

XOM, RDS, CVX, TOT **Total Return Upside**

	Symbol/Rating	5-Dec 2016	Market Cap	EV/ Value (\$mm)	Present Value by Segment (%)				Dist. Yield	McDep Ratio
					North Amer.	Rest of World	Oil Prod'n	Down- stream		
Global Integrated										
Exxon Mobil Corporation	XOM	87.48	1.26	461,000	10	15	49	26	3.4	0.90
Chevron Corporation	CVX	113.25	1.32	282,000	3	14	64	20	3.8	0.87
Royal Dutch Shell	RDS-A B	52.20	1.68	348,000	2	18	56	24	7.2	0.76
Total S.A.	TOT B	48.17	1.54	178,000		19	57	24	5.4	0.64
<i>Total or Median</i>			<i>1.43</i>	<i>1,269,000</i>			<i>56</i>	<i>24</i>	<i>4.6</i>	<i>0.82</i>

Summary and Recommendation

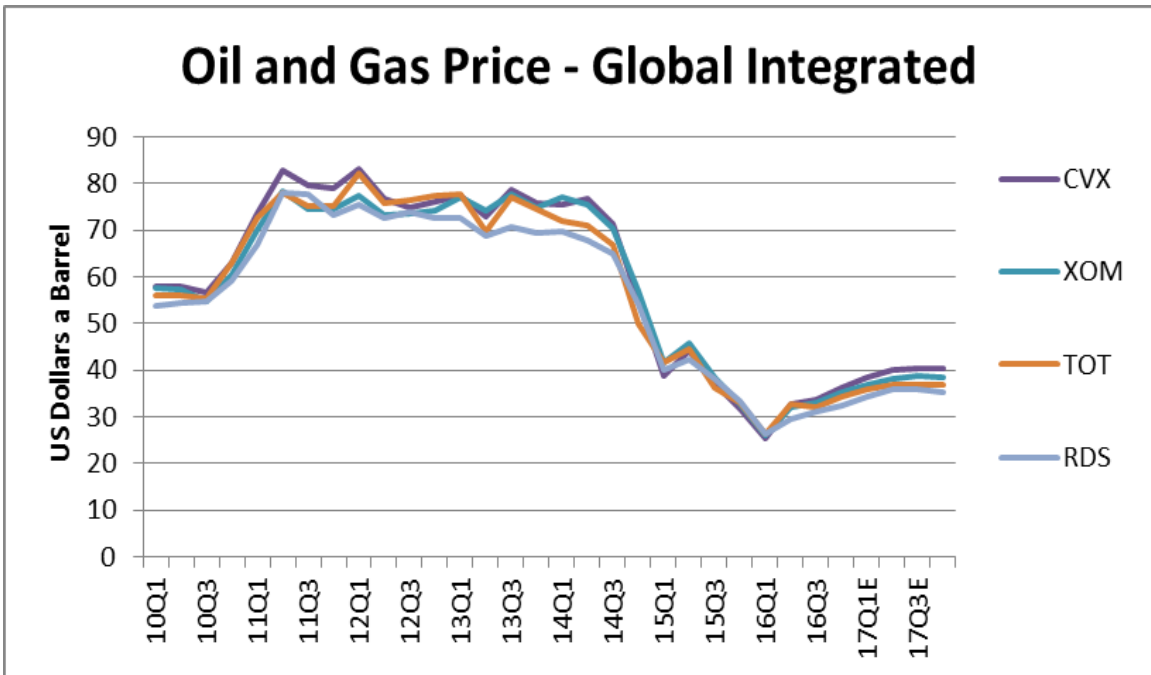
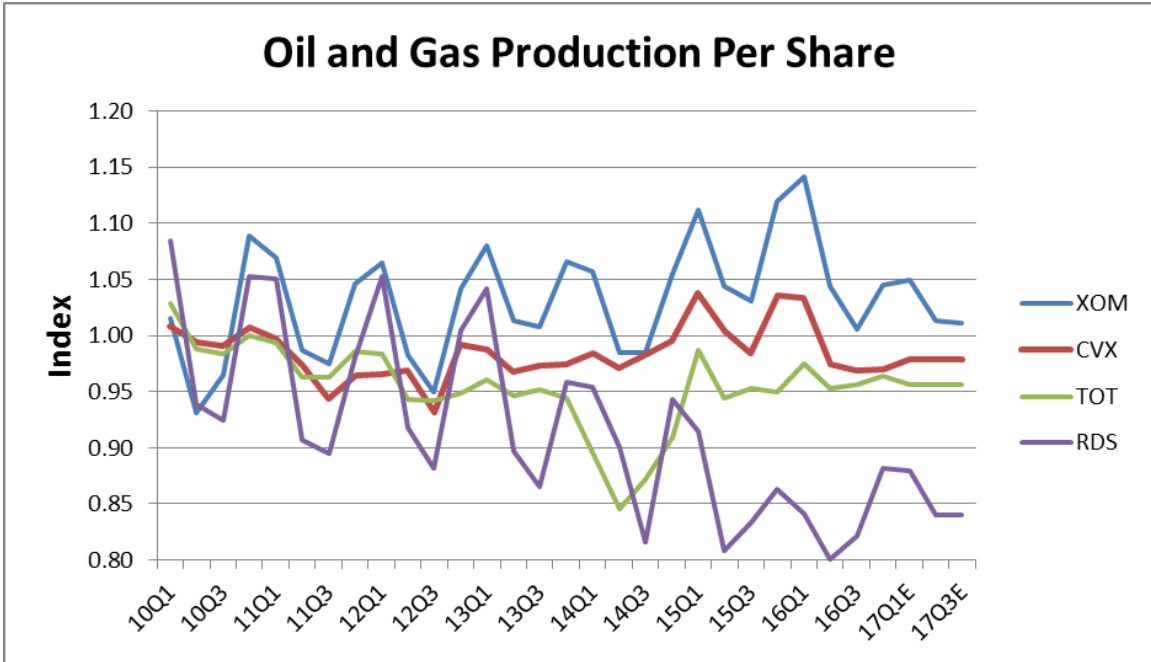
Global integrated oil and gas producers **ExxonMobil (XOM)**, **Royal Dutch Shell (RDS)**, **Chevron (CVX)** and **Total (TOT)** are up a median 19% year-to-date in total return to investors including stock price change and dividends. We see more appreciation ahead to stock prices of three years ago and higher. A median McDep Ratio of 0.82 implies 22% appreciation in Enterprise Value or about 29% total return in stock price and dividends to estimated present value tied to a long-term oil price of \$70 a barrel. Among the factors driving cash flow and value, production volume has been stable for the U.S. stocks, XOM and CVX, while volume is growing after reversing a decline for the European stocks RDS and TOT (see chart [Volume per Share](#) on page 2). Price is recovering after the steep decline of the past two years (see chart [Price](#) on page 2). Operating expense is down sharply for an increasingly productive industry (see chart [Cost](#) on page 3). Price and cost interact to create rising cash flow (Ebitda) per barrel and total cash flow (see charts [Ebitda per Barrel](#) and [Ebitda – Production](#) on pages 3-4). Though higher production cash flow means higher cost for refining and chemicals operations, improving economic growth means higher volume (see chart [Ebitda – Downstream](#) on page 4). McDep Ratios measure potential unlevered appreciation for each of the four Global Integrated stocks as well as the other 20 stocks in our coverage (see [Tables 1-4](#) on pages 5-8). Our Global Integrated buys are the two lowest McDep Ratio stocks RDS and TOT. We also think XOM and CVX are attractively priced to be important components of the diversified McDep Portfolio.

Kurt H. Wulff, CFA



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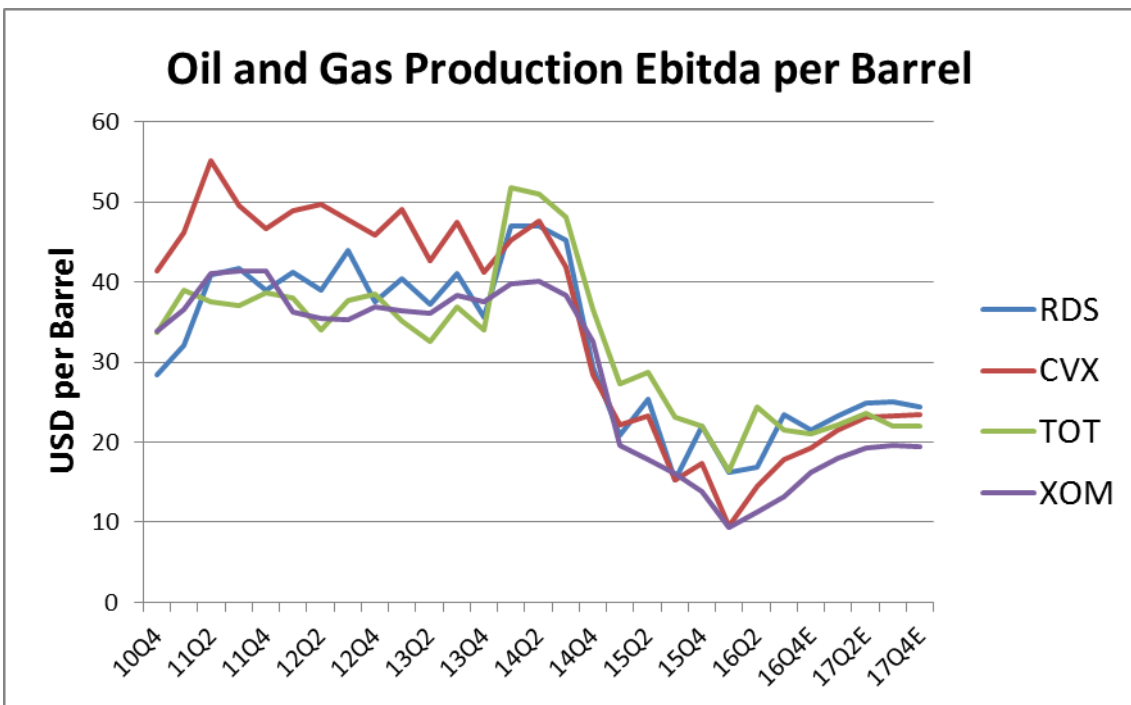
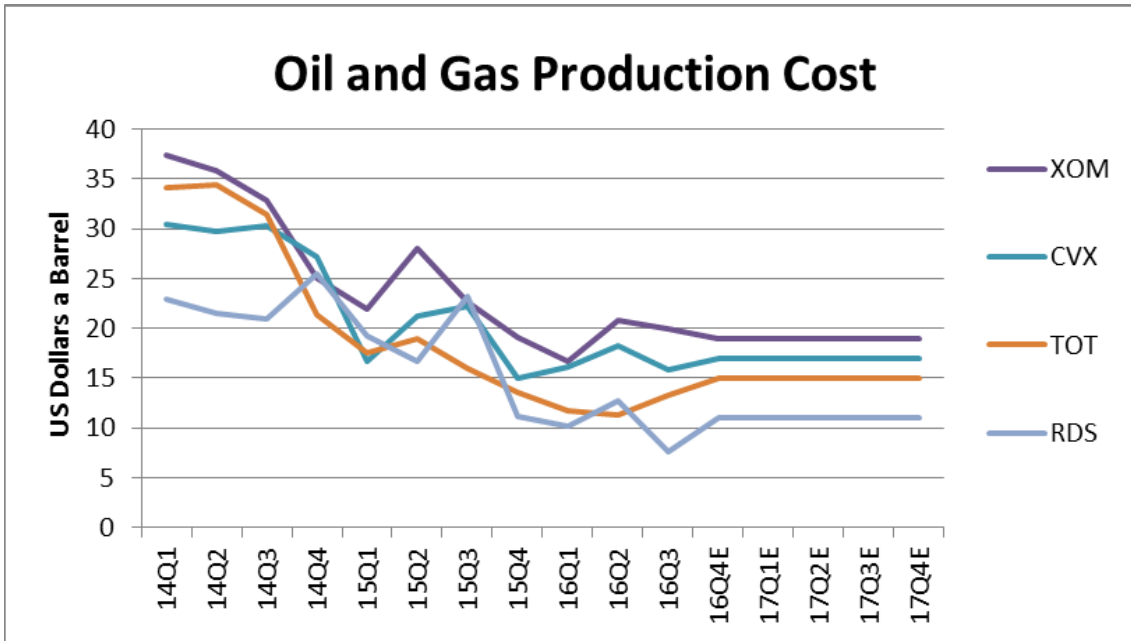
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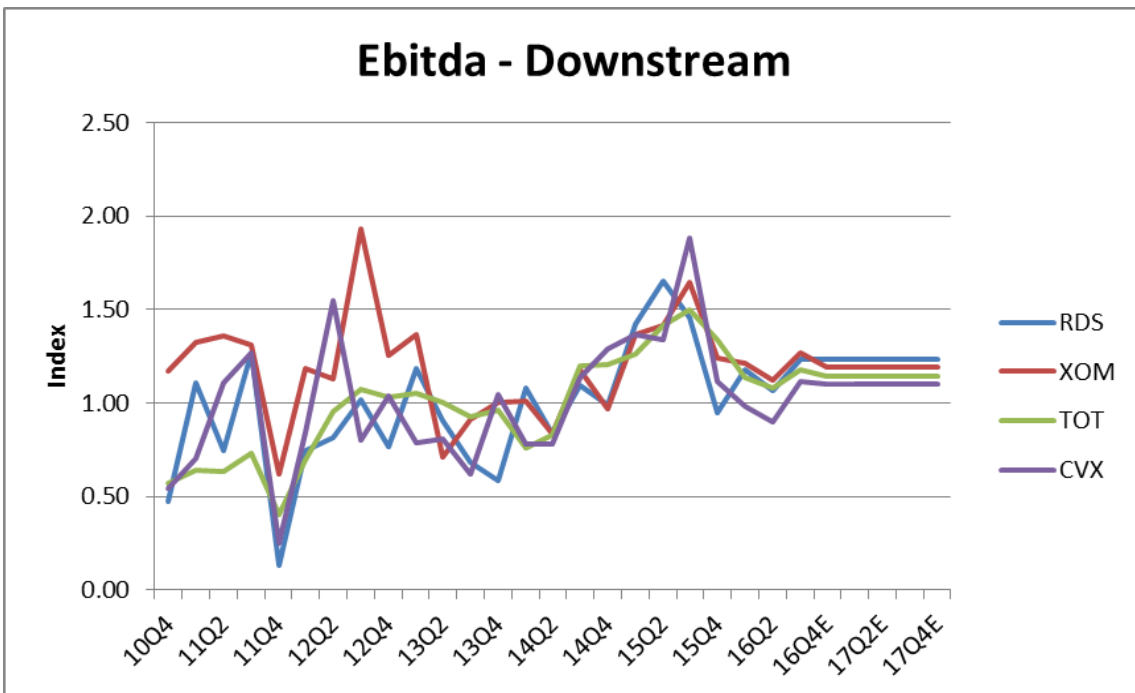
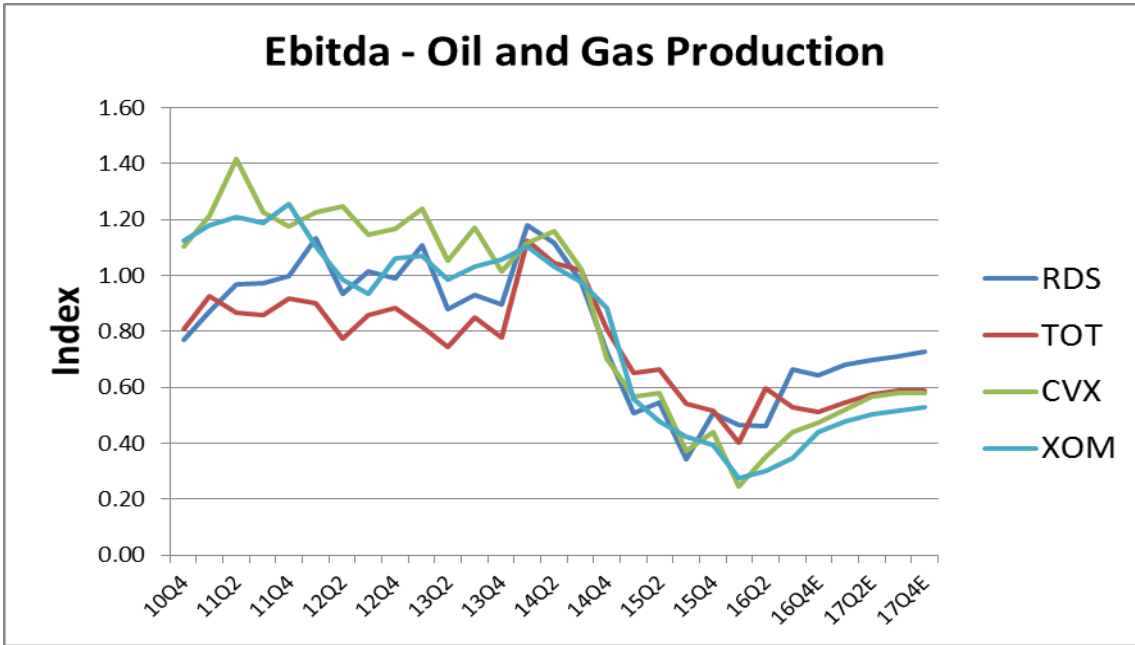
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Symbol/Rating	Price (US\$/sh) 5-Dec 2016	EV/ Market Cap	Enterprise Value (\$mm)	Present Value by Segment (%)					Dist. Yield NTM (%)	McDep Ratio
				North Amer.	Rest of World	Oil Prod'n	Down- stream			
				Natural Gas	Natural Gas					
Global Integrated										
Exxon Mobil Corporation	XOM	87.48	1.26	461,000	10	15	49	26	3.4	0.90
Chevron Corporation	CVX	113.25	1.32	282,000	3	14	64	20	3.8	0.87
Royal Dutch Shell	RDS-A B	52.20	1.68	348,000	2	18	56	24	7.2	0.76
Total S.A.	TOT B	48.17	1.54	178,000		19	57	24	5.4	0.64
<i>Total or Median</i>			<i>1.43</i>	<i>1,269,000</i>			<i>56</i>	<i>24</i>	<i>4.6</i>	<i>0.82</i>
Large Independent										
EOG Resources, Inc.	EOG	104.46	1.12	64,400	13	1	86		0.6	1.20
Devon Energy Corporation	DVN	47.74	1.43	36,100	30		60	10	0.5	1.04
Occidental Petroleum Corp.	OXY	70.98	1.19	64,700	5	2	84	9	4.3	0.95
Marathon Oil Corporation	MRO B	18.39	1.52	23,700	10	2	88		1.1	0.95
ConocoPhillips	COP B	48.88	1.65	100,000	13	13	74		2.0	0.79
<i>Total or Median</i>			<i>1.43</i>	<i>289,000</i>	<i>13</i>		<i>84</i>		<i>1.1</i>	<i>0.95</i>
Small Independent										
Cimarex Energy Company	XEC	141.06	1.10	14,400	38		62		0.2	1.16
Continental Resources (32%)	CLR B	57.43	1.32	9,000	29		71		-	1.02
California Resources	CRC	17.96	9.27	7,000	13		87		-	0.84
Whiting Petroleum Corporation	WLL	12.30	2.23	7,800	10		90		-	0.83
Range Resources	RRC B	38.42	1.46	13,700	76		24		0.2	0.76
<i>Total or Median</i>			<i>1.46</i>	<i>52,000</i>	<i>29</i>		<i>71</i>		<i>-</i>	<i>0.84</i>
Income										
San Juan Basin Royalty Trust	SJT	6.51	1.00	300	100		-		10.4	0.81
Dorchester Minerals, L.P.	DMLP B	17.20	1.00	530	28		72		7.6	0.72
Permian Basin RT	PBT	7.18	1.00	340	23		77		9.7	0.65
Cross Timbers Royalty Trust	CRT	18.04	1.00	110	71		29		8.7	0.62
Sabine Royalty Trust	SBR B	36.10	1.00	530	44		56		7.9	0.60
<i>Total or Median</i>			<i>1.00</i>	<i>1,800</i>	<i>44</i>		<i>56</i>		<i>8.7</i>	<i>0.65</i>
Canada										
EnCana Corporation	ECA	12.77	1.53	19,000	41		59		0.5	1.16
Imperial Oil Limited (30%)	IMO	34.08	1.28	11,100	1		62	37	1.3	0.92
Cenovus Energy Inc.	CVE	15.59	1.31	17,100	10		81	9	1.0	0.82
Suncor Energy	SU B	32.46	1.34	72,400	-		86	14	2.7	0.79
Birchcliff Energy Ltd.	BIREF B	7.09	1.33	2,500	74		26		1.1	0.76
<i>Total or Median</i>			<i>1.33</i>	<i>122,000</i>			<i>62</i>		<i>1.1</i>	<i>0.82</i>
Estimated present value presumes a long-term price for oil of US\$70 a barrel and natural gas, \$4.00 a million btu.										
Estimated present value capped by unlevered cash flow multiple (EV/Ebitda)										
McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses										
For historical research see www.mcdep.com										



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			<i>Price</i> <i>(US\$/sh)</i>	<i>Shares</i>	<i>Market</i> <i>Cap</i> <i>(US\$mm)</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>5-Dec</i> <i>2016</i>	<i>(mm)</i>				
	<i>B = Buy</i>							
Global Integrated								
Exxon Mobil Corporation	XOM		87.48	4,178	366,000	100.00	0.19	0.90
Chevron Corporation	CVX		113.25	1,883	213,000	135.00	0.21	0.87
Royal Dutch Shell	RDS-A	B	52.20	3,965	207,000	80.00	0.31	0.76
Total S.A.	TOT	B	48.17	2,404	116,000	90.00	0.22	0.64
	<i>Total or Median</i>				<i>902,000</i>		<i>0.22</i>	<i>0.82</i>
Large Independent								
EOG Resources, Inc.	EOG		104.46	548	57,200	85.00	0.13	1.20
Devon Energy Corporation	DVN		47.74	527	25,200	45.00	0.31	1.04
Occidental Petroleum Corp.	OXY		70.98	764	54,200	75.00	0.15	0.95
Marathon Oil Corporation	MRO	B	18.39	847	15,580	20.00	0.33	0.95
ConocoPhillips	COP	B	48.88	1,246	61,000	70.00	0.31	0.79
	<i>Total or Median</i>				<i>213,200</i>		<i>0.31</i>	<i>0.95</i>
Small Independent								
Cimarex Energy Company	XEC		141.06	93	13,200	120.00	0.10	1.16
Continental Resources (32%)	CLR	B	57.43	118	6,800	56.00	0.25	1.02
California Resources	CRC		17.96	42	800	50.00	0.75	0.84
Whiting Petroleum Corporation	WLL		12.30	282	3,500	18.00	0.46	0.83
Range Resources	RRC	B	38.42	244	9,400	56.00	0.24	0.76
	<i>Total or Median</i>				<i>34,000</i>		<i>0.25</i>	<i>0.84</i>
Income								
San Juan Basin Royalty Trust	SJT		6.51	47	300	8.00	-	0.81
Dorchester Minerals, L.P.	DMLP	B	17.20	31	530	24.00	-	0.72
Permian Basin RT	PBT		7.18	47	340	11.00	-	0.65
Cross Timbers Royalty Trust	CRT		18.04	6	110	29.00	-	0.62
Sabine Royalty Trust	SBR	B	36.10	15	530	60.00	-	0.60
	<i>Total or Median</i>				<i>1,800</i>		<i>-</i>	<i>0.65</i>
Canada								
EnCana Corporation	ECA		12.77	973	12,400	10.00	0.40	1.16
Imperial Oil Limited (30%)	IMO		34.08	255	8,700	38.00	0.20	0.92
Cenovus Energy Inc.	CVE		15.59	833	13,000	20.00	0.20	0.82
Suncor Energy	SU	B	32.46	1,665	54,100	44.00	0.20	0.79
Birchcliff Energy Ltd.	BIREF	B	7.09	263	1,900	10.00	0.19	0.76
	<i>Total or Median</i>				<i>90,000</i>		<i>0.20</i>	<i>0.82</i>
Estimated present value presumes a long-term price for oil of US\$70 a barrel and natural gas, \$4.00 a million btu.								
Estimated present value capped by unlevered cash flow multiple (EV/Ebitda)								
McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses								
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Table 3							
McDep Energy Stocks							
Value Multiples and Dividend							
Ranked by EV/Ebitda							
			Price (US\$/sh)	Adjustd Resrvs/ Prod	PV/ Ebitda	EV/ Ebitda	Dividend NTM
	Symbol/Rating		5-Dec 2016	NTM	NTM	NTM	NTM (\$/sh)
	B = Buy						
Global Integrated							
Exxon Mobil Corporation	XOM		87.48	15.0	11.7	10.5	24
Chevron Corporation	CVX		113.25	9.8	10.8	9.4	31
Royal Dutch Shell	RDS-A	B	52.20	9.5	9.3	7.0	17
Total S.A.	TOT	B	48.17	9.9	9.9	6.3	12
	<i>Median</i>			9.8	10.4	8.2	20
Large Independent							
Devon Energy Corporation	DVN		47.74	8.4	14.0	14.6	0.24
EOG Resources, Inc.	EOG		104.46	7.5	11.3	13.6	0.67
Occidental Petroleum Corp.	OXY		70.98	8.9	12.2	11.6	3.04
Marathon Oil Corporation	MRO	B	18.39	12.6	12.2	11.5	0.20
ConocoPhillips	COP	B	48.88	11.0	12.2	9.7	1.00
	<i>Median</i>			8.9	12.2	11.6	
Small Independent							
Continental Resources (32%)	CLR	B	57.43	11.4	14.4	14.7	-
Cimarex Energy Company	XEC		141.06	6.8	11.8	13.6	0.32
Range Resources	RRC	B	38.42	11.9	16.2	12.3	0.08
Whiting Petroleum Corporation	WLL		12.30	9.3	10.0	8.3	-
California Resources	CRC		17.96	12.0	9.7	8.1	-
	<i>Median</i>			11.4	11.8	12.3	
Income							
Sabine Royalty Trust	SBR	B	36.10	10.1	20.9	12.6	13
Dorchester Minerals, L.P.	DMLP	B	17.20	7.4	16.7	12.0	16
Cross Timbers Royalty Trust	CRT		18.04	7.2	16.7	10.3	11
Permian Basin RT	PBT		7.18	8.6	14.7	9.6	10
San Juan Basin Royalty Trust	SJT		6.51	10.0	11.3	9.1	10
	<i>Median</i>			8.6	16.7	10.3	11
Canada							
EnCana Corporation	ECA		12.77	6.1	10.8	12.5	0.06
Birchcliff Energy Ltd.	BIREF	B	7.09	12.1	12.4	9.4	0.08
Imperial Oil Limited (30%)	IMO		34.08	33.0	9.5	8.7	0.45
Cenovus Energy Inc.	CVE		15.59	16.2	9.9	8.2	0.15
Suncor Energy	SU	B	32.46	20.7	10.2	8.1	0.87
	<i>Median</i>			16.2	10.2	8.7	
	<i>Grand Median</i>			10	12	10	

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended December 31, 2017; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses For historical research see www.mcdep.com



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Table 4										
McDep Energy Stocks										
Total Return Year-to-Date 2016										
Ranked by Unlevered Total Return										
			Price (\$/sh)	Price (\$/sh)	Price Change (%)	Cash Distrib. (%)	Equity Total Return (%)	Unlevered Debt Return (\$/sh) (%)		McDep Ratio
	Symbol/Rat		5-Dec 2016	31-Dec 2015						
Global Integrated										
	Chevron Corporation	CVX	113.25	89.96	26	5	31	37	22	0.87
	Royal Dutch Shell	RDS-A B	52.20	45.79	14	8	22	36	12	0.76
	Exxon Mobil Corporation	XOM	87.48	77.95	12	4	16	23	12	0.90
	Total S.A.	TOT B	48.17	44.95	7	5	12	26	7	0.64
	<i>Median</i>				13		19		12	0.82
Large Independent										
	EOG Resources, Inc.	EOG	104.46	70.79	48	1	49	13	41	1.20
	Devon Energy Corporation	DVN	47.74	32.00	49	1	50	21	31	1.04
	Marathon Oil Corporation	MRO B	18.39	12.58	46	2	48	10	27	0.95
	Occidental Petroleum Corp.	OXY	70.98	67.61	5	3	8	14	7	0.95
	ConocoPhillips	COP B	48.88	46.69	5	2	7	32	4	0.79
	<i>Median</i>				46		48		27	0.95
Small Independent										
	Continental Resources (32%)	CLR B	57.43	22.98	150	-	150	18	83	1.02
	Cimarex Energy Company	XEC	141.06	89.38	58	0	58	14	50	1.16
	Range Resources	RRC B	38.42	24.62	56	0	56	18	33	0.76
	Whiting Petroleum Corporation	WLL	12.30	9.44	30	-	30	15	12	0.83
	California Resources	CRC	17.96	23.30	(23)	-	(23)	148	(3)	0.84
	<i>Median</i>				56		56		33	0.84
Income										
	Dorchester Minerals, L.P.	DMLP B	17.20	9.89	74	6	80	-	80	0.72
	San Juan Basin Royalty Trust	SJT	6.51	4.14	57	5	62	-	62	0.81
	Permian Basin RT	PBT	7.18	5.06	42	7	48	-	48	0.65
	Cross Timbers Royalty Trust	CRT	18.04	13.01	39	7	46	-	46	0.62
	Sabine Royalty Trust	SBR B	36.10	26.26	37	7	44	-	44	0.60
	<i>Median</i>				42		48		48	0.65
Canada										
	Birchcliff Energy Ltd.	BIREF B	7.09	2.93	142	-	142	2	79	0.76
	EnCana Corporation	ECA	12.77	5.09	151	1	152	7	65	1.16
	Suncor Energy	SU B	32.46	25.80	26	3	28	11	20	0.79
	Cenovus Energy Inc.	CVE	15.59	12.62	24	1	24	5	18	0.82
	Imperial Oil Limited (30%)	IMO	34.08	32.52	5	1	6	10	4	0.92
	<i>Median</i>				26		28		20	0.82
	<i>Grand Median</i>				38		45		29	0.83
	Natural Gas (\$/mmbtu)		3.59	2.33	54					
	Oil - West Texas Intermediate (\$/bbl)		51.04	37.06	38					
	S&P 500		2,205	2,044	8					

Source: McDep LLC, Yahoo, CME Group, Bloomberg

For historical research see www.mcdep.com



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Research Methodology/Ratings Description: McDep LLC is an independent research originator focused on oil and gas stocks exclusively. The firm applies the more than forty years of experience of its analyst to estimate a present value of the oil and gas resources and other businesses of covered companies. That value is compared with a company's stock market capitalization and debt. Stocks with low market cap and debt relative to present value tend to outperform stocks with high market cap and debt relative to present value.