

## Store of Value CRT, DMLP, PBT, SBR, SJT

		Price (US\$/sh)	Market Cap (US\$m)	Enterprise Value (\$mm)	EV/ Market Cap	EV/ Ebitda NTM	PV/ Ebitda NTM	Oil Prod'n/ Ebitda (%)	Dist. Yield NTM (%)	McDep Ratio (EV/PV)
Permian Basin RT	PBT	7.03	330	330	1.00	12.2	15.7	80	8.2	0.78
Sabine Royalty Trust	SBR	36.25	530	530	1.00	12.0	16.5	61	8.4	0.73
San Juan Basin Royalty Trust	SJT	5.78	270	270	1.00	9.9	13.7	-	8.6	0.72
Dorchester Minerals, L.P.	DMLP	15.91	510	510	1.00	8.0	12.0	86	9.8	0.66
Cross Timbers Royalty Trust	CRT	14.58	90	90	1.00	8.5	14.7	39	9.4	0.58
<i>Total or Median</i>			<i>1,730</i>	<i>1,730</i>	<i>1.00</i>	<i>9.9</i>	<i>14.7</i>	<i>61</i>	<i>8.6</i>	<i>0.72</i>

### Summary and Recommendation

Offering an estimated median 8.6% cash distribution yield and trading at a median McDep Ratio of 0.72, Oil and Gas Income stocks look like attractive investments for participation in oil and gas price and volume trends. We estimate stable distributions for the year ahead at constant benchmark prices of \$60 a barrel and \$3 a mmbtu (see charts [Latest Four Quarters Distribution](#) and [Latest Twelve Months Distribution](#) on page 2). Oil price for year ahead distributions has been reduced to \$60 a barrel from \$70 a barrel as recent spot quotes have declined. Long-term expectations remain \$70 a barrel. Distribution trends are updated for latest disclosures through November 19 (see tables [Operating and Financial Estimates](#) on pages 3 to 7). We also roll forward our estimates for Next Twelve Months to the period ending December 31, 2019.

- **San Juan Basin Royalty Trust (SJT)** outperforms after declining sharply earlier in 2018. An upward trending distribution may be turbo charged by a benchmark natural gas spot price soaring past \$4.50 a mmbtu.
- **Cross Timbers Royalty Trust (CRT)** ranks high on natural gas exposure along with steadier performance of Top Line royalties.
- **Dorchester Minerals (DMLP)** looks timelier again at second lowest McDep Ratio. The stock is past the risk of price disappointment with the predictable absence in the latest distribution of a non-recurring positive contribution to the higher payout in the second quarter.
- **Sabine Royalty Trust (SBR)** scores well on rising payout trend and downside protection. All its payout is Top Line royalties that bear no operating or investment cost.
- **Permian Basin Royalty Trust (PBT)** loses relative standing as declining volume weighs more in latest projections. As a result, we revise estimated Net Present Value (NPV) to \$9 a unit from \$10.

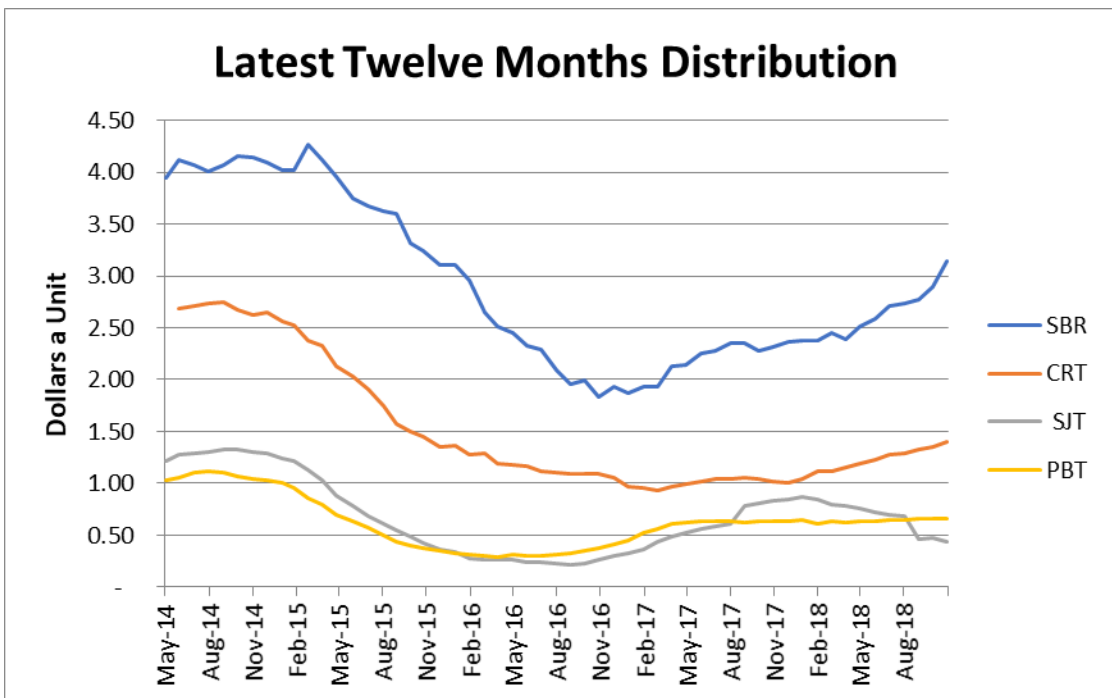
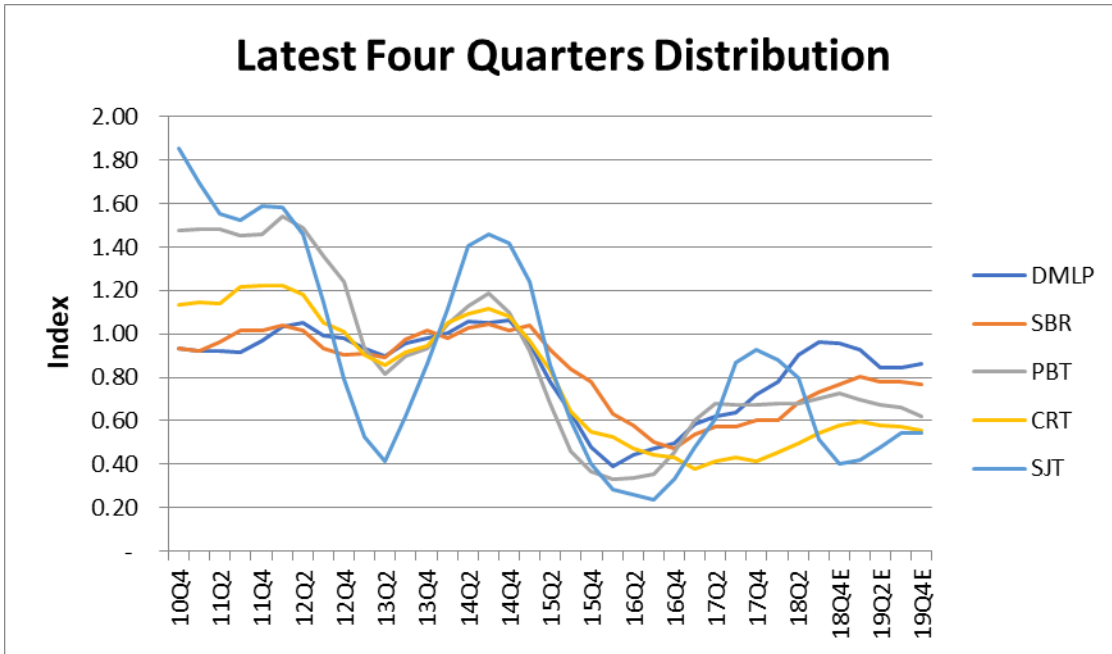
We believe small cap Income stocks provide inexpensive value among the five groups in our coverage (see [Table 1-4](#) on pages 8-11).

Kurt H. Wulff, CFA



# Industry Idea

Analysis of Oil and Gas Stocks  
November 21, 2018





# Industry Idea

Analysis of Oil and Gas Stocks  
November 21, 2018

Cross Timbers Royalty Trust											
Next Twelve Months Operating and Financial Performance											
	Q3	Year	Q2	Q3	Q4E	Year	Q1E	Q2E	Q3E	Q4E	Next Twelve Months
	9/30/17	2017	6/30/18	9/30/18	12/31/18	2018	3/31/19	6/30/19	9/30/19	12/31/19	12/31/19
<b>Volume</b>											
Natural Gas (bcf)	0.39	1.54	0.37	0.32	0.32	1.45	0.32	0.31	0.31	0.31	1.24
Natural Gas (mmcf)	4.3	4.2	4.1	3.5	3.5	4.0	3.5	3.4	3.4	3.4	3.4
Days	91	365	90	91	92	365	92	90	91	92	365
Oil (mb)	50	211	55	52	53	212	52	51	53	54	209
Oil (mbd)	0.54	0.58	0.62	0.57	0.57	0.58	0.57	0.57	0.58	0.58	0.57
Days	92	365	89	92	92	365	92	89	92	92	365
Total (bcf)	0.69	2.80	0.70	0.63	0.64	2.72	0.63	0.61	0.63	0.63	2.50
<b>Price</b>											
Natural Gas (HH lagged three months)											
Henry Hub (\$/mmbtu)	3.18	3.12	3.01	2.80	2.87	2.90	3.42	3.00	3.00	3.00	3.10
Differential (%)	(31)	(33)	(44)	(48)	(48)	(50)	(48)	(48)	(48)	(48)	(48)
CRT (\$/mcf)	4.16	4.14	4.33	4.13	4.23	4.35	5.04	4.43	4.43	4.43	4.59
Oil (\$/bbl) (WTI lagged two months)											
WTI Cushing	46.78	49.54	63.77	69.27	69.61	65.52	64.54	60.00	60.00	60.00	61.14
CRT	43.75	45.16	58.96	62.57	62.88	59.64	58.30	54.20	54.20	54.20	55.22
Total (\$/mcf)	5.52	5.67	6.94	7.23	7.33	6.95	7.36	6.72	6.77	6.78	6.91
<b>Revenue (\$mm)</b>											
Natural Gas	1.62	6.36	1.58	1.33	1.36	6.31	1.60	1.36	1.37	1.37	5.70
Oil	2.19	9.53	3.24	3.25	3.30	12.61	3.03	2.75	2.87	2.90	11.56
Total	3.81	15.89	4.82	4.58	4.66	18.92	4.64	4.12	4.24	4.27	17.27
<b>Cost (\$mm)</b>											
Tax, transport & other	0.58	2.35	0.65	0.57	0.70	2.67	0.70	0.62	0.64	0.64	2.59
Production	1.22	4.58	1.08	1.09	1.10	4.40	1.02	0.99	1.01	1.02	4.04
Total	1.80	6.93	1.73	1.66	1.80	7.07	1.71	1.61	1.65	1.66	6.63
<b>Cash flow (\$mm)</b>											
Development	0.33	1.20	0.36	0.19	0.19	1.01	0.19	0.19	0.19	0.19	0.76
Excess or other	(0.17)	0.39	0.10	0.14		0.35					-
Recovery of excess											
Net proceeds (\$mm)	1.86	7.37	2.63	2.59	2.68	10.49	2.73	2.32	2.40	2.42	9.88
<b>Royalty income (\$mm)</b>											
Royalty/Net proceeds	90%	90%	88%	87%	87%	88%	87%	87%	87%	87%	87%
Administration & reserve	0.15	0.58	0.16	0.12	0.12	0.65	0.12	0.10	0.10	0.10	0.42
Distributable income (\$mm)	1.53	6.06	2.17	2.14	2.22	8.57	2.27	1.93	2.00	2.02	8.21
Units (millions)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
<b>Royalty income (\$/unit)</b>											
Natural Gas											
TL TX	0.03	0.10	0.03			0.05					
TL OK	0.02	0.10	0.02			0.04					
TL NM	0.12	0.48	0.13			0.29					
BL TX	-	-	-			-					
BL OK	-	(0.00)	0.00			0.00					
Oil											
TL TX	0.07	0.25	0.12			0.19					
TL OK	0.03	0.11	0.02			0.06					
TL NM	0.01	0.03	0.01			0.02					
BL TX	-	-	-			-					
BL OK	-	0.03	0.06			0.11					
Administration	0.03	0.09	0.03			0.07					
Reserve and other	(0.00)	(0.00)	(0.00)			(0.00)					
Distribution (\$/unit)	0.25	1.01	0.36	0.36	0.37	1.43	0.38	0.32	0.33	0.34	1.37



# Industry Idea

Analysis of Oil and Gas Stocks  
November 21, 2018

Dorchester Minerals, L.P.											
Operating and Financial Performance											
	Q3	Year	Q2	Q3	Q4E	Year	Q1E	Q2E	Q3E	Q4E	Next Twelve Months
	9/30/17	2017	6/30/18	9/30/18	12/31/18	2018	3/31/19	6/30/19	9/30/19	12/31/19	12/31/19
<b>TOP LINE</b>											
<b>Volume</b>											
Natural Gas (mmcf)	10.5	<b>10.3</b>	9.9	8.3	8.3	<b>9.2</b>	8.2	8.1	8.0	7.9	<b>8.0</b>
Oil (mbd)	2.25	<b>2.15</b>	2.33	2.24	2.30	<b>2.24</b>	2.35	2.41	2.47	2.53	<b>2.44</b>
<b>Price</b>											
Henry Hub (\$/mmbtu)	2.99	<b>3.11</b>	2.80	2.87	3.42	<b>3.02</b>	3.00	3.00	3.00	3.00	<b>3.00</b>
WTI Cushing (\$/bbl)	48.20	<b>50.94</b>	67.86	69.54	64.54	<b>66.21</b>	60.00	60.00	60.00	60.00	<b>60.00</b>
Natural Gas (\$/mcf)	2.63	<b>2.83</b>	2.20	2.26	2.69	<b>2.48</b>	2.37	2.37	2.37	2.37	<b>2.37</b>
Oil (\$/bbl)	43.32	<b>45.27</b>	56.30	54.23	50.33	<b>54.16</b>	54.00	54.00	54.00	54.00	<b>54.00</b>
<b>Revenue (\$mm)</b>											
Natural Gas	2.5	<b>10.6</b>	2.0	1.7	2.0	<b>8.3</b>	1.8	1.7	1.7	1.7	<b>7.0</b>
Oil	9.0	<b>35.5</b>	11.9	11.2	10.6	<b>44.5</b>	11.4	11.8	12.3	12.6	<b>48.1</b>
Total Revenue	11.5	<b>46.1</b>	13.9	12.9	12.7	<b>52.8</b>	13.2	13.6	14.0	14.3	<b>55.1</b>
<b>Expense (allocated)</b>											
	2.2	<b>8.5</b>	2.2	2.3	2.3	<b>8.9</b>	2.3	2.4	2.4	2.5	<b>9.6</b>
<b>Ebitda</b>	9.3	<b>37.6</b>	11.7	10.6	10.3	<b>43.9</b>	10.9	11.2	11.6	11.8	<b>45.5</b>
<b>BOTTOM LINE</b>											
<b>Volume</b>											
Natural Gas (mmcf)	6.9	<b>7.5</b>	6.9	7.6	7.6	<b>7.3</b>	7.6	7.6	7.6	7.6	<b>7.6</b>
Oil (mbd)	0.65	<b>0.96</b>	1.10	1.61	1.66	<b>1.35</b>	1.71	1.76	1.81	1.86	<b>1.79</b>
<b>Price</b>											
Natural Gas (\$/mcf)	2.34	<b>2.60</b>	1.98	2.24	2.67	<b>2.37</b>	2.34	2.34	2.34	2.34	<b>2.34</b>
Oil (\$/bbl)	41.51	<b>44.71</b>	57.23	56.83	52.74	<b>55.26</b>	48.00	48.00	48.00	48.00	<b>48.00</b>
<b>Revenue (\$mm)</b>											
Natural Gas	1.5	<b>7.2</b>	1.2	1.6	1.9	<b>6.3</b>	1.6	1.6	1.6	1.6	<b>6.5</b>
Oil	2.5	<b>15.6</b>	5.7	8.4	8.0	<b>27.2</b>	7.4	7.7	8.0	8.2	<b>31.3</b>
Total Revenue	4.0	<b>22.8</b>	7.0	10.0	9.9	<b>33.6</b>	9.0	9.3	9.6	9.9	<b>37.8</b>
<b>Expense (allocated)</b>											
Partnership	0.6	<b>2.4</b>	0.9	0.9	0.9	<b>3.8</b>	1.0	1.0	1.0	1.0	<b>4.1</b>
Net Profits Interests	1.4	<b>9.0</b>	2.6	4.1	4.0	<b>13.0</b>	3.5	3.6	3.8	3.9	<b>14.8</b>
Total Expense	2.0	<b>11.4</b>	3.5	5.0	5.0	<b>16.8</b>	4.5	4.7	4.8	4.9	<b>18.9</b>
<b>Ebitda</b>	2.0	<b>11.4</b>	3.5	5.0	5.0	<b>16.8</b>	4.5	4.7	4.8	4.9	<b>18.9</b>
Development (estimated)	2.0	<b>8.4</b>	2.8	4.0	4.0	<b>13.4</b>	3.6	3.7	3.9	4.0	<b>15.1</b>
<b>NET INCOME</b>											
Top Line	9.3	<b>37.6</b>	11.7	10.6	10.3	<b>43.9</b>	10.9	11.2	11.6	11.8	<b>45.5</b>
Bottom Line	-	<b>3.0</b>	0.7	1.0	1.0	<b>3.4</b>	0.9	0.9	1.0	1.0	<b>3.8</b>
Lease Bonus and residual	0.6	<b>5.9</b>	5.6	(0.5)		<b>6.1</b>					-
Deprec., Deplet., & Amort.	2.8	<b>9.3</b>	2.3	2.4	2.4	<b>9.3</b>	2.4	2.5	2.5	2.6	<b>10.0</b>
Total Net Income	7.1	<b>37.2</b>	15.8	8.7	8.9	<b>44.1</b>	9.3	9.7	10.0	10.3	<b>39.3</b>
Units (mm)	32.3	<b>31.6</b>	32.3	32.3	32.3	<b>32.3</b>	32.3	32.3	32.3	32.3	<b>32.3</b>
Net Income Per Unit (\$)	0.22	<b>1.18</b>	0.49	0.27	0.28	<b>1.37</b>	0.29	0.30	0.31	0.32	<b>1.22</b>
<b>DISTRIBUTION</b>											
Top Line Revenue	10.0	<b>41.8</b>	12.3	13.6	12.4	<b>50.2</b>	12.0	12.5	12.9	13.3	<b>50.8</b>
Bottom Line Net Revenue	1.1	<b>5.0</b>	2.8	0.4	1.9	<b>8.9</b>	1.9	1.9	2.0	2.0	<b>7.9</b>
Lease Bonus and Other	0.2	<b>2.8</b>	4.2	0.6		<b>4.8</b>					-
Cash Expense	(2.1)	<b>(8.1)</b>	(2.0)	(1.9)	(2.1)	<b>(8.1)</b>	(2.1)	(2.1)	(2.1)	(2.1)	<b>(8.4)</b>
Distribution	9.2	<b>41.5</b>	17.3	12.7	12.2	<b>55.8</b>	11.8	12.4	12.8	13.3	<b>50.3</b>
Distribution Per Unit (\$)	0.28	<b>1.30</b>	0.54	0.39	0.38	<b>1.73</b>	0.37	0.38	0.40	0.41	<b>1.56</b>



# Industry Idea

Analysis of Oil and Gas Stocks  
November 21, 2018

Permian Basin Royalty Trust											
Next Twelve Months Operating and Financial Estimates											
	Q3	Year	Q2	Q3	Q4E	Year	Q1E	Q2E	Q3E	Q4E	Next Twelve Months
	9/30/17	2017	6/30/18	9/30/18	12/31/18	2018	3/31/19	6/30/19	9/30/19	12/31/19	12/31/19
<b>TOP LINE</b>											
<b>Volume</b>											
Natural Gas (mmcf)	0.9	0.9	0.7	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.8
Oil (mbd)	0.79	0.77	0.74	0.73	0.73	0.73	0.73	0.72	0.72	0.72	0.72
<b>Price (cash lagged two months)</b>											
Natural Gas (\$/mcf)	4.95	5.22	6.59	6.40	6.42	6.55	7.58	6.66	6.66	6.66	6.90
Oil (\$/bbl)	44.30	45.80	61.16	60.81	61.11	59.63	56.66	52.68	52.68	52.68	53.69
<b>Revenue (\$mm)</b>											
Natural Gas	0.4	1.6	0.4	0.5	0.5	1.8	0.5	0.4	0.5	0.5	1.9
Oil	3.2	12.9	4.0	4.1	4.1	16.0	3.8	3.4	3.5	3.5	14.2
Total Revenue	3.6	14.6	4.4	4.6	4.6	17.8	4.3	3.8	4.0	3.9	16.1
<b>Expense</b>											
Operating		-				-					
Production & Property taxes	0.5	1.2	0.5	0.5	0.5	1.6	0.5	0.4	0.4	0.4	1.7
Total Expense	0.5	1.2	0.5	0.5	0.5	1.6	0.5	0.4	0.4	0.4	1.7
<b>Ebitda</b>	3.1	13.4	3.9	4.0	4.0	16.2	3.8	3.4	3.6	3.5	14.3
Ebitda times 95%	2.9	12.7	3.7	3.8	3.8	15.4	3.6	3.3	3.4	3.3	13.6
<b>BOTTOM LINE</b>											
<b>Volume</b>											
Natural Gas (mmcf)	10.9	10.9	9.9	9.8	9.5	9.9	9.5	9.2	8.9	8.6	9.1
Oil (mbd)	1.78	1.89	1.77	1.59	1.60	1.70	1.60	1.57	1.54	1.51	1.55
<b>Price (cash lagged two months)</b>											
Natural Gas (\$/mcf)	3.02	3.04	2.91	3.29	3.30	3.29	3.90	3.42	3.42	3.42	3.55
Oil (\$/bbl)	43.46	45.92	60.85	59.89	60.19	59.35	55.81	51.88	51.88	51.88	52.90
<b>Revenue (\$mm)</b>											
Natural Gas	3.0	12.1	2.6	3.0	2.9	11.9	3.4	2.8	2.8	2.7	11.7
Oil	7.1	31.6	9.6	8.8	8.9	36.8	8.2	7.2	7.3	7.2	30.0
Total Revenue	10.1	43.7	12.2	11.7	11.7	48.7	11.6	10.0	10.1	9.9	41.7
<b>Expense</b>											
Operating	4.8	16.3	6.1	6.5	5.0	21.8	5.0	5.0	5.0	5.0	20.0
Production taxes	0.6	1.8	0.8	0.8	0.8	3.1	0.8	0.8	0.8	0.8	3.1
Total Expense	5.3	18.1	6.9	7.3	5.8	24.9	5.8	5.8	5.8	5.8	23.1
<b>Ebitda</b>	4.8	25.7	5.3	4.5	5.9	23.8	5.8	4.3	4.4	4.1	18.6
Development	0.6	1.8	0.2	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
(Ebitda-Dvlpmt) times 75%	3.2	17.9	3.9	3.4	4.5	17.4	4.4	3.2	3.3	3.1	13.9
Excess Costs		-				-					-
<b>CASH DISTRIBUTION</b>											
<b>Royalty Income (\$mm)</b>											
Top Line	2.9	12.7	3.7	3.8	3.8	15.4	3.8	3.3	3.4	3.3	13.8
Bottom Line	3.2	17.9	3.9	3.4	4.5	17.5	4.4	3.2	3.3	3.1	13.9
Administration	0.2	1.3	0.6	0.2	0.2	1.4	0.2	0.2	0.2	0.2	0.7
<b>Distributable Income (\$mm)</b>	5.9	29.3	7.0	7.1	8.1	31.5	8.0	6.3	6.4	6.3	27.0
<b>Units (millions)</b>	47	47	47	47	47	47	47	47	47	47	47
<b>Distribution (\$/unit)</b>	0.13	0.63	0.15	0.15	0.17	0.68	0.17	0.13	0.14	0.13	0.58



# Industry Idea

Analysis of Oil and Gas Stocks  
November 21, 2018

Sabine Royalty Trust											
Next Twelve Months Operating and Financial Performance											
	Q4	Year	Q2	Q3	Q4E	Year	Q1E	Q2E	Q3E	Q4E	Next Twelve Months
	12/31/17	2017	6/30/18	9/30/18	12/31/18	2018	3/31/19	6/30/19	9/30/19	12/31/19	12/31/19
<b>Volume</b>											
Natural Gas (bcf)	1.54	<b>5.68</b>	1.61	1.66	1.70	<b>6.55</b>	1.70	1.67	1.71	1.75	<b>6.83</b>
Natural Gas (mmcf)	16.7	<b>15.6</b>	17.9	18.2	18.4	<b>17.9</b>	18.4	18.6	18.8	19.0	<b>18.7</b>
Days	92	<b>365</b>	90	91	92	<b>365</b>	92	90	91	92	<b>365</b>
Oil (mmb)	0.154	<b>0.554</b>	0.166	0.139	0.152	<b>0.595</b>	0.152	0.149	0.150	0.152	<b>0.602</b>
Oil (mbd)	1.67	<b>1.52</b>	1.87	1.51	1.65	<b>1.63</b>	1.65	1.65	1.65	1.65	<b>1.65</b>
Days	92	<b>365</b>	89	92	92	<b>365</b>	92	89	92	92	<b>365</b>
Total (bcfe)	2.46	<b>9.00</b>	2.61	2.49	2.61	<b>10.12</b>	2.61	2.57	2.61	2.66	<b>10.44</b>
Total (mmcf)	26.8	<b>24.7</b>	29.1	27.3	28.3	<b>27.7</b>	28.3	28.5	28.7	28.9	<b>28.6</b>
<b>Price (Henry Hub natural gas lagged three months; WTI Cushing oil, two months)</b>											
Henry Hub (\$/mmbtu)	2.99	<b>3.12</b>	3.01	2.80	2.87	<b>2.90</b>	3.42	3.00	3.00	3.00	<b>3.10</b>
Differential (%)	6	<b>6</b>	7	2	2	<b>4</b>	2	2	2	2	<b>2</b>
Trust (\$/mcf)	2.81	<b>2.95</b>	2.81	2.73	2.80	<b>2.78</b>	3.33	2.93	2.93	2.93	<b>3.03</b>
WTI Cushing (\$/bbl)	49.85	<b>49.54</b>	63.77	69.27	69.61	<b>65.52</b>	64.54	60.00	60.00	60.00	<b>61.14</b>
Differential	3.16	<b>2.73</b>	4.21	7.72	7.75	<b>5.96</b>	7.19	6.68	6.68	6.68	<b>6.80</b>
Trust (\$/bbl)	46.69	<b>46.82</b>	59.56	61.55	61.85	<b>59.55</b>	57.35	53.32	53.32	53.32	<b>54.33</b>
Total (\$/bcfe)	4.68	<b>4.74</b>	5.53	5.25	5.42	<b>5.30</b>	5.51	5.00	4.98	4.97	<b>5.11</b>
<b>Revenue (\$mm)</b>											
Natural Gas	4.3	<b>16.7</b>	4.5	4.5	4.7	<b>18.2</b>	5.7	4.9	5.0	5.1	<b>20.7</b>
Oil	7.2	<b>25.9</b>	9.9	8.6	9.4	<b>35.4</b>	8.7	7.9	8.0	8.1	<b>32.7</b>
Total	11.5	<b>42.7</b>	14.4	13.1	14.1	<b>53.6</b>	14.4	12.8	13.0	13.2	<b>53.4</b>
<b>Expense</b>											
Tax and other	2.5	<b>5.5</b>	1.2	1.2	3.0	<b>6.7</b>	1.5	1.1	1.2	2.8	<b>6.6</b>
General and administrative	0.5	<b>2.5</b>	0.6	0.6	0.5	<b>2.6</b>	0.8	0.6	0.6	0.5	<b>2.6</b>
Total	3.0	<b>7.9</b>	1.9	1.8	3.6	<b>9.3</b>	2.3	1.7	1.8	3.4	<b>9.2</b>
<b>Ebitda</b>	8.5	<b>34.7</b>	12.5	11.3	10.6	<b>44.4</b>	12.1	11.1	11.3	9.8	<b>44.2</b>
<b>Ebit</b>	8.5	<b>34.7</b>	12.5	11.3	10.6	<b>44.4</b>	12.1	11.1	11.3	9.8	<b>44.2</b>
<b>Ebt</b>	8.5	<b>34.7</b>	12.5	11.3	10.6	<b>44.4</b>	12.1	11.1	11.3	9.8	<b>44.2</b>
<b>Distributable Income (\$mm)</b>	8.5	<b>34.7</b>	12.5	11.3	10.6	<b>44.4</b>	12.1	11.1	11.3	9.8	<b>44.2</b>
<b>Units (millions)</b>	14.6	<b>14.6</b>	14.6	14.6	14.6	<b>14.6</b>	14.6	14.6	14.6	14.6	<b>14.6</b>
<b>Distributable Income/Unit (\$)</b>	0.58	<b>2.38</b>	0.86	0.78	0.72	<b>3.04</b>	0.83	0.76	0.77	0.67	<b>3.03</b>



# Industry Idea

Analysis of Oil and Gas Stocks  
November 21, 2018

San Juan Basin Royalty Trust											
Next Twelve Months Operating and Financial Estimates											
	Q3	Year	Q2	Q3	Q4E	Year	Q1E	Q2E	Q3E	Q4E	Next Twelve Months
	9/30/17	2017	6/30/18	9/30/18	12/31/18	2018	3/31/19	6/30/19	9/30/19	12/31/19	12/31/19
<b>Volume</b>											
Natural gas (mmbtu)	7.2	28.8	9.7	9.5	8.7	36.4	8.7	8.4	8.7	8.7	34.5
Heat Content(btucf)	1,120	1,117	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111
Natural gas (bcf)	6.5	25.8	8.7	8.6	7.8	32.8	7.8	7.6	7.8	7.8	31.0
Natural Gas (mmcf)	70.3	70.6	97.8	85.0	85.0	89.8	85.0	85.0	85.0	85.0	85.0
Days	92	365	89	92	92	365	92	89	92	92	365
Oil (mb)	0.02	0.06	0.02	0.01	0.01	0.05	0.01	0.01	0.01	0.01	0.05
Oil (mbd)	0.18	0.15	0.20	0.11	0.11	0.14	0.13	0.13	0.13	0.13	0.13
Total gas & oil (bcf)	6.6	26.1	8.8	8.6	7.9	33.1	7.9	7.6	7.9	7.9	31.3
<b>Price</b>											
Natural gas (\$/mmbtu) (Henry Hub lagged two months)											
Henry Hub (\$/mmbtu)	3.15	3.12	2.99	2.88	2.89	2.90	3.42	3.00	3.00	3.00	3.10
Differential (%)	28	23	50	45	40	43	30	30	30	30	30
Net to SJT (\$/mmbtu)	2.27	2.40	1.49	1.58	1.74	1.65	2.39	2.10	2.10	2.10	2.17
Natural gas (\$/mcf)	2.55	2.68	1.65	1.76	1.93	1.83	2.66	2.33	2.33	2.33	2.41
Oil (\$/bbl) (WTI Cushing lagged two months)											
WTI Cushing	46.78	49.54	63.77	69.27	69.61	65.52	64.54	60.00	60.00	60.00	61.14
SJT	35.09	35.75	48.89	61.49	61.79	53.00	52.21	48.54	48.54	48.54	49.47
Total gas & oil (\$/mcf)	2.60	2.72	1.73	1.82	1.99	1.90	2.71	2.39	2.39	2.39	2.47
<b>Revenue (\$mm)</b>											
Natural Gas	16.5	69.0	14.4	15.1	15.1	60.1	20.8	17.7	18.2	18.2	74.9
Oil	0.6	2.0	0.9	0.6	0.6	2.8	0.6	0.6	0.6	0.6	2.3
Total	17.1	71.0	15.3	15.7	15.7	62.9	21.4	18.2	18.8	18.8	77.3
<b>Cost (\$mm)</b>											
Severance tax	1.9	7.6	2.0	2.1	1.9	7.8	2.6	2.2	2.3	2.3	9.4
Operating	5.9	22.8	7.1	7.5	7.5	28.2	7.5	7.5	7.5	7.5	29.9
Total	7.8	30.4	9.1	9.6	9.4	36.0	10.1	9.7	9.8	9.8	39.3
<b>Cash flow (\$mm)</b>											
Development	(0.6)	(0.4)	0.1	2.8	1.4	4.7	1.4	1.4	1.4	1.4	5.6
Net proceeds (\$mm)	9.9	40.9	6.1	3.4	4.9	22.3	9.9	7.1	7.7	7.7	32.4
<b>Royalty income (\$mm)</b>											
Royalty/Net proceeds	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
Administration	0.3	(0.7)	0.5	0.3	0.3	1.5	0.3	0.3	0.3	0.3	1.2
One-time, Other	(7.7)	(7.7)	1.6	(0.6)	(1.9)	(1.6)					-
<b>Distributable income (\$mm)</b>											
Units (millions)	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6
Per unit	0.32	0.84	0.05	0.06	0.11	0.36	0.15	0.11	0.12	0.12	0.50



# Industry Idea

Analysis of Oil and Gas Stocks  
November 21, 2018

**Table 1**  
**McDep Energy Stocks**  
**Ranked by McDep Ratio**

		Price (US\$/sh)	Market Cap (US\$m)	Enterprise Value (\$mm)	EV/ Market Cap	EV/ Ebitda NTM	PV/ Ebitda NTM	Oil Prod'n/ Ebitda (%)	Dist. Yield NTM (%)	McDep Ratio (EV/PV)
	Symbol/Rating	20-Nov 2018								
<b>Integrated</b>										
	XOM	76.97	329,000	419,000	1.27	8.6	9.7	44	4.3	0.88
	CVX	116.10	223,000	279,000	1.25	6.9	8.6	57	3.9	0.81
	SU	32.17	52,000	71,000	1.35	7.2	10.1	69	3.4	0.71
	RDS-B	61.70	258,000	364,000	1.41	7.0	10.0	46	6.1	0.69
	<i>Total or Median</i>		<i>862,000</i>	<i>1,133,000</i>	<i>1.31</i>	<i>7.1</i>	<i>9.9</i>	<i>51</i>	<i>4.1</i>	<i>0.76</i>
<b>Large Independent</b>										
	OXY	70.30	53,600	66,600	1.24	8.2	8.7	59	4.4	0.95
	COP	63.99	75,000	95,000	1.27	7.0	8.4	74	1.9	0.84
	EOG	102.36	59,600	66,300	1.11	7.3	9.0	89	0.9	0.80
	PXD	151.14	25,800	28,600	1.11	8.6	11.1	93	0.2	0.77
	<i>Total or Median</i>		<i>214,000</i>	<i>256,500</i>	<i>1.18</i>	<i>7.7</i>	<i>8.9</i>	<i>81</i>	<i>1.4</i>	<i>0.82</i>
<b>Mid-Size Independent</b>										
	HES	54.86	16,300	25,500	1.56	10.1	10.1	89	1.8	1.00
	CLR	44.55	16,700	22,900	1.37	6.0	8.5	79	-	0.71
	XEC	83.14	7,900	9,300	1.17	6.1	9.7	81	0.9	0.63
	DVN	27.44	13,600	20,200	1.49	6.4	11.5	85	1.2	0.56
	MRO	15.93	13,520	20,300	1.50	5.3	10.7	87	1.3	0.50
	<i>Total or Median</i>		<i>68,000</i>	<i>98,200</i>	<i>1.49</i>	<i>6.1</i>	<i>10.1</i>	<i>85</i>	<i>1.2</i>	<i>0.63</i>
<b>Small Independent</b>										
	CRC	21.17	900	7,700	8.6	7.1	10.3	90	-	0.70
	RRC	15.72	3,900	8,500	2.20	7.0	11.9	42	0.5	0.59
	WLL	28.77	2,700	5,800	2.21	4.5	9.5	97	-	0.47
	BIREF	2.95	800	1,400	1.78	4.9	10.7	44	2.6	0.46
	<i>Total or Median</i>		<i>8,300</i>	<i>23,400</i>	<i>2.20</i>	<i>6.0</i>	<i>10.5</i>	<i>67</i>	<i>0.3</i>	<i>0.53</i>
<b>Income</b>										
	PBT	7.03	330	330	1.00	12.2	15.7	80	8.2	0.78
	SBR	36.25	530	530	1.00	12.0	16.5	61	8.4	0.73
	SJT	5.78	270	270	1.00	9.9	13.7	-	8.6	0.72
	DMLP	15.91	510	510	1.00	8.0	12.0	86	9.8	0.66
	CRT	14.58	90	90	1.00	8.5	14.7	39	9.4	0.58
	<i>Total or Median</i>		<i>1,730</i>	<i>1,730</i>	<i>1.00</i>	<i>9.9</i>	<i>14.7</i>	<i>61</i>	<i>8.6</i>	<i>0.72</i>

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation, amort.  
 Estimated Ebitda (cash flow) tied to one-year prices of US\$60 a barrel and \$3 a million btu. NTM = Next Twelve Months ending 12/31/19.  
 Estimated Present Value (PV) presumes a long-term price for oil of US\$70 a barrel and natural gas, \$4.00 a million btu.  
 McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses. For historical research see [www.mcdep.com](http://www.mcdep.com)





# Industry Idea

Analysis of Oil and Gas Stocks  
November 21, 2018

	Symbol/Rating	Price	Upstream NTM			Down-	Total	Distrib./ Ebitda (%)	Distrib. NTM (\$/sh)	
		(US\$/sh) 20-Nov 2018	Volume (mboe)	Equiv. Price (\$/boe)	Ebitda Margin (%)	Ebitda (\$/boe)	stream Uplift (\$/boe)			Ebitda NTM (\$mm)
<b>Integrated</b>										
Royal Dutch Shell	RDS-B	61.70	1390	44.14	59	26.10	11.51	52,274	30	3.76
Exxon Mobil Corporation	XOM	76.97	1446	48.48	44	21.50	12.17	48,687	29	3.28
Chevron Corporation	CVX	116.10	1114	48.87	59	28.90	7.18	40,189	21	4.48
Suncor Energy	SU	32.17	307	52.73	42	22.31	9.93	9,884	18	1.10
	<i>Total or Median</i>		<i>4256</i>	<i>48.68</i>	<i>52</i>	<i>24.20</i>	<i>10.72</i>	<i>44,438</i>	<i>25</i>	
<b>Large Independent</b>										
ConocoPhillips	COP	63.99	496	48.44	57	27.40	0.00	13,595	11	1.22
EOG Resources, Inc.	EOG	102.36	305	42.42	71	29.92	0.00	9,136	6	0.88
Occidental Petroleum Corp.	OXY	70.30	263	40.04	50	20.00	10.71	8,086	29	3.12
Pioneer Natural Resources	PXD	151.14	125	38.78	69	26.60	0.00	3,329	2	0.32
	<i>Total or Median</i>		<i>1190</i>	<i>41.23</i>	<i>63</i>	<i>27.00</i>	<i>0.00</i>	<i>8,611</i>	<i>8</i>	
<b>Mid-Size Independent</b>										
Continental Resources	CLR	44.55	119	40.39	79	32.00	0.00	3,810	-	-
Marathon Oil Corporation	MRO	15.93	162	36.50	64	23.50	0.00	3,800	4	0.20
Devon Energy Corporation	DVN	27.44	203	30.07	52	15.50	0.00	3,143	5	0.32
Hess Corporation	HES	54.86	113	42.54	53	22.50	0.00	2,535	12	1.00
Cimarex Energy Company	XEC	83.14	94	25.86	62	16.10	0.00	1,519	5	0.72
	<i>Total or Median</i>		<i>691</i>	<i>36.50</i>	<i>62</i>	<i>22.50</i>	<i>0.00</i>	<i>3,143</i>	<i>5</i>	
<b>Small Independent</b>										
Whiting Petroleum Corporation	WLL	28.77	49	40.77	66	26.80	0.00	1,308	-	-
Range Resources	RRC	15.72	142	20.25	42	8.60	0.00	1,223	2	0.08
California Resources	CRC	21.17	49	49.40	44	21.80	0.00	1,078	-	-
Birchcliff Energy Ltd.	BIREF	2.95	23	17.72	71	12.50	0.00	284	7	0.08
	<i>Total or Median</i>		<i>263</i>	<i>30.51</i>	<i>55</i>	<i>17.15</i>	<i>0.00</i>	<i>1,151</i>	<i>1</i>	
<b>Income</b>										
Dorchester Minerals, L.P.	DMLP	15.91	2.50	37.11	69	25.73	0.00	64	78	1.56
Sabine Royalty Trust	SBR	36.25	1.74	30.69	83	25.42	0.00	44	100	3.03
San Juan Basin Royalty Trust	SJT	5.78	3.75	14.81	49	7.28	0.00	27	85	0.50
Permian Basin RT	PBT	7.03	1.14	40.47	58	23.48	0.00	27	101	0.58
Cross Timbers Royalty Trust	CRT	14.58	0.40	41.45	62	25.53	0.00	10	80	1.37
	<i>Total or Median</i>		<i>10</i>	<i>37.11</i>	<i>62</i>	<i>25.42</i>	<i>0.00</i>	<i>27</i>	<i>85</i>	
For historical research see <a href="http://www.mcdep.com">www.mcdep.com</a>										

**Table 3**  
**McDep Energy Stocks**  
**Net Present Value Per Share**

		<i>Price</i>				<i>Devel.</i>	<i>Undev/</i>	<i>Nat</i>	<i>Top</i>	<i>Net</i>	
		<i>(US\$/sh)</i>				<i>Resrvs/</i>	<i>Devel.</i>	<i>Gas/</i>	<i>Line/</i>	<i>Present</i>	
	<i>Symbol/Rating</i>	<i>20-Nov</i>	<i>Shares</i>	<i>Debt</i>	<i>P/E</i>	<i>Prod</i>	<i>Resrvs</i>	<i>Ebitda</i>	<i>Ebitda</i>	<i>Value</i>	
		<i>2018</i>	<i>(mm)</i>	<i>(\$mm)</i>	<i>NTM</i>	<i>NTM</i>	<i>(%)</i>	<i>(%)</i>	<i>(%)</i>	<i>(US\$/sh)</i>	
<b>Integrated</b>											
	Chevron Corporation	CVX	116.10	1,917	56,349	16	6.8	57	29	150.00	
	Royal Dutch Shell	RDS-B	61.70	4,177	106,120	13	7.1	22	34	100.00	
	Exxon Mobil Corporation	XOM	76.97	4,271	89,839	16	9.6	52	31	90.00	
	Suncor Energy	SU	32.17	1,628	18,374	14	8.3	87		50.00	
	<i>Median</i>					7.7	55				
<b>Large Independent</b>											
	Pioneer Natural Resources	PXD	151.14	171	2,800	39	7.2	9	7	200.00	
	EOG Resources, Inc.	EOG	102.36	582	6,742	19	4.5	43	11	130.00	
	ConocoPhillips	COP	63.99	1,173	20,375	15	7.1	31	26	80.00	
	Occidental Petroleum Corp.	OXY	70.30	763	13,000	20	7.3	35	8	75.00	
	<i>Median</i>					7.1	33				
<b>Mid-Size Independent</b>											
	Cimarex Energy Company	XEC	83.14	96	1,349	14	4.4	35	19	140.00	
	Continental Resources	CLR	44.55	375	6,174	17	5.1	121	21	70.00	
	Devon Energy Corporation	DVN	27.44	494	6,627	15	8.6	24	15	60.00	
	Hess Corporation	HES	54.86	297	9,177		6.4	59	11	55.00	
	Marathon Oil Corporation	MRO	15.93	849	6,744	19	5.6	60	13	40.00	
	<i>Median</i>					5.6	59				
<b>Small Independent</b>											
	Whiting Petroleum Corporation	WLL	28.77	92	3,198	(51)	6.9	84	3	100.00	
	California Resources	CRC	21.17	43	6,800		8.9	41	10	100.00	
	Range Resources	RRC	15.72	247	4,657	24	9.8	83	58	40.00	
	Birchcliff Energy Ltd.	BIREF	2.95	268	614	23	7.2	228	56	9.00	
	<i>Median</i>					8.0	83				
<b>Income</b>											
	Sabine Royalty Trust	SBR	36.25	15	-	12	10.3	3	33	100	50.00
	Cross Timbers Royalty Trust	CRT	14.58	6	-	11	13.1	-	69	80	25.00
	Dorchester Minerals, L.P.	DMLP	15.91	32	-	13	6.4	-	16	71	24.00
	Permian Basin RT	PBT	7.03	47	-	12	6.8	-	24	50	9.00
	San Juan Basin Royalty Trust	SJT	5.78	47	-	12	11.2	-	100	-	8.00
	<i>Median</i>					10.3					
P/E = Stock Price to Earnings. For historical research see <a href="http://www.mcdep.com">www.mcdep.com</a> .											



# Industry Idea

Analysis of Oil and Gas Stocks  
November 21, 2018

Table 4									
McDep Energy Stocks									
Total Return Year-to-Date 2018									
Ranked by Unlevered Total Return									
		Price (\$/sh)	Price (\$/sh)	Price Change (%)	Cash Distrib. (%)	Equity Total Return (%)	Debt Return (\$/sh)	Unlevered Total Return (%)	McDep Ratio
	Symbol/Rati	20-Nov 2018	29-Dec 2017						
<b>Integrated</b>									
	XOM	76.97	83.64	(8)	4	(4)	21	(3)	0.88
	RDS-B	61.70	68.29	(10)	6	(4)	25	(3)	0.69
	CVX	116.10	125.19	(7)	4	(4)	29	(3)	0.81
	SU	32.17	36.72	(12)	3	(9)	11	(7)	0.71
	<i>Median</i>			(9)		(4)		(3)	0.76
<b>Large Independent</b>									
	COP	63.99	54.89	17	2	19	17	14	0.84
	OXY	70.30	73.66	(5)	4	(0)	17	(0)	0.95
	EOG	102.36	107.91	(5)	1	(4)	12	(4)	0.80
	PXD	151.14	172.85	(13)	0	(12)	16	(11)	0.77
	<i>Median</i>			(5)		(2)		(2)	0.82
<b>Mid-Size Independent</b>									
	HES	54.86	47.47	16	2	18	31	11	1.00
	MRO	15.93	16.93	(6)	1	(5)	8	(3)	0.50
	CLR	44.55	52.97	(16)	-	(16)	16	(12)	0.71
	DVN	27.44	41.40	(34)	1	(33)	13	(25)	0.56
	XEC	83.14	122.01	(32)	0	(31)	14	(28)	0.63
	<i>Median</i>			(16)		(16)		(12)	0.63
<b>Small Independent</b>									
	WLL	28.77	26.48	9	-	9	35	4	0.47
	CRC	21.17	19.44	9	-	9	159	1	0.70
	RRC	15.72	17.06	(8)	0	(7)	19	(4)	0.59
	BIREF	2.95	3.50	(16)	2	(13)	2	(8)	0.46
	<i>Median</i>			0		1		(1)	0.53
<b>Income</b>									
	DMLP	15.91	15.20	5	11	16	-	16	0.66
	CRT	14.58	14.69	(1)	9	9	-	9	0.58
	SBR	36.25	44.60	(19)	7	(12)	-	(12)	0.73
	PBT	7.03	8.87	(21)	7	(13)	-	(13)	0.78
	SJT	5.78	8.24	(30)	6	(24)	-	(24)	0.72
	<i>Median</i>			(19)		(12)		(12)	0.72
	<i>Grand Median</i>			(8)		(6)		(3)	0.71
<b>Natural Gas (\$/mmbtu)</b>									
		4.56	2.95	55					
<b>Oil -West Texas Intermediate (\$/bbl)</b>									
		53.23	60.09	(11)					
	VDE	88.51	99.31	(11)	3	(8)			
	VTI	135.20	137.25	(1)	2	0			
	VEA	38.78	44.86	(14)	3	(11)			
	VWO	38.28	45.91	(17)	3	(13)			
	VT	68.60	74.26	(8)	2	(5)			

Source: McDep LLC, Yahoo, CME Group, Bloomberg

For historical research see [www.mcdep.com](http://www.mcdep.com)



Analysis of Oil and Gas Stocks  
November 21, 2018

**Disclaimer:** This analysis was prepared by Kurt Wulff, Manager of McDep LLC. The firm used sources and data believed to be reliable but makes no representation as to their accuracy or completeness. This analysis is intended for informational purposes and is not a solicitation to buy or sell a security. Past performance is no guarantee of future results.

McDep or its employees may take positions in stocks the firm covers for research purposes. No trades in a subject stock shall be made within a week before or after a change in recommendation.

**Certification:** I, Kurt H. Wulff, certify that the views expressed in this research analysis accurately reflect my personal views about the subject securities and issuers. No part of my compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in this research analysis.