Wood Mackenzie
A Verisk Analytics Business

The corporate growth challenge: value versus volume?

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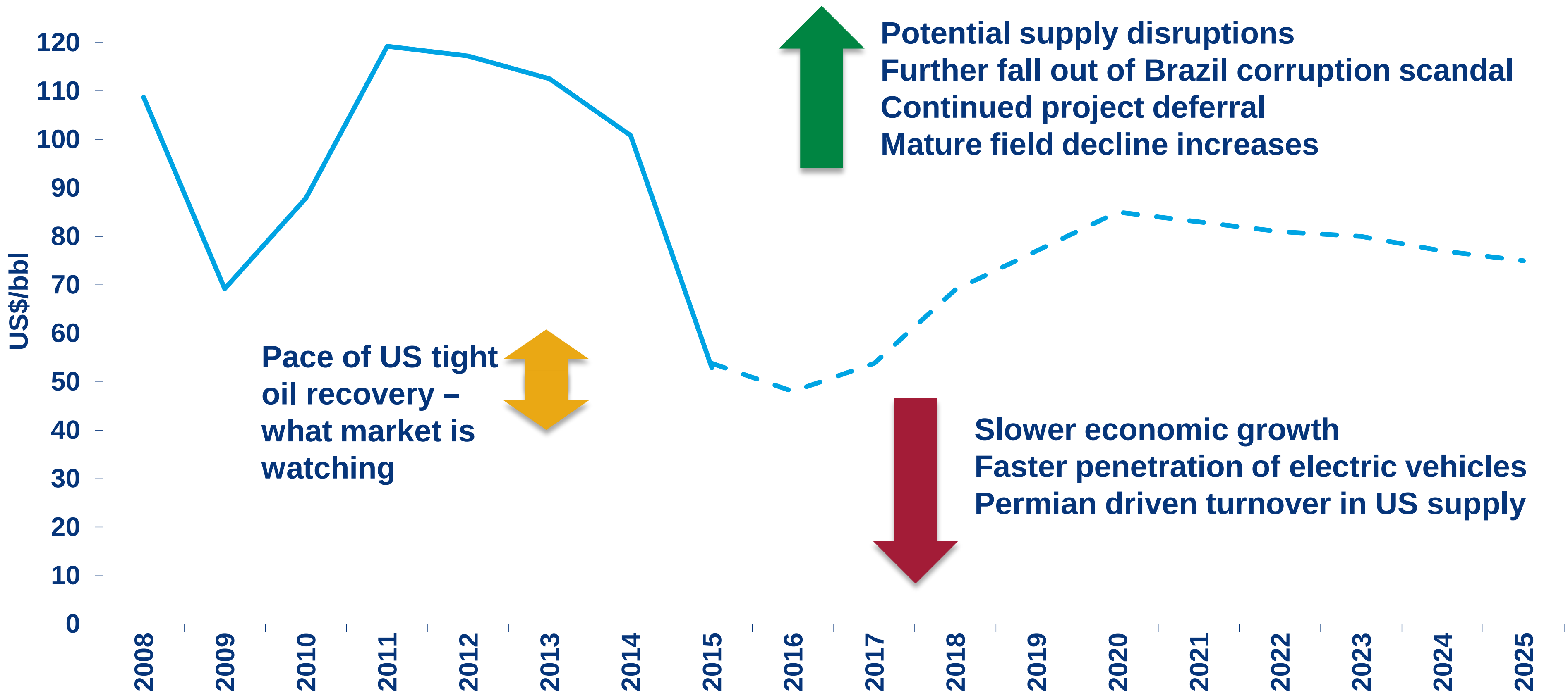
Oil prices: Brent US$85/bbl by 2020 on low OPEC spare capacity

Prices tempered next decade by new tight oil volume growth in the US

Brent price history and long term forecast (real 2016, $)



Source: History - Argus, Forecast - Wood Mackenzie

Survival: dramatic industry response to the oil price collapse

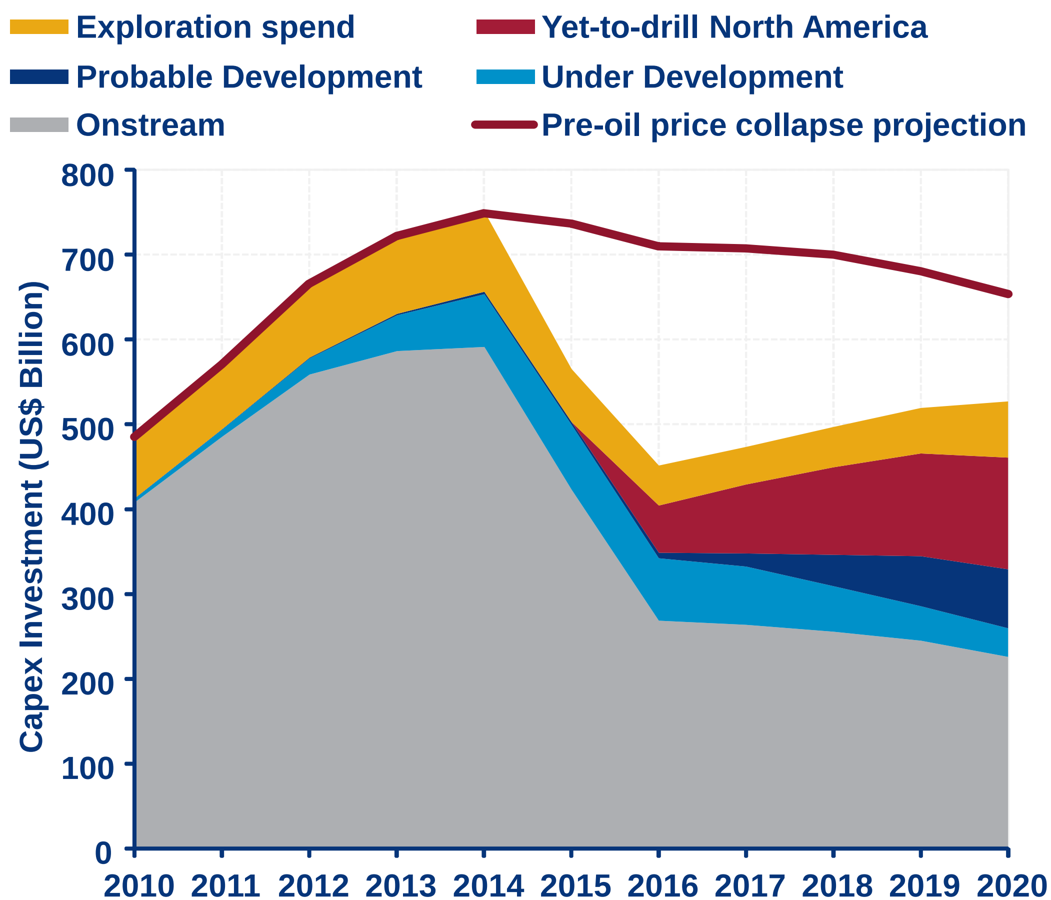
Companies cut spend hard; global capex down nearly 40% from peak

US$235 billion Total 2016 E&P capex cut relative to 2014 by Corporate Service companies (down 48%)

US$60 billion Cuts to shareholder distributions

US$76 billion Equity issuances (US$19 billion) and asset sales (US$57 billion)

Global E&P capex projection

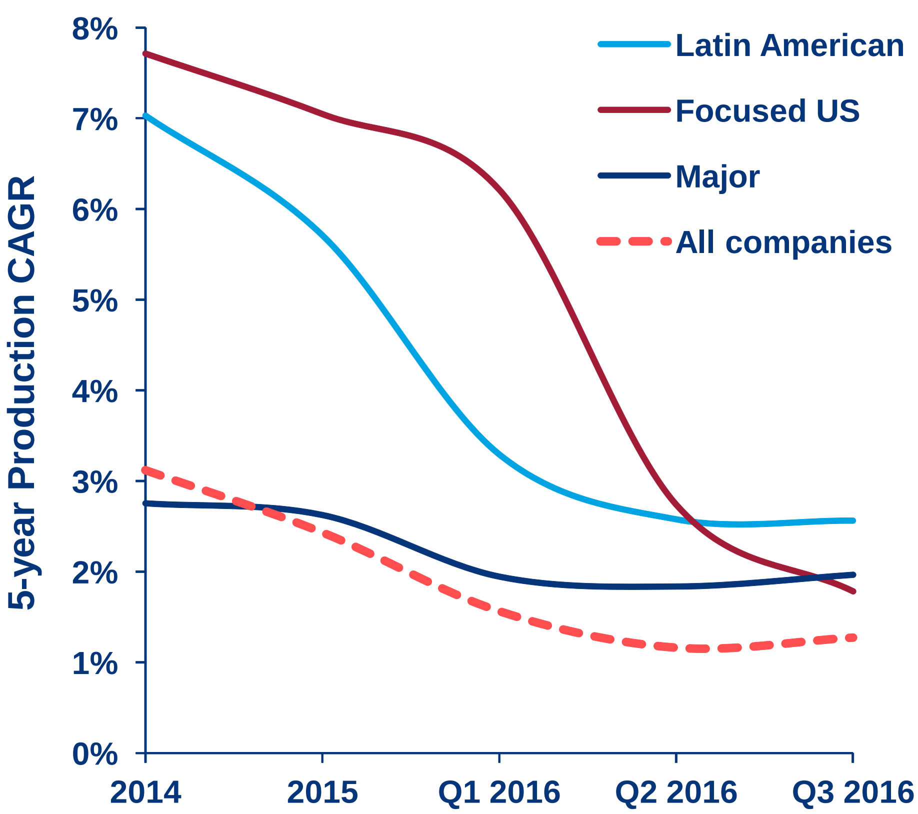


Source: Wood Mackenzie

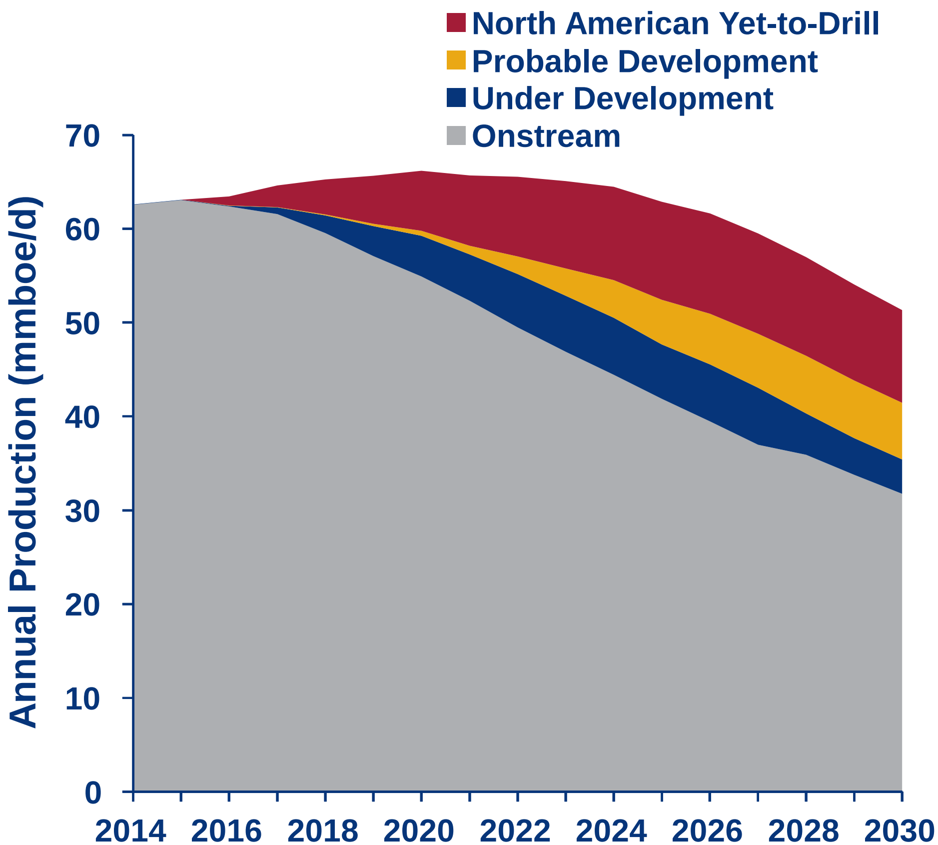
The damage: production growth is faltering

Sustaining output needs investment in new projects

Evolution of five year CAGR



Production by dev. status (CBT companies)

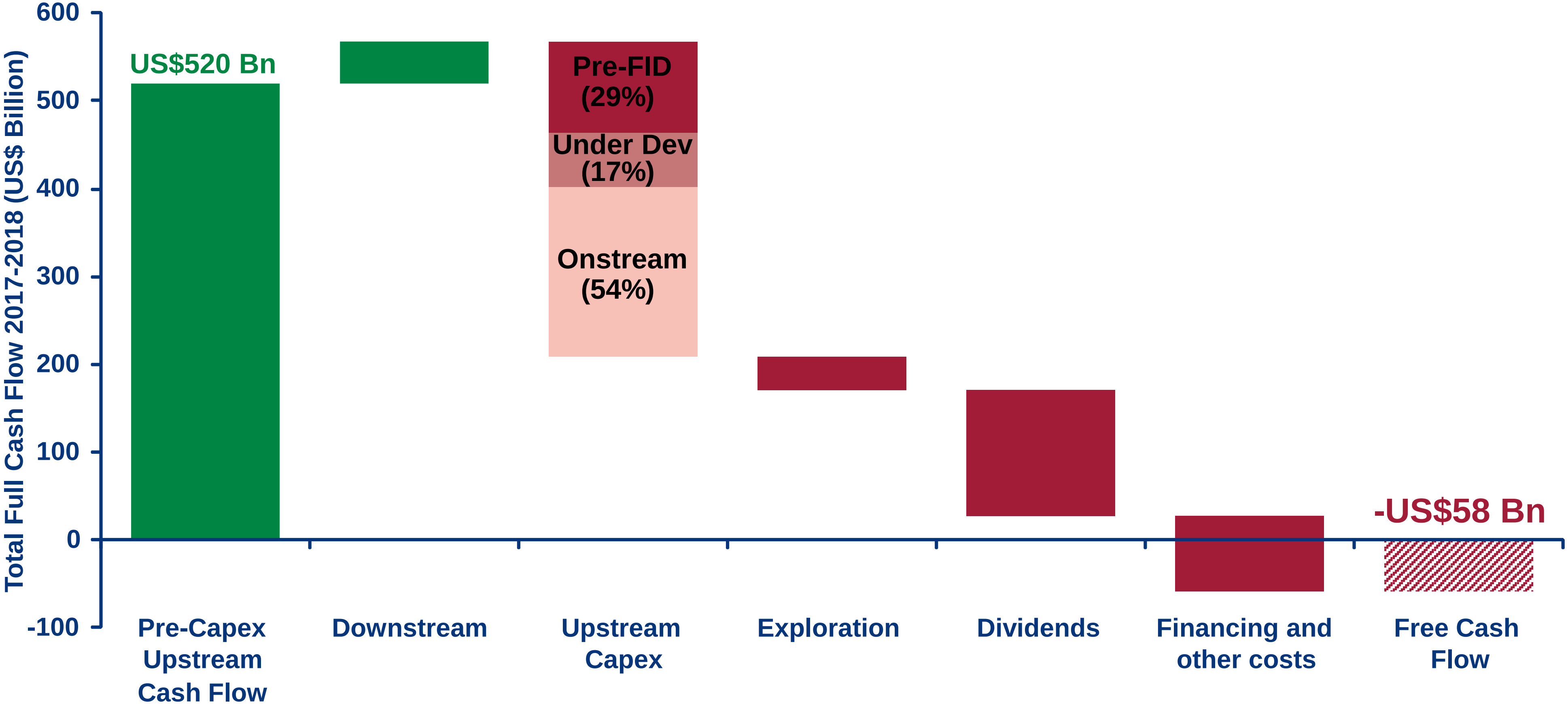


Source: Wood Mackenzie CBT Q3 2016

Capital availability still a big factor limiting new investment

The industry will not achieve cash flow neutrality at current forward prices

Distribution of Wood Mackenzie cash flow 2017/2018 under an average Brent price of US$51/bbl



Source: Wood Mackenzie CBT Q3 2016. Companies covered in CBT only. Dividend estimates include cash savings from scrip issuance. Assumes equity financing for all projects.

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The strategic balancing act: emphasis on value not volumes

Capital discipline will frame the strategic response into the recovery phase

Value

- Capital discipline
  - Balancing the books
  - Defending dividends
  - Deleveraging
- Project delivery
- Project returns

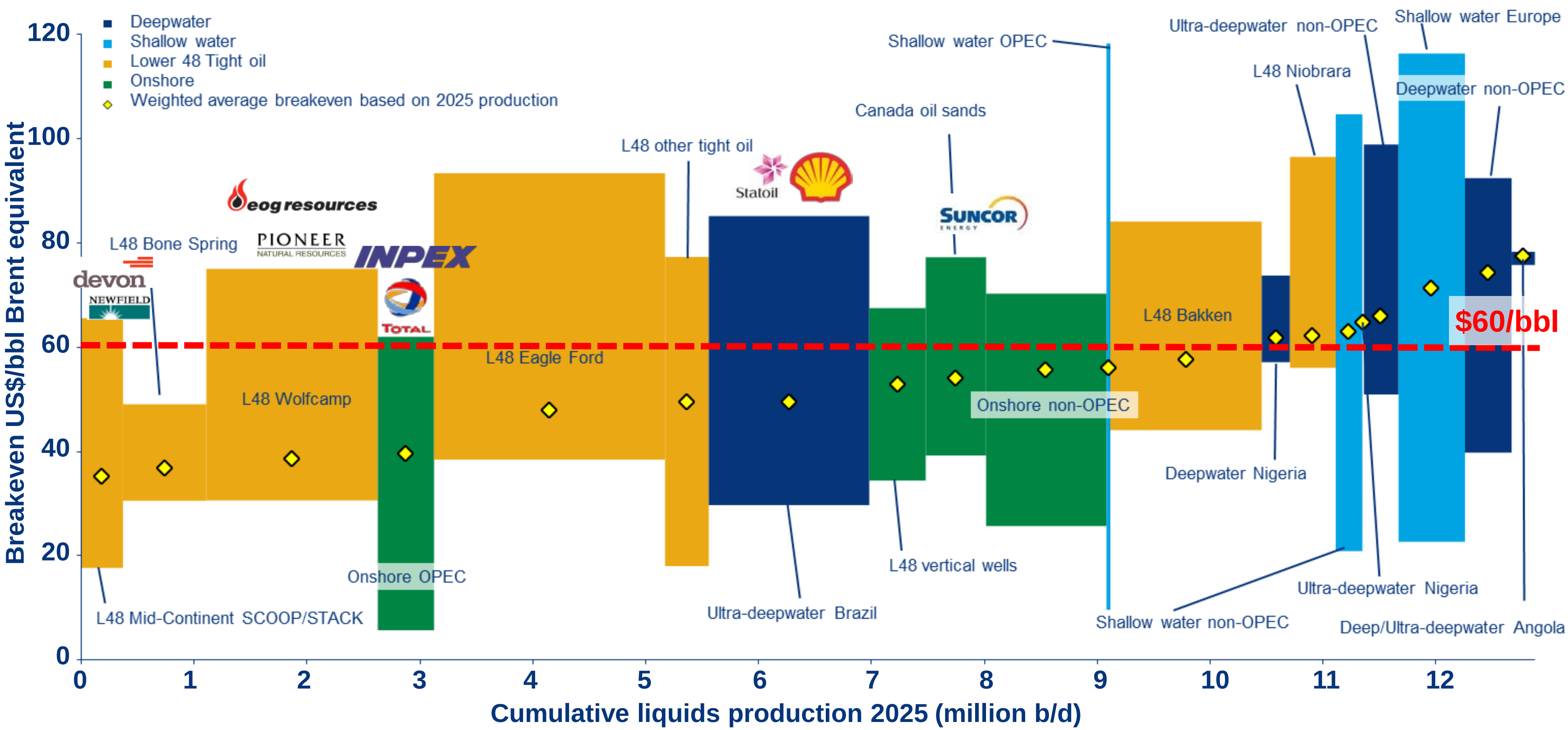
Volume

- Under investment
- Declining resources
- Long-term strategy

Growth option 1: repositioning at the low end of the cost curve

A low cost hopper will be a key strategic advantage

Pre-FID and US L48 future drilling cumulative production by breakeven in 2025 – by resource theme

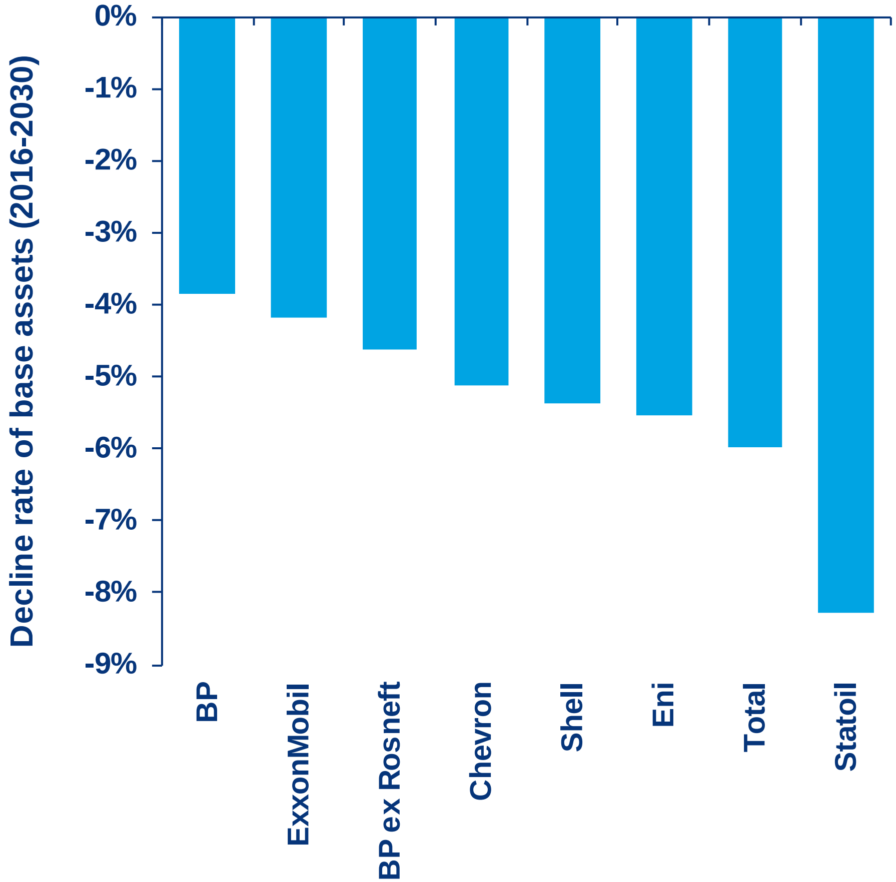


Source: Wood Mackenzie onshore breakevens at 10% discount rate, offshore at 15%

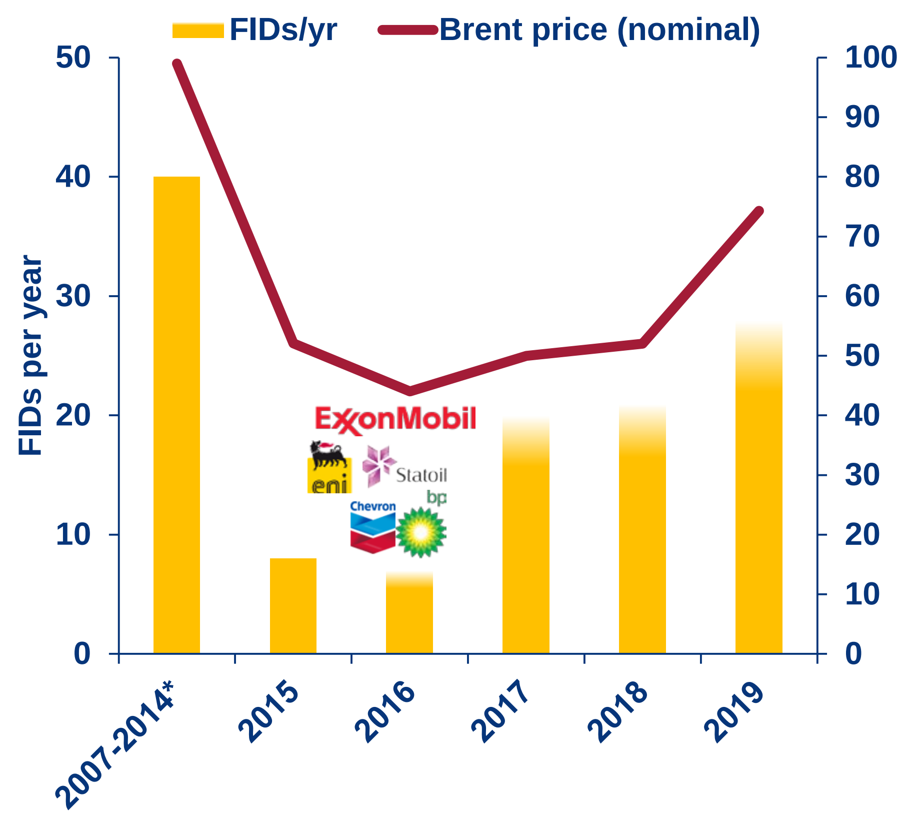
Growth option 2: exploiting the existing portfolio

Drive down breakevens, sanction projects that make the grade and exploit the base

Base business declines 2016-2030



Upstream project tracker: FID outlook 2016-19



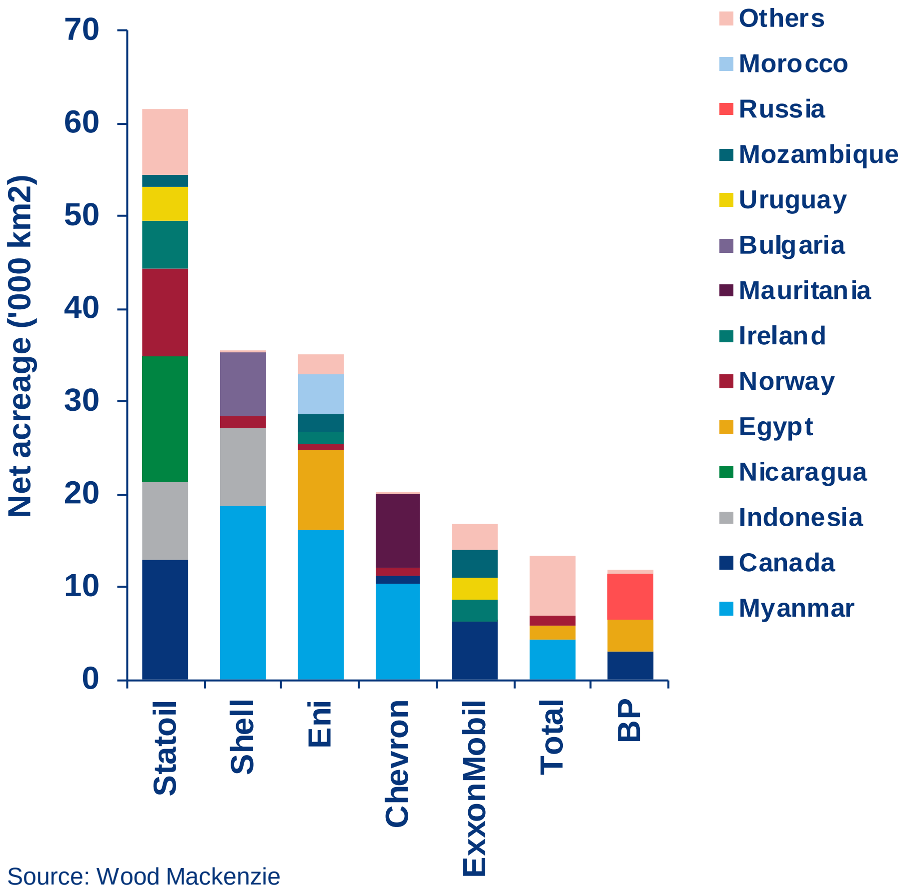
*Average per year, Brent price assumption **Projects >=50 mmboe

Source: Wood Mackenzie Q3 2016. Left hand chart shows the annual decline rate from assets onstream and under development between 2016 and 2030.

Growth option 3: new ventures

Exploration success needed to offset long-term declines; low cost DROs on the horizon

Net conv'l acreage awards and farm-ins 15-16



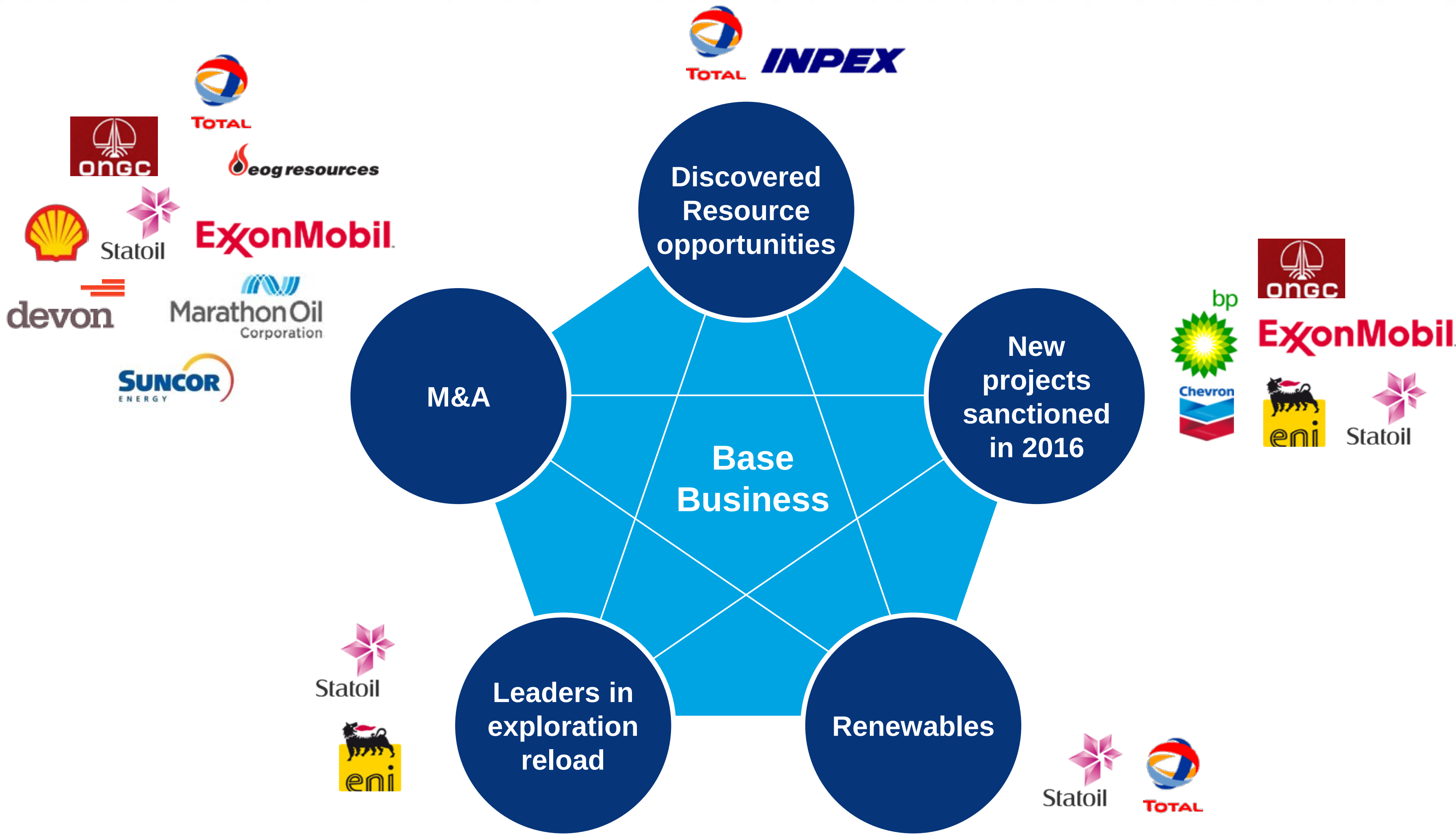
Source: Wood Mackenzie

Key exploration themes

- High-impact acreage still sought after
- Avoidance of short contract periods
- Lack of appetite for spending commitments
- No appetite for highly-taxed contracts
- Minimal signature bonuses

Divergent strategies emerging since the oil price crash

Strategy dependent on portfolio, finances and capabilities



Source: Wood Mackenzie

Q&A