Oil and the Financial Sector; Private Equity Perspective
Gary R. Petersen
Managing Partner & Founder, EnCap Investments

November 18, 2016
Overview of EnCap Investments

• Leading provider of private growth capital across upstream and midstream oil and gas
• Raised aggregate capital commitments of approximately ~$27 billion across 19 institutional funds since 1988
• Exceptional track record of 2.4x ROI and 52% IRR on 174 realized investments across 19 funds
• Investment strategy revolves around partnering with seasoned oil and gas executives with demonstrable track records of success

Upstream - EnCap Investments

• Core funds started in 1988
• 16 funds totaling ~$21 billion

Houston Office
• 49 Employees
• 19 Investment Staff
• 5 Technical Professionals

Dallas Office
• 16 Employees
• 11 Investment Staff
• 1 Technical Professional

Midstream - EnCap Flatrock

• 2nd business line started in 2008
• 3 funds totaling ~$6 billion
• 21 total employees

San Antonio Office
• 11 Investment Staff

Oklahoma City Office
• 3 Investment Staff

Houston Office
• 2 Investment Staff
• Long history of helping companies grow and create shareholder value
  – Provided growth capital to 242 oil and gas companies
  – 174 realized investments


Reserve Acquisition Funds I - III
$147,000,000
1988-1994

Mezz. Debt Funds I-III
$128,000,000
1989-1993

EnCap Energy Capital Fund III
$405,000,000
August 1997

EnCap Energy Capital FundIV
$518,000,000
November 2001

EnCap Energy Capital Fund V
$815,000,000
July 2004

EnCap Energy Capital Fund VI
$1,500,000,000
July 2006

EnCap Energy Capital Fund VII
$2,500,000,000
December 2007

EnCap Energy Capital Fund VIII
$3,500,000,000
January 2011

EnCap Energy Capital Fund IX
$5,000,000,000
January 2013

EnCap Energy Capital Fund X
$6,500,000,000
April 2015

Project Equity Funds I - III
$219,000,000
1994-1996

EnCap Flatrock Midstream Fund I
$779,000,000
March 2010

EnCap Flatrock Midstream Fund II
$1,750,000,000
July 2012

EnCap Flatrock Midstream Fund III
$3,000,000,000
May 2014
## Ranking of World’s Largest Private Equity Firms

### Private Equity Capital Raised Over Last Five Years ($ in Billions)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Firm</th>
<th>Headquarters</th>
<th>Capital Raised</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Blackstone Group</td>
<td>New York</td>
<td>$60.0</td>
</tr>
<tr>
<td>2</td>
<td>Kohlberg Kravis Roberts</td>
<td>New York</td>
<td>$35.2</td>
</tr>
<tr>
<td>3</td>
<td>Warburg Pincus</td>
<td>New York</td>
<td>$28.6</td>
</tr>
<tr>
<td>4</td>
<td>Advent International</td>
<td>Boston</td>
<td>$27.0</td>
</tr>
<tr>
<td>5</td>
<td>The Carlyle Group</td>
<td>Washington, DC</td>
<td>$25.7</td>
</tr>
<tr>
<td>6</td>
<td>Apollo Global Management</td>
<td>New York</td>
<td>$24.1</td>
</tr>
<tr>
<td>7</td>
<td>CVC Capital Partners</td>
<td>London</td>
<td>$23.5</td>
</tr>
<tr>
<td>8</td>
<td><strong>EnCap Investments</strong></td>
<td><strong>Houston</strong></td>
<td><strong>$21.1</strong></td>
</tr>
<tr>
<td>9</td>
<td>TPG</td>
<td>Fort Worth</td>
<td>$20.7</td>
</tr>
<tr>
<td>10</td>
<td>Partners Group</td>
<td>Baar-Zug</td>
<td>$18.6</td>
</tr>
</tbody>
</table>

Source: Private Equity International, May 2016
## Ranking of World’s Largest Natural Resources-Focused Private Equity Firms

<table>
<thead>
<tr>
<th>Rank</th>
<th>Overall Rank</th>
<th>Firm</th>
<th>Headquarters</th>
<th>Capital Raised ($ in Billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
<td>EnCap Investments</td>
<td>Houston</td>
<td>$21.1</td>
</tr>
<tr>
<td>2</td>
<td>16</td>
<td>Riverstone Holdings</td>
<td>New York</td>
<td>$12.0</td>
</tr>
<tr>
<td>3</td>
<td>23</td>
<td>NGP Energy Capital Mgmt.</td>
<td>Irving, TX</td>
<td>$10.0</td>
</tr>
<tr>
<td>4</td>
<td>28</td>
<td>The Energy &amp; Minerals Group</td>
<td>Houston</td>
<td>$8.8</td>
</tr>
<tr>
<td>5</td>
<td>55</td>
<td>Energy Capital Partners</td>
<td>Short Hills</td>
<td>$5.8</td>
</tr>
<tr>
<td>6</td>
<td>63</td>
<td>EnCap Flatrock Midstream</td>
<td>San Antonio</td>
<td>$5.5</td>
</tr>
<tr>
<td>7</td>
<td>83</td>
<td>First Reserve Corporation</td>
<td>Greenwich</td>
<td>$3.9</td>
</tr>
<tr>
<td>8</td>
<td>85</td>
<td>Denham Capital Management</td>
<td>Boston</td>
<td>$3.8</td>
</tr>
<tr>
<td>9</td>
<td>100</td>
<td>Quantum Energy Partners</td>
<td>Houston</td>
<td>$3.5</td>
</tr>
<tr>
<td>10</td>
<td>120</td>
<td>Energy Spectrum Capital</td>
<td>Dallas</td>
<td>$2.8</td>
</tr>
</tbody>
</table>

Source: Private Equity International, May 2016
• EnCap’s investor base is comprised of institutions from nearly every state in the Lower 48
• In addition, ~20% of the investor base is international (primarily Asia)
EnCap’s Investment Strategy
EnCap Value Creation Formula Tested Through Multiple Industry Cycles

Management Teams
Partner with the best management teams in the oil and gas business who have demonstrated a strong track record of value creation

Economics
Target highest quality rock with top quartile economics sensitized for well recoveries, commodity prices, and well costs

Risk Mitigation
EnCap board control governs staging in capital as economic assumptions and investment thesis validated, as well as limited use of leverage

Resource Capture
Maximize capital exposure to the asset once repeatable economic results statistically proven

Execution
Initiate development using optimized drilling and completion techniques to illustrate the value potential of the asset base

Monetization
Once value potential credibly established, exit decision based on continued risk/reward proposition and experienced business judgment
• EnCap currently has 71* upstream and midstream portfolio companies operating in the most economically advantaged basins across the U.S.

Note: Companies that have not yet acquired assets are not shown
*Includes EnCap & EFM Funds
Adaptability to Dynamic Market Environment Over Time Creates Value

- EnCap has consistently sought opportunities that represent the most attractive risk/return equation.
- Throughout its history, EnCap has adapted to changing market dynamics by shifting strategies and allocating capital to the most economically attractive opportunities.

Note: Charts are based on invested capital for realized and unrealized portfolio. Oil/Gas mix is based on proved reserve volumes and targeted acreage plays at a 20:1 MCF/BO ratio. Classification of individual deals within each fund as Horizontal/Vertical Drilling or Acquire & Exploit/Low Risk Drilling is based on where the majority of capital has been spent. Charts exclude midstream focused investments. Fund X not included due to immature nature of the portfolio.
Oil & Gas
Industry Overview
Shale/Horizontal vs. Conventional/Vertical Drilling

CONVENTIONAL RESERVOIR (Sandstone)

SEAL

1 BCF IN PLACE

SHALE/SOURCE ROCK CAN BE UP TO 300 BCF/SECTION

HORIZONTAL DRILLING WITH FRACTURE STIMULATION
Recent Market Downturn Nearly Unprecedented in Duration and Severity

Severity of Downturns – Last 30 Years

<table>
<thead>
<tr>
<th>Chart</th>
<th>Disruptive Market Event</th>
<th>Dates</th>
<th>WTI Price</th>
<th>Days to Bottom</th>
<th>Percent Drop</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Exxon Valdez, OPEC raises production ceiling to 19.5 mmbls/d</td>
<td>4/20/89</td>
<td>$24.62</td>
<td>426</td>
<td>(37%)</td>
</tr>
<tr>
<td>B</td>
<td>Gulf War (August 2, 1990 - January 17, 1991)</td>
<td>10/11/90</td>
<td>$41.07</td>
<td>134</td>
<td>(58%)</td>
</tr>
<tr>
<td>C</td>
<td>Asian Financial Crisis</td>
<td>1/8/97</td>
<td>$26.55</td>
<td>701</td>
<td>(59%)</td>
</tr>
<tr>
<td>D</td>
<td>OPEC increases quotas to maintain $22-$28 price band; 9/11</td>
<td>9/20/00</td>
<td>$37.22</td>
<td>421</td>
<td>(53%)</td>
</tr>
<tr>
<td>E</td>
<td>Demand destruction after run up from Israel/Lebanon war/North Korea missile test</td>
<td>8/7/06</td>
<td>$77.05</td>
<td>164</td>
<td>(34%)</td>
</tr>
<tr>
<td>F</td>
<td>US subprime mortgage and global banking system crisis</td>
<td>7/3/08</td>
<td>$145.31</td>
<td>173</td>
<td>(79%)</td>
</tr>
<tr>
<td>G</td>
<td>Current</td>
<td>6/20/14</td>
<td>$107.95</td>
<td>601</td>
<td>(76%)</td>
</tr>
</tbody>
</table>

Global Oil Markets at a Glance

- Current global oil production and supply are nearly in-step resulting in improved market sentiment

<table>
<thead>
<tr>
<th>Global</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Global Oil Production</strong></td>
<td><strong>Current US Crude Oil Production</strong></td>
</tr>
<tr>
<td>96 MMbpd</td>
<td>~8.5 MMbpd</td>
</tr>
<tr>
<td><strong>Current Global Oil Demand</strong></td>
<td><strong>Current Average US Crude Oil Imports</strong></td>
</tr>
<tr>
<td>96 MMbpd</td>
<td>~8.0 MMbpd</td>
</tr>
<tr>
<td><strong>Current OPEC Crude Oil Production</strong></td>
<td><strong>Current Average US Crude Oil Demand From Refineries</strong></td>
</tr>
<tr>
<td>33 MMbpd</td>
<td>~16.5 MMbpd</td>
</tr>
<tr>
<td><strong>Total Oil Rigs</strong></td>
<td><strong>US Oil Rigs</strong></td>
</tr>
<tr>
<td>1,116</td>
<td>450</td>
</tr>
<tr>
<td>% of Total Rigs</td>
<td>% of Total US Rigs</td>
</tr>
<tr>
<td>75%</td>
<td>79%</td>
</tr>
</tbody>
</table>

Source: EIA and Baker Hughes as of 10/31/2016.
Private Equity Well-Capitalized with $85+ Billion Raised

• As conventional financing sources retreat from the sector, private equity is filling that void and continues to become a primary source of financing for oil and gas companies

Source: RBC Richardson Barr.
Private Equity is Comprising a Significant Portion of Asset Demand

- Private equity becoming increasingly acquisitive during the present downturn
- Competing directly with public companies in becoming acquirers of core-of-the-core assets in the most sought after resource plays

### U.S. E&P Onshore A&D Demand by Sector ($Bn)

<table>
<thead>
<tr>
<th>Year</th>
<th>Private Equity</th>
<th>Publics</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>$27</td>
<td>$7</td>
</tr>
<tr>
<td>2011</td>
<td>$16</td>
<td>$18</td>
</tr>
<tr>
<td>2012</td>
<td>$18</td>
<td>$12</td>
</tr>
<tr>
<td>2013</td>
<td>$21</td>
<td>$28</td>
</tr>
<tr>
<td>2014</td>
<td>$25</td>
<td>$11</td>
</tr>
<tr>
<td>2015</td>
<td>$9</td>
<td>$18</td>
</tr>
<tr>
<td>2016</td>
<td>$21</td>
<td></td>
</tr>
</tbody>
</table>

### YTD Private Equity Demand by Asset Type

- **Oil Resource Play**: 46.0%
- **Gas Resource Play**: 6.0%
- **Conventional Oil**: 13.0%
- **Conventional Gas**: 35.0%

Source: RBC.
Market Ascribing Premium Valuations to Those Select Basins

- Public and private investor risk appetite heavily focused on Permian and STACK/SCOOP exposure

### Relative Valuations (EV / NTM EBITDA)

- **Permian**: 14.0x
- **STACK/SCOOP**: 13.0x
- **Appalachia**: 10.1x
- **Eagle Ford**: 8.1x
- **Bakken**: 8.1x
- **DJ Basin**: 7.7x

### YTD 2016 A&D Activity by Basin

- **Permian**: 53%
- **STACK/SCOOP**: 8%
- **Other**: 39%

### YTD 2016 Equity Issuances by Basin

- **Permian**: 51%
- **STACK/SCOOP**: 12%
- **Other**: 37%


(1) A&D activity and equity issuance related to onshore assets. Includes EOG direct equity issuance to Yates Oil & Gas to fund Permian Basin acquisition.
Enhancing Drilling Economics Through Technological Advancements

• In response to sustained low prices, the industry has made efficiency gains that are broadening the economic landscape

• Advancements in development practices, such as optimized spacing patterns, precision landing zones, and customized completion techniques are increasing well productivity

• These enhancements, together with declining D&C costs, are reducing breakeven costs in all major unconventional plays

Well Productivity Increasing…

…As Drilling and Completion Costs Decreasing

Source: Company filings and RSEG.