

Is it Safe to Go Back in the Water?

The Royal Institution

20 May 2015

Disclaimer

This set of presentations has been prepared exclusively for discussion purposes during this event. The materials presented should not be understood as GCA forecasts or predictions of oil and gas prices or future industry conditions and they should not be understood as a specific recommendation in respect of any particular decision or course of action.

Today's Agenda

Presentations in The Faraday Theatre – 2.30 p.m.

- ❑ *Introduction – Is it Safe to Go Back in the Water?* - Mike Cline, Executive Director, Gaffney, Cline & Associates

- ❑ *The Oil Price Crash: Opportunities to Transform Portfolios in 2015 and Latest Trends in M&A Markets* – Chris Rachwal, Technical Director, Gaffney, Cline & Associates

- ❑ *Case Studies in Portfolio Management* - Ricardo Barreto, Regional Director of Business Consulting, Gaffney, Cline & Associates

- ❑ *Preparing for a New Battlefield in the Global Oil and Gas Market* – Eraj Weerasinghe, Director, Valuation and Business Modelling, Ernst & Young

Closing Remarks – 5.00 p.m.

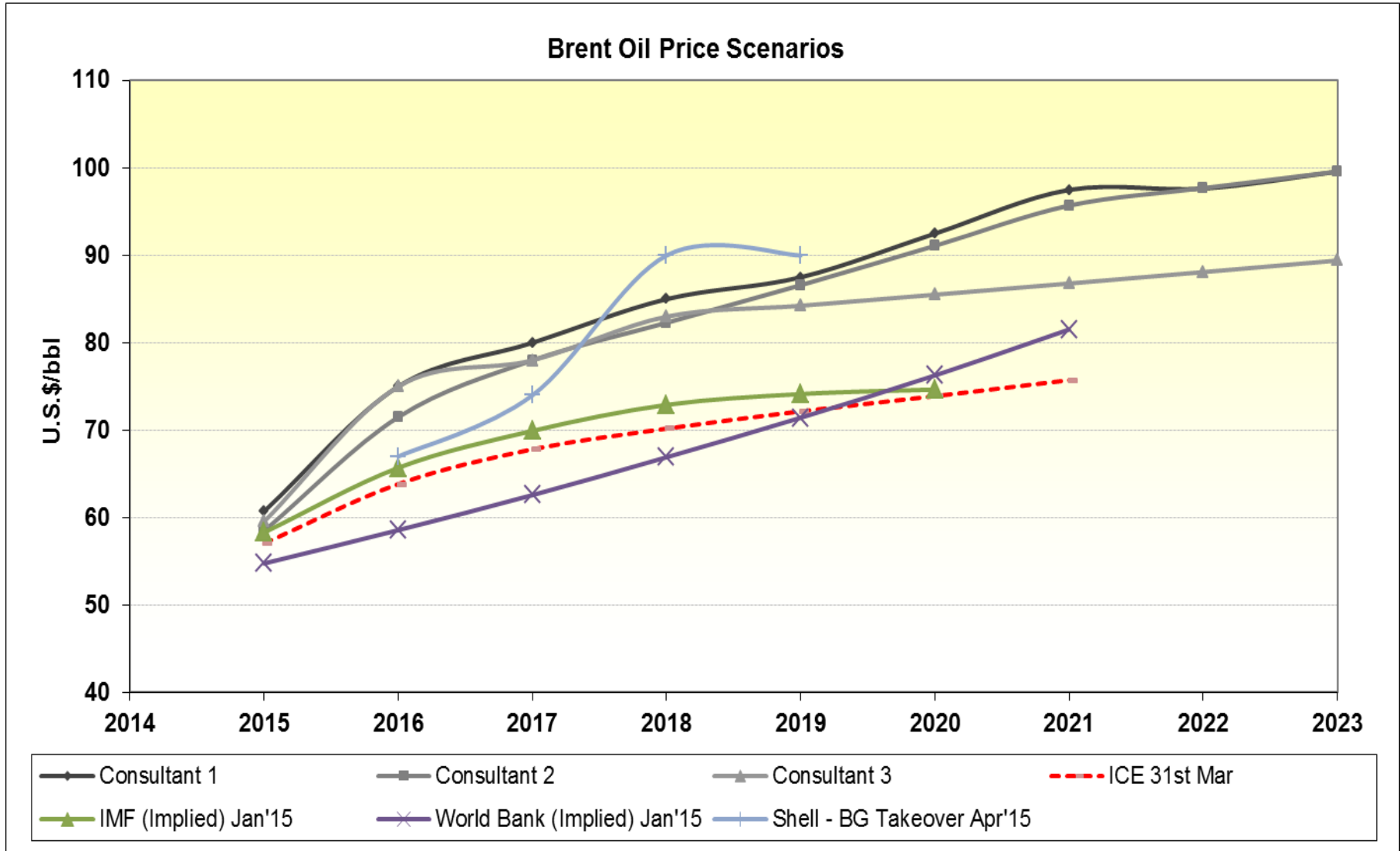
A quick look back to our February discussions

- ❑ In February we reviewed the impact of falling oil prices on the industry
 - **Oil price:** extreme uncertainty, resulting in large variability in forward views with some expecting a quick rebound and others a protracted downturn
 - **Impact on operators:** high cost operators expected to be severely and immediately impacted by low oil prices
 - **Impact on service sector:** expected to be on front line of severe pricing pressure

- ❑ We also discussed the ‘politics of oil’
 - **A fractured OPEC:** budget constrained members not expected to persuade Saudi Arabia and its partners to relax the ‘efficient producers’ strategy
 - **Producing governments:** scepticism that governments in oil producing countries would act to improve the economics of oil projects

- ❑ In hindsight, we were partially right and partially wrong
 - **Operators** have suffered (some severely) but have weathered the storm better than expected due to quick action on costs and portfolio balance
 - **Service companies** have been heavily impacted but have been ruthless on costs
 - **No change in OPEC** and most governments have been slow to recognize the path to protect their oil and gas industry

Long-term Brent price projections – an update



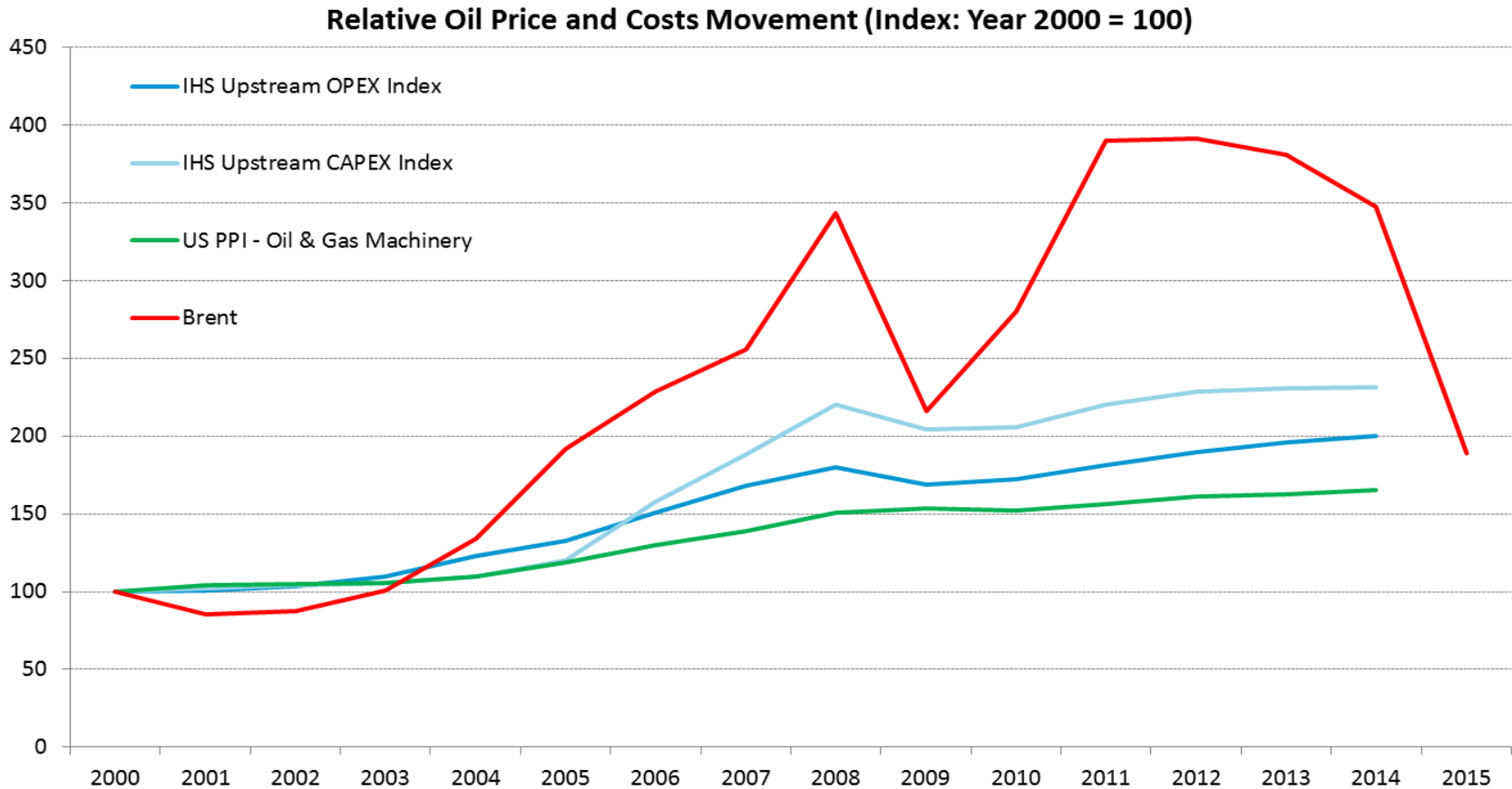
Revisiting GCA themes for a successful recovery

- ❑ Themes for success in a difficult market
 - Getting a better return out of our existing assets via intelligent cost savings and improved recovery
 - Rebalancing portfolios to better match financial resources and business objectives
 - Pushing for better fiscal terms and sensible regulation

- ❑ Today we will focus on the acquisition and divestiture (A&D) market as a key enabler to support these themes



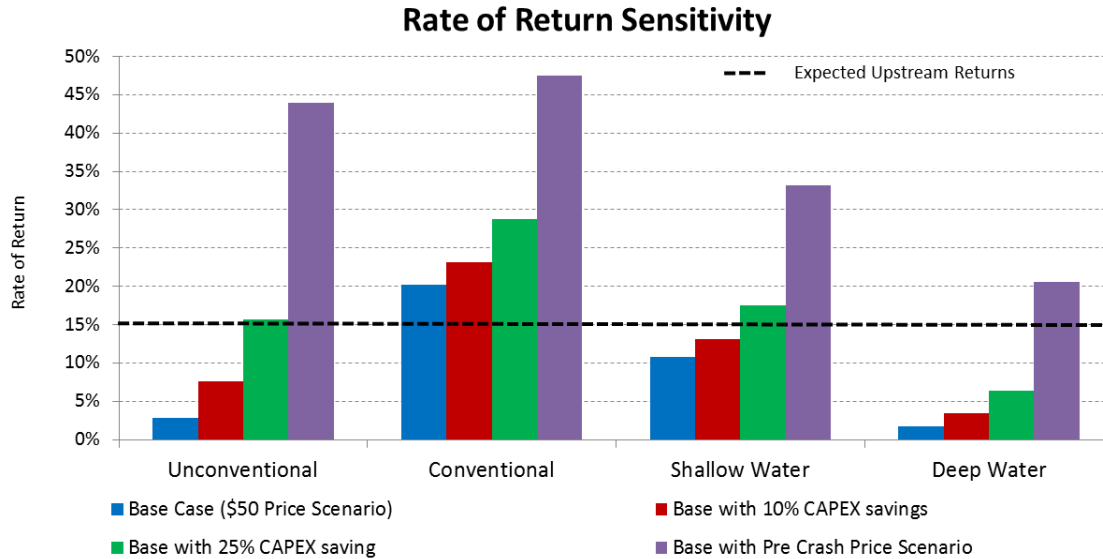
Since 2000 the general trend has been for costs to steadily increase, but more recently, cost reductions are underway



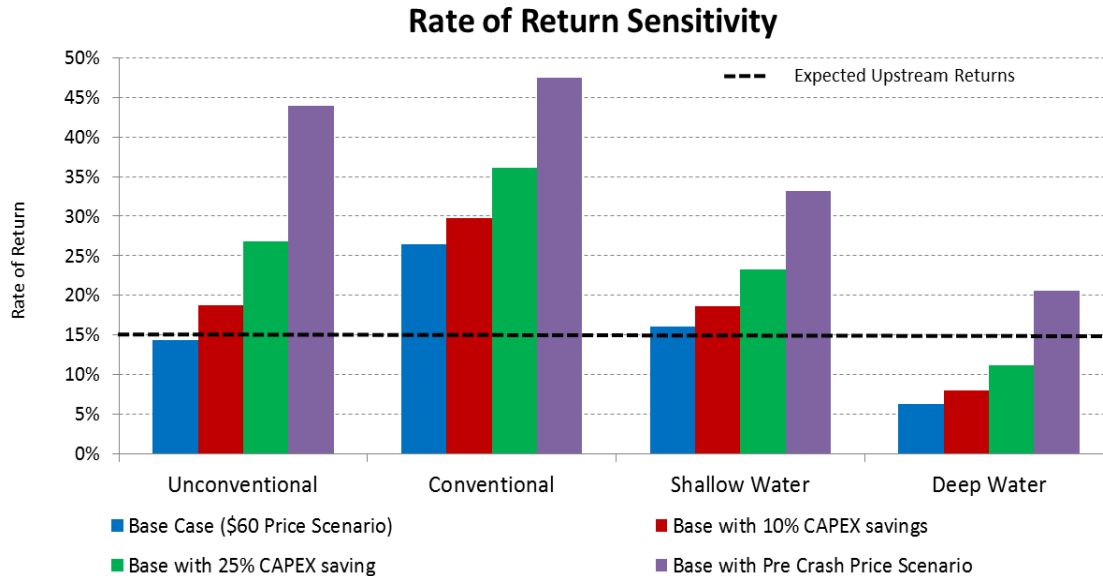
Predicted reductions of up to 30% for new projects: 20-25% for North America unconventional and deep water; 18-23% shallow offshore; are these sustainable?

But even these savings may not ensure expected returns

\$50 World



\$60 World



Time to look at existing assets with fresh eyes

- ❑ Offshore fields initially developed with conventional vertical wells and sub-optimal water flood
 - In steady decline after 25 years in production
 - Steadily rising unit costs

- ❑ Extensive drilling and work over programs
 - Many more new completions, mostly side tracks

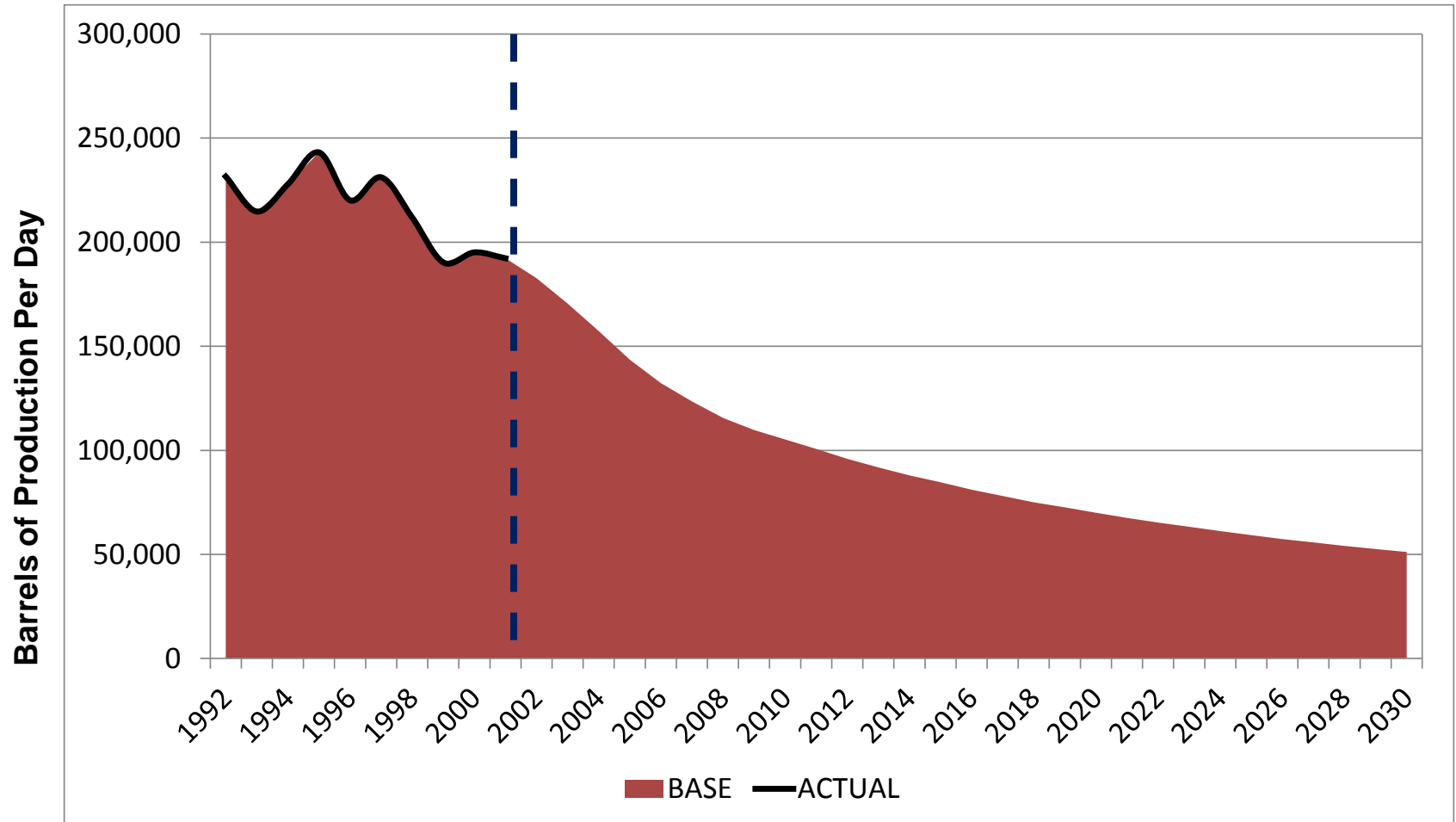
- ❑ High-productivity horizontal completions

- ❑ Layer-by-layer management
 - Drilling targeted on unswept oil zones

- ❑ Effective voidage replacement (water injection!)

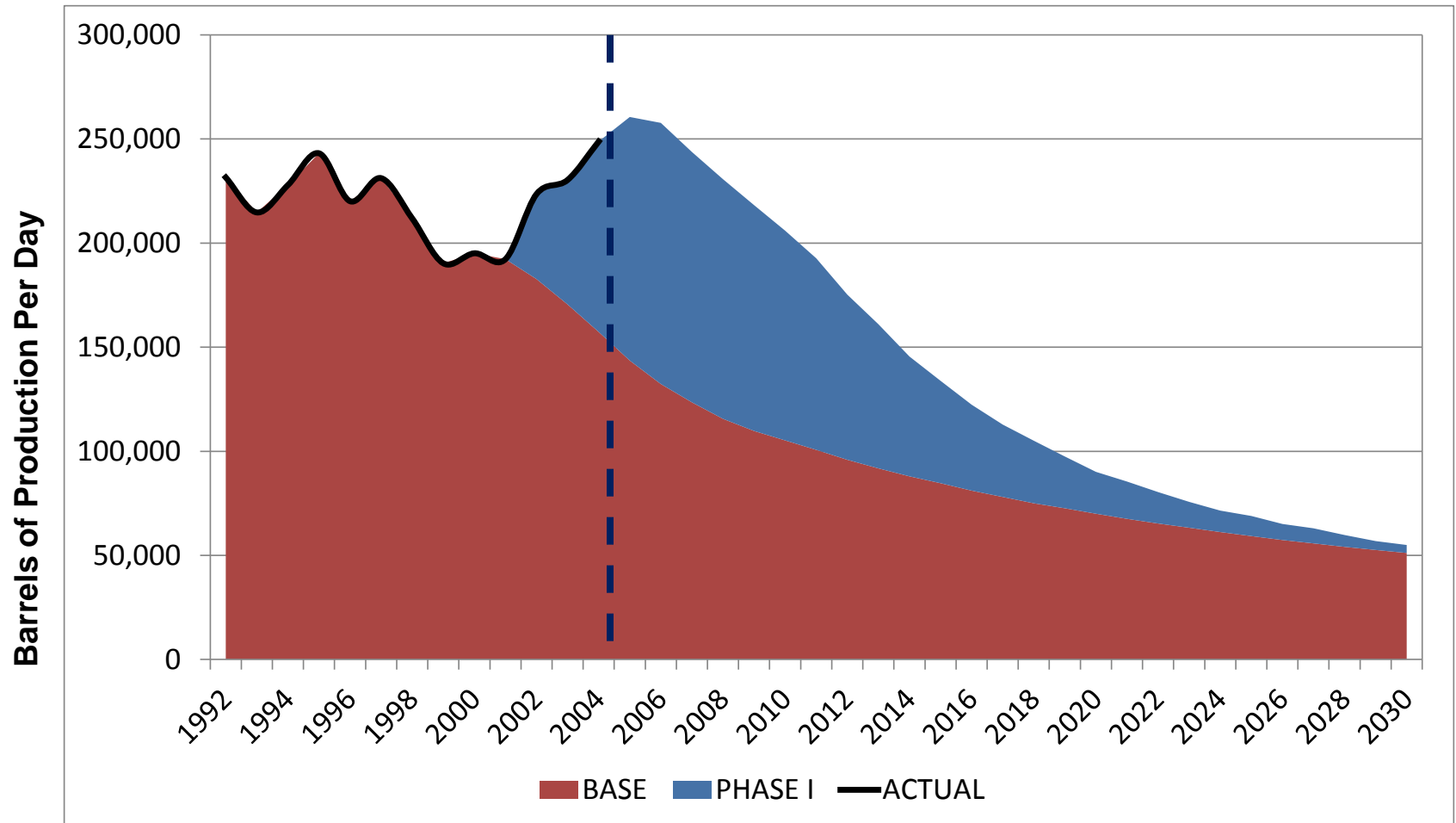
A field in decline and experiencing higher costs

Decline Forecast – No Intervention Case



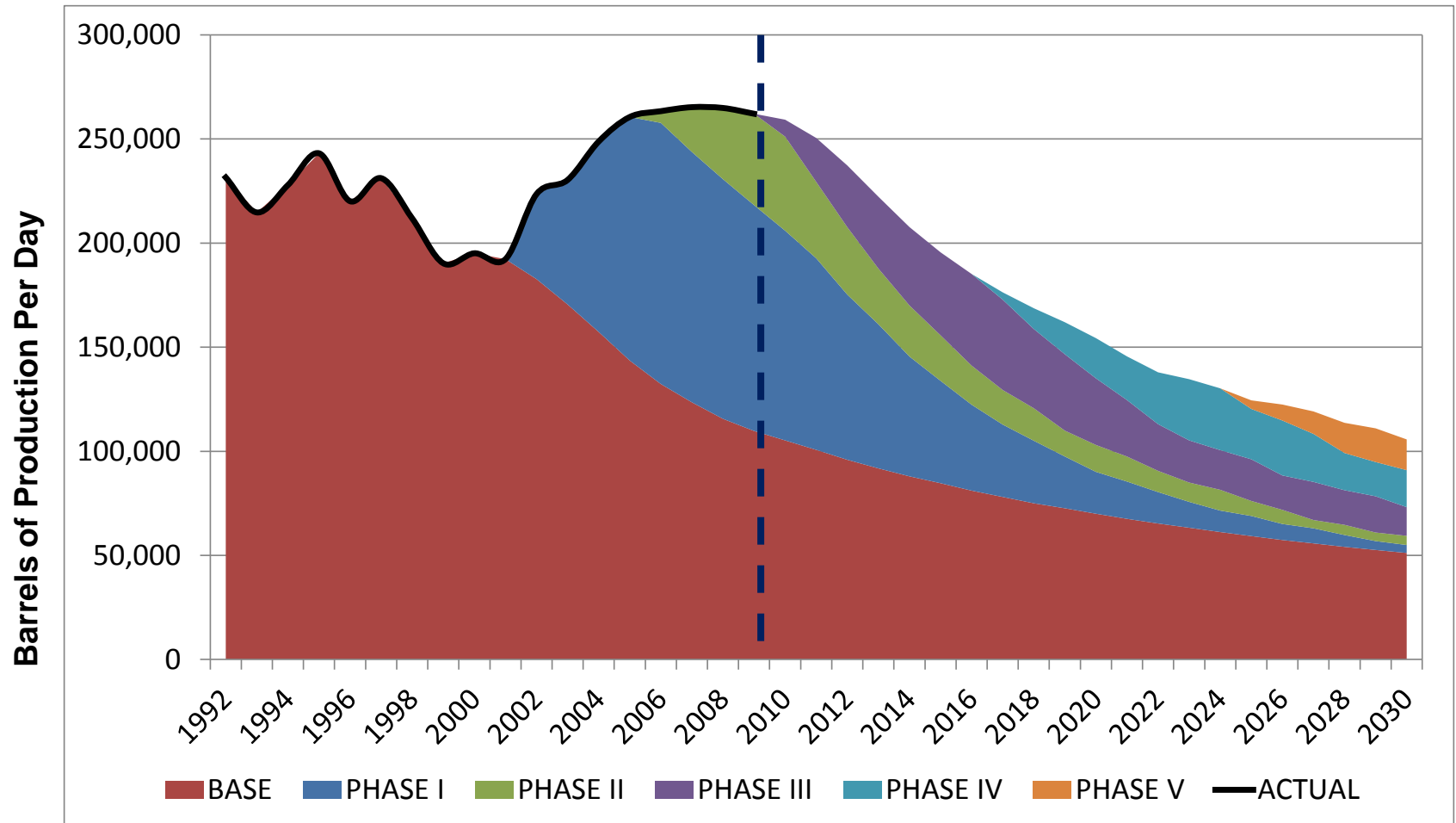
A redevelopment plan leads to success in the wellbore

Revitalized with High-Productivity Horizontal Completions and Layer-by-Layer Management



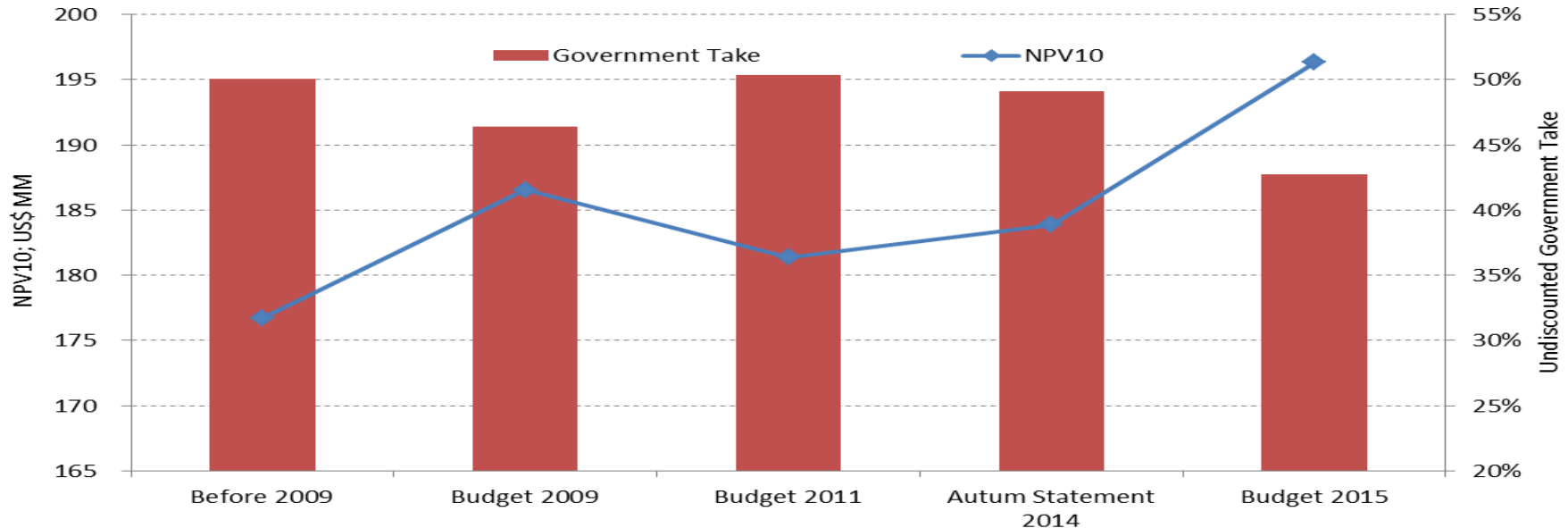
Applying improved recovery methods to sustain the success

Improved recovery with a “rolling” water flood development



Governments need to do their part too...

Evolving UK Fiscal Regime (Impact on a Typical Small UKCS Field)



Small Field Allowance (£MM)	0	75	150	150	150
Supplementary Charge Tax	20%	20%	32%	30%	20%

Source: GCA Analysis

Frequent changes to fiscal regimes undermine fiscal stability – but, making changes in difficult times is an act of honest self-preservation

Key Takeaways

- ❑ **Oil Prices.** Forward views have not changed wildly in past several months; Brent expected to settle at \$70-\$80 per barrel range in 2016 and sub-\$100 per barrel range in 2020
- ❑ **Cost Reductions.** Impact being felt and some reports suggest dramatic cost reductions (e.g. 20-25% in North America unconventional and deep water; 18-23% in shallow offshore)
- ❑ **Looking Beyond Cuts.** GCA believes it is an open question as to how sustainable (or deep) the cost reductions will actually be
 - Even accepting that large cost reductions occur, many projects will still be under pressure in a low or moderately low oil price environment
 - Cost reductions alone will not be sufficient to achieve expected rates of return
- ❑ **Looking at Existing Assets with Fresh Eyes.** In addition to using acquisition and divestment strategies to re-balance portfolios, companies should look at strategies for improving the productivity of existing assets
- ❑ **Rationalizing Upstream Contracts.** Companies and governments should have a dialogue whether fiscal terms are discouraging investment and development and make necessary modifications