Gaffney, Cline & Associates

The Impact of the Oil Price Crash on the E&P Industry

The Royal Institution

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Today's Agenda

- What happened in the last 10 years of high oil prices?
- What might happen next?
- How to adjust to the current market situation?

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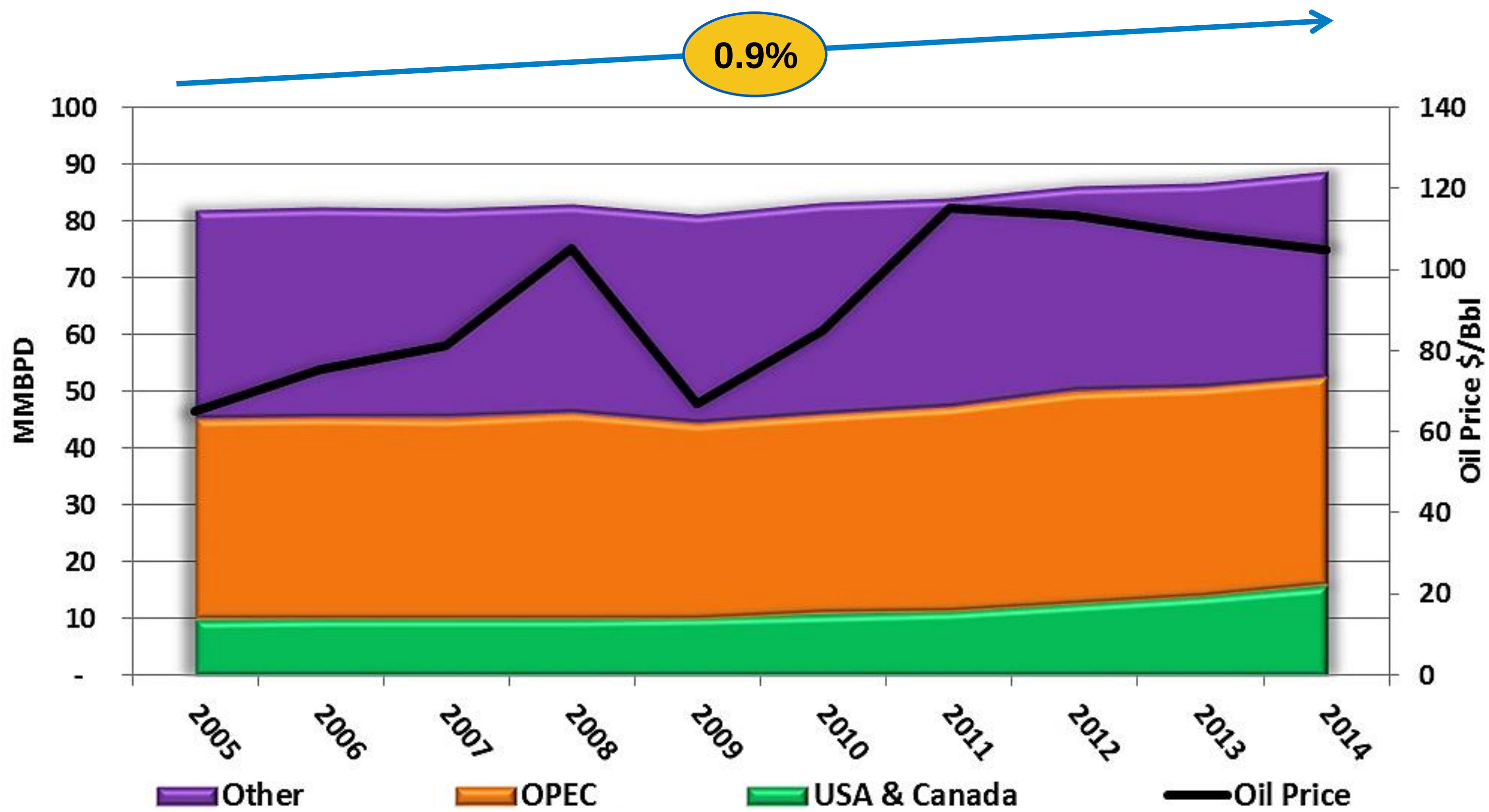
Despite high oil prices, global output growth was modest

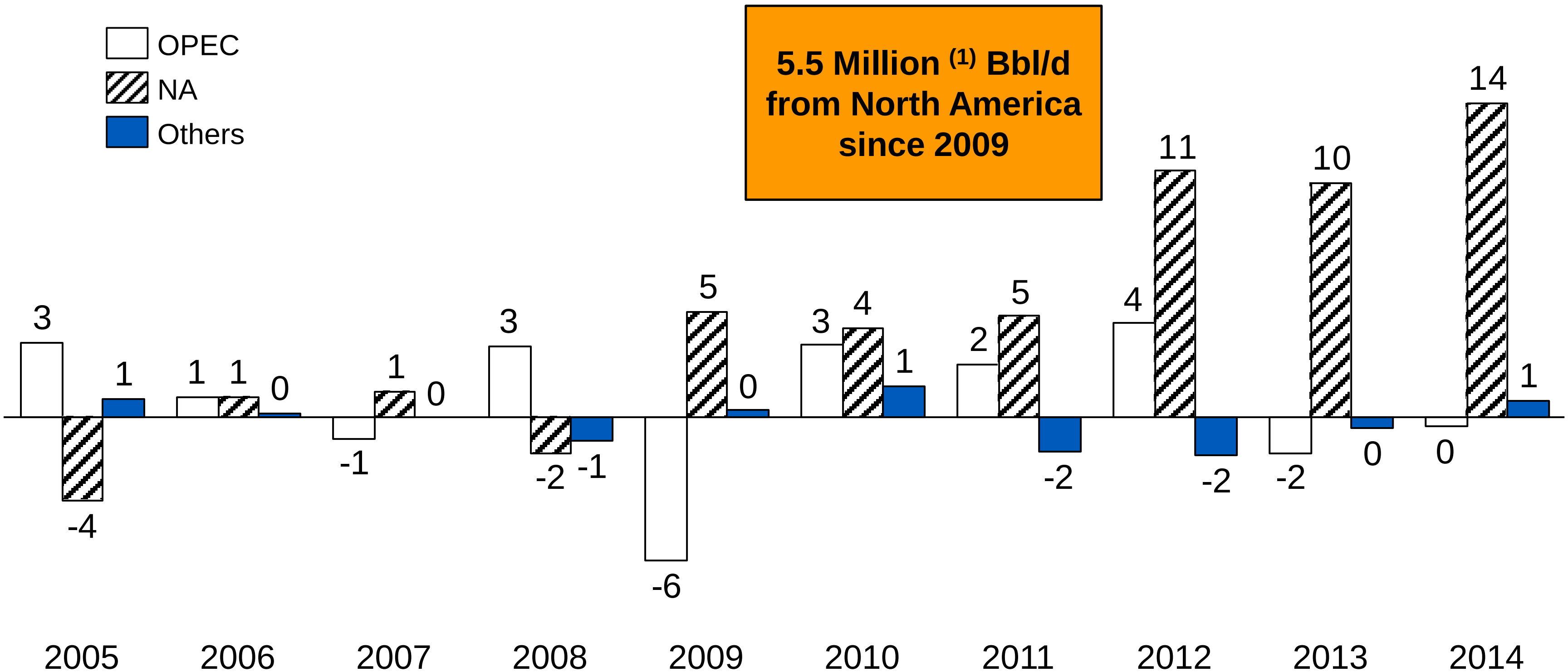
World Oil production vs. (Brent) Oil Prices



Source: BP Statistical Review 2013; IEA Oil Market Report; GCA analysis

However, North America unconventional growth was strong

Year-over-Year Production Change (%)



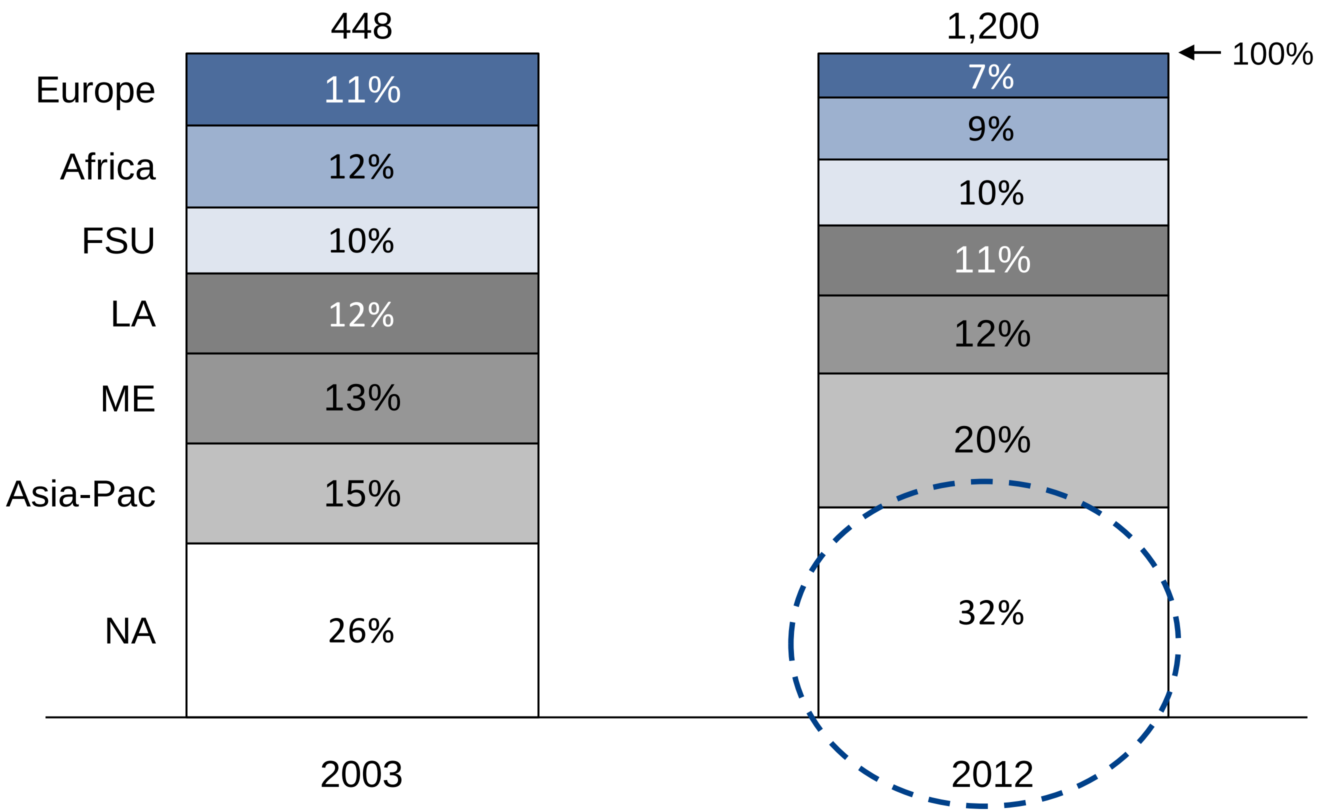
The growth pattern in North America is unprecedented in the E&P industry – in the last 5 years output growth averaged 9% per year

1 Three times the amount of current global oversupply, reckoned by OPEC at 1.5 to 2 MMBbl

Source: BP statistical review 2013; IEA Oil Market Report; GCA analysis; OPEC; GCA analysis

As a result, North America captured a larger share of global E&P investment

E&P CAPEX (1) Evolution by Region, 2003 – 2012

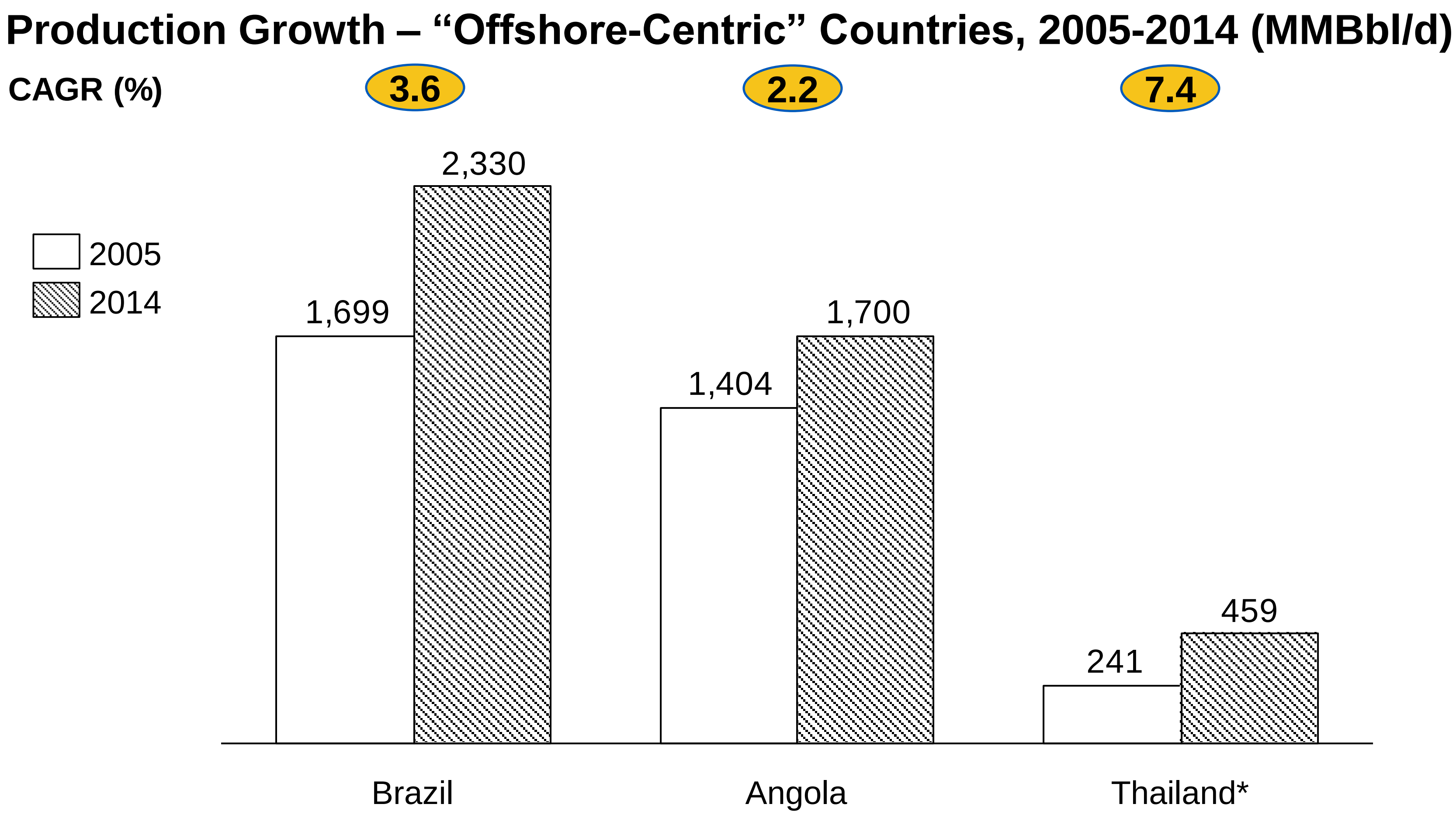


Several international companies reshuffled their portfolios and increased their exposure to unconventional

1 Including LNG/Pipelines

Source: IHS; GCA analysis

Offshore also attracted attention with some countries providing consistent output growth

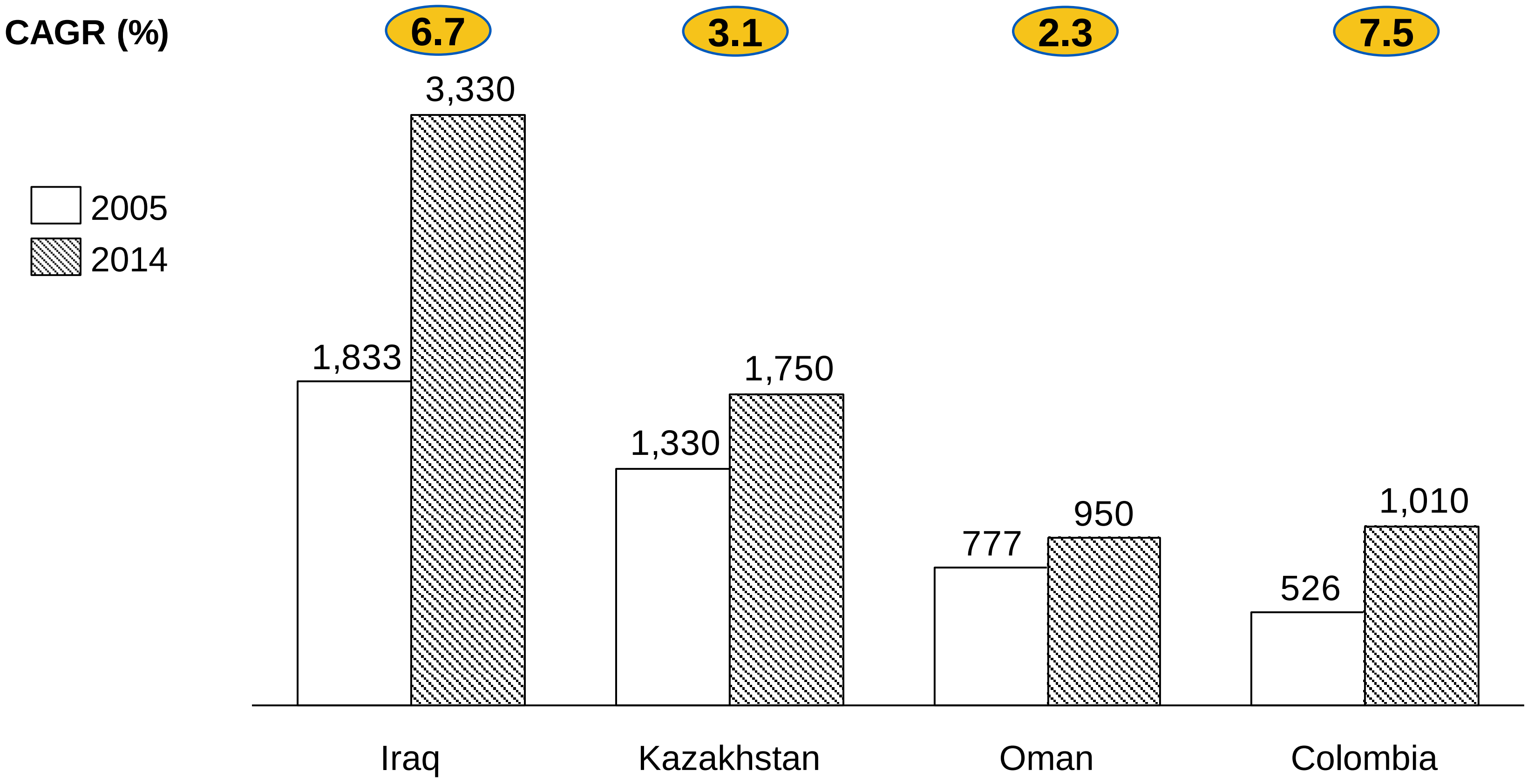


* Thailand 2013 figures

Source: BP Statistical Review 2013; IEA Oil Market Report; GCA analysis

Some “conventional-centric” countries also provided robust growth rates…

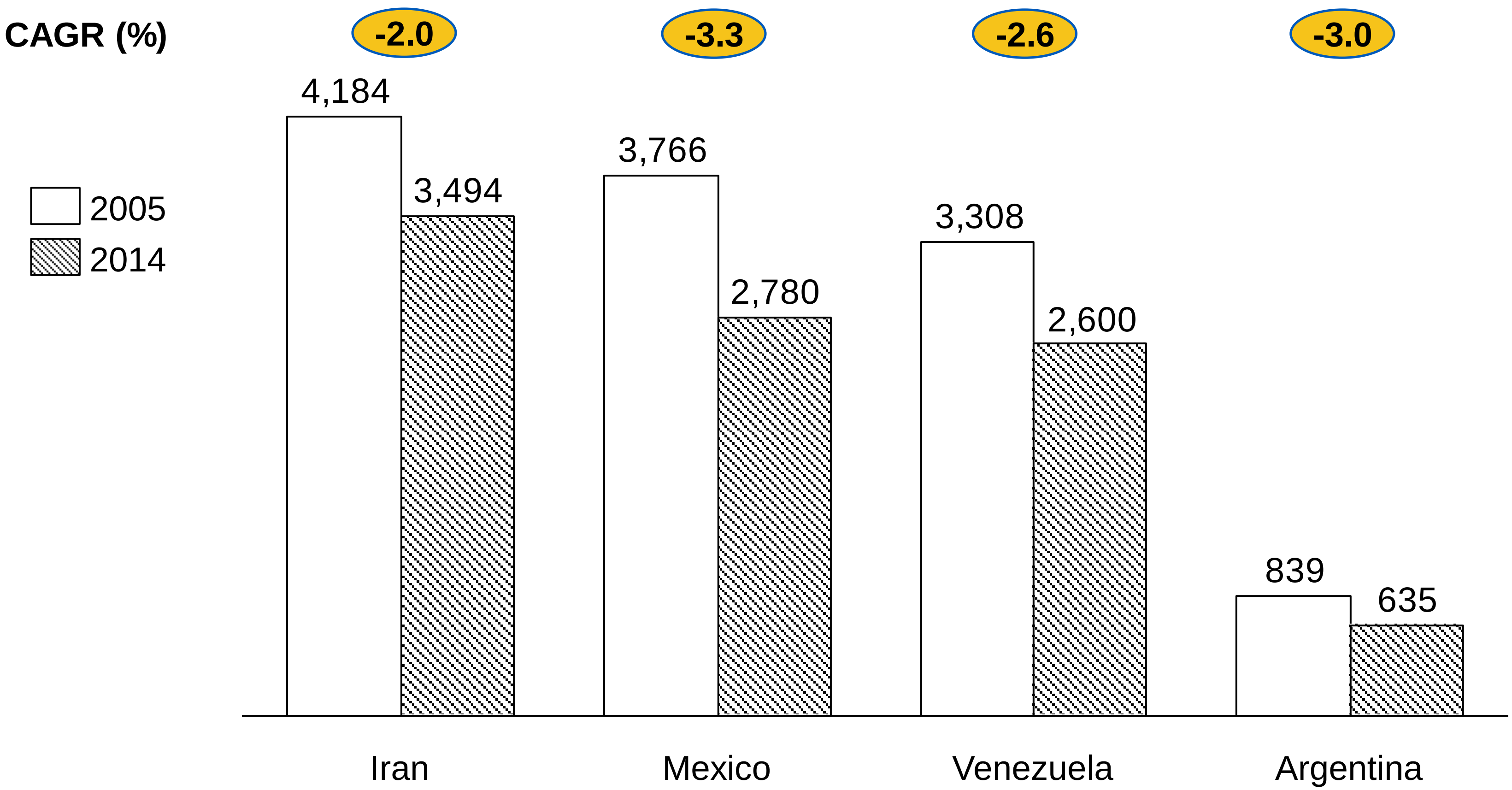
Production Growth – “Conventional-Centric” Countries, 2005-2014 (MMBbl/d)



Source: BP Statistical Review 2013; IEA Oil Market Report; GCA analysis

…whereas others did not manage to grow their production – even with high oil prices

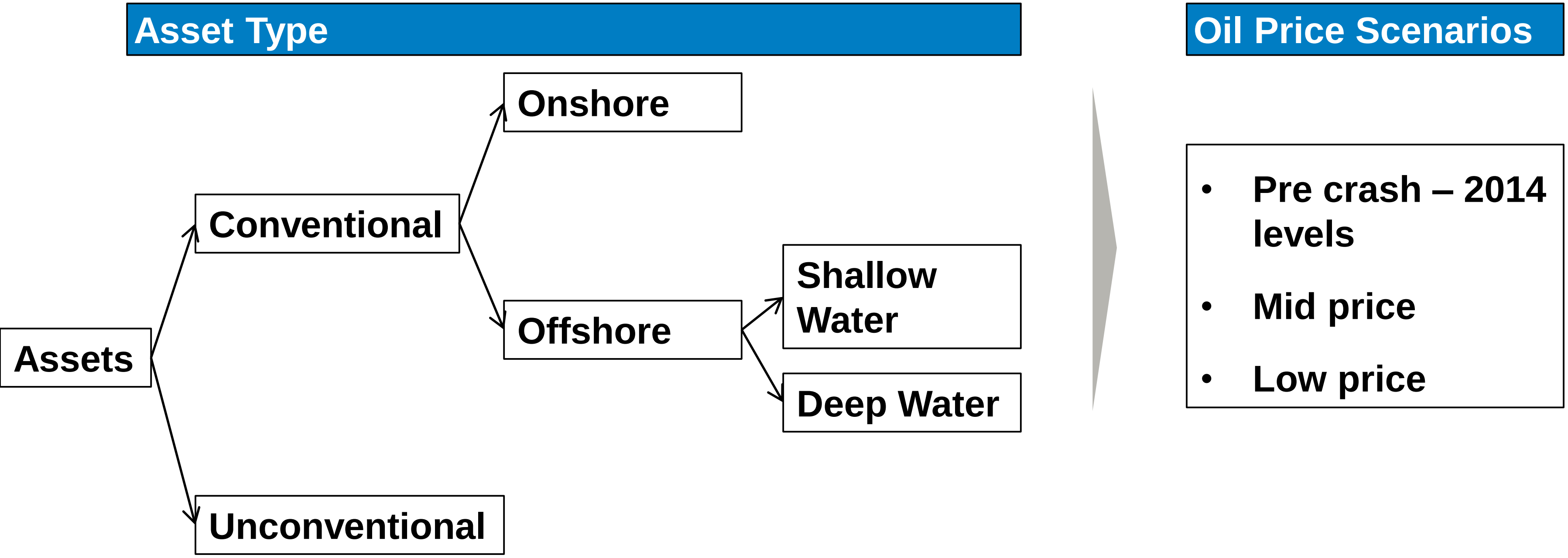
Production Growth, "Conventional-Centric" Countries, 2005-2014 (MMBbl)



Source: BP Statistical Review 2013; IEA Oil Market Report; GCA analysis

To gauge impact of low prices, we analyzed various asset types at a high level to understand industry trends

Analysis Overview

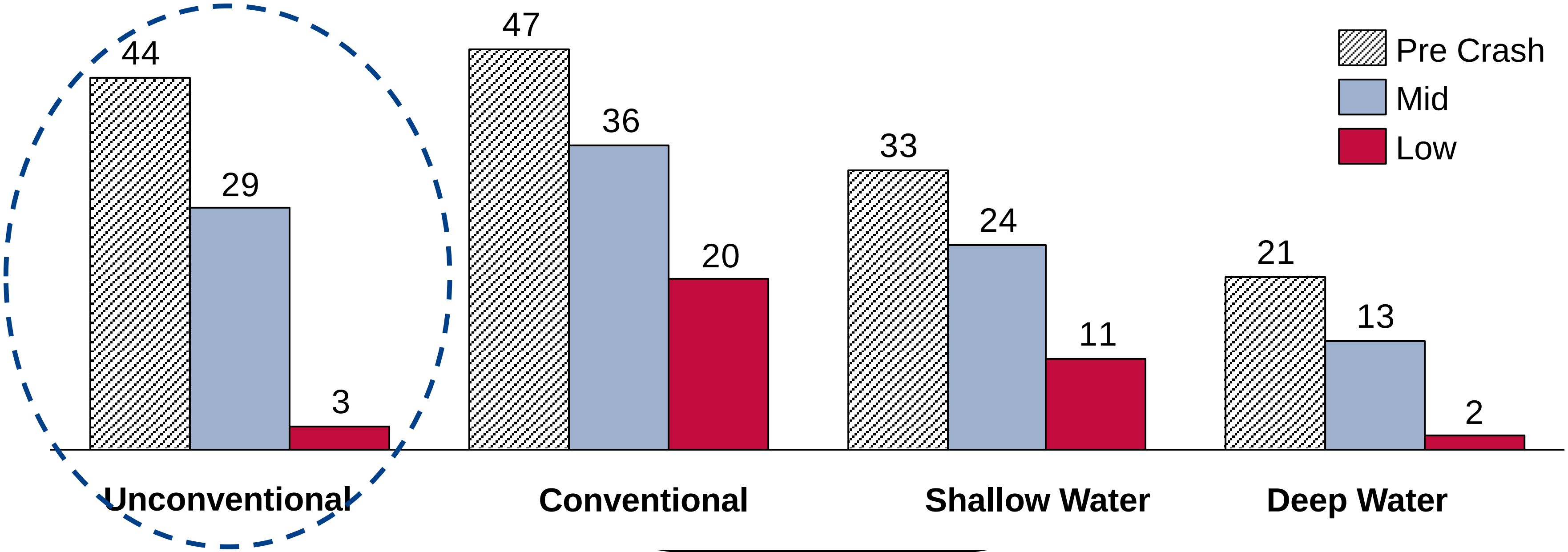


1 We considered different field sizes, maturities (exploration, development, production, respective cost profiles, different fiscal models (Tax and Royalty; PSC Production Sharing Contracts)

Source: BP statistical review; GCA analysis

The returns of unconventional are attractive in a high oil world, which explains their strong growth after 2008

Internal Rate of Return by Project Type



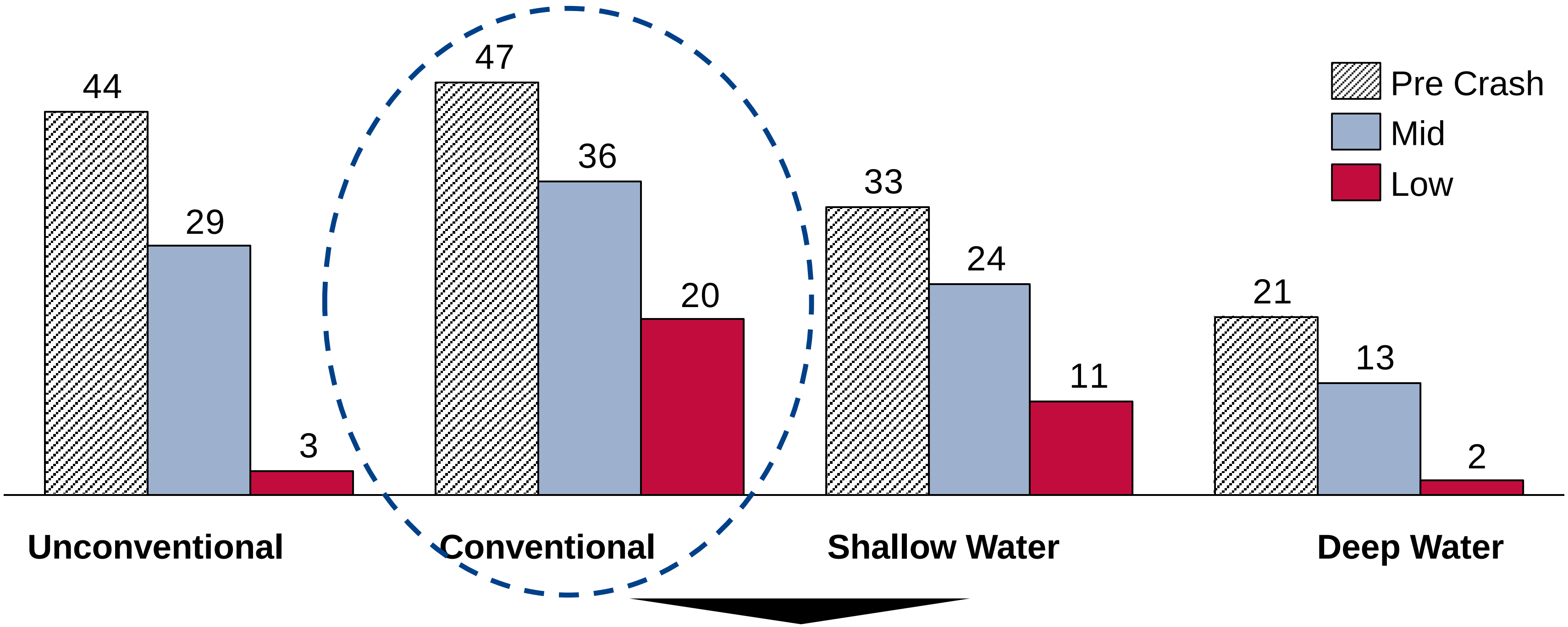
- Technology breakthrough plus high prices triggered unconventional boom
- Unconventional is sensitive to low prices given high marginal costs of development (constant drilling required to keep production flowing; quick production adjustments)

1 20% royalty regime assumed

Source: GCA analysis

Conventional is the most resilient play across all scenarios

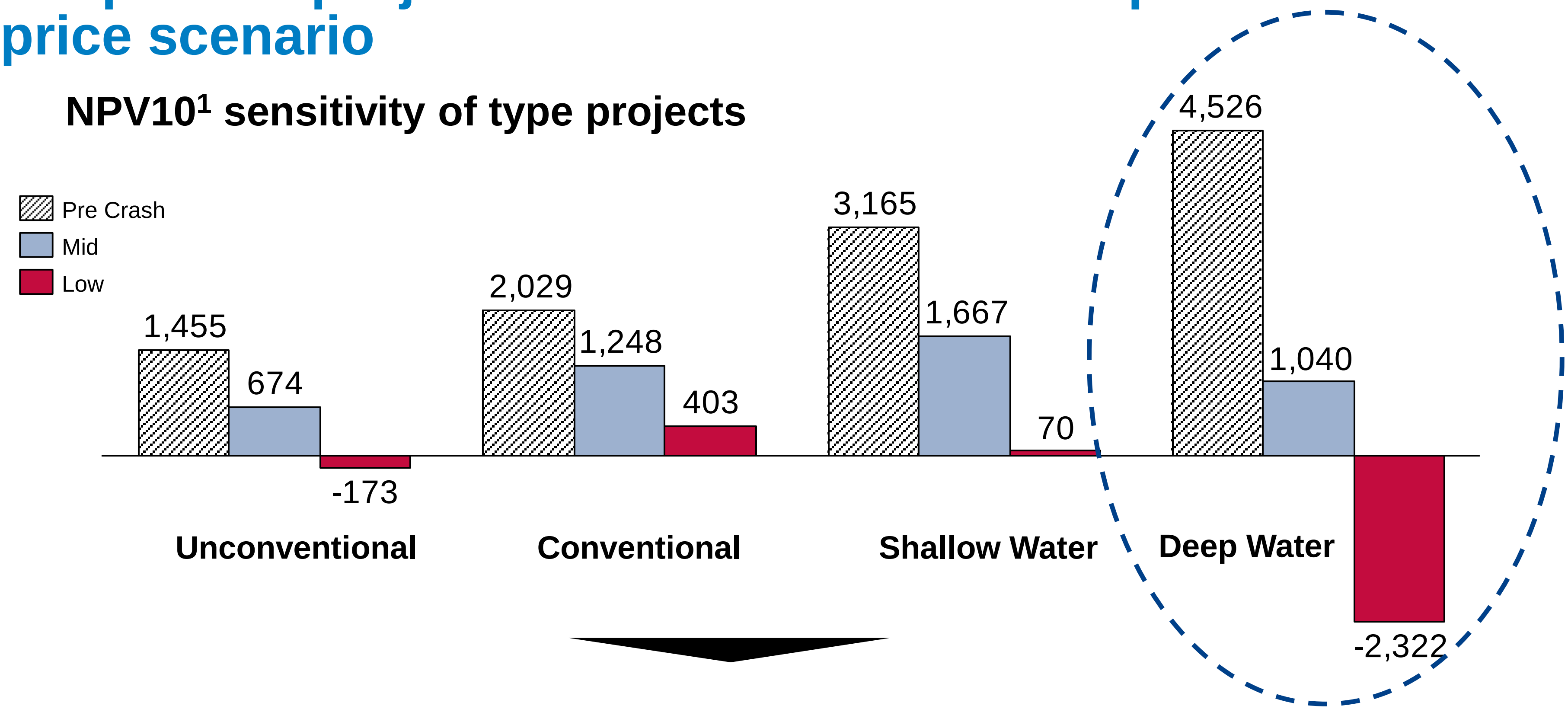
Internal Rate of Return by Project Type



- However, in most jurisdictions "conventional" resources are in steep decline
- In many jurisdictions, access to resources is either restricted or closed (mostly in "resource long" countries)

1 20% royalty regime assumed
Source: GCA analysis

Deep water projects tend to be the most exposed to a low price scenario



- However, deep water projects provide large absolute value creation (NPV)
- Long-term in nature, therefore requiring long-term view of oil price fluctuations
- Projects already under development are normally financially structured and may not be influenced by the current scenario

1 20% royalty regime assumed

Source: GCA analysis

Some adjustments are already happening

Play type	Trend After Price Crash
Conventional	❑ Remains an attractive opportunity, however access is challenging ❑ Current scenario may prompt resource holders to rethink access (e.g. Mexico, others to follow?)
Unconventional	❑ High grading of areas and adjustments to cost structures already happening (drilling costs expected to sink (10-30%) – over 2015) ❑ Efficiency gains running at 20% y-o-y to remain across the short term ❑ Production will respond quickly to price increases – drill to inventory strategy already happening ❑ Can still be attractive in a medium price scenario – “quick” cash pay-outs ❑ Possible industry consolidation in U.S. if prices remain low for long ❑ Growth outside U.S. will happen only if right industry design conditions are present
Offshore	❑ Projects already in development phase shall continue ❑ Newer projects can be postponed as companies may impose more stringent internal approval processes and seek robustness of field development plan ❑ Cost adjustments tend to happen (drilling, oilfield services)

Source: GCA analysis on the impact of low price in the US shale production

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Current Markets - The Perfect Storm?

- Low commodity prices
- Global geopolitical crises
- Stagnating global economic growth
- High cost structures
- Disappointing exploration results
- Move to unconventional assets
- Over-levered balance sheets
- Fragmented ownership of assets
- Tightening access to capital markets

"You've got hopelessness and despair until 3:25, at which time your survival instincts are scheduled to kick in."

Out of despair comes opportunity…

- Cyclicality – this isn't the first time this has happened and it won't be the last

- Down-cycles allow/force companies to revisit their core strategies, rebalance their portfolios, and markets will ensure assets are owned by those companies that can most efficiently develop them

- Companies often find themselves in one of the following categories:
  - Distressed
  - Weathering the storm
  - Opportunistic / Predatory

- How to get ready for the next cycle?

Distressed Companies

Characteristics

- Single asset / jurisdiction portfolios
- Mature high-cost portfolios with looming abandonment or decommissioning liabilities
- Highly-fragmented portfolios
- Exploration or early stage development assets with minimal cash flow
- Non-operated assets with little control over capital spending commitments
- Reserve write-downs and impairment
- Over-levered balance sheets
- Access to new sources of equity challenging

Action / Response

- Initial focus on high-grading capital projects and cost discipline
- Renegotiate contractual obligations where possible – e.g. service contracts
- Relinquishment of licenses / leases
- Restructure and refinance balance sheet
- Evaluate strategic alternatives

Weathering the Storm

Characteristics

- More diversified portfolio of early-stage and mature assets but some imbalances exist
- May have some capital commitments carried by partners
- Short term cash flows partially preserved via hedging
- Higher cost structure
- Reserve write-downs and impairment on some assets
- Over-levered balance sheets but alternatives to de-lever exist
- Sustained low price environment will create severe distress

Action / Response

- Initial focus on high-grading capital projects and cost discipline
- Revisit corporate strategy
- Review portfolio and ensure it aligns with strategy
- Use downturn as an opportunity to rebalance portfolio – “shrink to grow”
- Evaluate alternative financing sources
  - Equity
  - Debt re-financing
  - Asset dispositions
  - Dividend policy
  - Capital allocation

Opportunistic / Predatory Companies

Characteristics

- Strong capital and cost discipline in all phases of the commodity cycle
- Quality assets and well-balanced portfolios
- Strong balance sheets
- Ready access to cash reserves, equity, and debt markets
- Often larger in size (but not always)

Action / Response

- See market dislocation as an opportunity
- Revisit and execute on long-term strategies for value to capitalise on increased A&D activity:
  - Consolidation
  - Portfolio rebalancing and transformation
  - Growth
  - New entry

It is easier to say it than to do it, but companies need to…

Revisit their corporate strategies

- ❑ What is the company really good at doing?
- ❑ How to leverage that?
- ❑ Where does it want to be in the business long-term?

Rebalance their portfolios to align with their strategies

- ❑ Is my portfolio aligned with my goals?
- ❑ Does it have the right cost structure?
- ❑ What are the alternatives?
- ❑ How to execute on the plan?

Ensure their balance sheet is structured to enable execution

- ❑ What is my optimal capital structure?
- ❑ What are the alternative sources of financing?

Back-Up

Price scenarios