

IPAA

A&D Market Update

June 28, 2016

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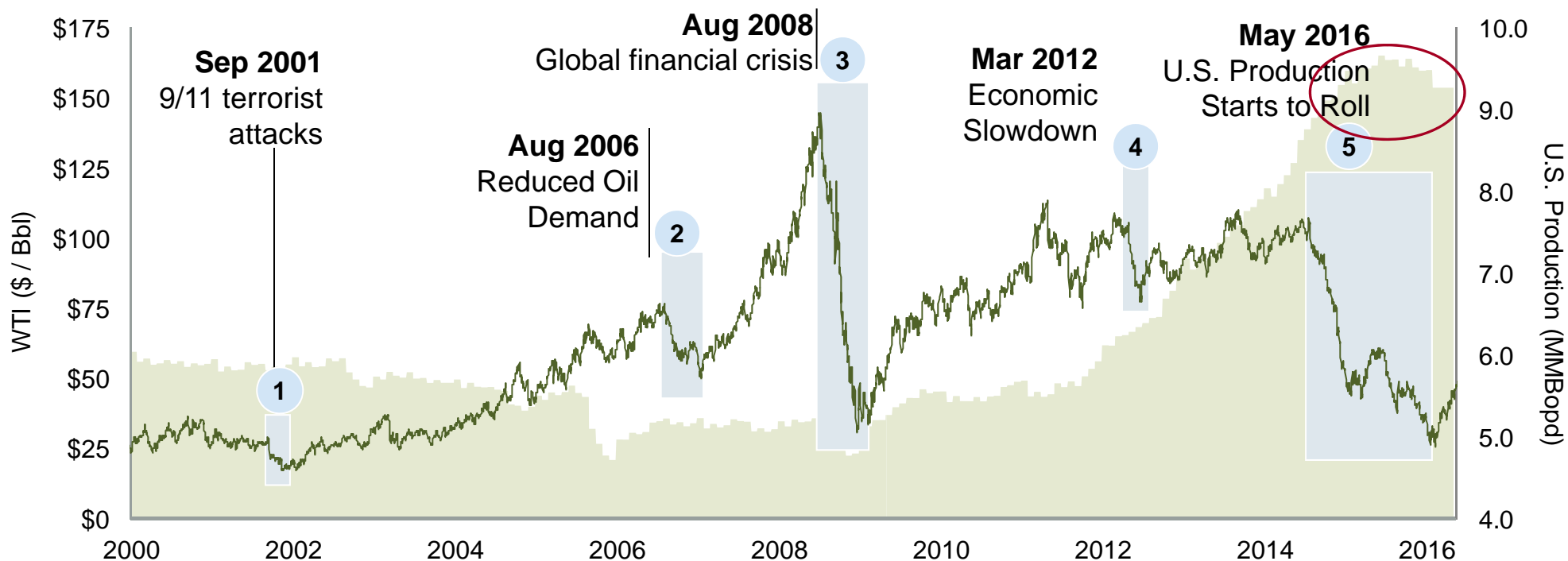
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RBC Capital Markets
RBC Richardson Barr

How Did We Get Here?

WTI Oil Price – 2000 to Present

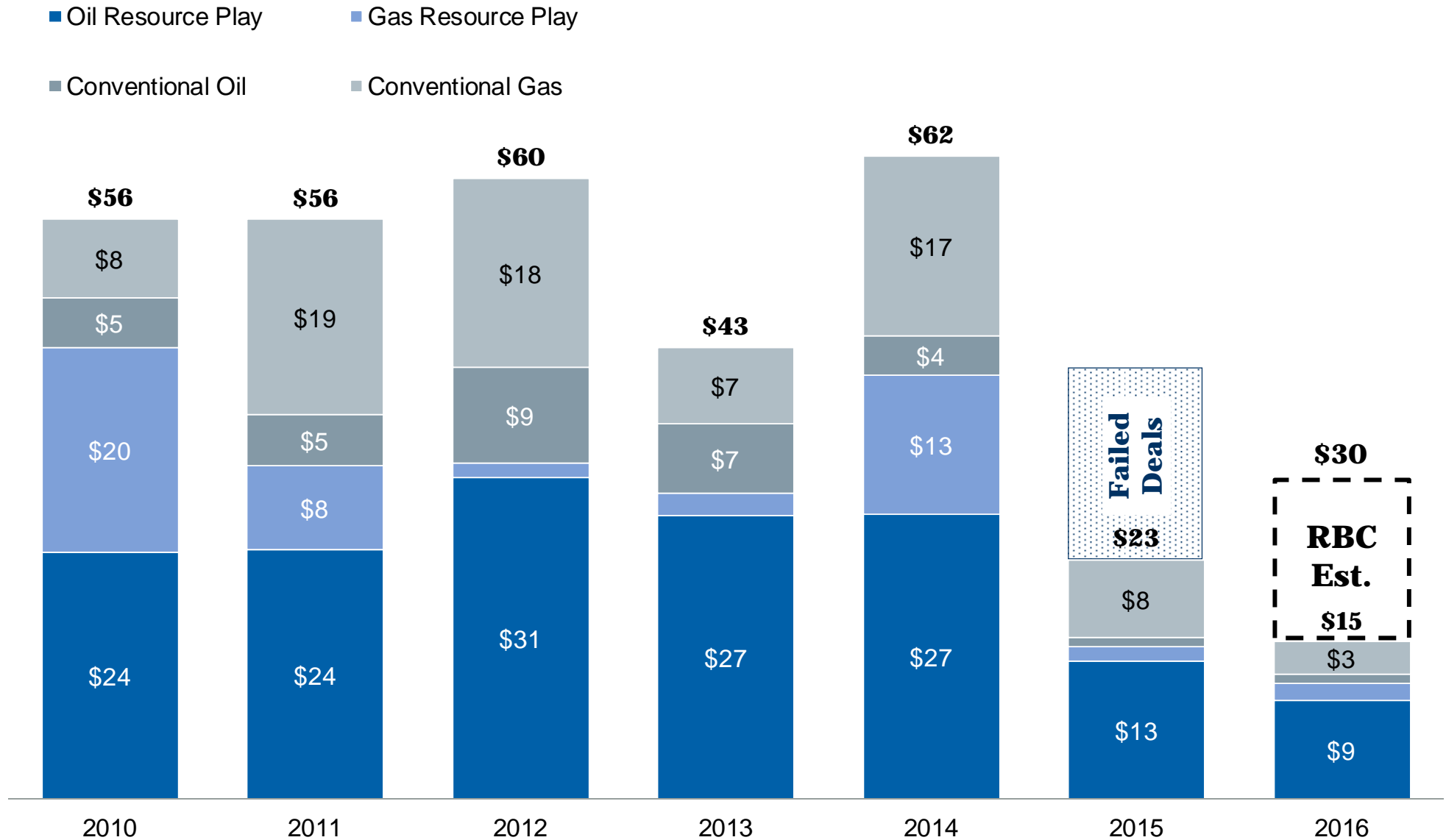


Event	1	2	3	4	5
Event	9/11 Attacks	Reduced Demand	Global Financial Crisis	Economic Slowdown	Oversupply
Oil price decline	38%	32%	69%	29%	75%
Decline Period	~2 months	5-6 months	5-6 months	2-4 months	22 months
Recovery	~1 year	~6 months	~1-2 years	~2 months	?

Source: Bloomberg as of 06/24/2016, EIA.

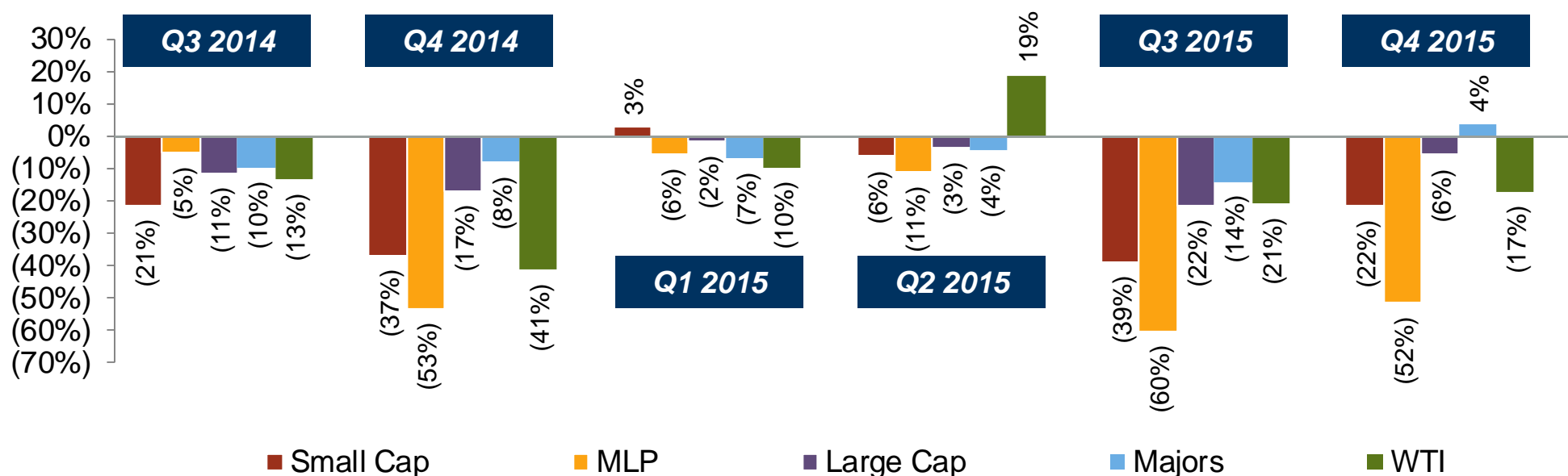
Where Are We Headed?

Annual U.S. E&P Onshore A&D Activity (\$B) ⁽¹⁾



² Source: RBC Richardson Barr internal database, public filings, company press releases.
⁽¹⁾ Includes onshore U.S. asset transactions greater than \$20 million.

Public Company Value Destruction (Q3 2014 – Q4 2015)



Market Value Gain / (Loss)		
	Total	%
Majors	(\$315 B)	(31%)
Large Caps	(\$555 B)	(48%)
Small Caps	(\$154 B)	(74%)
MLPs	(\$22 B)	(94%)
E&P Universe	(\$1 Trillion)	

Publics Have Issued Equity, Sold Assets And Cut Dividends...

Tools enlisted to protect and/or enhance capital structure expected to remain prevalent during 2H 2016

Equity Offerings

Key Points

- Public equity markets are wide open for unbroken companies, across the U.S.
- E&P companies have raised over **\$15.4 billion** in equity to date in 2016 ⁽¹⁾
- Companies are using the capital to shore up balance sheets and finance acquisitions and development capex



Asset Sales

Key Points

- Publics selling non-core, primarily conventional, assets to fund core resource play development and plug cash flow deficits
- Publics have divested over **\$8.7 billion** of oil and gas assets to date in 2016
- Shrink to grow strategy being rewarded in the public markets



Dividend Cuts

Key Points

- Common mechanism used by E&Ps to conserve cash in a sustained low commodity price environment
- Allows company to re-direct cash flow primarily to the balance sheet
- RBC estimates that the E&P industry has reduced dividends by **~\$4 billion** on an annualized basis ⁽²⁾



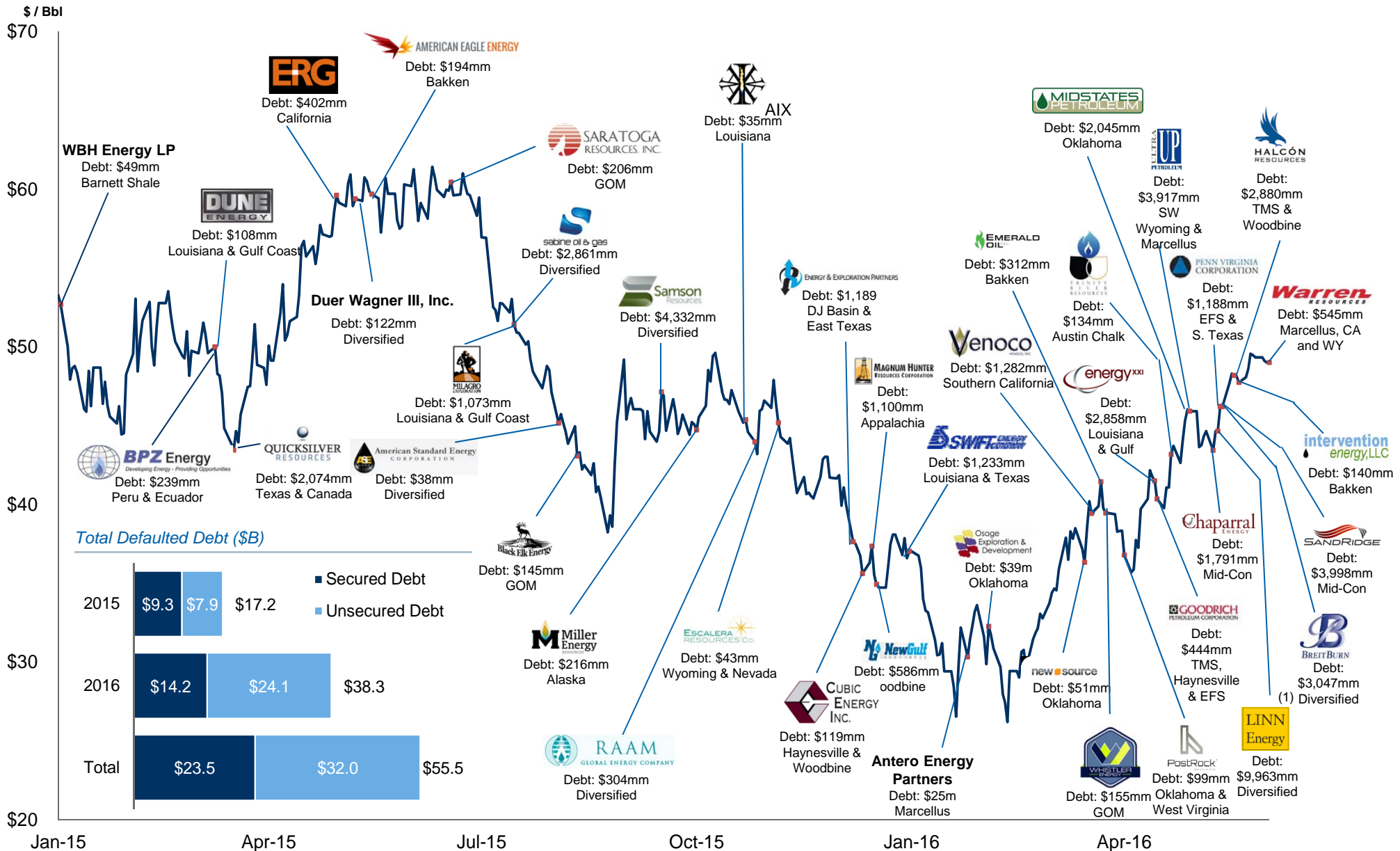
(1) As of 06/22/16.

(2) Based on FactSet data and RBC estimates.

Source: Bloomberg, Dealogic.

...But For Many E&Ps, It Was Not Enough To Avoid Bankruptcy

WTI Crude Oil 2015 – 2016 Performance vs Reported Bankruptcies

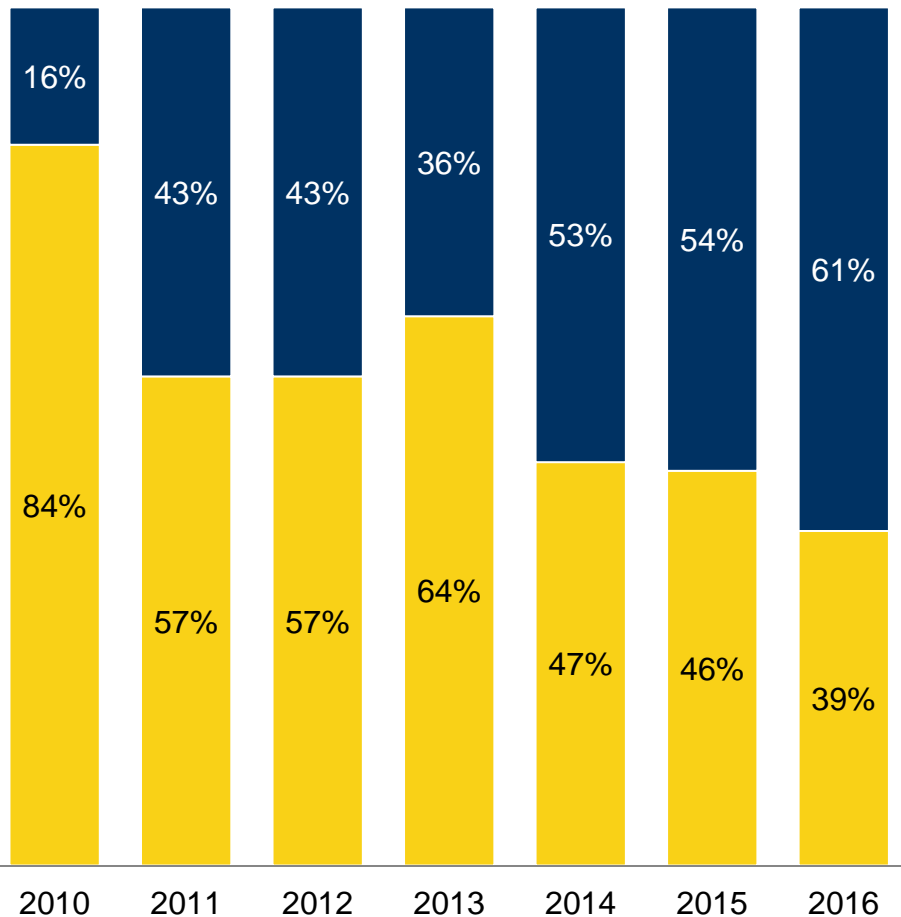


5 Source: Public disclosure, Haynes Boone LLC, FactSet as of June 2, 2016.
 (1) Debt as of 3/31/2016, adjusted for pro-forma events.

Private Equity Filling The Void Left By Ailing Publics

Annual U.S. E&P Onshore A&D Demand

■ Private Equity / Private ■ Publics

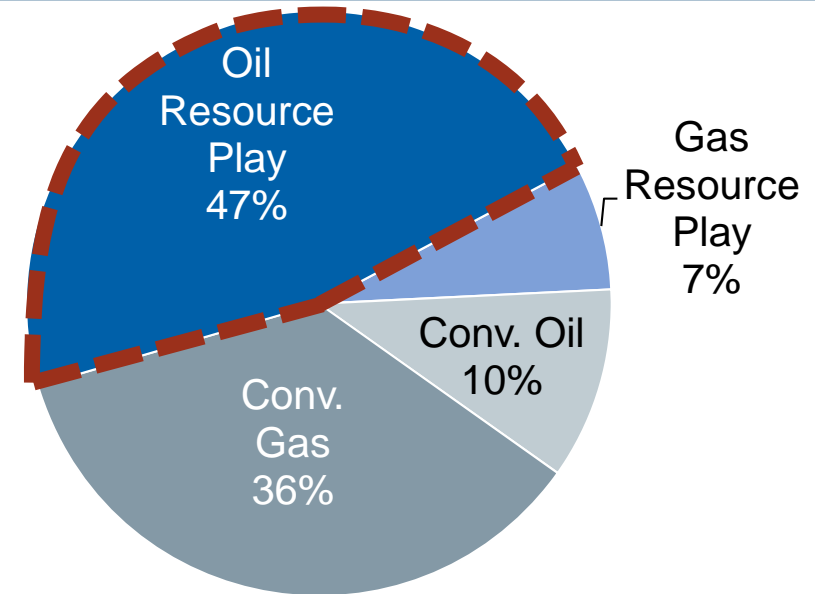


(1) Includes onshore U.S. asset transactions greater than \$20 million over the last 6 months.
Source: RBC Richardson Barr

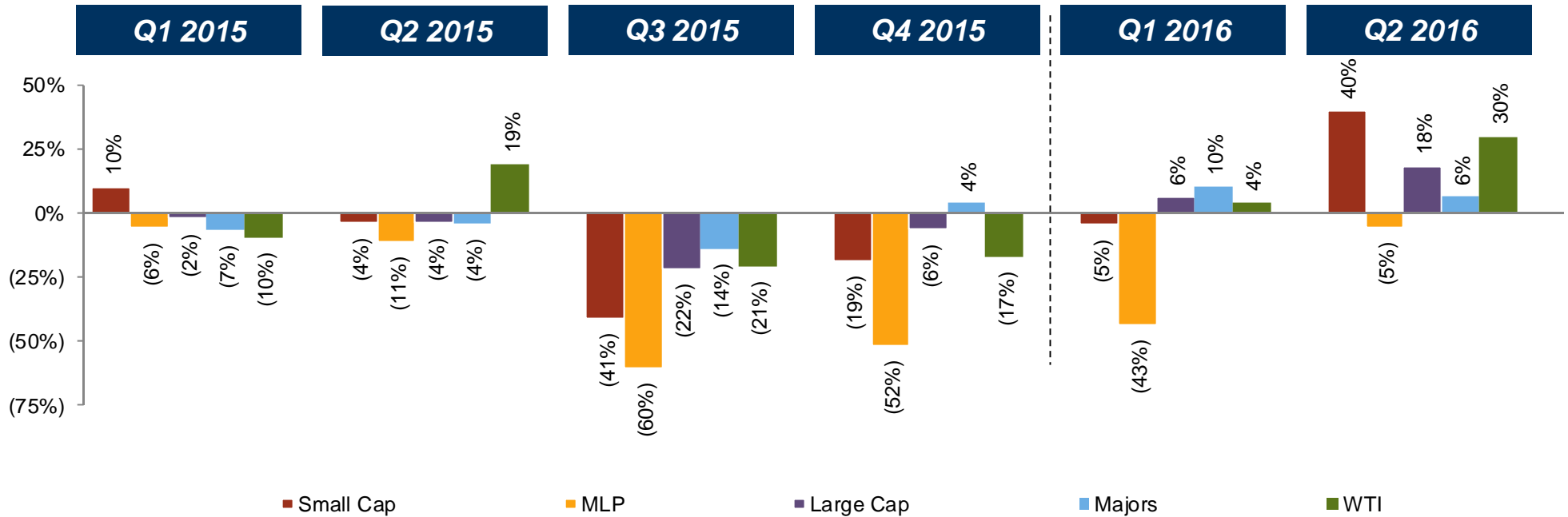
RBC Commentary

- Private Equity becoming increasingly acquisitive during the present downturn
- Prior to 2015, Private Equity nearly exclusively focused on acquiring conventional assets
- Private Equity becoming acquirers of core assets in the most sought after resource plays

Private Equity Demand by Asset Type ⁽¹⁾



Publics Now On The Way Back



Market Value Gain / (Loss) YTD		
	Total	%
Majors	\$126.2 B	5%
Large Caps	\$84.1 B	17%
Small Caps	\$7.9 B	36%
MLPs	(\$0.8 B)	(9%)
E&P Universe	\$217 Billion	

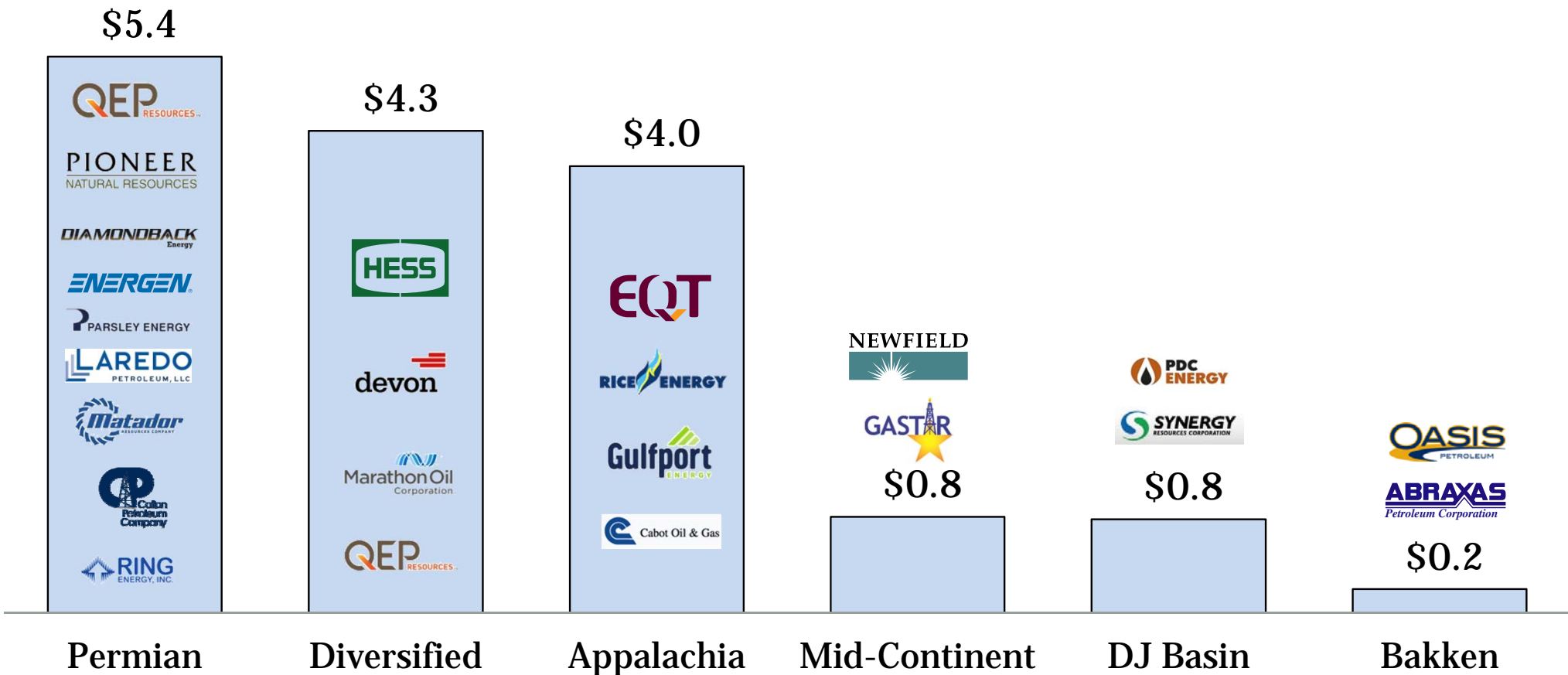
Equity Markets Continue To Be Open For E&Ps...

\$ shown as billions

32 offerings

\$15.5 billion

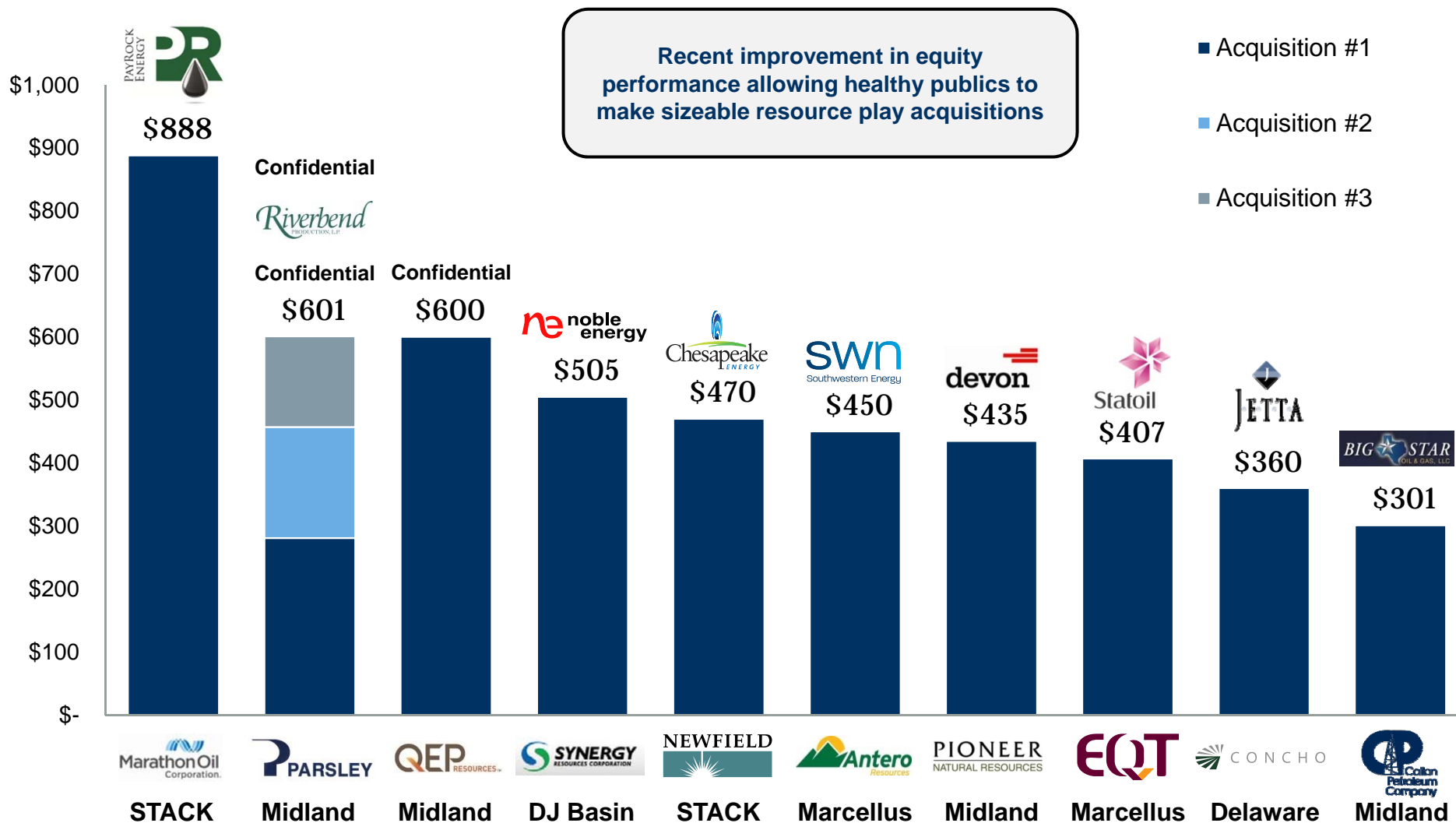
- Acquisitions
- CapEx
- Repay Debt



Source: Dealogic and Public filings.

...As A Result, Publics Focused on Strategic Core Acquisitions

Overview of Public Acquisitions YTD (\$ MM) ⁽¹⁾



Equity Issued (\$ MM) ⁽²⁾	\$1,276	\$682	\$746	\$566	\$802	\$1,006	\$2,566	\$1,246	-	\$314
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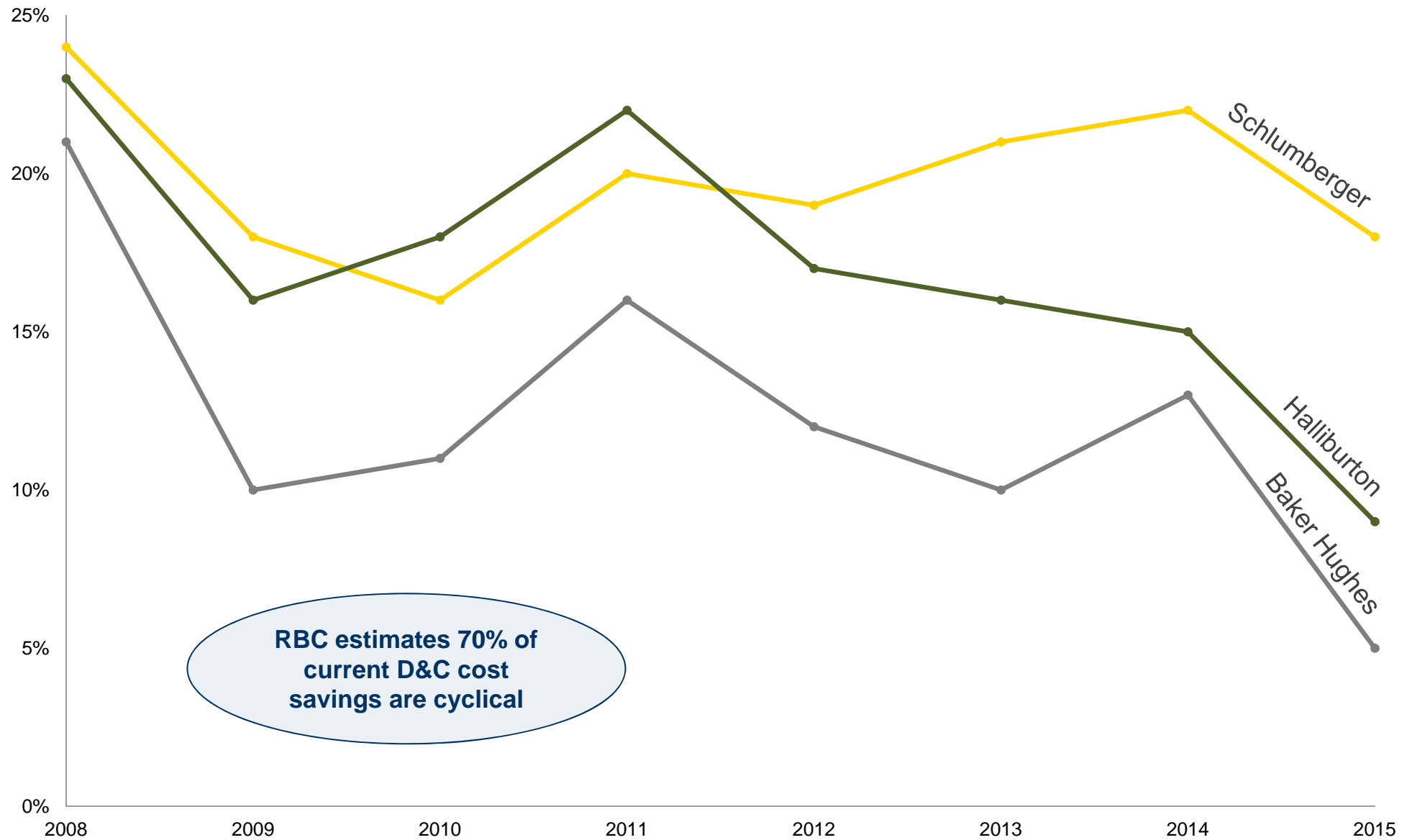
(1) Includes onshore U.S. asset transactions greater than \$100 million since 01/01/16 on which a public company was the buyer; logos above bar chart represent seller(s), logos below the bar chart represent buyer.

(2) Represents equity issued during 2016YTD.

Source: Public filings.

Service Costs Have Decreased Dramatically...

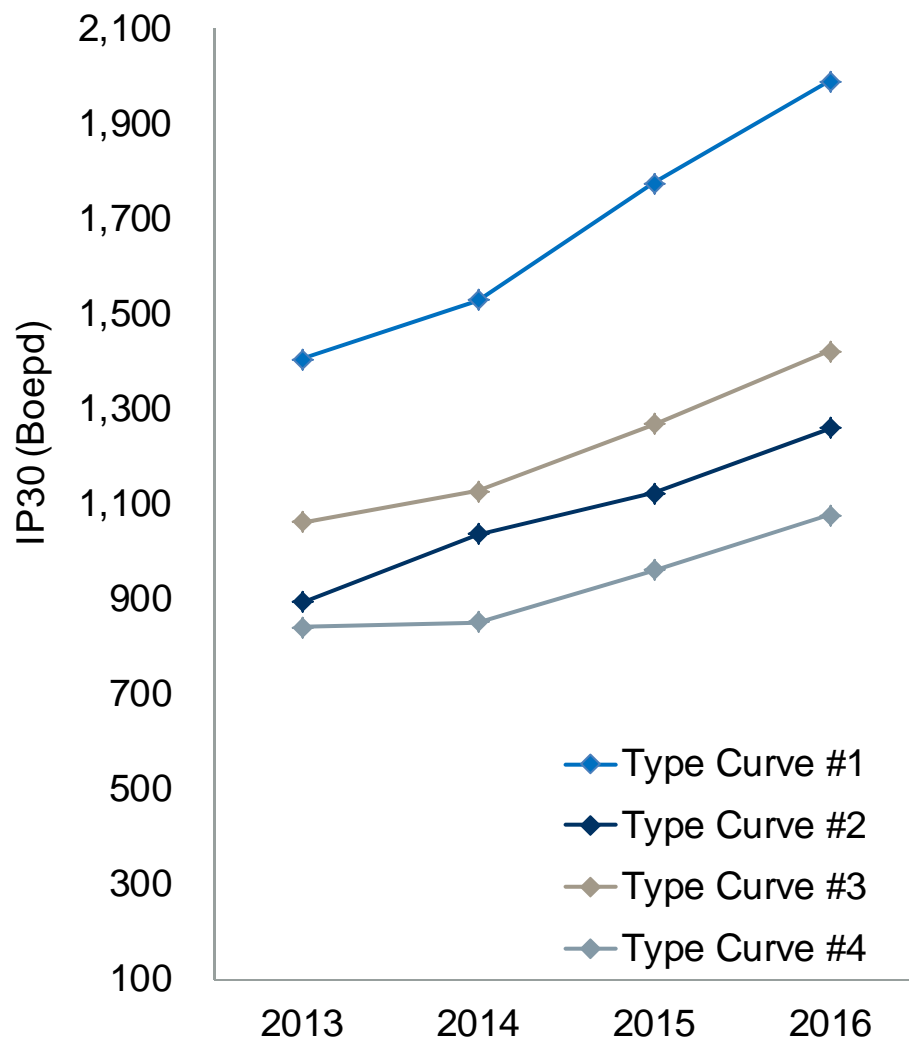
Service Costs Have Come Down – OFS Global Margins (%)



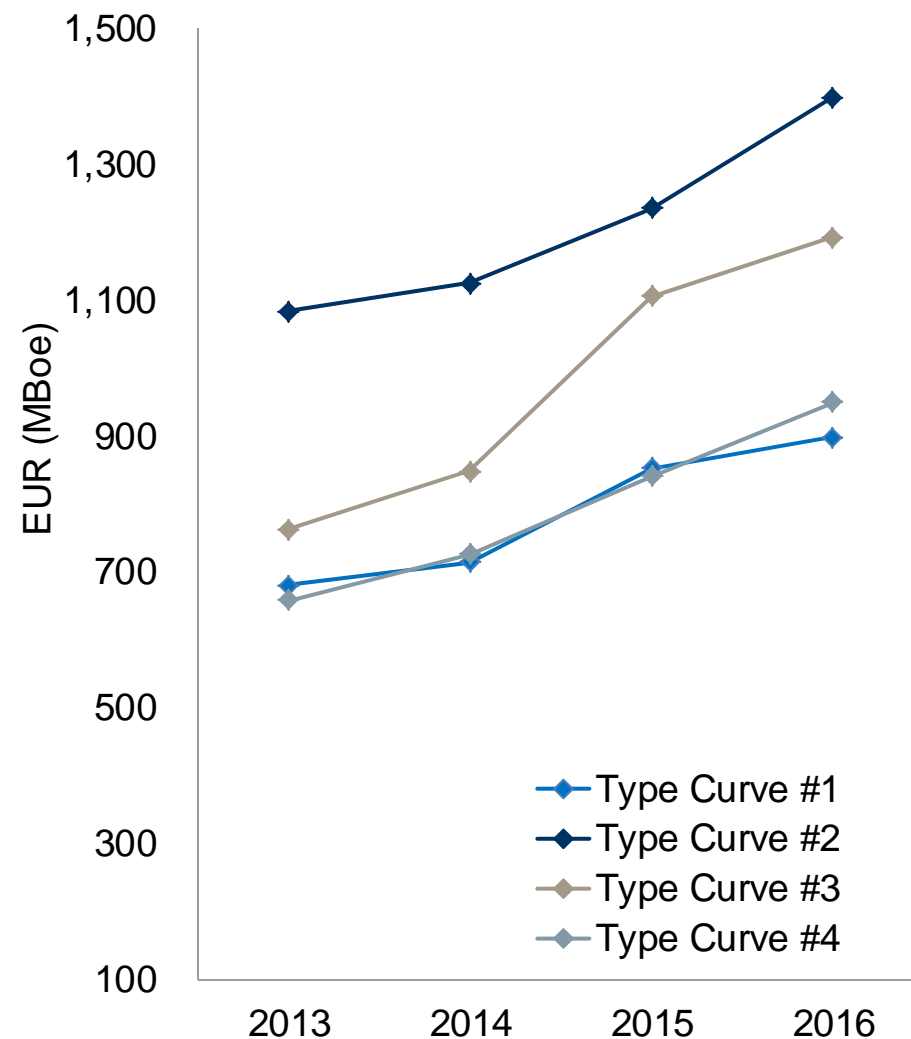
Source: Schlumberger February 2016 Investor Presentation.

...And Companies Have Become More Efficient

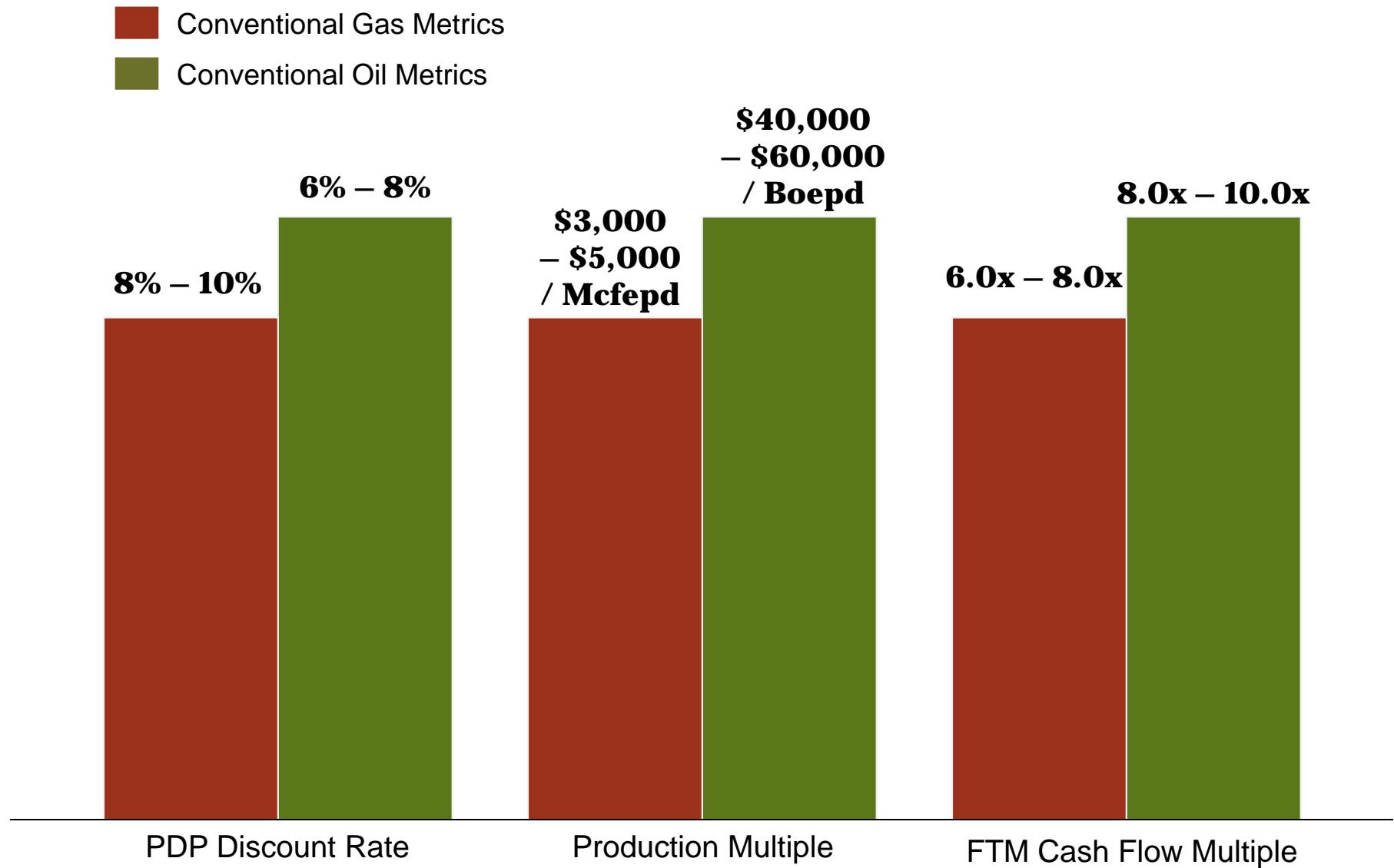
Production Rates Increasing Over Time



EURs Increasing Over Time



Conventional Valuations Supported By Private Equity Demand



It's All About The Benches!

Midland Basin	Delaware Basin	SCOOP / STACK	Eagle Ford	DJ Basin	Bakken
Formation	Formation	Formation	Formation	Formation	Formation
Yates	Rustler	Oswego	Escondido	Pierre	Kibbey
Seven Rivers	Salado	Atoka	Olmos	Sussex	Charles
Queen	Bell Canyon	Morrow	San Miguel	Shannon	Mission Canyon
Grayburg	Cherry Canyon	Chester	Anacacho	Pierre	Lodgepole Limestone
San Andres	Brushy Canyon	Goddard (Springer)	Austin Chalk	Niobrara A	Low er Virden
Glorieta	Victoria Park	Upper Meramec	Upper Eagle Ford	Niobrara B	Upper Bakken Shale
Clearfork	Avalon	Low er Meramec	Low er Eagle Ford	Niobrara C	Middle Bakken
Upper Spraberry	1st Bone Spring	Osage	Buda	Fort Hayes Limestone	Low er Bakken
Middle Spraberry	2nd Bone Spring	Kinderhook	Del Rio	Codell	Proghorn
Jo Mill	3rd Bone Spring	Woodford	Georgetow n	Carlile	Upper Three Forks
Low er Spraberry Shale	Upper Wolfcamp	Hunton	Edw ards	Greenhorn	Low er Three Forks
Dean	Middle Wolfcamp	Sylvan	Glen Rose	Graneros	Birdbear
Wolfcamp A	Low er Wolfcamp	Viola	Rodessa	J Sand	Duperow
Wolfcamp B	Upper Pennsylvannian	Simpson	Pearsall	Skull Creek	Souris River
Wolfcamp C	Straw n	Arbuckle	Sligo	Dakota Sand	Daw son Bay
Wolfcamp D / Cline	Atoka		Hosston		

Benches Current Development	5	6	4	3	2	2
Benches Prospective	4+	3+	3+	3	3	2

How Does That Translate Into Core Acreage Values?



Net Asset Value Is The Driver

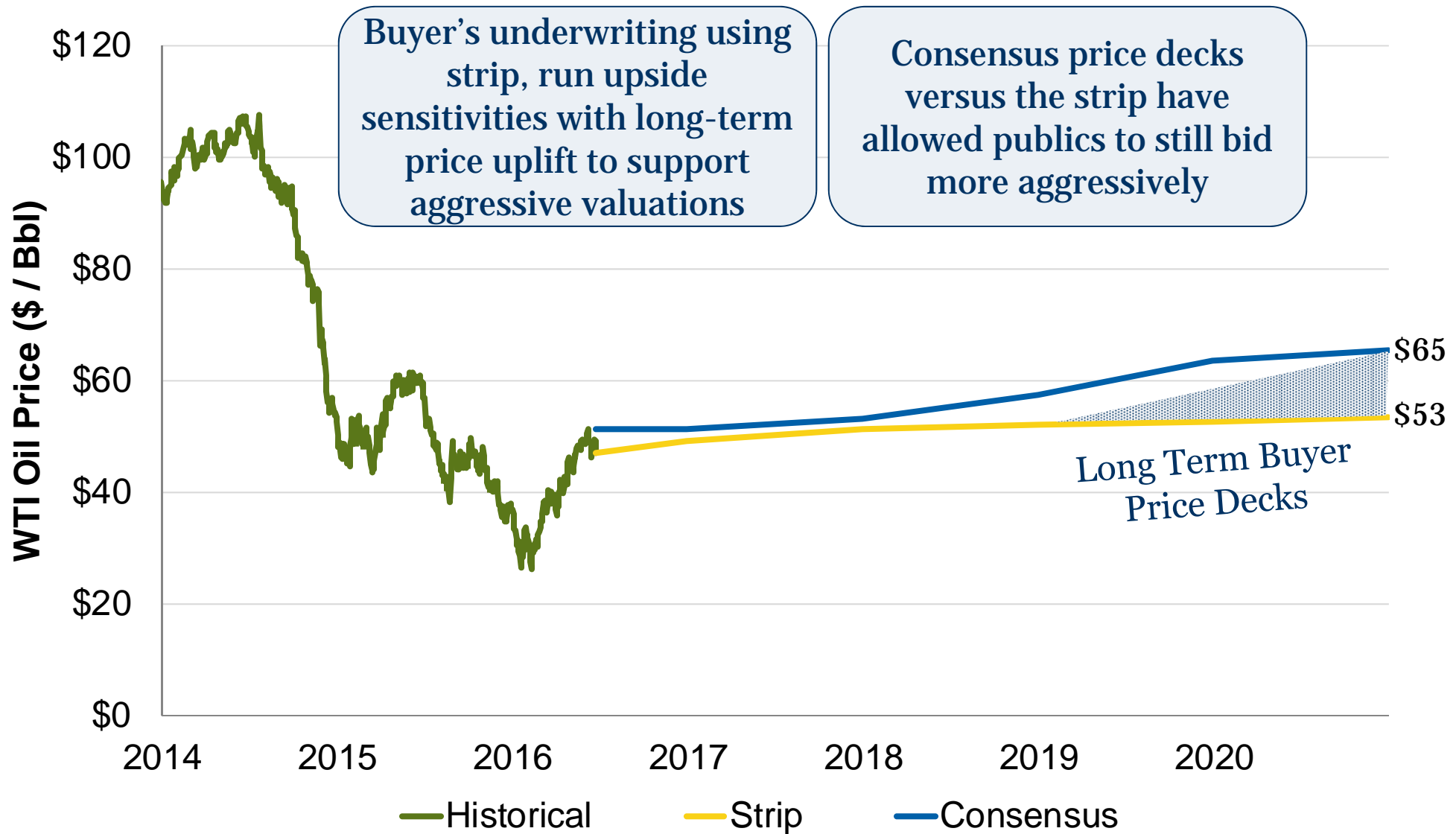
Northern Midland Basin Example NAV

2016 NAV Summary

Category	Locations per DSU	Implied Valuation at Various Discount Rates							
		PV ₈	PV ₁₀	PV ₁₂	PV ₁₅	PV ₂₀	PV ₂₅	PV ₃₀	PV ₃₅
PDP	-	✓	✓						
PDNP	-			✓	✓				
Wolfcamp B Locations	8				✓	✓	✓		
Lower Spraberry Locations	10				✓	✓	✓		
Wolfcamp A Locations	8					✓	✓	✓	
Middle Spraberry Locations	8						✓	✓	✓
Total	34								
Jo Mill	???								
Wolfcamp D / Cline	???								
Upper / Lower Wolfcamp B	???								

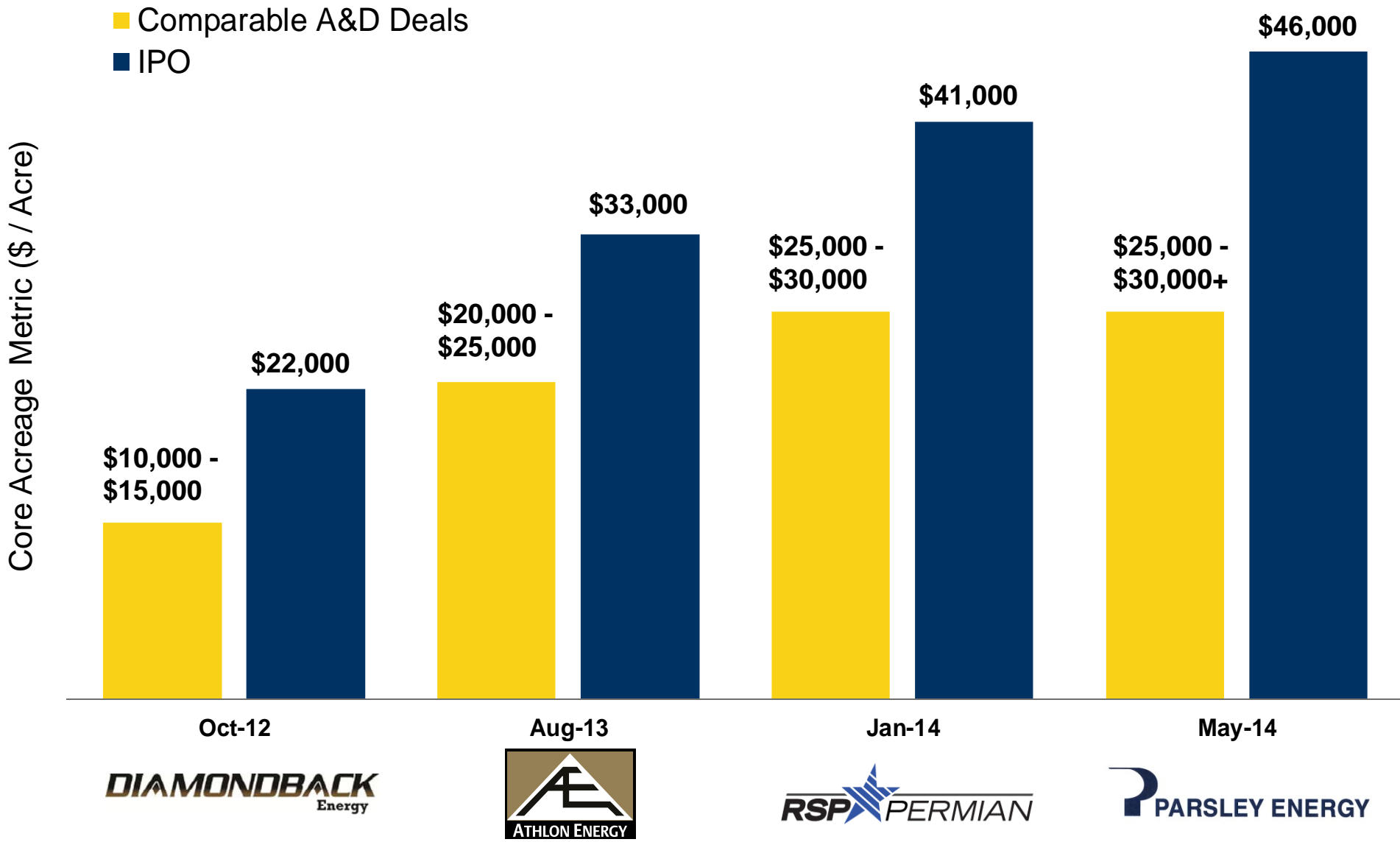
How Are Oil Prices Affecting Deal Making?

WTI Oil Price

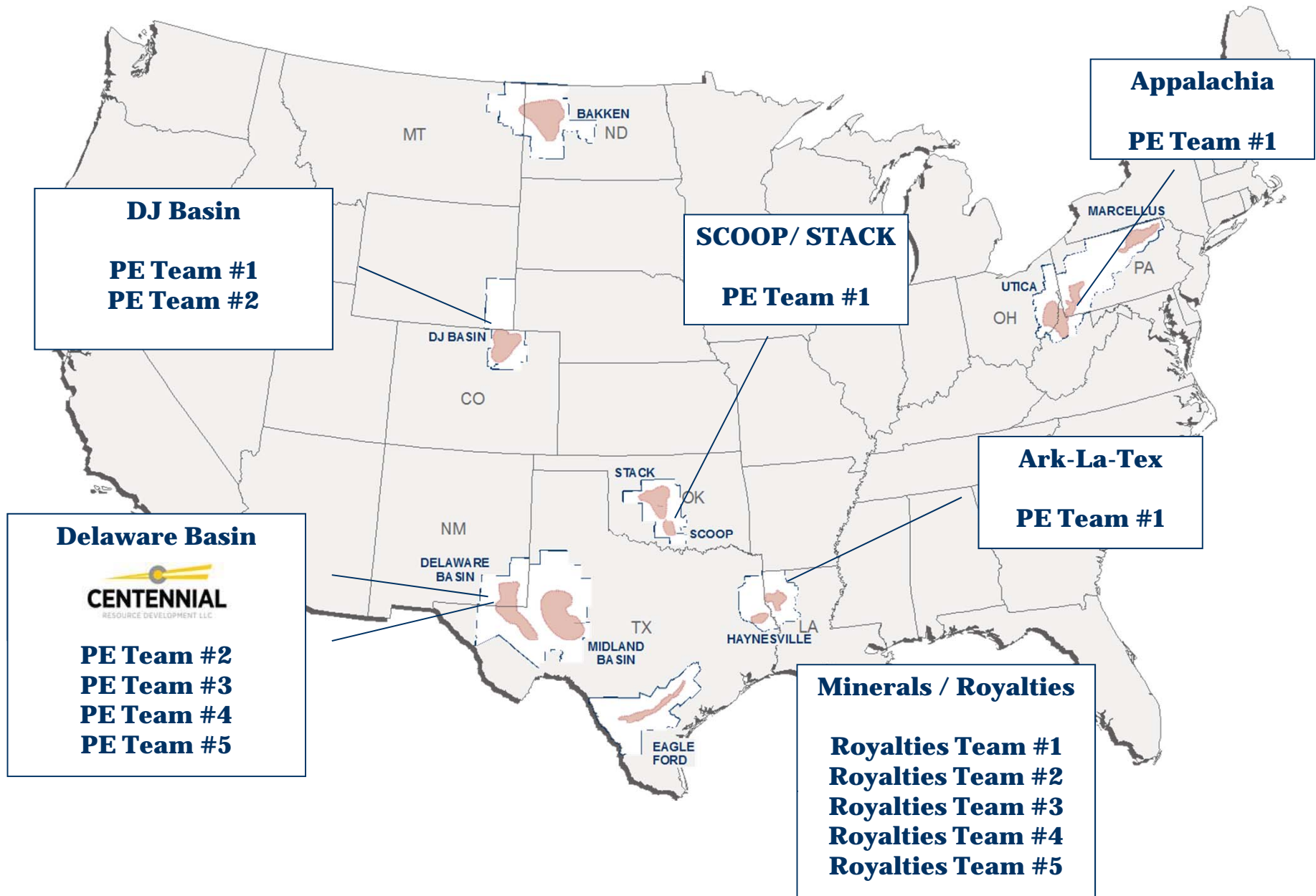


Source: RBC Research, Bloomberg and Factset as of June 24, 2016.

Attractive Arbitrage In IPO Market vs A&D In Midland Basin



Numerous IPO Candidates Over Next ~12 Months



What To Expect During 2H 2016

- 1 Activity to accelerate – Public conventional & opportunistic PE selling**
- 2 Publics coming off sidelines and aggressively pursuing core-of-core**
- 3 Compelling valuations for high-quality assets in coveted basins**
- 4 Equity capital markets to remain open for “unbroken” companies**
- 5 IPO window opening for Pure Plays (Centennial) and Mineral / Royalty**
- 6 Oil price stability (fingers crossed!!!)**

Select RBC Richardson Barr Transactions

\$500+ Million

 <p>has divested multiple oil and gas properties located in East Texas, Anadarko Basin and Midland Basin to multiple Confidential Buyers and</p> <p>PIONEER NATURAL RESOURCES Conf. Buyers</p> <p>\$1,832,000,000</p> <p>RBC Richardson Barr served as financial advisor to Devon Energy</p> <p>Pending</p>	 <p>has acquired certain oil and gas properties located in the Eagle Ford in two unrelated transactions from</p> <p>GULFTEX ENERGY BLACKRUSH LLC & VEE, LP</p> <p>~\$1,200,000,000</p> <p>RBC Richardson Barr served as exclusive self-side advisor to GulfTex and exclusive buy-side advisor EnerVest</p> <p>May 2016</p>	 <p>has divested certain oil and gas properties and undeveloped acreage located in the Permian Basin to</p> <p>BW BLUEWHALE</p> <p>\$1,084,000,000</p> <p>RBC Richardson Barr served as financial advisor to Tall City and Element</p> <p>November 2015</p>	 <p>has divested certain oil and gas properties and undeveloped acreage located in the Permian Basin to</p> <p>OXY</p> <p>~\$1,300,000,000</p> <p>RBC Richardson Barr served as financial advisor to Three Rivers</p> <p>December 2014</p>
 <p>has divested its oil and natural gas producing properties and related assets in the South Louisiana Gulf Coast Region to a Confidential Buyer</p> <p>Confidential</p> <p>RBC Richardson Barr served as financial advisor to Apache Corporation</p> <p>December 2014</p>	 <p>has divested oil and gas properties and related assets in the Western Anadarko Basin to</p> <p>ENERVEST FOURPOINT ENERGY</p> <p>\$1,950,000,000</p> <p>RBC Richardson Barr served as financial advisor to Linn Energy, LLC</p> <p>December 2014</p>	 <p>has traded certain oil and gas properties in the Permian Basin to</p> <p>ExxonMobil</p> <p>in exchange for operating interests in California's South Belridge Field</p> <p>Confidential</p> <p>RBC Richardson Barr served as financial advisor to Linn Energy, LLC</p> <p>November 2014</p>	 <p>has agreed to merge with</p> <p>BREITBURN ENERGY PARTNERS LP</p> <p>\$3,000,000,000</p> <p>RBC Capital Markets served as financial advisor to QR Energy, LP</p> <p>November 2014</p>
 <p>has divested certain oil and gas properties and related assets in the Permian and Mid-Continent regions to</p> <p>ENERVEST</p> <p>\$805,000,000</p> <p>RBC Richardson Barr served as financial advisor to HighMount Exploration & Production, LLC</p> <p>October 2014</p>	 <p>has merged the existing assets held by KKR Natural Resources Funds with the assets of Legend Production Holdings to form</p> <p>TRINITY RIVER ENERGY</p> <p>Confidential</p> <p>RBC Richardson Barr served as financial advisor to Riverstone Holdings, LLC</p> <p>September 2014</p>	 <p>has traded certain oil and gas properties in the Permian Basin to</p> <p>ExxonMobil</p> <p>in exchange for operating interests in the Hugoton Basin</p> <p>Confidential</p> <p>RBC Richardson Barr served as financial advisor to Linn Energy, LLC</p> <p>August 2014</p>	 <p>has divested its offshore Gulf of Mexico and onshore Gulf Coast properties and related assets to</p> <p>FIELDWOOD ENERGY</p> <p>\$750,000,000</p> <p>RBC Richardson Barr served as financial advisor to SandRidge Energy, Inc.</p> <p>February 2014</p>

\$100 – \$500 Million

 <p>has divested certain oil and gas producing properties and undeveloped acreage in the Mississippian to</p> <p>WHITE STAR PETROLEUM</p> <p>\$200,000,000</p> <p>RBC Richardson Barr served as advisor to Devon Energy Corp.</p> <p>July 2016</p>	 <p>has divested certain oil and gas producing properties and undeveloped acreage located in the Permian Basin to</p> <p>PARSLEY ENERGY</p> <p>\$175,500,000</p> <p>RBC Richardson Barr served as exclusive advisor to Riverbend Permian</p> <p>May 2016</p>	 <p>has divested certain oil and gas producing properties and undeveloped acreage located in the SCOOP and STACK area in Oklahoma to</p> <p>TITANIUM</p> <p>\$280,000,000</p> <p>RBC Richardson Barr served as exclusive advisor to Vanguard Natural Resources, LLC</p> <p>May 2016</p>	<p>Private Seller</p> <p>has divested certain oil and gas producing properties and undeveloped acreage located in the Permian Basin to a Confidential Buyer</p> <p>\$359,100,000</p> <p>RBC Richardson Barr served as financial advisor to the seller</p> <p>May 2016</p>
 <p>has divested certain oil and gas properties located in the Appalachian Basin, San Juan Basin, Michigan and Austin Chalk to</p> <p>EVEP</p> <p>\$259,000,000</p> <p>RBC Richardson Barr provided a Fair Market Valuation of the assets to EnerVest, Ltd.</p> <p>September 2015</p>	 <p>has divested its natural gas producing properties and related assets in the Arkoma Basin and Ark-La-Tex area to a Confidential Buyer</p> <p>\$102,000,000</p> <p>RBC Richardson Barr served as financial advisor to Marathon Oil Company</p> <p>September 2015</p>	 <p>has divested certain oil and gas producing properties and undeveloped acreage located in the Permian Basin to</p> <p>ROCK OIL</p> <p>\$281,000,000</p> <p>RBC Richardson Barr served as financial advisor to Linn Energy, LLC</p> <p>August 2015</p>	 <p>has divested certain oil and gas properties and related assets in Appalachia to</p> <p>Alpha Natural Resources</p> <p>\$126,000,000</p> <p>RBC Richardson Barr served as financial advisor to EDF</p> <p>July 2015</p>
 <p>has divested all of its oil and gas properties in the Mid-Continent and Ark-La-Tex regions to two Confidential Buyers</p> <p>\$324,000,000</p> <p>RBC Richardson Barr is served as a financial advisor to SM Energy</p> <p>June 2015</p>	 <p>has divested its natural gas producing properties and related assets in East Texas and the Arkoma Basin to</p> <p>LIME ROCK RESOURCES</p> <p>\$218,000,000</p> <p>RBC Richardson Barr served as financial advisor to Southwestern Energy Company</p> <p>March 2015</p>	 <p>has divested its natural gas producing properties and related assets in the Arkoma Basin to</p> <p>Camterra Resources</p> <p>\$185,100,000</p> <p>RBC Richardson Barr served as financial advisor to Forest Oil Corporation</p> <p>December 2014</p>	 <p>has divested certain oil and gas properties and related assets located in North Central Texas on the Eastern Shelf of the Permian Basin to</p> <p>MidCon ENERGY</p> <p>\$120,000,000</p> <p>RBC Richardson Barr served as financial advisor to LCS Production Company</p> <p>November 2014</p>

Note: Represents select RBC Richardson Barr advised transactions.

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