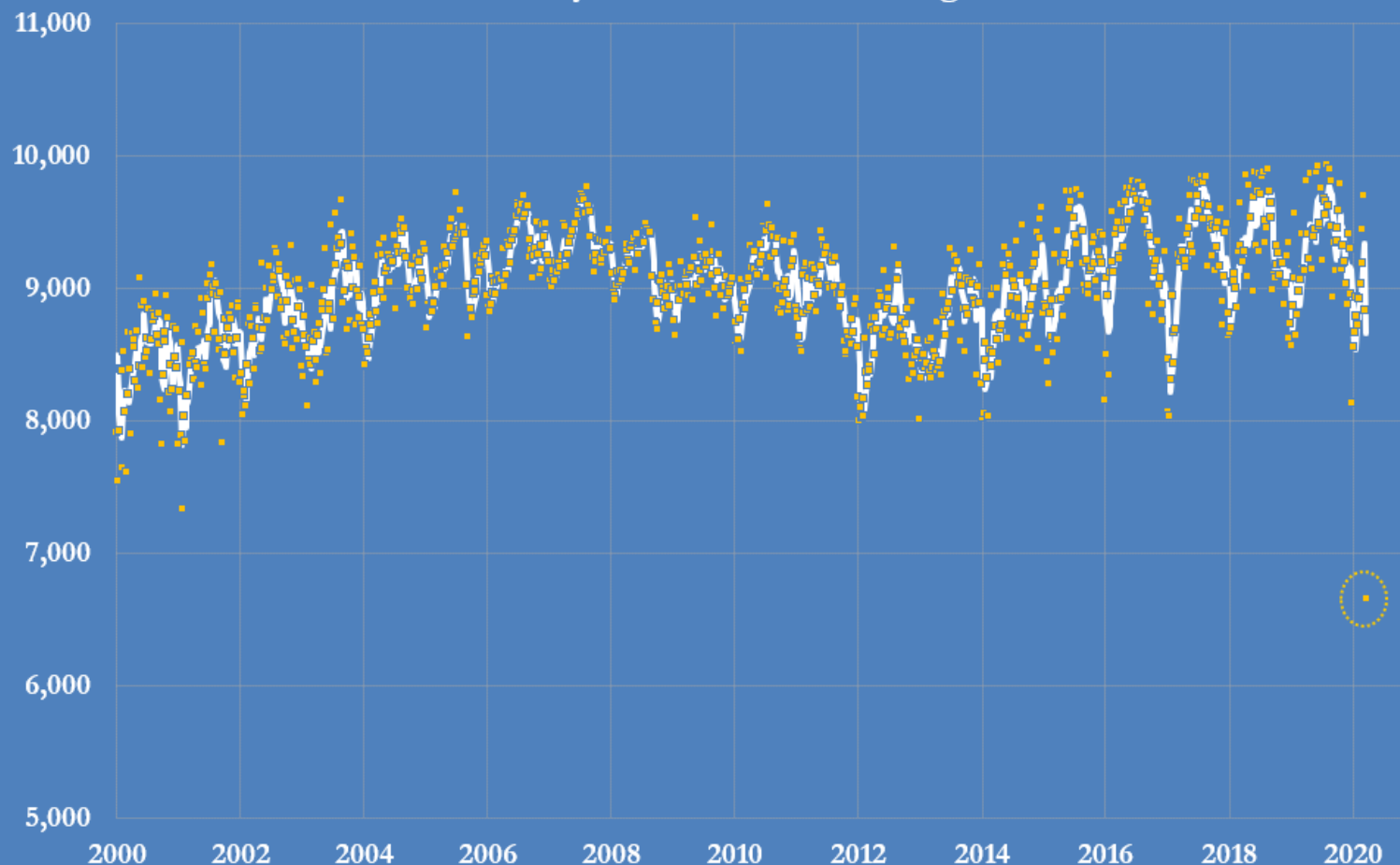
U.S. cash crude price at Midland in the Permian Basin, Texas
U.S.\$ 2020 per barrel, inflation-adjusted, month end, 1986-2020



U.S. gasoline consumption plunges in late Mar as lockdowns proliferate

Gasoline supplied falls by -3 million b/d in two weeks between Mar 13 and Mar 27

U.S. gasoline supplied to the domestic market
000 b/d, weekly and four-week average, 2000-2020



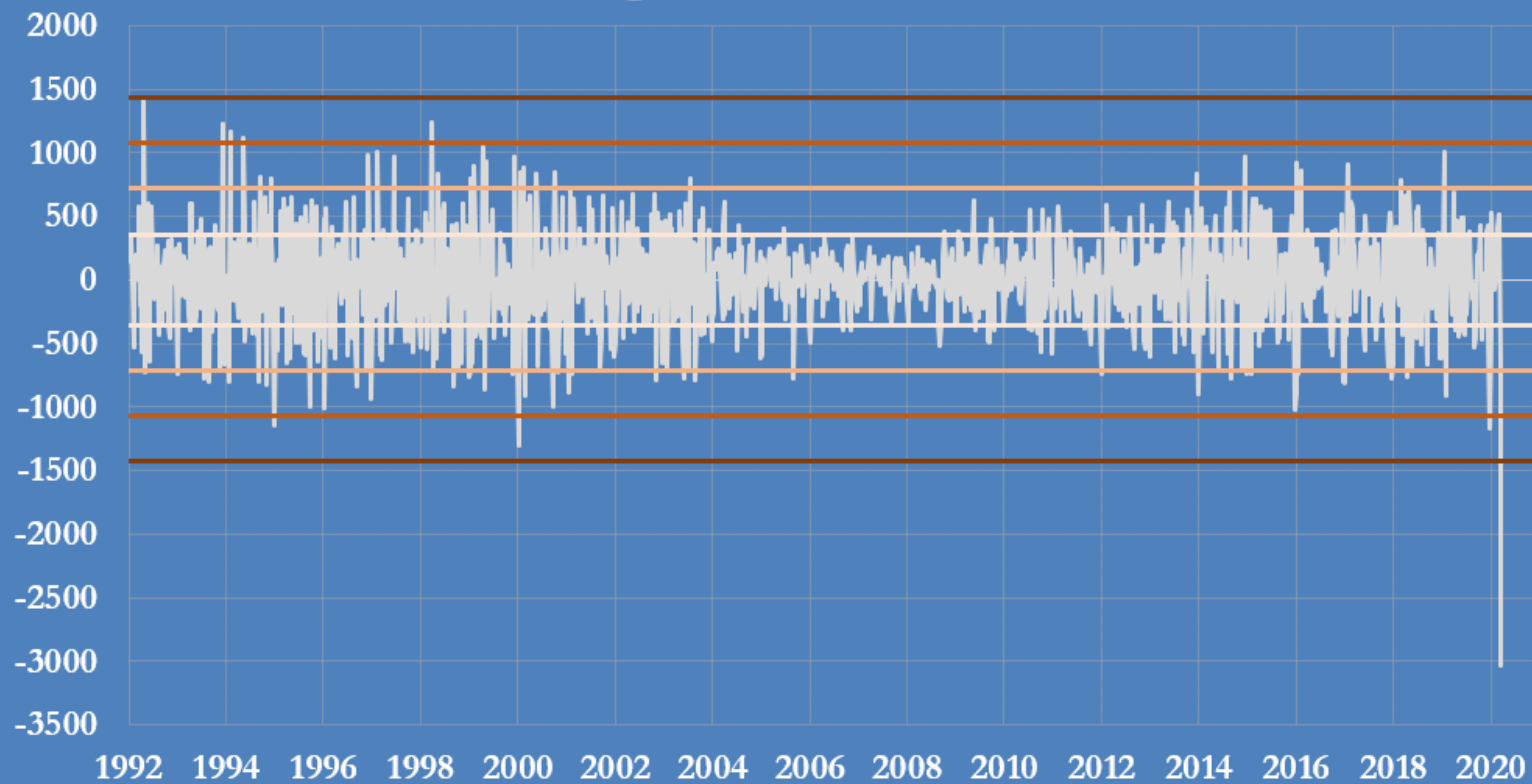
Source: EIA Weekly Petroleum Status Report

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Two-week decline in U.S. gasoline supplied is largest on record

Eight standard deviations

U.S. gasoline supplied to the domestic market
two-week change, 000 b/d, 1992-2020

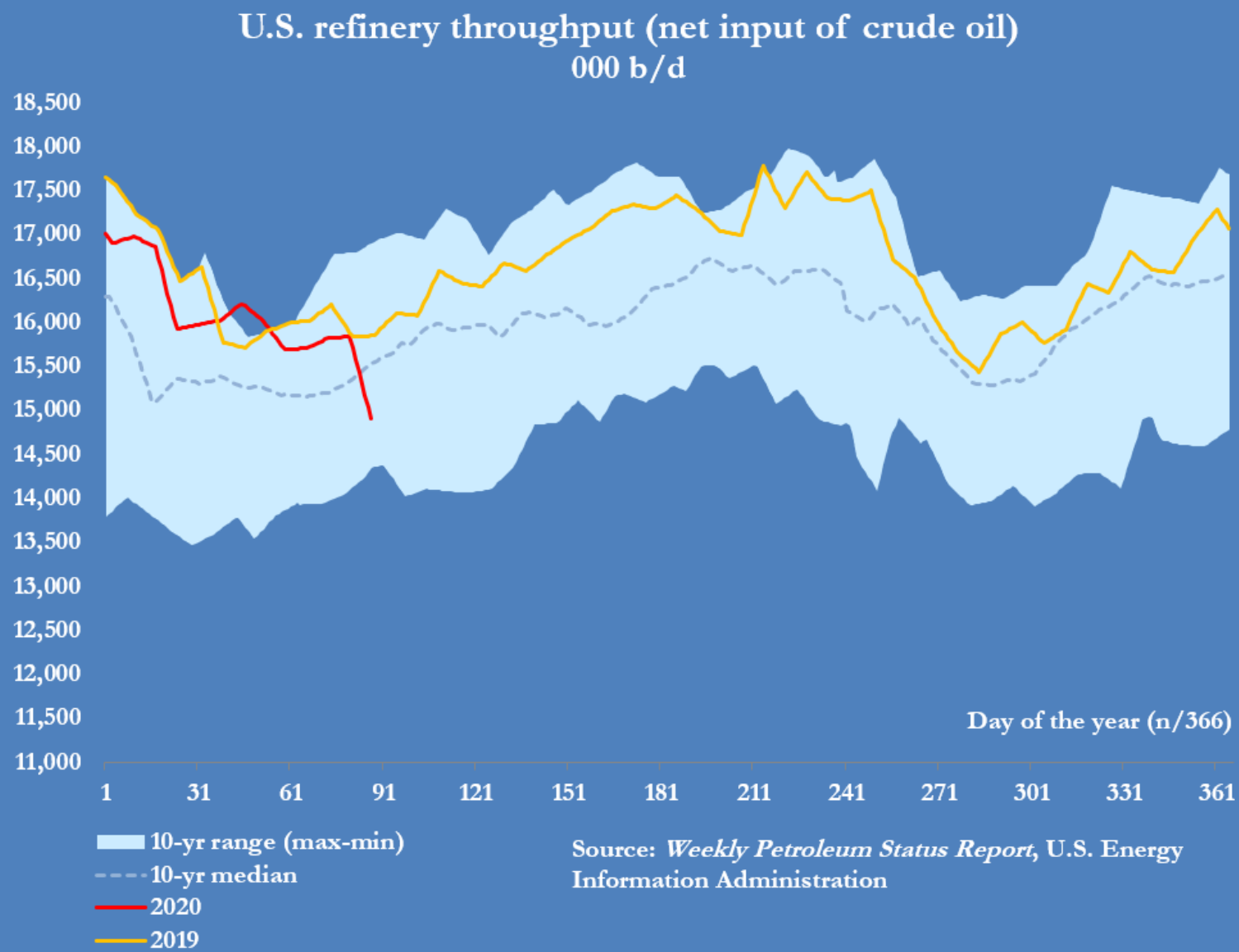


- One-week change in gasoline supplied
- Mean +/- 1 standard deviation
- Mean +/- 2 standard deviations
- Mean +/- 3 standard deviations
- Mean +/- 4 standard deviations

Source: EIA Weekly Petroleum Status
Report, @JKempEnergy

U.S. refiners cut crude processing by -0.9mn b/d over two wks in late Mar

Processing rate at end Mar was lowest for time of year since 2012

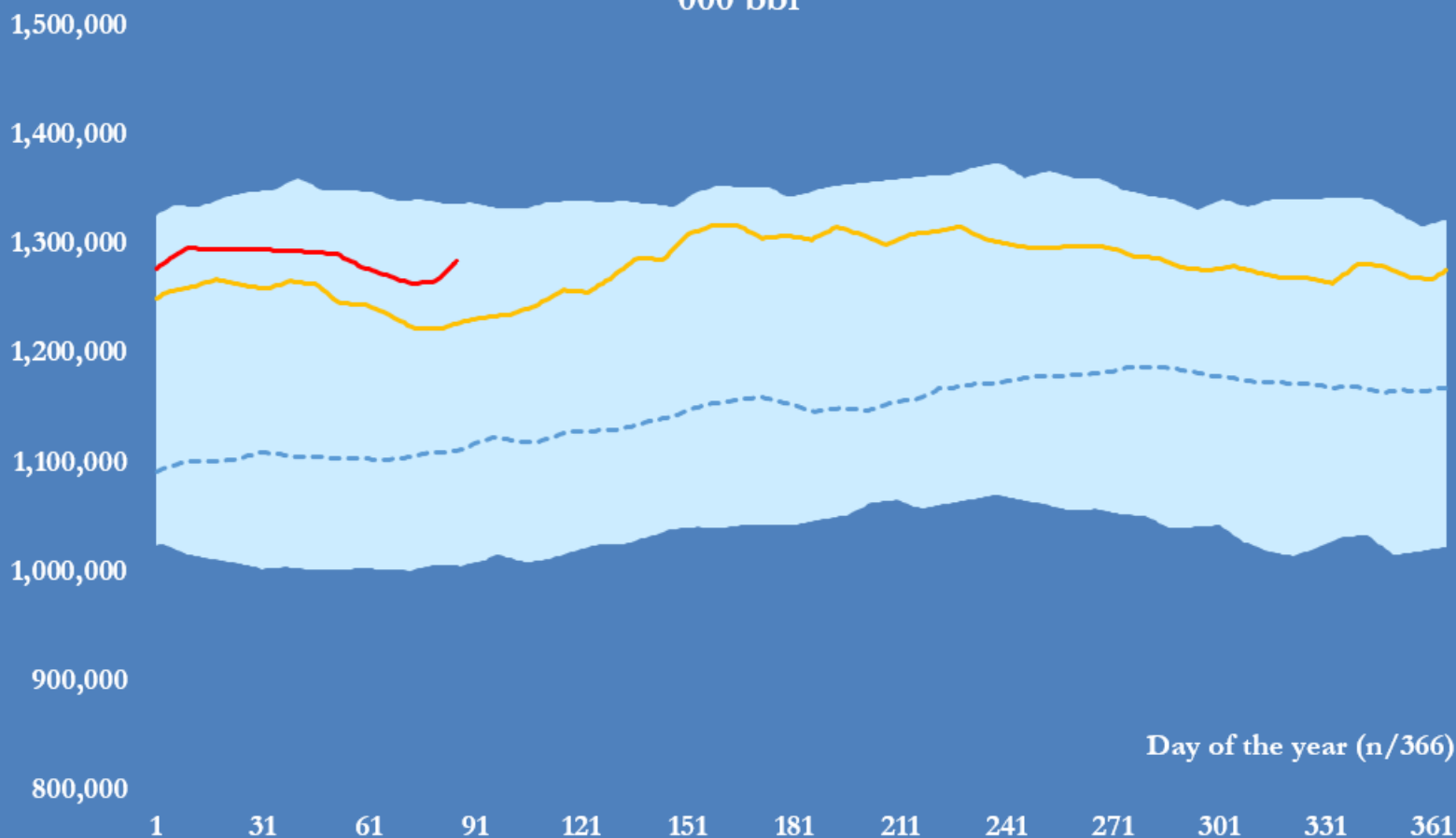


Source: *Weekly Petroleum Status Report*, U.S. Energy Information Administration

U.S. crude and product stocks surged +21mn bbl in week to Mar 27

Crude and fuel inventories built as refining and consumption slowed abruptly

Total U.S. crude and petroleum product stocks excluding SPR
000 bbl

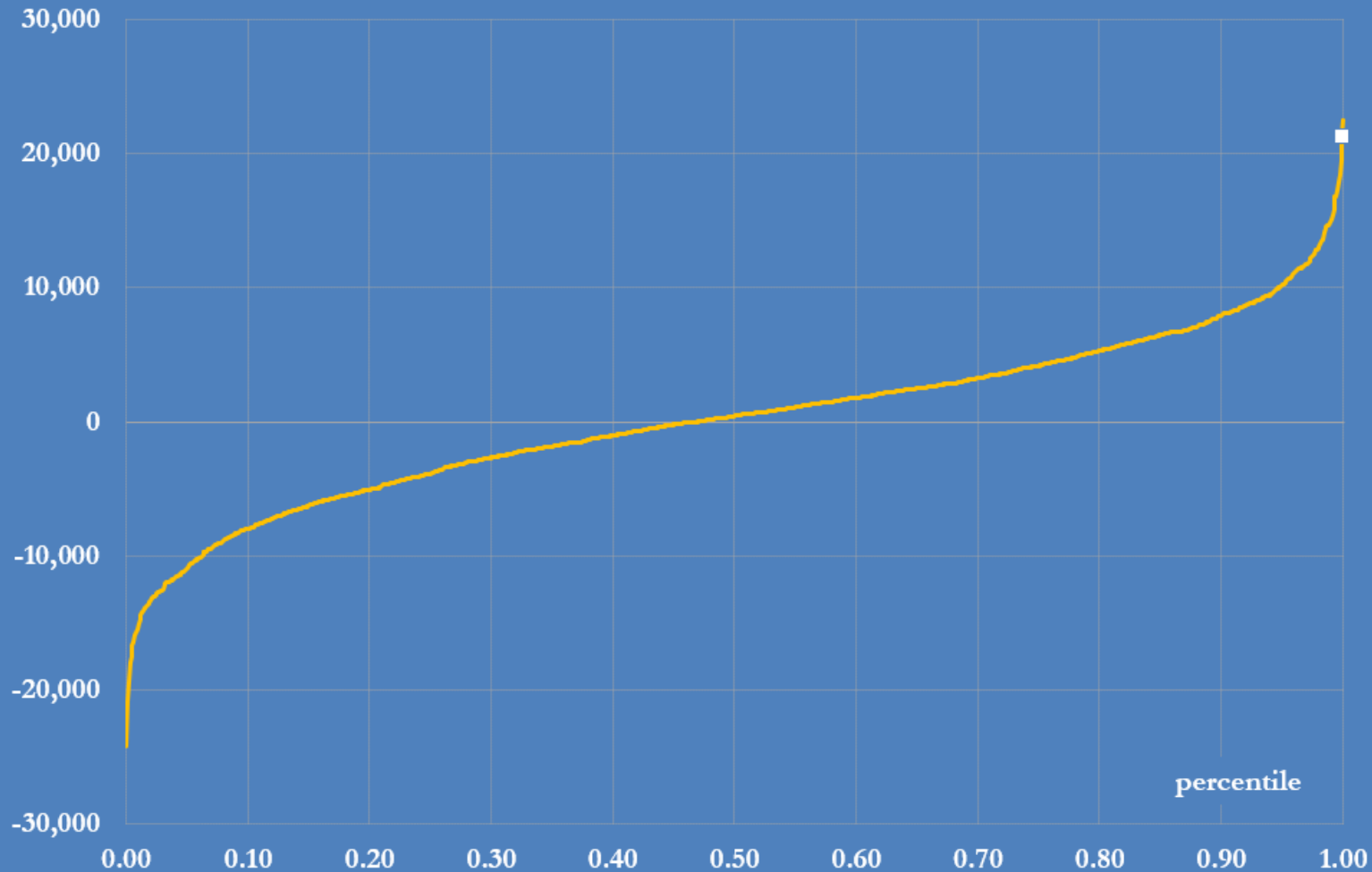


10-Year Range (Max-Min)
2019
2020
10-Year Median

Source: U.S. Energy Information Administration,
Weekly Petroleum Status Report
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One-week stock build in w/e Mar 27 was exceptionally large
99th percentile for all weeks since series began in 1990

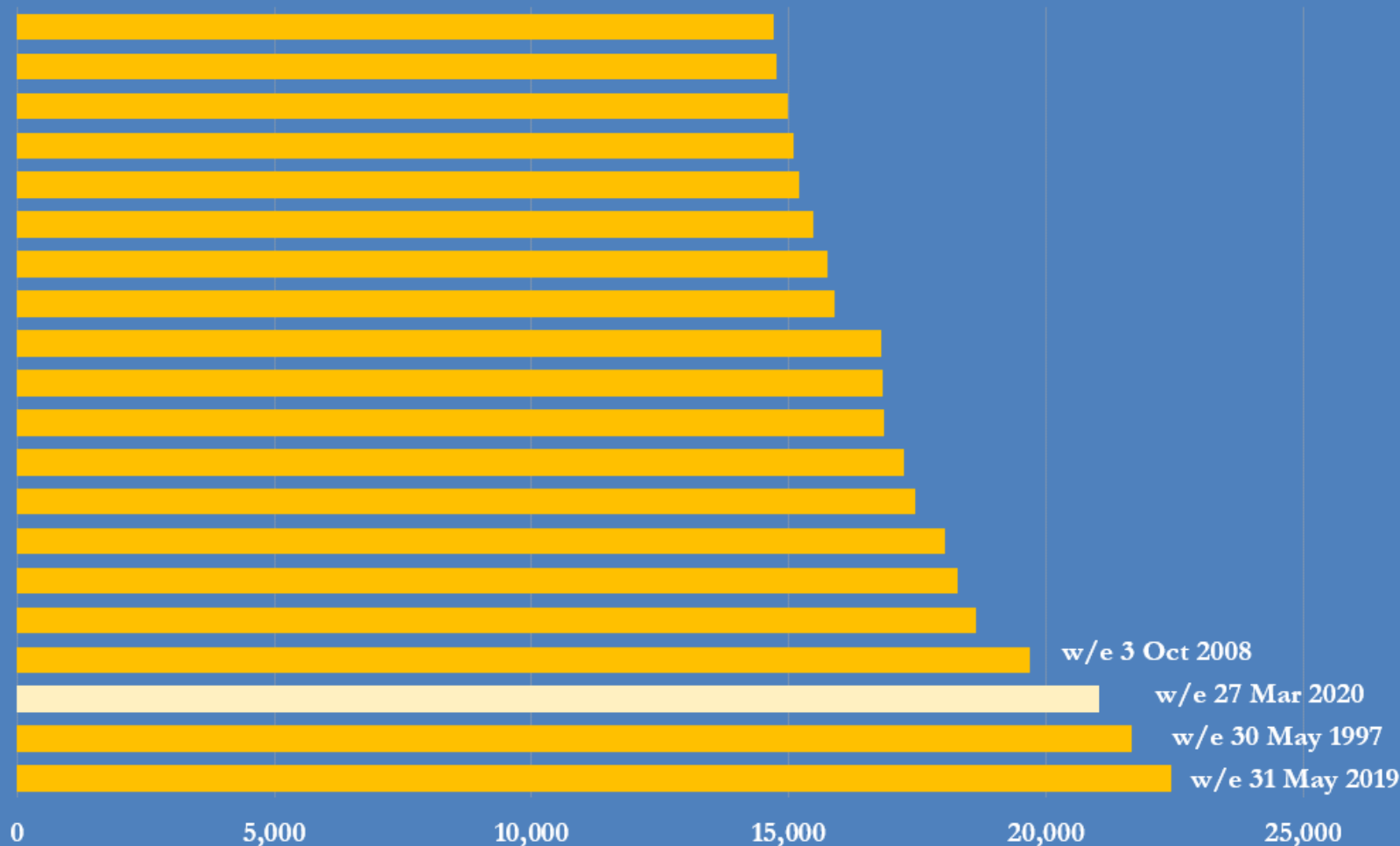
U.S. crude oil and petroleum product stocks excluding SPR
one-week change, 000 bbl, percentile distribution, 1990-2020



One-week stock build was third-largest on record

Only exceeded once every 800 weeks over last three decades

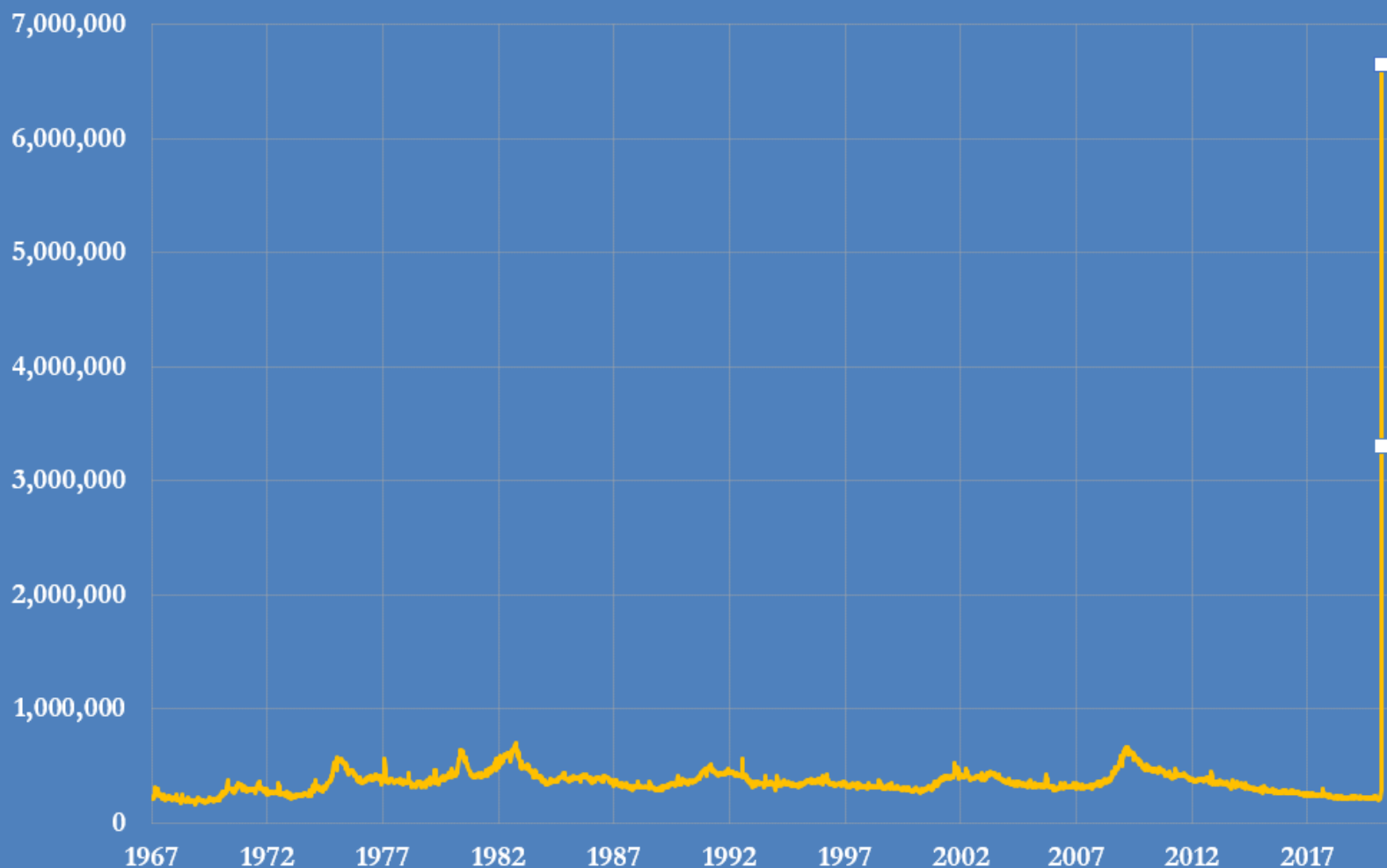
U.S. crude oil and petroleum stocks excluding SPR, 1990-2020
Twenty largest one-week increases, 000 bbl



U.S. economy has come to a sudden standstill, no parallel in recent history

10 million jobs lost over two weeks between Mar 13 and Mar 27

U.S. Initial Unemployment Claims, 1967-2020
Weekly claims, seasonally-adjusted

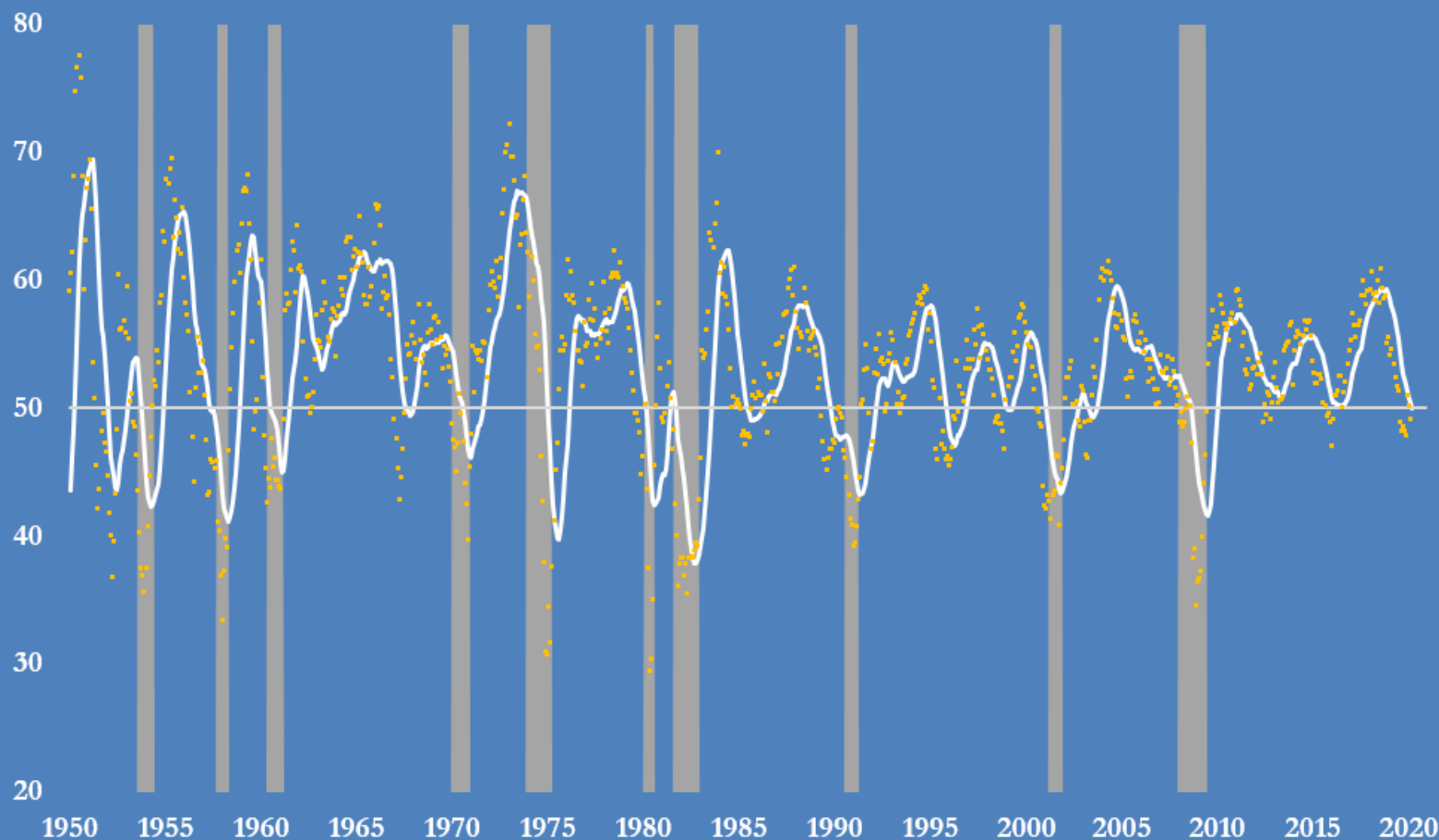


U.S. manufacturers reported abrupt end to previous economic upswing in Mar
ISM purchasing managers' index fell below 50 point threshold signaling contraction

U.S. Purchasing Managers' Index, 1950-2020

Manufacturing, diffusion index, base = 50

Monthly and 12-month moving average



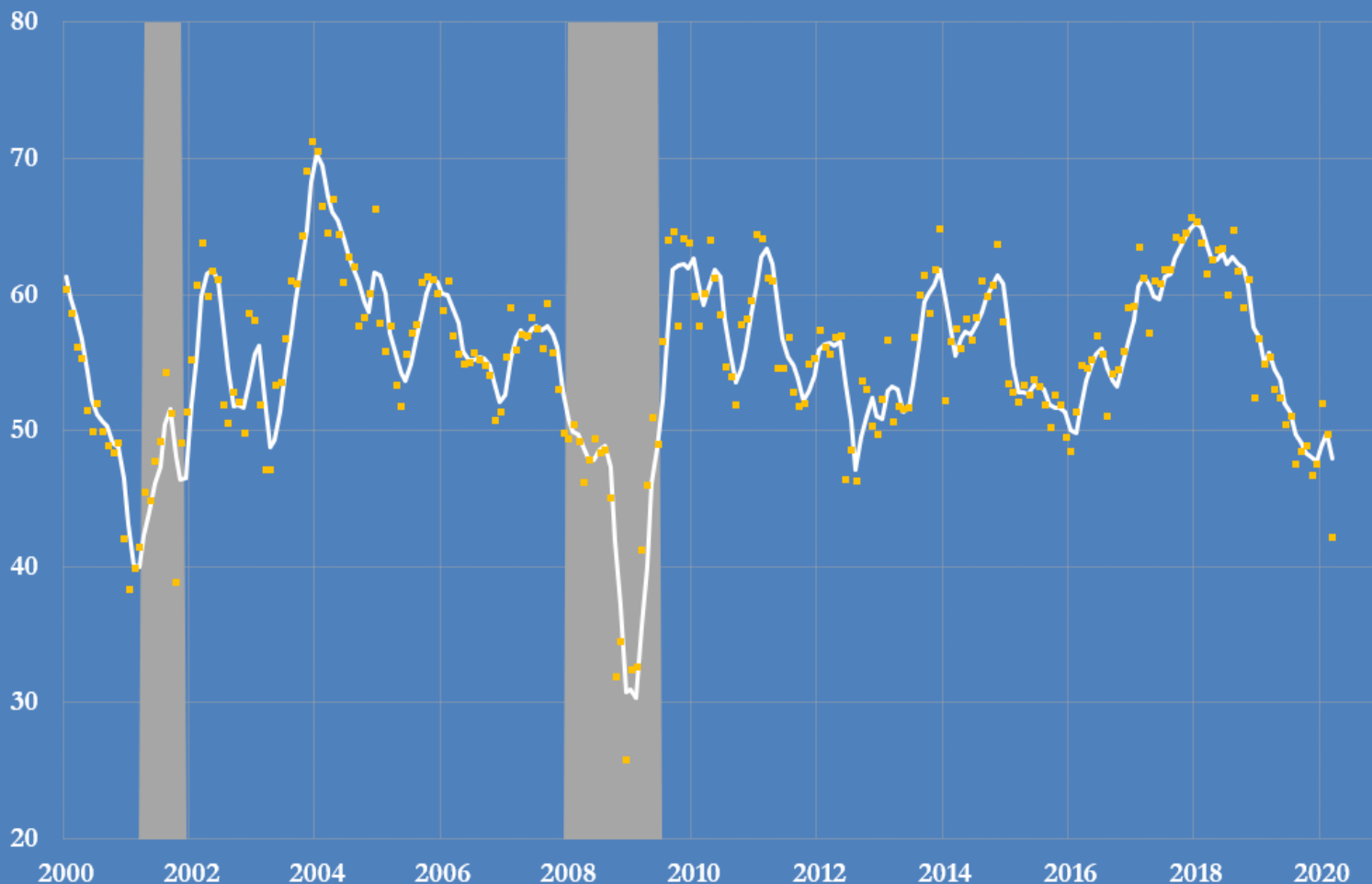
U.S. manufacturers reported most widespread fall in new orders since 2009

Production and employment set to drop sharply in next few months

U.S. ISM manufacturing new orders, 2000-2020

Index base = 100, monthly and three-month average

NBER recessions shown



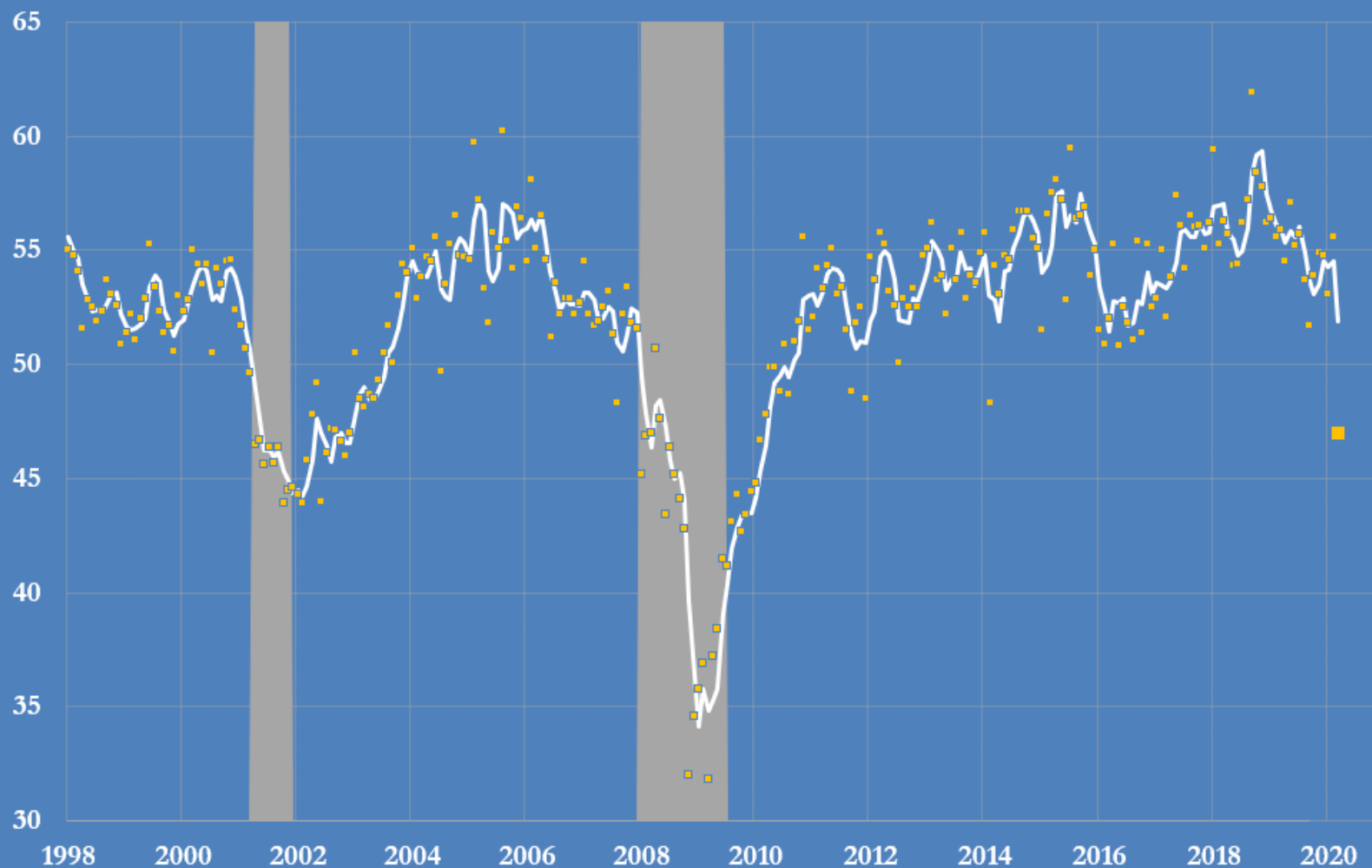
Source: U.S. Institute for Supply Management

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U.S. businesses outside manufacturing sector reported widespread fall in jobs

Employment decline was most widespread since Feb 2010

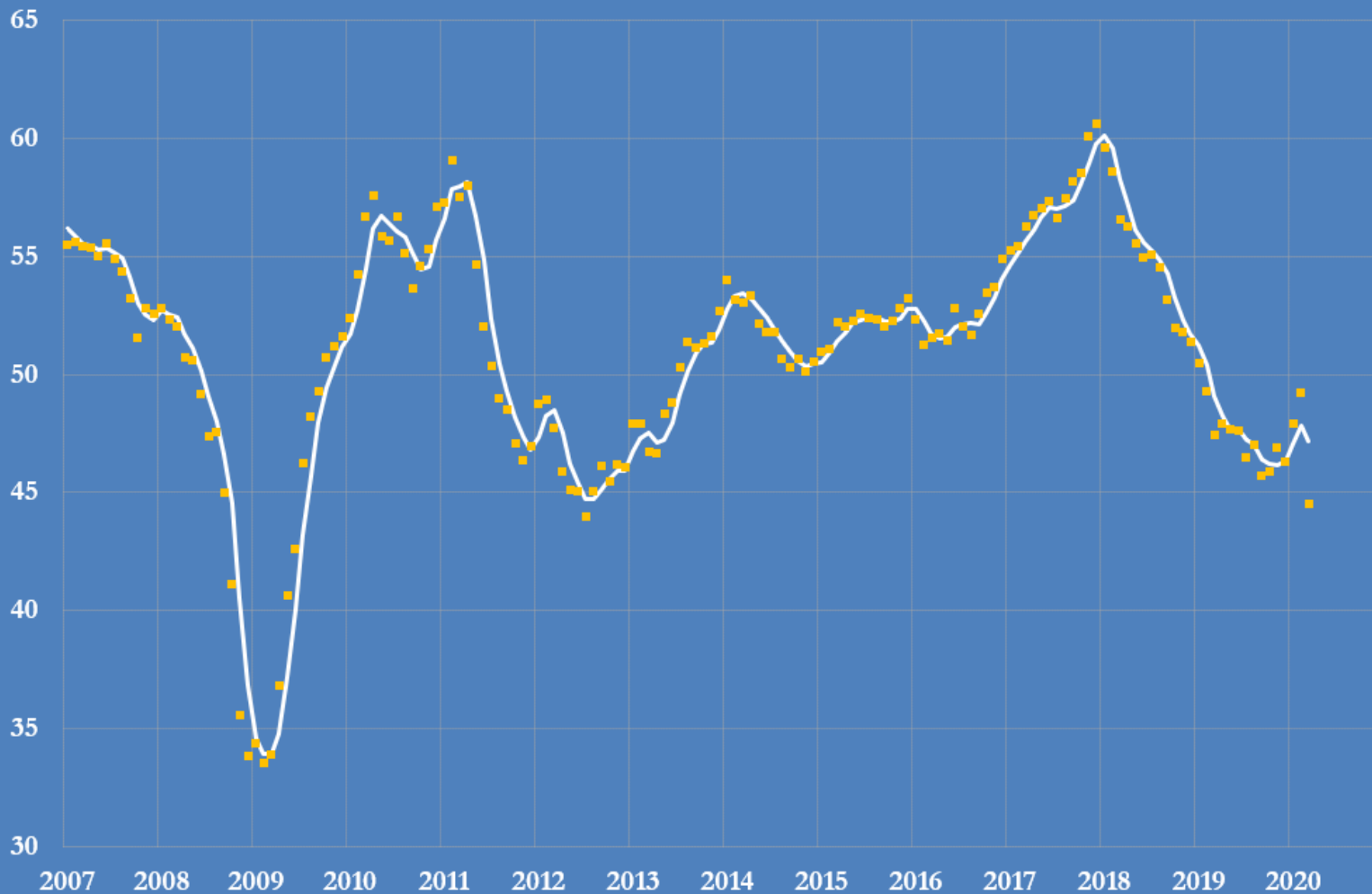
U.S. non-manufacturing businesses employment, 1998-2020
ISM non-mfg employment diffusion index, monthly and 3-month average



Eurozone manufacturers reported widespread drop in activity in Mar

PMI fell to lowest level since 2012, nascent recovery at end-2019/start of 2020 snuffed out

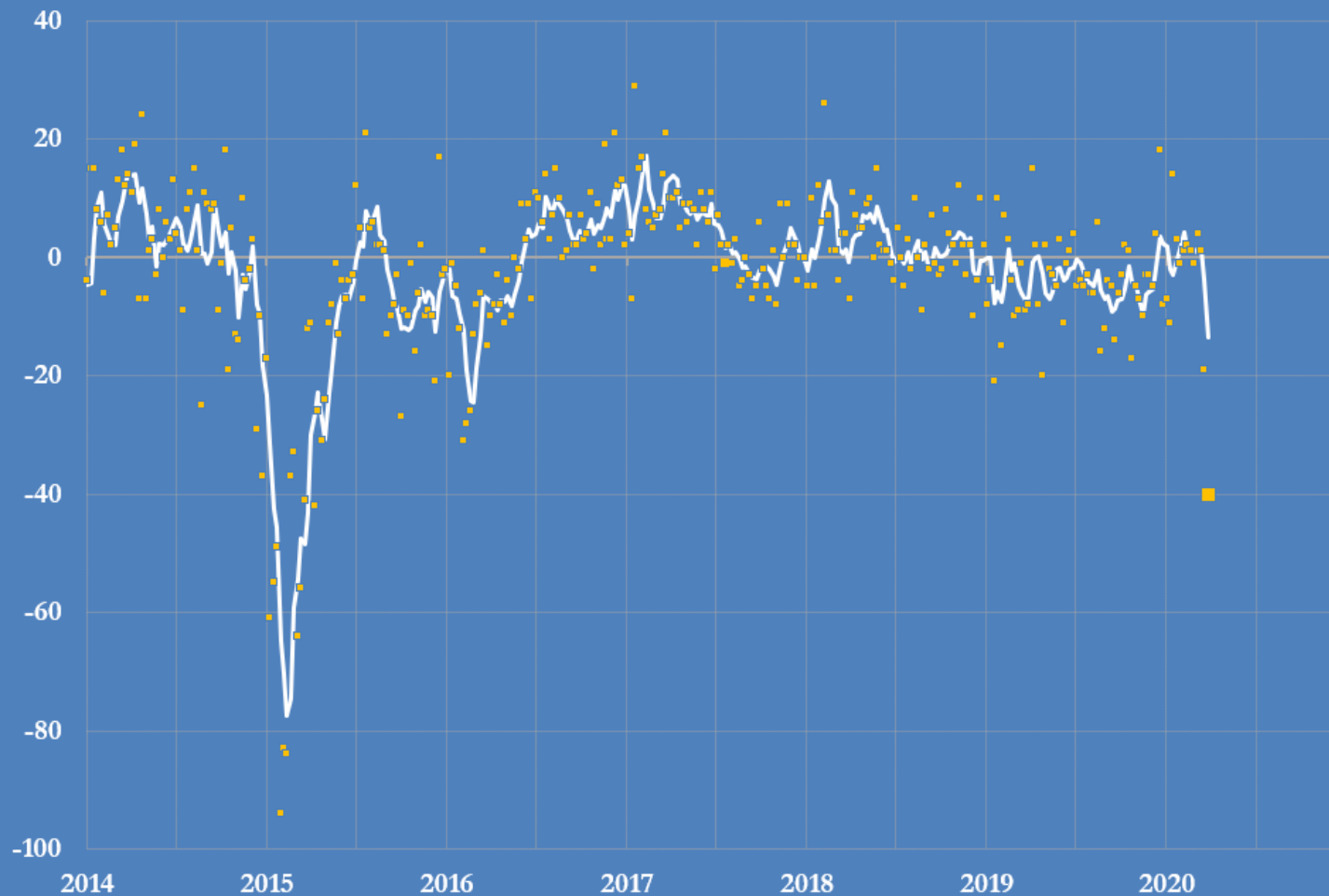
Eurozone manufacturing purchasing managers' index
Index base = 50, monthly and three-month average



U.S. oil producers have slashed number of rigs in response to low prices

Active rig count down -59 (-9%) in two weeks from Mar 13 to Mar 27

Number of rigs drilling for oil in the United States
Change from prior week and four-week average



Source: Baker Hughes

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U.S. oil rig count now down -264 (-30%) from cyclical peak in Nov 2018
Stabilisation and slight recovery in early 2020 snuffed out by volume war and epidemic

Number of rigs drilling for oil in the United States, 1990-2020

