

# Recent behaviour of oil prices

## Observations and historical case studies

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REUTERS  
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## Factors driving rise in oil prices to March 8:

- (a) Rapid economic rebound from pandemic
- (b) OPEC<sup>+</sup> / shale lack of production response
- (c) Persistent under-production since July 2020
- (d) Depletion of inventories below normal levels

*Medium-term structural factors*

*Steady upward trend in prices before Feb. 25*

- (e) Russia's invasion of Ukraine on Feb. 24
- (f) Sanctions threaten to halt Russia's oil exports

*Short-term trigger for price spike*

*Price increases accelerate from Feb. 25*

- (g) Market participants all try to avoid being short
- (h) Heightened daily and intra-day volatility
- (i) Increased margin requirements
- (j) Positions become more expensive to maintain or initiate
- (k) Diminishing liquidity
- (l) Volatility ↔ margin ↔ liquidity feedback loop

*Market technical factors fuelling price rise*

## Factors driving fall in prices after March 8:

- (a) Recession risk heightened (oil prices, inflation, Fed)
- (b) China hit by worsening coronavirus outbreak
- (c) Prospective slowdown in oil consumption
- (d) Russian oil seems to have (partial) sanctions exemption
- (e) Prospective truce/de-escalation of Russia-Ukraine war

*Short-term trigger for sudden drop in prices*

- (f) Heightened daily and intra-day volatility
- (g) Increased margin requirements
- (h) Diminishing liquidity
- (i) Volatility  $\leftrightarrow$  margin  $\leftrightarrow$  liquidity feedback loop

*Market technical factors accelerating price fall*

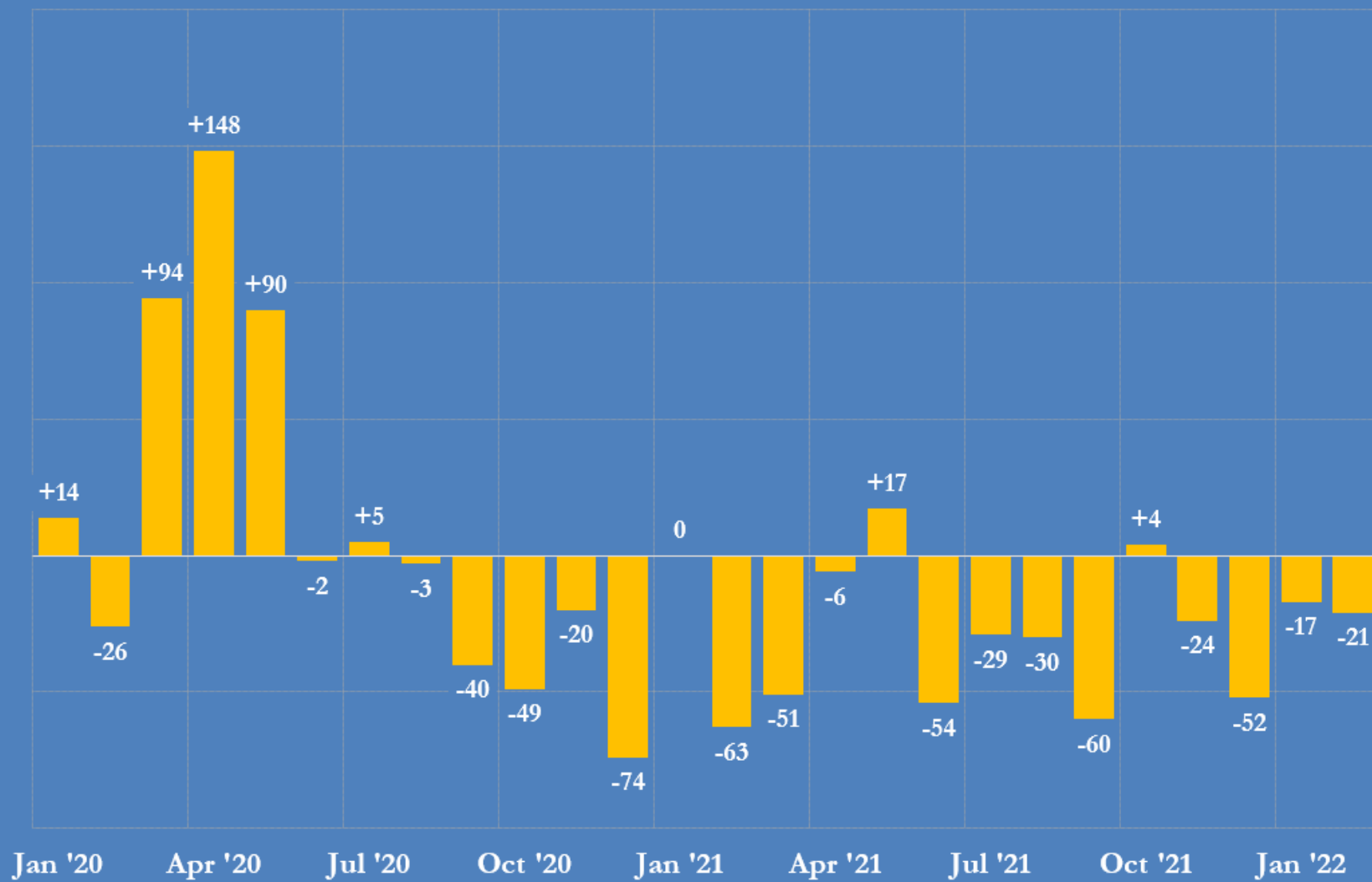
- (j) Market participants attempt to trim bullish positions
- (k) Lopsided positioning
- (l) Further buying interest temporarily absent
- (m) Flash crash

*Liquidation occurs in liquidity hole*

*Price plunge has some characteristics of a flash crash*

## OECD commercial petroleum inventories, 2020-2020

monthly change, million barrels

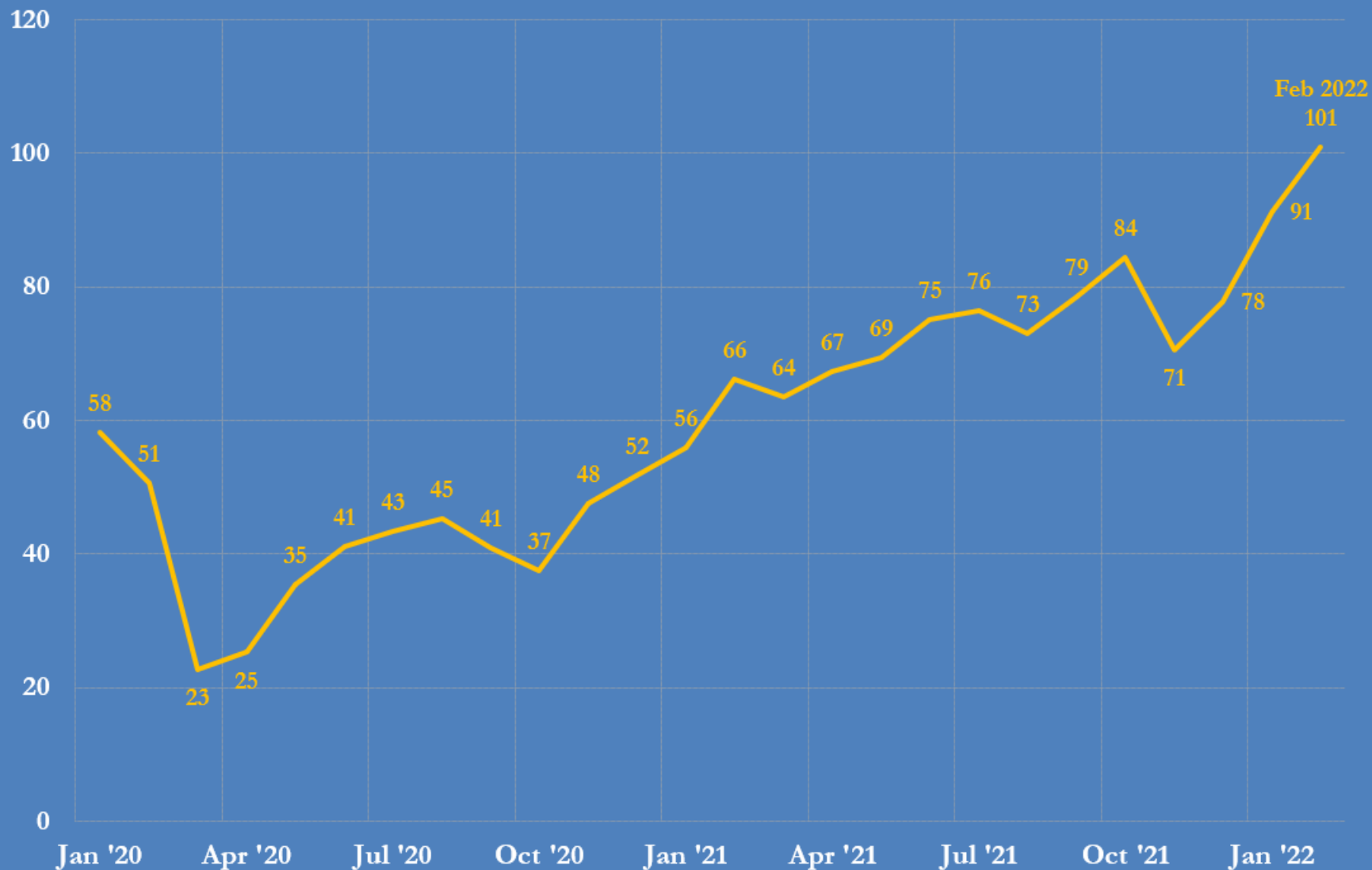


Source: U.S. Energy Information Administration

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## Brent crude price, 2020-2022

U.S.\$ per barrel, front-month futures, month-end



Source: ICE Futures Europe

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# Brent crude prices, 1990-2022

end-month, except most recent month, adjusted for inflation, 2022 U.S.\$/bbl

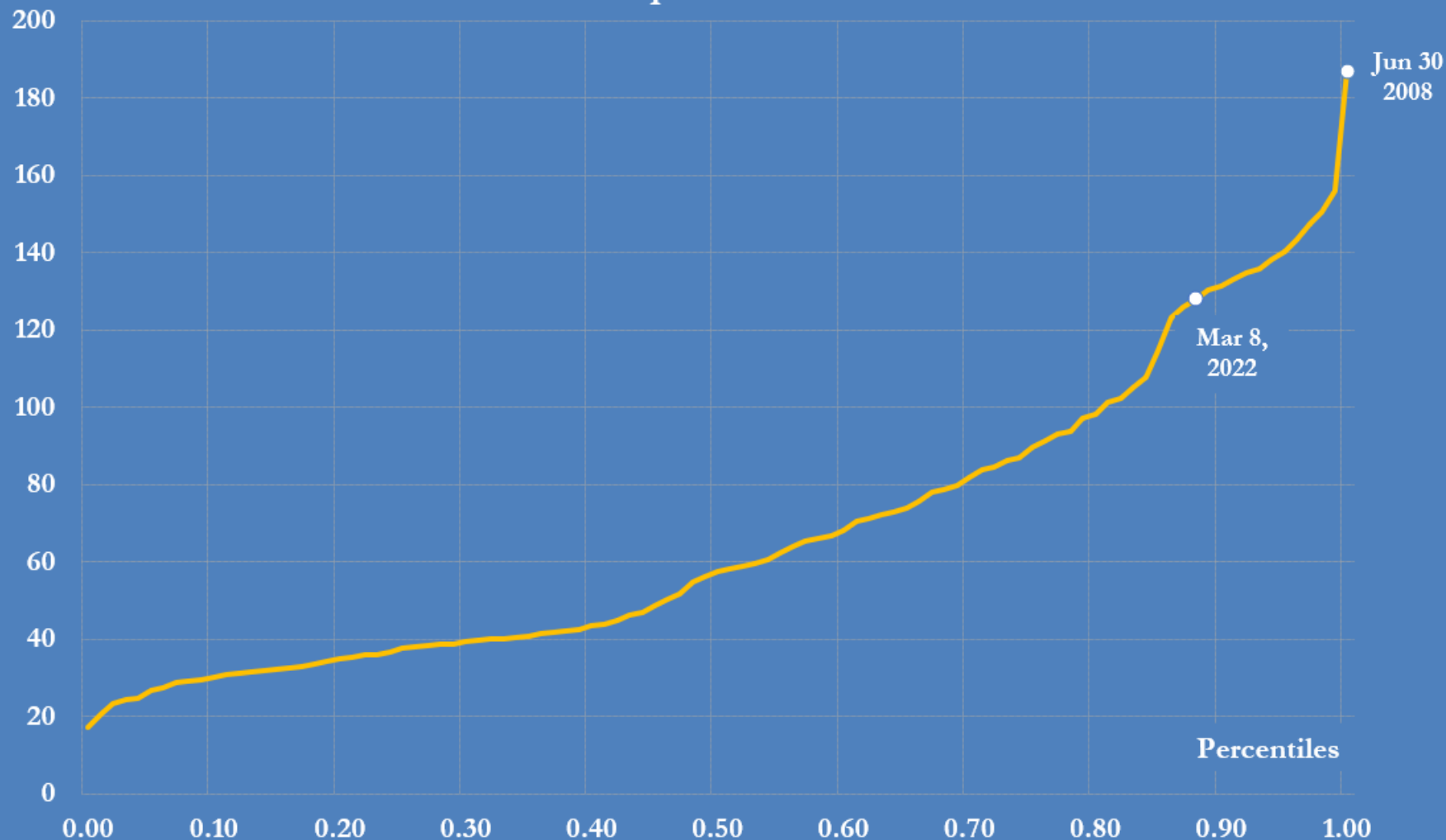


Source: ICE Futures Europe, U.S. Bureau of Labor Statistics

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# Brent crude prices, 1990-2022

end-month, adjusted for inflation, 2021 U.S\$/bbl  
percentiles



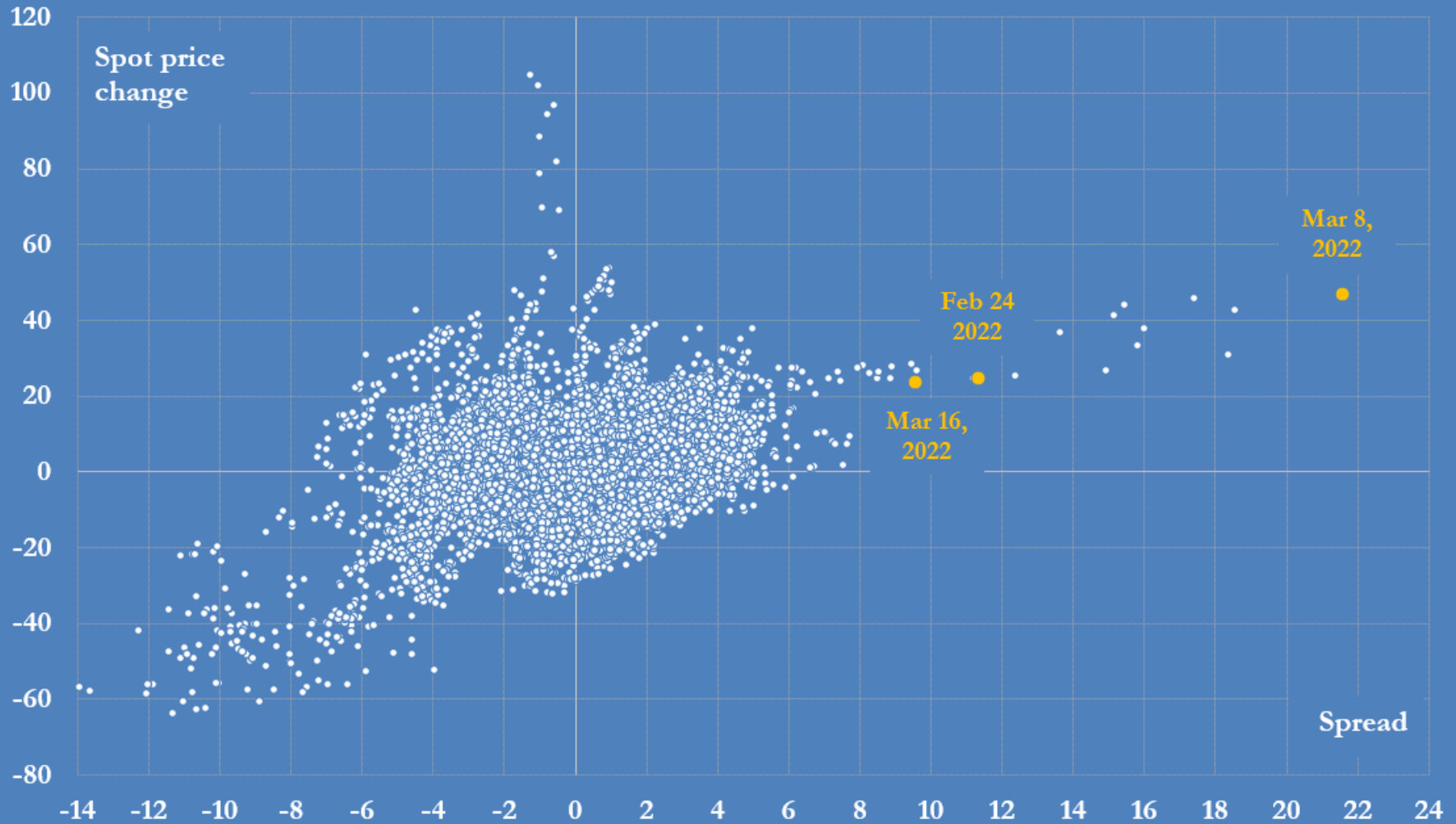
Source: ICE Futures Europe, U.S. Bureau of Labor Statistics

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# Brent spot prices and calendar spread, 1993-2022

X-axis: six-month calendar spread (M1-M7) (U.S\$ per barrel)

Y-axis: percent change in spot price over previous two months (five-day avg)



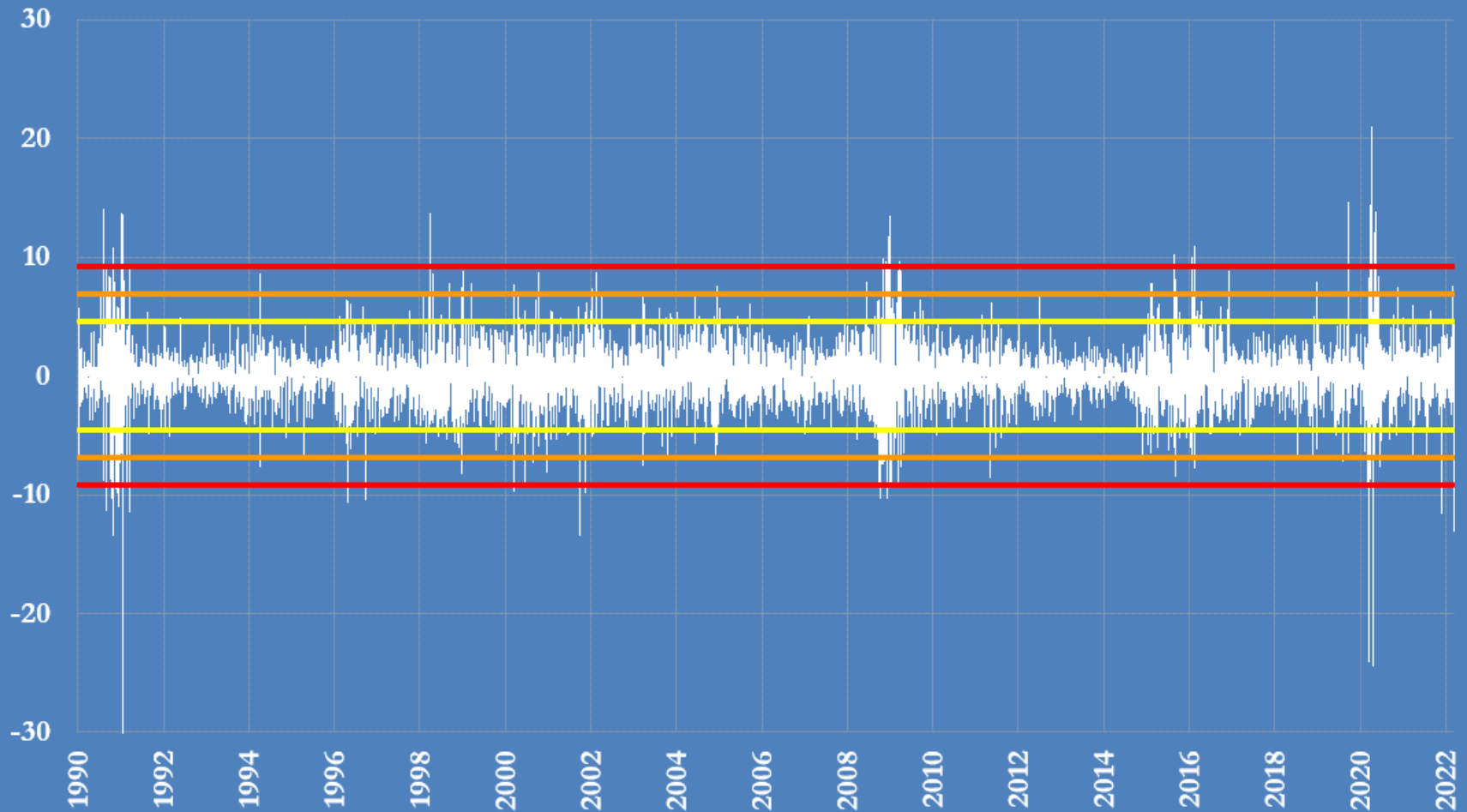
Source: ICE Futures Europe

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# Brent volatility, 1990-2022

## daily percent change in front-month futures price

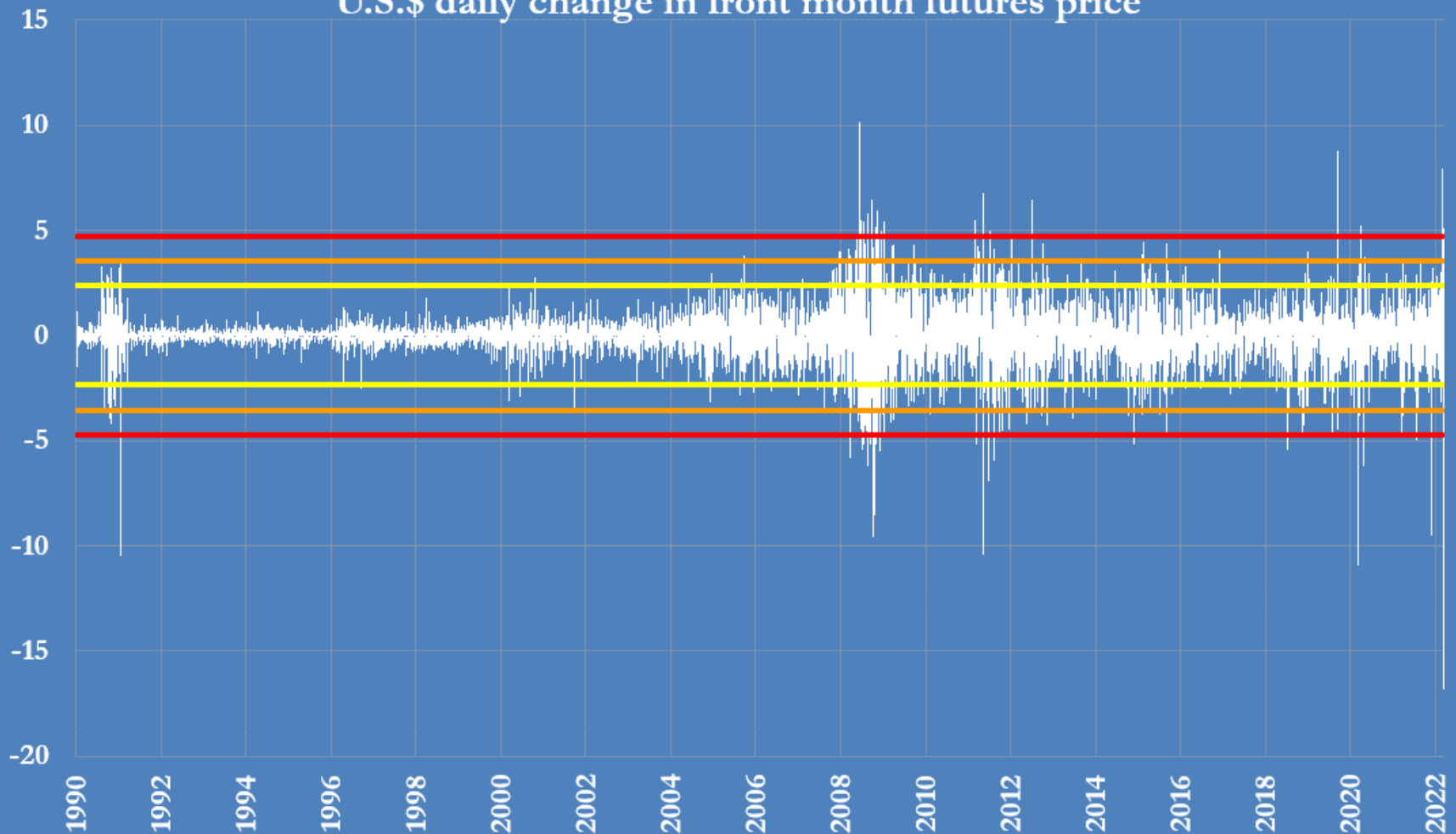


- Brent 1st Month Futures One-Day Percent Change
- Mean percent change + / - 2 standard deviations
- Mean percent change + / - 3 standard deviations
- Mean Percent Change + / - 4 standard deviations

Source: ICE Futures Europe  
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# Brent volatility, 1990-2022

U.S.\$ daily change in front month futures price

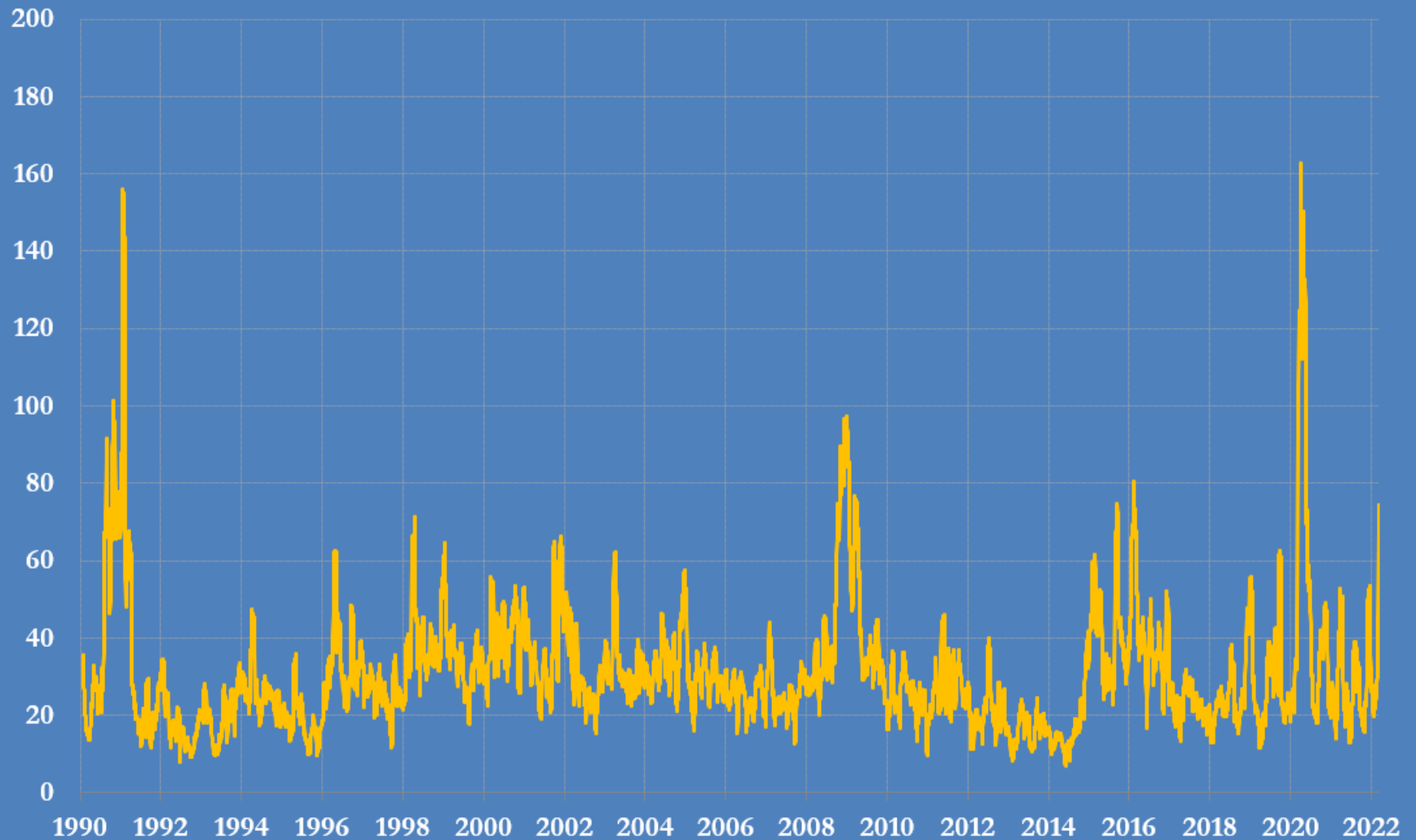


- Brent 1st Month Futures One-Day U.S.\$ Change
- Mean U.S.\$ change + / - 2 standard deviations
- Mean U.S.\$ change + / - 3 standard deviations
- Mean U.S.\$ change + / - 4 standard deviations

Source: ICE Futures Europe  
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# Brent front-month futures, 1990-2022

## 20-day annualised volatility, percent



Source: ICE Futures Europe

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# Brent crude futures prices behaviour around a price peak

U.S.\$ per barrel, front-month futures, trading days before (-) and after peak (+)



Source: ICE Futures Europe

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# Brent calendar spread behaviour around a price peak

U.S.\$ per barrel, six-month spread, contango (-) and backwardation (+)  
trading days before (-) and after peak (+)



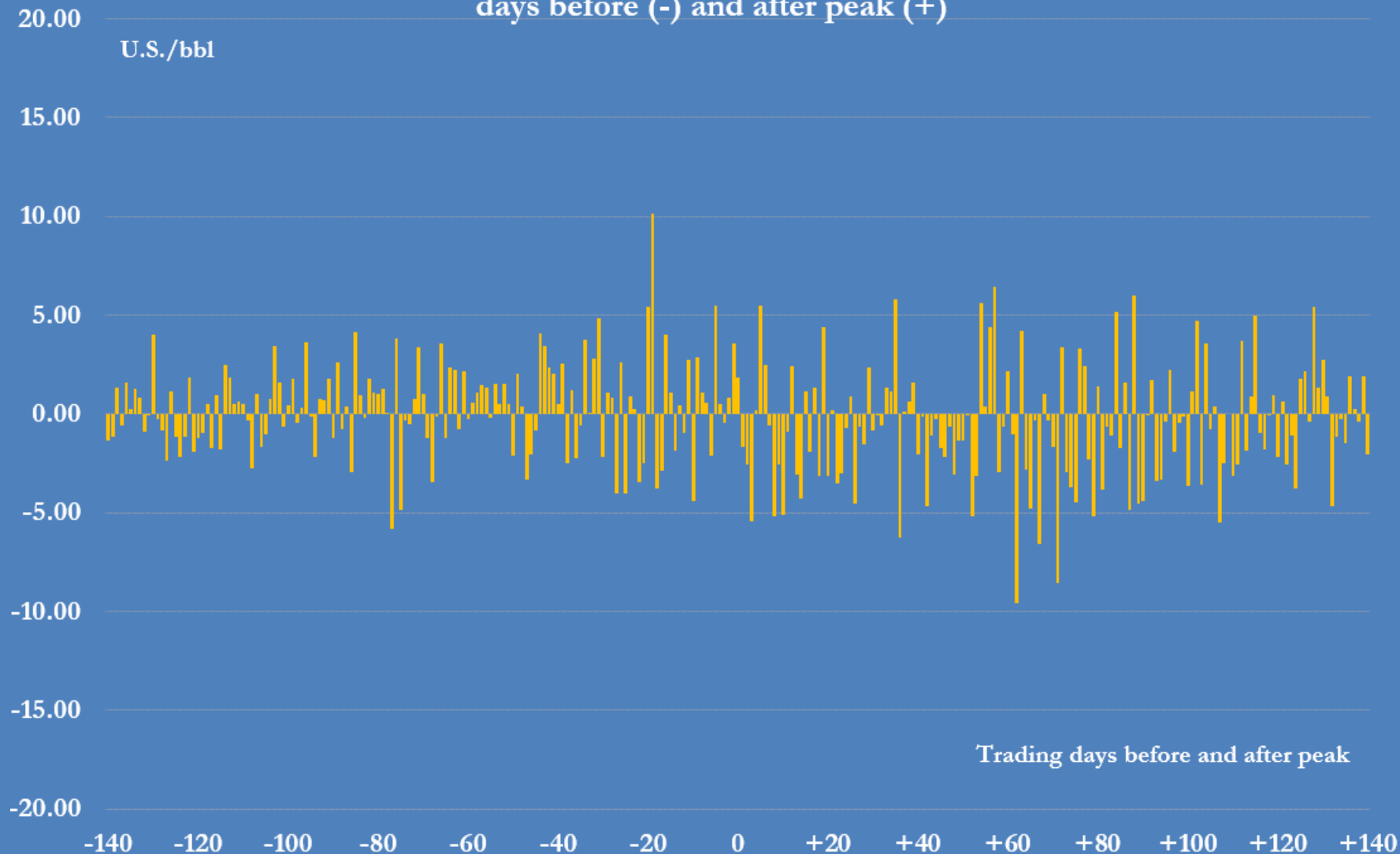
Source: ICE Futures Europe

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# Brent futures prices behaviour around a price peak (2008)

U.S.\$ per barrel, front-month futures, one-day change in dollars

days before (-) and after peak (+)



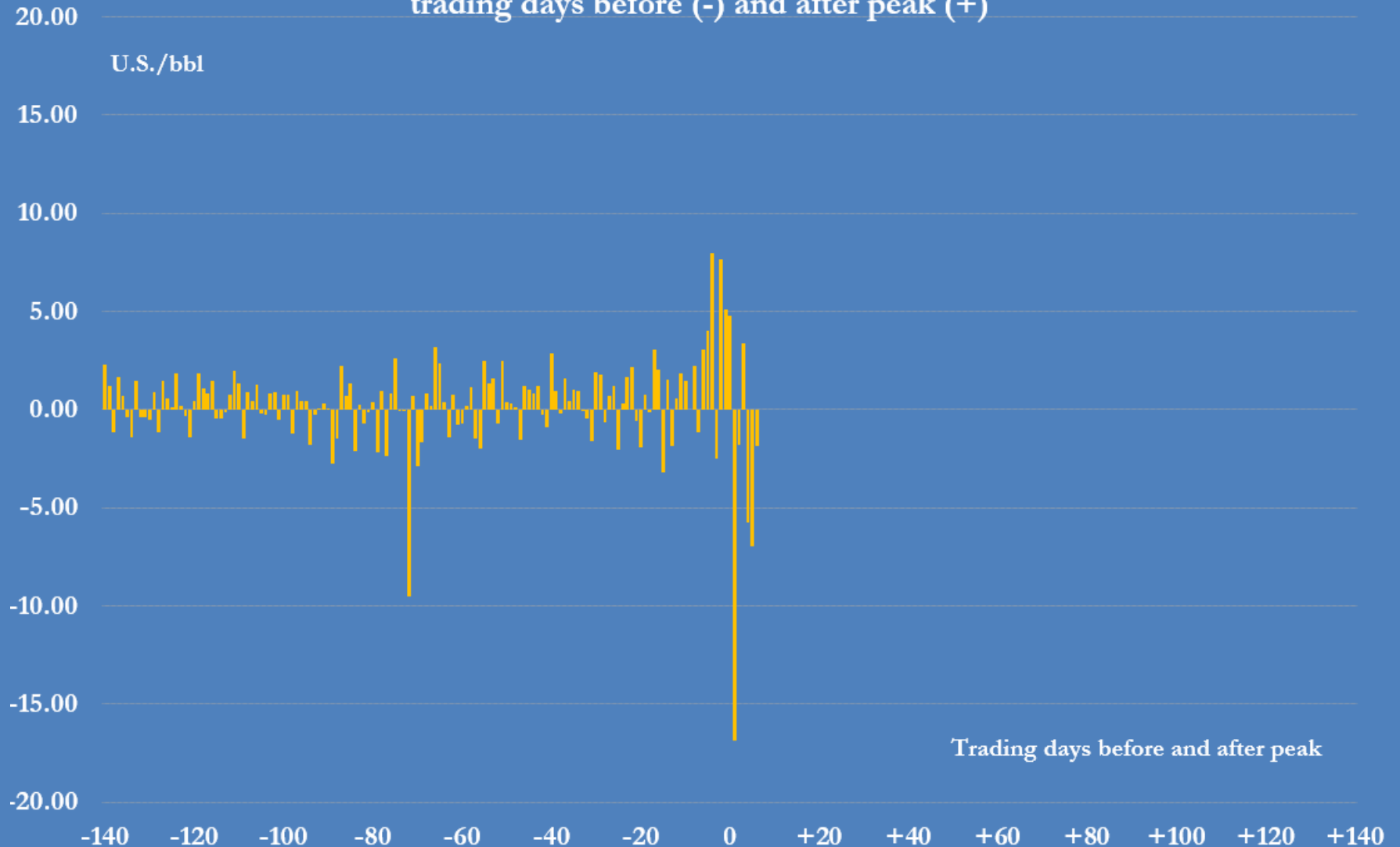
Source: ICE Futures Europe

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# Brent futures prices behaviour around a price peak (2022)

U.S.\$ per barrel, front-month futures, one-day change in dollars

trading days before (-) and after peak (+)

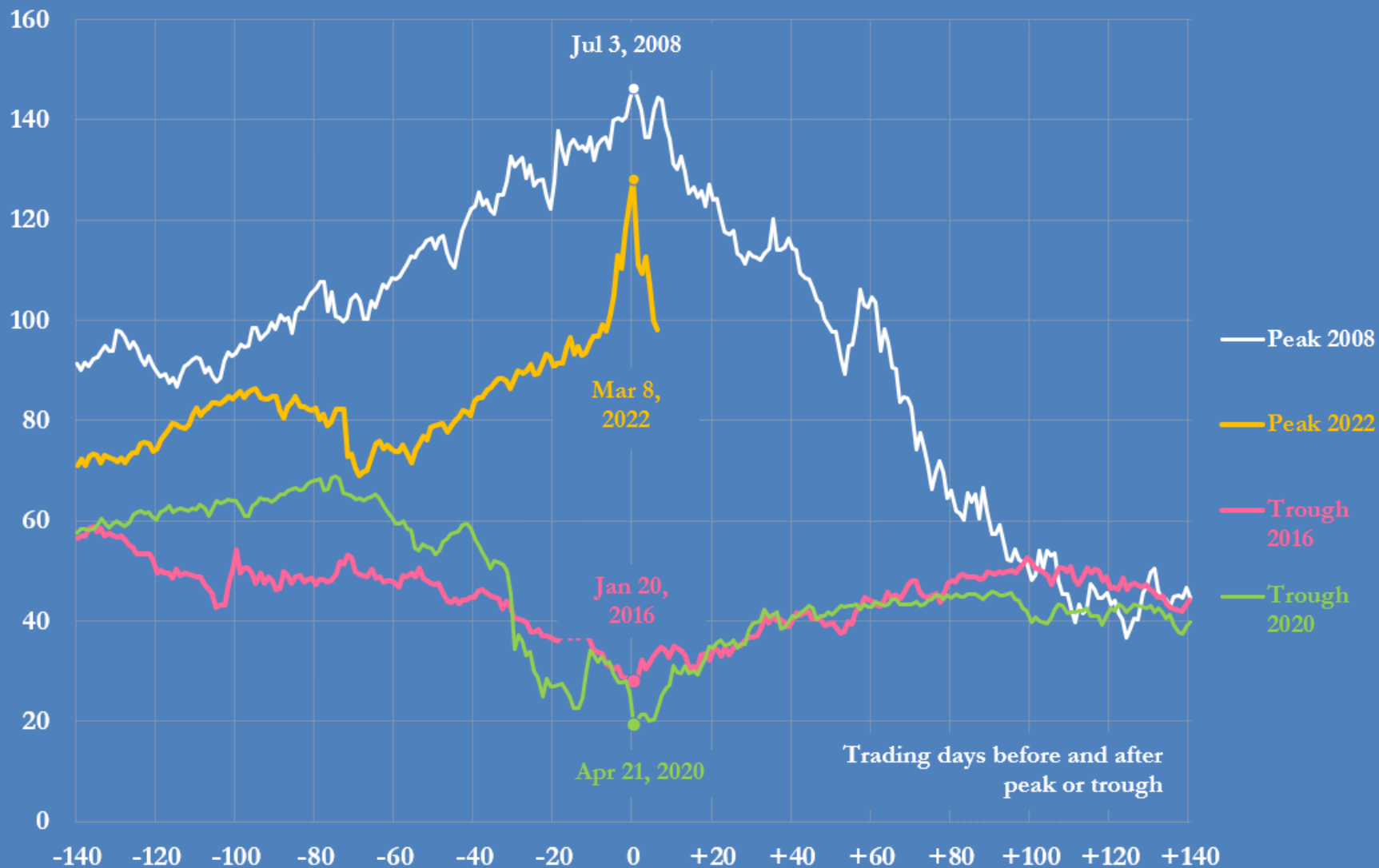


Source: ICE Futures Europe

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# Brent crude futures prices behaviour around a price peak or trough

U.S.\$ per barrel, front-month futures, trading days before (-) and after (+) event

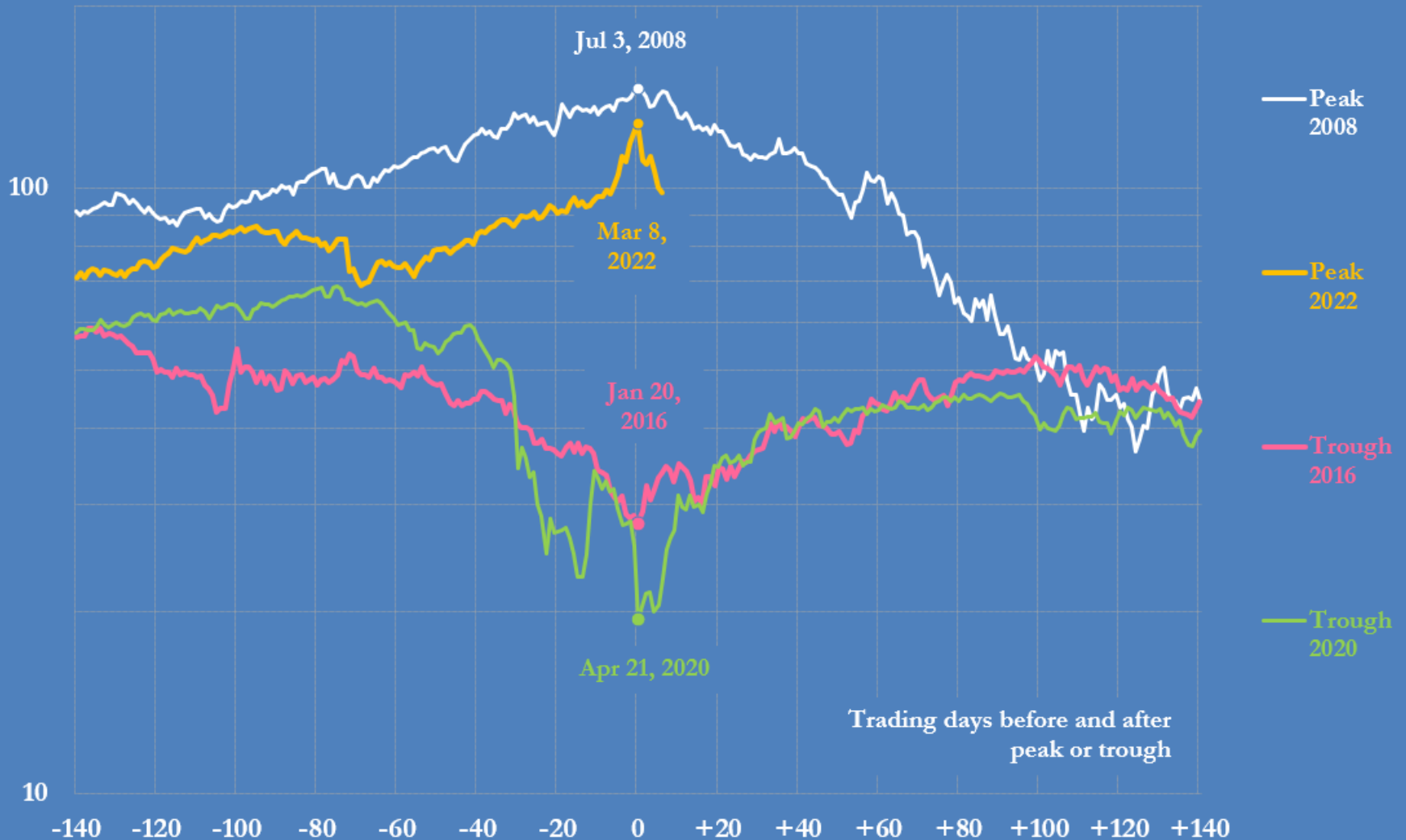


Source: ICE Futures Europe

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Brent crude futures prices behaviour around a price peak or trough  
U.S.\$ per barrel, front-month, semilog scale,  
trading days before (-) and after (+) event



Source: ICE Futures Europe

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# CFTC and ICE commitments of traders

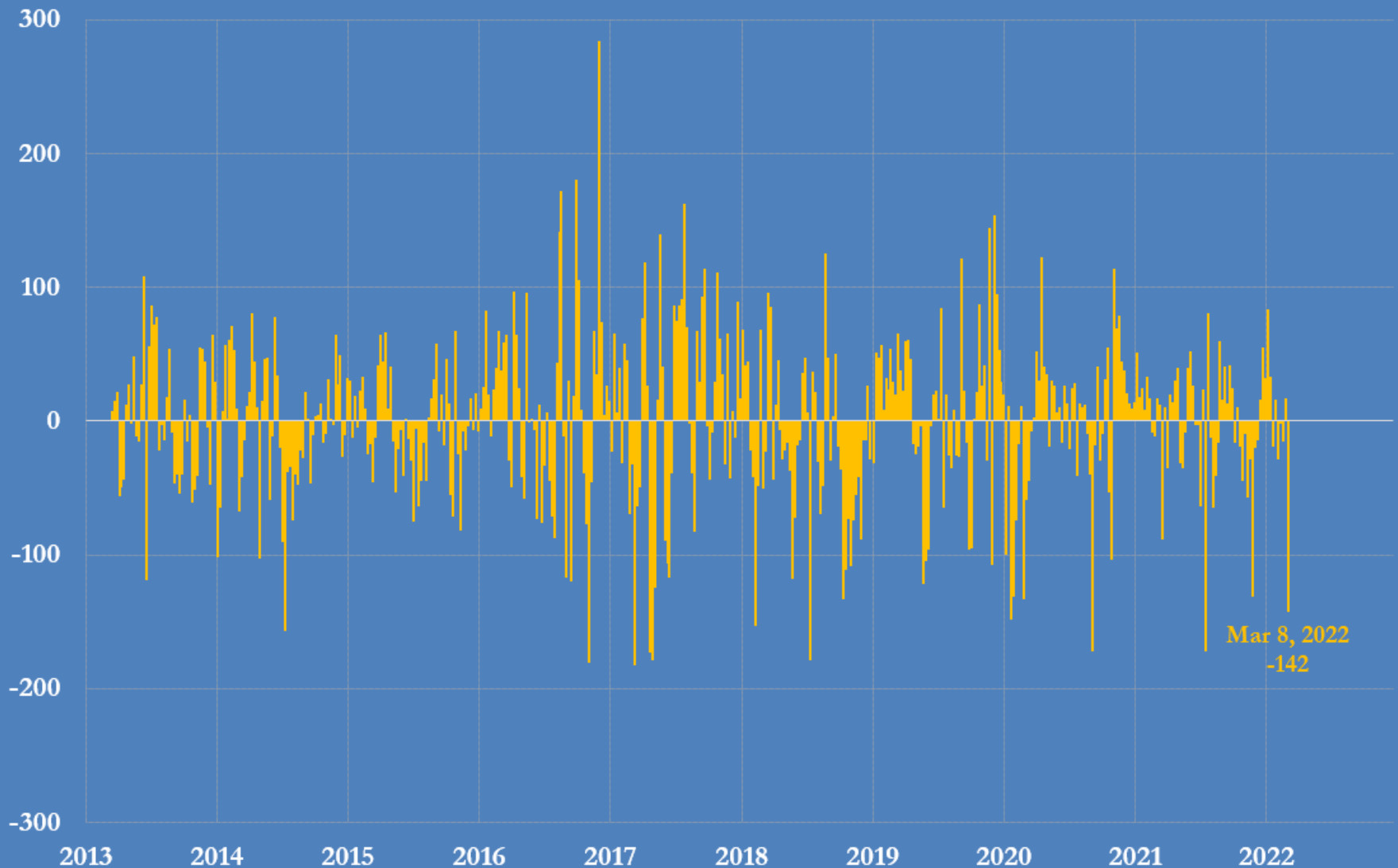
Week ending: 8 March 2022

	Total Long Positions	Total Short Positions	Net Position (Long-Short)		Δ Long Positions	Δ Short Positions	Δ Net position	Long/Short Positions Ratio	
	million bbl	million bbl	million bbl	percentile	million bbl	million bbl	million bbl	ratio	percentile
Total petroleum positions	745	157	588	0.45	-114	+28	-142	4.76	0.61
Crude oil	575	133	442	0.36	-66	+29	-96	4.33	0.46
All products	170	24	146	0.63	-48	-1	-47	7.15	0.63
Middle distillates	105	21	85	0.67	-35	-1	-34	5.11	0.78
WTI (NYMEX + ICE)	323	39	285	0.53	-3	-4	+2	8.37	0.81
Brent	252	94	158	0.21	-64	+34	-97	2.67	0.22
U.S. gasoline	65	3	62	0.65	-13	-0	-13	20.52	0.95
U.S. diesel	31	18	13	0.54	-12	-1	-11	1.71	0.59
European gas oil	74	3	72	0.71	-23	-0	-23	29.50	0.92

Percentiles are for all weeks since 2013

Sources: CFTC and ICE Futures Europe  
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## Money managers' weekly net position change in Brent, WTI, U.S. gasoline, U.S. diesel and Euro gasoil (million bbl)

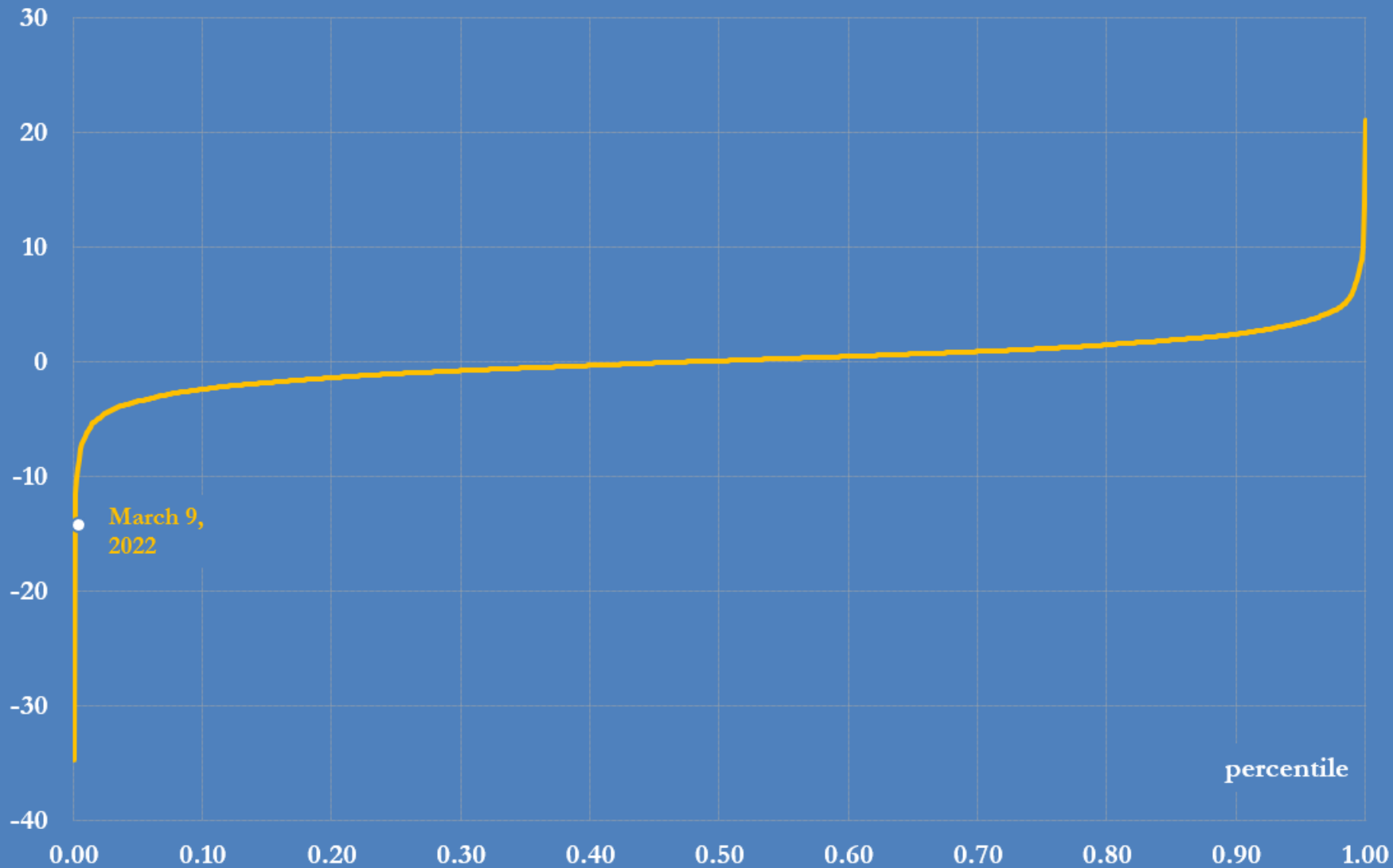


Sources: CFTC and ICE Futures Europe

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# Brent crude prices, 1990-2022

## one-day percent change, front-month futures, percentile distribution

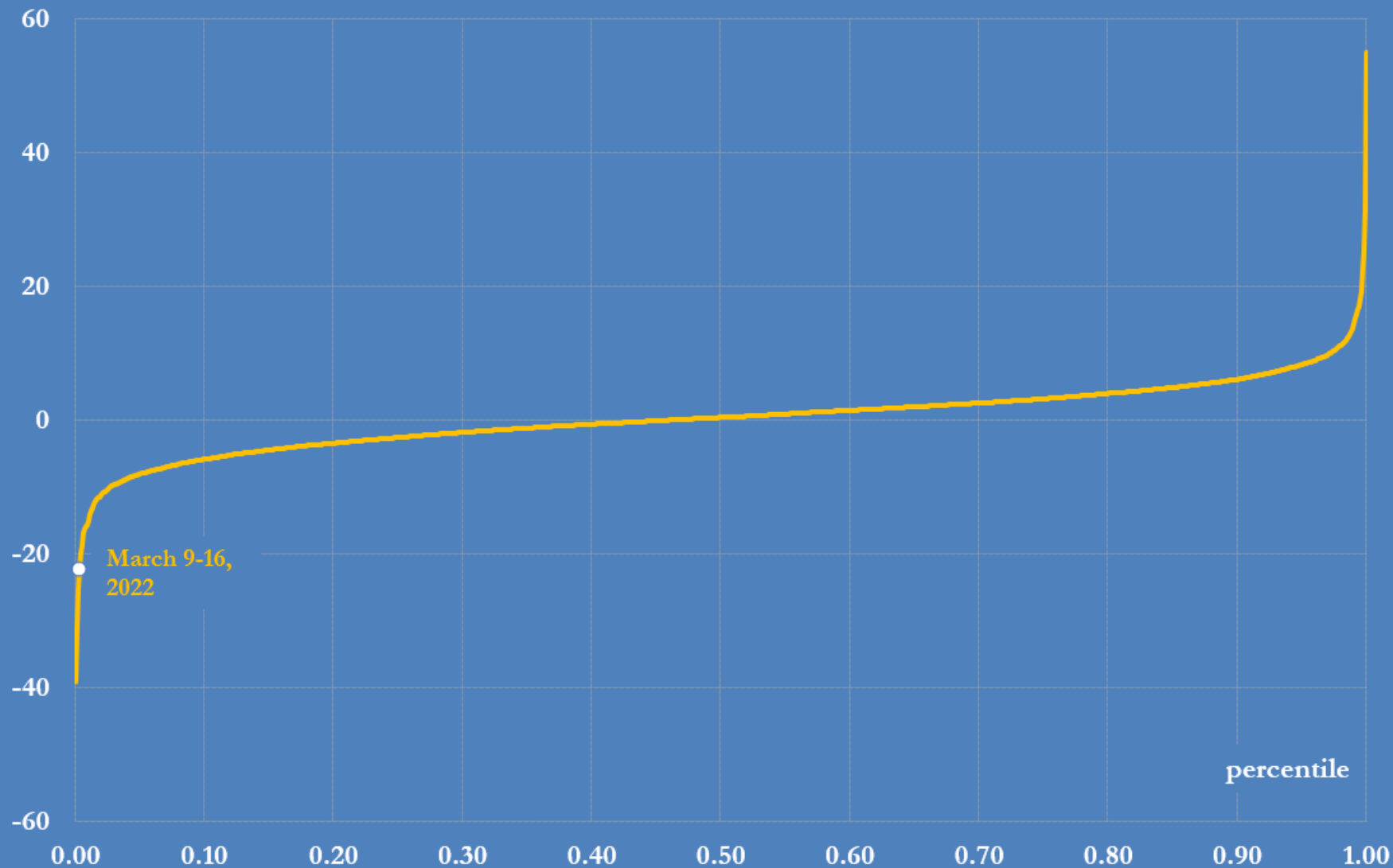


Source: ICE Futures Europe

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# Brent crude prices, 1990-2022

six-day percent change, front-month futures, percentile distribution



Source: ICE Futures Europe

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