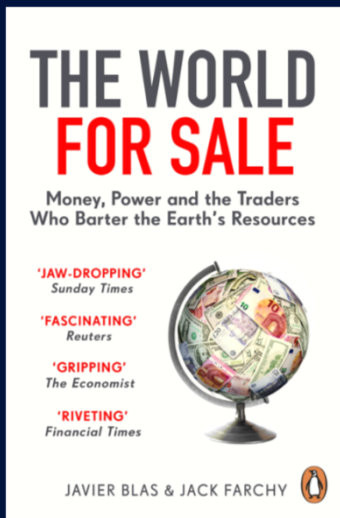
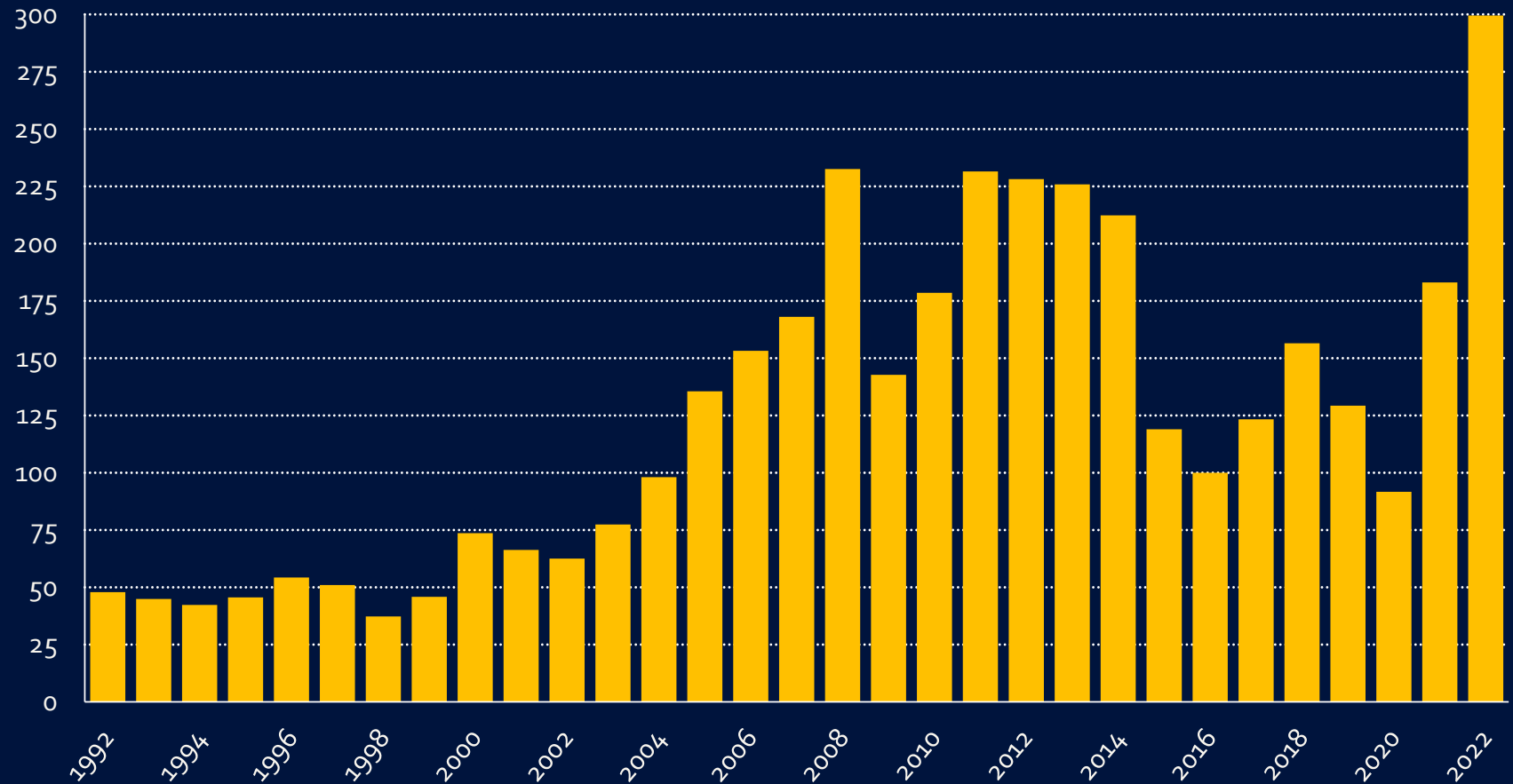


Record energy costs

Oil, natural gas, coal and propane (2016=100, in terms of US dollars)

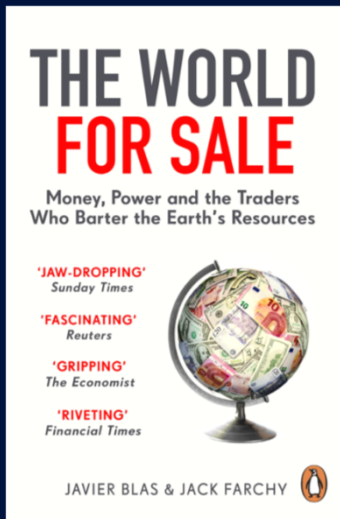
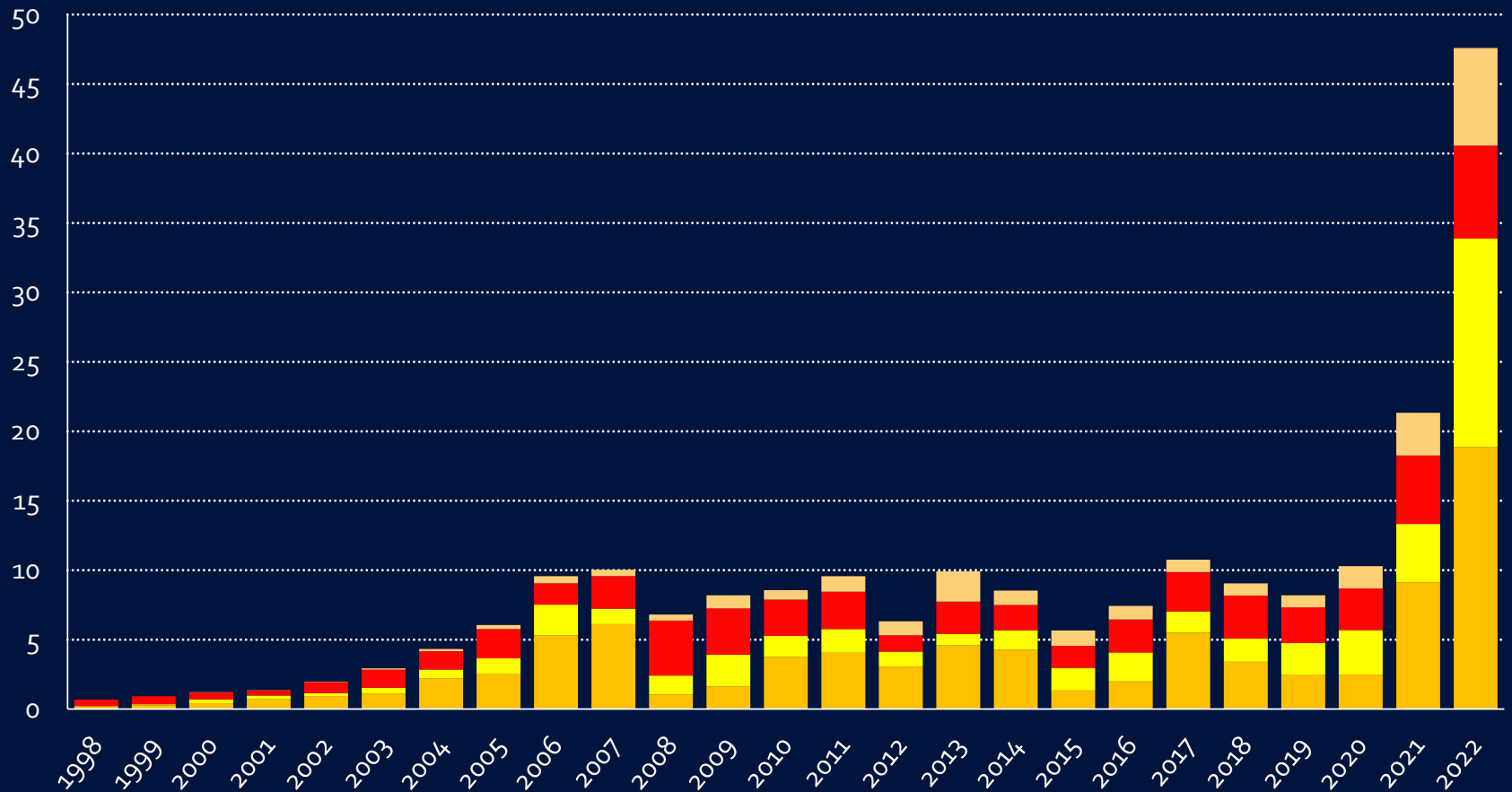
■ IMF Energy Index



Commodity trading boom

Net income of the world's top trading houses, US\$ billion

■ Glencore ■ Vitol ■ Cargill ■ Trafigura

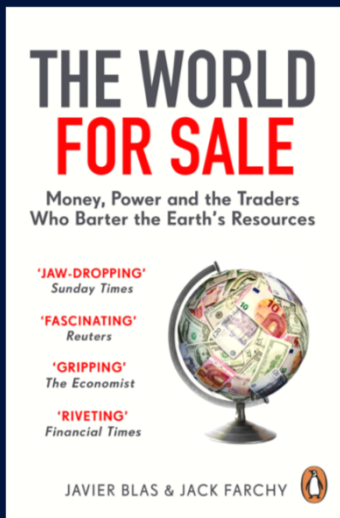
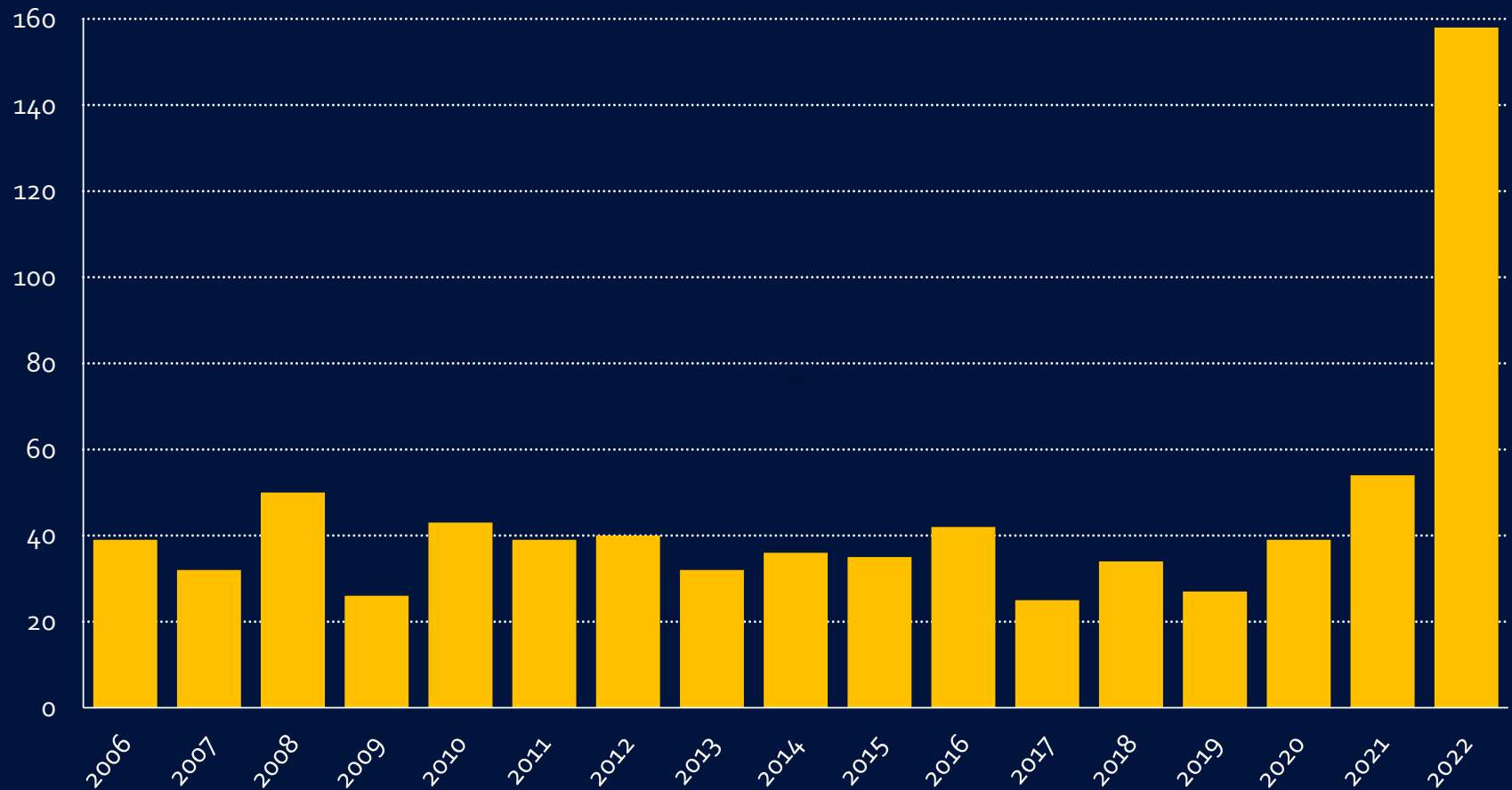


Source: 'The World for Sale' and author's research Note: From 2011 onward Glencore is net income pre-significant items @JavierBlas

Big profits alongside big wagers

Glencore took unusually large market price risk in 2022

■ VaR, annual average, US\$ million



Source: Glencore Note: VaR one-day, 95% confidence. 2006 and 2007 VaR at year-end; since then, average annual @JavierBlas

The Wild West of the commodity market

The known unknowns and unknown unknowns

European Central Bank, Financial Stability Review, November 2017:

"Commodity traders have largely escaped regulatory scrutiny in the EU"

Bank of England, Financial Stability Report, July 2022:

"...particularly opaque..."

"... highly leveraged participants..."

"... liquidity mismatch..."

International Monetary Fund, Global Financial Stability Report, April 2023

"... some very large commodity traders are private companies that are subject only to very limited (or no) public reporting requirements..."

Federal Reserve Bank of Dallas, April 2022:

"... the recent situation highlights some vulnerabilities..."

"... unregulated markets..."

