

FPSO Market Outlook from an Asian Perspective

19 April, 2016

FPSO Asia Conference
Marina Bay Sands, Singapore

Prepared by Douglas- Westwood Singapore
Jason Waldie, Director



Andrew Reid
Managing Director

Our focus areas

- Gathering & analysis of market data
- Independent market modelling & forecasting
- Measurement & analysis of competitive positions
- Industry consultation & in-depth perception surveys
- Analytics, analysis, insight – commercial focus

What we don't do

- Sell data strips, repackage information
- Work for everyone and tell them the same story
- Rely exclusively on our own information – we cross reference

"You have restored my faith in market research"

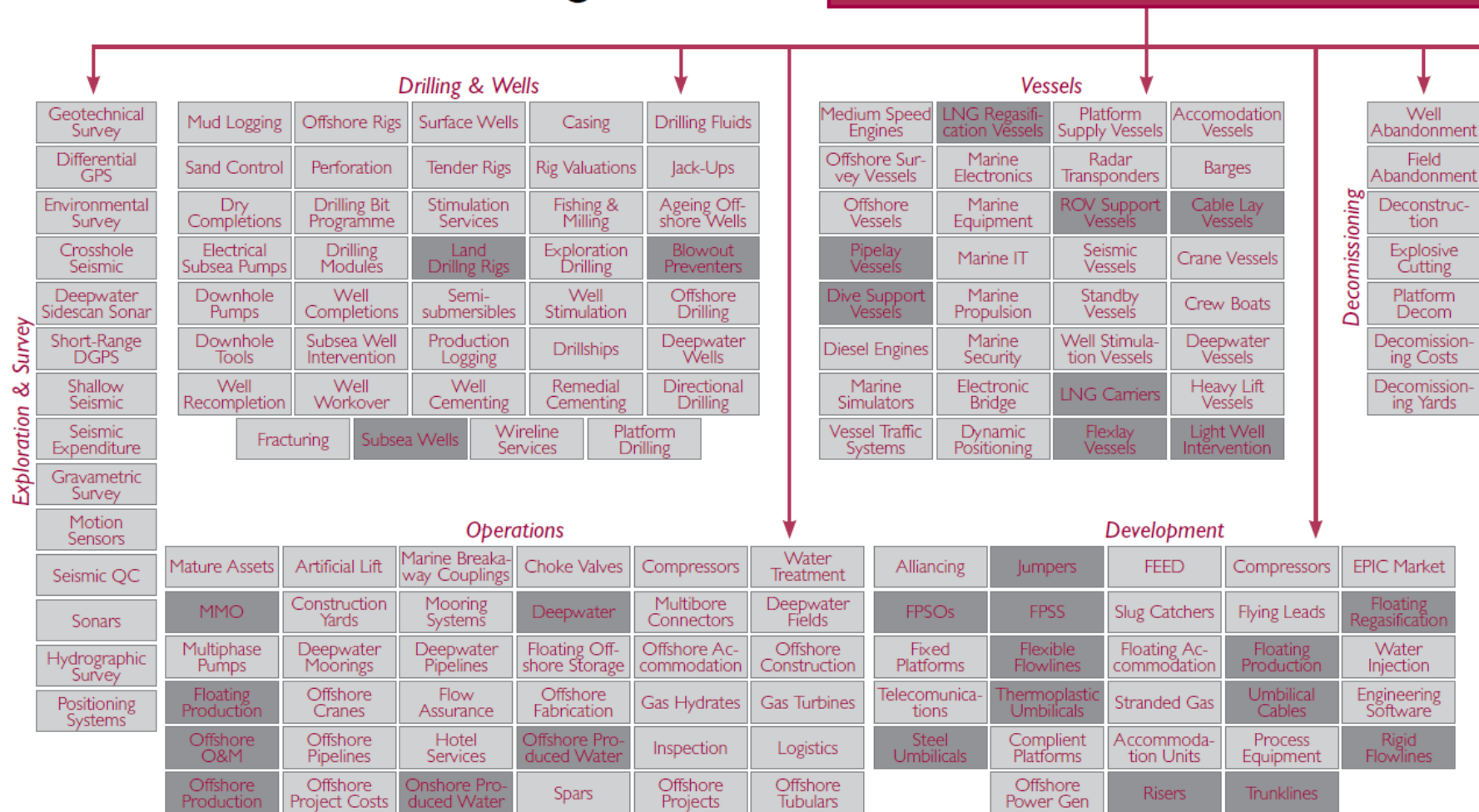
Private Equity Firm

"DW's approach to the project was much more professional than its competitors"

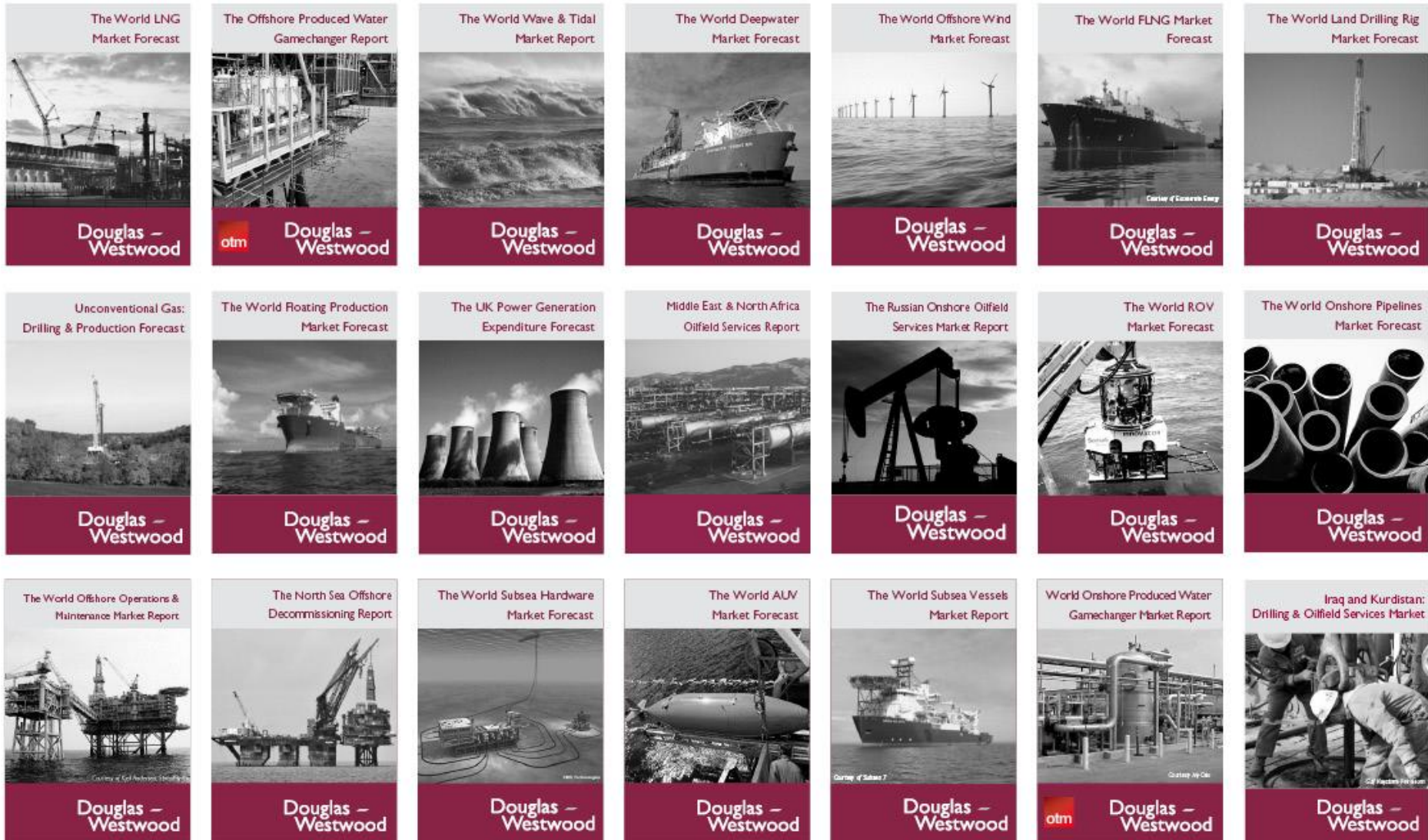
Chairman, Offshore service company

Other Capabilities

Extensive DW Knowledge Base



Industry-Leading Published Research



"Excellent report, very comprehensive and well laid out" Vestas (Denmark)

Douglas-Westwood are the sector study experts" Woodside (Australia)

Industry Accolades & Key Clients

Industry Accolades



- DW's transaction support services are widely recognised by industry – this is demonstrated further by our acknowledgements to date.
- Our research and consulting work is trusted by energy industry players, governments and investment houses.
- We are trusted by Top-10's, including;

Top 10

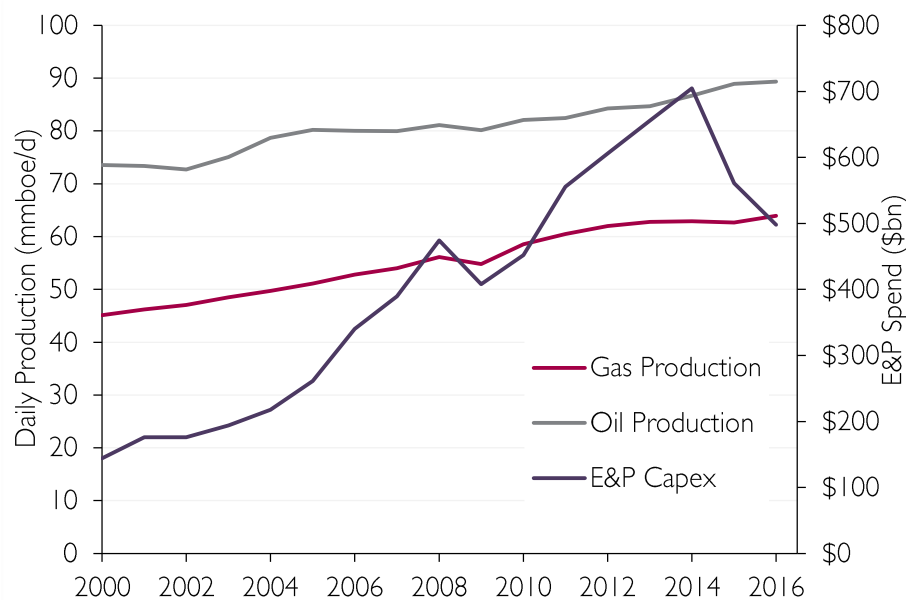


Macro-economic Environment and Oil Price Implications

FPSO Overview from an Asian Perspective

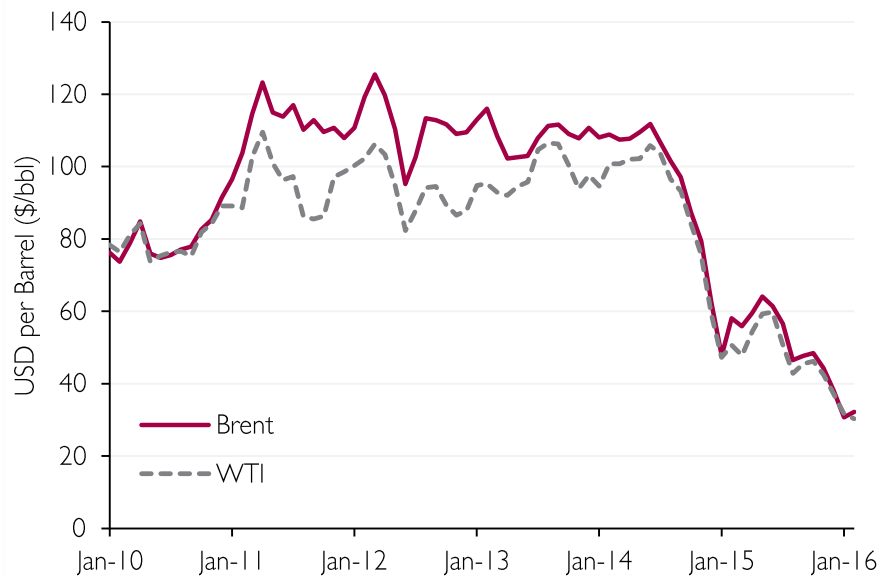
Conclusions





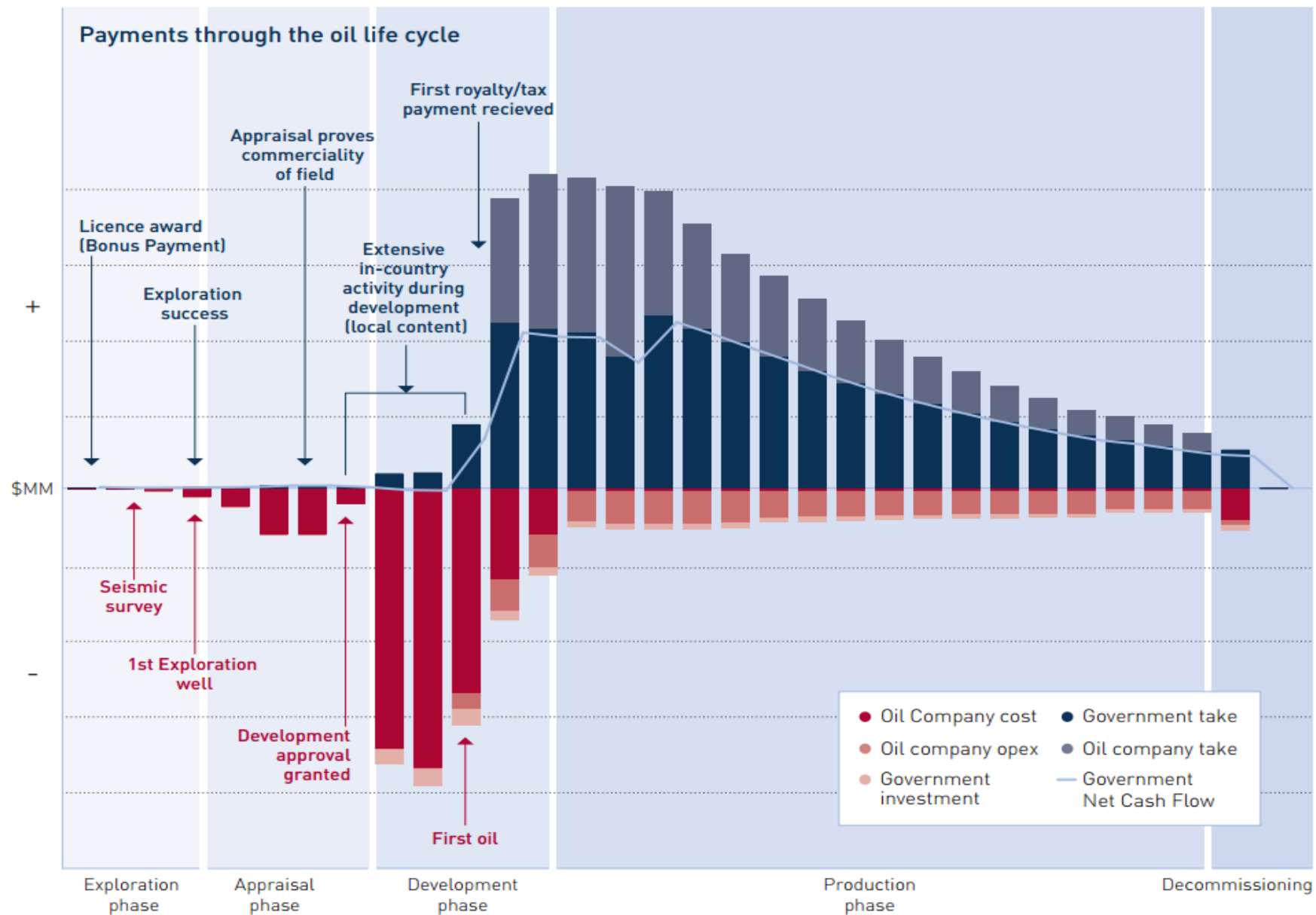
Source: Evercore ISI, Douglas-Westwood

- E&P Capex up 389% over 2000-14.
- Production up only 18% for oil and 40% for gas over same period.
- Oil price collapse has reduced costs ~20-30%.
- Deflation likely to persist in first half of 2016 before seeing upward movement at a slight lag to oil prices.
- Project revisions and contract renegotiation to persist offshore (e.g. Mad Dog Phase 2).
- Must keep on top of costs in next upcycle!

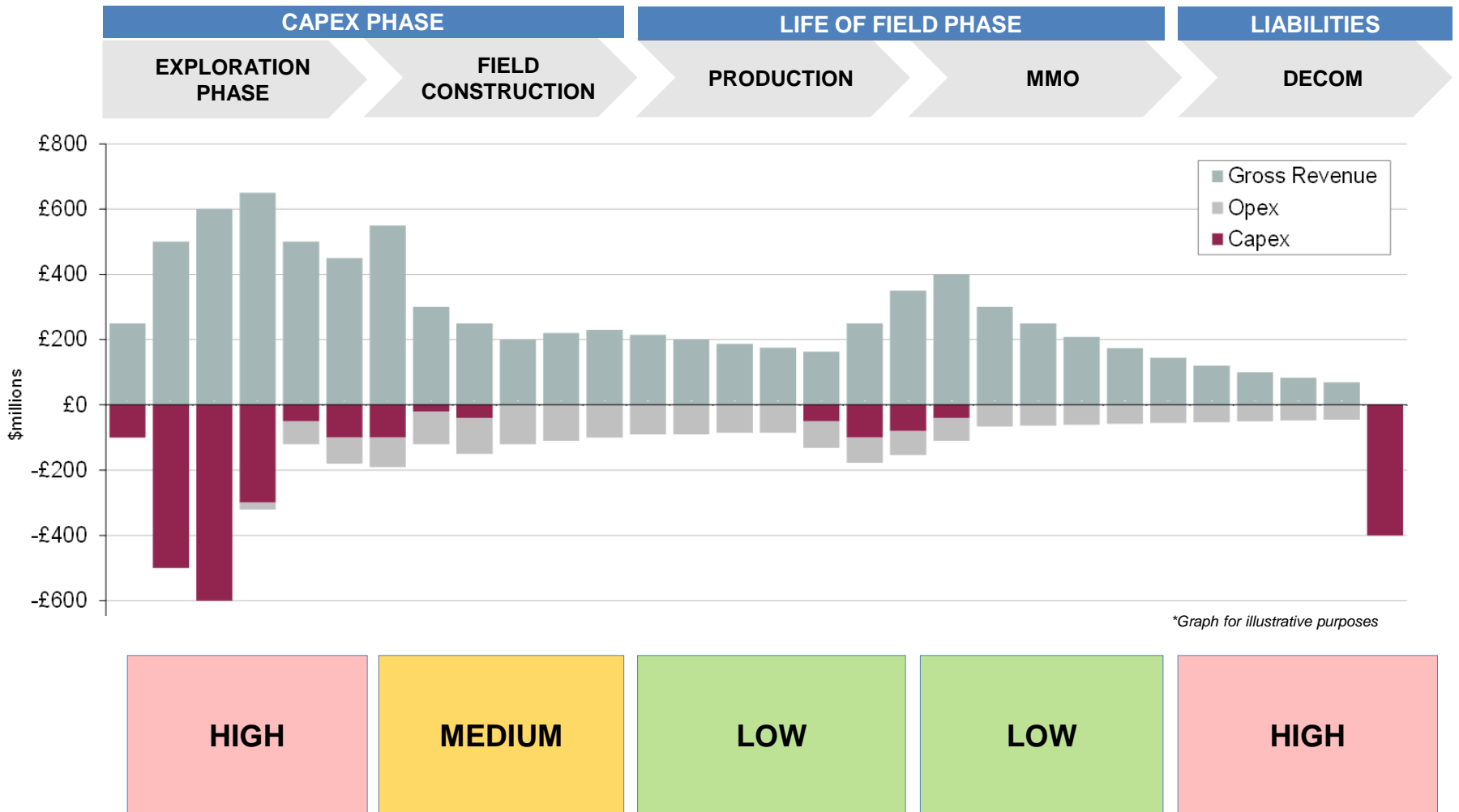


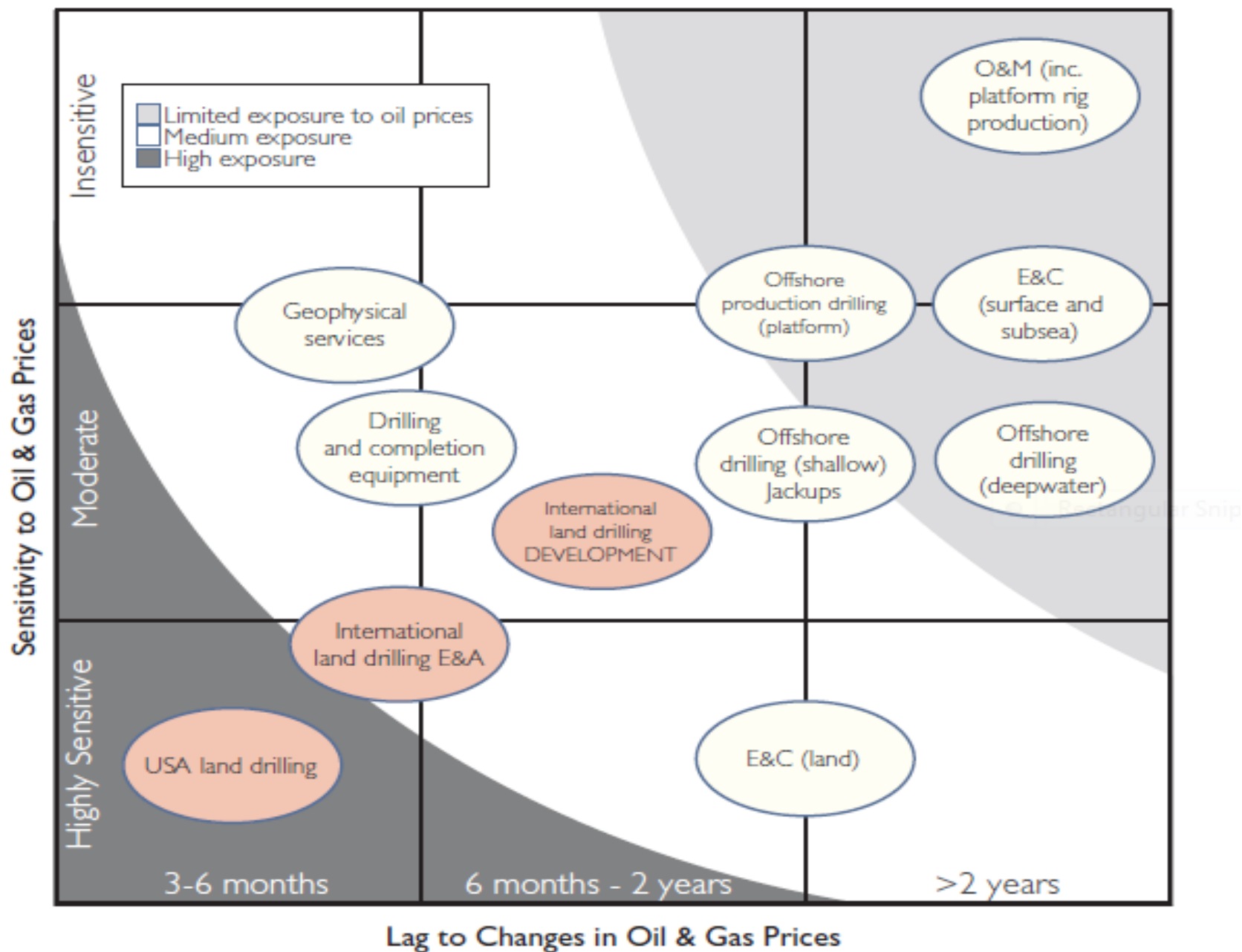
Source: EIA

- US oil supply surged by 3 mmbbl/d over 2008-14.
- Chinese economic growth and oil demand slowed in summer 2014 – fear of oversupply.
- November 2014: OPEC abandon swing producer role by maintaining production.
- Oil prices fell ~40% in 2 months (Nov 14-Jan 15)
- Small recovery in Q2 2015, followed by double dip – Chinese stock market crash, Iranian sanctions, record KSA and Iraqi production.
- December 2015: OPEC abandons quota, rising KSA-Iran tension, US export ban lifted.

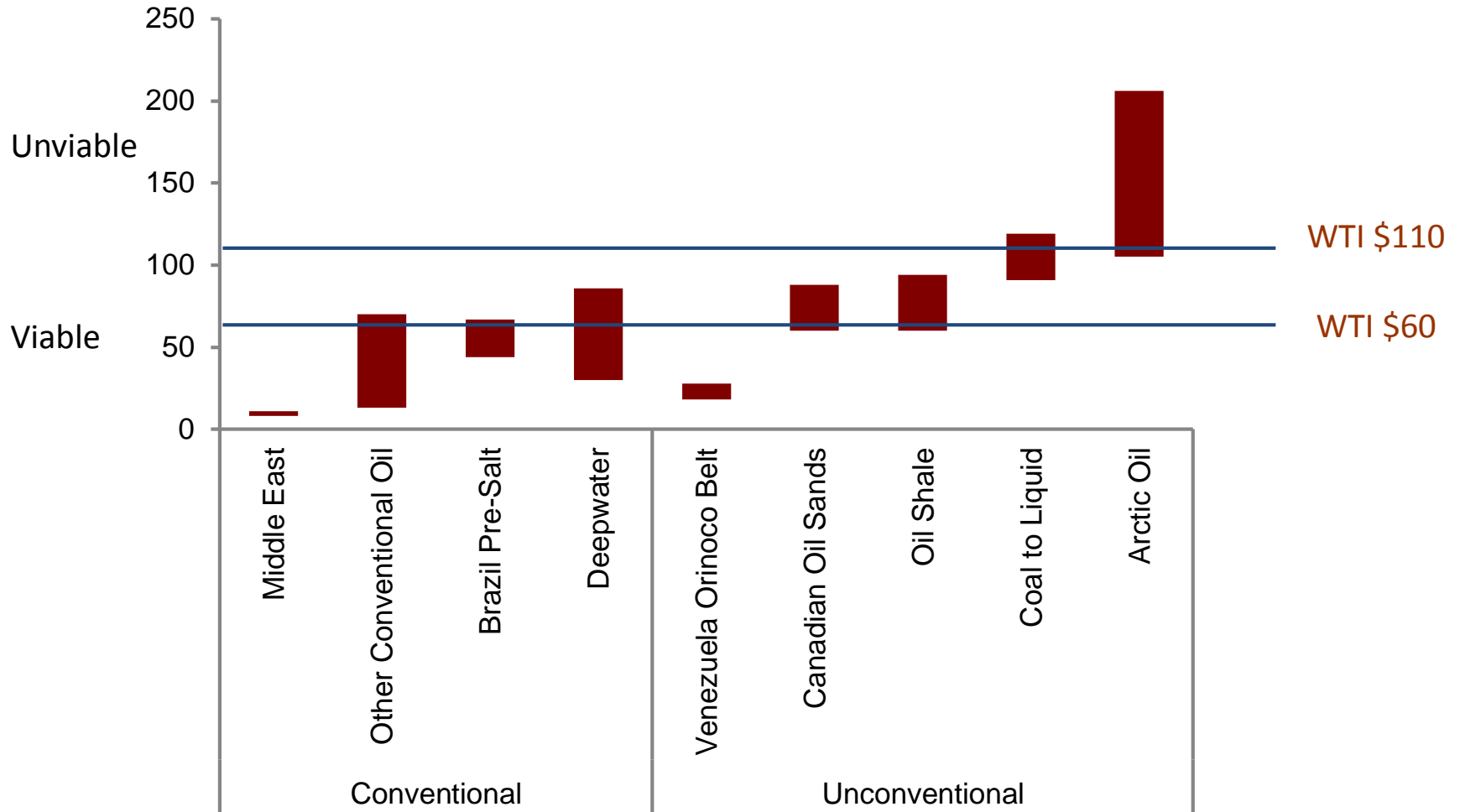


Offshore Field Lifecycle: Oil Price Exposure

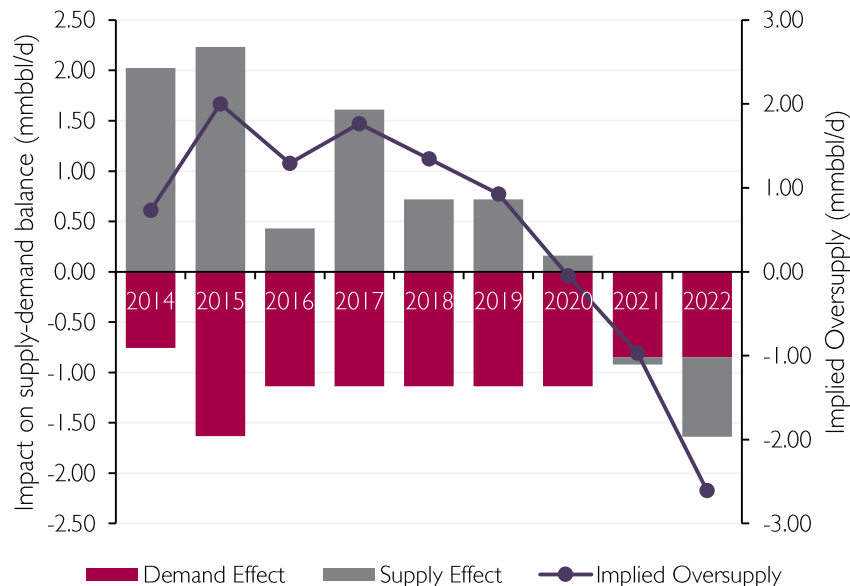




Viability of oil developments (\$/bbl)

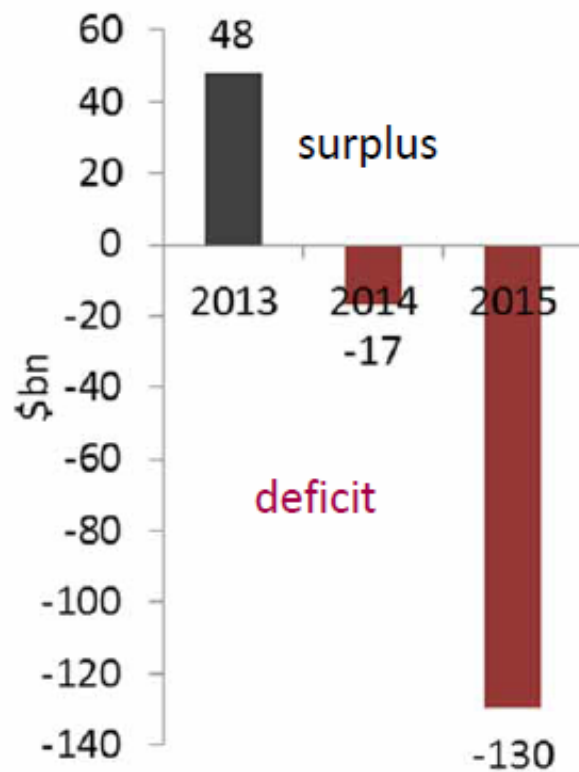


Sources: Douglas-Westwood



Source: Douglas-Westwood

- Major external factors affect the O&G industry.
- A volatile and ever changing market, with many large players vying for dominance.
- Who will win the “war of attrition”?
- Tensions within OPEC – break-up of the cartel?
- Production freeze to hold?



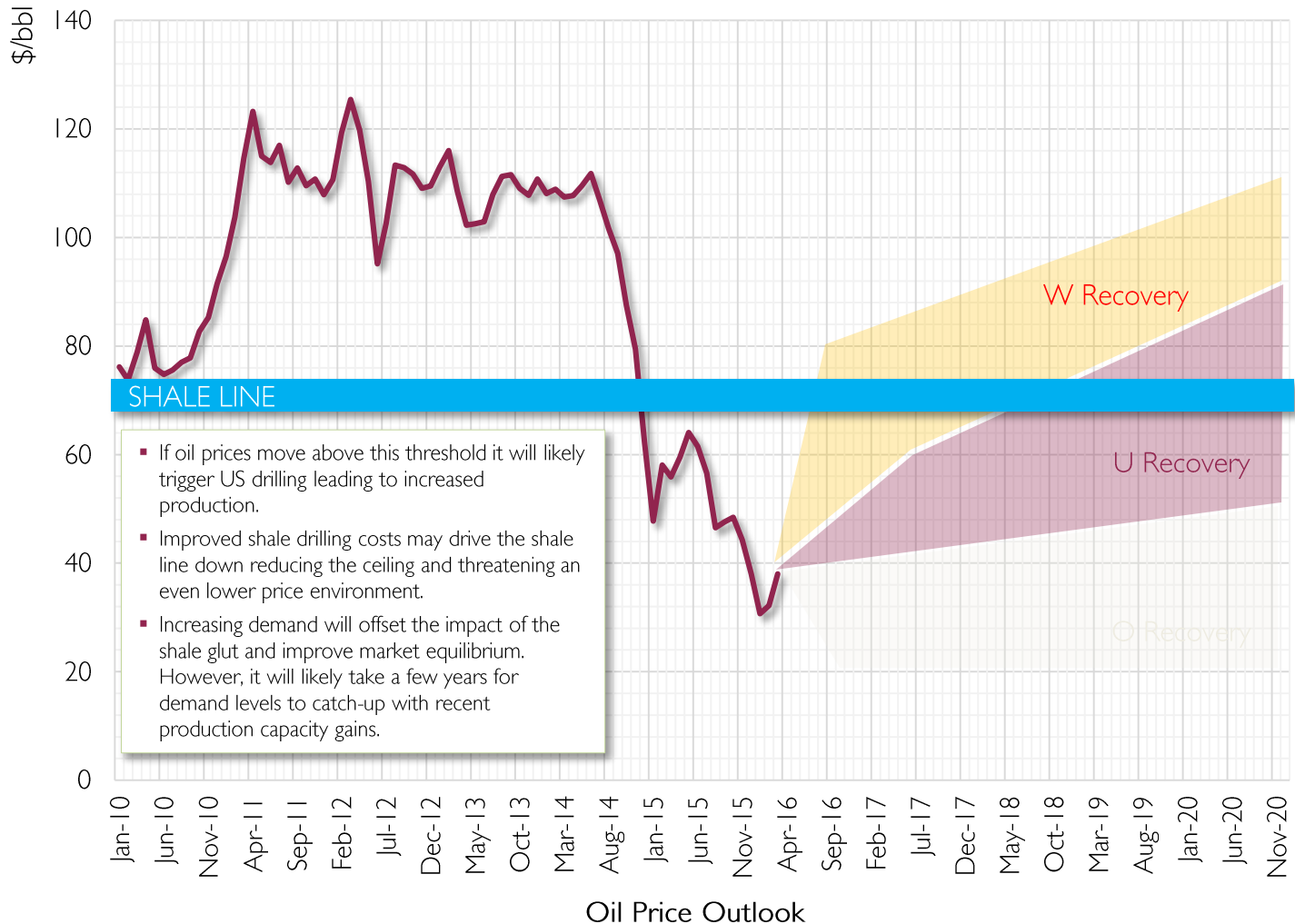
Source Financial Times

Oil Prices & Saudi's Balancing Act

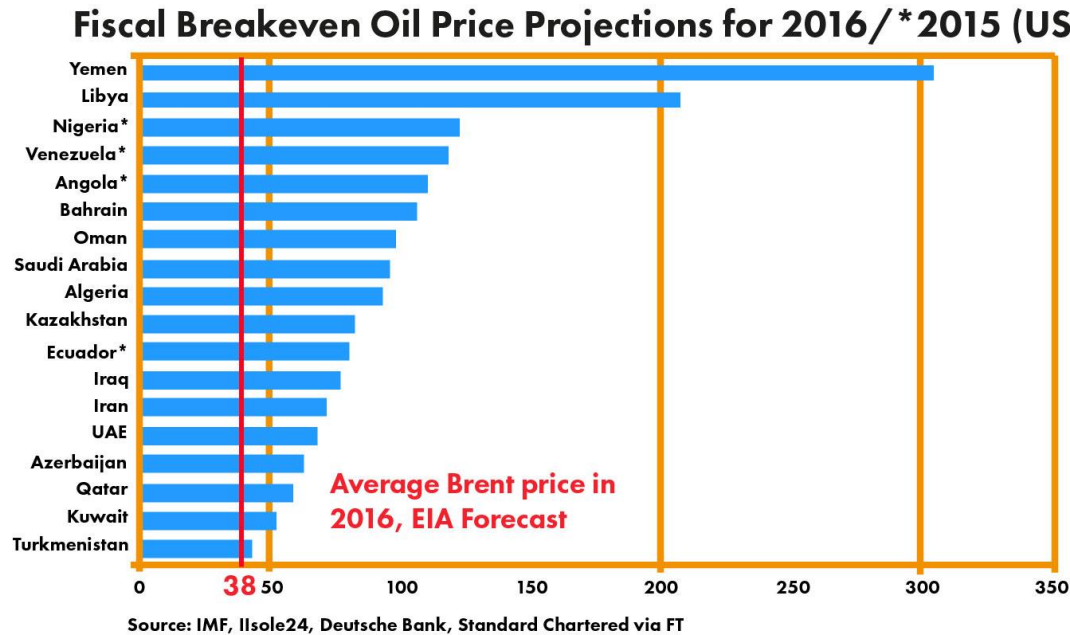
- \$130bn budget deficit in 2015?
- Raising \$27bn from bond market
- Pulled >\$70bn from fund managers
- Needs \$105 oil, or....
....to grow production by 133%

Oil Price Update

Oil prices expected to remain suppressed through 2017 before recovery in 2018 – albeit prices not expected to exceed \$100/bbl over the next five years



What's in the News this week? March 2016



- The next potential victim is not entirely the US shale oil industry but emerging markets affected by low oil prices and high cost wells.

Macro-economic Environment and Oil Price Implications

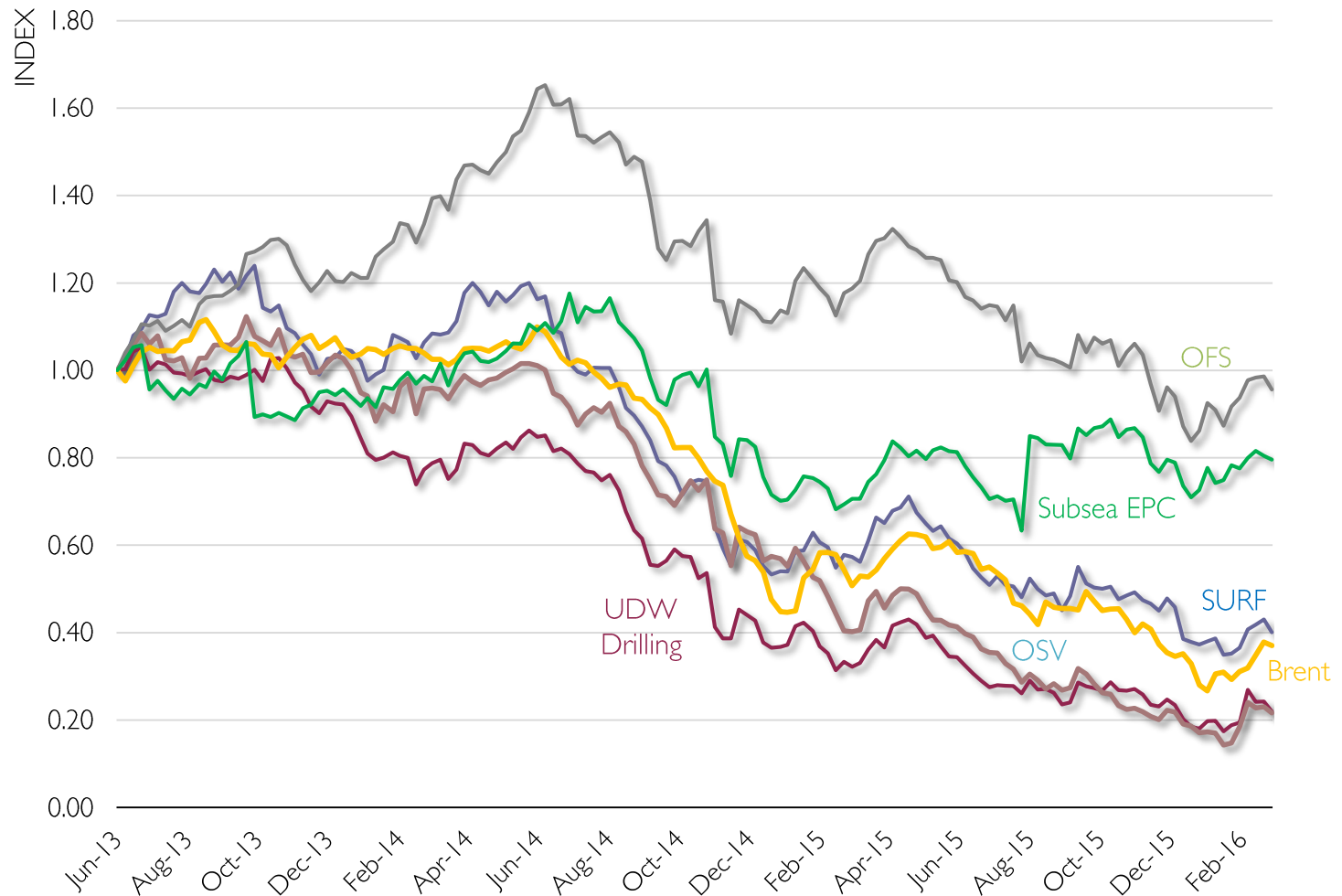
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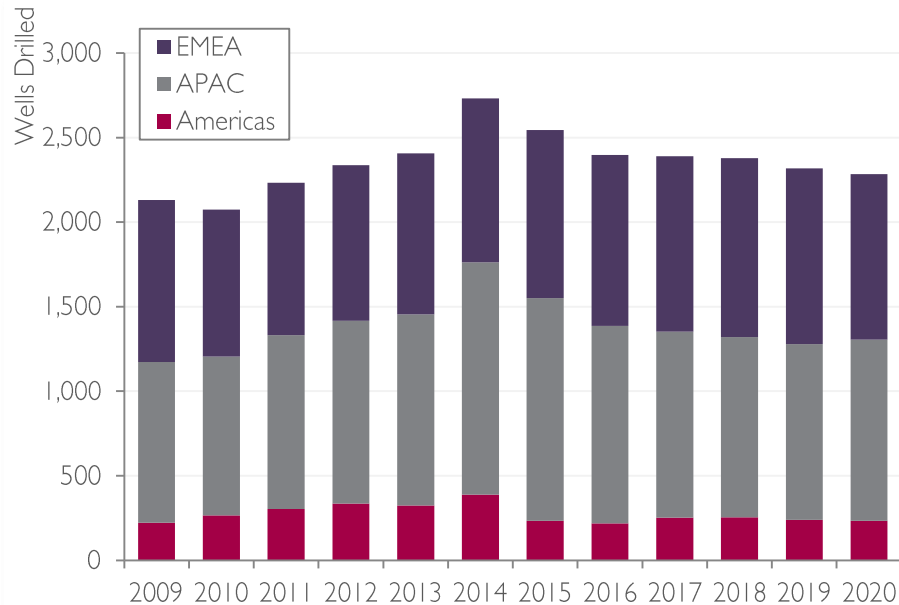
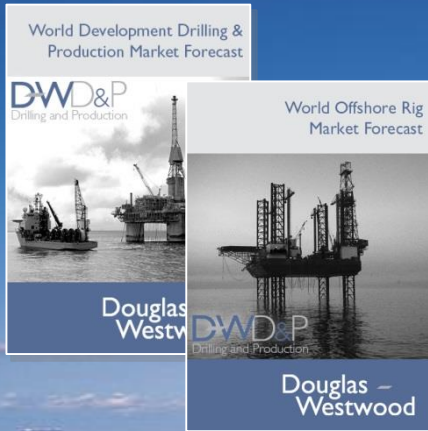


Where are we Today? Sector Performance

Asset focused players have seen the worst of the recent downturn...



INDEXED Share Performance of Various O&G Supply Chains

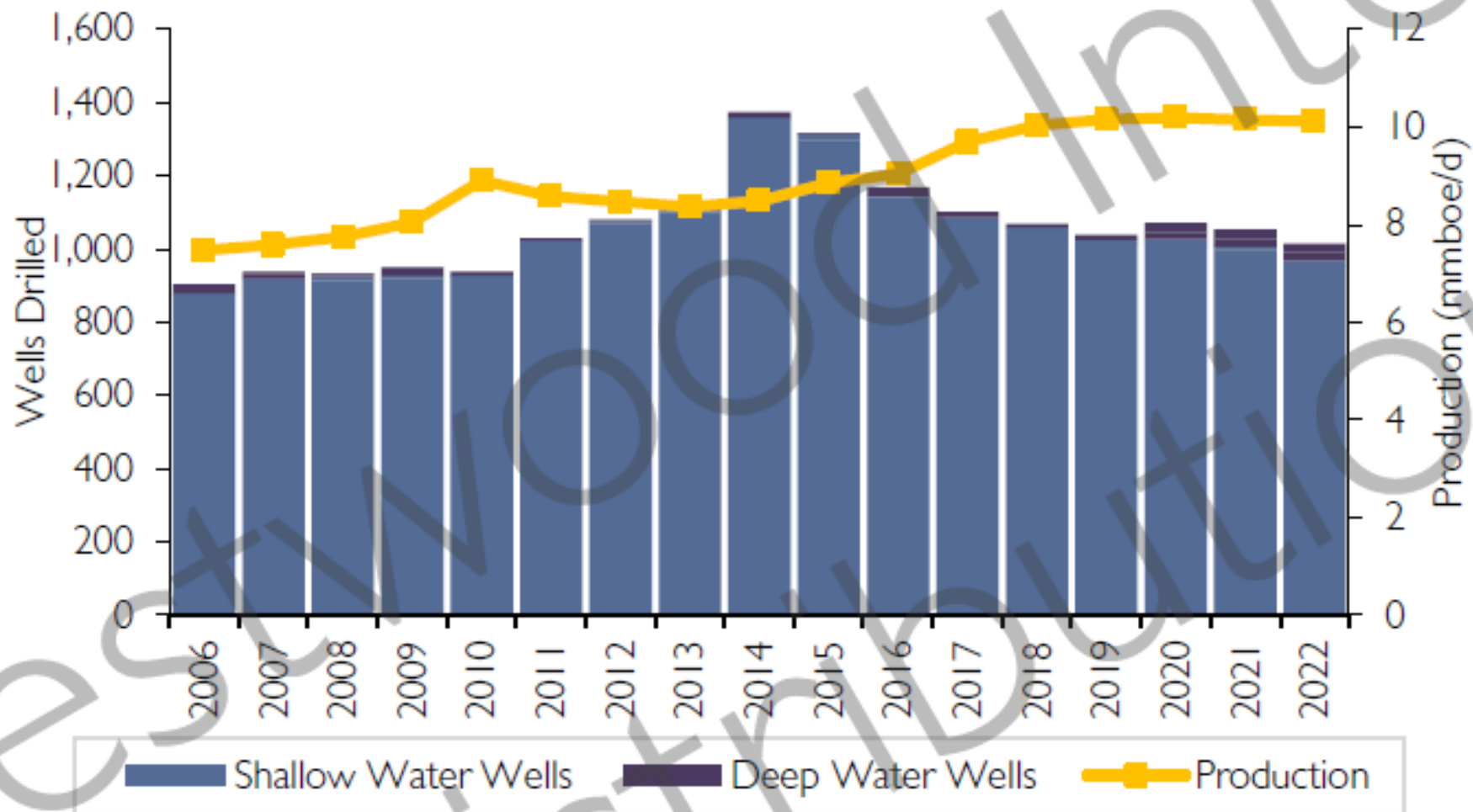


Source: Douglas-Westwood

- A key leading-indicator of industry demand.
- Shallow water gas a prominent driver in APAC. Middle East almost entirely shallow water.
- Offshore, demand will fall to five year low in 2015. Rig oversupply is a major issue.
- Transocean and others retiring rigs and plan to retire more. New deliveries being delayed.
- Petrobras corruption issues will limit Brazilian market.



APAC – Offshore Drilling and Production Q1 2016



Malaysia – Offshore Drilling and Production Q1 2016

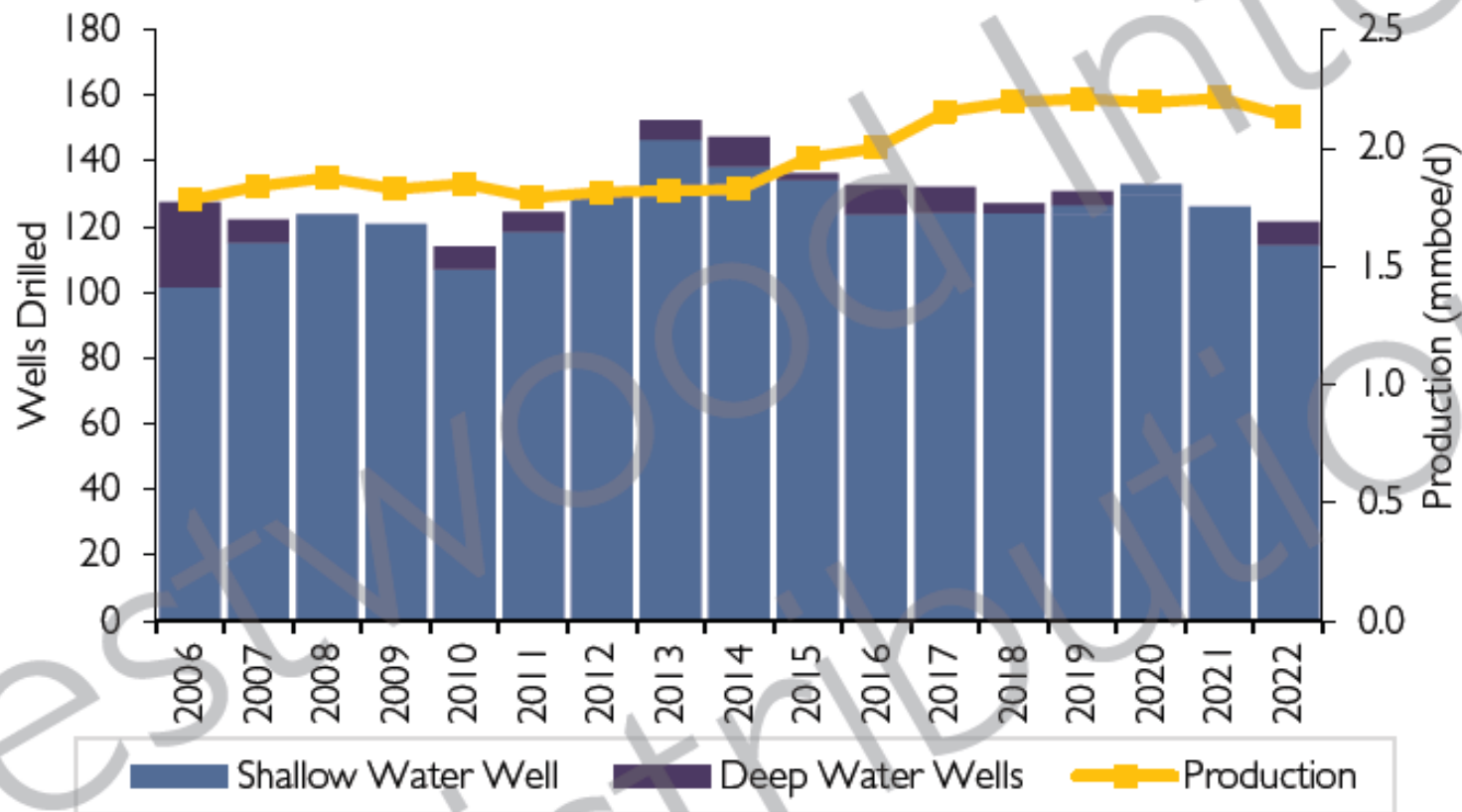


Figure 54: Malaysia Offshore Production and Drilling

Petronas are considering awarding specific EOR contracts with fiscal clauses specifically engineered to encourage the development of mature fields.

To reverse the decline, \$90bn was allocated for the upstream sector under the Economic Transformation Programme.

Indonesia – Offshore Drilling and Production Q1 2016

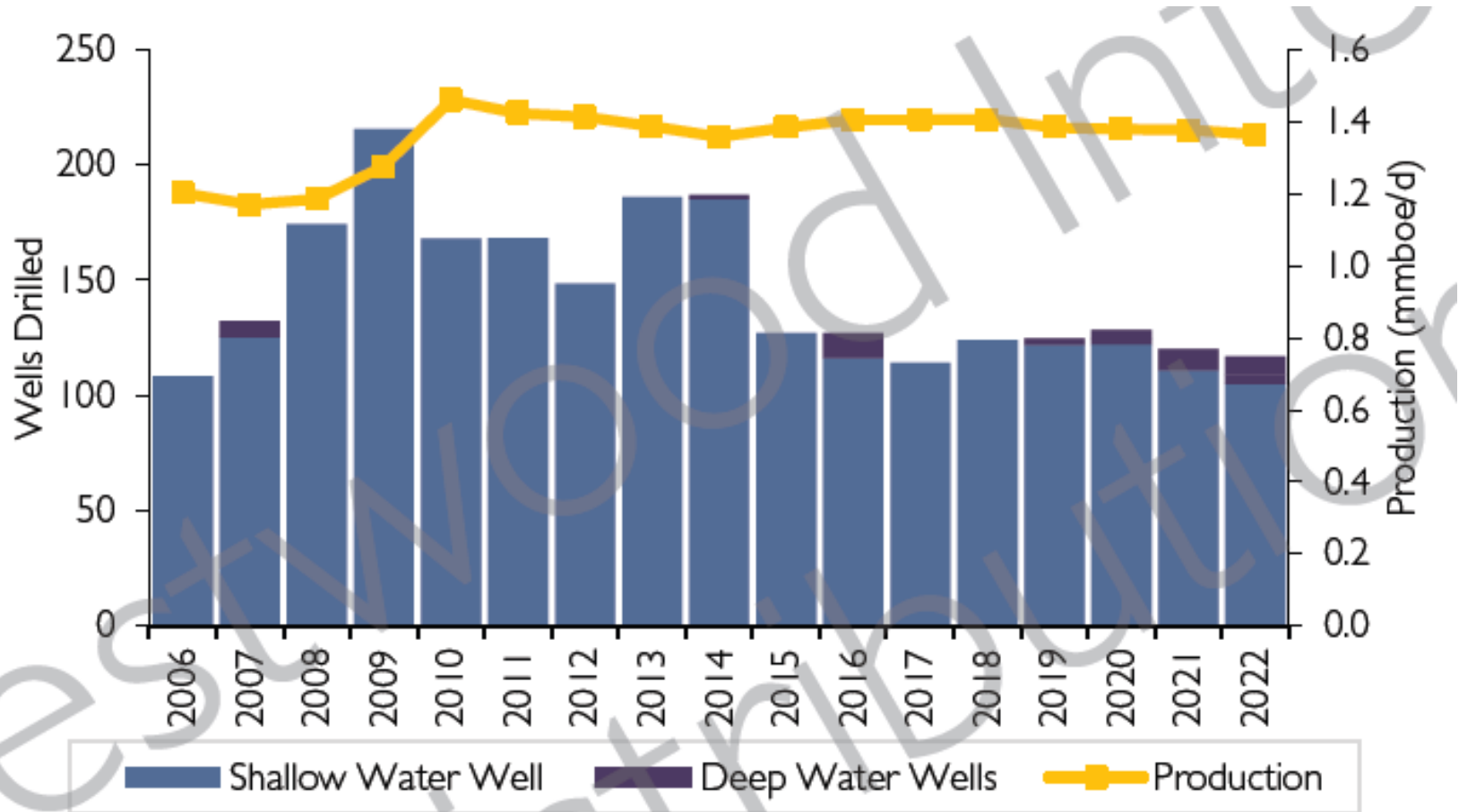
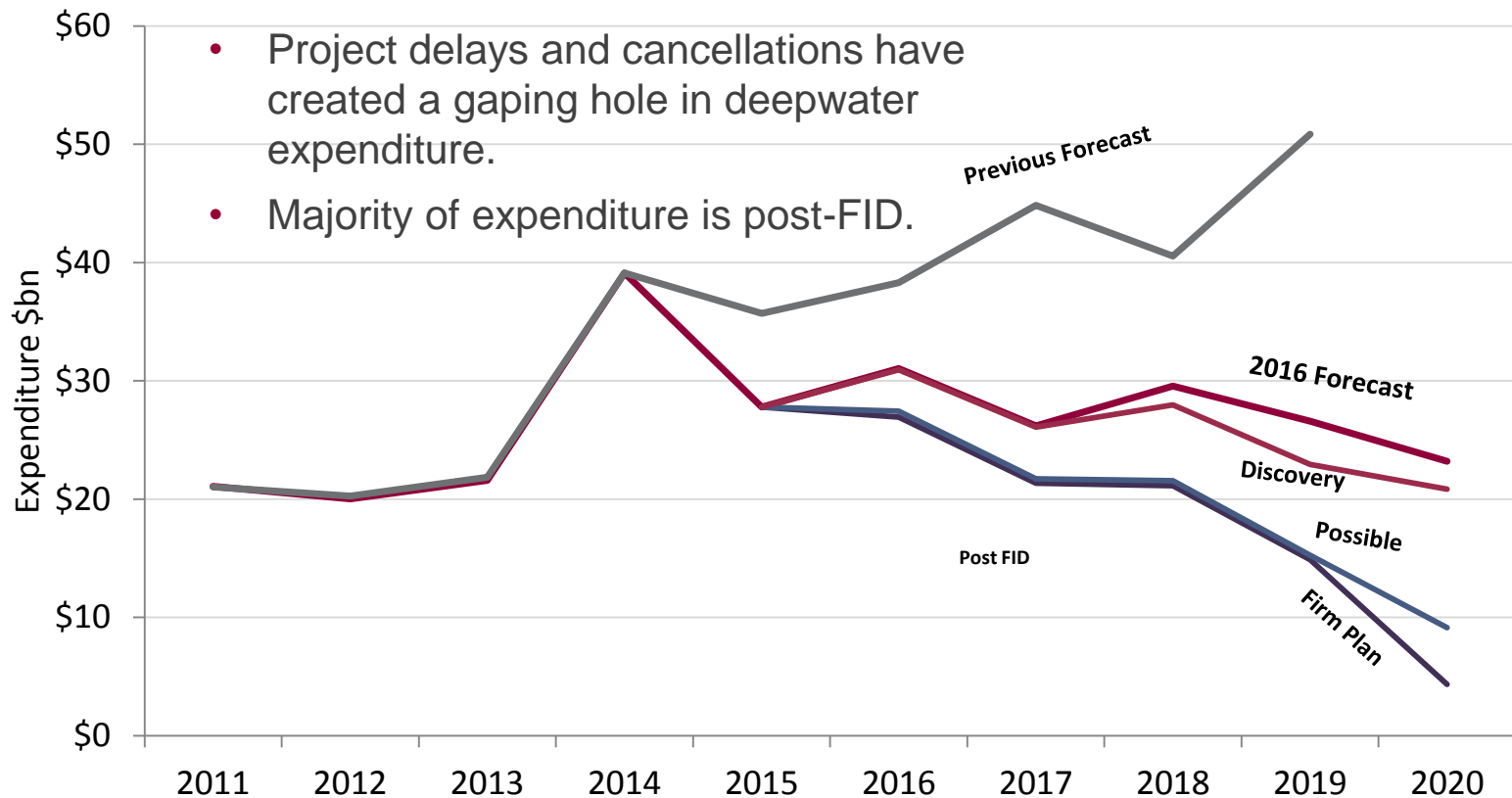


Figure 53: Indonesia Offshore Production and Drilling

Gas production is expected to plateau at around 1.4 mmboe/d, with further delays expected to Chevron's IDD project. The uncertainty in Indonesian regulations and lack of infrastructure pose key risks for upstream activities.

What a difference a year makes...Deepwater



	Jan 2015	Jan 2016	Change
Deepwater Prospects	210	122	-42%
Deepwater Capex	\$210bn	\$137bn	-35%

Asia – Deepwater prospects 2016-2020

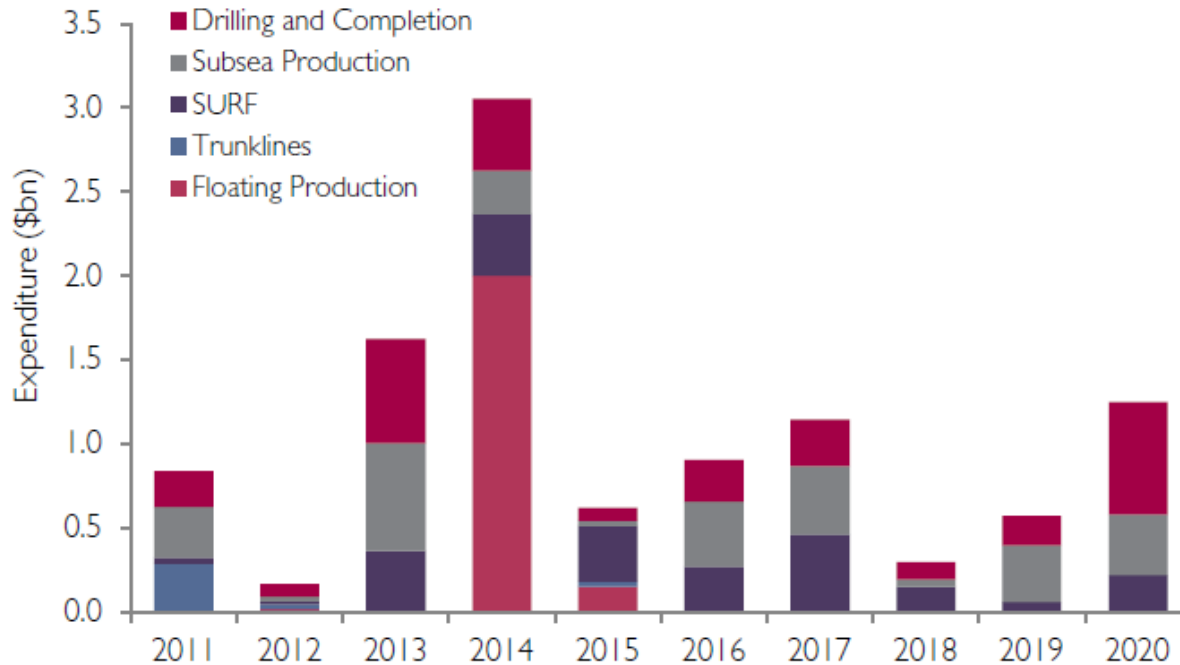


Figure 35: Asia – Deepwater Capex by Component

Expenditure to total \$3.9bn over 2016-2020.

39% decline in Capex on the previous five years.

3% of global forecast expenditure.

Drilling and Completion Capex accounts for a third of total spend in the region.

The peak in 2014 is due to the Gumusut FPSS unit installed that year.

Global FPSO Prospects 2015-2019

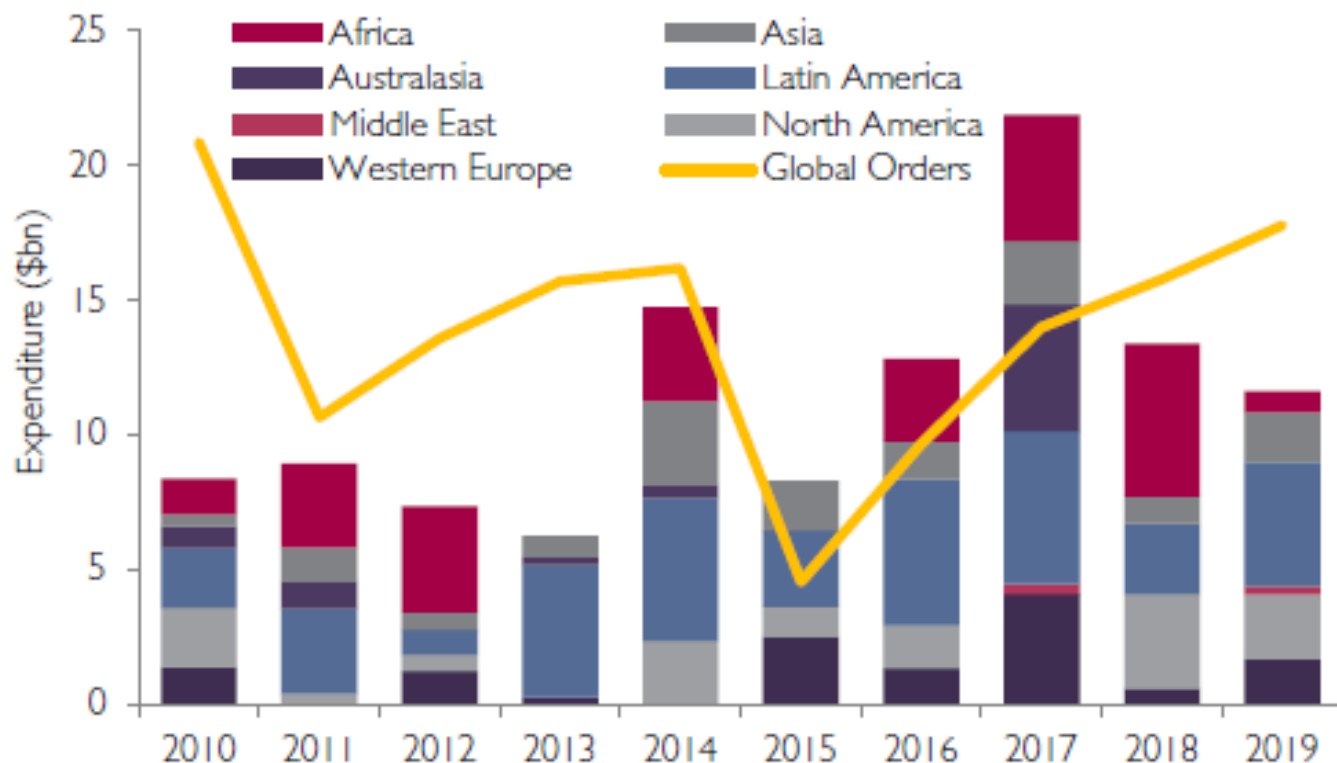


Figure 6: Global FPS Capex by Region 2010-2019

2015-2019

\$68bn Global Capex

85 Global Installations

The oil price collapse has led to a major drop in orders in 2015 – impacting 2018 and especially 2019 installations.

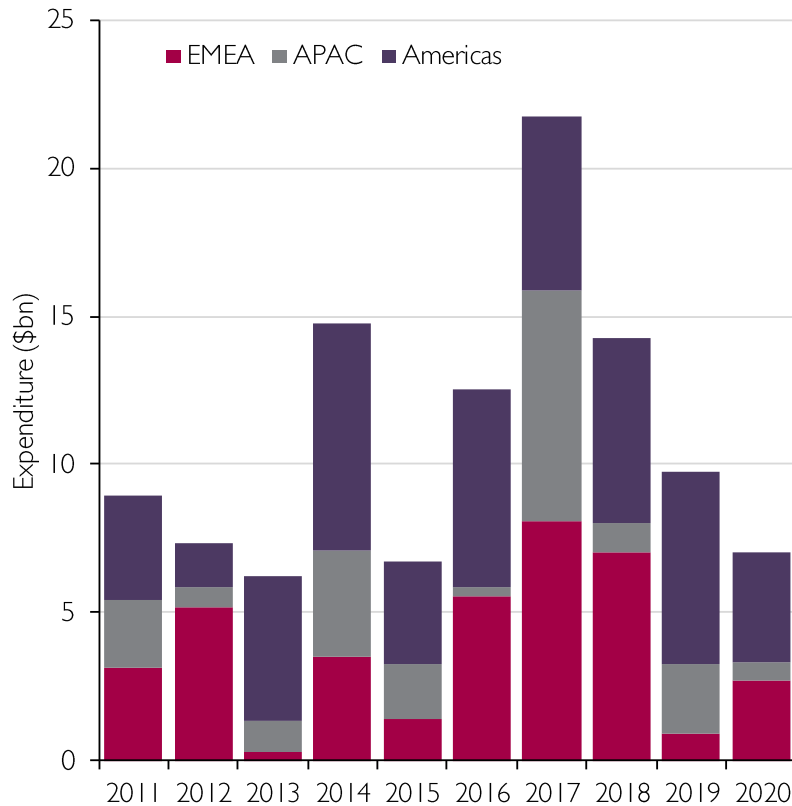
Already sanctioned projects will continue as planned but many 2016 projects have slipped to 2017 – helping its Capex to a record high.

2019 will have many installations but small Capex, due to project deferrals and more cost effective projects.

Latin America will account for 32% (\$21bn) of global Capex, followed by Africa (21%).

Latin America has 24 units projected for 2015-2019. Asia will have the second highest number of installations with 19.

Massive projects in the pipeline. New orders at all time lows...



- Large number of units set for installation 2016-17.
- Trend in increasing technical complexity.
- Good backlogs for FPS construction remain following boom cycle, but starting to subside.
- Order numbers have reduced close to zero.
- Leasing contractors are now reliant on long-term contract backlog.
- Demands for cost reduction from operators are leading some vendors to push for standardisation.





- Oil prices to remain low for H1 2016 before moving upward in H2.
- 0.7 mmbbl/d reduction in oversupply expected in 2016.
- Tough 2016- deflation to persist through 2016. Offshore budget revisions and renegotiations expected, but opportunity to innovate and refresh the industry.
- Things could change very quickly, we just can't predict external factors.



Thank you

www.douglas-westwood.com

See me for a copy of this
presentation

Jason.Waldie@douglaswestwood.com