

# Petroleum Equipment & Services Association



Perspectives from a  
Research Analyst

Market Outlook

James K. Wicklund  
Managing Director, Research

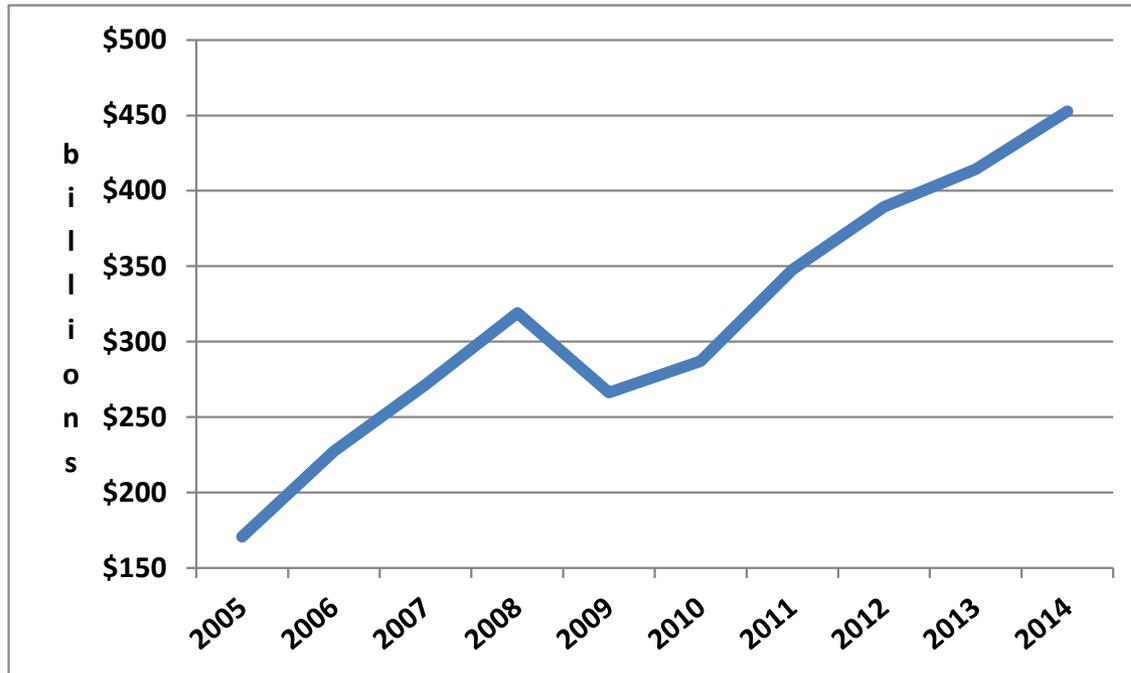
November 2015

Source: Atwood

DISCLOSURE APPENDIX AT THE BACK OF THIS REPORT CONTAINS IMPORTANT DISCLOSURES, ANALYST CERTIFICATIONS, AND THE STATUS OF NON-US ANALYSTS. US Disclosure: Credit Suisse does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

# It Has Been One Heck of a Ride

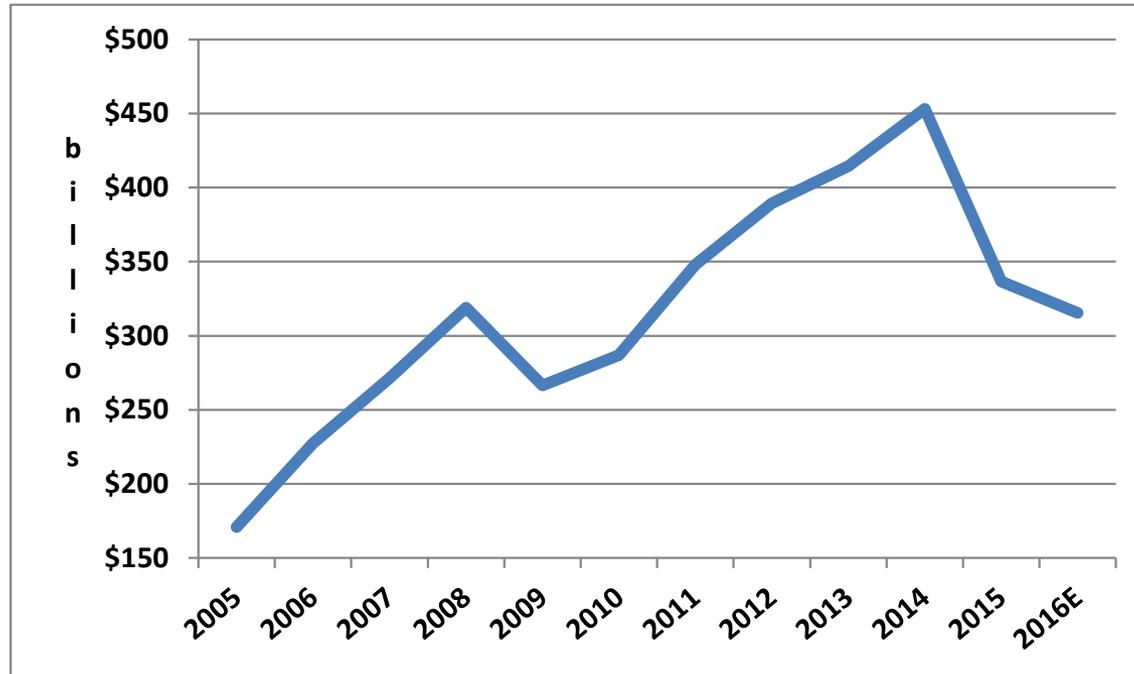
Revenues for OFS have been a tear, up over 250% since 2005



The 2008-09 Financial Crisis was only a pause

# But We are Cursed by Our Own Success

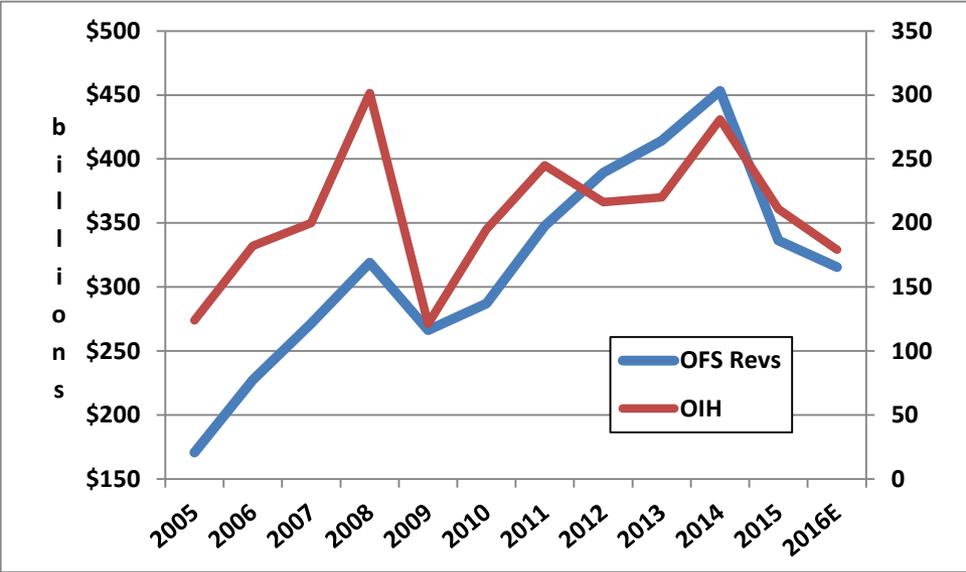
2015 is expected to drop by 26%



And another 6% next year

# As Goes Business, So Goes Our Net Worth

Are we reflecting the worst down-cycle in 30 years?



Where/when is the bottom??

# Welcome to the Next Down-cycle

- Oil prices have nosedived in the last six months
- The future's strip only hits \$63 three years out
- The US “over-achieved”, proved its potential and flooded the world
- Demand has been anemic and looks to stay that way for a while
- The US rig count is down almost 50% - vertical down 60% and horizontal down 40%
- Recovery looks like a “bathtub” rather than a “V” or “U”

<u>Oil Hubs</u>	<u>Qtr-Qtr</u>	<u>From Q2 2014</u>	<u>Current Price</u>
WCS	-39%	-58%	\$ 35.21
Kern	-38%	-60%	\$ 37.83
Maya	-34%	-54%	\$ 44.35
WTI	-33%	-53%	\$ 48.76
WTI Midland	-32%	-51%	\$ 47.54
Mars	-32%	-51%	\$ 49.36
LLS	-30%	-50%	\$ 53.07
ANS	-30%	-52%	\$ 52.24
Dubai	-29%	-50%	\$ 52.61
URALS	-29%	-51%	\$ 52.50
Brent	-29%	-51%	\$ 54.21

Source: Bloomberg

**May 28, 2015**

Since May, we were *teased* by the run to WTI @ \$63, on the anniversary of last year's peak as prices came back down – Once Burned, Twice Shy

## That Was Then

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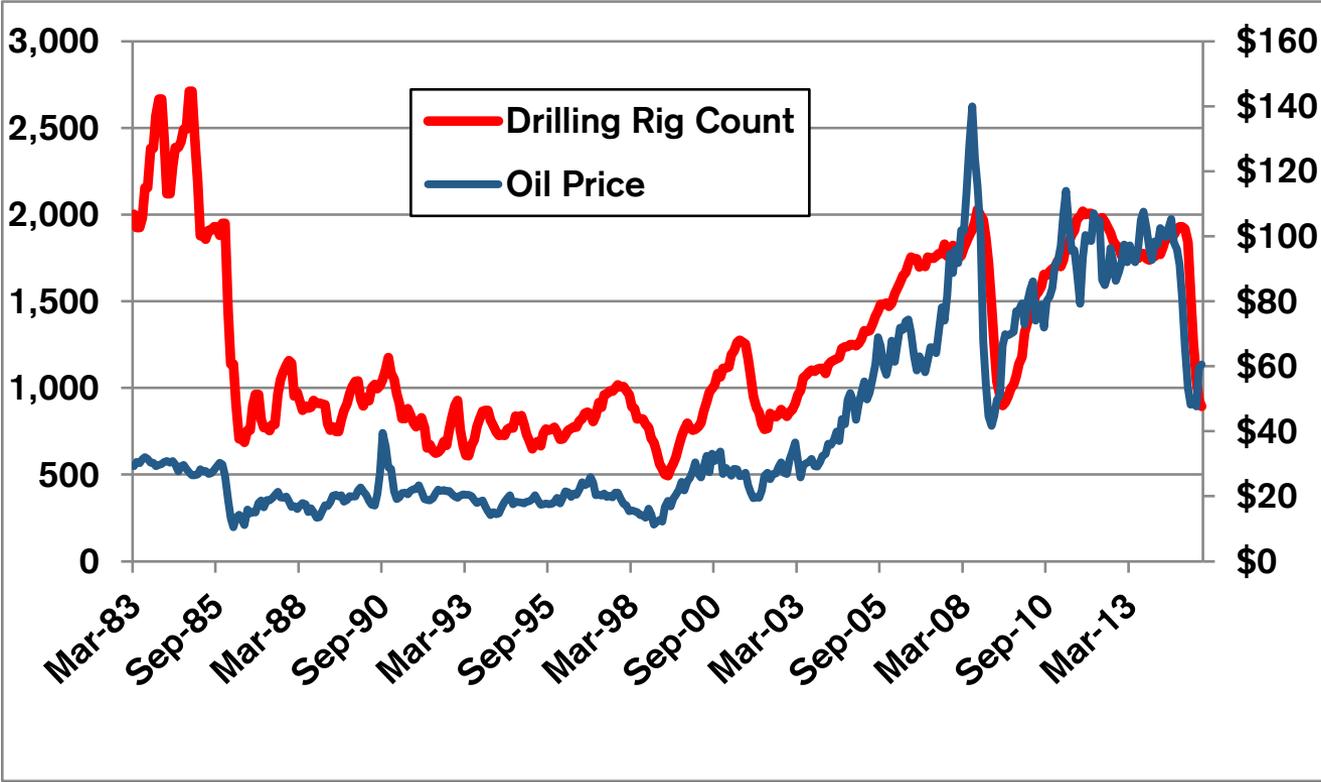
Source: Bloomberg

## This is Now

<u>Oil Hubs</u>	<u>Today</u>	<u>Since Then</u>
WCS	\$ 30.00	-15%
Kern	\$ 34.66	-8%
Maya	\$ 38.34	-14%
WTI	\$ 46.11	-5%
WTI Midland	\$ 45.24	-5%
Mars	\$ 42.64	-14%
LLS	\$ 47.29	-11%
ANS	\$ 46.99	-10%
Dubai	\$ 46.23	-12%
URALS	\$ 47.29	-10%
Brent	\$ 48.76	-10%

Source: Bloomberg

# It is a Cyclical Business



Oil Prices are Cyclical and Drive Drilling

## It Will Get Better.

## One Day

- Oil prices are close to a bottom –
  - Handguns and handgrenades
  - We've hit "bottom" twice so far this year
  - Analysts have called the bottom four times
  - "Fool me once" – recovery will lag
- Onshore will recover before offshore
  - Faster cash return cycle
  - Diverse activity base
  - Ease of logistics and infrastructure
- Offshore will recover later
  - Majors delaying projects/spending
  - Slower decision/logistics cycle
  - Costs>Returns will improve

# Common Commentary by the Industry

- “This unexpected deterioration in industry metrics prompted our customers to seek additional pricing concessions for most of our services, especially pressure pumping and coiled tubing.”
- “We will preserve our balance sheet strength and maintain our service delivery capability in preparation for our industry's recovery. However, we also acknowledge that this protracted downturn requires additional cost reduction measures, which we started during the third quarter and we will continue during the coming months.”
- “We believe that the fourth quarter of 2015 will continue to be difficult, as our customers exhaust their 2015 budgets and have no incentive to maintain current operational levels in the near term.”

“Our financial strength will allow us to endure throughout the remainder of this downturn and emerge as a stronger service provider when the industry eventually recovers.”

# The Good News Is That the Stocks Should Go Up First

- If you don't own stocks, at least you have a job
- If you don't have a job, you are part of the ~35% who don't now
- If you were planning on buying a new boat in 2016, think again
- If you weren't longer-term oriented before, you are now

The reality is that while the global crude oil markets may and likely will come closer into balance in 2016, that doesn't mean a sharp spike in oil prices or activity.

We are the swing producer now, and that means if the world is over-supplied, we take the hit, and if the world is under-supplied, we rev up the US shale machine to provide the balance.

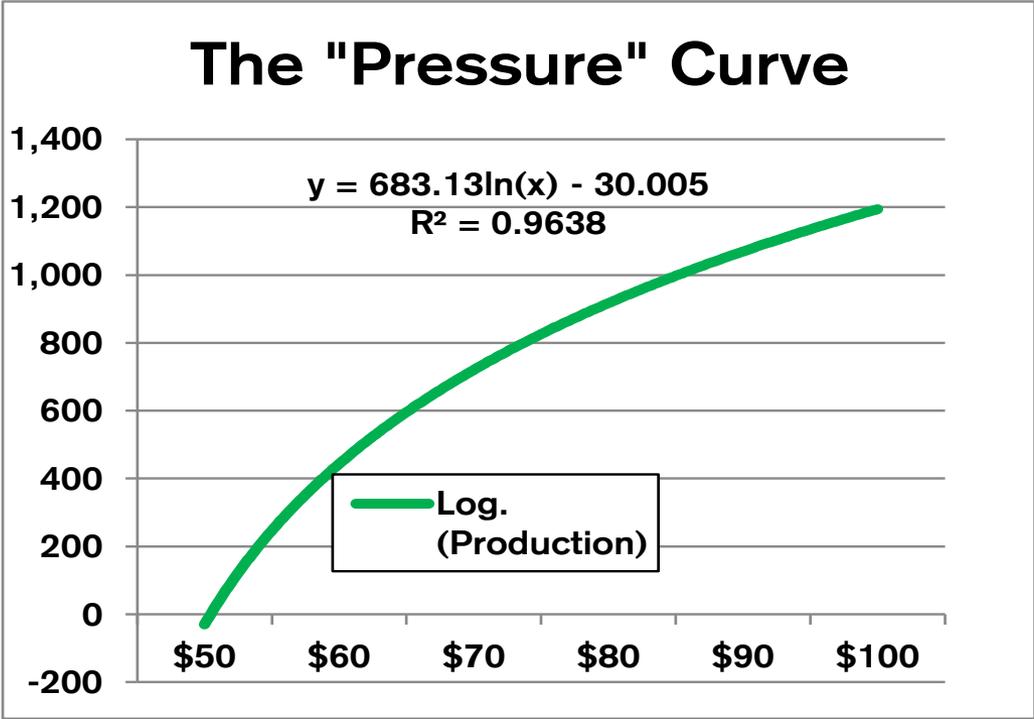
## We Have to Wait Our Turn – Swing Producer

- Oil production from nine of the world's largest oil and gas producers rose a combined 8% in the first nine months of the year to over 10M bpd for the first time since 2013.
- OPEC production is up over 1 million barrels in the last year
- Iran claims to be able to increase oil production by 800kbopd
- Russia is producing full out with a devalued ruble helping out
- The North Sea will see its first production growth in 15 years
- Brent was \$115 for 3.5 years with that reinvestment slowing decline
- Chevron's production decline is less than 2%
- The US grew oil production in 2104 by 1.3mmbopd, the largest one year increase in the history of the industry.

# Oil Now Has a Very Different Role - Suppression

- Oil prices have always risen to “pull” production levels higher so supply and demand balance, with demand driving its action
- Due to the success of US shale, our ability to almost double US oil production in less than five years, in a market that had peaked production decades ago, the role of the oil price has changed
- Now oil prices act as a “governor” on US production growth since our ability to increase production at a price exceeds the rest of the world
- The US is now the world's swing producer, due to our volumes if not our economics, and the responsibilities that implies
- The “collateral damage” to global conventional production accelerates its decline and increases the call on US shale over time
- It forces a change in behavior across the industry, as it adjusts to the new, and likely lower, role of the oil price

“Tell me how much production growth is needed to balance supply/demand, and I will tell you the oil price”



## The Good Part – We Will Be Needed. One Day. Soon?

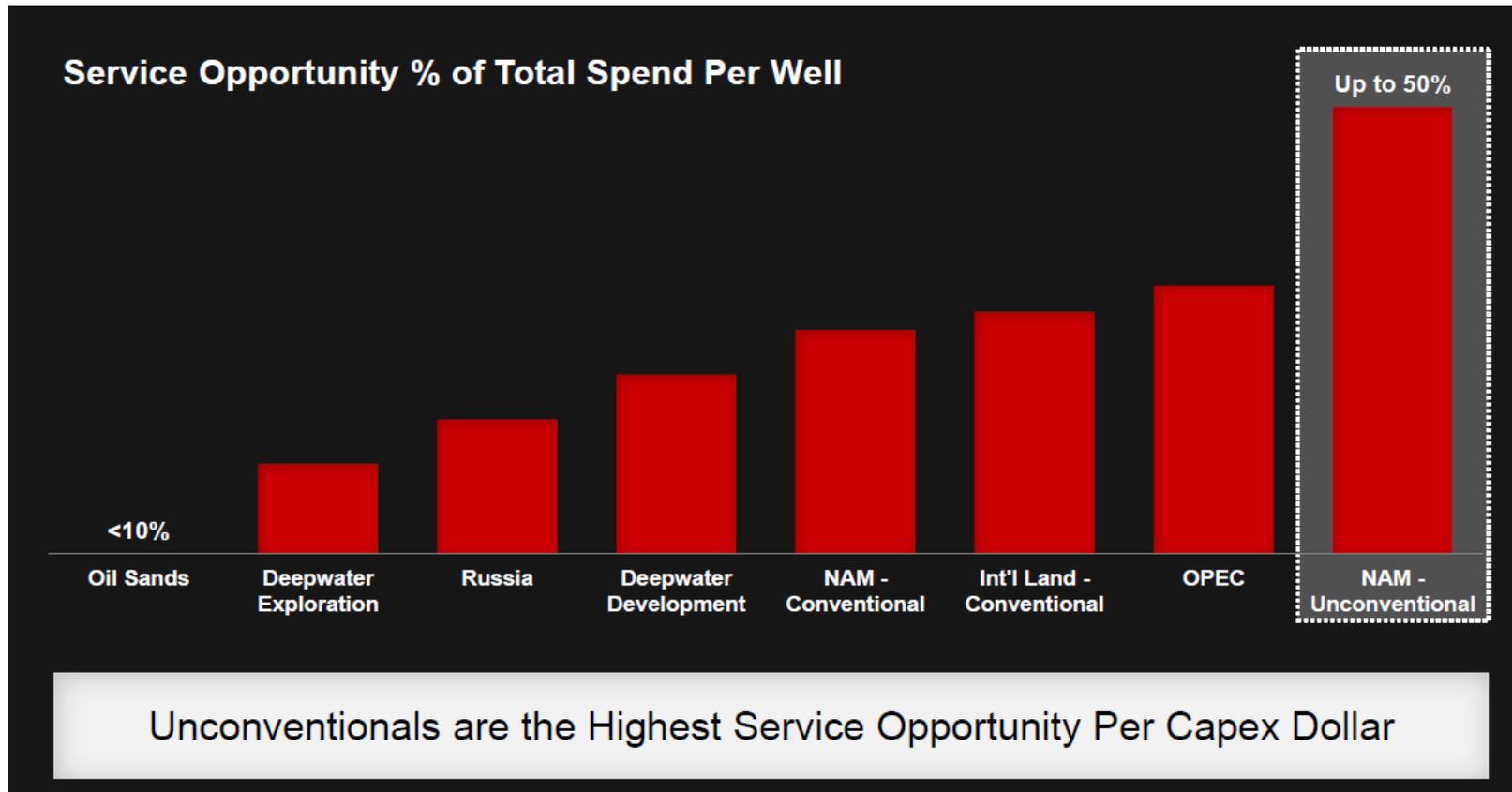
- Brent averaged \$115 for 3.5 years and now \$60 for the last year
  - The first boosted capex and will at least temporarily slow the decline of existing production and add some incremental production
  - The latter has forced a hard focus on efficiency
  - This will delay the “need” for US production growth
- Iran, Iraq, Saudi and the rest of the GCC are revving up production
- Chinese demand has weakened
- Canada is headed to recession
- US panics over a 25 bps raise by the Fed

EVENTUALLY, as all of this normalizes, the call on US production growth will resume. Nobody can turn on the tap like us.

# Dry Land Wins First

- Deepwater oil production growth has been zero for 3.5 years, while US onshore gained 5 million barrels a day
- While we have made 400+ offshore discoveries waiting to be developed, there are entire counties that count as “fields” onshore
- Deepwater is the domain of large, integrated, slow, gold-plating major oil companies being “dragged” into modern day, slowly
- Onshore is the playground of the nimble, cheap, fast oilman
- Deepwater is a 7 year cash-cash return cycle
- Onshore is a 3 year cash cycle and shrinking

# Why Dry Land Wins First

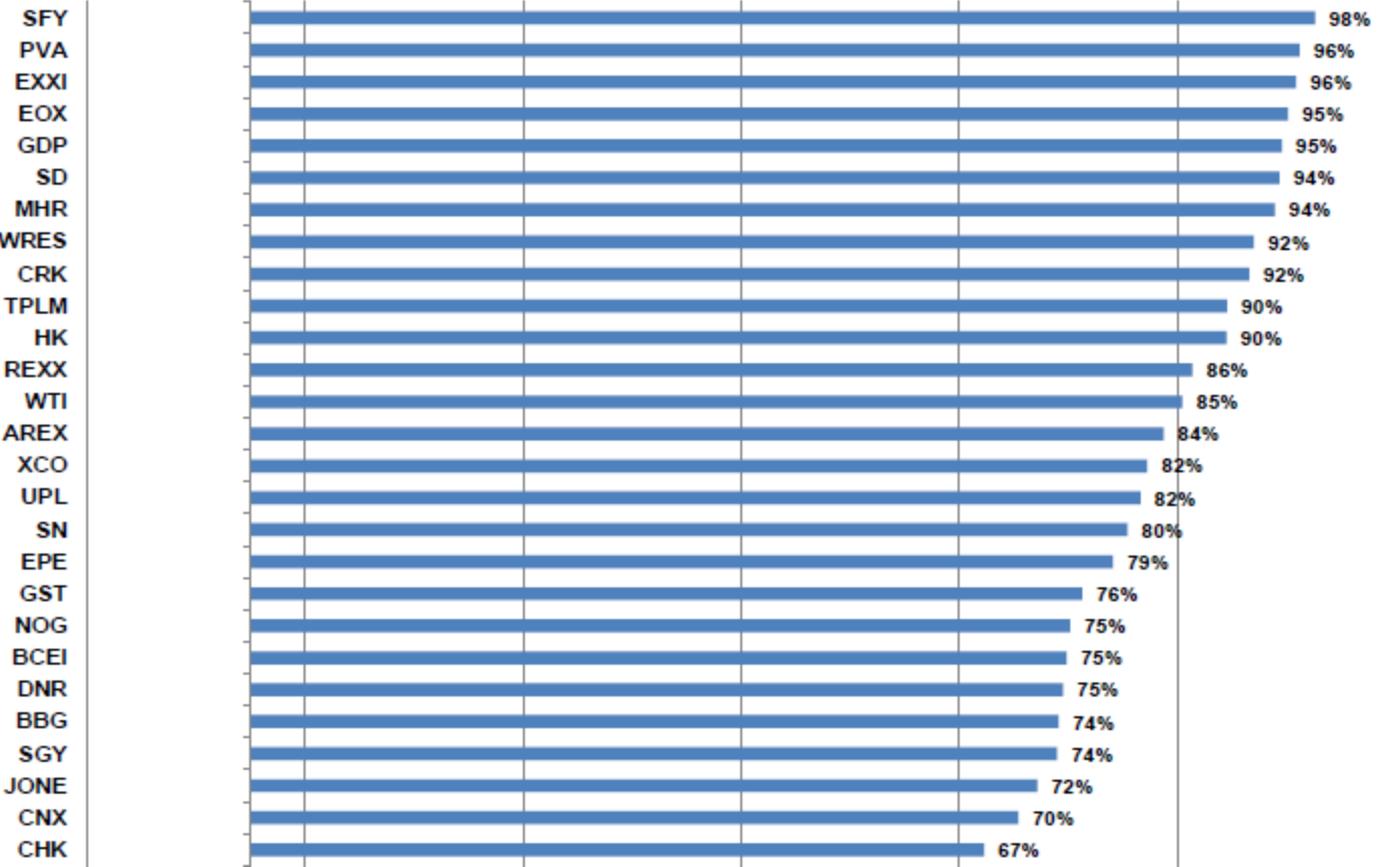


## Majors and Large Cap E&Ps are Expected to Grow Production Next Year

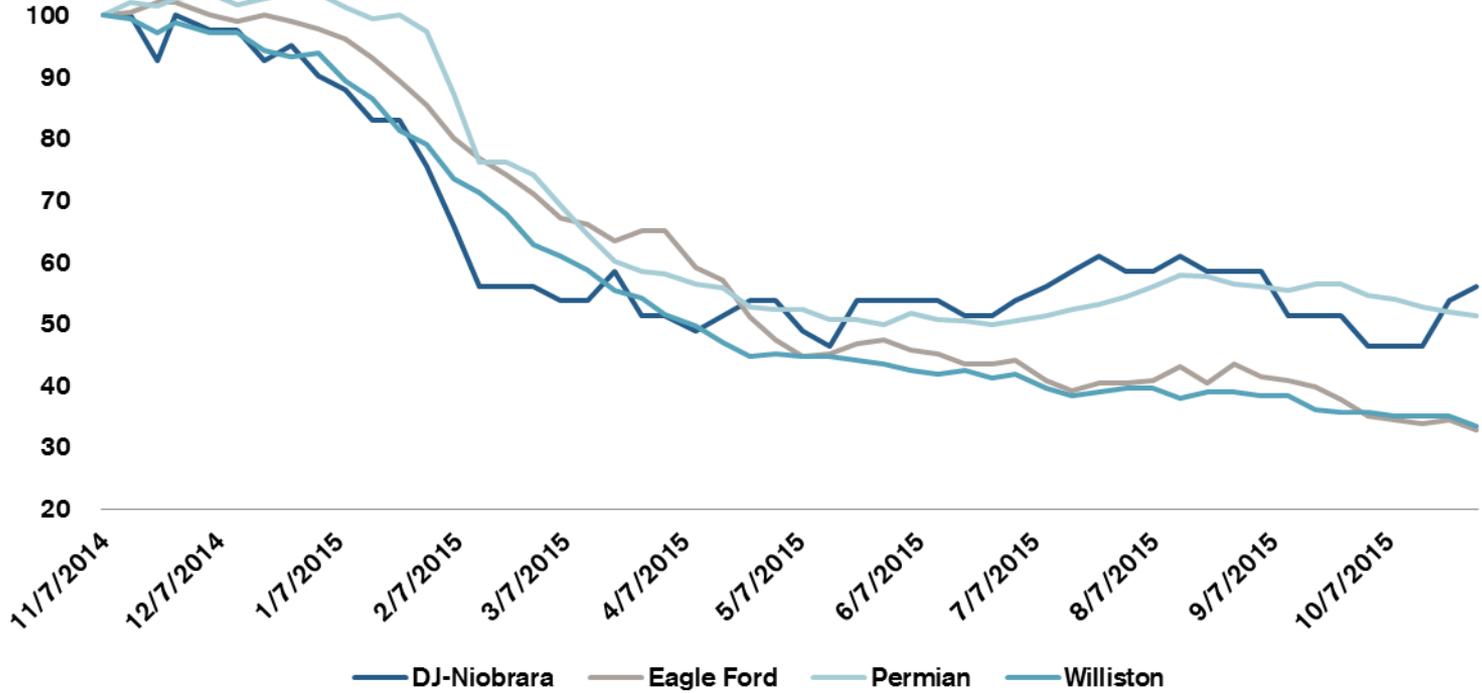
	2Q14	3Q14	4Q14	1Q15	2Q15	QoQ	YoY	FY14A	FY15E	FY16E	YoY
<b>Majors</b>											
XOM	2048	2065	2182	2277	2291	1%	12%	2111	2292	2387	4%
CVX	1694	1699	1732	1801	1722	-4%	2%	1710	1756	1825	4%
COP	903	847	916	933	906	-3%	0%	890	907	924	2%
OXY	372	382	401	426	433	2%	16%	381	430	455	20%
<b>Sub Total</b>	<b>5017</b>	<b>4993</b>	<b>5231</b>	<b>5437</b>	<b>5352</b>	<b>-2%</b>	<b>7%</b>	<b>5091</b>	<b>5387</b>	<b>5568</b>	<b>3%</b>
Growth	-4%	0%	5%	4%	-2%				6%	3%	
<b>Large Cap E&amp;P</b>											
EOG	281	300	308	300	278	-7%	-1%	289	287	316	10%
APC	291	303	300	335	318	-5%	9%	291	313	326	4%
APA	313	316	343	318	302	-5%	-3%	320	302	291	-4%
DVN	205	216	239	272	270	-1%	32%	209	272	280	3%
NBL	106	98	107	104	97	-7%	-8%	104	109	139	28%
PXD	80	89	101	99	101	2%	26%	87	106	133	25%
HES	216	211	241	230	246	7%	14%	220	238	217	-9%
CXO	68	73	82	90	99	11%	45%	72	96	103	7%
MRO	258	283	314	314	280	-11%	9%	276	295	292	-1%
CHK	113	118	122	122	119	-3%	5%	116	115	101	-12%
AR	4	4	3	4	6	44%	34%	4	6	5	26%
<b>Sub Total</b>	<b>1936</b>	<b>2010</b>	<b>2159</b>	<b>2187</b>	<b>2115</b>	<b>-3%</b>	<b>9%</b>	<b>1987</b>	<b>2140</b>	<b>2206</b>	<b>3%</b>
Growth	5%	4%	7%	1%	-3%				6%	3%	
<b>SMID Cap E&amp;P</b>											
NFX	49.8	52.1	58.7	65.6	79.1	21%	59%	51.6	72.1	75.6	5%
WLL	88.0	92.8	105.4	135.3	136.5	1%	55%	91.7	130.2	117.0	-10%
RRC	10.9	10.7	11.5	12.7	12.0	-5%	10%	11.2	11.3	8.5	-25%
SWN	0.5	0.6	1.3	6.1	6.5	7%	1153%	0.6	6.2	6.0	-3%
MUR	139.4	156.8	174.0	151.6	131.6	-13%	-6%	152.2	137.6	133.8	-3%
EPE	53.3	57.1	59.8	60.0	63.4	6%	19%	54.8	61.4	61.1	0%
FANG	13.3	15.5	19.4	23.7	22.1	-7%	66%	14.7	23.7	27.9	18%
DNR	71.1	70.6	70.9	70.6	69.8	-1%	-2%	70.6	69.5	66.1	-5%
LPI	16.6	19.3	23.8	24.1	21.3	-12%	28%	18.9	21.1	18.4	-13%
GPOR	7.8	6.2	7.3	8.5	8.0	-6%	2%	7.4	7.7	6.0	-22%
CRZO	18.4	20.0	22.1	21.4	22.3	4%	21%	18.9	22.9	26.2	14%
SD	26.4	28.7	32.1	29.5	29.6	0%	12%	29.8	27.4	25.2	-8%
PDCE	11.8	11.7	12.3	14.5	17.4	20%	47%	11.8	19.0	24.8	30%
CRK	12.2	12.2	12.4	11.5	10.2	-12%	-17%	11.8	9.0	5.9	-35%
PVA	12.3	13.6	13.1	14.9	14.1	-5%	14%	12.7	13.7	12.1	-12%
BCEI	15.1	16.6	16.9	16.6	16.8	2%	11%	15.4	17.1	17.7	4%
SFY	9.8	9.5	8.9	7.6	6.9	-9%	-29%	9.6	6.5	4.8	-25%
MHR	4.5	4.1	3.6	3.5	3.2	-10%	-30%	4.2	3.2	2.9	-11%
REXX	2.8	3.3	3.6	3.5	3.4	-4%	22%	3.1	3.4	3.1	-8%
<b>Sub Total</b>	<b>564</b>	<b>601</b>	<b>657</b>	<b>681</b>	<b>674</b>	<b>-1%</b>	<b>20%</b>	<b>591</b>	<b>663</b>	<b>643</b>	<b>-3%</b>
Growth	4%	7%	9%	4%	-1%				12%	-3%	

# Pain Ahead for Many E&P Companies

Current Net Debt (% of EV)

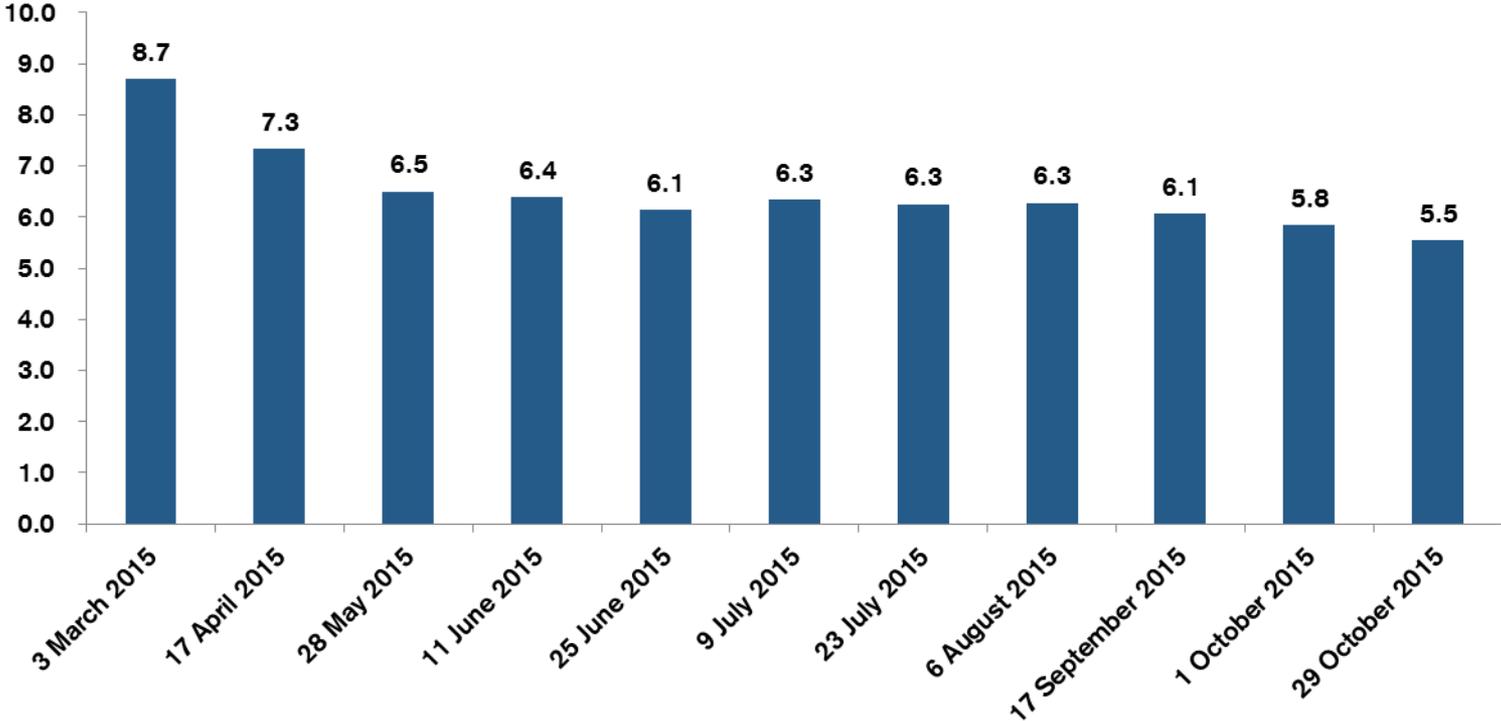


# Horizontal Oil Rig Count Indexed to 100 by Shale Basin

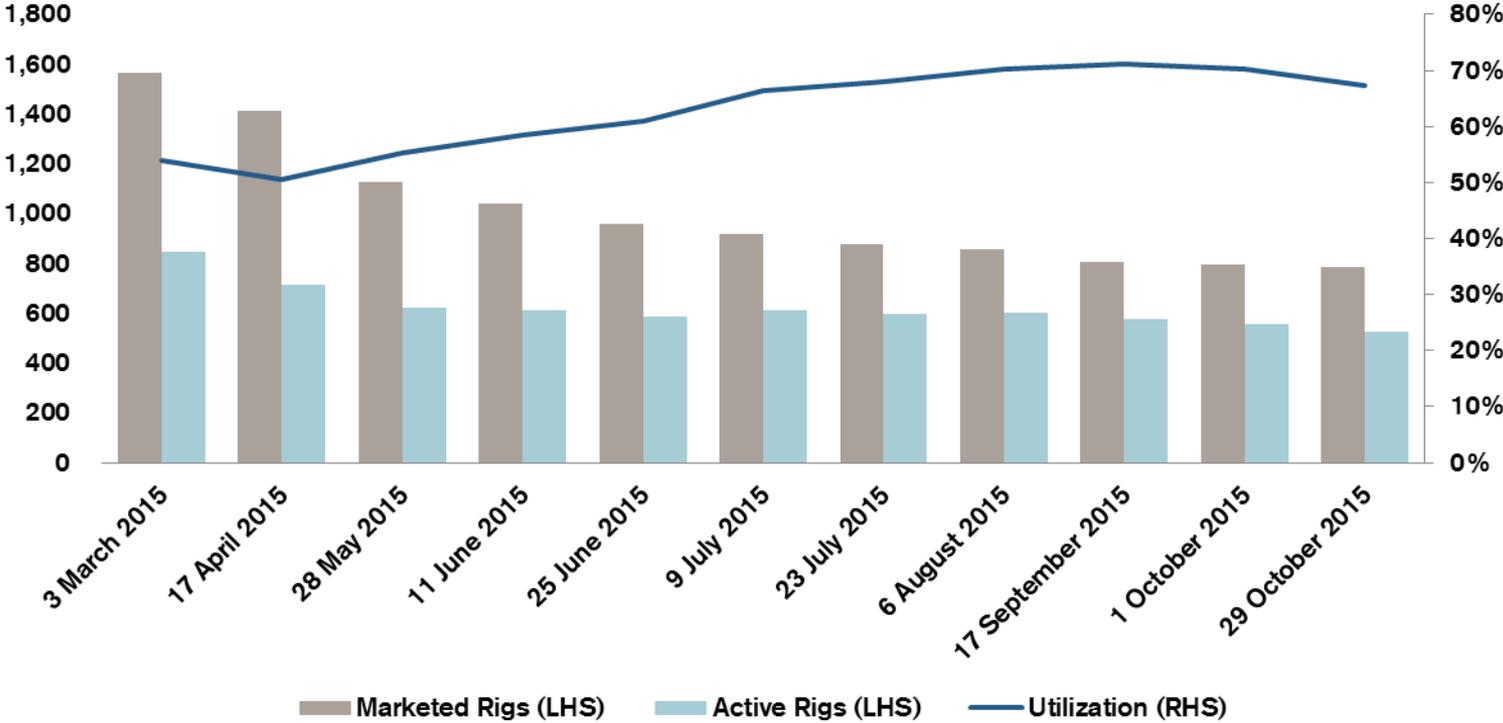


# Feet Drilled Has Plummeted

*Feet drilled in millions in the United States*

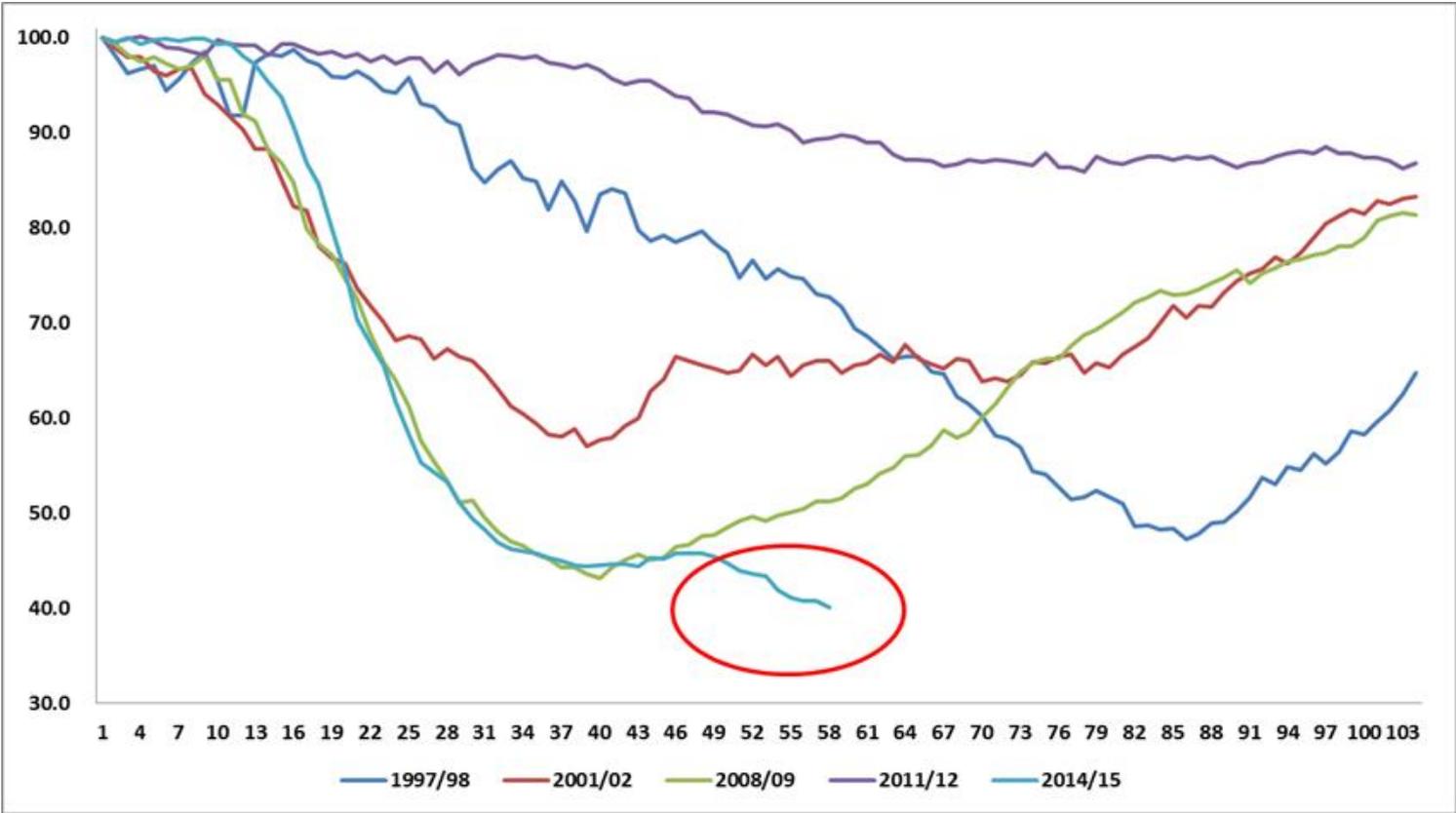


# Utilization Has Held in as Marketed Rigs Shrinks



# Skating Along the Bottom of the Bathtub

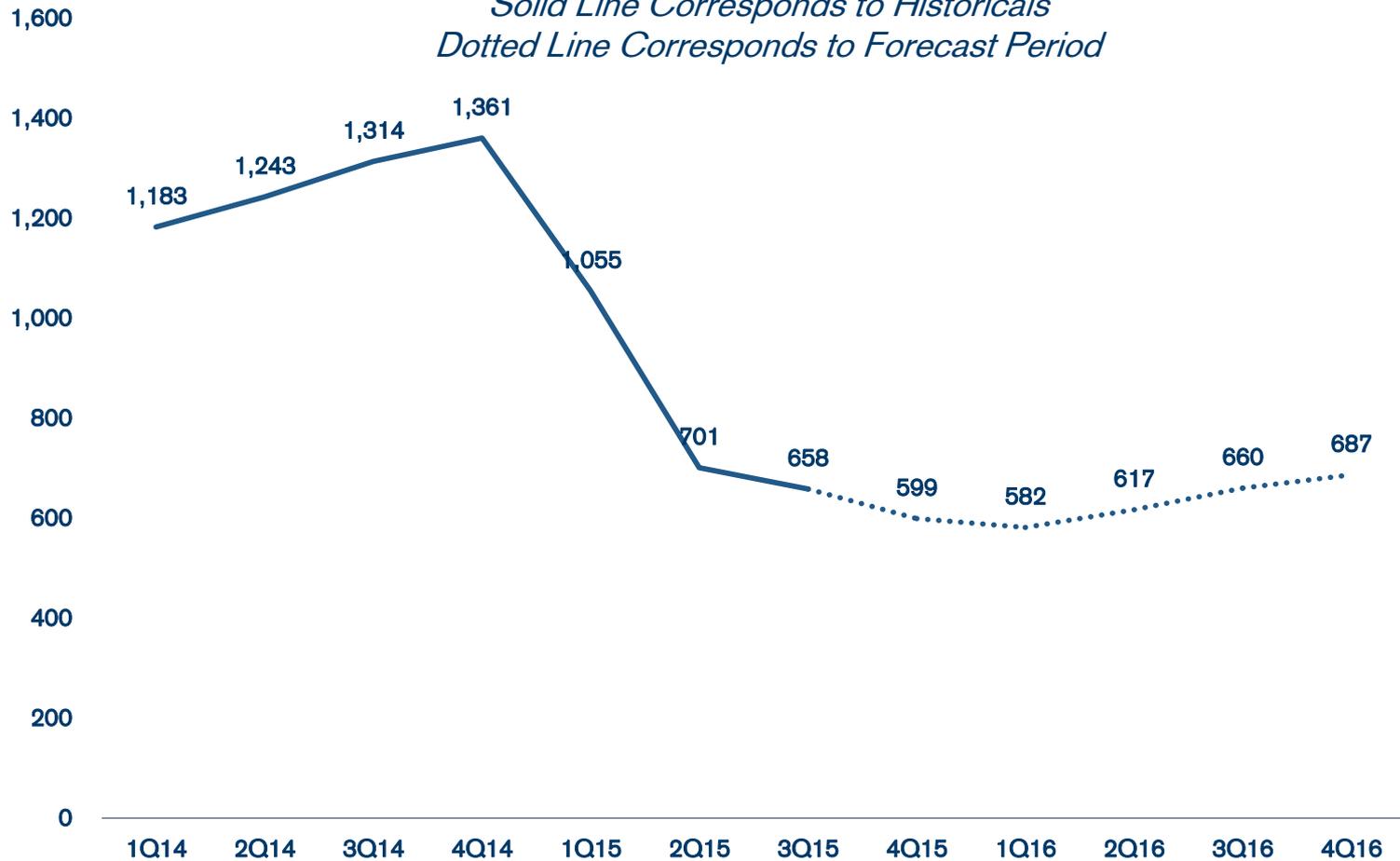
## Indexed Horizontal Rig Count



# Credit Suisse Horizontal Rig Count Forecast

## US Horizontal Rig Count

*Solid Line Corresponds to Historicals*  
*Dotted Line Corresponds to Forecast Period*



**While we have made 400+ offshore discoveries waiting to be developed, there are entire counties that count as “fields” onshore – Onshore recovers first**

## **Deepwater**

- oil production growth has been zero for 3.5 years
- the domain of large IOCs - slow, gold-plating major oil companies being “dragged” into modern day, slowly
- a 7 year cash-cash return cycle
- change in oil company behavior needed to accelerate biz

## **US Onshore**

- gained 5 million barrels a day in five year, 1.3 in the last
- is the playground of the nimble, cheap, fast oilman
- a 3 year cash cycle and shrinking
- a “pressure cooker” of simmering growth potential, held back by low prices
- any increase in capital availability will be spent, quickly

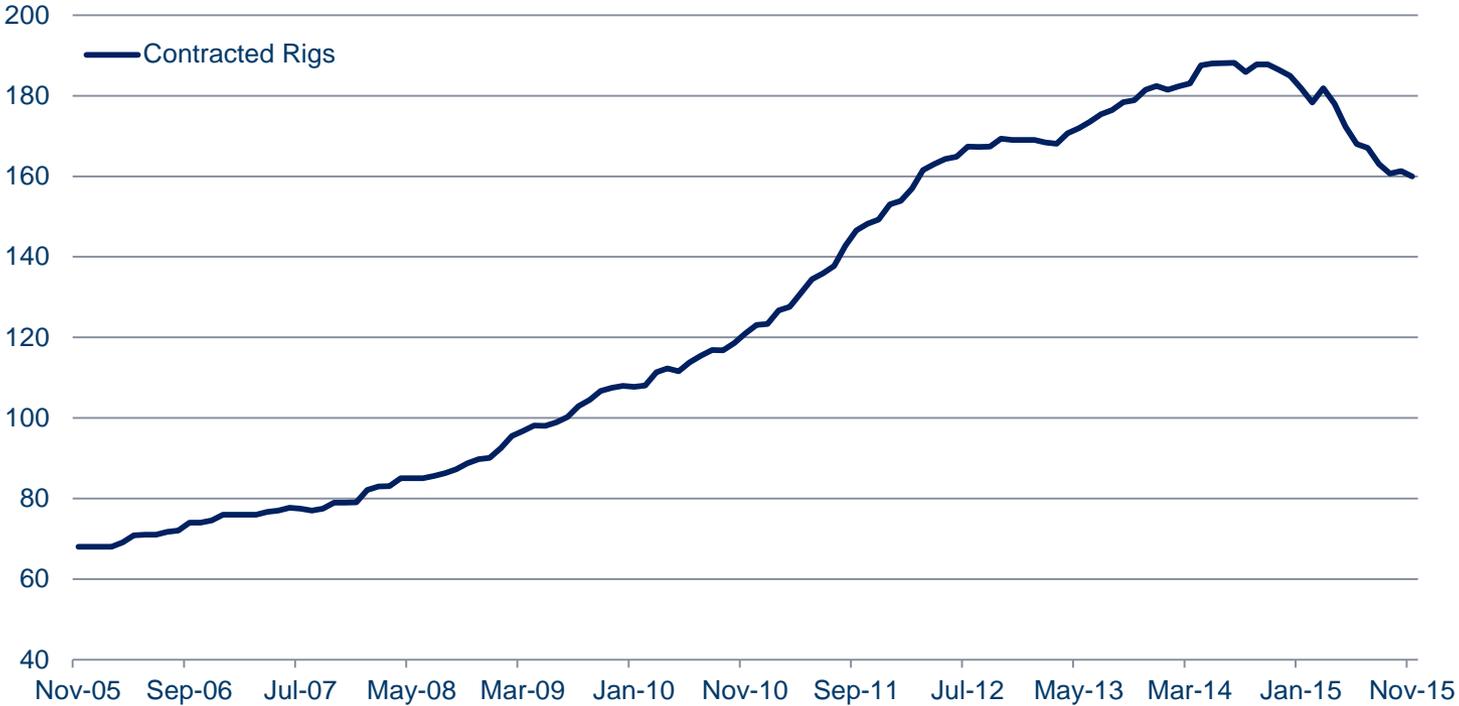
# Deepwater Will Return

- “It’s not dead”, or “we haven’t given up on deepwater” are not statements to inspire ardor or urgency
- But it is already “discovered”. That used to be the hard part.
- It just needs to be more “economic”
- 75% of major IOC projects were un-economic at \$100 oil
- Collaboration, standardization, pragmatic engineering, acceptance
- Not just rigs – E&C and subsea equipment were culprits too
- Inflation - the Monster that Ate Returns

It shouldn't start to happen in 2016 and we are “hopeful,” but not wildly optimistic on 2017. Be ready.

# Offshore Drillers

## Historical Number of Rigs on Contract



# IOC Commentary – Removing Offshore Risk

## ■ Royal Dutch Shell

- "Overall, we are making changes to Shell's mix by reducing our longer-term upstream options worldwide, and managing affordability in the current world of lower oil prices. And this is driving tough choices at Shell, and I hope this sets the context for the charges in the result that you have seen today."

## ■ Conoco Phillips

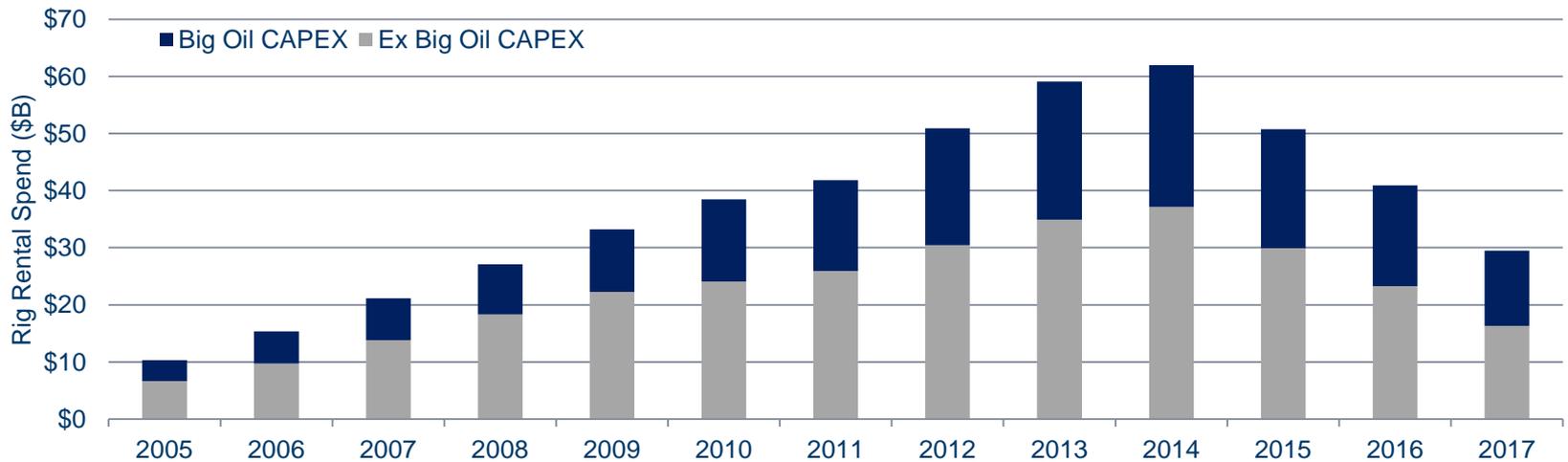
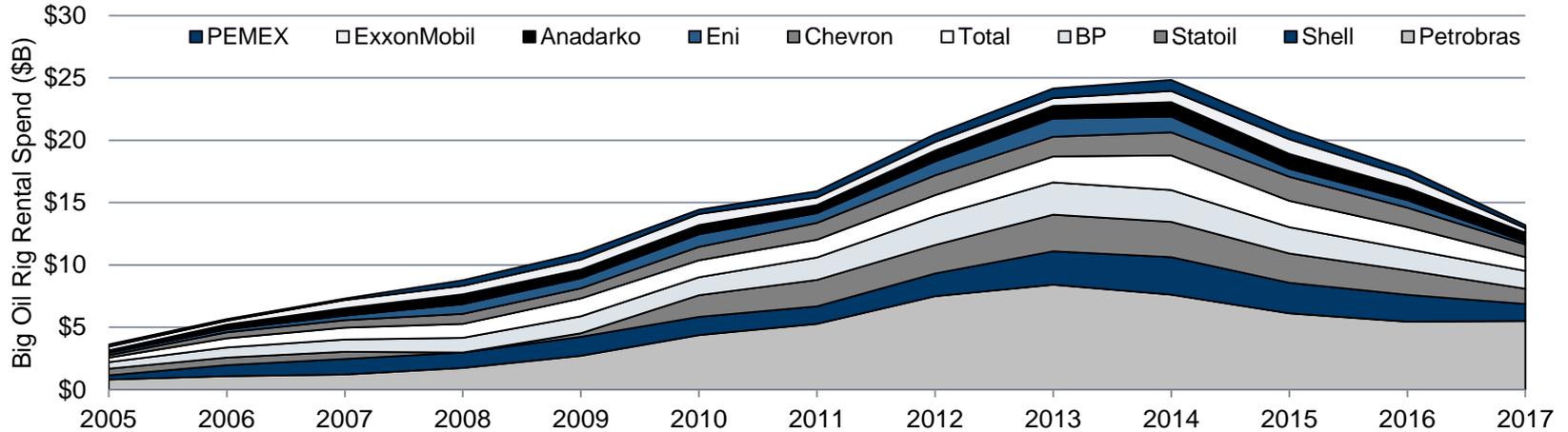
- "Over the past few years we've high graded the portfolio, organically grown a world-class position in North American unconventional plays and are nearing completion on several major projects. We are increasing our capital flexibility, lowering the underlying cost structure of the business and continuing to reduce exposures to assets that won't compete for capital in our portfolio including deepwater exploration and North American natural gas."

## ■ BP

- Around 80% of our potential investments are currently expected to break-even below a \$60 Brent oil price, and we would expect this break-even to move lower, as we further take advantage of deflation."

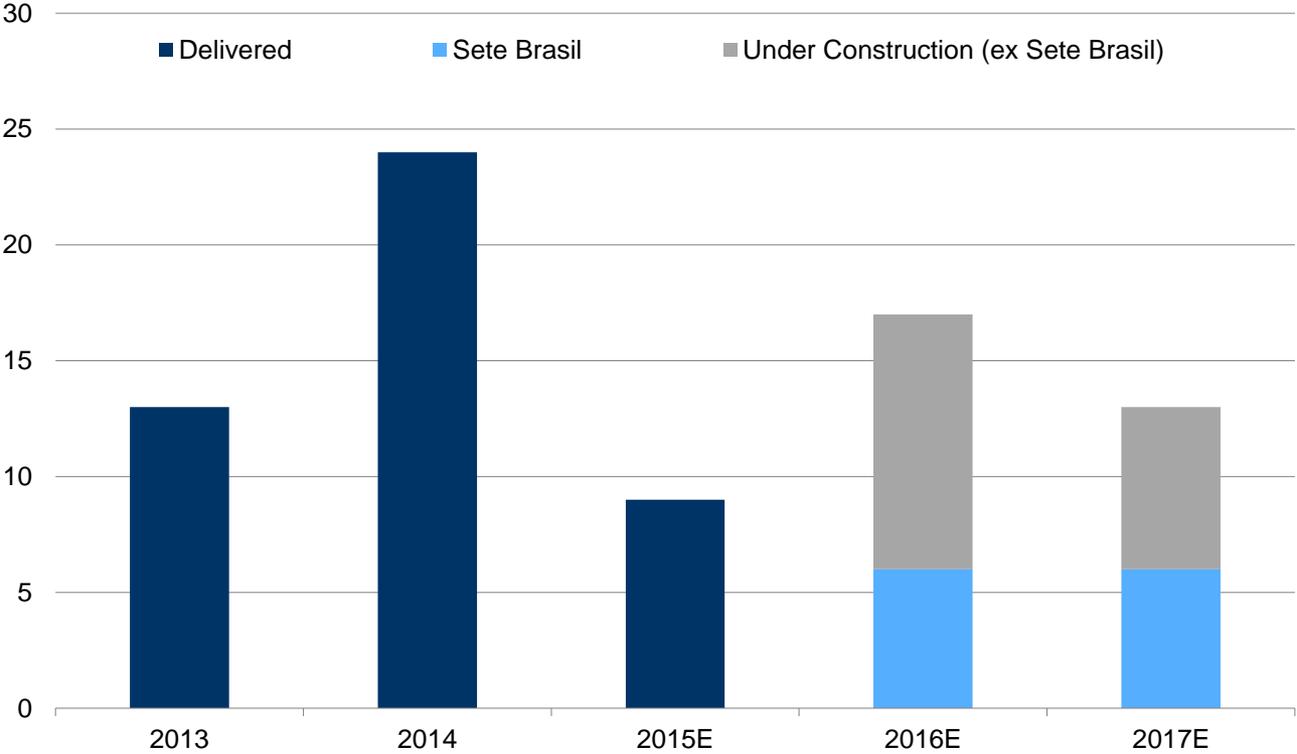
# Offshore Drillers

Major Customers Represent 70% of 2015 Spend on Floaters



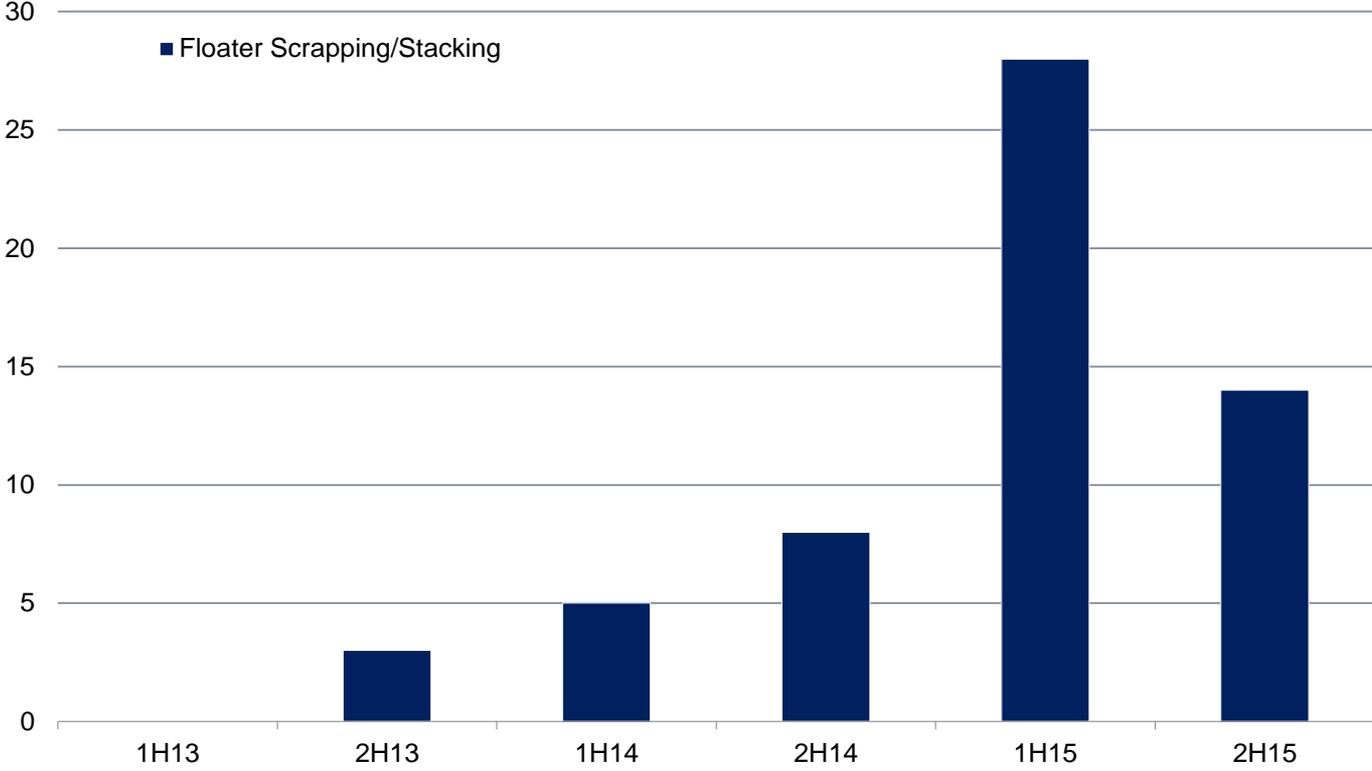
# Offshore Drillers

## Historical Floater Deliveries and Expected Orderbook



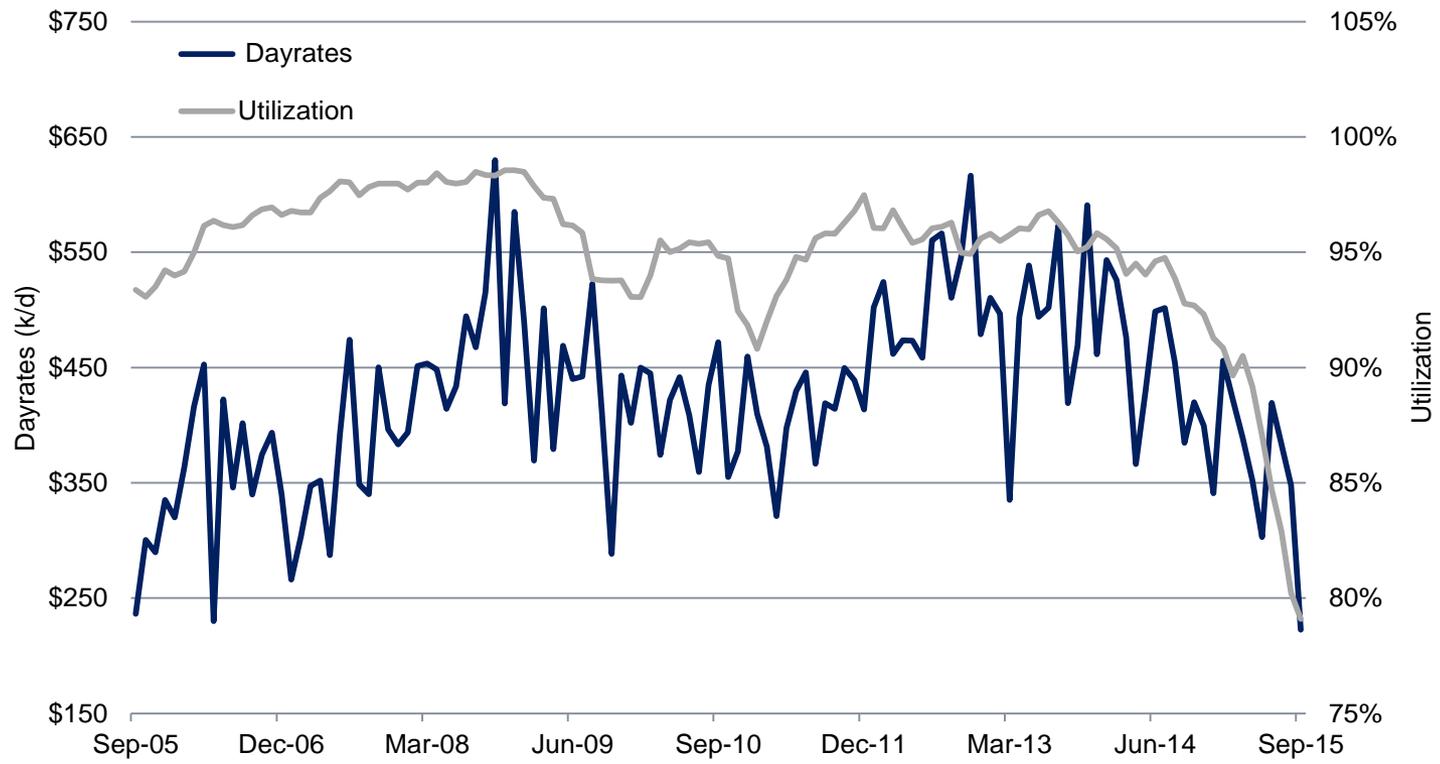
# Offshore Drillers

Stacking/Scrapping Helping, But Need A Lot More



# Offshore Drillers

## Deepwater Dayrates Down ~50% YTD



# At the Bottom of a Cycle, Valuation Doesn't Work

## Current Investor Sentiment

- The sector is not investible
- Call me in a couple of years
- I'll never own these stocks again
- The down-cycle could last for years
- The stocks still aren't cheap
- We'll never order another deepwater rig
- The business is never coming back

There are always good comments and observations at a cyclical bottom that requires you to “hold your nose and buy.”

## The Business Will Recover, but It Will Be Different

- The US has flooded the world with its growth in oil production
- NatGas rig count is down 85% since 2009
- NatGas production is at all time record volumes this year
- 34 wells off a single pad
- We are still flaring gas, legally
- Mutual Fund Blackrock is backing refracs
- JVs of reservoir and equipment, equipment and E&C, rigs and services – “..a wide range of different business models”

Move forward or get out of the way

## The Cycle Rolls On

- Dayrates will bottom and rigs will start going back to work
- Oil and gas are depleting resources and still needed
- A great deal of oil deposits have already been identified
- The goal is to develop it in the MOST economic manner
- With no “finding” risk, risk metrics shift to other categories
- Formalized procurement has never been more prevalent
- “Packaging”, rather than bundling, will become the buzzword
- New business paradigms exist in every business and needs to here

**We always recover. We always return. We are always stronger for it. We will this time as well**



Disclosures

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## Companies Mentioned (Price as of 30-Oct-2015)

Anadarko Petroleum Corp. (APC.N, \$66.88)  
Antero Resources Corporation (AR.N, \$23.57)  
Apache Corp. (APA.N, \$47.13)  
Approach Resources Inc. (AREX.OQ, \$2.36)  
BP (BP.L, \$86.4p)  
Baker Hughes Inc. (BHI.N, \$52.68)  
Bill Barrett (BBG.N, \$4.87)  
Bonanza Creek Energy Inc. (BCEI.N, \$5.69)  
CONSOL Energy Inc. (CNX.N, \$6.66)  
Carrizo Oil & Gas Inc. (CRZO.OQ, \$37.63)  
Chesapeake Energy Corp. (CHK.N, \$7.13)  
Chevron Corp. (CVX.N, \$90.88)  
Comstock Resources, Inc. (CRK.N, \$2.3)  
Concho Resources, Inc. (CXO.N, \$115.91)  
ConocoPhillips (COP.N, \$53.35)  
Denbury Resources (DNR.N, \$3.54)  
Devon Energy Corp (DVN.N, \$41.93)  
Diamondback Energy, Inc. (FANG.OQ, \$73.84)  
EOG Resources (EOG.N, \$85.85)  
EP Energy Corp. (EPE.N, \$5.51)  
EXCO Resources (XCO.N, \$1.12)  
Emerald Oil Inc (EOX.A, \$2.04)  
Energy XXI (EXXI.OQ, \$1.73)  
ExxonMobil Corporation (XOM.N, \$82.74)  
Goodrich Petrol (GDP.N, \$0.6)  
Gulfport Energy (GPOR.OQ, \$30.47)  
Halcon Resources Corp. (HK.N, \$0.7)  
Halliburton (HAL.N, \$38.38)  
Hess Corporation (HES.N, \$56.21)  
Jones Ener (JONE.N, \$5.14)  
Laredo Petroleum (LPI.N, \$11.48)  
Magnum Hunter Resources Corp. (MHR.N, \$0.27)  
Marathon Oil Corp (MRO.N, \$18.38)  
Murphy Oil Corp. (MUR.N, \$28.43)  
Newfield Exploration (NFX.N, \$40.19)  
Noble Energy (NBL.N, \$35.84)  
Occidental Petroleum (OXY.N, \$74.54)  
PDC Energy (PDCE.OQ, \$60.34)  
Penn Virginia Corp (PVA.N, \$0.62)  
Pioneer Natural Resources (PXD.N, \$137.14)  
Range Resources (RRC.N, \$30.44)  
Rox Energy Corp. (REXX.OQ, \$2.28)  
Royal Dutch Shell plc (RDSA.L, \$69.0p)  
SandRidge Energy, Inc. (SD.N, \$0.37)  
Southwestern Energy Co. (SWN.N, \$11.04)  
Stone Energy (SGY.N, \$5.59)  
Swift Energy Co. (SFY.N, \$0.6)  
Ultra Petroleum Corp. (UPL.N, \$5.48)  
W&T Offshore (WTFI.N, \$3.26)  
Warren Resources (WRES.OQ, \$0.451)  
Whiting Petroleum Corp. (WLL.N, \$17.23)

## Disclosure Appendix

### Important Global Disclosures

I, James Wicklund, certify that (1) the views expressed in this report accurately reflect my personal views about all of the subject companies and securities and (2) no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

The analyst(s) responsible for preparing this research report received Compensation that is based upon various factors including Credit Suisse's total revenues, a portion of which are generated by Credit Suisse's investment banking activities

### As of December 10, 2012 Analysts' stock rating are defined as follows:

**Outperform (O)** : The stock's total return is expected to outperform the relevant benchmark\* over the next 12 months.

**Neutral (N)** : The stock's total return is expected to be in line with the relevant benchmark\* over the next 12 months.

**Underperform (U)** : The stock's total return is expected to underperform the relevant benchmark\* over the next 12 months.

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Restricted	2%	

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