



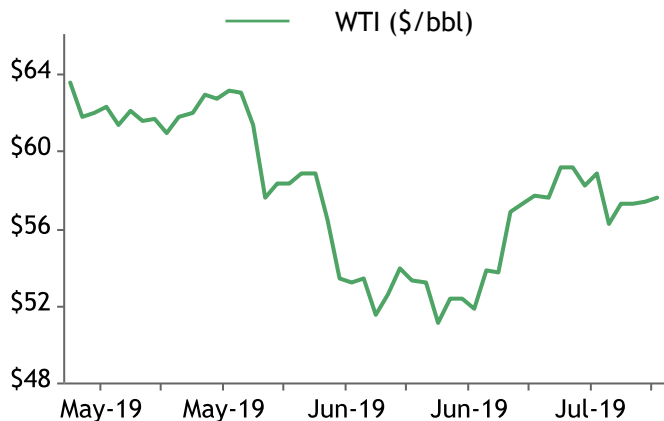
# State of the E&P Market

July 10, 2019

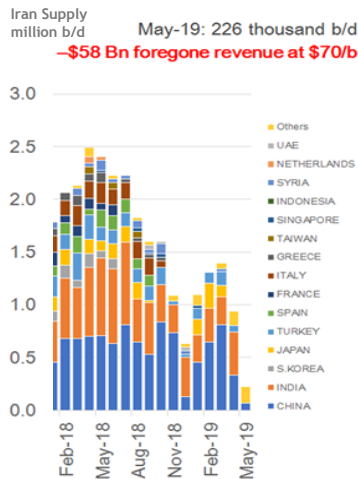
By: Jeff Knupp

# What a Difference a Month Makes

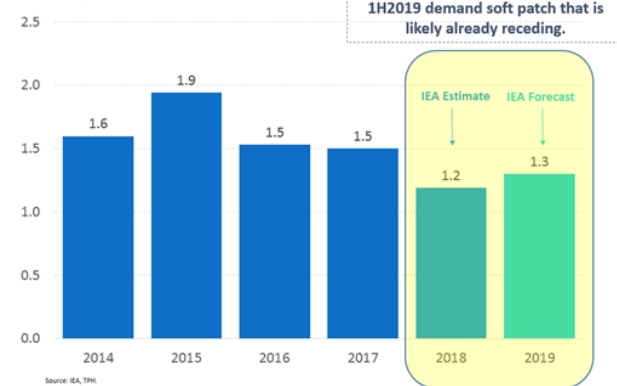
## Oil Bouncing Back



## Supply/Demand Fundamentals

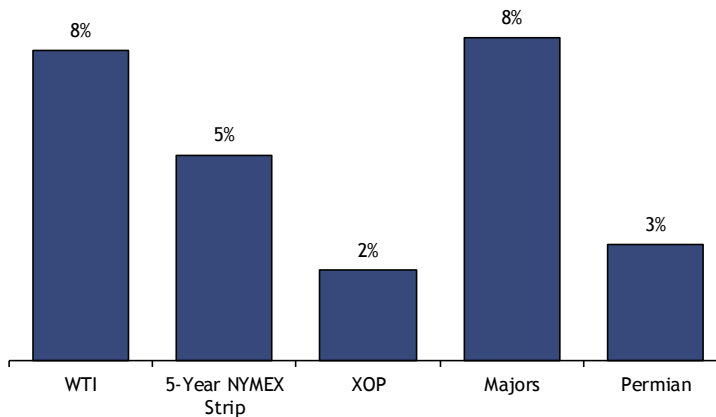


### Global liquids demand growth million b/d YoY

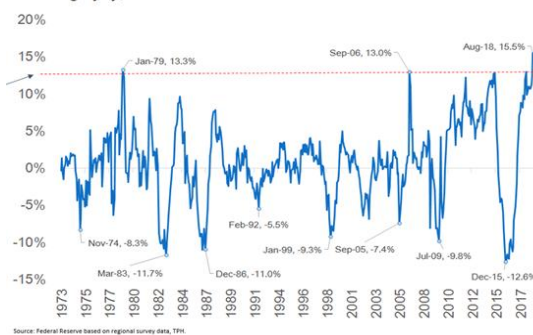


## Market Recovering, too

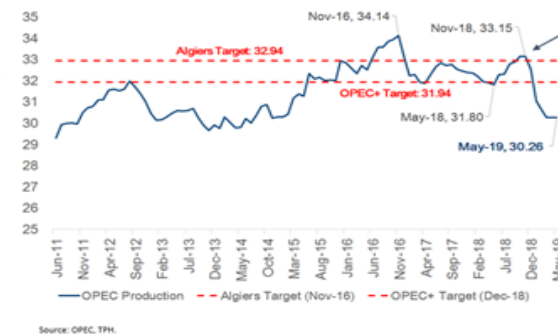
Total Return Since June 1, 2019



### US production growth, oil and gas extraction % change yoy, NSA



### OPEC oil production million b/d



Source: FactSet, Bloomberg.

(1) Permian peer group: CPE, CDEV, XEC, CXO, FANG, ESTE, HK, JAG, LPI, MTRD, PE, PXD; Majors: BP, CVX, E, XOM, RDS.A, EQNR, TOT.

# Apathy is at an All-Time High

(\$ in millions unless otherwise noted)

## Investor Sentiment Today

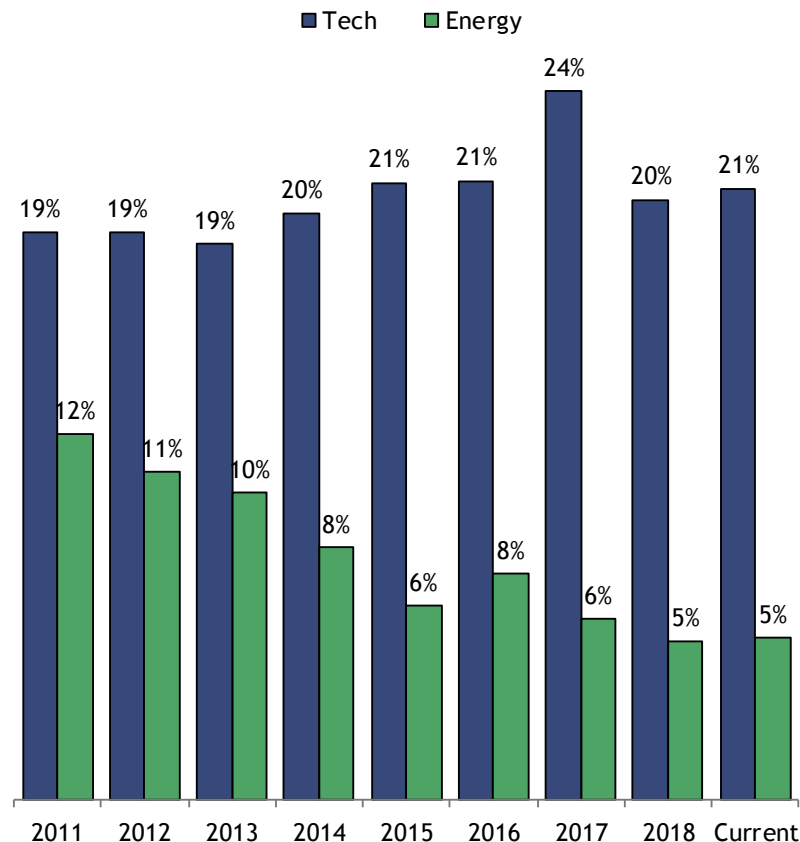
- Frustrated with underperformance
- Energy not relevant in growth indices (<1%)
- The “New World” (RETURNS >> GROWTH) likely here to stay

## The Optimal E&P Company

- 1 Scale: >\$5Bn
- 2 Slow Growth: ~10%
- 3 CF+: Paying Dividend
- 4 BS: <1.5x debt/EBITDA

## S&P Energy Weightings

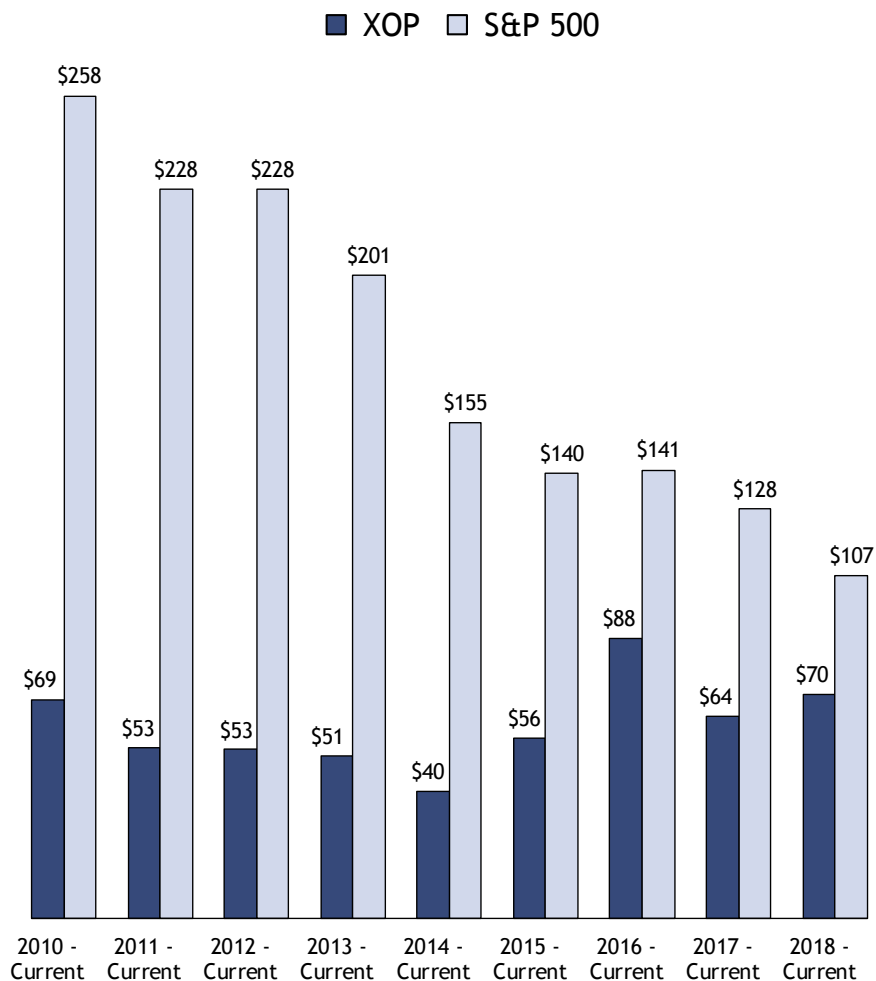
Energy Weighting in the S&P Halved in ~5 Years



# Why Are Investors So Angry?

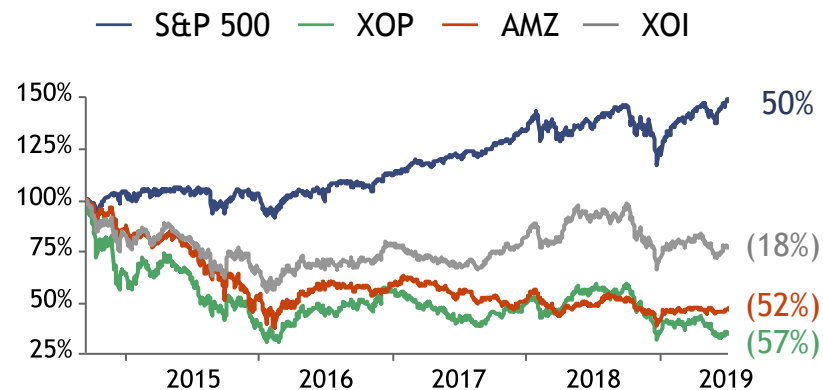
## E&P vs. S&P

Current Value of \$100 Invested at T=0



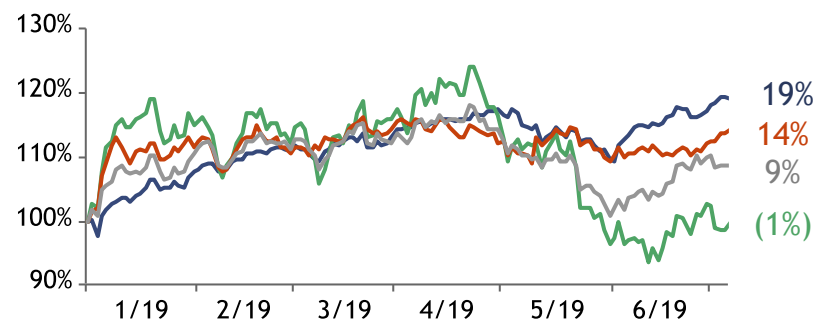
## Relative Equity Performance

Indexed to September 2014



## Relative Equity Performance

Indexed to January 2019



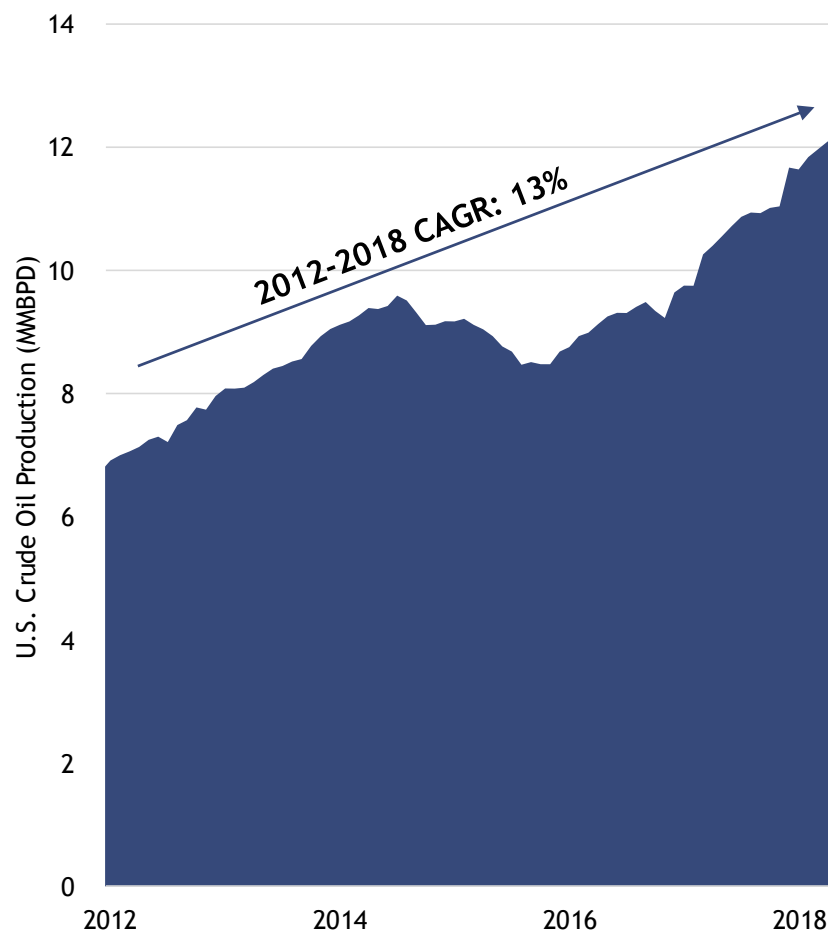
# US E&P: Are We Efficient, or Just Destroying Capital?

## Market Comparison<sup>(1)</sup>

	2012	2019 <sup>(2)</sup>
Combined EV (\$Bn)	\$517	\$526
Combined EBITDA (\$Bn)	\$120	\$102
Combined G&A (\$Bn)	\$71	\$94
US Production (MMbbl/d)	6.5	12.45
Oil Price	\$94.18	\$55.42
Rig Count <sup>(3)</sup>	1,879	940

*Upstream companies generated cumulative cash flows of (\$114Bn) from 2012-2018*

## US Production Growth Chart



Source: FactSet, Bloomberg.

(1) 53 public companies: CPE, CDEV, XEC, CXO, FANG, ESTE, HK, JAG, LPI, MTD, PE, PXD, COP, EOG, OXY, APA, CRC, CRZO, CLR, DNR, DVN, ECA, HES, MRO, MUR, NBL, PDCE, QEP, SM, WPX, CHK, CRK, GPOR, RRC, CHAP, CLR, DYN, MRO, ROAN, AR, COG, CNX, MR, EQT, SWN, NOG, OAS, WLL, EPE, MGY, PVAC, SBOW, BCEI, XOG, HPR, and SRCL.

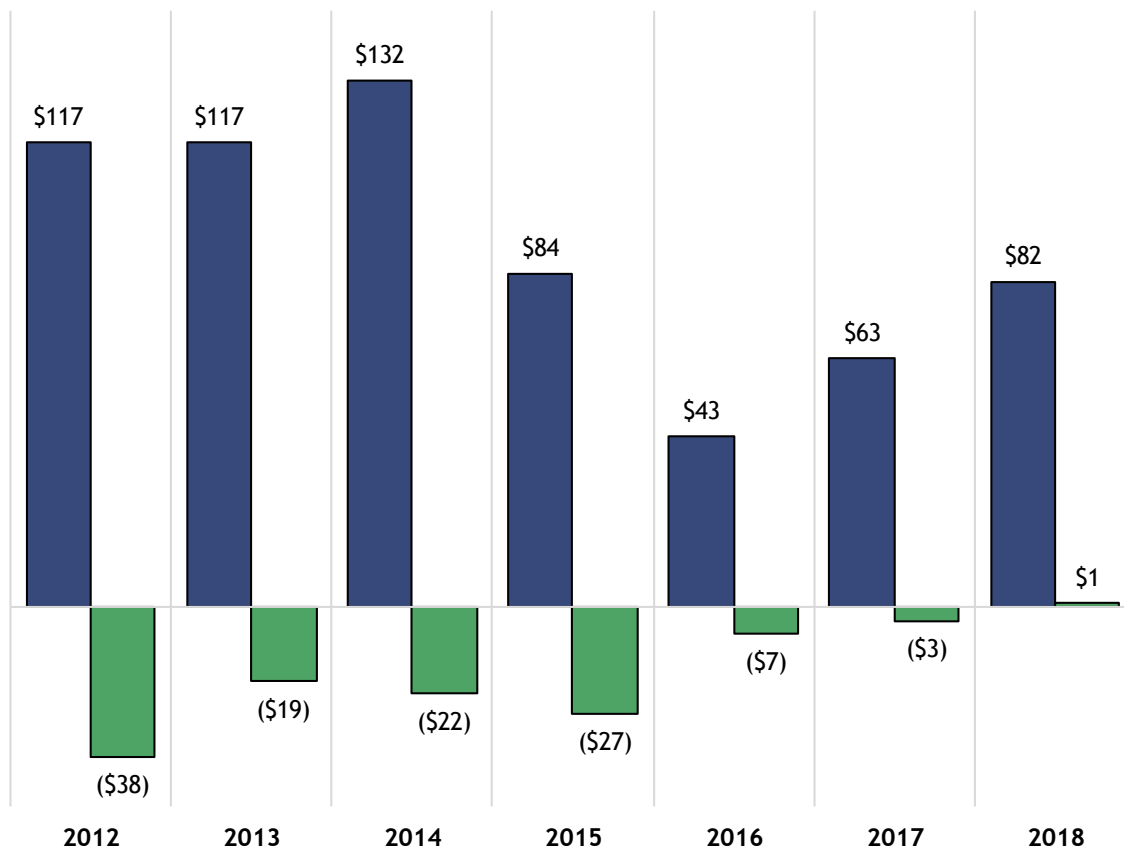
(2) EIA 2019 forecast as of June 2019.

(3) TPH Research horizontal and vertical rigs.

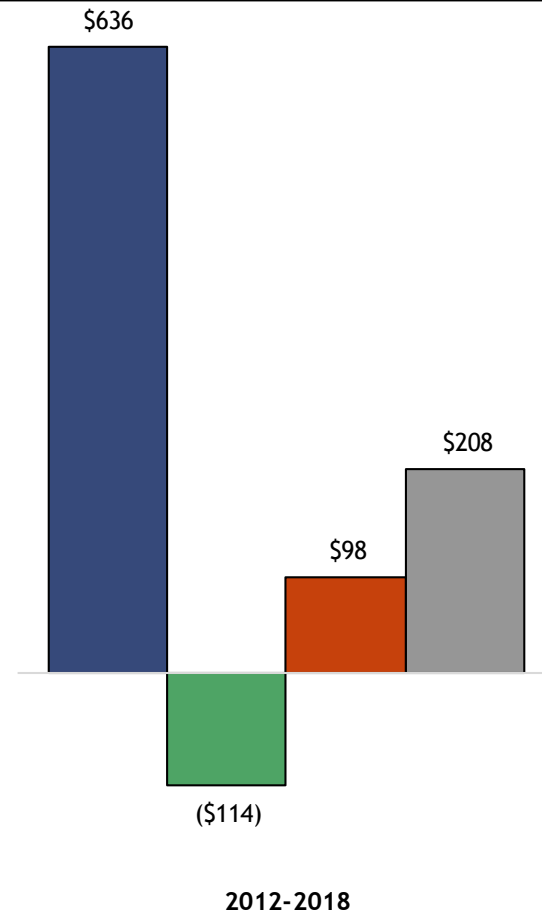
# Growth at Any Cost (2012-2018)

■ Capex (\$Bn) ■ FCF (\$Bn) ■ U.S. Upstream ECM (\$Bn) ■ U.S. Upstream DCM (\$Bn)

Capex & FCF, 2012-2018



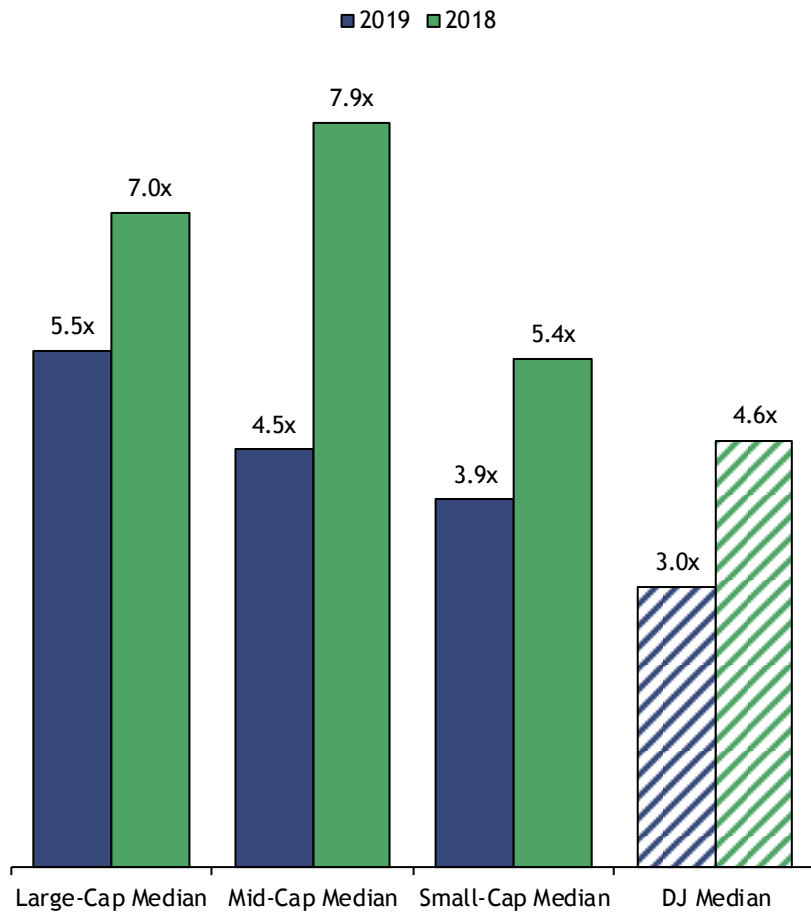
Cum. 2012-2018



# Valuations Today (vs. a Year Ago)

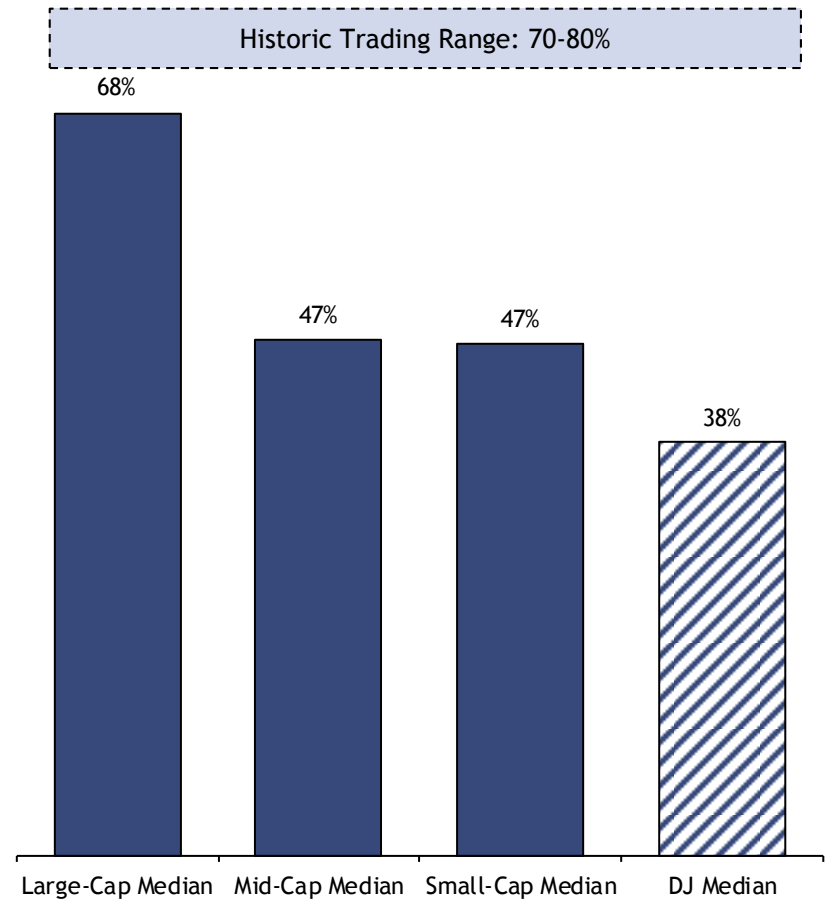
## Assets Are Cheap

EV/EBITDA: June 2018 vs. June 2019



## Disconnect with NAV

Market Cap as a % of NAV<sup>(1)</sup>

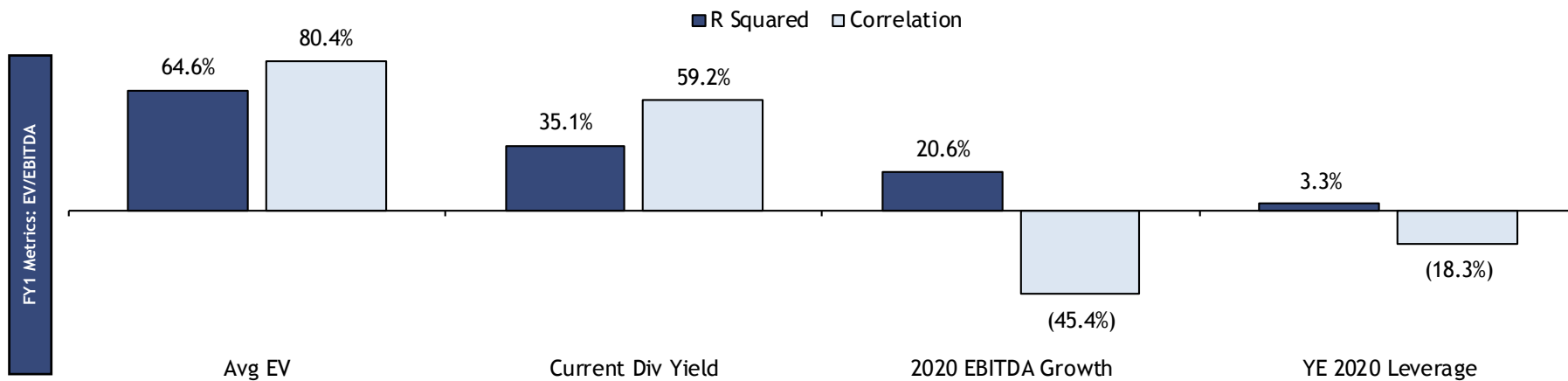


Source: IHS, Dealogic.  
(1) TPH Research.

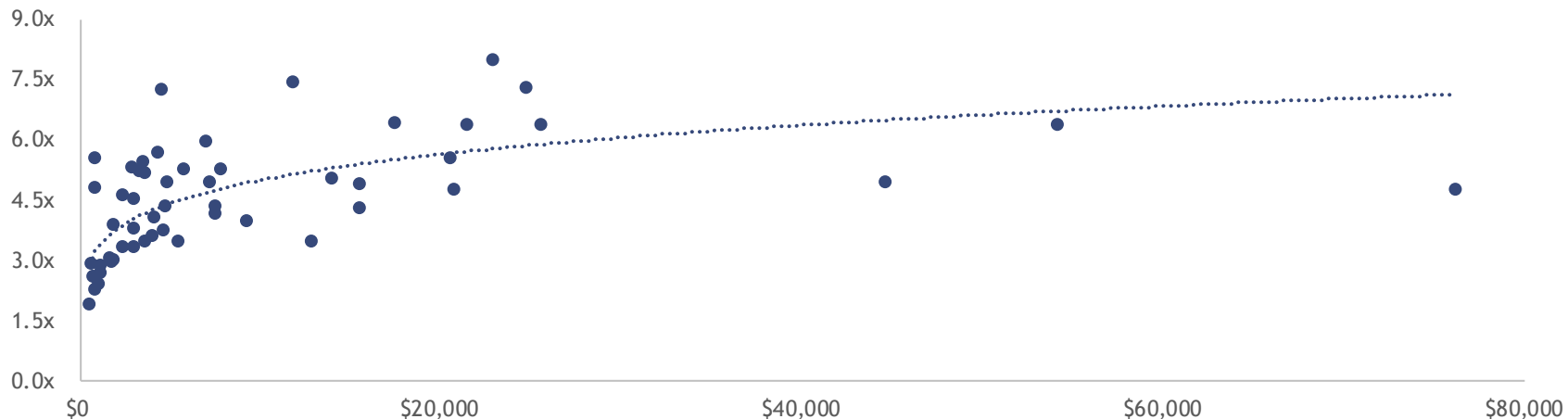
# What's Driving Valuations Today

## Summary of Factor Relationships with Valuation

Correlation with EV/EBITDA for SMID and Large Cap E&Ps



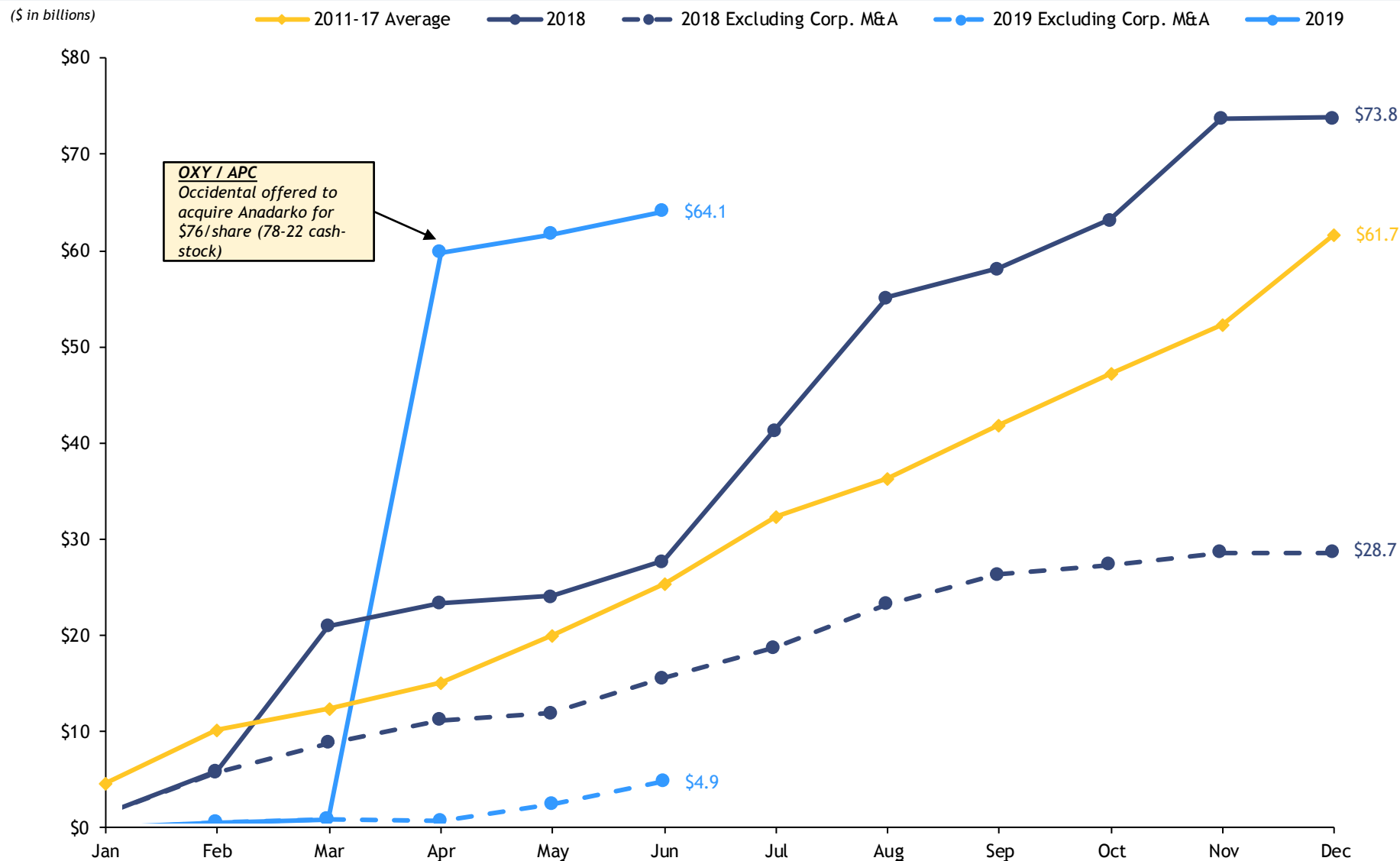
## EV/EBITDA vs. EV





# M&A Activity Nearing All-Time Lows

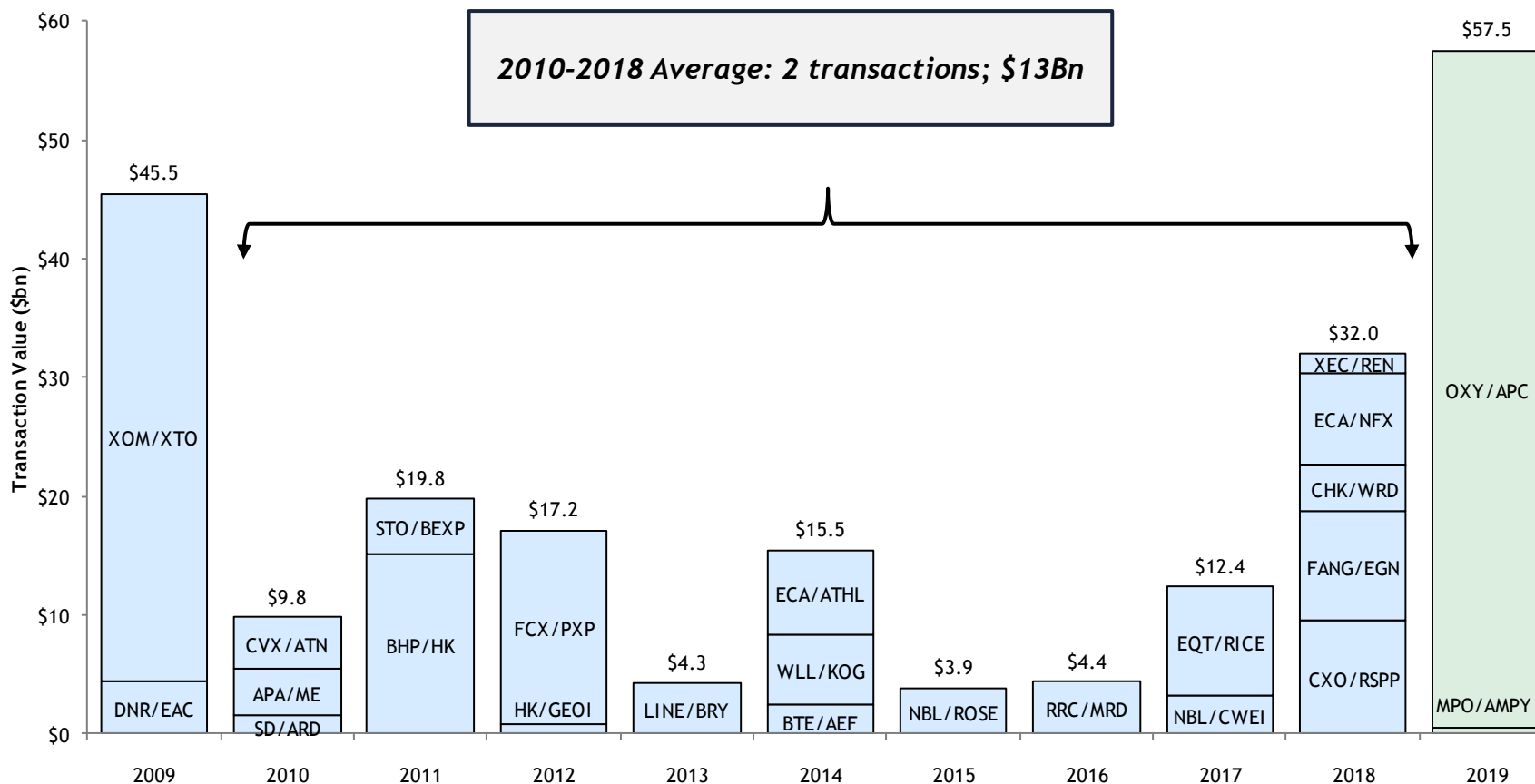
## Cumulative Transaction Volume (\$Bn)



Source: IHS, Dealogic.  
Note: U.S. resource transactions greater than \$50 million.

# Upstream Corporate M&A Activity

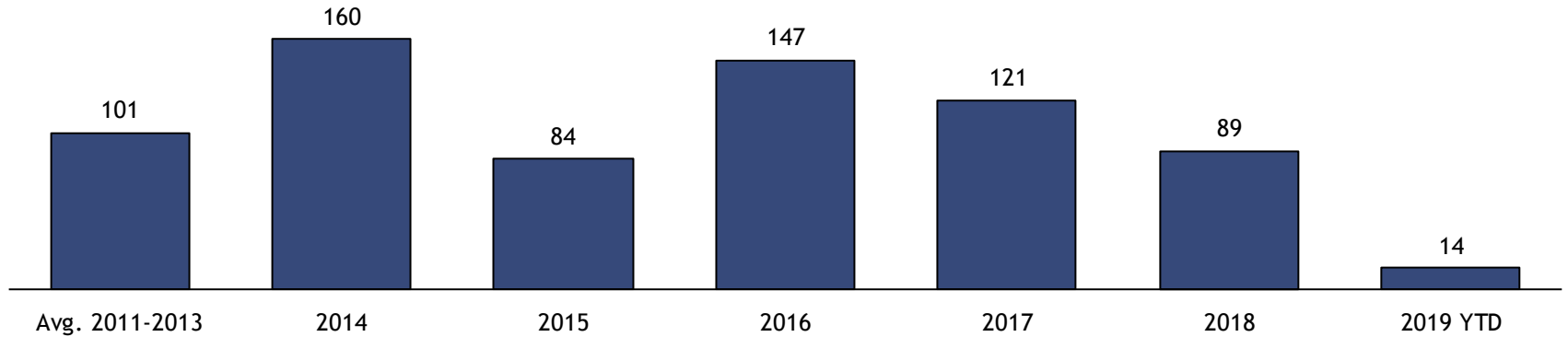
Public-to-public Transactions Since 2009



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
# Transactions	2	3	2	2	1	3	1	1	2	5
E&P Index Annual Absolute Return	43.7%	12.8%	(8.1%)	0.7%	27.0%	(14.0%)	(36.2%)	31.5%	(8.7%)	(4.8%)
E&P Annual Return Relative to S&P 500	20.2%	0.1%	(6.2%)	(12.8%)	(2.6%)	(25.4%)	(35.5%)	22.0%	(28.1%)	(6.8%)
Prompt vs. 24-Month Forward WTI Spread (\$/Bbl)	\$15.81	\$8.76	\$2.83	(\$1.72)	(\$8.39)	(\$12.12)	\$8.72	\$7.97	\$1.18	(\$6.72)

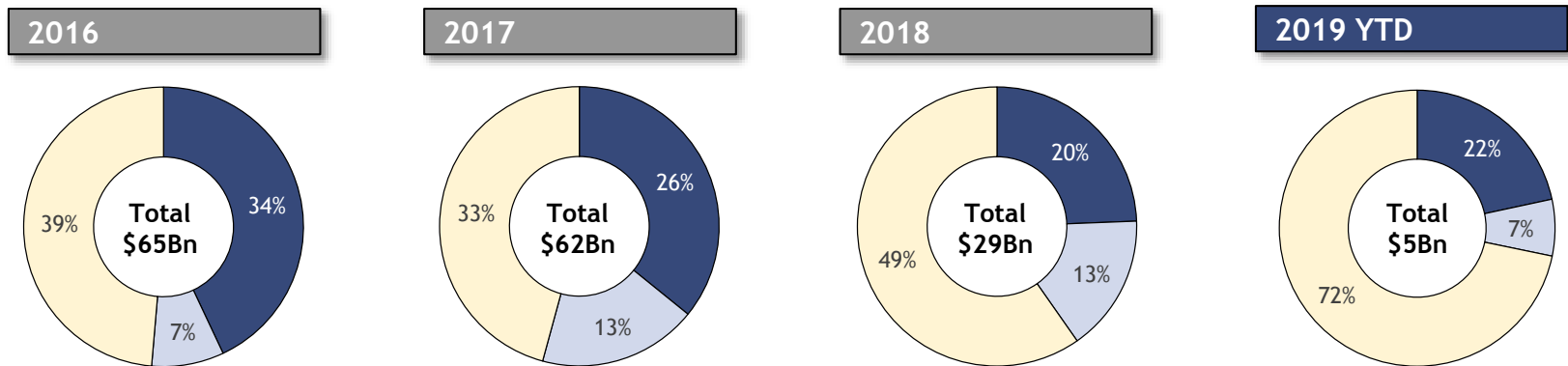
# Bread & Butter A&D Grinding to a Halt

## Transaction Activity by Year (# of Deals)



## E&P Transactions by Basin

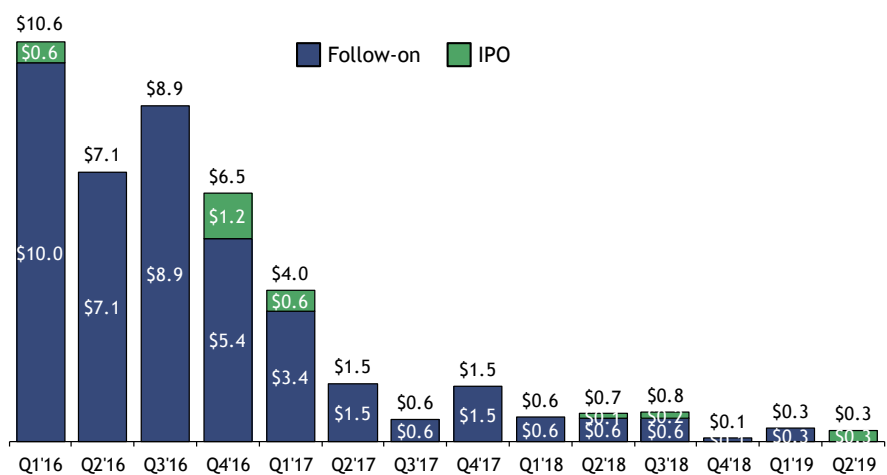
■ Permian ■ Rockies ■ Other



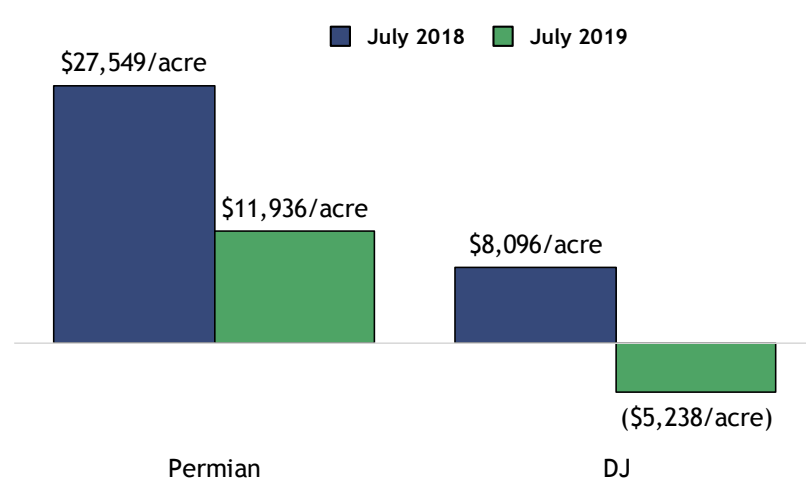
Source: IHS and Dealogic.  
 Note: All charts exclude recent Corporate M&A transactions. U.S. resource transactions greater than \$50 million.

# Why is the Market in Gridlock?

## Capital Markets have Dried Up



## Markets Under-Valuing Acreage

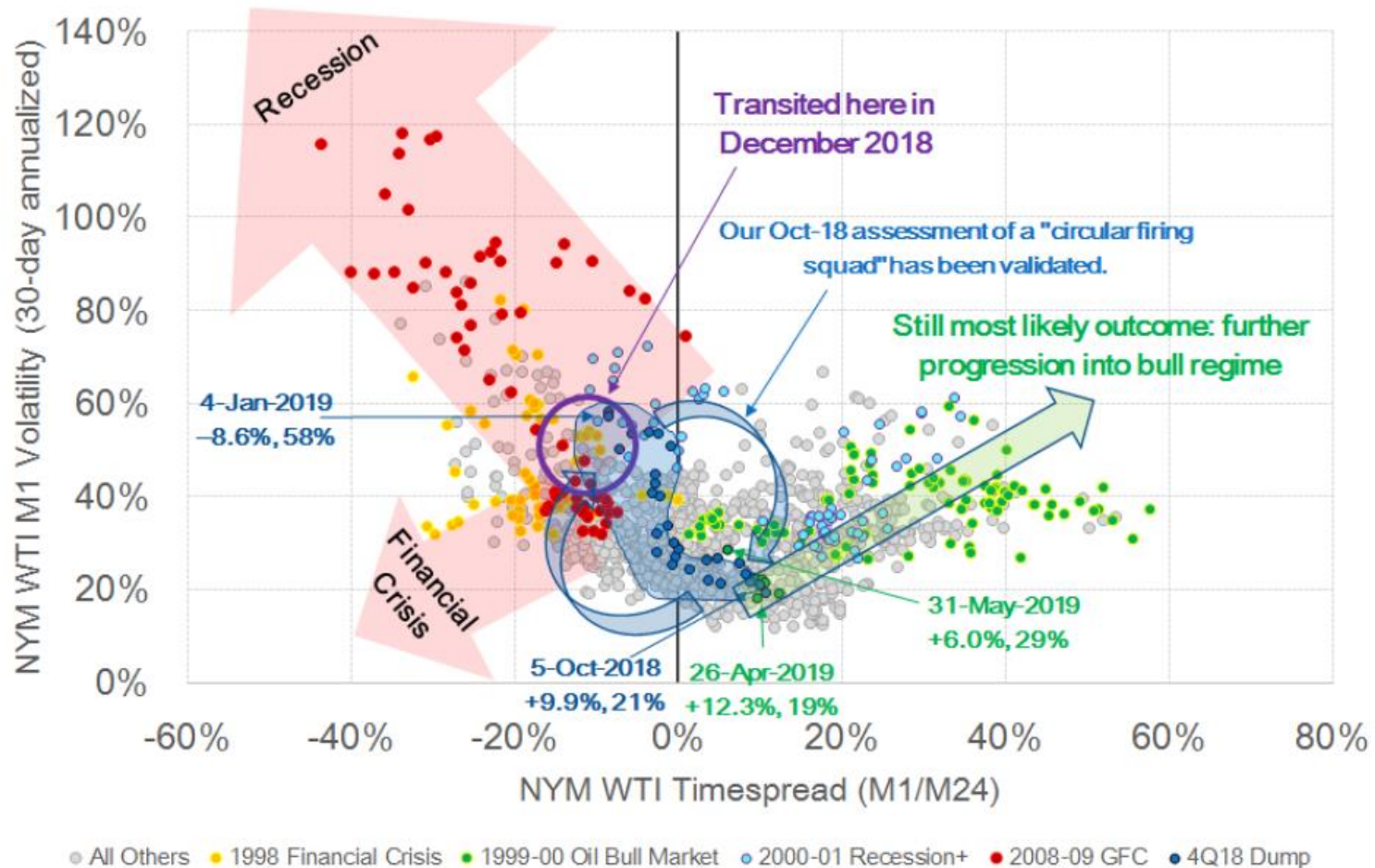


- Buyer's limited ability to fund
- Market not valuing long-term inventory
- Cash is precious
- Sellers not distressed yet (like 2015-16)
- Bid-Ask spreads still significant
  
- Corporate M&A makes sense...but it's hard

# The Bull Case for Oil...It's Simple

## NYM crude oil vol and structure in five environments

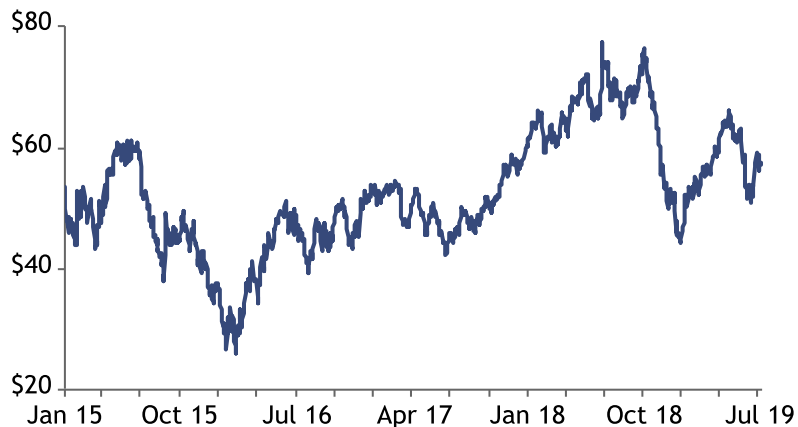
Weekly averages: Feb. 2, 1996 through May 31, 2019



Source: NYM, TPH.

# The Bull Case for Oil...Simplified

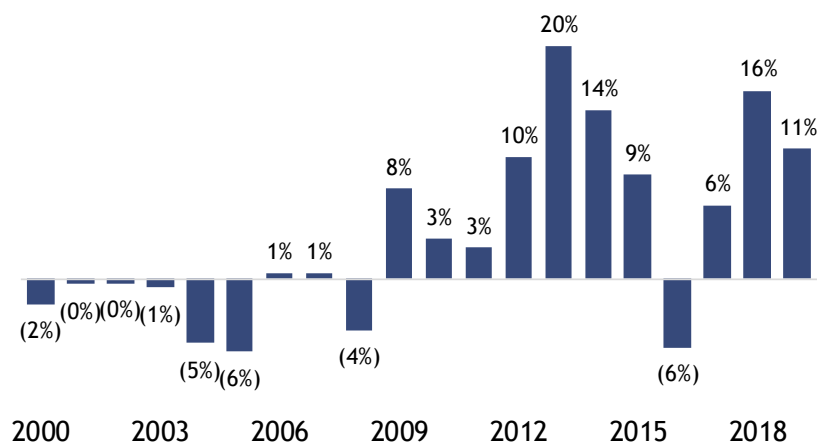
WTI (\$/bbl)



## Takeaways

- Remember, this is a **CYCLICAL** business
- It's all about **VOLATILITY**
- Global Demand: growth rate *slowing*; but *not* contracting
- U.S. Supply: nearly impossible to sustain recent growth

Year Over Year U.S. Oil Production



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The firm, headquartered in Houston, Texas, has approximately 170 employees and offices in Calgary, Canada; Denver, Colorado; New York, New York; and London, England.

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