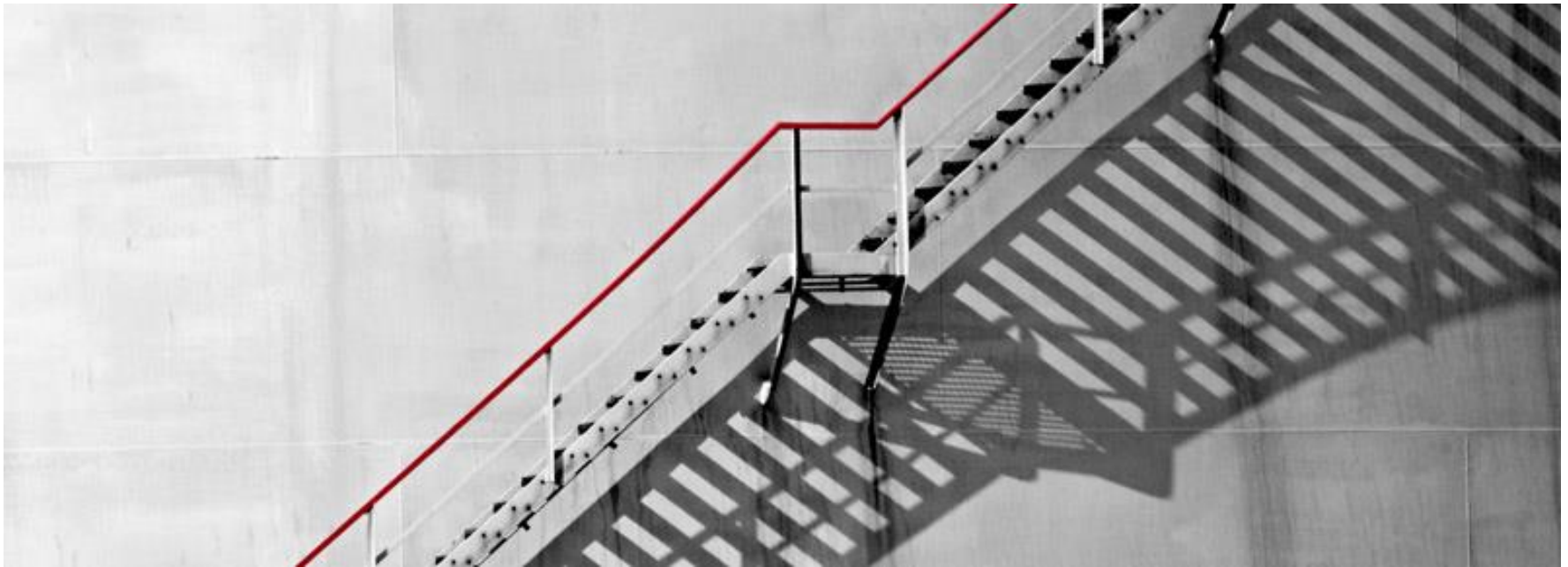


IPAA OGIS

Peter Compton
Senior Consultant
S&P Global Platts Analytics

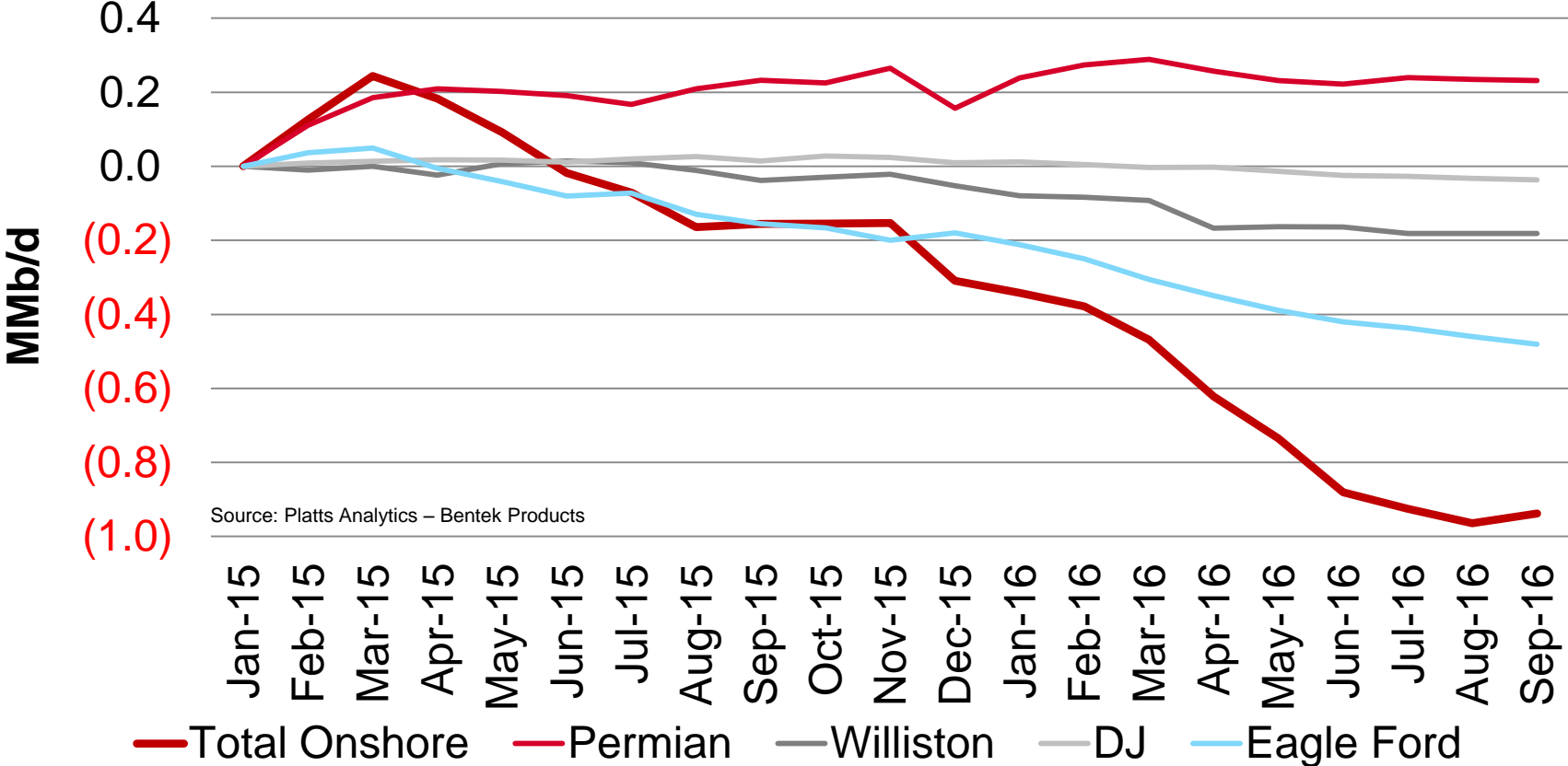
North American Crude Outlook



Where We Are Today

Onshore US Production Has Fallen by 900 Mb/d Since January 2015

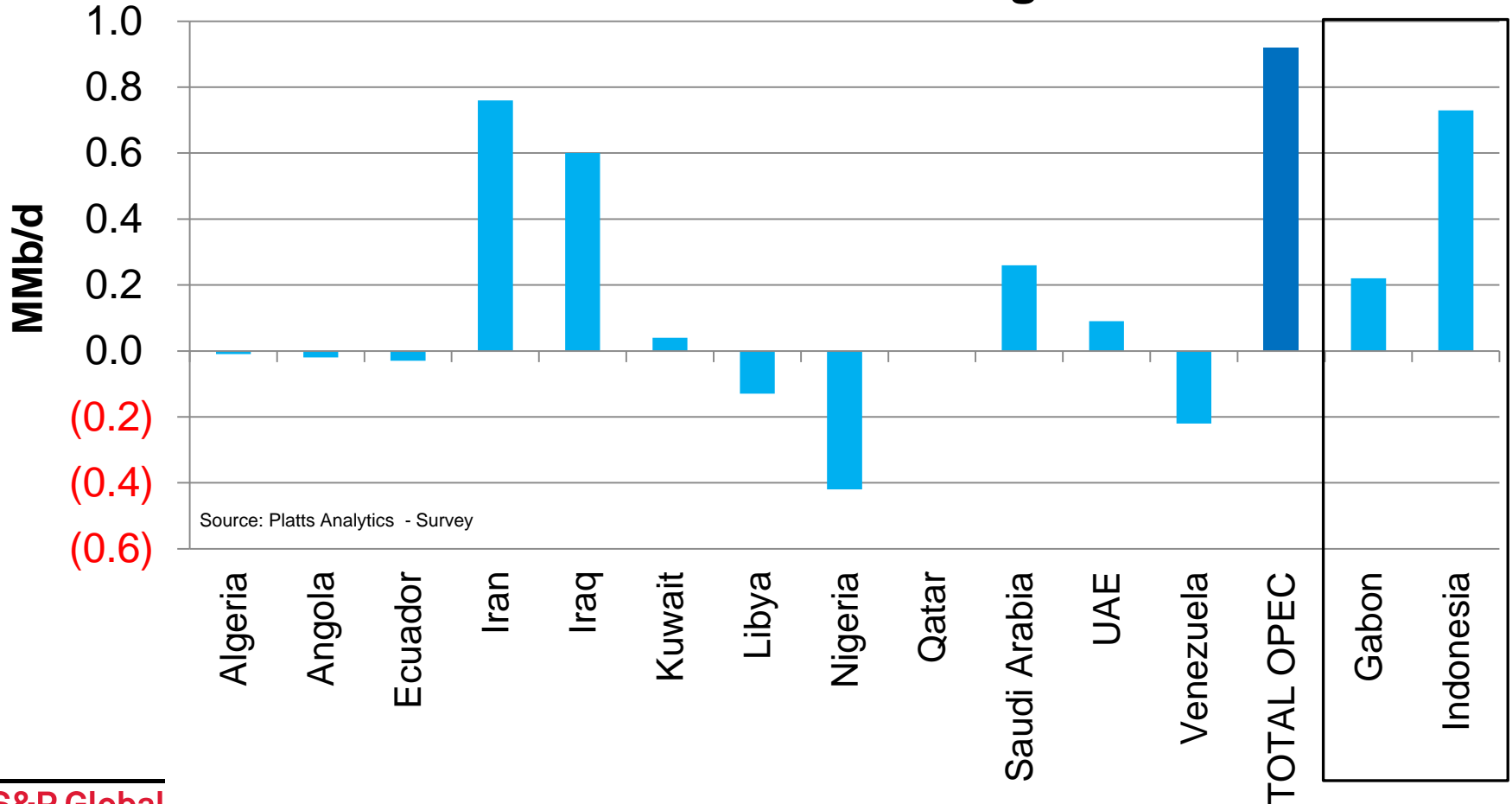
Cumulative Production Change



Source: Platts Analytics – Bentek Products

In August, OPEC Production Was Up Nearly 1 MMb/d Year on Year

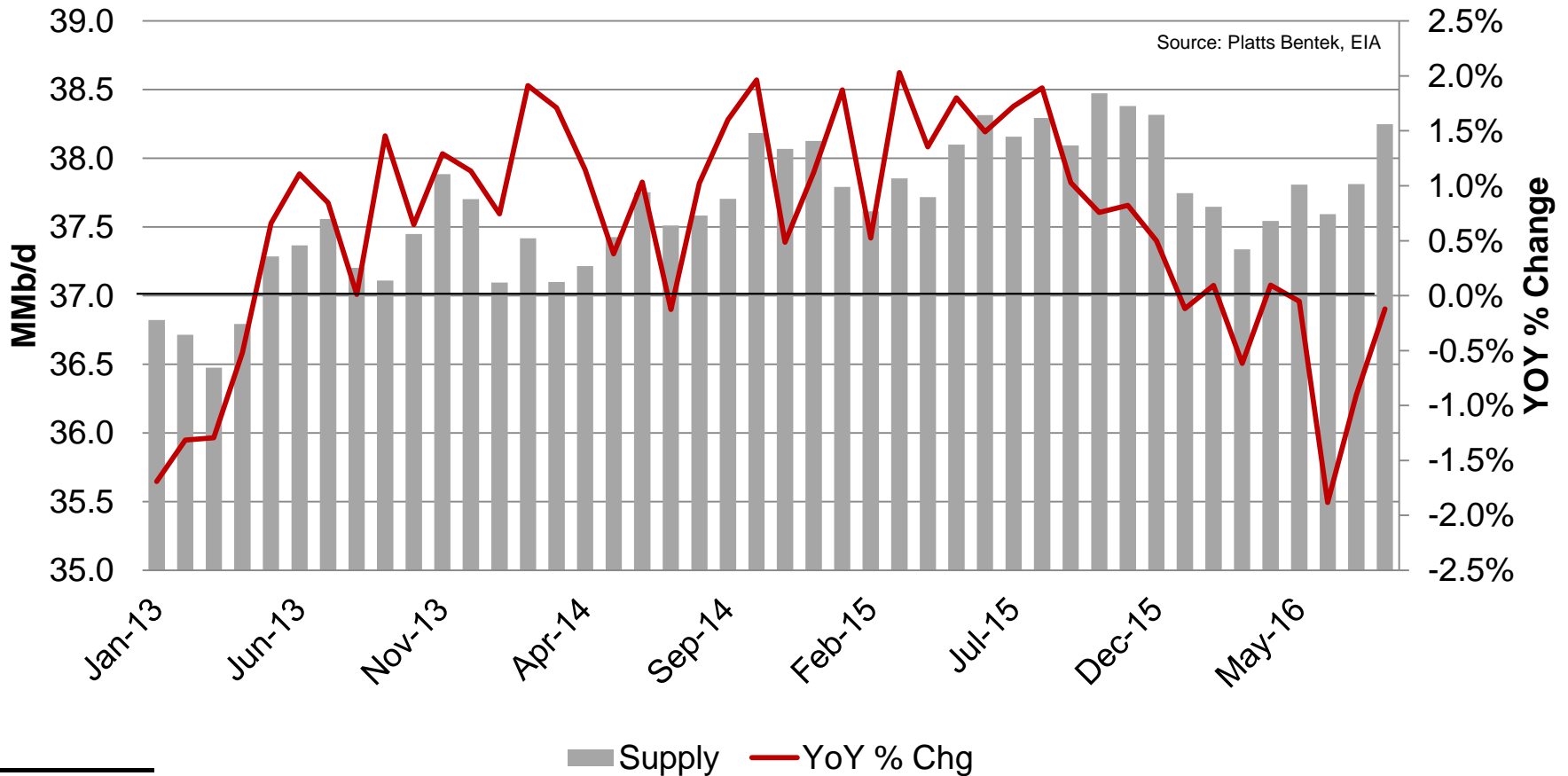
OPEC YoY Change



Source: Platts Analytics - Survey

Non-OPEC Non-US/Canada Production Has Also Been Sensitive to the Low Price Environment

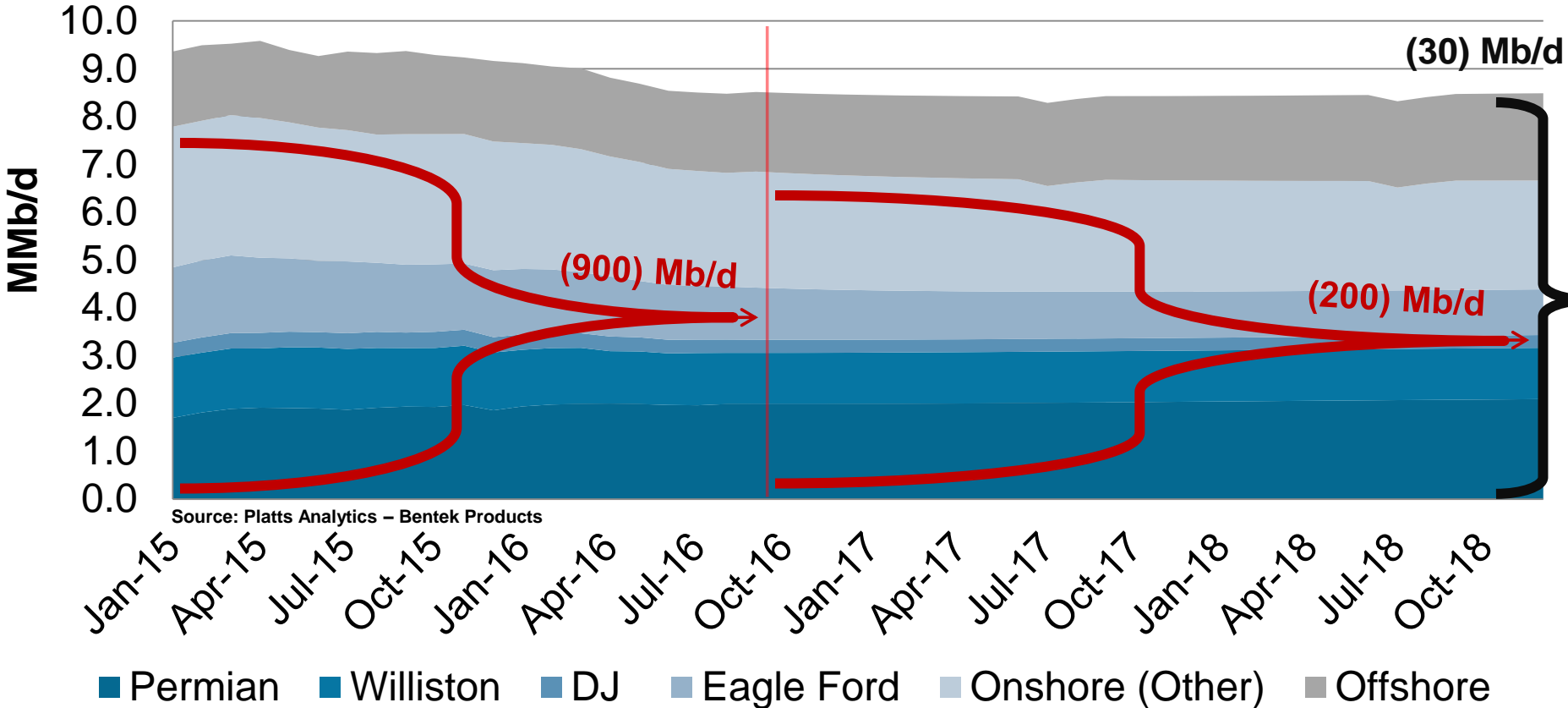
Non-OPEC non-US/Canada Production



The Near-term Picture For US Production

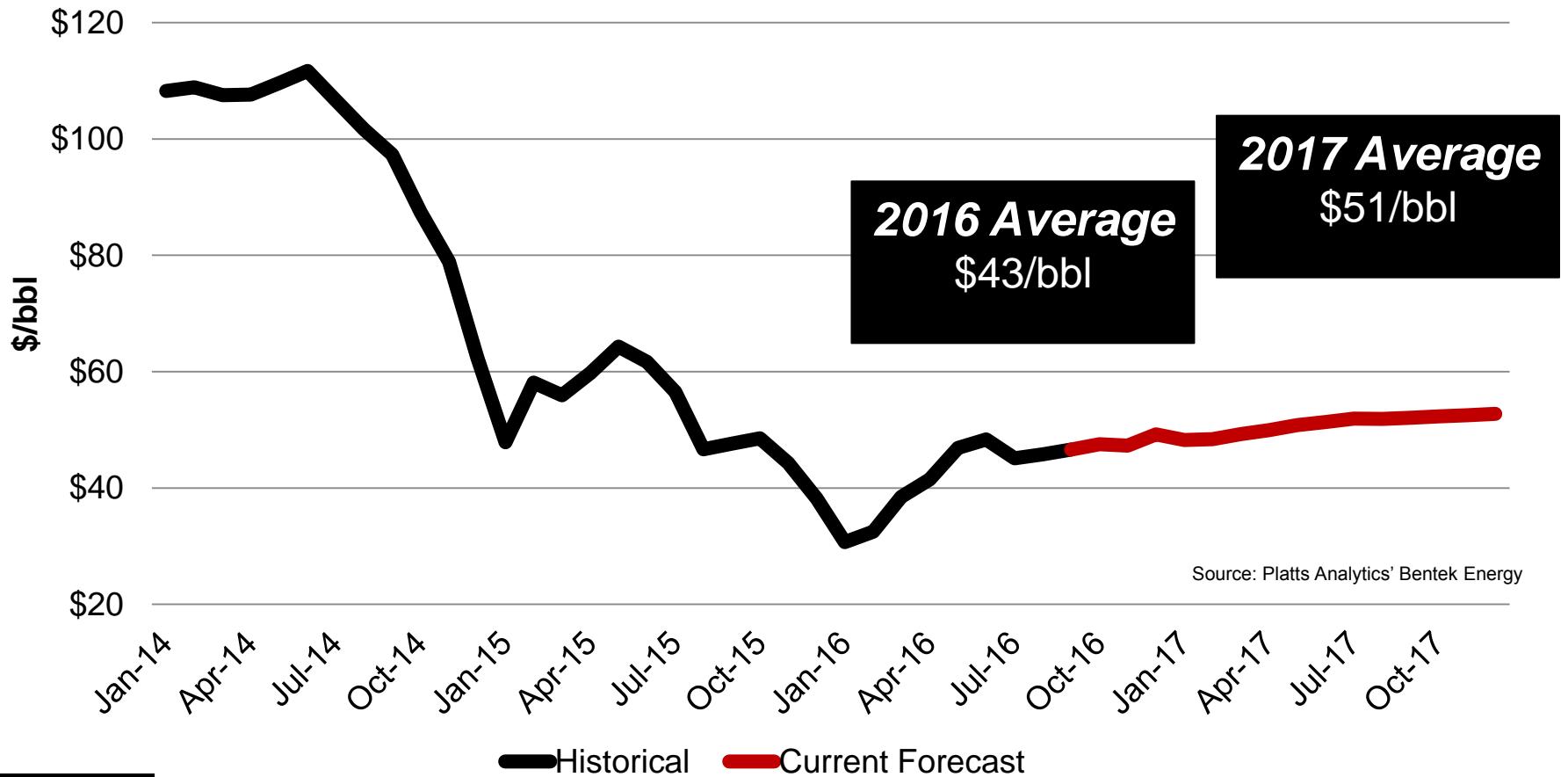
At Status Quo, Production Roughly Flat Through 2018

Projection – Total US



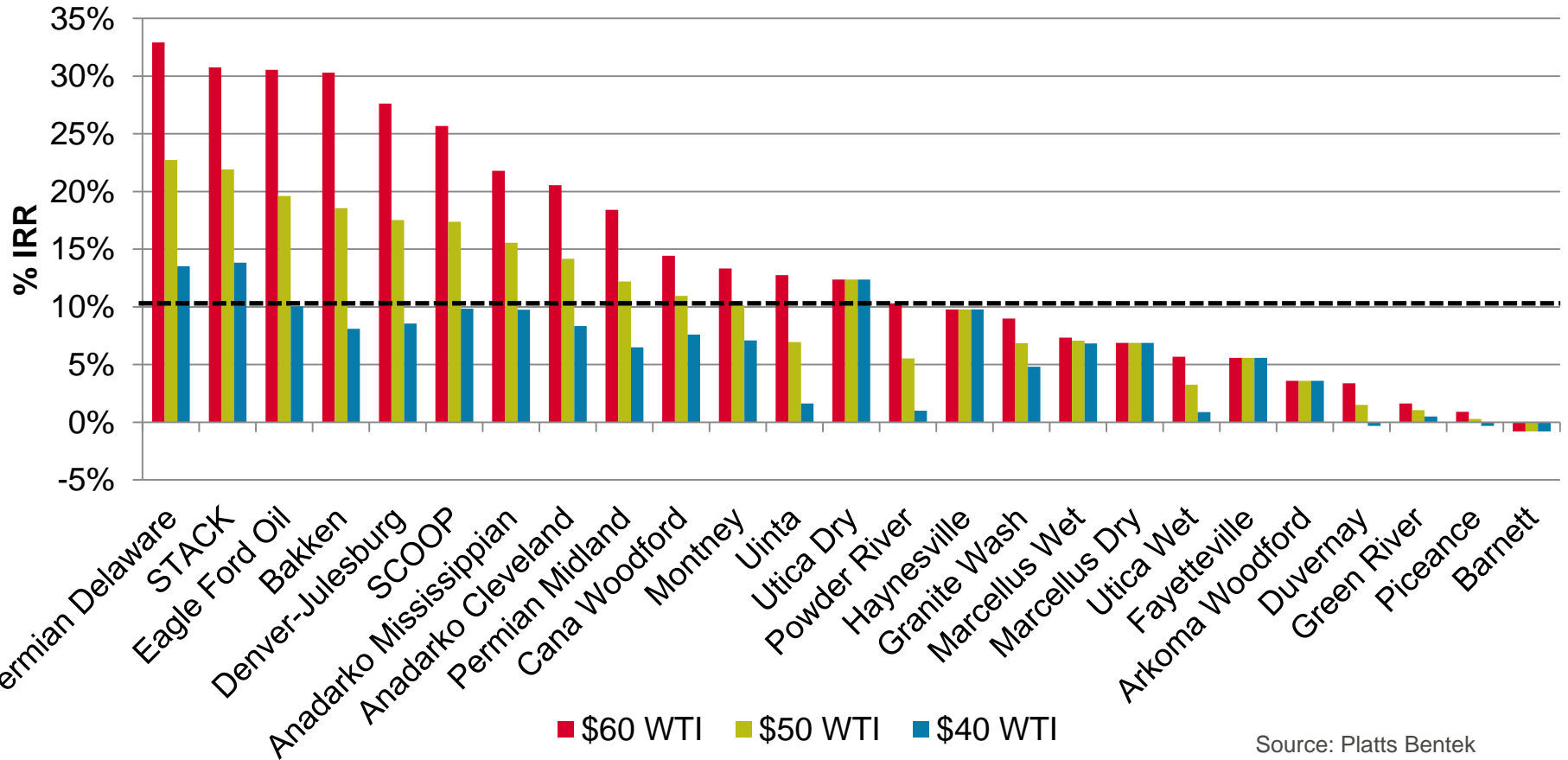
Low Prices Are Moving the Market Toward Balance, but Platts Expects Subdued Pricing in the Near Term

Forecast – Dated Brent



\$50+ WTI Warrants Increased Drilling

IRR sensitivity to WTI

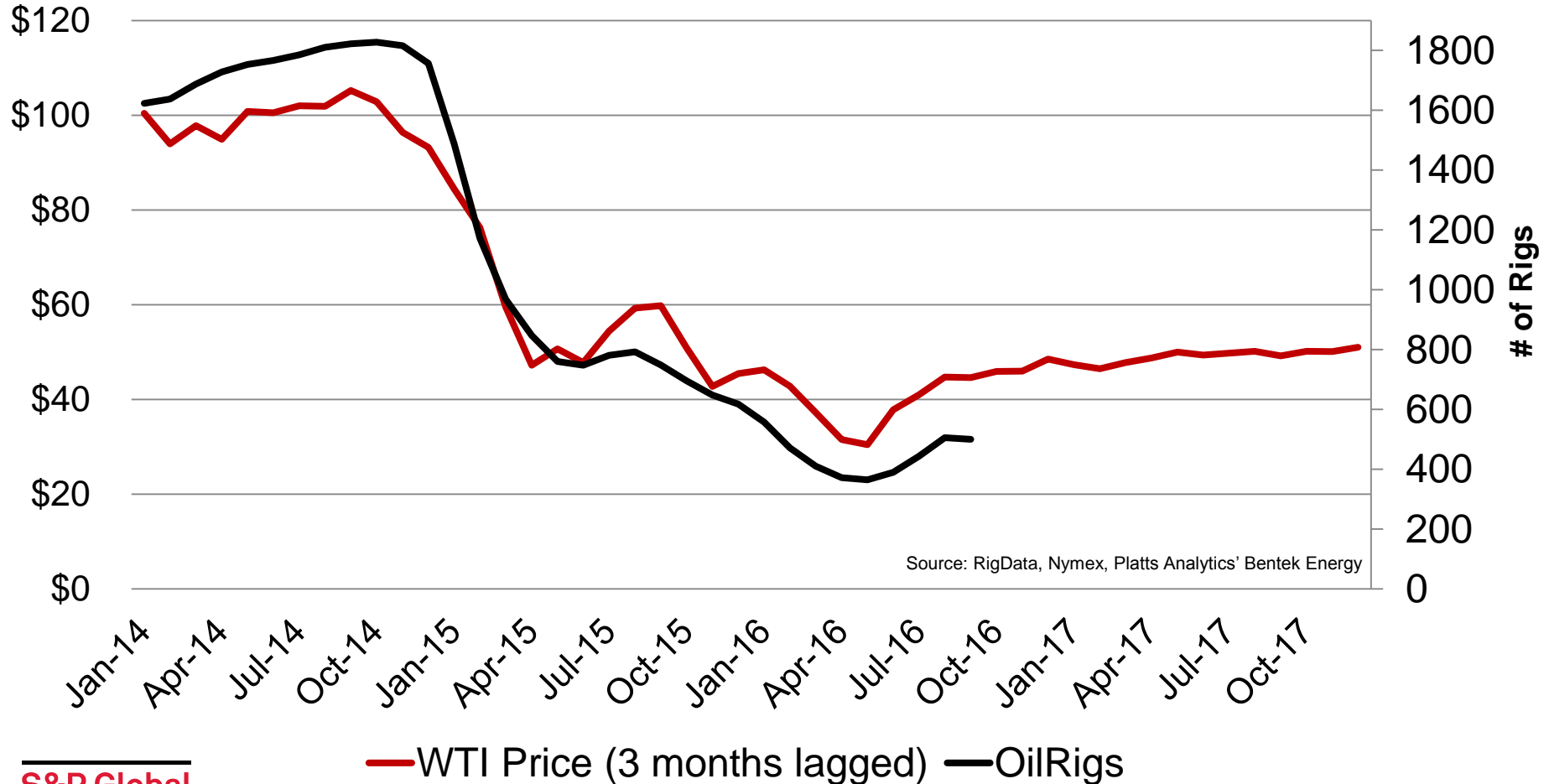


Source: Platts Bentek

*WTI Sensitivity: WTI prices are adjusted while regional oil differentials are locked in at current spreads
Natural gas remain at current 12-month forward curve prices for their respective regions
The relationship between the NGL and Oil prices are held constant when calculating the oil breakeven price*

Rig Count Remains Sensitive to WTI

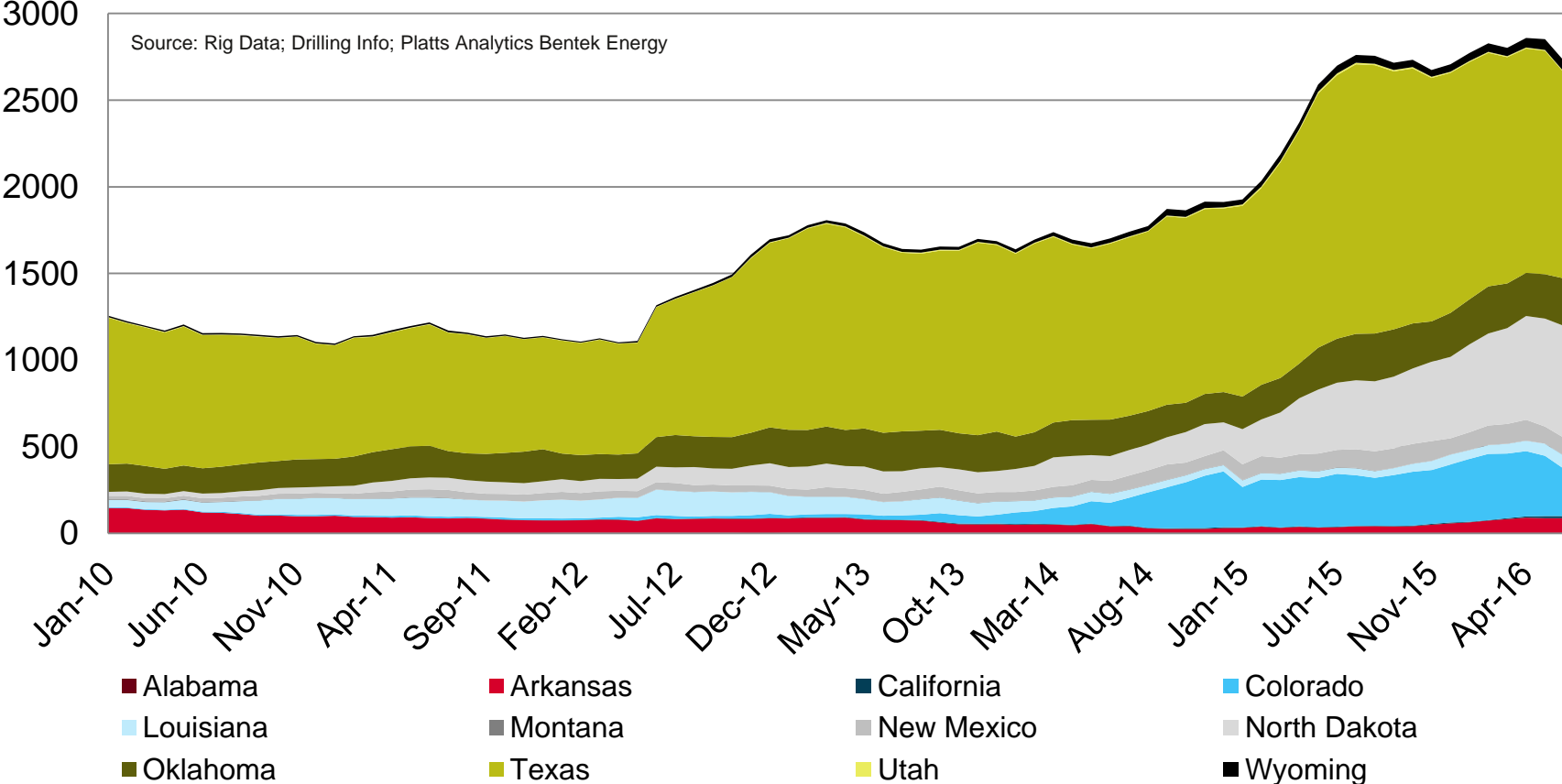
Rig Count vs. WTI Price



Source: RigData, Nymex, Platts Analytics' Bentek Energy

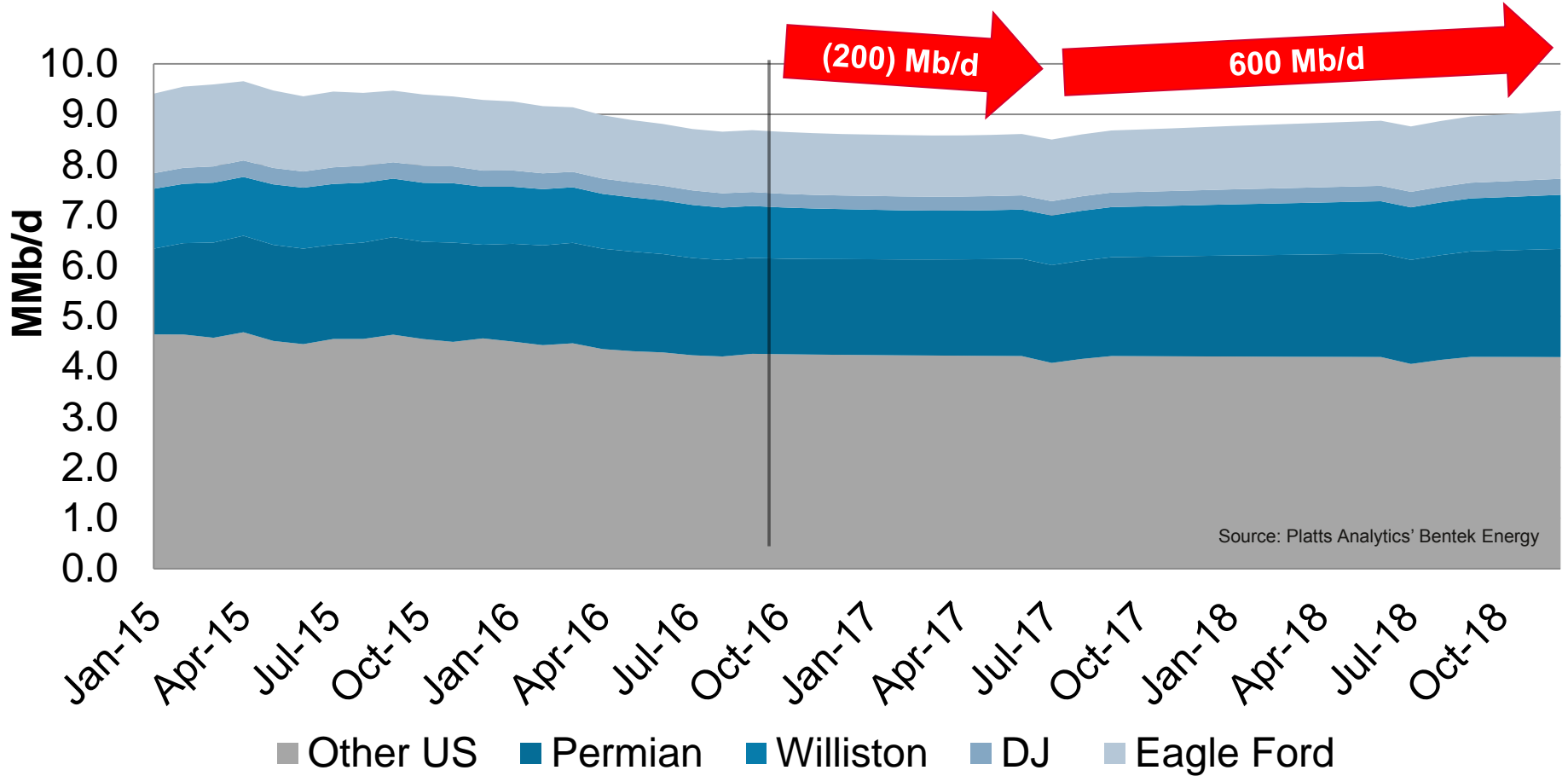
DUC Inventories are Beginning to Decline, with Texas and Colorado Leading the Reduction

Horizontal Drilled but Uncompleted Wells



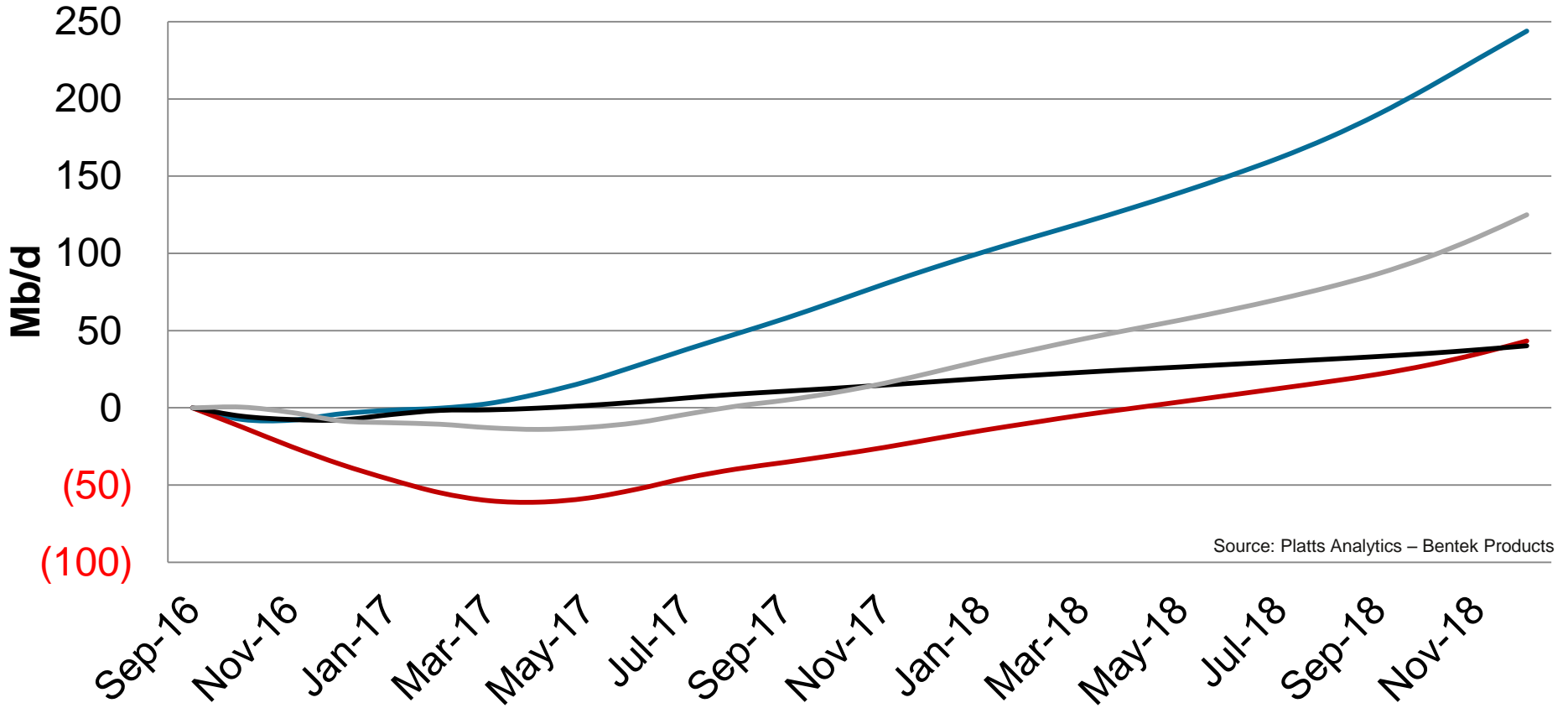
Increasing Oil Prices Will Enable US Production to Rebound, with Shale Leading the Charge

Forecast – Crude Oil



Production From Shale Basins will Begin Trending Upward Again in Early 2017

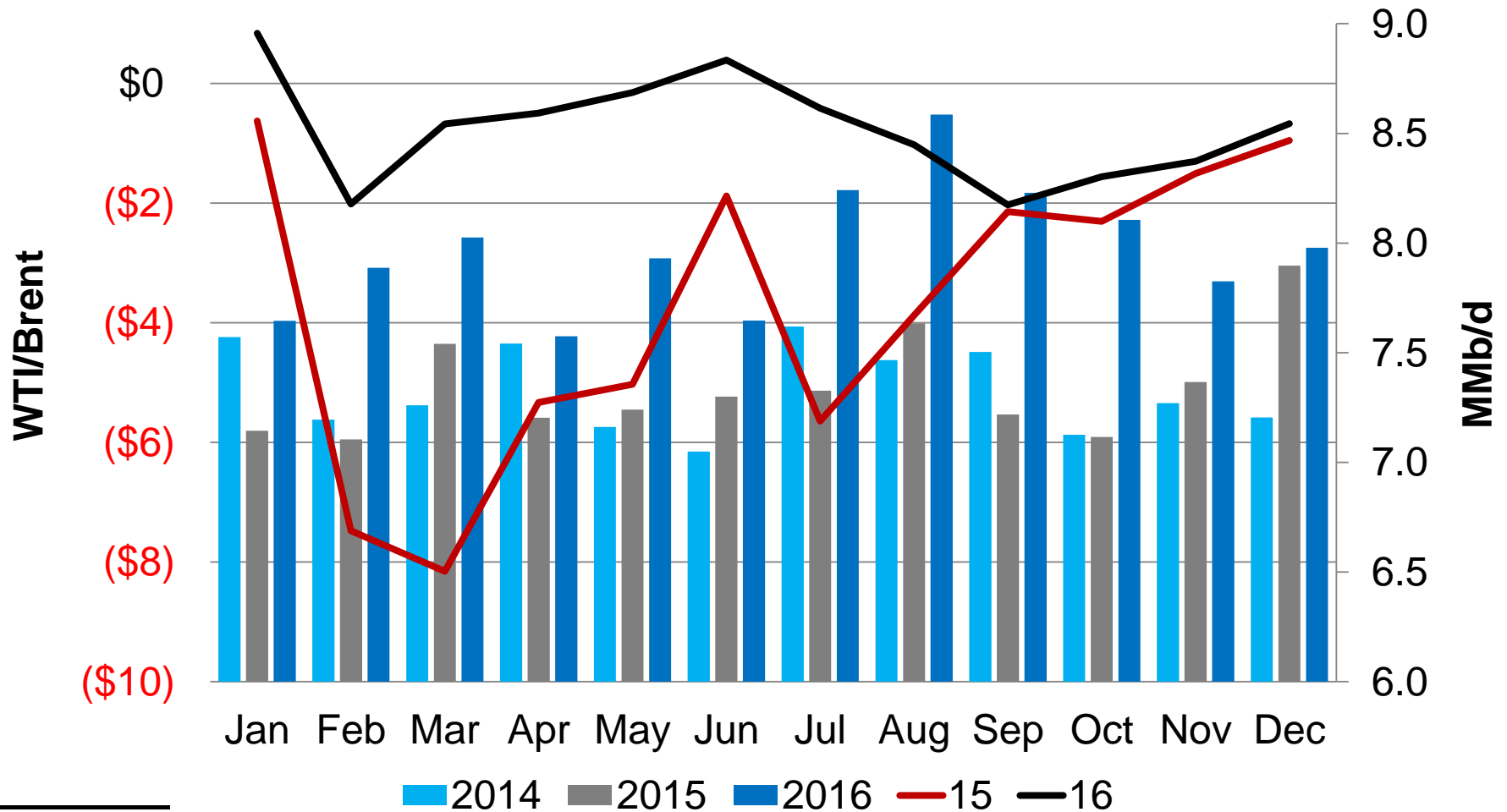
Forecast – Crude Oil



Source: Platts Analytics – Bentek Products

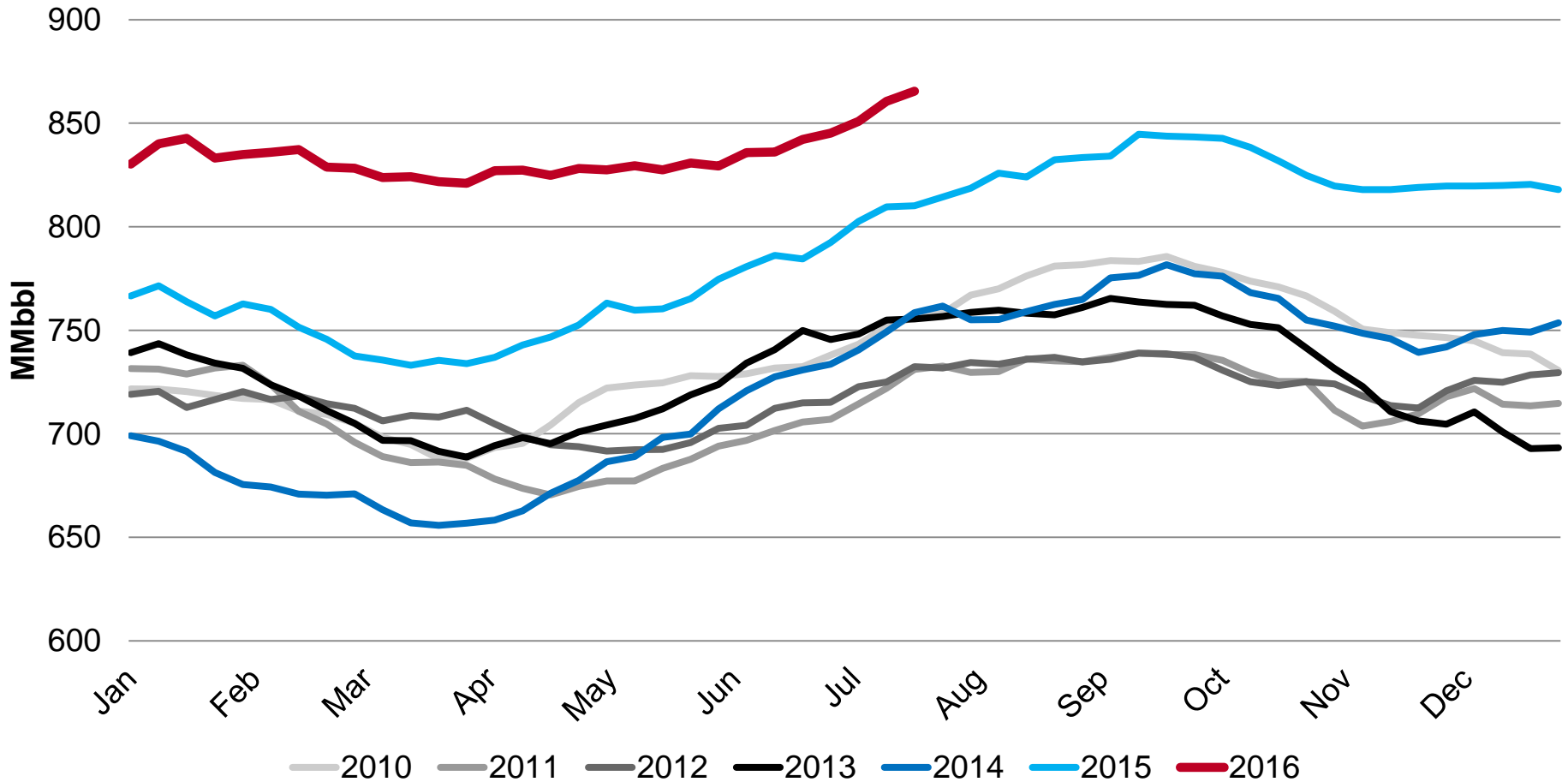
But will the market balance?

Narrow WTI/Brent Spread Has Contributed to Higher Imports



Refined Product Inventories Must Normalize Before Crude Inventories Can Be Consumed

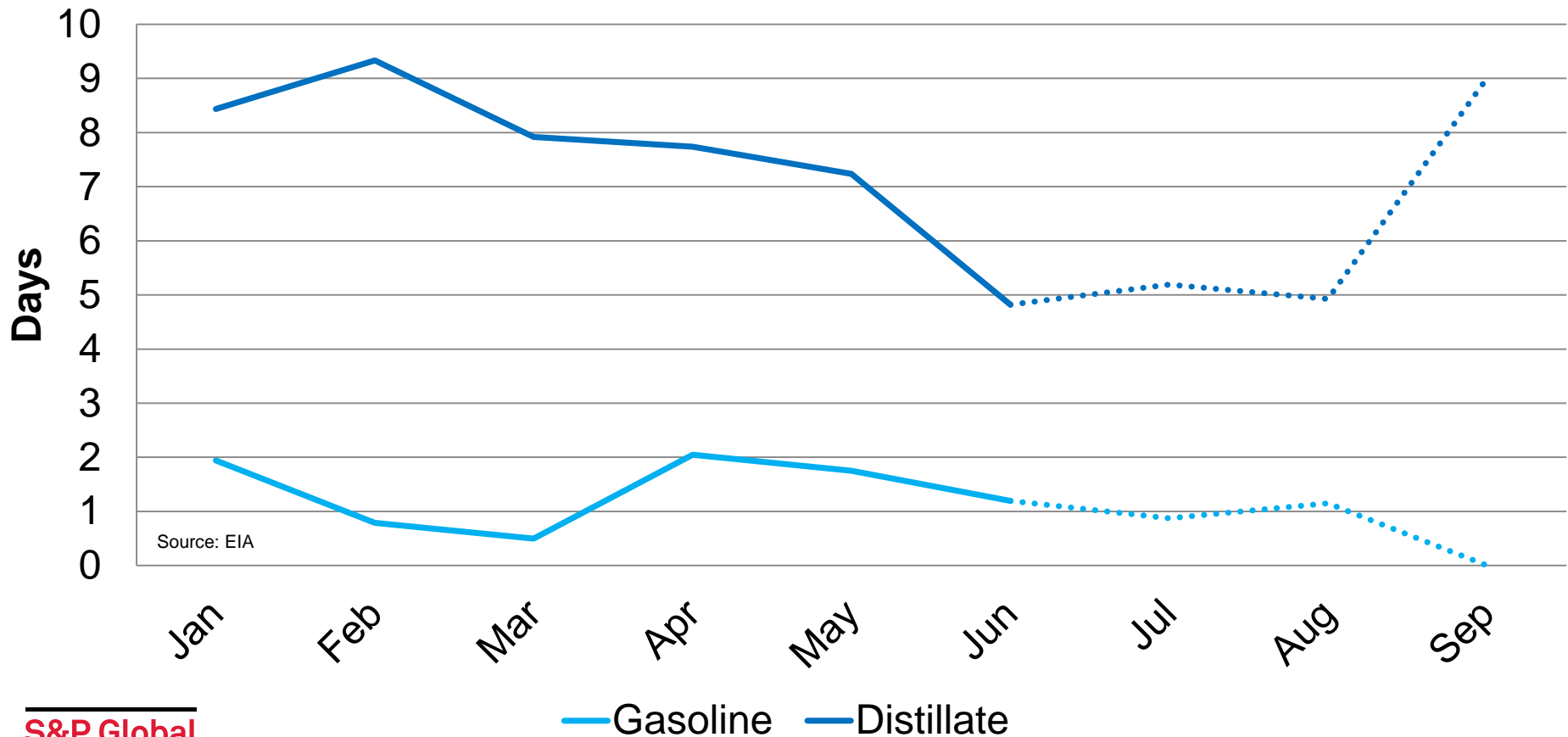
Total US Refined Product Stocks



US Product Inventories Remain Uncomfortably High

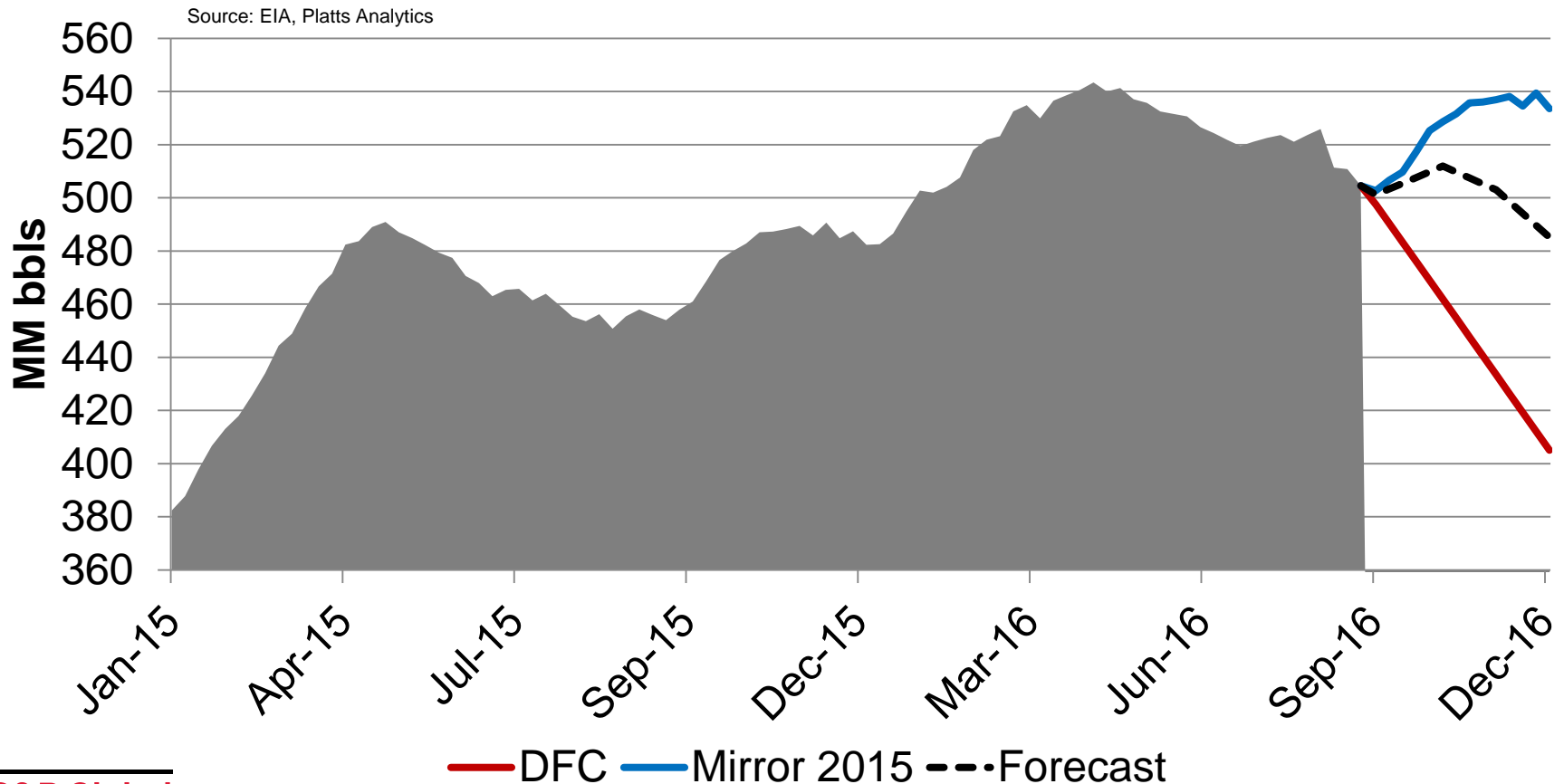
Refined Product Stocks

Difference to 5-Yr Ave. Days Forward Cover

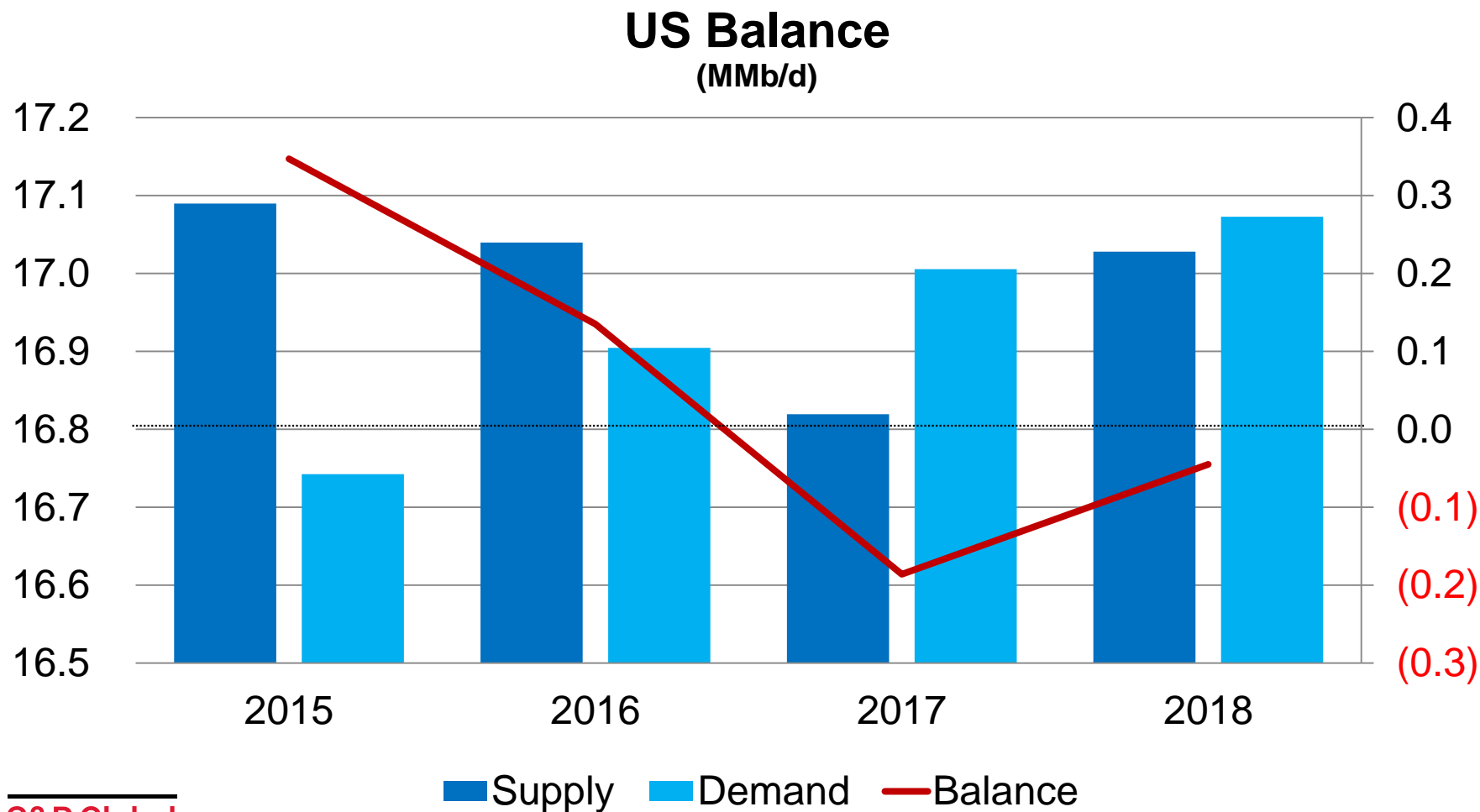


Stocks Will Draw, but Not to Typical Days Forward Cover Level

US Crude Stocks (excl. SPR)



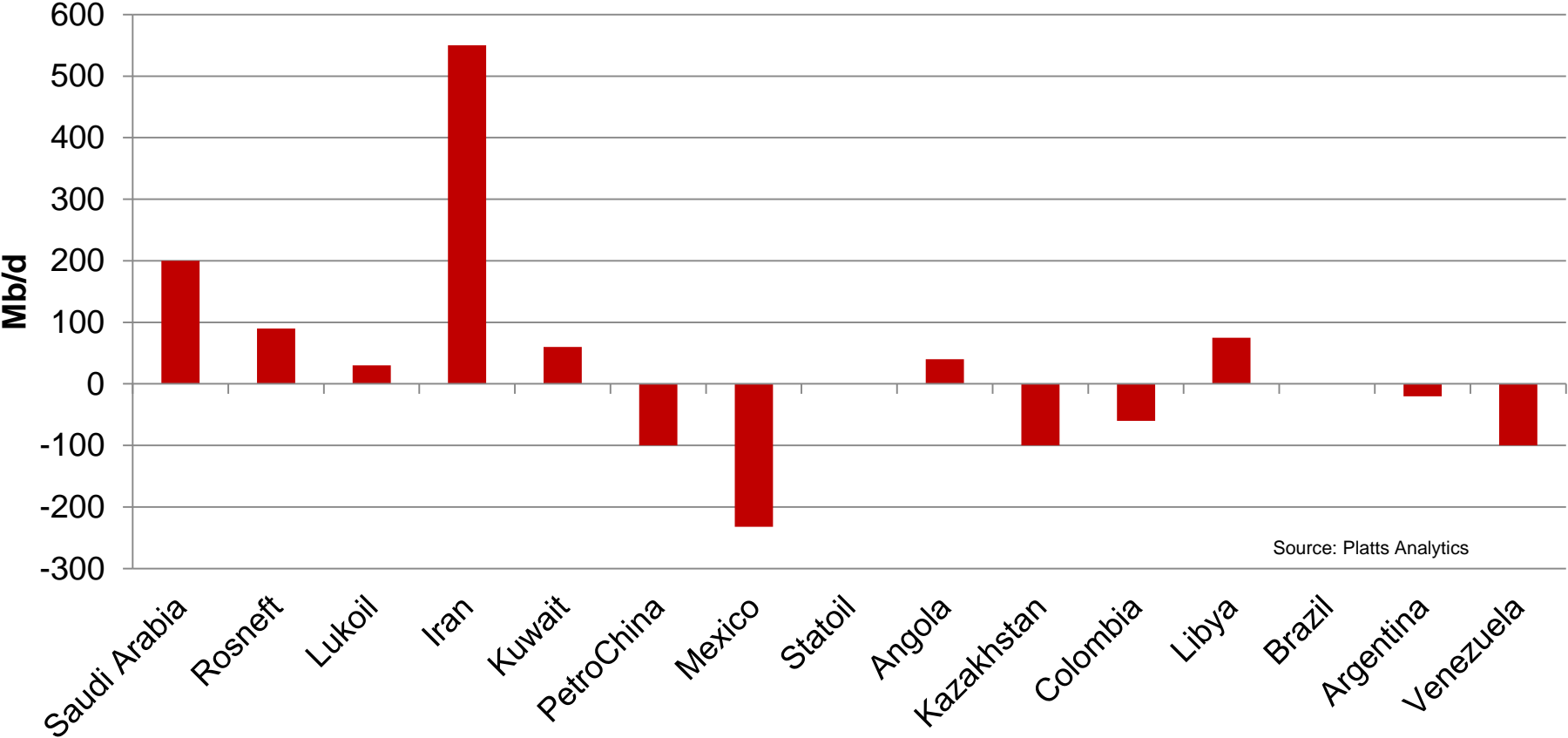
The Balance Will Allow for High Stock Levels to Finally Start Drawing Down



And what about the global market?

Countries/Companies Are Still Reporting Plans to Increase Production During 2017

Global YOY Production Changes

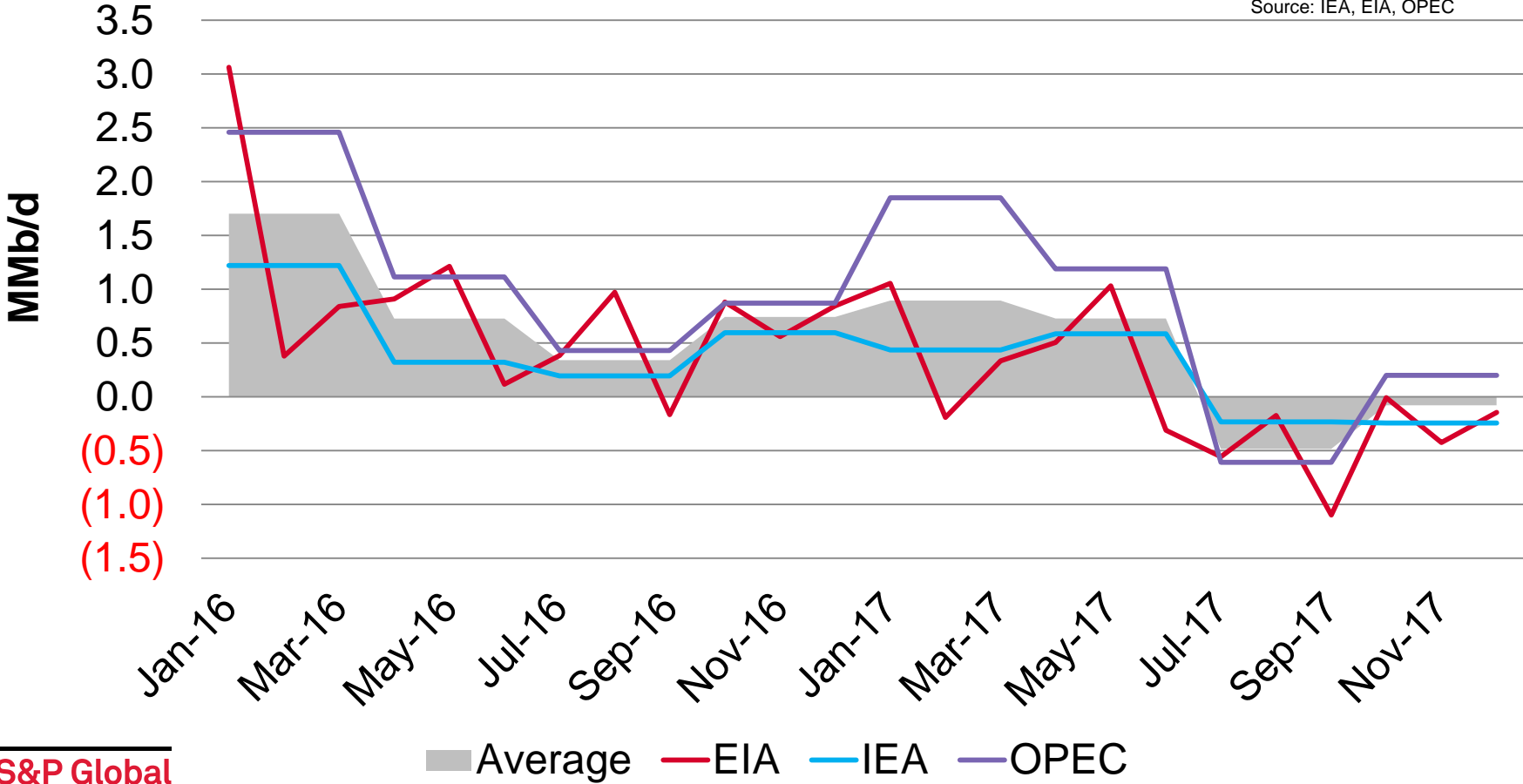


Source: Platts Analytics

The Global Reporting Groups Have Become Much Less Optimistic About When the Market Will Balance

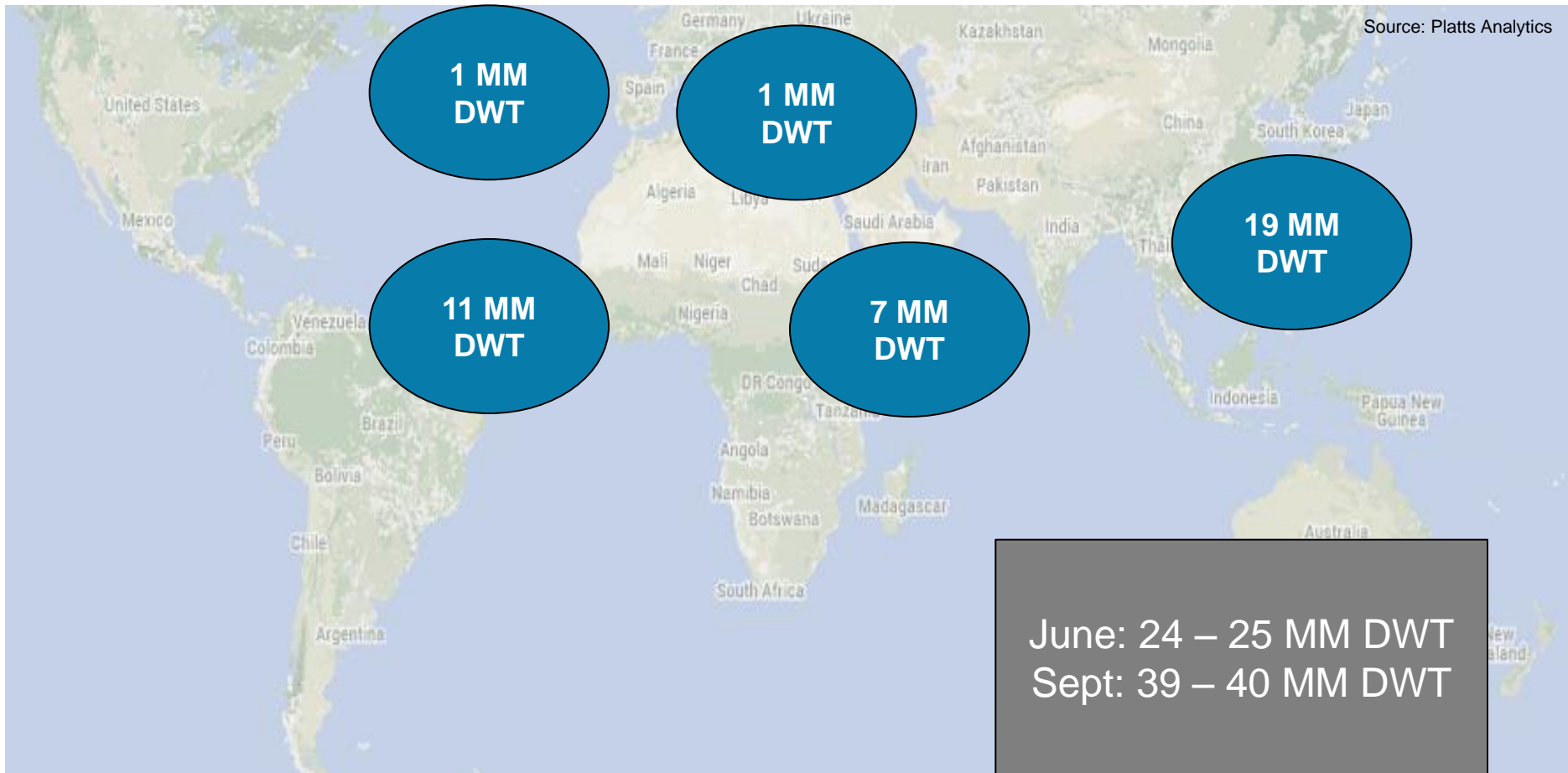
Supply and Demand Balance

Source: IEA, EIA, OPEC



There Are Also Many Vessels Full of Crude that Have Been Idle for More than 30-Days

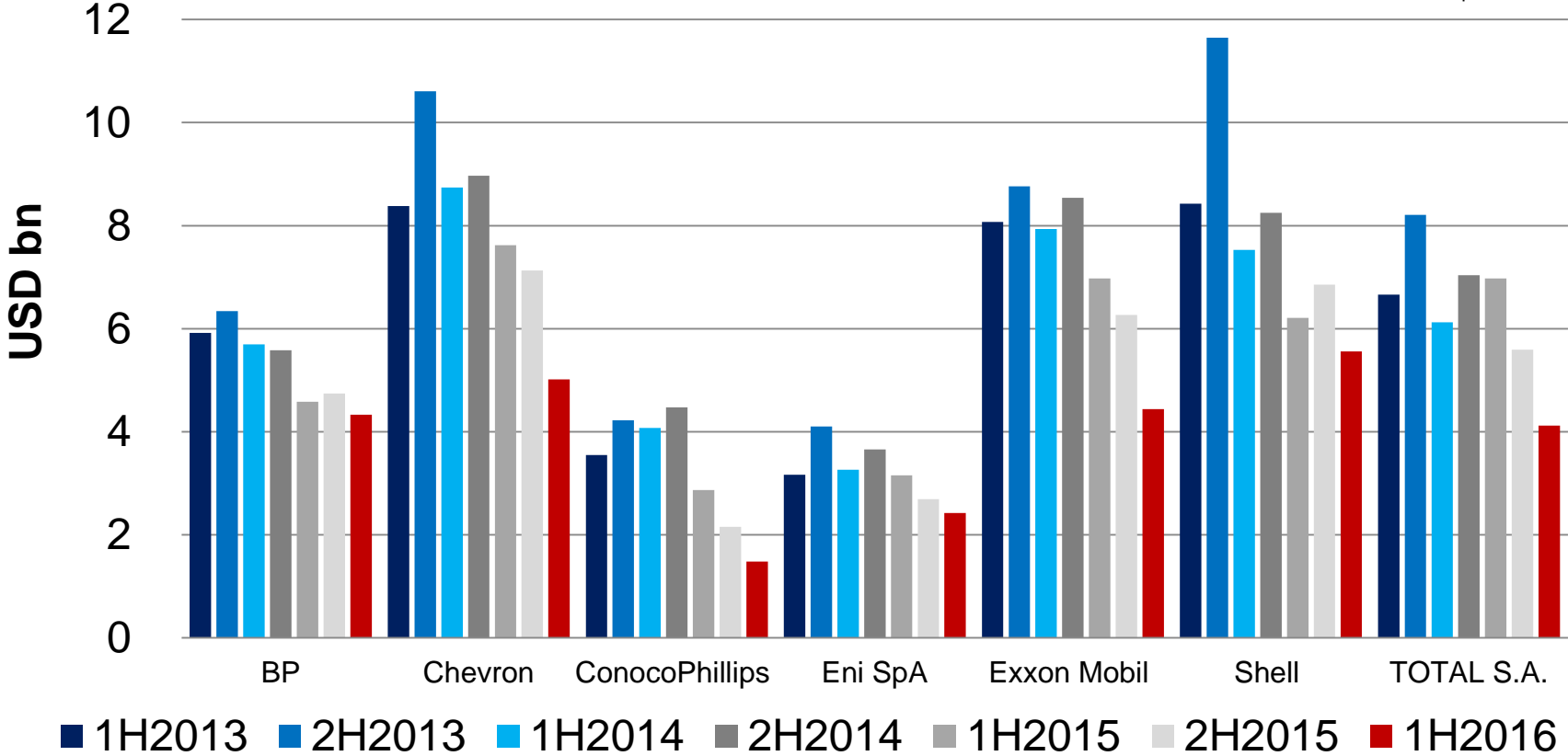
Source: Platts Analytics



Capex Cuts Now Will Impact Future Production Growth

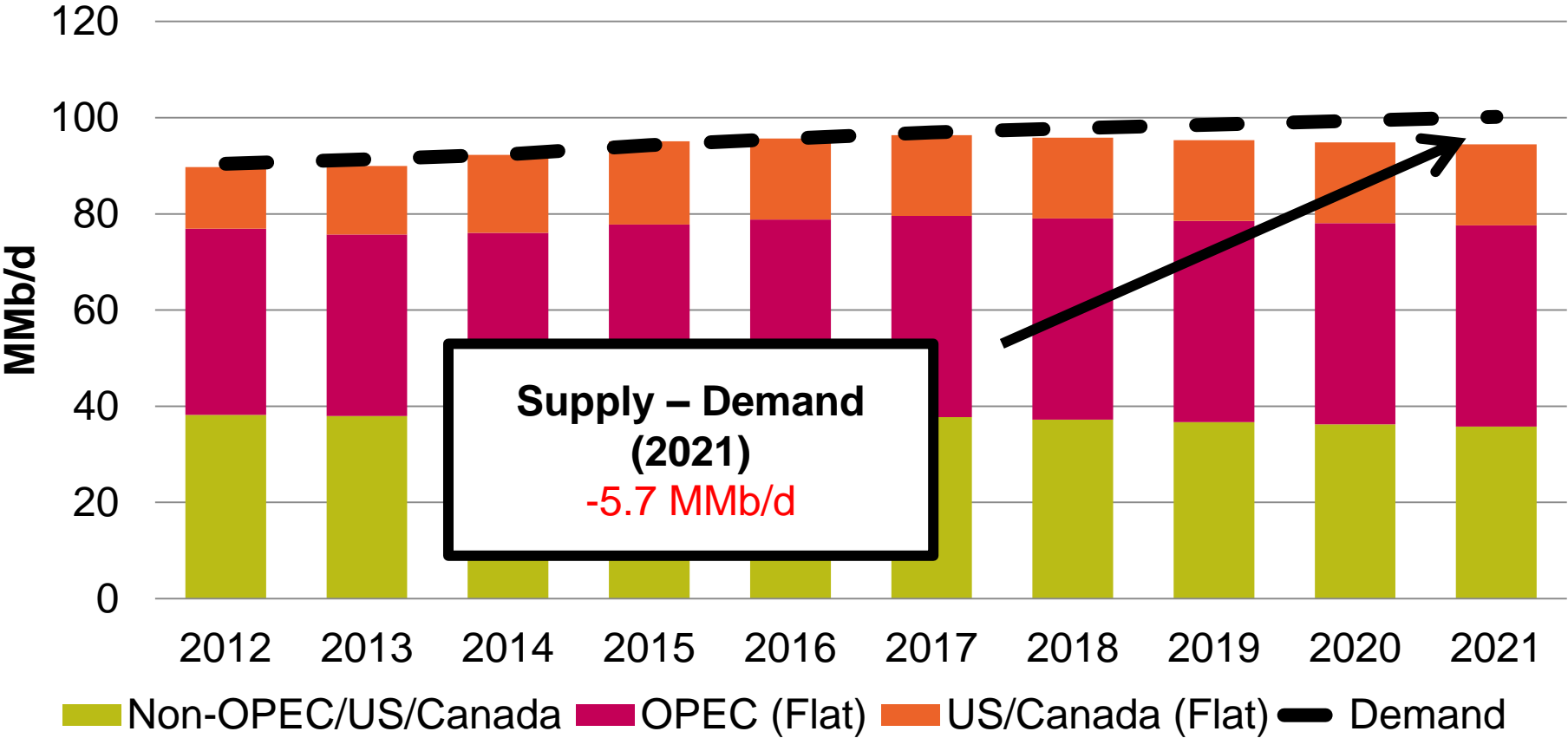
Quarterly Capital Expenditures

Source: Capital IQ



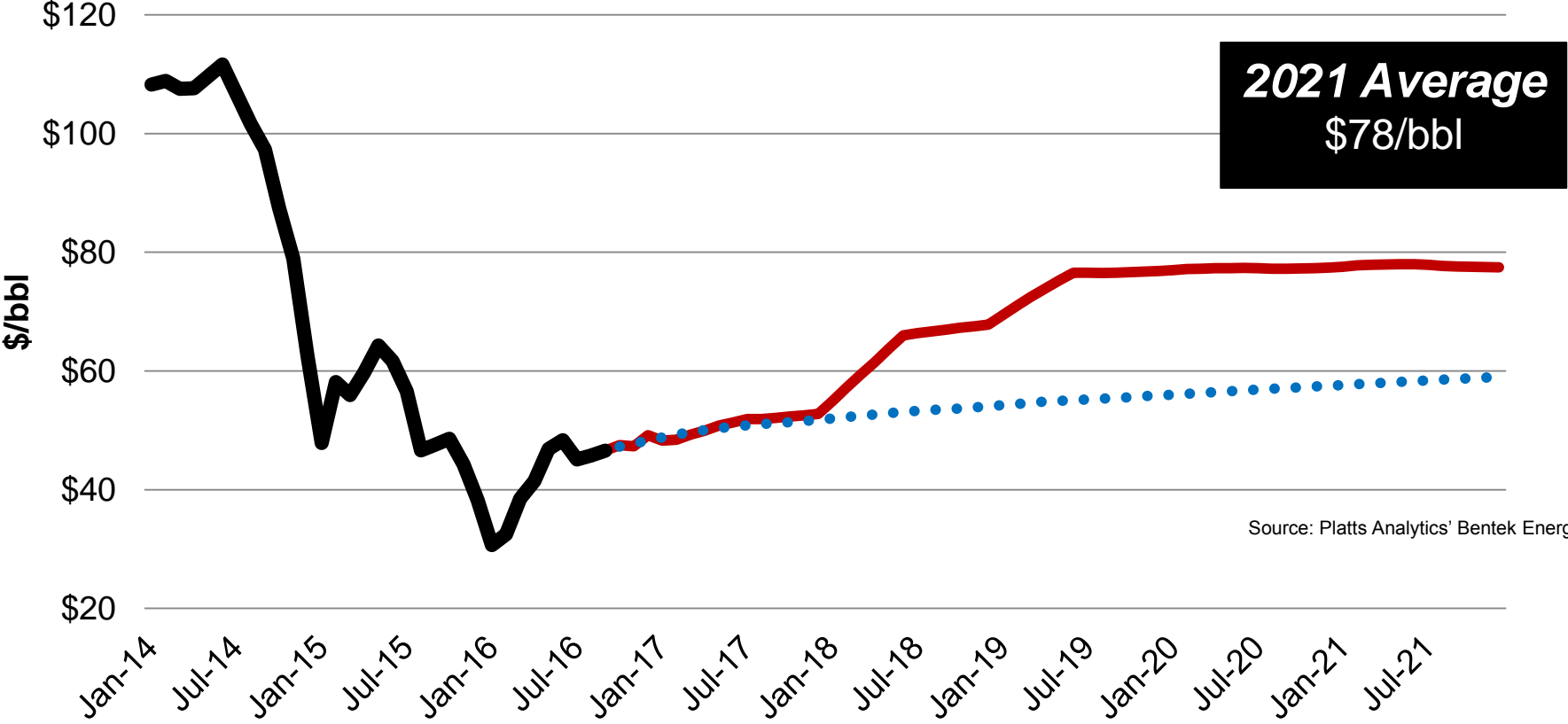
Flat OPEC and declining non-OPEC/US/Canada supply could lead to very short market

Global Supply/Demand Scenario Forecast



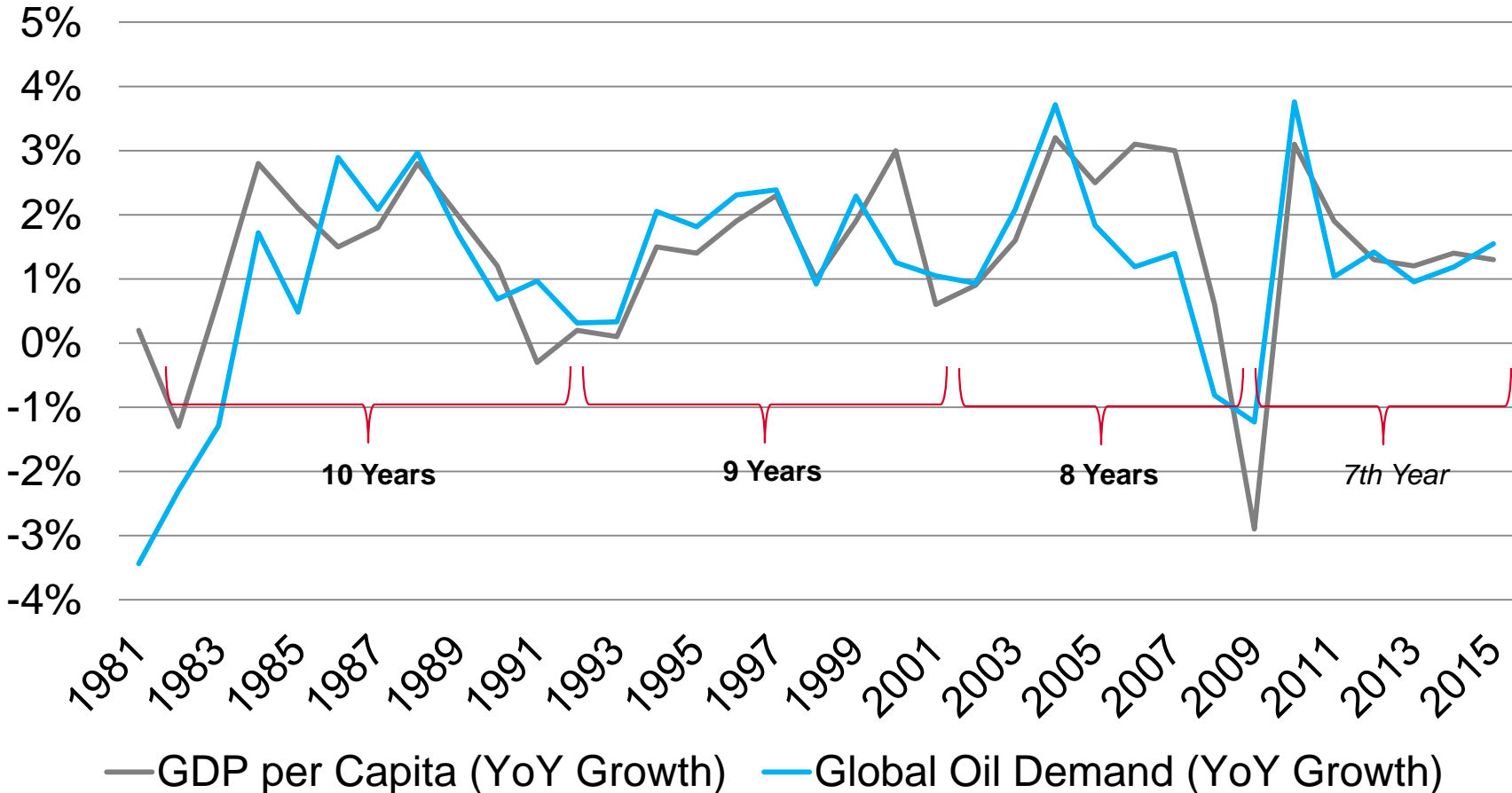
Platts Analytics Continues to Expect Subdued Pricing in the Near Term, with More Support in Latter Years

Forecast – Dated Brent



Source: Platts Analytics' Bentek Energy

Weaker GDP Growth Remains a Substantial Risk



Key Takeaways

- Low prices are reducing the oversupply, but further balancing is needed
- US production is expected to begin growing modestly late next year, despite prices remaining subdued
- Crude oil inventories in the US will move toward more comfortable levels during 2017
- Higher prices will be needed in the future to incentivize production growth
- Demand growth continues to be a substantial risk to prices recovering

Questions?



Thank you!

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