Main Points

- World oil not “significantly” oversupplied
- Price drop due to price war (OPEC Market Share)
- Drilling and production lags behind price stimulus
- Natural production decline in the world’s oil fields needs to be replaced by new developments
- Most likely scenario is production will flatten and prices will increase back to the Marginal Cost of Supply (MCoS) or above

“Those (US Shale Oil Producers) who created this oversupply, they need to learn the lesson..”

Source: CNN quote from UAE Energy Minister Suhail Mohammed Faraj Al Mazrouei
Supply Demand Imbalances Are Short Lived

- Imbalances self correcting
- Imbalances don’t always move price

Relation Between Supply, Demand, and Price (Annual Data)

Data: IEA, Moyes Analysis

- Oversupply
- Undersupply

The Great “Glut”
OPEC Spare Capacity Now At Multi-Year Low

- Saudi increased production to 10.3 mmb/d to gain market share
- Low OPEC Spare Capacity associated with rising price

Data IEA, Moyes Analysis
What Caused OPEC to Panic

- 4 to 5 million bbls a day additional supply – 5% of global production
- World would have been 3 to 4 mm/d undersupplied without it

**US Crude Oil Production**

Data Source: EIA
OPEC’s eroding market share

- Increasing US production, flat to lower OPEC production
- OPEC aspires to increase market share
- Started the price war
The Price War Begins

Sep. 29, 2014, Bloomberg -  "ConocoPhillips is shipping a cargo of Alaska North Slope crude to Asia,"

Oct. 2, 2014, CNBC -  "Saudi Aramco surprised markets when it announced it would cut official prices for Asian customers"

Nov 28, 2014, CNN –  “Oil prices came crashing down to trade below $70 per barrel after OPEC announced it was leaving oil production levels unchanged.”
Conventional: Gas Replacing Production, Oil is Not

- Discoveries decreasing since 1960’s
- Gas discoveries more robust
Global Oil Production Declines with Depletion

- Conventional fields decline by 4% to 6%
- “Shale” Production declines by 50%+ first year
- Demand grows by about 1% a year
- Compensated by new developments, improved recovery
- If these new projects are delayed or cancelled, a “supply /demand gap” starts to open

Source: IHS, EIA, SLB
NAm Production responded to increased spend, international production declined despite increased spend.
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 current prices!

Source: Citi, Rystad, Woodmac, Morgan Stanley
Price primarily driven by Marginal Cost of Supply (MCoS)

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

**Price Drivers – Costs Vs Demand**

- High OPEC spare capacity
- Lower OPEC spare capacity
- Very Low OPEC spare capacity

Company Data, Bloomberg, Bernstein, Moyes Analysis
EIA, IEA, OPEC Project Balanced Supply Demand by YE

Data EIA, Moyes Analysis
Summary

- World oil not “significantly” over supplied
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- Drilling and production lags behind price stimulus
- Natural production decline in the world’s oil fields need to replaced by new developments
- Most likely scenario is production will flatten and prices will increase back to the Marginal Cost of Supply (MCoS), or higher

Other factors
- Iran
- Instability in producing countries
- Demand response
- Hedging
- $ Strength
Back up
Conventional Discoveries: Gas Dominates

- Areas with greater than 1 GBOE discovered in last 10 years
- Sub-salt and deep water
- Conventional 90% of global production
US Petroleum Stocks Increasing

- Storage capacity is uncertain
- "Days of Production in Storage" gives different perspective
- Increased storage occurred after price drop

Data EIA, Moyes Analysis
Cost of Supply Goes Up with Time

- We find and produce the cheapest and easiest first, and progressively go to higher costs of supply
- Technology may disrupt this temporarily
- 2009 price returned to 2004 levels, cost did not