

Organização:



Parceiros:



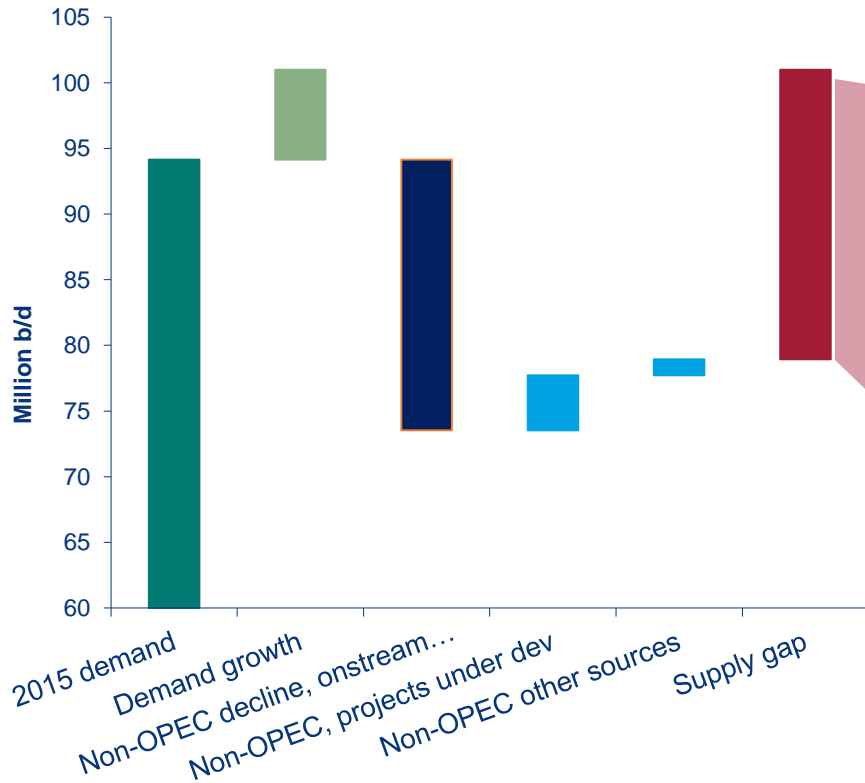
# Ciclo de Debates sobre Petróleo e Economia

Pedro Camarota  
General Manager  
Wood Mackenzie Brasil

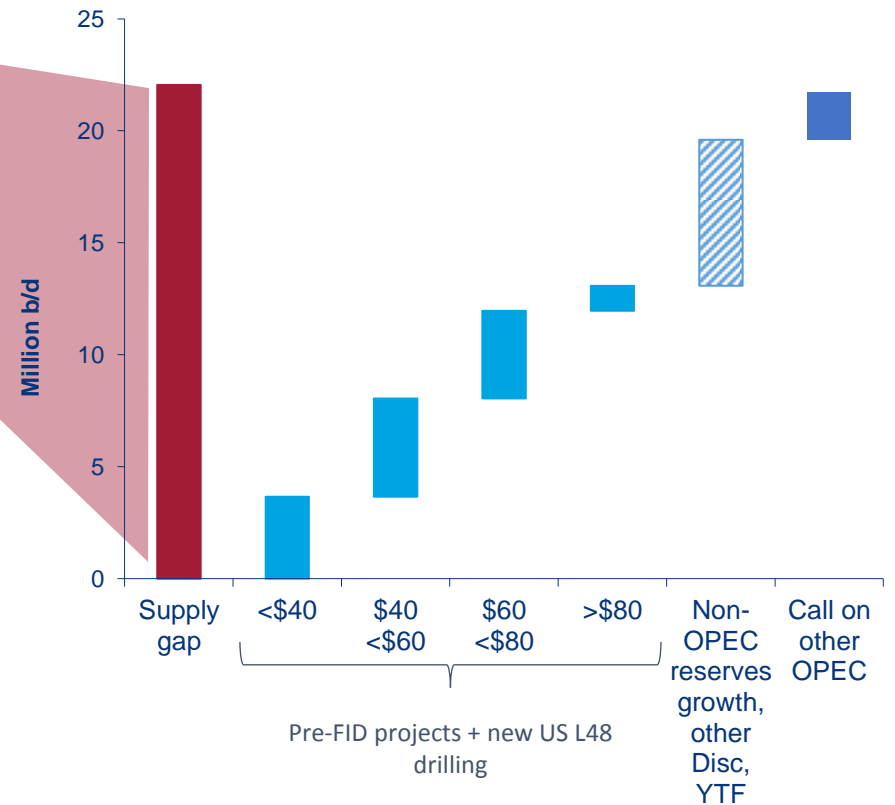
# Pre-FID projects are crucial to fill 2025 supply gap

Based on our latest Macro Oils market analysis, over 20 million b/d needs to be developed by 2025 to offset production declines and meet the growth in Wood Mackenzie's base-case demand view. Most of this comes from US L48 future drilling and conventional pre-FID projects

## Growing supply gap to 2025



## Cost of pre-FID projects and new drilling required

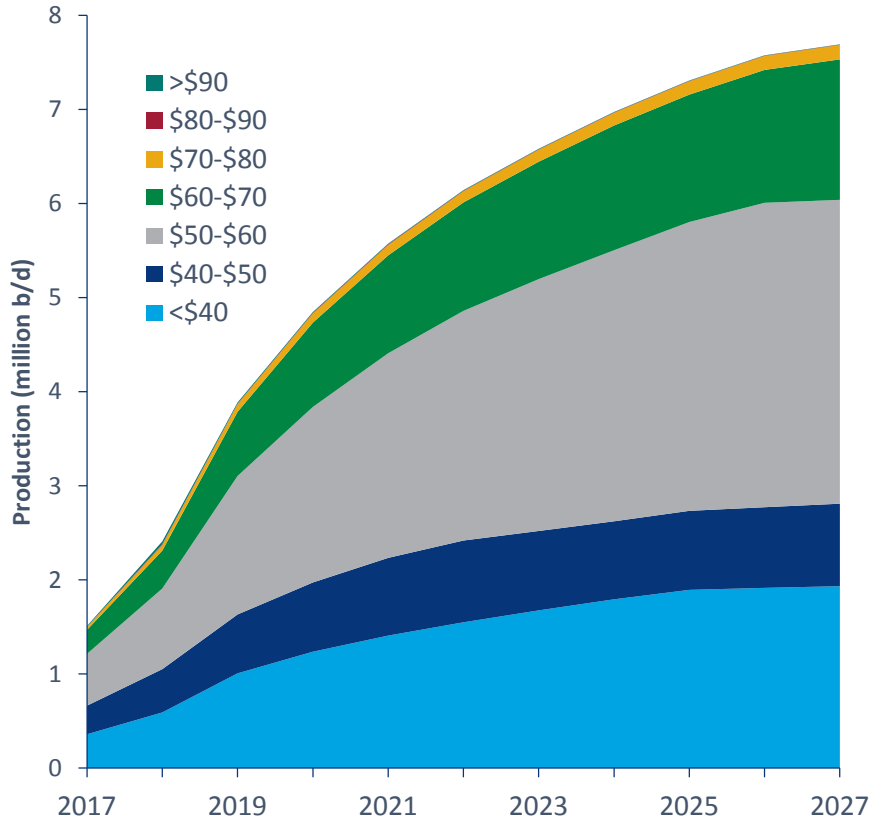


Source: Wood Mackenzie Oil SupplyTool and Macro Oils Long Term Outlook H1 2016



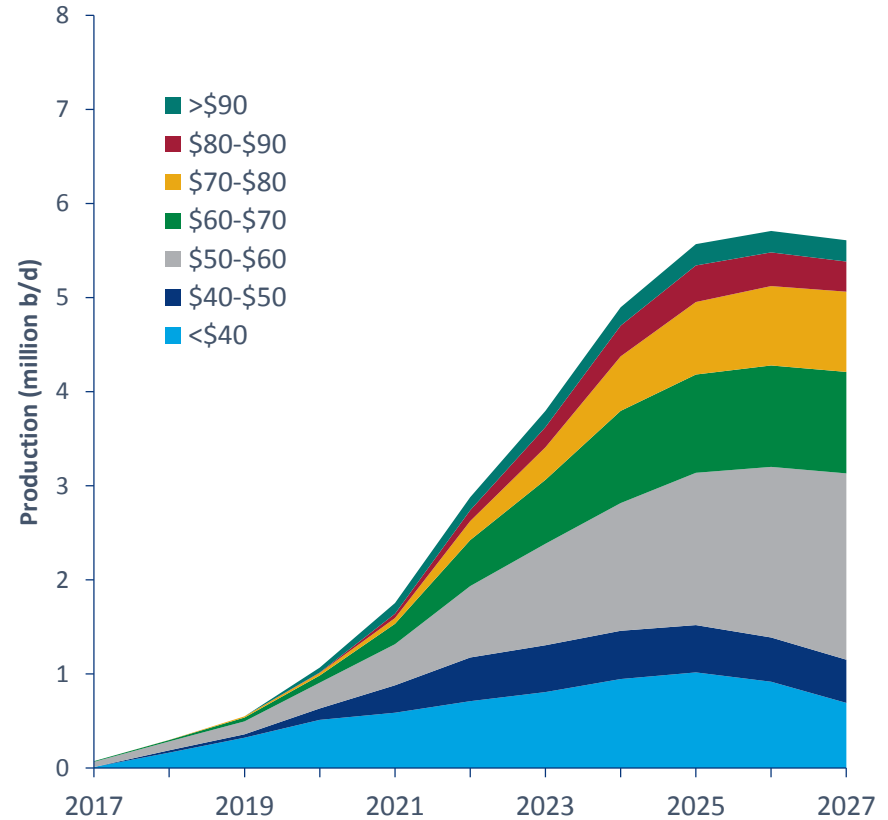
# 80% of US Lower 48 future drilling is now commercial under \$60/bbl but only 55% of conventional projects are

## US Lower 48 breakeven bands



Source: Wood Mackenzie

## Conventional pre-FID breakeven bands



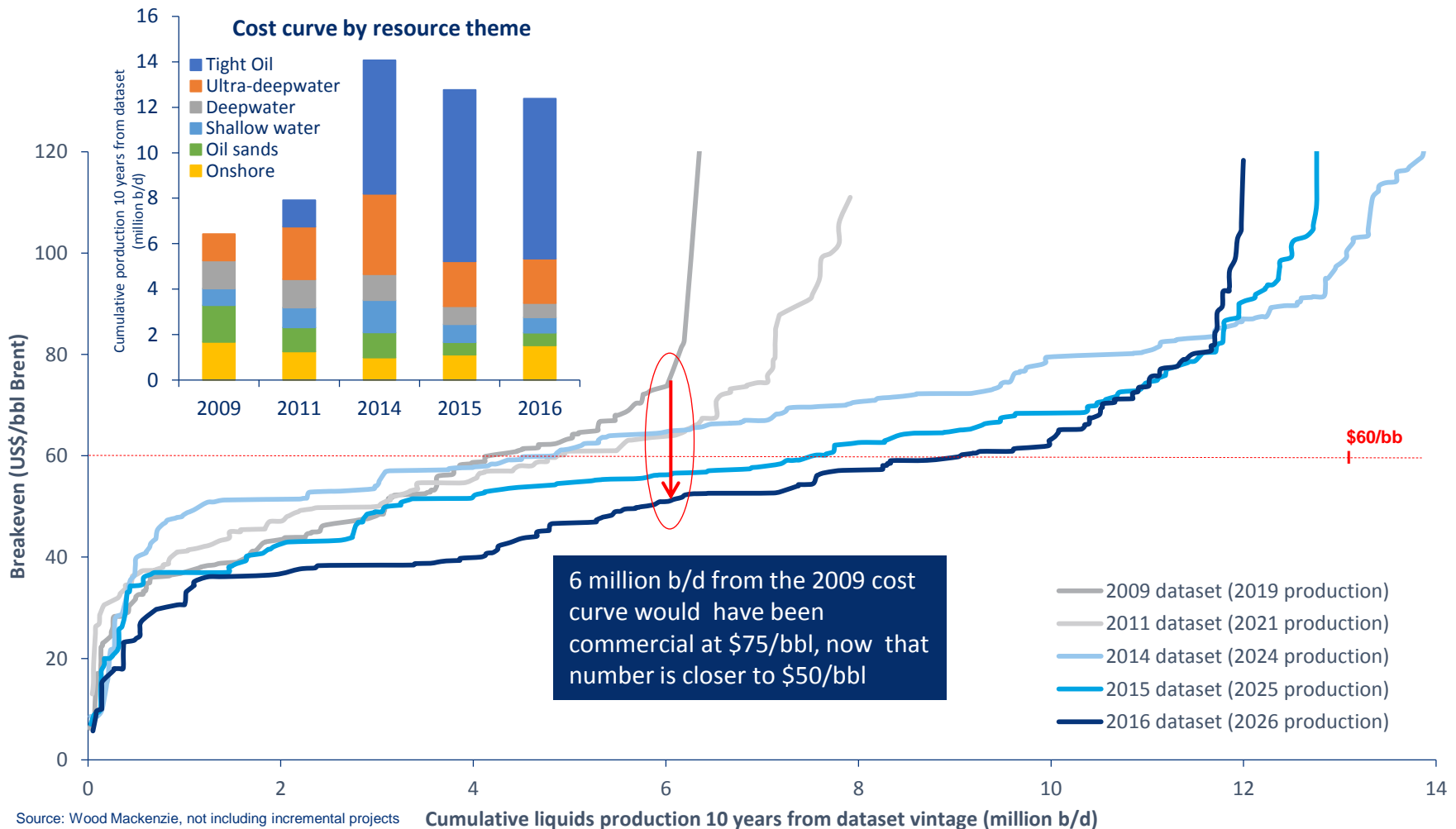
Source: Wood Mackenzie

Source: Wood Mackenzie

# Evolution of pre-FID cost curves since 2009

Longer, lower and flatter. Tight oil is the key driver behind this structural change

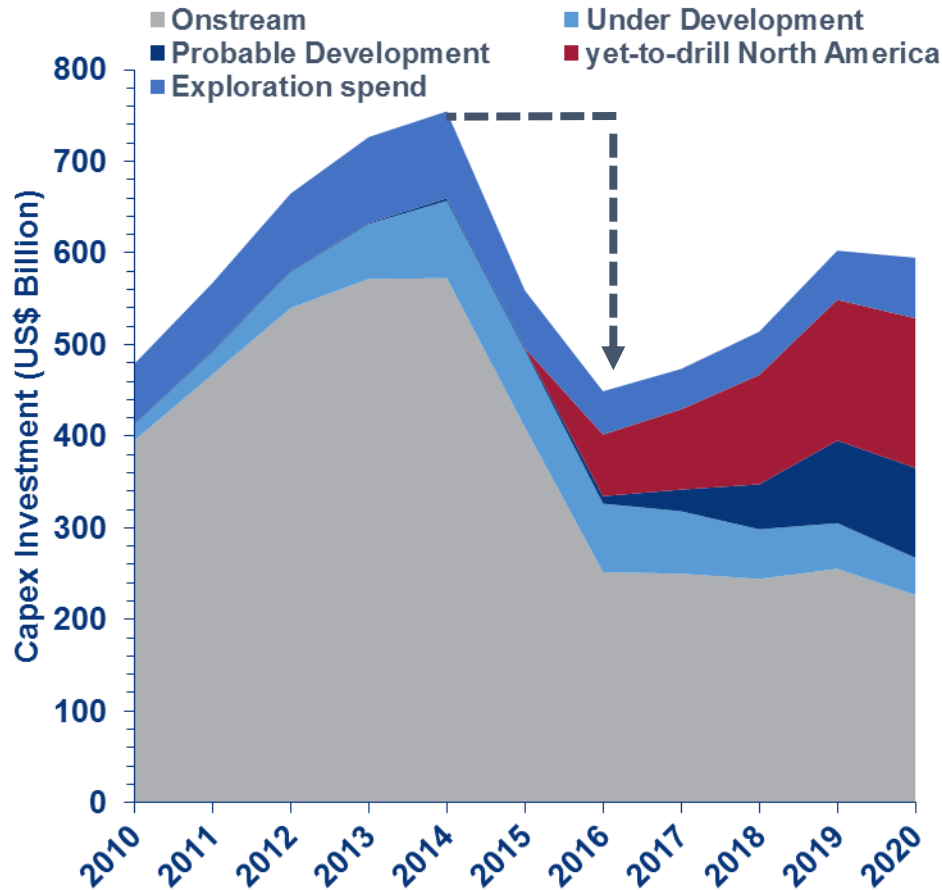
## Pre-FID cost curves since 2009, rebased to 10 years from dataset vintage



Source: Wood Mackenzie, not including incremental projects

# The drop in oil price has had deep impact on upstream investment, falling by 45% from its peak...

Global upstream spend (US\$ bn)



2014 spending proves unsustainable

Capital investment down to US\$400 bn compared to US\$660 bn in 2014

L48: uncons flexibility: recovers 2017 with firming oil price

Conventional FIDs: 6 in 2015, similar in 2016

Exploration spend - halves to cUS\$45 bn 2016-18 – consequences?

Exploration spend – picks up towards 2020

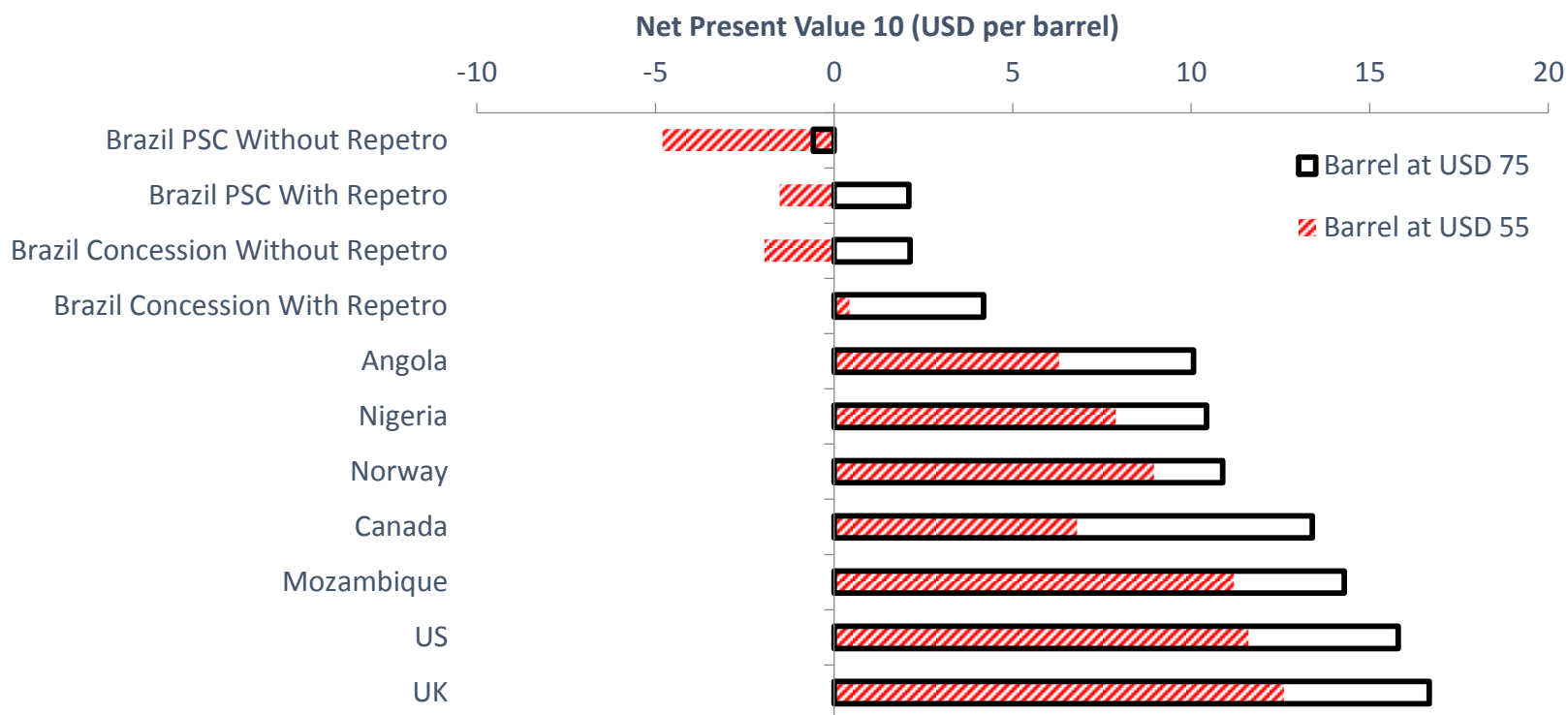
Source: Wood Mackenzie. Forecast of trend for development costs based on Wood Mackenzie database



# From a fiscal terms perspective, REPETRO keeps Brazil marginally competitive

Without REPETRO, Brazil falls behind other deepwater regimes competing for investment

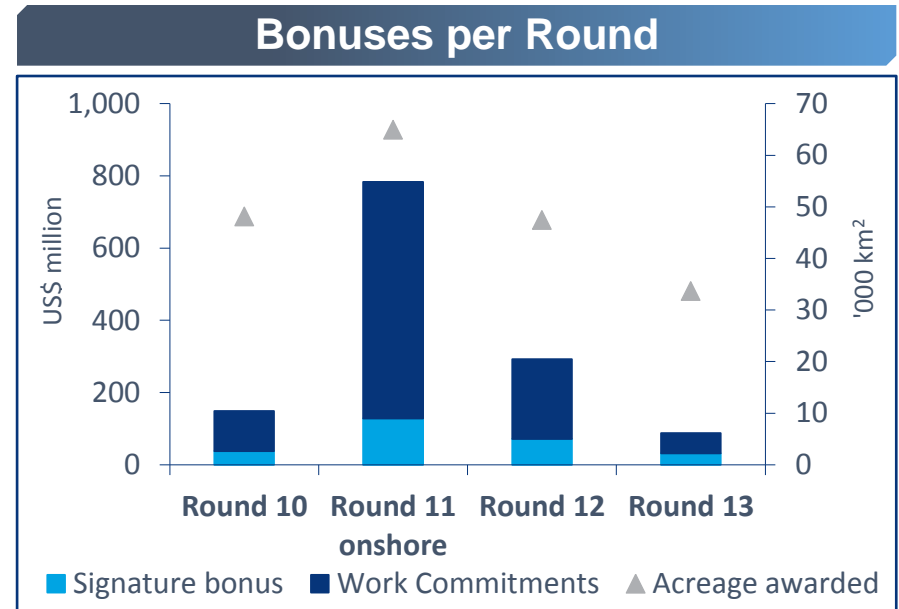
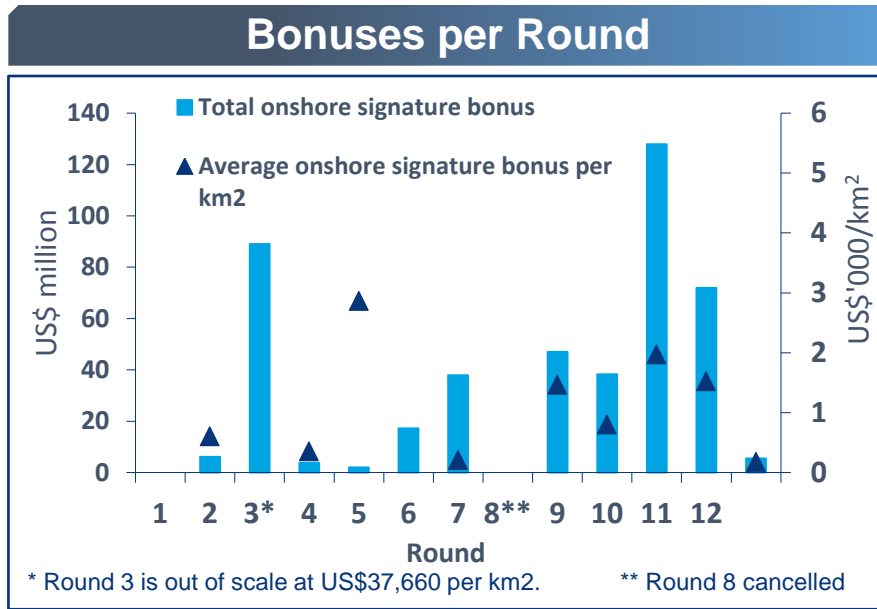
## Fiscal Regime Attractiveness



Note: Based on a 660 million barrel deep water oil field under each fiscal regime

# Above-ground issues undermine the investment attractiveness of the country's highly prospective acreage

The operational & regulatory environment reduces ability to plan and execute efficiently.



- Environmental licensing delays ; strained domestic supply chain → delays and cost overruns
- No clarity around waivers for local content; expiry of REPETRO → highly uncertain future cost estimates
- Round 13 outcome: Result of more of the same terms; not enough to mitigate mounting concerns over issues that impact economic viability of future oil and gas developments.

# Final remarks

**The new Government is giving positive signs of its intention to improve the sector attractiveness, but investors will require more than just promises.**

## ***Government Actions that would improve attractiveness***

- *Improve Dialogue with the industry. Set up an interactive and permanent process to get companies feedback and to focus on the key issues*
- *Perform an objective review of its strategic long term targets and benchmark Brazil across all key metrics (fiscal, environmental permitting, regulation, access to markets).*
- *Understand what other countries are doing to be in line with global industry trends*
- *Needs to define a path to achieving those objectives and analyze the implications.*
- *Fiscal Stability is vital for investors: “Short Term Goals vs Long Term Sustainability”*

