

## A PLS Quarterly & Annual Special Report

# U.S. Energy Capital Markets Review

### **Traditional capital markets showed slightly more faith in industry in 4Q17 as oil prices climbed**

- 4Q and 2017 Equity and Bond markets slow to the benefit of the private equity players
- 4Q and 2017 Strong Permian funding interests. MidContinent, Rockies & Appalachia also attract capital

### **Facts & Figures**

- \$29.9 billion aggregate equity and debt raised in 4Q17, up 3% sequentially but down 33% YOY
- \$8.7 billion in equity offerings in 4Q17, up 192% from 3Q17 but down 39% YOY
- \$21.2 billion in debt offerings in 4Q, down 18% from 3Q17 and 30% YOY

### **Bankers & Market Share**

- Most active participants- Bank of America in 49% of all offerings in 4Q17, 42% of all equity offerings
- Citi was also active in 55% of all debt offerings
- \$63 billion in borrowing, launched or amended in 4Q17 across 78 agreements, up ~70% from 3Q17 and > 120% YOY
- Wells Fargo was most active lender participating in 65% of all 4Q17 credit facilities and the largest aggregated share w/~ \$4.6 billion

# 2017 U.S. Energy Capital Markets



## Annual Takeaways & Observations

### A Look at 2017 Capital Raises Including Equity, IPOs, Bonds, Credit Facilities & Private Equity

- In 2017 bond and equity deals raised \$129 billion across 260 issuances compared with \$178 billion raised across 327 bond and equity deals in 2016 and \$194 billion from 315 deals in 2015.
- 2017 Equity financing activity in the Upstream sector fell off 67% from 2016 with \$10.9 billion raised through IPOs and follow-ons. Midstream sector grew 11% to \$15.8 billion. OFS tracked 23% higher to \$5 billion.
- 2017 IPOs made a strong return with 20 deals raising > \$7.8 billion compared with 7 deals in 2016 that raised \$2.1 billion.
- 8 Upstream IPOs (6 SPACs and 2 E&Ps) raised over \$3.2 billion, 4 Midstream IPOs raised \$2.1 billion and 8 OFS IPOs (1 SPAC) raised \$2.5 billion.
- 7 SPAC IPOs continued the momentum started in 2016, raising \$3.0 billion. Except for Sentinel Energy Services, the SPACs targeted the Upstream market.
- Integrated companies only sold \$11 billion in bonds in 2017 as compared to \$34 billion in 2016.
- BP had two four-tranche events in February (\$3.1 billion) and September (\$3.0 billion), Chevron's seven-tranche event in March raised \$4.0 billion. One Integrated equity raise (Suncor) in 2017 for \$0.75 billion. Integrations sold \$37.8 billion in bonds in 2016.
- Bankruptcies dropped 73% YOY. In 2017 there were 40 bankruptcies (37 Chapter 11s, two Ch. 15 and a Ch. 7) involving \$14.4 billion in total secured and unsecured debt versus 143 bankruptcies (131 Chapter 11, 2 Ch. 7, 2 Ch. 15 & 8 non-descript) involving total debt of almost \$70 billion in 2016. \$3.7 billion Ocean Rig UDW was biggest in 2017.
- Banks earned \$992 million in fees for equity secondary offerings and IPOs off of \$34 billion of issuances and \$991 million in fees for \$95.5 billion in bond offerings.

# 2017 U.S. Energy Capital Markets (continued)



## Annual Takeaways & Observations

### Additional 2017 Observations For The Year In Review

- 2017 Equity markets showed total deal value of \$34 billion, a 36% drop from 2016's \$53 billion and 12% lower than 2015's \$39 billion.
- Upstream accounted for \$10.6 billion (67% lower YOY), Midstream \$15.8 billion (11% higher YOY) and OFS \$5 billion (23% higher YOY).
- 2017 Bond market showed \$95 billion total deal value, down 24% from 2016's \$125 billion and 15% decrease from 2015. Upstream issuers sold \$34.3 billion (17% lower YOY), Midstream \$38 billion (37% higher YOY) and OFS \$8.1 billion (18% lower YOY). Integrated issuers sold \$11.2 billion (71% lower YOY).
- Wells Fargo the most active bank in 2017 participated in more oil and gas-related financing deals in 2017 than any other energy focused bank (298).
- Citi and Wells Fargo were the most active banks involved debt/equity offerings 126 and 125, respectively (48% of the total 260).
- Credit Suisse most active equity underwriter either as lead or participant with 40 deals (38%).
- BAML is most active debt underwriter either as lead or participant with 88 deals (57%).
- Wells Fargo most active lender in 2017, participating in 140 credit facilities and 20 loans, or 53% of all credit facilities and loans tracked on Capitalize.

# 4Q17 U.S. Energy Capital Markets

## Quarterly Takeaways & Observations

### 4<sup>th</sup> Quarter Observations on Shrinking Public Markets

- \$1.9 billion in 4Q upstream equity, up 139% from 3Q17's \$794.3 million, down 73% from 4Q16's \$7.13 billion.
- \$5.5 billion in 4Q midstream equity financing, up 187% from 3Q17's \$1.9 billion and 18% YOY from \$4.6 billion.
- \$1.2 billion 4Q OFS equity financing up 1307% from 3Q17 \$85 million, down 45% YOY from \$2.2 billion.
- 3 IPOs in 4Q17 raised \$1.2 billion aggregate proceeds, 156% higher than Q3, 8% lower YOY.
  - One midstream IPO during 4Q17- BP Midstream Partners (\$765 million).
  - One upstream IPO in 4Q17 – Black Ridge Acquisition Corp. (\$120 million).
  - One services IPO in 4Q17 – Sentinel Energy Services (\$300 million) – SPAC.
- Midstream generated \$7.5 billion in debt in 4Q17, while Upstream tapped \$6.5 billion.
  - OFS Services sector issued \$4.8 billion in debt in 4Q17.
  - Integrated- Suncor Energy sold \$750 million in notes during the quarter.
- Bankers generated ~\$200.5 million in fees from 4Q17 equity sales.



# Top 4Q17 Market Events

## Expanded Thoughts of Observations from PLS Capital Markets report

### Macro Level Industry Influencers

- Trump Administration's focus on deregulation and corporate tax stirred optimism in energy though some companies may take 4Q17 non-cash hits to earnings as they write down decreases in the value of tax-deferred assets.
- Hurricane Harvey, Irma and Nate, but mainly Harvey, a 500-year cataclysmic event put portions of the world's energy capital underwater and closed ports, knocked out production and refining.
- Milder Hurricane Nate the following month shut in over 1.0 MMbo/d of GOM production.
- Rebalancing the market by OPEC and friends, extending the production cuts through YE18, has helped oil prices recover (over \$60/bbl at YE17) while US shale industry bounced back and profited from cost cuts and more drilling activity, with growth beating all expectations.
- This year US will overtake Saudi Arabia as world's #2 producer with average 10.3 MMbo/d.
- Dakota Access now flowing & Keystone XL can now be built.



## Special Report (Index & Key Slides)

### Coverage Universe (By Ticker Symbol) (>400 Firms)

**UPSTREAM** - AXAS AMZGQ ASENQ APC AR APA AREX AOIL ATHL ATLS BRN BROE BXE BRY BBG ANFC BSM BCEI BPZR BBEP COG CRC CPE CNQ CRZO CDEV CHK XEC COIL COP CWEI CIE CRK CXO CNX MCF CLR CBNR DRBM DNR DVN FANG DUNR EROC ESTE ECR EC EOX ECA ENDRQ EGN EXXIQ ENRJ EOG EPE EPL EQT ERN ESCR EVEP EPM XCO XOG FECCQ FPP FOR FCX FXEN GST GPRK GDP GTE GPOR HK HWKR HES HUSA HECC HDYN IOC ISRL JAG JYHW JONE KAACU KLREU KOG KOS KRP LPI LGCY LBYE LLEX LINE LNCO LRE LEI LVL MPET MHR MRO MTDR MMR MEMR MRD MXC MCEP MPO MILL MUR NSLP NWTR NFX NBL NOG OAS OSPRU OXY ROYT PHX PE PDCE PED PVA PBR PQ PRHR PXD PSE PXP PSTR PRNG QEP QRE KWKA ROGI RRC RGFR RDMP REN REXX RICE REI BBLS ROSE ROYL RSPP SOGCQ SSN SN SPP SD SDR PER SARAQ SSL SM SWN SGY STUNU STNLU SWTF SYRG GMXRQ TTEN TRCH TENG TAT TPLM TPGE.UN UPL UNT USEG EGY VNR VEI VEAC VQ VYVY VNOM VOC WTI WRES WLL WHZ WRD WPX YUMA ZAZA ZN

**MIDSTREAM** - CAFD ACMP AMID AM AMGP ARCX APLP APL ATO AZUR BKEP BPMP BWP BPL CPGX CPPL CNNX CEQP CQH CMLP XTXI XTEX CCLP DAKP DPM DKL DM LPG EPB ENBL EEQ EEP ENB ETE ETP ENLC ENLK EPD EQGP EQM GEL GLOP GMLP HESM HEP KNOP NRGH JPEP KMP KMI KMR LNG MMP MWE MMLP MEP MPLX NAP NGL NKA NMM NVGS NS NSH OILT OKE OKS OMP PBA PTXP PSXP PAA PAGP PVR QEPM STR RGP RMP RRMS SEMG SHLX SXE SOCGP SO SWX SE SEP SMLP SXL TEGP TEP TLP TRGP NGLS TCP TLLP TRP USAC USDP WGP WES WMB WPZ

**DOWNSTREAM** - ALJ ALDW APU BDCO CLMT CPLP CQP CAPL CVI UAN CVRR CELP DK DLNG FGP GLP HMLP HFC MPC NTI OCIP PARR PBF PBFX PDH PESD PSX RNF SRLP SGU SPH SUN SYMX TGP TOO TSO VLO VLP VTTI WNR WNRL WLKP WPT

**INTEGRATED** - BP CVE CVX CEO XOM HSE NFG REPLY RDSA STO SU TOT YPF

**SERVICES** - BHI BAS BRS CJES CDVIQ CAM CRR HELI CLH CLB DWSN DPDW DO DRC DRQ ESES EDG ENG ESF EMES ENSV EXTN FMSA FTK FMC FTI FET FI FRAC GDI GEOKQ GEOS GEGSQ GPP GIFL GLF HAL HNR HLX HP HERO HIIT HOS ICD IO FRAC KEGXQ LBRT MIC TUSK MTZ MDR MIND MRC NBR NOV NGS NR NE NBLX NAO NADL DNOW NCSM NES ORIG OII OIS PACD PGNPF PKD PTEN PHII PES PDS PUMP RCON RGCO RNET RNGR RDC RES SAEX SLB SDLP SOI SSE SND SNI SDPI SPN TESO TTI TDW RIG RIGP SLCA VTG VTNR WFT WTTR INT

### Quarterly Special Report-

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Capitalize includes 14 modules tracking various energy finance events. Email Chris George at [cgeorge@plsx.com](mailto:cgeorge@plsx.com) for a demo.

## 4Q17 Energy Equity Review

- 2017 reported \$34 billion in annual capital raises, the lowest total in the last 5 years.
- 4Q17 equity markets reported \$8.7 billion raised, up 192% from 3Q17 and down 39% YOY.
- Midstream recovered, ended a three quarter slide in equity markets.
- Midstream represented 63% of the quarter's total.
- Upstream rebounded (+139% QOQ) from the slow 3Q17 but some analyst say it resembled a "dead cat bounce."
- Average equity follow on offering was \$264 million during 4Q17.
- Largest corporate equity raise was \$950 million follow-on issued by Energy Transfer Partners LP (NYSE).
- Bank of America was the most active equity bookrunner in 4Q17, followed by JP Morgan (who led the most deals with 5), Credit Suisse & Goldman Sachs.
- However, Goldman led banks with ~\$1.6 billion in value (\$800 MM in Upstream). Bank of America came in 2<sup>nd</sup> with \$1.2 billion (\$1.2 billion in Midstream).
- Citi led the IPO market, with 2 of the 3 deals launched last quarter.
- The three IPOs include: BP Midstream Partners, Sentinel Energy Services & Black Ridge Acquisition Corp.

## 4Q17 Energy Sector Follow-On Equity Summary

\$7.53 billion in follow-on Q4 equity offerings not including IPO and ATM offerings

Midstream led equity raises in 4Q17, with \$4.7 billion from 12 deals.



Equity  
Upstream  
\$1.78 billion (24%)  
QOQ +226%  
14 Deals



Equity  
Midstream  
\$4.71 billion (63%)  
QOQ +165%  
12 Deals



Equity  
Downstream  
\$0.15 billion (2%)  
QOQ -25%  
1 Deal



Equity  
Integrated  
No Deals



Equity  
Services  
\$0.90 billion (12%)  
N/A  
3 Deals

Top banks for each sector by allocated deal amount.



\$0.81 billion  
45% Market Share



\$1.19 billion  
25% Market Share



0.07 billion  
46% Market Share

No Banking  
Activity



\$0.23 billion  
26% Market Share

Note: Does not include at-the-market equity offerings

QOQ = Quarter On Quarter

Market Share = % of participation in Follow-On offering

# 4Q17 Energy Follow-on Equity Issues

The top 25 deals totaled \$7.5 billion, or 99.9% of total of all 30 deals.



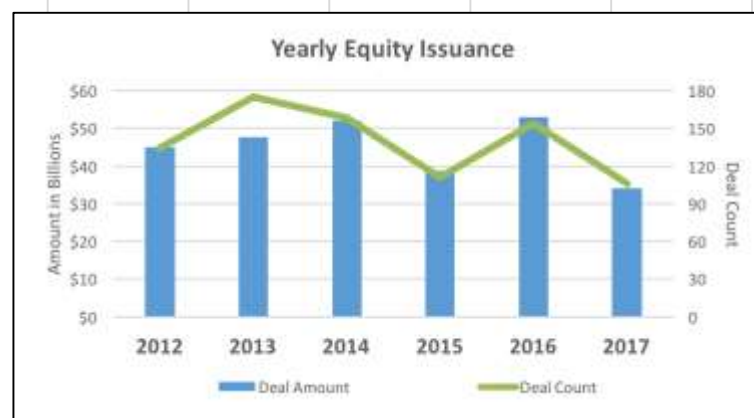
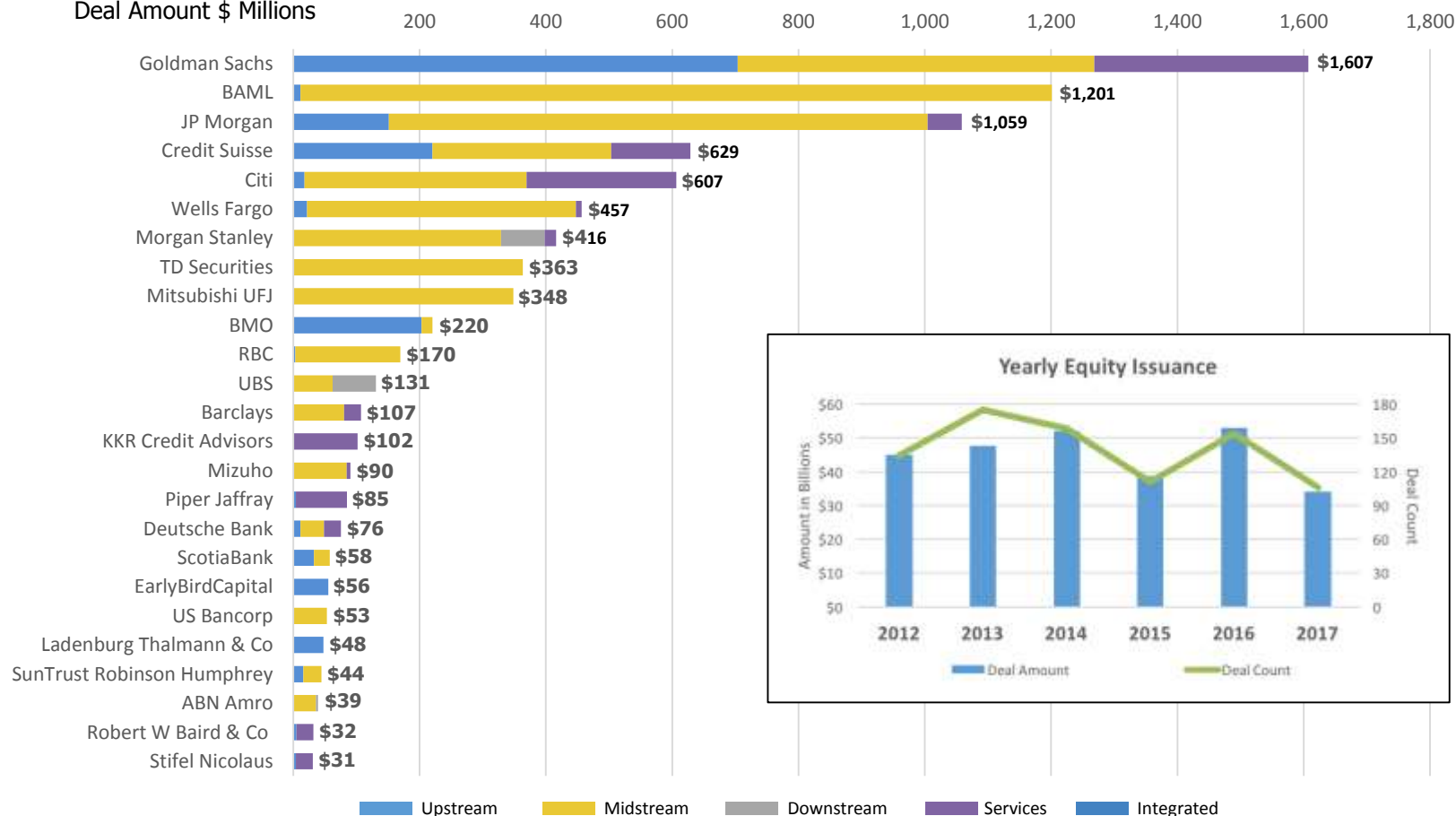
Announce Date	Company	Sector	Ticker	Deal Amount (\$MM)	Bank Fees (\$MM)	Underwriting Discount	Reoffer Discount	All In Rate	Lead Bookrunner	No. of Banks
11/15/17	Energy Transfer Partners LP	Midstream	ETP	\$ 950	\$ 11.88	1.25%	0.00%	0.00%	JP Morgan	5
10/06/17	Plains All American Pipeline LP	Midstream	PAA	\$ 800	\$ 10.00	1.25%	0.00%	0.00%	JP Morgan	16
11/30/17	Andeavor Logistics LP	Midstream	ANDX	\$ 600	\$ 8.34	1.39%	0.00%	0.00%	BAML	10
11/17/17	Gardner Denver Holdings Inc	Services	GDI	\$ 600	\$ 17.88	2.98%	1.05%	4.00%	Goldman Sachs	16
11/15/17	Energy Transfer Partners LP	Midstream	ETP	\$ 550	\$ 6.88	1.25%	0.00%	0.00%	JP Morgan	5
11/09/17	Centennial Resource Development Inc	Upstream	CDEV	\$ 505	\$ 6.25	1.24%	3.90%	5.09%	Goldman Sachs	1
11/15/17	DCP Midstream LP	Midstream	DCP	\$ 500	\$ 11.16	2.23%	0.00%	0.00%	JP Morgan	14
11/30/17	Atmos Energy Corp	Midstream	ATO	\$ 415	\$ 8.40	2.02%	1.53%	3.52%	BAML	2
11/22/17	Black Stone Minerals LP	Upstream	BSM	\$ 306	\$ 6.14	2.01%	0.00%	0.00%	N/A	1
12/13/17	Oasis Petroleum Inc	Upstream	OAS	\$ 306	\$ 3.00	0.98%	5.07%	6.00%	Goldman Sachs	2
11/13/17	Summit Midstream Partners LP	Midstream	SMLP	\$ 300	\$ 6.02	2.01%	0.00%	0.00%	BAML	15
11/13/17	SRC Energy Inc	Upstream	SRCI	\$ 280	\$ 8.40	3.00%	11.31%	13.97%	Credit Suisse	20
10/06/17	Matador Resources Co	Upstream	MTDR	\$ 213	\$ 4.28	2.01%	2.54%	4.50%	BMO	2
11/08/17	ProPetro Holding Corp	Services	PUMP	\$ 186	\$ 5.12	2.75%	4.44%	7.07%	Goldman Sachs	6
12/14/17	Noble Midstream Partners LP	Midstream	NBLX	\$ 155	\$ 3.20	2.06%	5.59%	7.53%	Citi	16
11/28/17	NuStar Energy LP	Midstream	NS	\$ 150	\$ 4.35	2.90%	0.00%	0.00%	Wells Fargo	12
10/17/17	Teekay LNG Partners LP	Downstream	TGP	\$ 150	\$ 4.73	3.15%	0.00%	0.00%	Morgan Stanley	6
10/25/17	Golar LNG Partners LP	Midstream	GMLP	\$ 120	\$ 3.78	3.15%	0.00%	0.00%	Morgan Stanley	2
11/13/17	Solaris Oilfield Infrastructure	Services	SOI	\$ 110	\$ 4.96	4.50%	5.12%	9.39%	Credit Suisse	10
12/07/17	Bill Barrett Corp	Upstream	BBG	\$ 105	\$ 4.46	4.25%	12.59%	16.30%	JP Morgan	7
12/11/17	Tellurian Inc	Midstream	TELL	\$ 100	\$ 5.10	5.10%	16.60%	20.85%	Credit Suisse	2
11/08/17	KNOT Offshore Partners LP	Midstream	KNOP	\$ 66	\$ 1.35	2.03%	4.61%	6.55%	BAML	1
10/20/17	Earthstone Energy Inc	Upstream	ESTE	\$ 42	\$ 2.08	5.00%	12.24%	16.63%	Credit Suisse	13
10/02/17	Yuma Energy Inc	Upstream	YUMA	\$ 10	\$ 0.73	7.60%	12.28%	18.95%	Northland Securities	2
12/13/17	Camber Energy Inc	Upstream	CEI	\$ 5	\$ 0.11	2.06%	0.00%	0.00%	N/A	1
Top 25 Total Transactions:				\$ 7,523	\$ 149				Avg # of Banks:	7
4Q17 Total Follow-on Equity Issuance:				\$ 7,530	\$ 149					

## 4Q17 Top 25 Equity Market Advisors & Facilitators

BAML participated in 42% of all equity deals in 4Q17 but Goldman won largest allocation

### Top 25 Banks/Equity Markets

Deal Amount \$ Millions

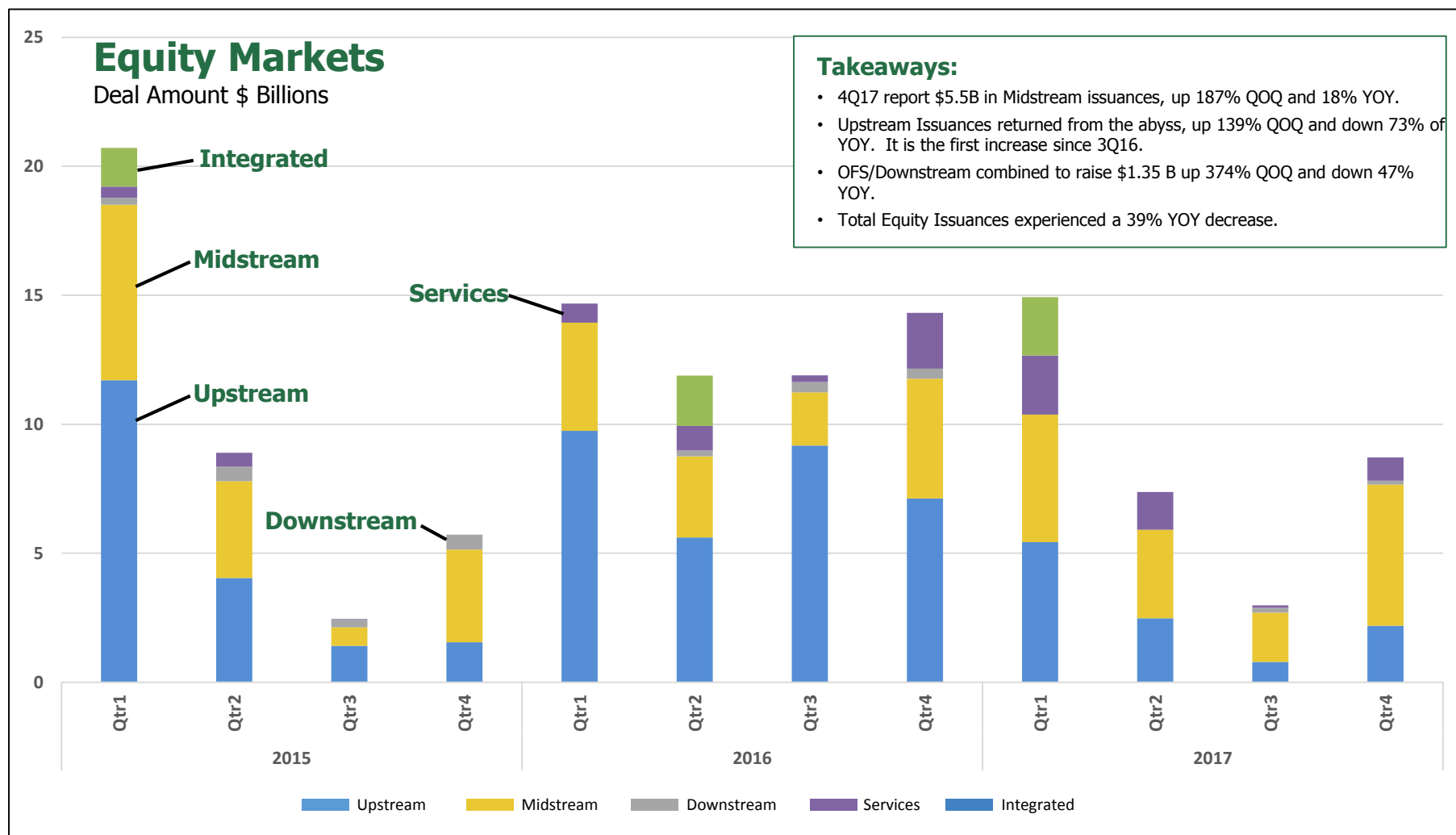


Note: Follow-on and IPO offerings.

Does not include at-the-market equity offerings.

## U.S. Equity Deals by Quarter 1Q15 to 4Q17

Total equity raises increased by ~ 192% sequentially



Note: Follow-on and IPO offerings.  
Does not include at-the-market equity offerings  
QOQ= Quarter On Quarter  
YOY = Year over Year.

# 4Q17 Energy IPOs

Only 3 IPOs in 4Q17 but value increased to \$1.19B, up 156% from 3Q17



IPO	Company	Sector	Ticker	Deal Amount (\$MM)	Bank Fees (\$MM)	Net Proceeds (\$MM)	Total Shares Issued (MM)	Public Roffer Price Per Issue	Underwriting Discount	Lead Bookrunner*	No. of Banks
10/27/17	BP Midstream Partners	Midstream	BPMP	\$ 765	\$ 32.90	\$732.11	42.50	\$ 18.00	4.30%	Citi (24.00%)	14
11/06/17	Sentinel Energy Services	Services	STNLU	\$ 300	\$ 16.50	\$283.50	30.00	\$ 10.00	5.50%	Citi (45.00%)	3
10/05/17	Black Ridge Acquisition Corp	Upstream	BRAC	\$ 120	\$ 2.40	\$117.60	12.00	\$ 10.00	2.00%	EarlyBirdCapital (46.25%)	4
Totals:				\$ 1,185	\$ 52	\$ 1,133					

\* Bank allocation percentage shown in parenthesis

## Key Takeaways:

- Citi led the IPO market in 4Q17.
- Lead banks took smaller allocation percentages when syndicating IPO deals in comparison to 3Q17.
- 3.93% average underwriter discount (~2.07% lower than 3Q17 average).
- 3 IPOs saw an average of 7 bookrunners (~40% lower than 3Q17 average).
- 38.42% - average allocation to lead bookrunner.



# Bond Markets

## 4Q17 Energy Fixed Income Review

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- The Bond Market continued to tighten as capital raising trended down in 2017.
- Bond value peaked in 2014/2015 at \$155 billion in both years. 2017 reported \$95 billion down 40%.
- 4Q17 bond market reported \$21.2 billion in deals, down 18% QOQ and 30% YOY.
- Average principal bond was \$529 million in 4Q17, down from the 3Q17 average of \$632 million.
- Citi and Bank of America were the most active banks, with each bank participating in > 50% of bond deals.
- PLS expects \$53 billion of bonds to mature in the next 12 months, 28% of those coming due in 1Q18.
- Investment Grade Bonds accounted for 42% of issuances during 4Q17.
- Baker Hughes was the most prolific bond issuer raising \$3.95B in 4Q17.

## 4Q17 Energy Bond Market

\$21.2 billion in energy bond issuances in 4Q from 41 deals

Upstream was the most active sector in the Bond market during 4Q17 with 16 deals raising \$6.5 billion. However, Midstream raised the most capital with \$7.5 billion.



Bonds  
Upstream  
\$6.5 billion (31%)  
QOQ -38%  
16 Deals



Bonds  
Midstream  
\$7.5 billion (35%)  
QOQ -31%  
15 Deals



Bonds  
Downstream  
\$1.6 billion (8%)  
N/A  
4 Deals



Bonds  
Integrated  
\$0.75 billion (4%)  
QOQ -77%  
1 Deals



Bonds  
Services  
\$4.8 billion (23%)  
QOQ +257%  
5 Deals

Top banks in the Bond Market by sector.



JPMorganChase  
\$1.1 billion  
17% Market Share



Bank of America  
Merrill Lynch  
\$1.14 billion  
15% Market Share



MIZUHO  
\$0.26 billion  
16% Market Share



citi  
\$0.17 billion  
23% Market Share



BARCLAYS  
\$0.23 billion  
5% Market Share

Market share = % of participation in Bond issuances.

# 4Q17 Energy Top Bond Issues

The Top 25 deals total \$18.1 billion, 84% of the total value during 4Q

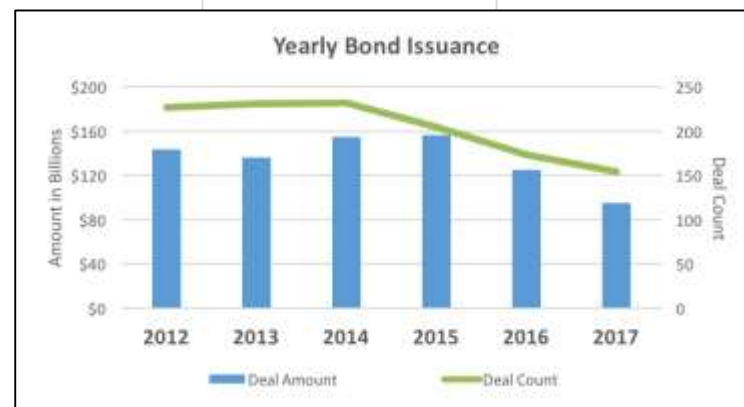
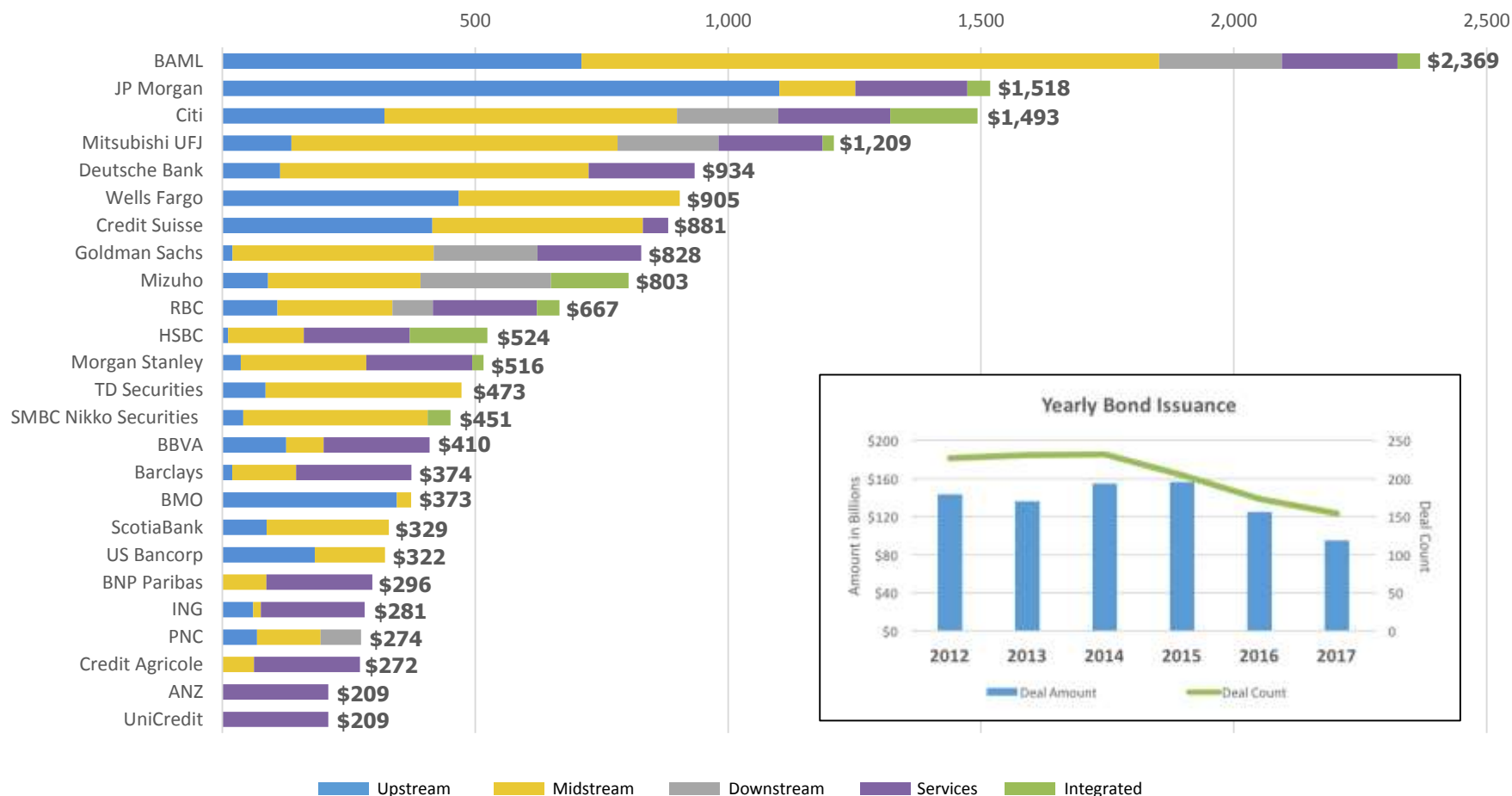
Announce Date	Company	Sector	Ticker	Deal Amount (\$MM)	Bank Fees (\$MM)	Coupon	Maturity	Underwriting Discount	Lead Bookrunner	No. of Banks
12/11/17	Baker Hughes Inc	Services	BHGE	\$ 1,350	\$ 27.00	3.337%	12/15/27	2.00%	Morgan Stanley	19
12/11/17	Baker Hughes Inc	Services	BHGE	\$ 1,350	\$ 27.00	4.080%	12/15/47	2.00%	Morgan Stanley	19
12/11/17	Baker Hughes Inc	Services	BHGE	\$ 1,250	\$ 25.00	2.773%	12/15/22	2.00%	Morgan Stanley	19
12/12/17	Whiting Petroleum Corp	Upstream	WLL	\$ 1,000	\$ 20.00	6.625%	01/15/26	2.00%	JP Morgan	24
12/04/17	Continental Resources Inc	Upstream	CLR	\$ 1,000	\$ 11.90	4.375%	01/15/28	1.19%	BMO	12
10/05/17	Energy Transfer Equity LP	Midstream	ETE	\$ 1,000	\$ 10.00	4.25%	03/23/23	1.00%	Morgan Stanley	11
11/17/17	Andeavor Logistics LP	Midstream	ANDX	\$ 750	\$ 4.88	4.250%	12/01/27	0.65%	BAML	10
11/09/17	Suncor Energy Inc	Integrated	SU	\$ 750	\$ 6.56	4.000%	05/15/47	0.88%	Citi	10
10/17/17	Transocean Ltd	Services	RIG	\$ 750	\$ 15.00	7.50%	01/15/26	2.00%	N/A	1
10/10/17	Targa Resources Partners LP	Midstream	NGLS-A	\$ 750	\$ 5.63	5.00%	01/15/28	0.75%	Citi	17
11/16/17	TransCanada Pipelines	Midstream	TRP	\$ 700	\$ 2.10	2.125%	11/15/19	0.30%	Mitsubishi UFJ	12
10/05/17	Parsley Energy Inc	Upstream	PE	\$ 700	\$ 8.10	5.625%	10/15/27	1.16%	Credit Suisse	15
10/04/17	Enbridge Inc	Midstream	ENB	\$ 700	\$ 1.40	3M LIBOR + 40 bps	01/10/20	0.20%	BAML	1
11/14/17	PDC Energy Inc	Upstream	PDCE	\$ 600	\$ 12.00	5.750%	11/15/26	2.00%	BAML	1
11/29/17	SRC Energy Inc	Upstream	SRCI	\$ 550	\$ 11.00	6.250%	12/01/25	2.00%	JP Morgan	10
11/16/17	TransCanada Pipelines	Midstream	TRP	\$ 550	\$ 1.65	3M LIBOR + 27.5 bps	11/15/19	0.30%	Mitsubishi UFJ	12
12/18/17	Andeavor	Downstream	ANDV	\$ 500	\$ 3.25	3.80%	04/01/28	0.65%	Citi	8
12/18/17	Andeavor	Downstream	ANDV	\$ 500	\$ 4.38	4.50%	04/01/48	0.88%	Citi	8
11/17/17	Andeavor Logistics LP	Midstream	ANDX	\$ 500	\$ 4.38	5.200%	12/01/47	0.88%	BAML	10
11/17/17	Andeavor Logistics LP	Midstream	ANDX	\$ 500	\$ 3.00	3.500%	12/01/22	0.60%	BAML	10
11/08/17	QEP Resources Inc	Upstream	QEP	\$ 500	\$ 6.25	5.625%	03/01/26	1.25%	Wells Fargo	12
10/11/17	Phillips 66 Partners LP	Midstream	PSXP	\$ 500	\$ 3.25	3.750%	03/01/28	0.65%	Citi	8
12/06/17	Genesis Energy LP	Midstream	GEL	\$ 450	\$ 6.75	6.250%	05/15/26	1.50%	Citi	14
10/06/17	Gulfport Energy Corp	Upstream	GPOR	\$ 450	\$ 4.70	6.375%	01/15/26	1.04%	JP Morgan	16
11/15/17	Centennial Resource Development	Upstream	CDEV	\$ 400	\$ 8.00	5.375%	11/15/26	2.00%	JP Morgan	14
Top 25 Issuances:				\$ 18,050	\$ 233				Avg # of Banks:	12
4Q17 Total Bond Issuances:				\$ 21,160	\$ 292					

Note: includes issuances registered with the SEC by foreign companies.

## 4Q17 Top 25 Bond Market Advisors & Facilitators

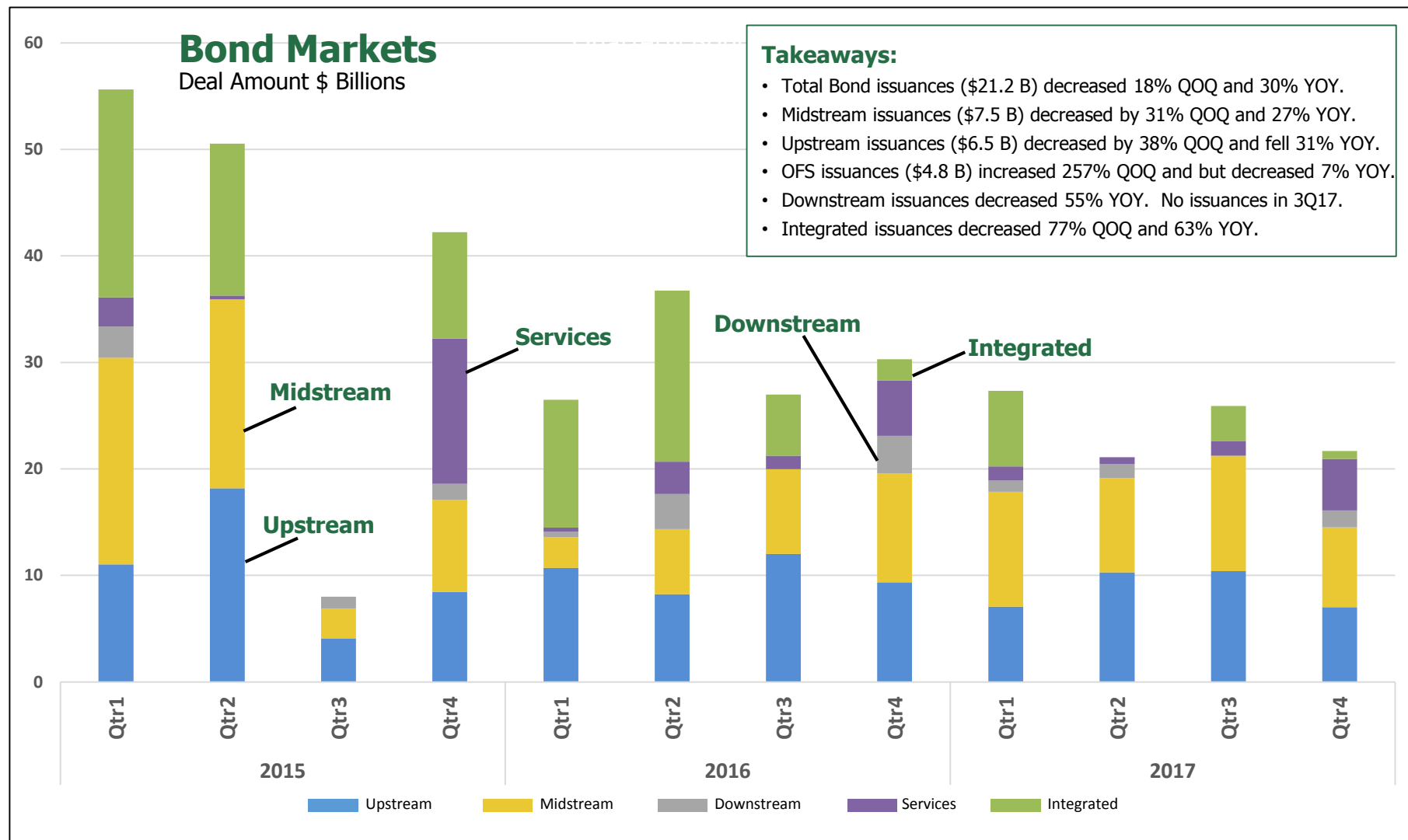
Citi participated in 54% of all bond deals in 4Q17 but Bank of America won larger allocations

### Top 25 Banks in Bond Market



# U.S. Energy Bond Deals by Quarter 1Q15 to 4Q17

Services bond issuances in 4Q increased by 257% QOQ but decreased by 7% YOY

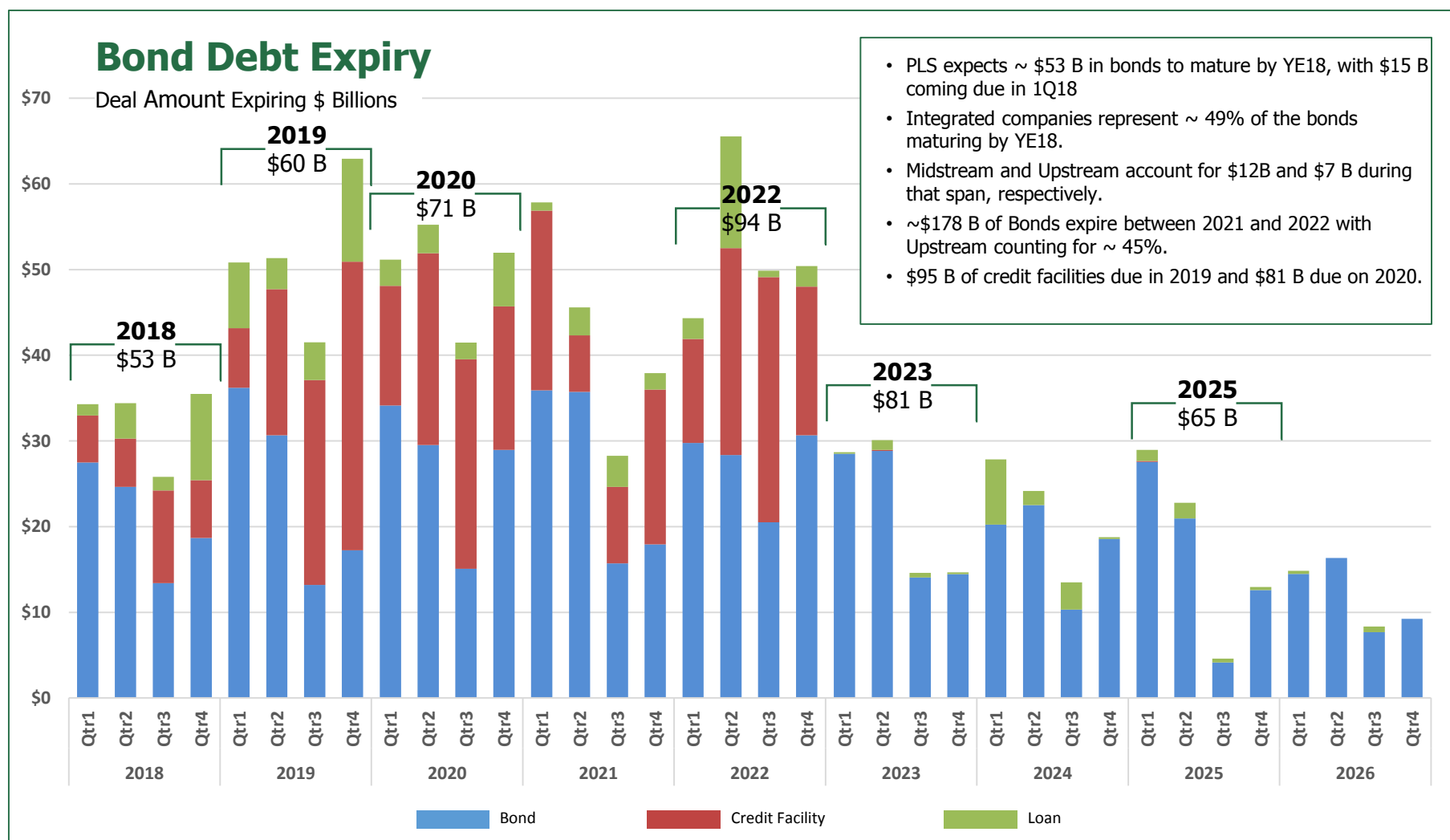


QOQ= Quarter On Quarter

YOY = Year over Year.

# Bond Debt Expirations Schedule

Capitalize monitors over 400 companies within our coverage universe



# Credit

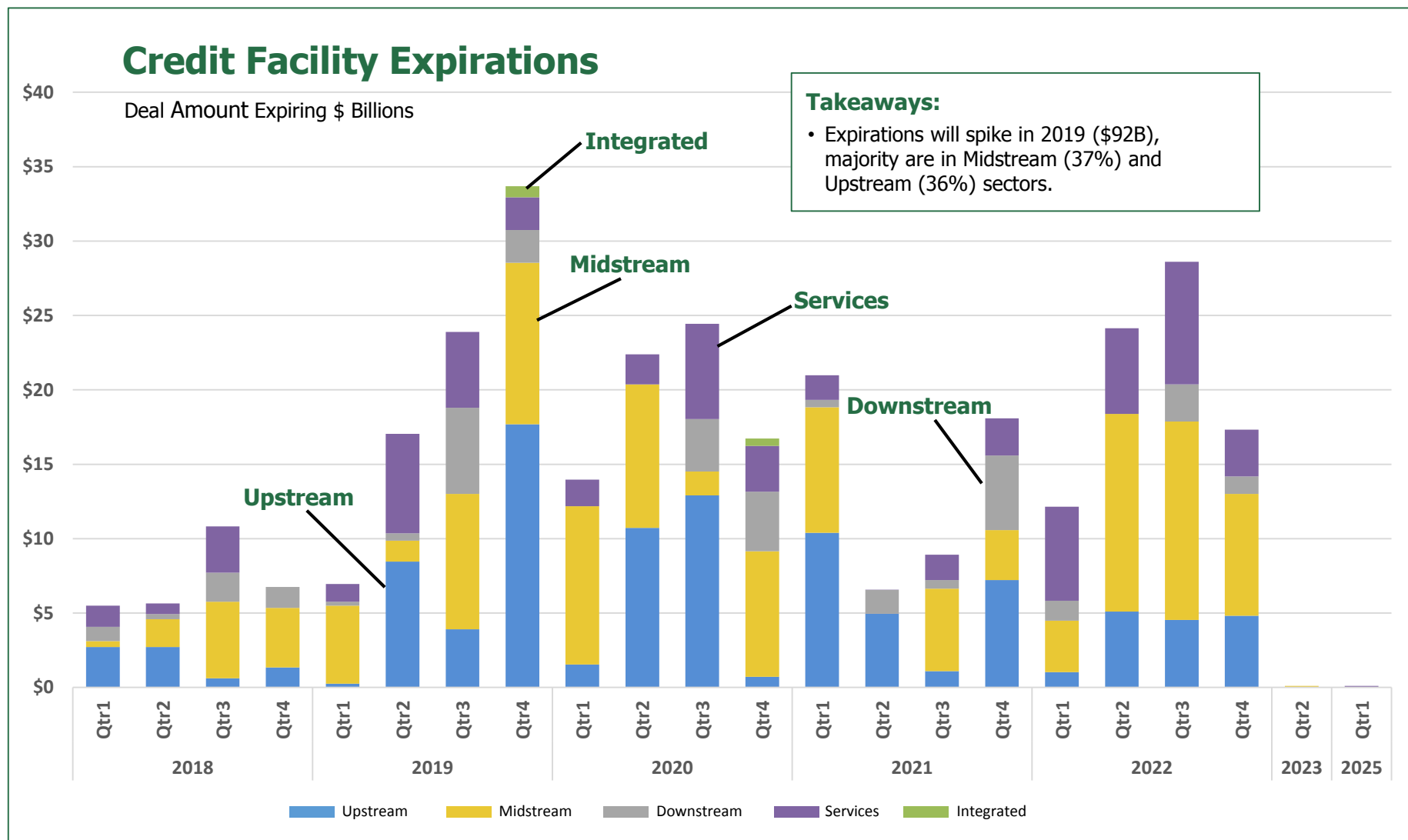
## 4Q17 Energy Credit Facility Lending Review

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- Over \$63 billion in facilities launched or amended in 4Q17 across 78 distinct agreements.
  - ~70% more borrowings than 3Q17, over 120% more than 4Q16.
  - 53 of 78 of credit facilities were “secured first lien agreements”.
- \$85 billion of Upstream Facilities are set to expire between 2018 – 2021.
- The Upstream sector accounted for 51% of facilities launched or amended in 4Q17.
- Downstream sector experienced a QOQ and YOY decrease while “Integrated’s” had no new or amended facilities.

# US Energy Credit Facility Expirations

Reporting Period: 1Q18 Forward





# Private

## 4Q17 Private Equity Markets

- Private Equity players continue to step up investment in energy.
- PE sponsors issued 125 commitments in 2017 slightly down from the 129 deals in 2016.
- PLS' Capitalize reports that 70% of 2017's commitments were in the Upstream Sector.
- PE backed companies participated in 29% of all upstream M&A in 2017 and 41% in 2016
- In 2017, there were over 70 unique PE sponsors that participated in at least one commitment.
- Encap was most active in 2017 followed by NGP, Apollo, Post Oak Capital & Kayne Anderson.
- Select private equity backed companies with new mandates in 4Q17.



## 4Q17 Top Private Equity Commitments

2017 Snapshot – Top 10 Private Equity Sponsors cover 50% of the market



Sponsor	2017 New Commitments	% Upstream	Current Fund Name	Fund Amount (\$MM)
Encap	14	71%	Encap Energy Capital Fund XI	\$7,000
Natural Gas Partners	8	100%	NGP Natural Resources XI	\$5,325
Apollo Global Management	6	100%	Apollo Investment Fund VIII	\$17,500
Post Oak Energy Capital	6	100%	Post Oak Energy Capital IV	\$600
Kayne Anderson Capital Advisors	6	100%	Kayne Anderson Energy Fund VII	\$2,000
Riverstone Holdings	5	100%	Riverstone Global Energy & Power Fund V	\$7,700
Carnelian Energy Capital	5	100%	Carnelian Energy Capital II	\$600
Quantum Energy Partners	5	100%	Quantum Energy Partners VI	\$4,450
Tailwater Capital	4	0%	Tailwater Energy Fund II	\$650
Vortus Investments Advisors	4	100%	Vortus Investments II	\$500
Other Sponsors	62			

General Partner	2017 New Commitments	Total Active Commitments
Upstream	87	474
Services	17	310
Midstream	19	165
Other	2	79
<b>Total</b>	<b>125</b>	<b>1,028</b>

Statistics reported reflect activity focused on the lower 48.  
PLS Capitalize database offers significantly more granular data.

### Capitalize Private Equity Statistics

- PLS tracks over 750+ private equity sponsors and over 2,200 of their P/E backed companies

For more details, call **713-600-0129**,  
email Chris George at [cgeorge@plsx.com](mailto:cgeorge@plsx.com)



# 4Q17 Canadian Capital Activity

## Observations from PLS Canadian Capital Coverage

Capitalize  
4Q



### Internationals Retreat from Oil Sands, Canadian Companies Filling the Cracks

- ConocoPhillips sells Foster Creek Christina Lake partnership to Cenovus for \$13.3 billion.
- Cenovus purchase of heavy oil assets spurs four asset sales: Whitecap Resources, Schlumberger & Torxen Resources, International Petroleum & CNRL
- CNRL buys Shell's 60% stake in AOSP for \$8.5 billion.
- Suncor buys Canadian Oil Sands Ltd. for \$4.5 billion
- Athabasca Oil buys Statoil's Canadian thermal assets for \$444 million
- Upstream debt offerings were used to refinance liabilities, fund acquisitions & capex.
- Among the largest debt issuers were CNRL with \$4.6 billion, Cenovus' \$2.9 billion and MEG's and Husky's \$750 million.
- Private equity a key source of capital for Canadian energy- Riverstone, Arc Financial, EnCap, NGP, Waterous all take major stakes in Canadian firms ranging from Upstream's Painted Pony and Vesta Energy to Step Energy Services.
- Upstream equity offerings funded major acquisitions. Cenovus led the pack with a \$2.4 billion equity raise. Tamarack Valley Energy raised \$312 million, MEG \$286 million and Painted Pony sold \$88 million in equity.
- Midstream equity offerings in 2017 yielded \$3.6 billion for Enbridge, \$2.75 billion for TransCanada and \$2.5 billion for AltaGas. Pembina Pipeline and Gibsons also had significant equity offerings.

Figures in US Dollars unless otherwise noted.

# 4Q17 International Capital Activity

## Observations from PLS International Capital Team



### Additional Thoughts Overseas

- Biggest 2017 capital raisers were Petrobras (\$16.6 billion), Pemex (\$9.4 billion) and BP (\$8.0 billion) — all multi-tranche debt issues.
- Saudis dominated 2017 with news of the on—then possibly off—now on again Saudi Aramco IPO to sell 5% for \$100 billion, creating a possible but contested \$2.0 trillion valuation.
- More dependence on commodity traders for financing oil production by cash-strapped countries as banks, traditionally the lenders, have become less willing to extend conventional credit.
- Some bank and sovereign funds vilify fossil fuel—Oil-driven Norwegian wealth fund dropping all oil and gas stocks, World Bank stopping upstream funding, no more shale or oil sands financing for BNP Paribas.
- Private equity picked up the slack in the North Sea—CVC Capital & Neptune Point, EIG & Chrysaor, HitecVision & Point Resources—PE influence spreading globally.
- Comfort with digital technology in the field leading to investments and experiments with blockchain technology across companies' operations.

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