

Lower Long-Term Natural Gas to \$4.00 from \$4.50 Prospects for Oil and Gas Stocks in 2016

Summary and Recommendation

We start 2016 with revised estimates of unlevered Present Value, the denominator of the McDep Ratio, that take account of a reduction in expected long-term price of natural gas and a wide variation in resiliency of cash flow in the face of short-term price variation. The ratio of New PV to Old PV is 0.97 for the median company while ranging from 1.20 to 0.67 (see table Change in Unlevered Present Value on page 2). Where cash flow is more sensitive to current price, we scale back present value to a more limited multiple of current cash flow. New PV is higher for integrated oil companies such as **Total S.A. (TOT)** and **Chevron (CVX)**. TOT had better than expected cash flow from oil production and CVX had particularly strong downstream improvements. New PV is lower by the most for three natural gas oriented stocks **Range Resources (RRC)**, **Encana (ECA)** and **San Juan Basin Royalty Trust (SJT)**. RRC's discovery of the Marcellus Shale gas field is too much of a good thing for now. ECA actually generated negative cash flow from natural gas in the latest quarter. Concentrated entirely on natural gas and responsible for its share of operating cost, SJT's distributions are down more than for peers with growing oil volume and operating costs paid by others. Conservative investors concerned about another decline in 2016 may be comfortable owning **Exxon Mobil (XOM)**, **EOG Resources (EOG)**, **Cimarex (XEC)**, **Sabine Royalty Trust (SBR)** or **Imperial Oil (IMO)** for solid, risk-adjusted long-term performance. For investors looking for more action on the upside from a low base, presuming oil and gas prices improve amid positive economic conditions, the Buy-rated stocks, the two lowest McDep Ratio securities in each of five groups, appear to offer more appreciation potential (see Tables 1-4 on pages 3-6).

Kurt H. Wulff, CFA



Meter Reader

A Monthly Analysis of Oil and Gas Stocks

January 1, 2016

Change in Unlevered Present Value									
		Price (\$/sh)				Net Present Value (\$/sh)	Enter- prise Value (\$mm)		Ratio of New PV to Old PV
	Symbol	31-Dec 2015	Shares (mm)	Debt (\$mm)	Market Cap (\$mm)			Present Value (\$mm)	
Total S.A.	TOT	44.95	2,312	57,770	103,900	90	161,670	265,850	1.20
Chevron Corporation	CVX	89.96	1,872	57,220	168,400	135	225,620	309,940	1.17
Marathon Oil Corporation	MRO	12.58	677	9,264	8,520	40	17,784	36,344	1.13
ConocoPhillips	COP	46.69	1,242	37,602	58,000	80	95,602	136,962	1.12
Royal Dutch Shell (BG <i>pro forma</i>)	RDS-A	45.79	3,965	125,000	181,600	80	306,600	442,200	1.12
EOG Resources, Inc.	EOG	70.79	549	6,822	38,860	90	45,682	56,232	1.11
Sabine Royalty Trust	SBR	26.26	14.6	-	383	60	383	875	1.09
Exxon Mobil Corporation	XOM	77.95	4,190	83,907	326,600	100	410,507	502,907	1.07
Devon Energy Corporation	DVN	32.00	411	13,018	13,200	65	26,218	39,733	1.00
Occidental Petroleum Corp.	OXY	67.61	763	8,890	51,590	75	60,480	66,115	1.00
Cimarex Energy Company	XEC	89.38	93.0	1,132	8,310	108	9,442	11,176	1.00
Continental Resources (32%)	CLR	22.98	118	2,304	2,720	56	5,024	8,935	0.97
Imperial Oil Limited (30%)	IMO	32.52	255	2,656	8,300	38	10,956	12,357	0.96
Birchcliff Energy Ltd.	BIREF	2.93	154	539	450	11	989	2,233	0.94
Cross Timbers Royalty Trust	CRT	13.01	6.0	-	78	29	78	174	0.94
Permian Basin RT	PBT	5.06	46.6	-	236	11	236	513	0.92
Cenovus Energy Inc.	CVE	12.62	827	3,646	10,440	20	14,086	20,184	0.89
Whiting Petroleum Corporation	WLL	9.44	204	5,512	1,930	42	7,442	14,080	0.87
Dorchester Minerals, L.P.	DMLP	9.89	30.7	-	303	24	303	736	0.86
California Resources	CRC	2.33	382	6,800	890	5	7,690	8,710	0.82
Canadian Oil Sands Limited	COSWF	5.96	485.0	2,831	2,890	12	5,721	8,651	0.82
Range Resources	RRC	24.62	167	4,146	4,110	35	8,256	9,991	0.80
EnCana Corporation	ECA	5.09	843	8,624	4,300	6	12,924	13,682	0.70
San Juan Basin Royalty Trust	SJT	4.14	46.6	-	193	8	193	373	0.67



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Symbol/Rating	Price (US\$/sh) 31-Dec 2015	EV/ Market Cap	Enterprise Value (\$mm)	Present Value by Segment (%)				Dist. Yield NTM (%)	McDep Ratio	
				North Amer.	Rest of World	Oil Prod'n	Down- stream			
				Natural Gas	Natural Gas					
Global Integrated										
Exxon Mobil Corporation	XOM	77.95	1.26	411,000	6	13	60	21	3.7	0.82
Chevron Corporation	CVX	89.96	1.34	226,000	2	9	69	19	4.8	0.73
Royal Dutch Shell (BG pro form)	RDS-A B	45.79	1.69	307,000	2	17	56	26	8.2	0.69
Total S.A.	TOT B	44.95	1.56	162,000		17	60	23	5.9	0.61
<i>Total or Median</i>			<i>1.45</i>	<i>1,106,000</i>			<i>60</i>	<i>22</i>	<i>5.3</i>	<i>0.71</i>
Large Independent										
Occidental Petroleum Corp.	OXY	67.61	1.17	60,500	3	1	86	9	4.4	0.91
EOG Resources, Inc.	EOG	70.79	1.18	45,700	11	3	87		0.9	0.81
ConocoPhillips	COP	46.69	1.65	96,000	12	11	77		6.3	0.70
Devon Energy Corporation	DVN B	32.00	1.99	26,200	23		66	11	3.0	0.66
Marathon Oil Corporation	MRO B	12.58	2.09	17,800	7	1	92		1.6	0.49
<i>Total or Median</i>			<i>1.65</i>	<i>246,000</i>	<i>11</i>		<i>86</i>		<i>3.0</i>	<i>0.70</i>
Small Independent										
California Resources	CRC	2.33	8.64	7,700	10		90		-	0.88
Cimarex Energy Company	XEC	89.38	1.14	9,400	31		69		0.7	0.84
Range Resources	RRC	24.62	2.01	8,300	75		25		0.6	0.83
Continental Resources (32%)	CLR B	22.98	1.85	5,000	14		86		-	0.56
Whiting Petroleum Corporation	WLL B	9.44	3.86	7,400	6		94		-	0.53
<i>Total or Median</i>			<i>2.01</i>	<i>38,000</i>	<i>14</i>		<i>86</i>		-	<i>0.83</i>
Income										
San Juan Basin Royalty Trust	SJT	4.14	1.00	190	100		-		6.9	0.52
Permian Basin RT	PBT	5.06	1.00	240	23		77		7.3	0.46
Cross Timbers Royalty Trust	CRT	13.01	1.00	80	56		44		7.6	0.45
Sabine Royalty Trust	SBR B	26.26	1.00	380	38		62		8.5	0.44
Dorchester Minerals, L.P.	DMLP B	9.89	1.00	300	28		72		8.9	0.41
<i>Total or Median</i>			<i>1.00</i>	<i>1,200</i>	<i>38</i>		<i>62</i>		<i>7.6</i>	<i>0.45</i>
Canada										
EnCana Corporation	ECA	5.09	3.01	12,900	47		53		1.2	0.94
Imperial Oil Limited (30%)	IMO	32.52	1.32	11,000	1		73	27	1.2	0.89
Cenovus Energy Inc.	CVE	12.62	1.35	14,100	11		82	7	3.7	0.70
Canadian Oil Sands Limited	COSWF B	5.96	1.98	5,700			100		2.4	0.66
Birchcliff Energy Ltd.	BIREF B	2.93	2.20	1,000	69		31		-	0.44
<i>Total or Median</i>			<i>1.98</i>	<i>45,000</i>			<i>73</i>		<i>1.2</i>	<i>0.70</i>

Estimated present value 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



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			<i>Price</i> <i>(US\$/sh)</i>	<i>Shares</i>	<i>Market</i> <i>Cap</i> <i>(US\$m)</i>	<i>Net</i> <i>Present</i> <i>Value</i> <i>(US\$/sh)</i>	<i>Debt/</i> <i>Present</i> <i>Value</i>	<i>McDep</i> <i>Ratio</i>
	<i>Symbol/Rating</i>		<i>31-Dec</i> <i>2015</i>	<i>(mm)</i>				
	<i>B = Buy</i>							
Global Integrated								
Exxon Mobil Corporation	XOM		77.95	4,190	327,000	100.00	0.17	0.82
Chevron Corporation	CVX		89.96	1,872	168,000	135.00	0.18	0.73
Royal Dutch Shell (BG pro forma)	RDS-A	B	45.79	3,965	182,000	80.00	0.28	0.69
Total S.A.	TOT	B	44.95	2,312	104,000	90.00	0.22	0.61
	<i>Total or Median</i>				<i>781,000</i>		<i>0.20</i>	<i>0.71</i>
Large Independent								
Occidental Petroleum Corp.	OXY		67.61	763	51,600	75.00	0.13	0.91
EOG Resources, Inc.	EOG		70.79	549	38,900	90.00	0.12	0.81
ConocoPhillips	COP		46.69	1,242	58,000	80.00	0.27	0.70
Devon Energy Corporation	DVN	B	32.00	411	13,200	65.00	0.33	0.66
Marathon Oil Corporation	MRO	B	12.58	677	8,520	40.00	0.25	0.49
	<i>Total or Median</i>				<i>170,200</i>		<i>0.25</i>	<i>0.70</i>
Small Independent								
California Resources	CRC		2.33	382	900	5.00	0.78	0.88
Cimarex Energy Company	XEC		89.38	93	8,300	108.00	0.10	0.84
Range Resources	RRC		24.62	167	4,100	35.00	0.41	0.83
Continental Resources (32%)	CLR	B	22.98	118	2,700	56.00	0.26	0.56
Whiting Petroleum Corporation	WLL	B	9.44	204	1,900	42.00	0.39	0.53
	<i>Total or Median</i>				<i>18,000</i>		<i>0.39</i>	<i>0.83</i>
Income								
San Juan Basin Royalty Trust	SJT		4.14	47	190	8.00	-	0.52
Permian Basin RT	PBT		5.06	47	240	11.00	-	0.46
Cross Timbers Royalty Trust	CRT		13.01	6	80	29.00	-	0.45
Sabine Royalty Trust	SBR	B	26.26	15	380	60.00	-	0.44
Dorchester Minerals, L.P.	DMLP	B	9.89	31	300	24.00	-	0.41
	<i>Total or Median</i>				<i>1,200</i>		<i>-</i>	<i>0.45</i>
Canada								
EnCana Corporation	ECA		5.09	843	4,300	6.00	0.63	0.94
Imperial Oil Limited (30%)	IMO		32.52	255	8,300	38.00	0.21	0.89
Cenovus Energy Inc.	CVE		12.62	827	10,400	20.00	0.18	0.70
Canadian Oil Sands Limited	COSWF	B	5.96	485	2,900	12.00	0.33	0.66
Birchcliff Energy Ltd.	BIREF	B	2.93	154	500	11.00	0.24	0.44
	<i>Total or Median</i>				<i>26,000</i>		<i>0.24</i>	<i>0.70</i>
Estimated present value 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								



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			<i>Price (US\$/sh)</i>	<i>Adjustd Resrvs/ Prod</i>	<i>PV/ Ebitda</i>	<i>EV/ Ebitda</i>	<i>P/E</i>	<i>Dividend NTM</i>
	<i>Symbol/Rating</i>		<i>31-Dec 2015</i>	<i>NTM</i>	<i>NTM</i>	<i>NTM</i>	<i>NTM</i>	<i>(\$/sh)</i>
	<i>B = Buy</i>							
Global Integrated								
Exxon Mobil Corporation	XOM		77.95	14.4	11.3	9.2	20	2.92
Chevron Corporation	CVX		89.96	9.3	11.3	8.2	31	4.28
Royal Dutch Shell (BG pro forma)	RDS-A	B	45.79	9.9	9.6	6.6	16	3.76
Total S.A.	TOT	B	44.95	9.9	9.8	5.9	11	2.66
	<i>Median</i>			<i>9.9</i>	<i>10.5</i>	<i>7.4</i>	<i>18</i>	
Large Independent								
EOG Resources, Inc.	EOG		70.79	9.0	17.6	14.3		0.67
Occidental Petroleum Corp.	OXY		67.61	8.9	14.3	13.1		3.00
ConocoPhillips	COP		46.69	11.4	16.4	11.4		2.96
Devon Energy Corporation	DVN	B	32.00	10.2	15.9	10.5	58	0.96
Marathon Oil Corporation	MRO	B	12.58	12.1	17.9	8.7		0.20
	<i>Median</i>			<i>10.2</i>	<i>16.4</i>	<i>11.4</i>	<i>58</i>	
Small Independent								
California Resources	CRC		2.33	12.7	24.4	21.5		-
Range Resources	RRC		24.62	13.8	22.2	18.3		0.16
Cimarex Energy Company	XEC		89.38	7.7	17.8	15.1		0.64
Continental Resources (32%)	CLR	B	22.98	11.4	19.4	10.9		-
Whiting Petroleum Corporation	WLL	B	9.44	11.4	17.1	9.0		-
	<i>Median</i>			<i>11.4</i>	<i>19.4</i>	<i>15.1</i>		
Income								
Cross Timbers Royalty Trust	CRT		13.01	12.5	28.0	12.5	13	0.99
Sabine Royalty Trust	SBR	B	26.26	8.4	26.9	11.8	12	2.23
San Juan Basin Royalty Trust	SJT		4.14	8.6	21.2	11.0	15	0.28
Permian Basin RT	PBT		5.06	9.7	21.0	9.7	14	0.37
Dorchester Minerals, L.P.	DMLP	B	9.89	7.1	18.5	7.6	16	0.88
	<i>Median</i>			<i>8.6</i>	<i>21.2</i>	<i>11.0</i>	<i>14</i>	
Canada								
EnCana Corporation	ECA		5.09	8.2	22.1	20.8	80	0.06
Canadian Oil Sands Limited	COSWF	B	5.96	18.0	22.3	14.8		0.14
Cenovus Energy Inc.	CVE		12.62	15.0	17.1	11.9		0.46
Imperial Oil Limited (30%)	IMO		32.52	23.4	12.8	11.4	19	0.40
Birchcliff Energy Ltd.	BIREF	B	2.93	12.8	17.3	7.7		-
	<i>Median</i>			<i>15.0</i>	<i>17.3</i>	<i>11.9</i>	<i>49</i>	
	<i>Grand Median</i>			<i>11</i>	<i>18</i>	<i>11</i>		

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended December 31, 2016; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses



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Table 4										
McDep Energy Stocks										
Total Return Year-to-Date 2015										
Ranked by Unlevered Total Return										
			Price	Price			Equity	Unlevered		
			(\$/sh)	(\$/sh)	Price	Cash	Total	Debt	Return	McDep
	Symbol/Rat.		31-Dec	29-Dec	Change	Distrib.	Return	(\$/sh)	(%)	Ratio
			2015	2014	(%)	(%)	(%)			
Global Integrated										
Total S.A.	TOT	B	44.95	52.74	(15)	5	(10)	25	(7)	0.61
Exxon Mobil Corporation	XOM		77.95	93.07	(16)	3	(13)	20	(11)	0.82
Chevron Corporation	CVX		89.96	113.32	(21)	4	(17)	31	(13)	0.73
Royal Dutch Shell (BG pro forma)	RDS-A	B	45.79	68.31	(33)	6	(27)	32	(19)	0.69
	<i>Median</i>				(18)		(15)		(12)	0.71
Large Independent										
Occidental Petroleum Corp.	OXY		67.61	81.71	(17)	4	(14)	12	(12)	0.91
ConocoPhillips	COP		46.69	70.11	(33)	4	(29)	30	(20)	0.70
EOG Resources, Inc.	EOG		70.79	94.33	(25)	0	(25)	12	(22)	0.81
Devon Energy Corporation	DVN	B	32.00	61.15	(48)	1	(46)	32	(31)	0.66
Marathon Oil Corporation	MRO	B	12.58	28.58	(56)	2	(54)	14	(36)	0.49
	<i>Median</i>				(33)		(29)		(22)	0.70
Small Independent										
California Resources	CRC		2.33	5.77	(60)	1	(59)	18	(14)	0.88
Cimarex Energy Company	XEC		89.38	110.27	(19)	1	(18)	12	(17)	0.84
Continental Resources (32%)	CLR	B	22.98	38.26	(40)	-	(40)	19	(26)	0.56
Range Resources	RRC		24.62	56.00	(56)	0	(56)	25	(39)	0.83
Whiting Petroleum Corporation	WLL	B	9.44	34.09	(72)	-	(72)	27	(40)	0.53
	<i>Median</i>				(56)		(56)		(26)	0.83
Income										
Sabine Royalty Trust	SBR	B	26.26	36.68	(28)	9	(19)	-	(19)	0.44
Cross Timbers Royalty Trust	CRT		13.01	18.07	(28)	8	(20)	-	(20)	0.45
Permian Basin RT	PBT		5.06	9.12	(45)	4	(41)	-	(41)	0.46
Dorchester Minerals, L.P.	DMLP	B	9.89	25.16	(61)	5	(56)	-	(56)	0.41
San Juan Basin Royalty Trust	SJT		4.14	13.97	(70)	2	(68)	-	(68)	0.52
	<i>Median</i>				(45)		(41)		(41)	0.45
Canada										
Imperial Oil Limited (30%)	IMO		32.52	43.49	(25)	1	(24)	10	(20)	0.89
Canadian Oil Sands Limited	COSWF	B	5.96	9.20	(35)	2	(33)	6	(20)	0.66
Cenovus Energy Inc.	CVE		12.62	20.95	(40)	4	(36)	4	(30)	0.70
EnCana Corporation	ECA		5.09	13.94	(63)	2	(61)	10	(35)	0.94
Birchcliff Energy Ltd.	BIREF	B	2.93	6.75	(57)	-	(57)	3	(37)	0.44
	<i>Median</i>				(40)		(36)		(30)	0.70
	<i>Grand Median</i>				(37)		(35)		(21)	0.68
Natural Gas (\$/mmbtu)			2.33	3.19	(27)					
Oil - West Texas Intermediate (\$/bbl)			37.06	53.69	(31)					
S&P 500			2,044	2,091	(2)					

Source: McDep LLC, Yahoo, CME Group, Bloomberg



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Index of 2015 Research				
<u>Date</u>	<u>Series</u>	<u>Symbol</u>	<u>Subject</u>	<u>Theme</u>
21-Dec	II	DMLP, SBR, CRT, SJT, PBT		Income Payers at Low Price
15-Dec	MR			Buys for 2016 and Beyond
8-Dec	ISI	RDS	Royal Dutch Shell plc	Buy on Acquisition Pro Forma
23-Nov	ISI	SJT	San Juan Basin Royalty Trust	Steep Price Decline Triggers Buy
18-Nov	II	MRO, DVN, COP, OXY, EOG		Large Cap Independent Producers for Upside
12-Nov	ISI	BIREF	Birchcliff Energy	Encouraging Volume, Uncertain Price
10-Nov	MR	CLR, XEC, WLL, RRC, CRC		Small Cap Producers for the Upcycle
6-Nov	ISI	DMLP	Dorchester Minerals, L.P.	25% Volume Beat
2-Nov	ISI	XOM	Exxon Mobil	Potential Gain with Minimal Pain
27-Oct	ISI	COSWF	Canadian Oil Sands Ltd.	Deal Likely at Higher Price
21-Oct	ISI	SJT	San Juan Basin Royalty Trust	Southwest Bank Potential Successor Trustee
13-Oct	MR			Hedge Mideast Political Risk
5-Oct	ISI	COSWF	Canadian Oil Sands Ltd.	Suncor Makes Tender Offer at 0.57 McDep Ratio
1-Oct	ISI	SJT	San Juan Basin Royalty Trust	Trust Officer Resigns
29-Sep	II	COSWF, BIREF, IMO, CVE, ECA		High-Torque Canadian Producers
22-Sep	ISI	CRT	Cross Timbers Royalty Trust	Low Risk 7.5% Income
15-Sep	MR			Endless Discussion
10-Sep	ISI	DMLP	Dorchester Minerals, L.P.	Raise Distribution to 6.3% Cash Yield
1-Sep	II	MRO, DVN, COP, OXY, EOG		Resilient Large Cap Independent Producers
25-Aug	II	CLR, XEC, WLL, RRC, CRC		Small Cap Producer Survivors
11-Aug	MR			Bottom May Be Near
3-Aug	II	XOM, RDS, CVX, TOT		Global Energy Stalwarts
27-Jul	ISI	ECA	Encana Corporation	Depressed Stock Price
22-Jul	II	SBR, CRT, SJT, PBT		Use Volatility to Advantage
17-Jul	ISI	DMLP	Dorchester Minerals, L.P.	Top Line Distribution Support
14-Jul	MR			Lower Long-Term Oil to \$70 from \$90
7-Jul	ISI	PBT	Permian Basin Royalty Trust	Buy Underestimated Future Oil & Gas Production
22-Jun	II	DMLP, SBR, CRT, SJT, PBT		Understated Reserves, June Distributions Up
16-Jun	MR	RDS, MRO, EOG, CLR, DMLP		Oil and Gas Strengthen U.S. Security
28-May	II	DMLP, SBR, CRT, SJT, PBT		Distributions Rise on Roll Forward
12-May	MR	MRO	Marathon Oil	New Buy on Independent Shale Oil
1-May	ISI	CVX, XOM, RDS, TOT		Raise NPV for XOM and TOT on Cash Flow Margin
30-Apr	ISI	SJT	San Juan Basin Royalty Trust	New Buy on Depressed Natural Gas
29-Apr	ISI	CVE	Cenovus Energy	New Buy on Operating Leverage
28-Apr		TOT	Total	Operating Strength Reinforces New Buy
14-Apr	MR	RDS	Royal Dutch Shell plc	Shell to Acquire BG - Catalyst for Confidence
1-Apr	II			Recommitting to Oil and Gas Stocks
10-Mar	MR	DMLP, SBR, CRT, SJT		RTF Income Tracks Oil Price
9-Mar	ISI	XOM	Exxon Mobil	Safe at Any Likely Oil Price
27-Feb	ISI	EOG	EOG Resources	Top Value Creator
10-Feb	MR	CRT, CRC, COP, CVX		Oil Price Cycle Advances
30-Jan	ISI	COSWF	Canadian Oil Sands Ltd.	Syncrude Lowers Breakeven to \$US32 a Barrel
13-Jan	MR	SBR, XEC, COSWF, DVN, XOM		Oil and Gas Stocks on Sale
				MR = Meter Reader (published monthly on second or third Tuesday)
				ISI = Independent Stock Idea
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A Monthly Analysis of Oil and Gas Stocks

January 1, 2016

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