

WELLS
FARGO

SECURITIES

Wells Fargo Energy Group

October 2018

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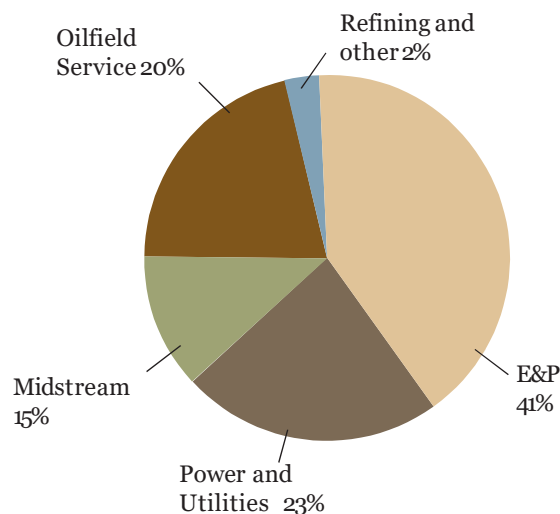
Wells Fargo Energy Group – A Leader in the Energy Sector

Our vision

Wells Fargo aims to satisfy all our customers' financial needs, help them succeed financially, be the premier provider of financial services in every one of our markets, and be known as one of the world's greatest companies.

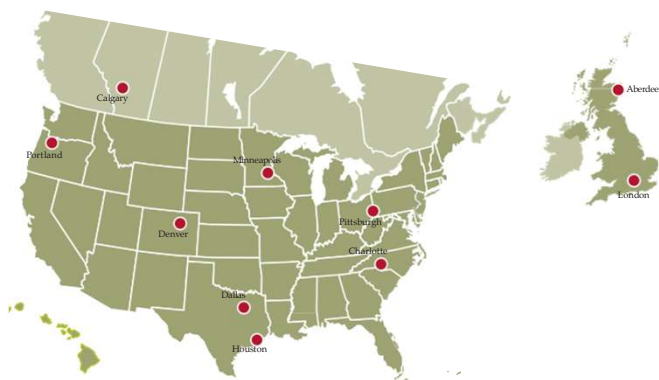
Commitment to the industry

Wells Fargo's Energy Group is one of the largest capital providers to the energy space, with approximately \$4.2 billion committed to public and private companies across the upstream, midstream, downstream, services, and power and utilities sectors.



Energy-focused approach

We have a dedicated client coverage team with 250+ team members located nationwide and 21 in-house engineering professionals.



Our approach is unique among our peer group. Wells Fargo is a leading energy financial services provider with the capabilities to provide comprehensive debt, advisory, capital markets,* and traditional banking solutions to companies of all sizes and in all stages of development.

Complementary capabilities

Mezzanine and equity products provided by Wells Fargo Strategic Capital:

- Sixteen total staff, headquartered in Houston, with offices in Denver, Dallas, and Pittsburgh
- Strong technical expertise
- Relationship-driven lender/arranger with the ability to structure and negotiate per client needs
- Approximate \$2 billion portfolio split between common equity co-invests and preferred equity (two-thirds of portfolio) and debt (one-third of portfolio)
- Strong balance sheet
- Seeking new debt and equity opportunities
- Ability to structure around current regulatory constraints

Additional capabilities

In 2014, the Energy Group established the Independent Power & Infrastructure team to focus on non-regulated power and project-oriented opportunities for our core clients, including transmission, pipeline, and LNG financing.

Our commitment to the energy sector and relationship focus allow us to build long-term strategic relationships with our clients.

Wells Fargo Securities is the trade name for the capital markets and investment banking services of Wells Fargo & Company and its subsidiaries, including but not limited to Wells Fargo Securities, LLC, a member of NYSE, FINRA, NFA and SIPC, Wells Fargo Prime Services, LLC, a member of FINRA, NFA and SIPC, and Wells Fargo Bank, N.A. Wells Fargo Securities, LLC and Wells Fargo Prime Services, LLC are distinct entities from affiliated banks and thrifts.

Deposit products offered by Wells Fargo Bank, N.A.

* Investment products: Not FDIC-insured. No bank guarantee. May lose value.

Borrowing Base Structure & Methodology

Borrowing Base Weighting and Applicable Considerations

Category	Risk	Weighting
Proved Reserves <ul style="list-style-type: none"> — PDP — PDNP — PUD Probable Possible		All PDP Reserves are included in Borrowing Base value
		PDNP and PUD Reserves cannot constitute greater than 25-30% of Borrowing Base value
		No Borrowing Base value is assigned to probable or possible reserves

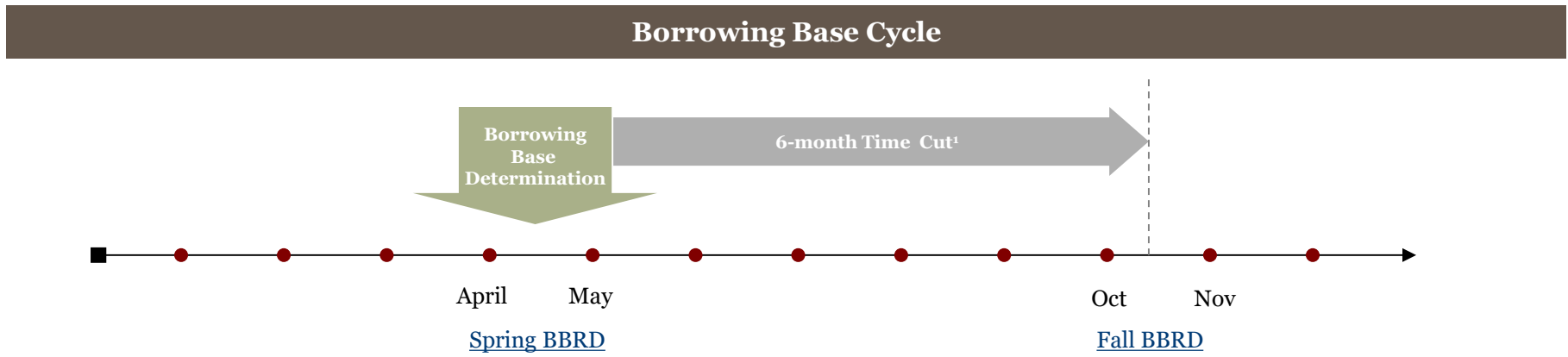
- Asset Concentrations**
 - Single well representing 10% - 15% of Borrowing Base value

- G&A Considerations**
 - Liquidating G&A vs standard historical G&A

- “Green” Production**
 - Wells with less than six months of production history

Key Borrowing Base Drivers

Key Loan Parameters	Methodology & Details	
Base Case PV9	<ul style="list-style-type: none"> Calculated on Base Case price deck PDP reserves are a key building block Value of hedges (relative to Base Case price deck) 	<ul style="list-style-type: none"> Limited contribution from PUD and PDNP is allowed An advance rate is applied (65% is a good proxy) 6-month time-cut is applied¹
Sensitivity Case PV9	<ul style="list-style-type: none"> Calculated based on Sensitivity price deck (70-80% of Base case pricing) Typically governs in high-LOE cases 	
Payout	<ul style="list-style-type: none"> Borrowing Base is assumed to be fully outstanding at closing Excess cash flows after interest are applied to reduce principal 	<ul style="list-style-type: none"> Triggered when nature of type curve is hyperbolic and properties are short-lived This metric is affected by assumed G&A and interest
FNR Remaining	<ul style="list-style-type: none"> Based on a cash flow analysis which is similar to the Payout analysis Measures Future Net Revenue (“FNR”) remaining after the loan is paid out 	



¹ The six-month time cut effectively cuts off six months of expected production and cash flows.

Acquisition Financing

Acquisition Financing

Large Deals < \$750MM

	Mature (Largely PDP)	Developmental (Shale)
Buyer	<ul style="list-style-type: none">▪ Non traditional private equity; Income funds	<ul style="list-style-type: none">▪ Energy private equity / public companies
RBL	<ul style="list-style-type: none">▪ Draws limited to $\leq 3.25x$ leverage – results in ~60/40 Debt/Equity▪ BB calculation employs 9% discount rate vs Acquisition metrics of 9% -15%▪ BB is maximized by hedges (3-5 years)▪ BB funded at close up to 85%▪ Distributions subject to RP provision of 3.0x leverage and/or 15% liquidity	<ul style="list-style-type: none">▪ Due to steep initial declines, six month roll-off, hedging (< 3 yrs) results in BB with Debt/Equity of less than 40/60▪ Generally limited funding as liquidity necessary for development capex▪ Initial leverage not an issue due to flush production and backwardated forward curve for oil▪ Distributions not as important to buyers
Sub Capital	<ul style="list-style-type: none">▪ 2nd liens / High Yield not common as leverage is maximized through RBL▪ Preferred equity (not treated as debt pursuant to GAAP) is frequently employed	<ul style="list-style-type: none">▪ 2nd / High Yield issuance often employed▪ Depending on the proportion of Proved vs Un-proven reserves can exceed the size of the RBL
Other	<ul style="list-style-type: none">▪ MVCs generally not an issue▪ Increased volatility of differentials have become a growing concern	<ul style="list-style-type: none">▪ MVCs issues very common, can materially impact EBITDA▪ Increased volatility of differentials have become a growing concern

Upstream Acquisition Financing Market Overview

The bank and institutional financing market has been strongly supportive of acquisition financings for 2018

Acquisition Financing Market Highlights

- Reserve-based loan ("RBL") facilities have been primary source of debt financing for majority of private equity backed transactions
 - RBL market capacity estimated at between \$1.5-2.5B
 - Bank capacity generally limited by conforming borrowing base amount; reluctance on part of lenders to stretch on borrowing base values
 - 30+ lenders active in the upstream RBL market
- 2nd lien and junior capital readily available to support additional leverage on PUD values outside of RBL advance rates
 - Upstream 2nd Lien capacity of ~\$750MM
 - OOC Energy & Power lending guidelines of at least 40% to not be considered "sub-standard"

Expected Bank Structure and Pricing

- Borrowing base: 60% - 70% advance rate on bank deck PV-9 with non-producing PV representing no more than 25% - 30% of value
- Opening liquidity of at least 10% - 15%; higher for PUD heavy assets with significant development capex requirements
- Covenants: 4.0x total leverage; 1:1 current ratio
- Generally looking for run-rate leverage in low 3.0x area
- Multi-year hedging (50% - 80% of PDP) likely required to maximize debt capacity
- New deal grid-based pricing ranging from L+150 - 250 bps to L+250 - 350 bps depending on size of deal, leverage, asset quality and other factors

Debt Markets Overview

Reserve Based Loan

- Market very healthy as most banks have worked through their problem loans and are attempting to book new assets
- Slower A&D market combined with recovery of bank portfolios driving pricing down and weakening structure
- Syndication hit rates can reach 100%
- OCC guidelines have been adopted but frequently using “Path to Pass” to circumvent initial leverage issue
- If there is any market depth issues would result with gas weighted deals

2nd Lien

- Very aggressive due to limited opportunities, resulting in fierce competition among market participants
- Market up to \$750MM.





















High Yield

- Market has been open throughout the year despite higher rate environment (margins over treasuries have compressed)
- The week prior saw significant outflow from HY funds (~\$5Bn)

Upstream - Wells Fargo Capabilities

Wells Fargo is a Leading Provider of Underwritten Acquisition Financing to Sponsor Backed Portfolio Companies

Recent Underwritten Acquisition Financing Transactions

Acquisition of Sabalo Energy	Acquisition of Southwestern Energy Company's Fayetteville Shale Business	Acquisition of Rex Energy	Acquisition of Chevron's Central Basin Platform and Northern Shelf West Texas Assets
 <p>Portfolio company of</p>  <p>ENCAP INVESTMENTS L.P. \$550 Million Senior Credit Facility \$500 Million Senior Unsecured Bridge Facility October 2018 <i>Left Lead Arranger and Bookrunner</i></p> 	 <p>Portfolio company of</p> <div style="background-color: #006699; color: white; padding: 2px; text-align: center;">Kayne Anderson</div> <p><i>Capital Advisors, L.P.</i> \$1.425 Billion Senior Credit Facility September 2018 <i>Left Lead Arranger and Bookrunner & Exclusive Buyside Financial Advisor</i></p> 	 <p>Portfolio company of</p>  <p>ENCAP INVESTMENTS L.P. \$925 Million Senior Credit Facility August 2018 <i>Left Lead Arranger and Bookrunner</i></p> 	 <p>Portfolio company of</p> <div style="background-color: #006699; color: white; padding: 2px; text-align: center;">Kayne Anderson</div> <p><i>Capital Advisors, L.P.</i> \$225 Million Senior Credit Facility September 2017 <i>Sole Lead Arranger and Bookrunner</i></p> 
Acquisition of Whiting Petroleum's Fort Berthold Indian Reservation Assets	Acquisition of QEP Resources' Pinedale Assets	Acquisition of Linn Energy's 84% W.I. in the South Belridge Hill Asset in California	Acquisition of Halcon Resources' East Texas Assets
 <p>Portfolio company of</p> <div style="background-color: #003366; color: white; padding: 2px; text-align: center;">WARBURG PINCUS</div> <p>\$150 Million Senior Credit Facility September 2017 <i>Left Lead Arranger and Bookrunner</i></p> 	 <p>Portfolio company of</p> <div style="background-color: #006699; color: white; padding: 2px; text-align: center;">Kayne Anderson</div> <p><i>Capital Advisors, L.P.</i> \$475 Million Senior Credit Facility July 2017 <i>Left Lead Arranger and Bookrunner & Exclusive Financial Advisor</i></p> 	 <p>Portfolio company of</p>   <p>OAKTREE \$500 Million Senior Credit Facility July 2017 <i>Left Lead Arranger and Bookrunner</i></p> 	 <p>Portfolio company of</p> <div style="background-color: #003366; color: white; padding: 2px; text-align: center;">WARBURG PINCUS</div> <p>\$350 Million Senior Credit Facility March 2017 <i>Left Lead Arranger and Bookrunner</i></p> 

Wells Fargo left led 100% fully underwritten commitments to each of these sponsor backed portfolio companies

Leading Arranger of Upstream Non-Investment Grade Syndicated Loans <\$500 Million

2013 – 3Q 2018 Leveraged Loan Syndications Left Lead Arranger/Administrative Agent Upstream League Table (by Deals)

(\$ in Millions)

Rank	Institution	No. of Deals	Volume
1	Wells Fargo	90	\$84,071
2	JP Morgan	56	62,858
3	Bank of America	19	16,370
4	Citi	14	11,137
5	BMO	10	5,463
6	KeyBank	6	3,215
7	Mitsubishi UFJ	5	12,384
8	RBC	5	4,825
9	Goldman Sachs	5	4,381
10	Barclays	5	4,123

Source: Thomson Reuters (LPC Loan Connector)

2013 – 3Q 2018 Leveraged Loan Syndications Lead Arranger/Bookrunner Upstream League Table (by Deals)

(\$ in Millions)

Rank	Institution	No. of Deals	Volume
1	Wells Fargo	124	\$68,063
2	JP Morgan	78	34,576
3	Citi	59	17,728
4	BMO	43	12,975
5	Bank of America	42	22,299
6	RBC	19	9,492
7	Capital One	18	4,592
8	Deutsche Bank	17	6,042
9	Mitsubishi UFJ	15	5,760
10	Barclays	15	5,261

Source: Thomson Reuters (LPC Loan Connector)

 \$250,000,000 Senior Credit Facility Left Lead Arranger	 \$400,000,000 Senior Credit Facility Left Lead Arranger	 \$110,000,000 Senior Credit Facility Left Lead Arranger	 \$100,000,000 Senior Credit Facility Left Lead Arranger
 \$440,000,000 Senior Credit Facility Left Lead Arranger	 \$225,000,000 Senior Credit Facility Left Lead Arranger	 \$200,000,000 Senior Credit Facility Left Lead Arranger	 \$125,000,000 Senior Credit Facility Left Lead Arranger
 \$450,000,000 Senior Credit Facility Left Lead Arranger	 \$230,000,000 Senior Credit Facility Left Lead Arranger	 \$150,000,000 Senior Credit Facility Left Lead Arranger	 \$200,000,000 Senior Credit Facility Left Lead Arranger
 \$375,000,000 Senior Credit Facility Left Lead Arranger	 \$250,000,000 Senior Credit Facility Left Lead Arranger	 \$300,000,000 Senior Credit Facility Left Lead Arranger	 \$380,000,000 Senior Credit Facility Left Lead Arranger
 \$100,000,000 Senior Credit Facility Left Lead Arranger	 \$180,000,000 Senior Credit Facility Left Lead Arranger	 \$185,000,000 Senior Credit Facility Left Lead Arranger	 \$300,000,000 Senior Credit Facility Left Lead Arranger

Leading Arranger of Upstream Non-Investment Grade Syndicated Loans \geq \$500 Million

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10	Barclays	15	5,261

Source: Thomson Reuters (LPC Loan Connector)

 \$1,350,000,000 Senior Credit Facility Left Lead Arranger	 \$925,000,000 Senior Credit Facility Left Lead Arranger	 \$1,000,000,000 Senior Credit Facility Left Lead Arranger	 \$750,000,000 Senior Credit Facility Left Lead Arranger
 \$800,000,000 Senior Credit Facility Left Lead Arranger	 \$1,250,000,000 Senior Credit Facility Left Lead Arranger	 \$600,000,000 Senior Credit Facility Left Lead Arranger	 \$575,000,000 Senior Credit Facility Left Lead Arranger
 \$875,000,000 Senior Credit Facility Left Lead Arranger	 \$1,200,000,000 Senior Credit Facility Left Lead Arranger	 \$650,000,000 Senior Credit Facility Left Lead Arranger	 \$1,500,000,000 Senior Credit Facility Left Lead Arranger
 \$1,000,000,000 Senior Credit Facility Left Lead Arranger	 \$540,000,000 Senior Credit Facility Left Lead Arranger	 \$1,000,000,000 Senior Credit Facility Left Lead Arranger	 \$1,300,000,000 Senior Credit Facility Left Lead Arranger
 \$900,000,000 Senior Credit Facility Left Lead Arranger	 \$1,450,000,000 Senior Credit Facility Left Lead Arranger	 \$600,000,000 Senior Credit Facility Left Lead Arranger	 \$575,000,000 Senior Credit Facility Left Lead Arranger

Wells Fargo is the #1 Bookrunner in the Upstream High Yield Market

2013 – YTD 2018 High Yield Bookrunning Manager Upstream League Table (by Deals)

(\$ in Millions)

Rank	Underwriter	No. of Deals	Volume
1	Wells Fargo	143	\$16,540
2	JP Morgan	124	14,837
3	Citi	90	10,798
4	Bank of America	88	10,158
5	RBC	88	8,854
6	Credit Suisse	76	10,972
7	Barclays	65	7,489
8	BMO	62	6,210
9	Goldman Sachs	54	8,368
10	Deutsche Bank	31	3,336


Source: Wells Fargo Securities and Dealogic

2013 – YTD 2018 High Yield Left Bookrunning Manager Upstream League Table (by Deals)

(\$ in Millions)

Rank	Underwriter	No. of Deals	Volume
1	JP Morgan	53	\$6,154
2	Credit Suisse	39	6,066
3	Wells Fargo	32	3,449
4	Bank of America	26	3,918
5	Barclays	19	2,854
6	Citi	15	1,678
7	Goldman Sachs	12	2,785
8	RBC	11	1,675
9	Morgan Stanley	5	1,531
10	BMO	4	438


Source: Wells Fargo Securities and Dealogic



\$400,000,000
Senior Notes
•
Left Bookrunner



\$200,000,000
Add-On Senior Notes
•
Left Bookrunner



\$300,000,000
Add-On Senior Notes
•
Left Bookrunner




\$175,000,000
Add-On Senior Notes
•
Left Bookrunner



\$500,000,000
Senior Notes
•
Left Bookrunner




\$150,000,000
Add-On Senior Notes
•
Left Bookrunner



\$150,000,000
Add-On Senior Notes
•
Left Bookrunner




\$350,000,000
Senior Notes
•
Left Bookrunner




\$500,000,000
Senior Notes
•
Left Bookrunner



\$500,000,000
Senior Notes
•
Left Bookrunner




\$400,000,000
Senior Notes
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Left Bookrunner




\$300,000,000
Add-On Senior Notes
•
Left Bookrunner



\$75,000,000
Add-On Senior Notes
•
Left Bookrunner



\$500,000,000
Senior Notes
•
Left Bookrunner



\$750,000,000
Senior Notes
•
Left Bookrunner



\$300,000,000
Add-On Senior Notes
•
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