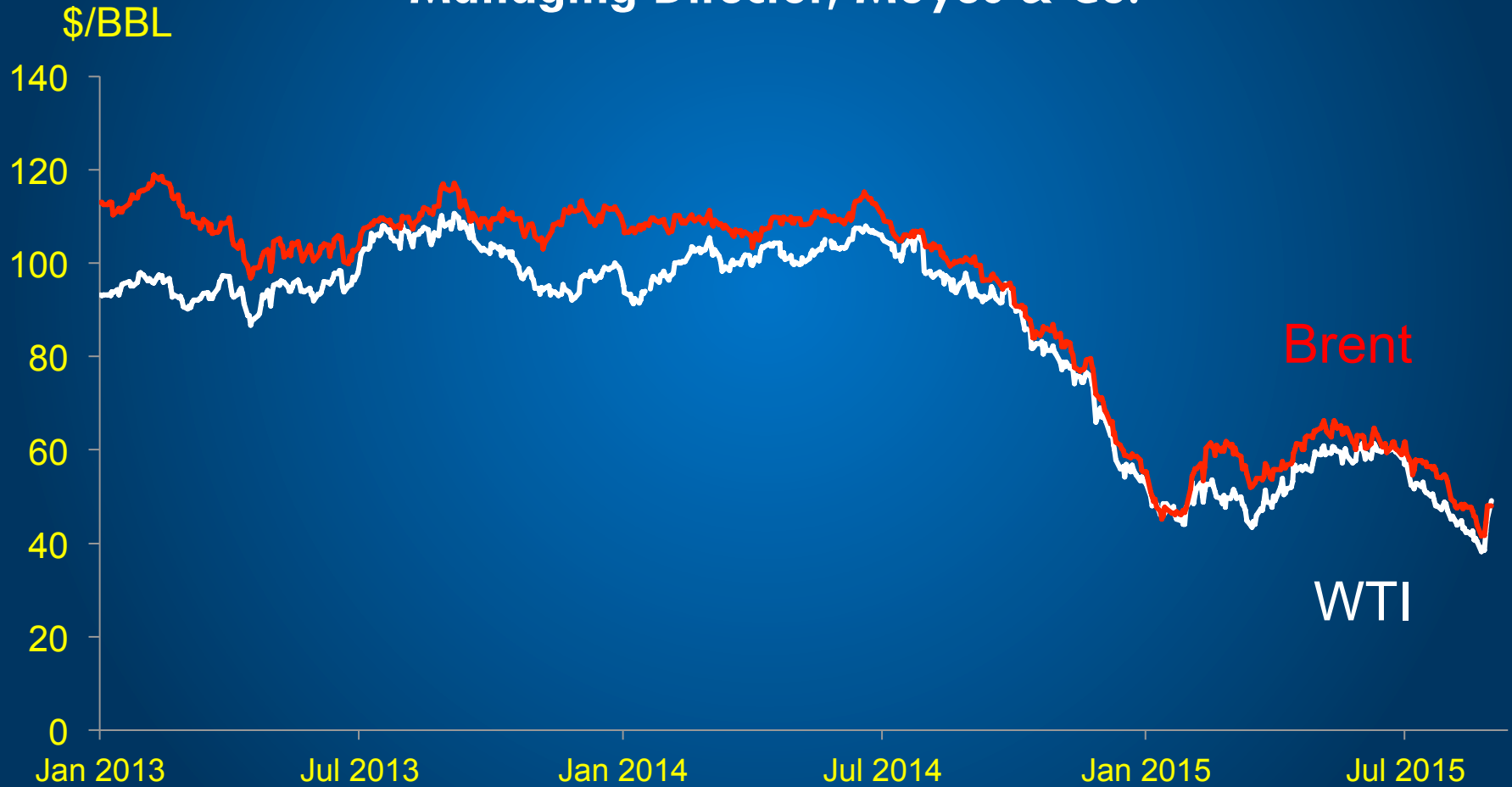


Oil: What's a Reasonable Price?

Keith King

Managing Director, Moyes & Co.



Main Points – Short Term Vs Long Term

Short Term – The Great “Glut”

- Price drop due to price war , OPEC reaction to US frackers
- World oil oversupplied by 2 to 3%

Long Term – Imbalances work themselves out

- Drilling and production lags behind price stimulus
- OPEC - historically low spare capacity, under stress
- New developments needed to replace 5% decline rate and accommodate 1+% demand increase
- Prices will increase to Marginal Supply Cost
- Long term challenge masked by short term

The Golden Sachs View, 11 Sept 15

1 mo - 38\$ (20\$)

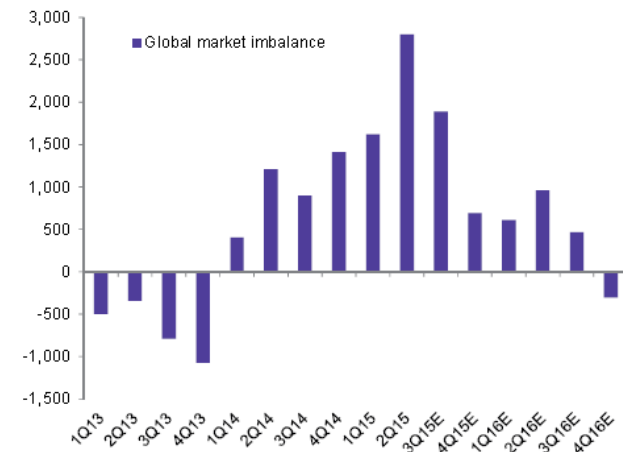
3 mo - 42\$

6 mo - 40\$

12 mo - 45\$

This a short term view

Exhibit 5: We continue to expect that the global oil market will remain in surplus until 4Q16...
Global supply minus demand (mb/d)



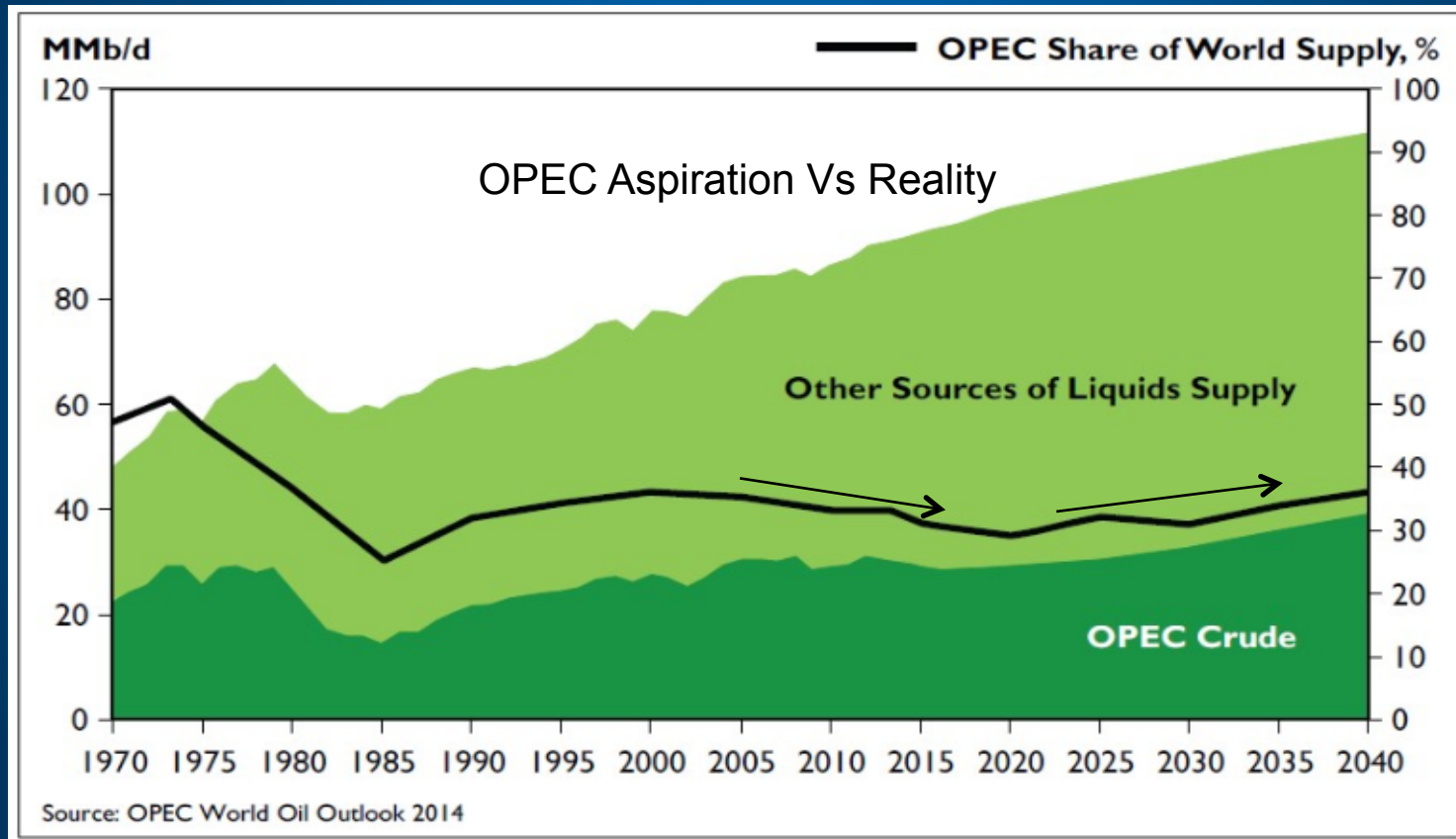
Source: IEA, EIA, JODI, Goldman Sachs Global Investment Research.

...OPEC aspirations



OPEC Aspires to Increase Market Share

- Increasing US production and other “expensive” production – Deep Water
- Flat to lower OPEC production

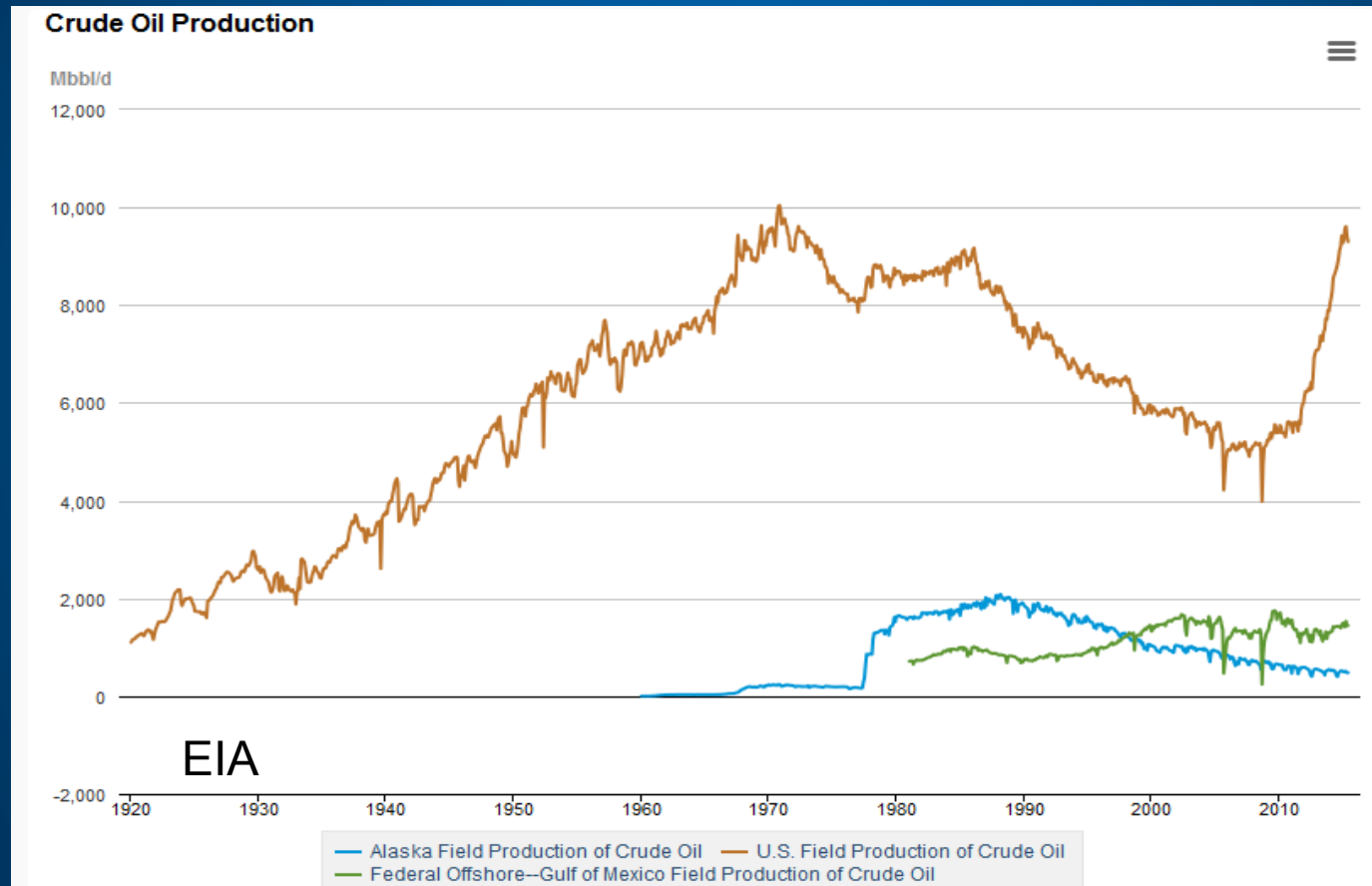


...why the panic



What Caused OPEC to Panic?

- 5 million bbls a day additional supply – 5% of global production
- World would have been 2 to 3 mm/d undersupplied without it

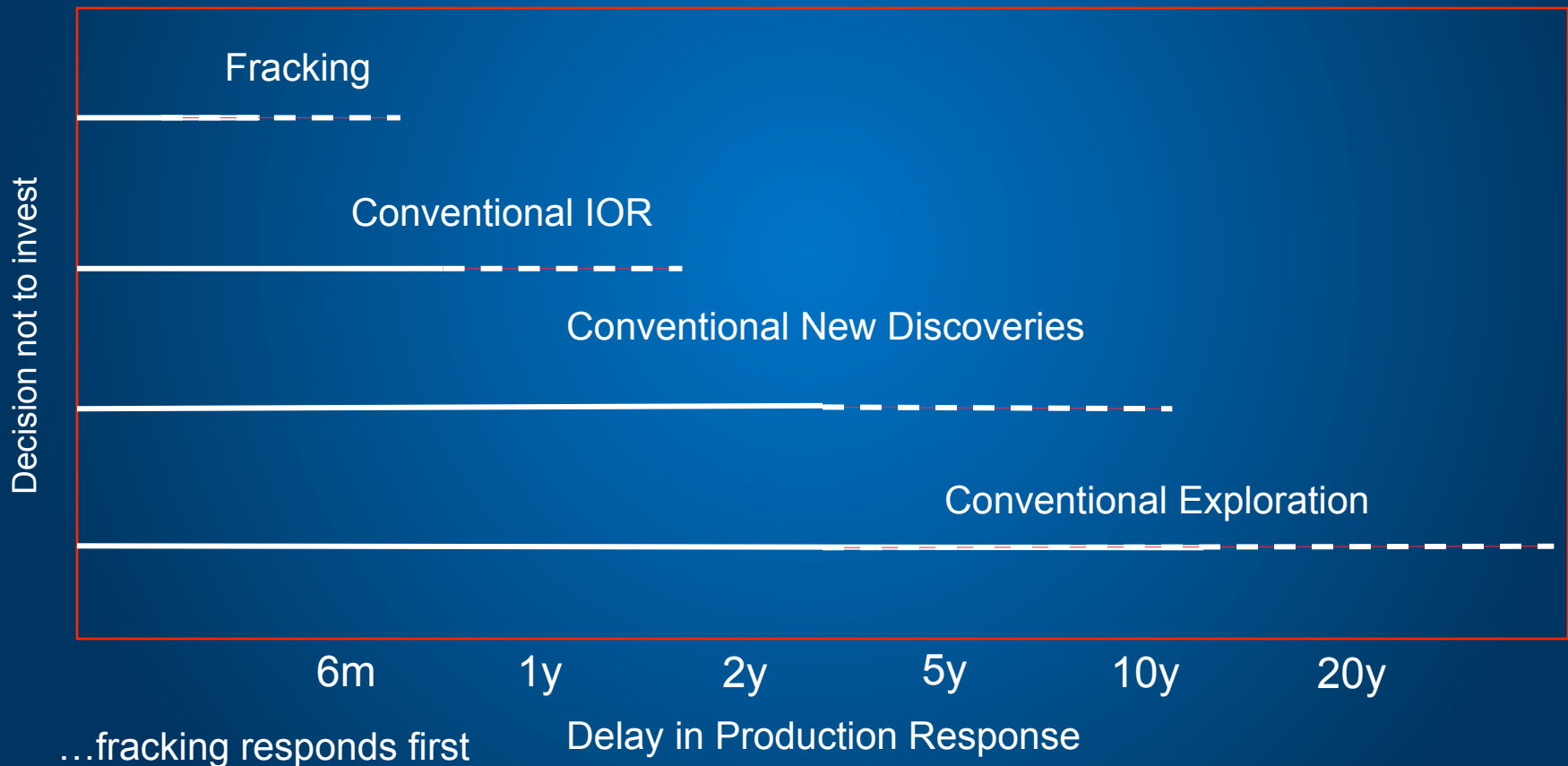


...slow response to price



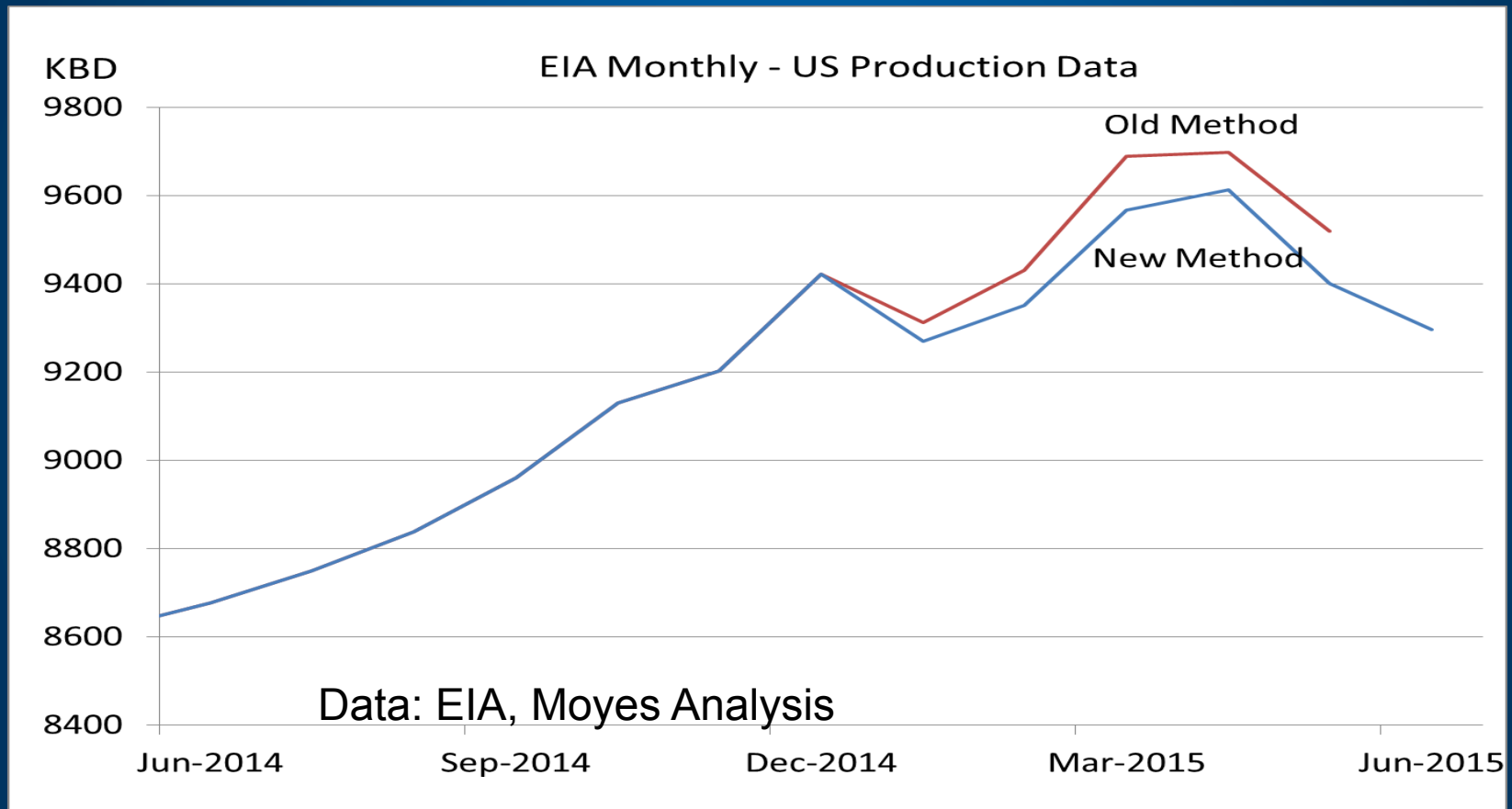
Price, Activity, Production Lag - Four Months to Decades

- Conventional discovery to first production -10 Years
- Conventional improved recovery – 6 to 18 months
- “Shale” (fracking) – 4 to 6 months



US Oil Production –Flattening?

- Accurate US production figures months old
- May and June saw decreased production

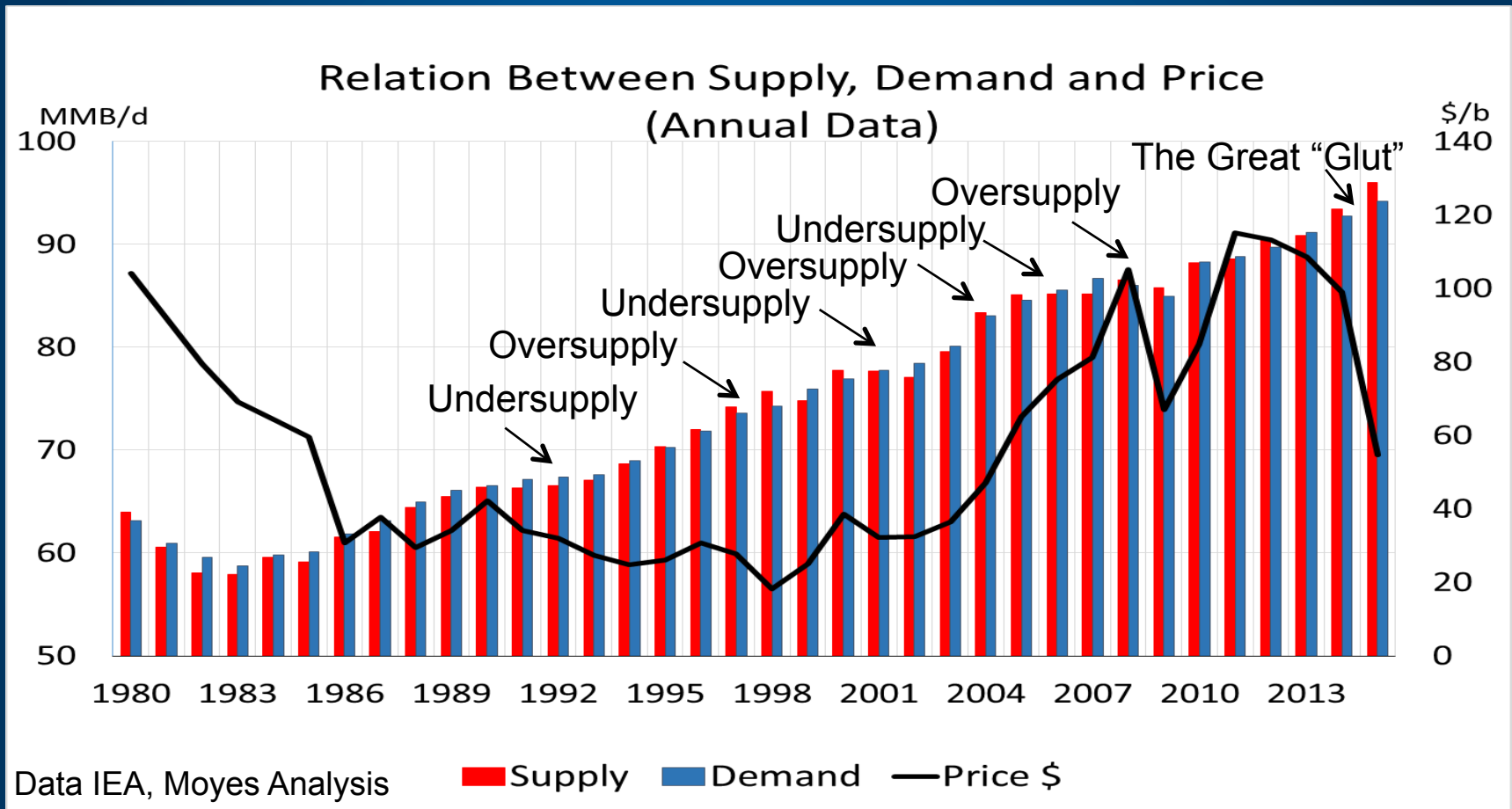


...we have seen this before



The Longer Term Perspective

- Imbalances self correcting – imbalances short lived

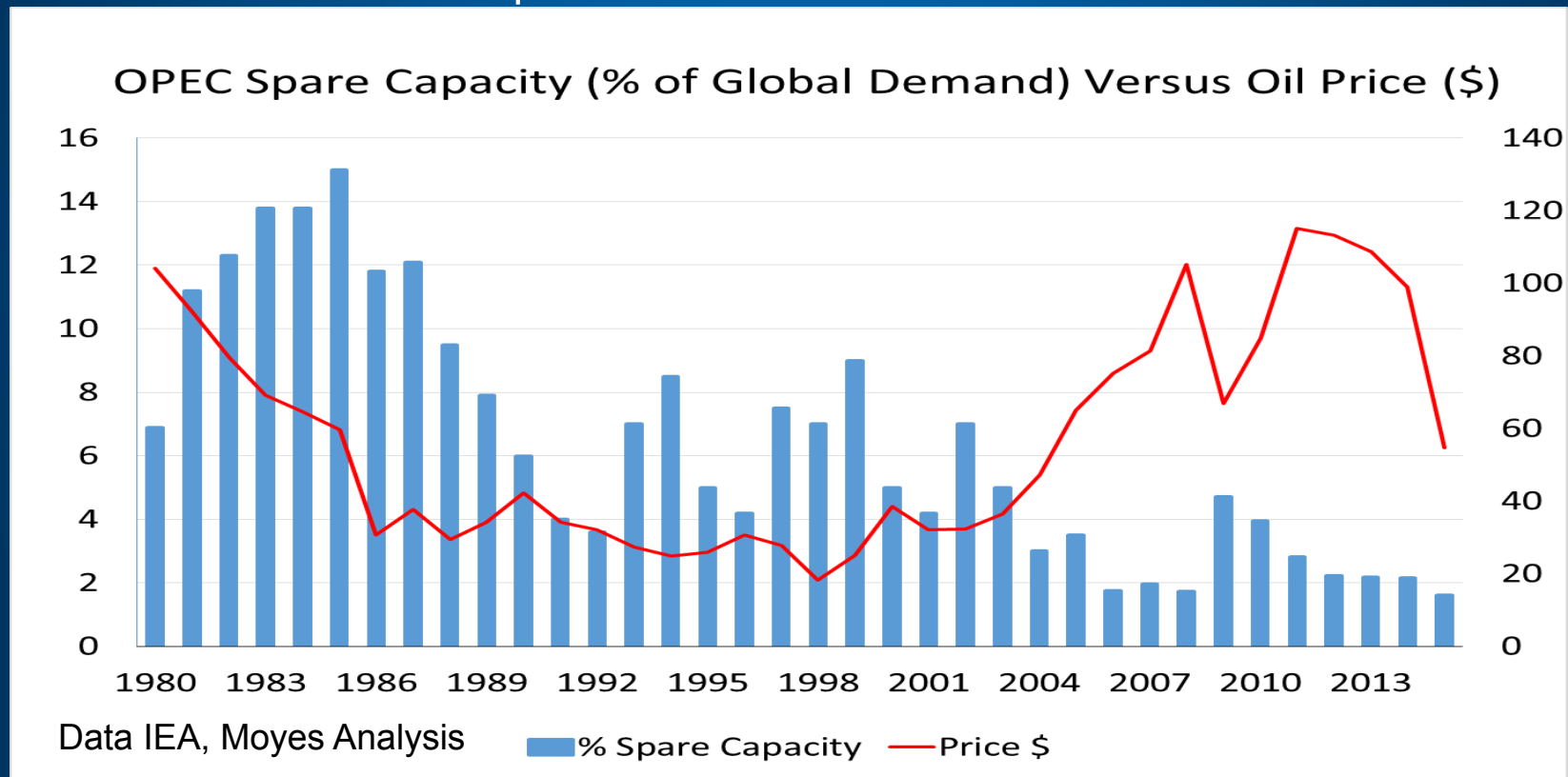


...OPEC's role



OPEC Spare Capacity Now At Multi-Year Low

- Saudi increased production to 10.6 mb/d to gain market share
- Low OPEC Spare Capacity associated with rising price
- OPEC - 2 mb/d over quota

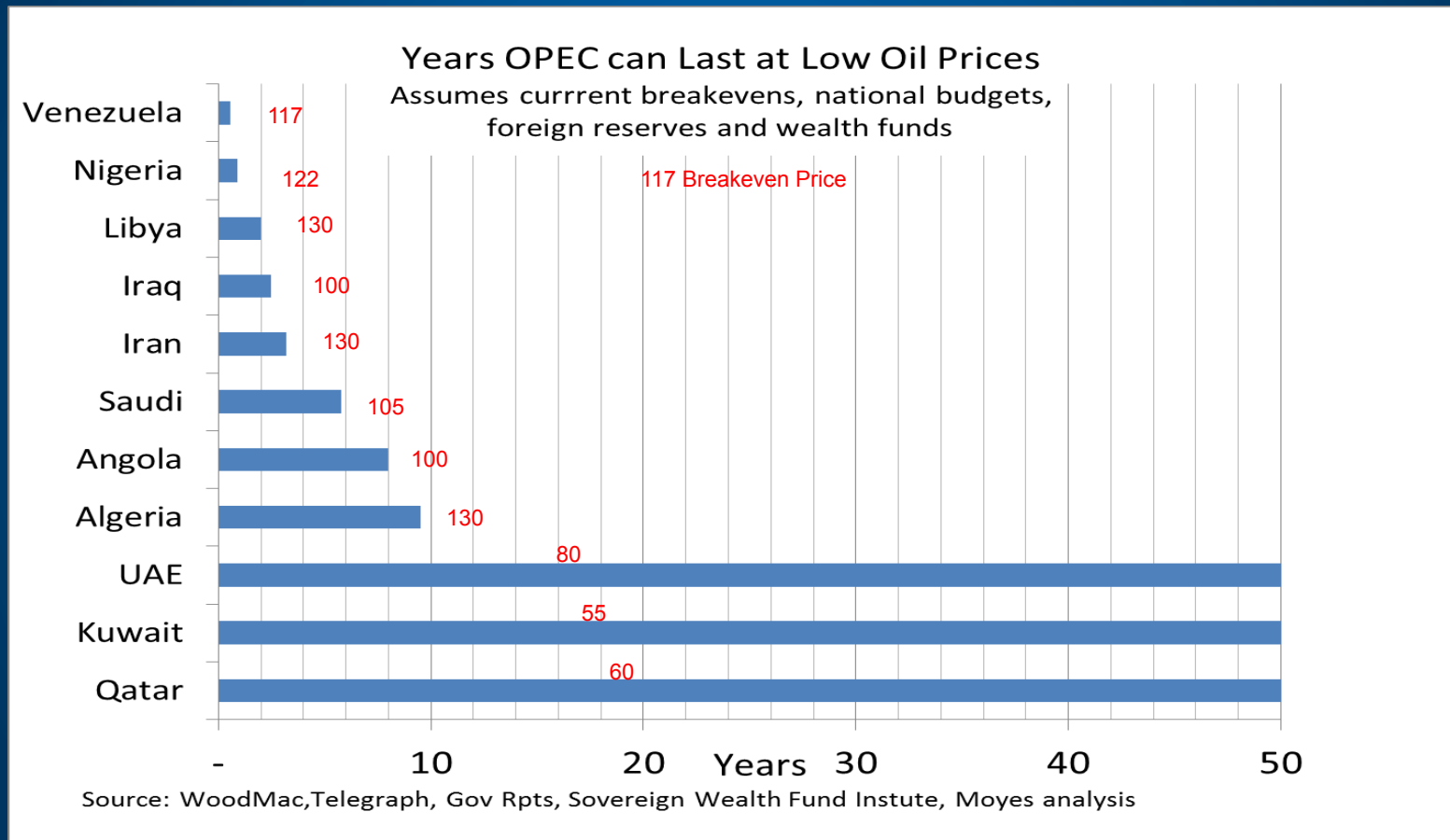


...OPEC under stress



OPEC Countries Not Sustainable at Low Prices

- For most producers the question is not cost of production
- It's supporting the national economy

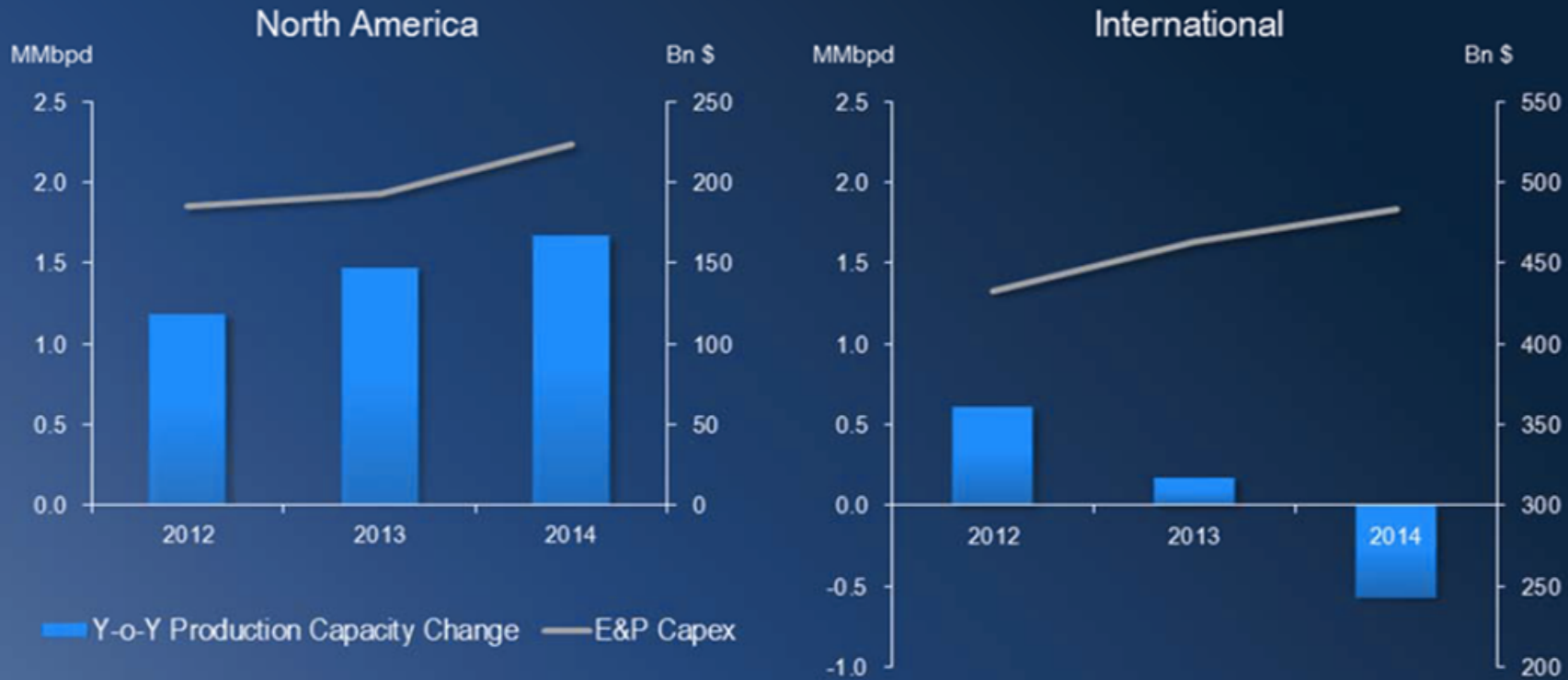


...conventional production



NAm Production responded to increased spend, international production declined despite increased spend

Oil Production and Spending Trends



6

Source: IEA, Barclays, Evercore ISI, SLB Analysis

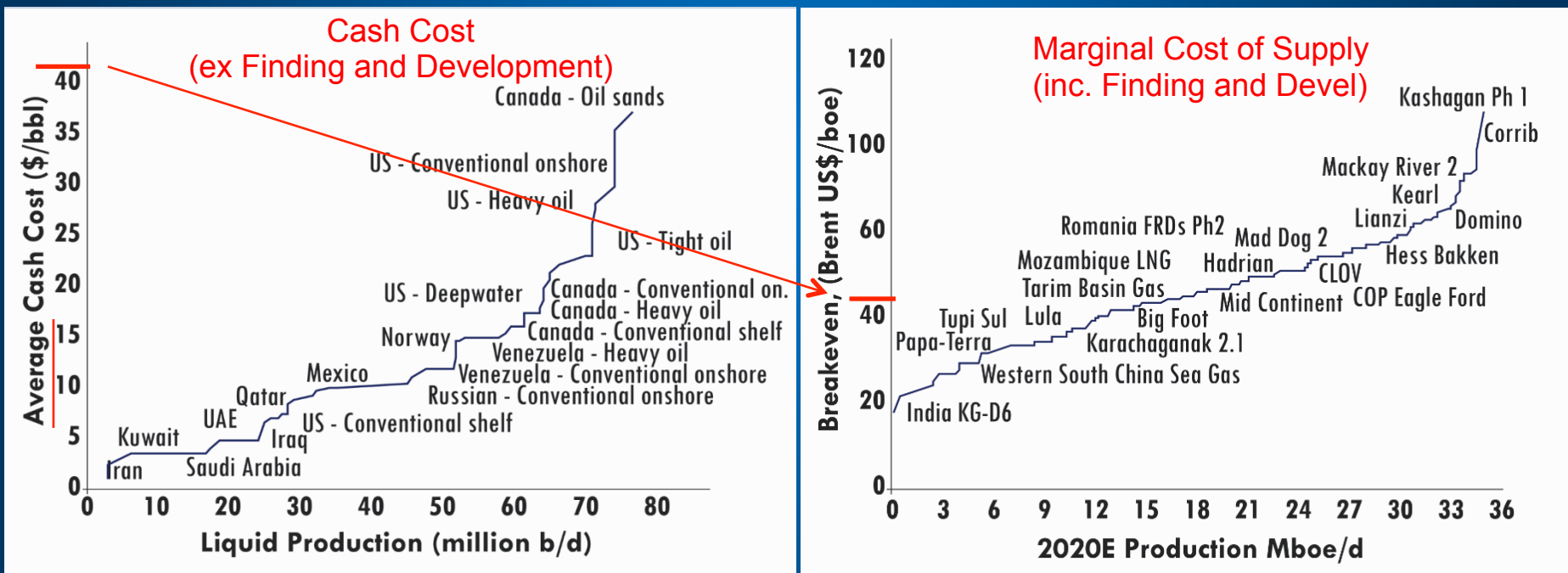
Schlumberger

...marginal cost



Future Projects Not Economic at Today's Prices

- “Marginal Cost of supply” impacts future production
- “Cash cost” impacts current production
- Existing Production not significantly affected at current prices
- Future production is crushed at low prices!



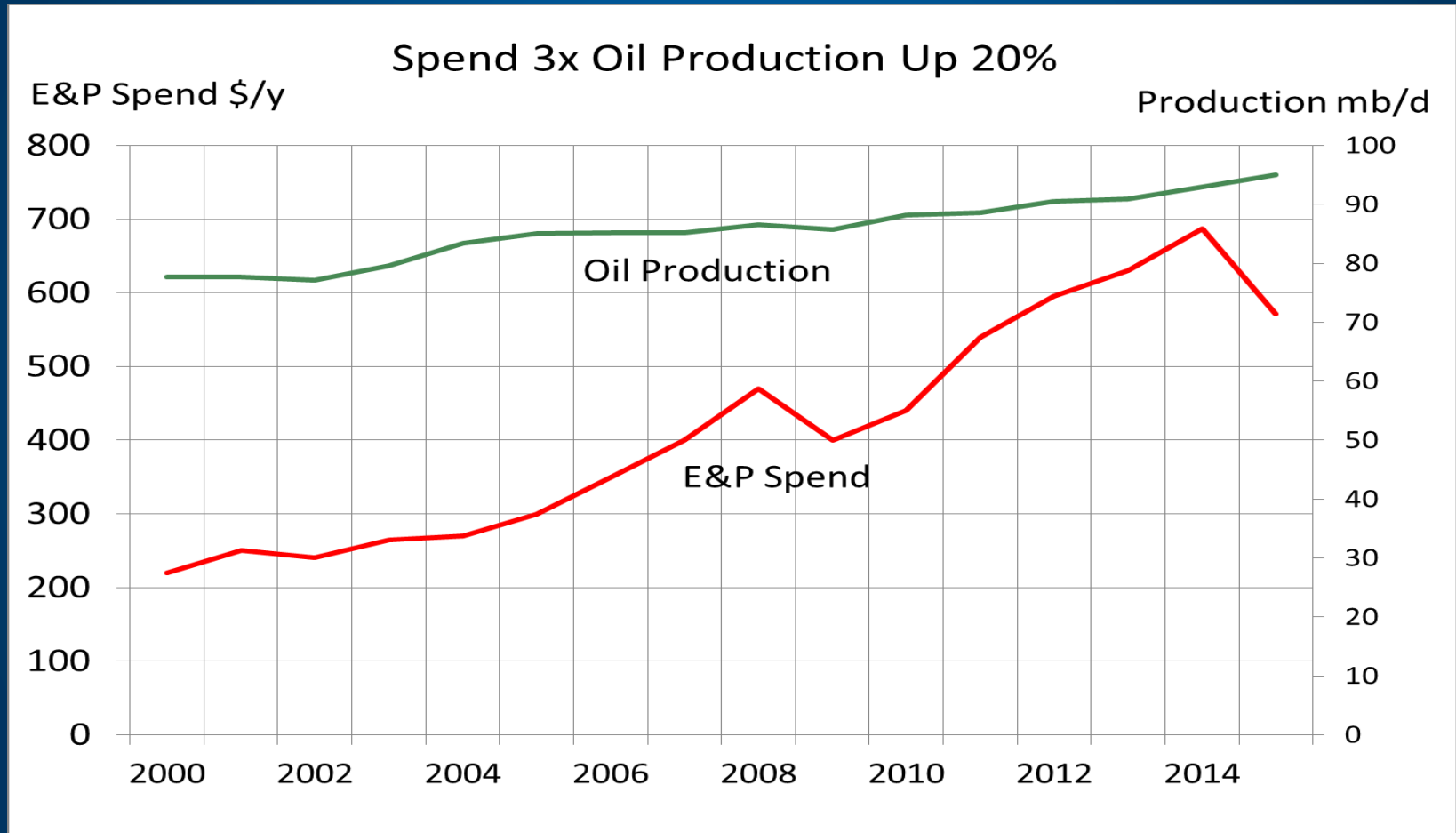
...long term trends

Source: Citi, Rystad, Woodmac, Morgan Stanley



Long Term Oil Gets More Expensive

- Technology enables new production and may lower costs in the short run

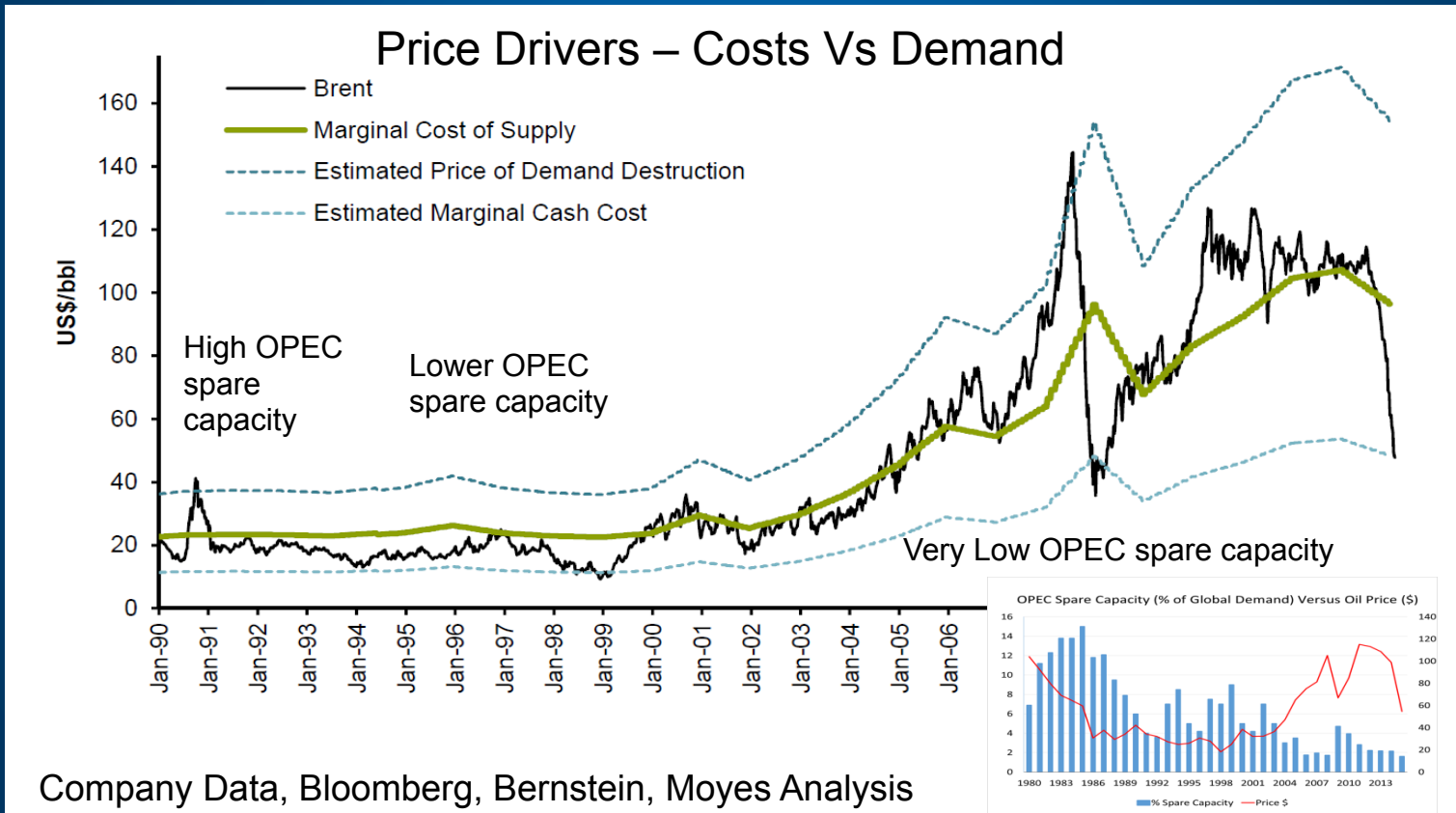


...supply cost trends



Cost and Price Increase With Time

- MCoS allows production maintenance/ growth
- MCoS may drop briefly, not permanently
- Delayed new production could drive prices higher than MCoS



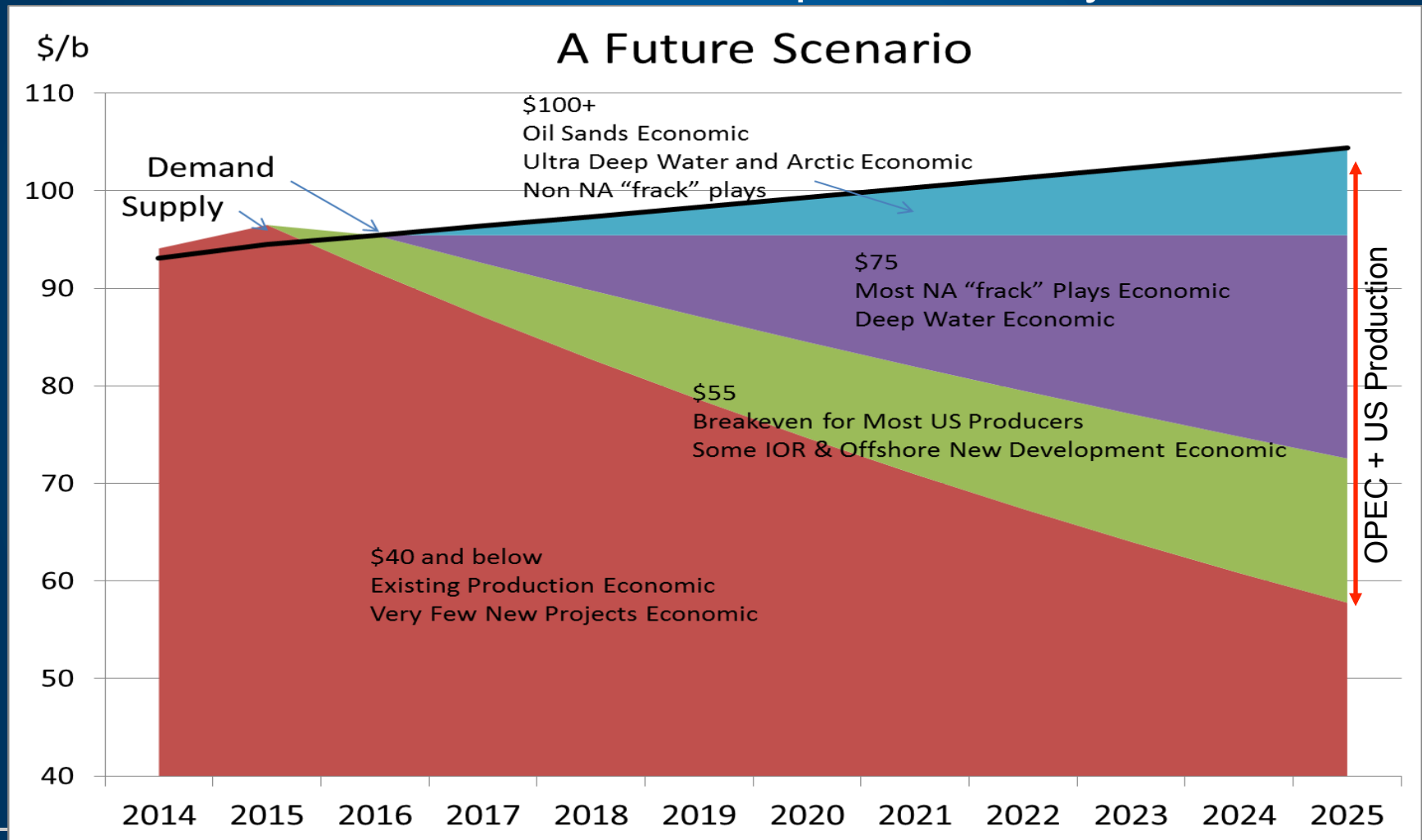
Company Data, Bloomberg, Bernstein, Moyes Analysis

...build a model



Without Higher Prices – Production Will Decline

- World needs OPEC + US + production by 2025



Summary

Short Term – The Great “Glut”

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Other factors

- Iran
- Demand response
- Hedging
- Bank Loan Redetermination
- \$ Strength
- China

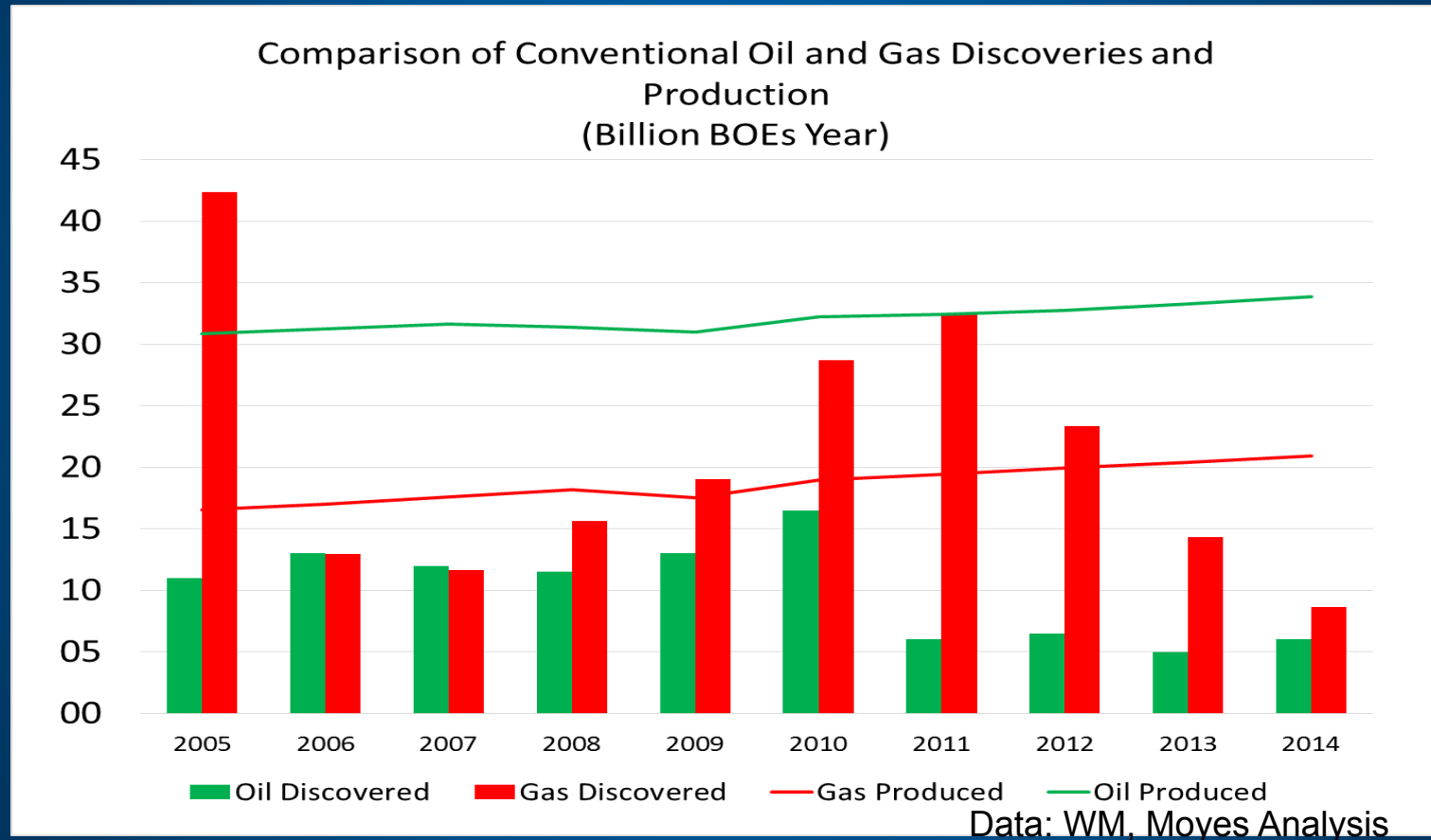


Questions



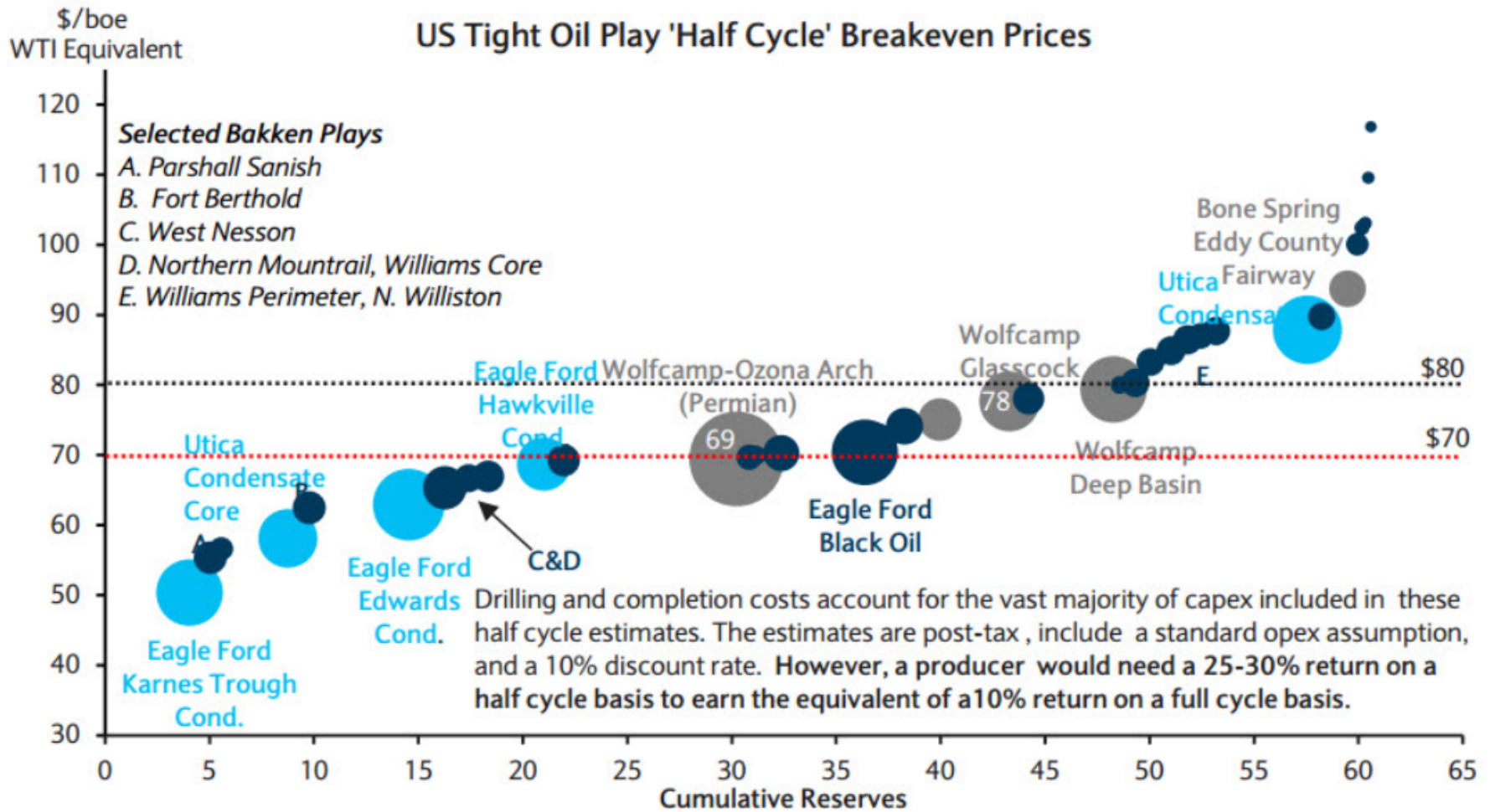
Conventional: Gas Replacing Production, Oil is Not

- Discoveries decreasing since 1960's
- Gas discoveries more robust



...lag masking the long term





Source: WoodMackenzie, Barclays Research. Wood Mackenzie assumes a roughly 5.5% discount for WTI.

