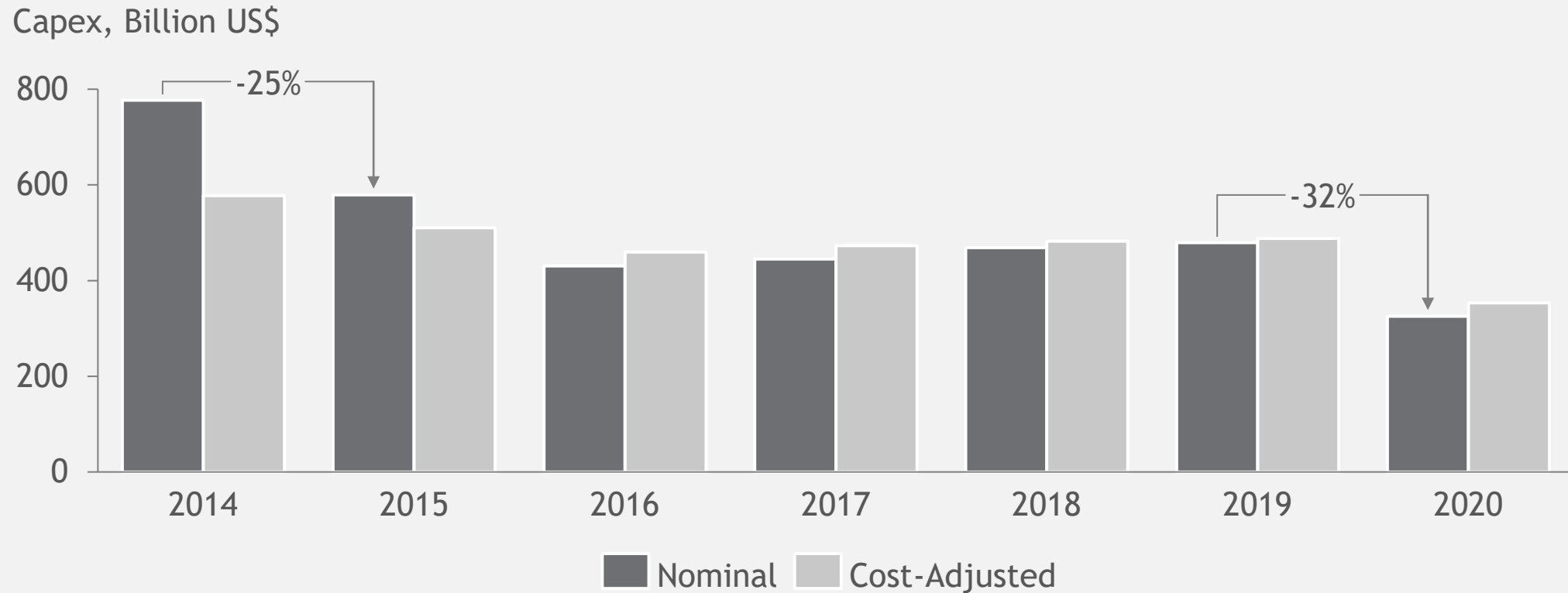
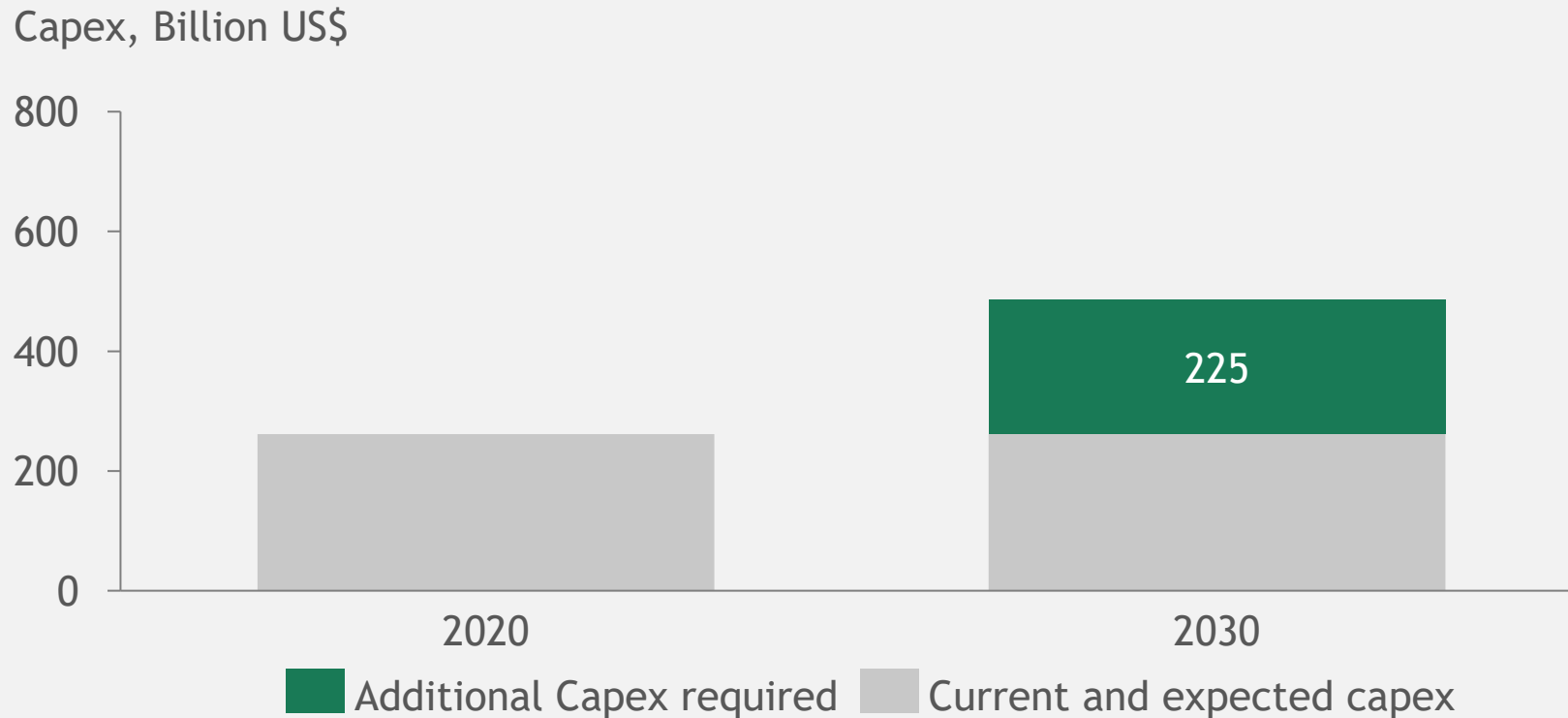


COVID-19 brought about capex cuts, with greater impact than 2014



1. 2021- 2030 estimated capex
Source: IEA, BCG Analysis

The risk of peak investment in oil and gas is significant

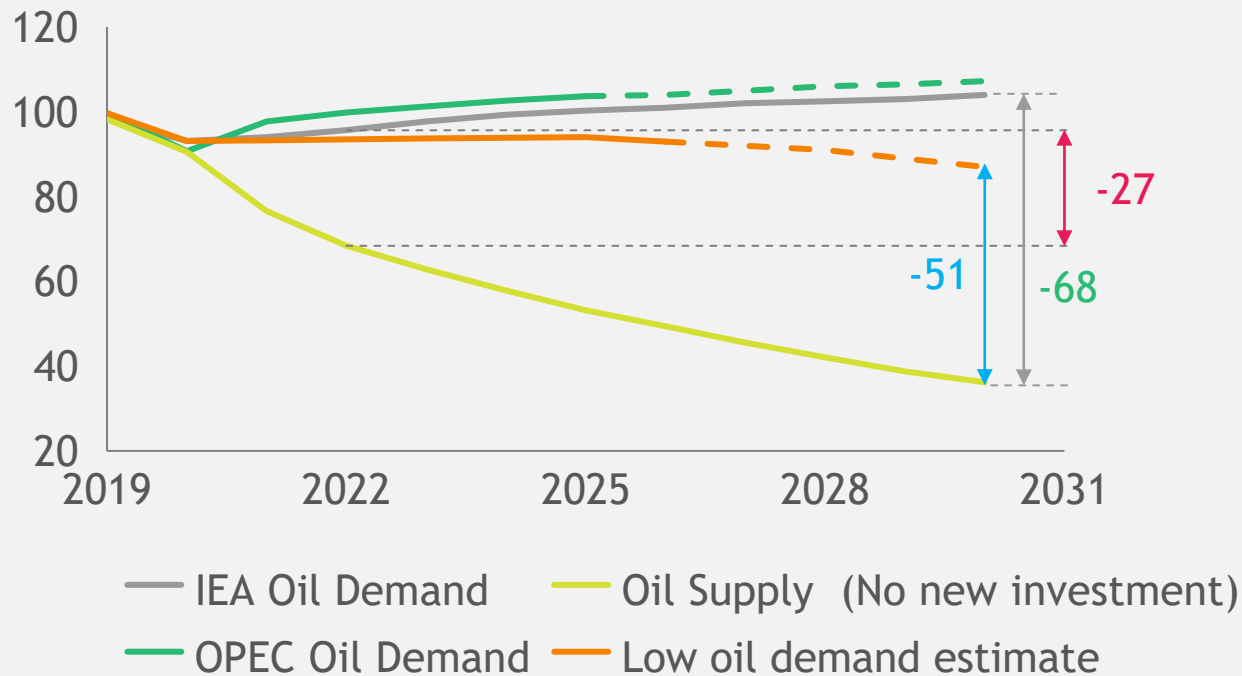


1. 2021- 2030 estimated capex 2. Assumes demand returns in 2022 time period
Source: IEA, Rystad, BCG Analysis

Additional investment and volumes needed- even if demand has already peaked

Demand and Supply gap with no new investment

Million b/d



Additional production needed to offset declines

2022- **27** mmboe/d - if demand recovers slightly

2030- **68** mmboe/d if demand recovers and continues growth at lower than historic average

2030- **51** mmboe/d even if demand peaks

• Note: Dotted lines connect organization provided forecasts
 Source: IEA, OPEC, BP Net Zero, BCG CEI analysis

The industry has undergone a structural shift since 2014- and supply crisis can more quickly be managed

50%

reduction in lead times for new projects

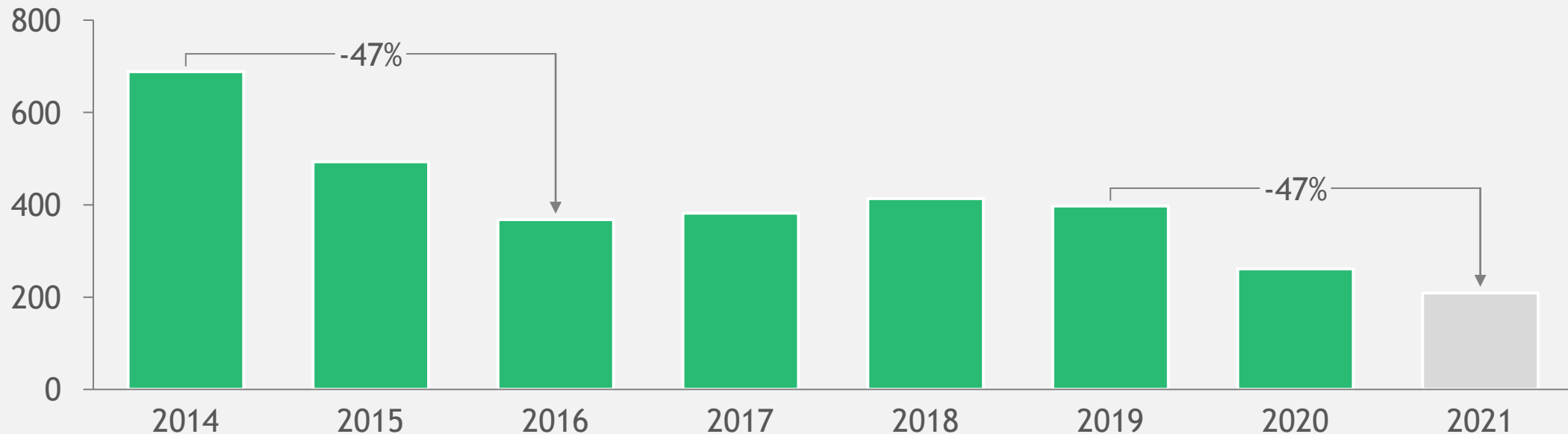
Short-cycle and faster FID-to-first-production projects now preferred over larger-scale, slower, capital-intensive projects



Cuts to date and indications of 2021 cuts suggest a similar impact on capex changes

2020's cut in upstream capex was more than the initial cut after the 2014 price decline

Capex, Billion US\$



Note: 2021 estimated 20% cut based on guidance delivered to date
Source: IEA, BCG Analysis

Price level *and* volatility are key indicators for companies setting capex levels

