

Meter Reader

A Weekly Analysis of Energy Stocks Using the McDep Ratio

June 11, 2001

How McDep Worked

Summary and Recommendation

Applied weekly to four natural gas stocks since the turn of the century, the McDep Ratio highlighted multiple points from which a low ranked stock outperformed or a high ranked stock underperformed. For example, just four weeks ago, **Cross Timbers Royalty Trust** ranked highest among the four stocks. Since then CRT has declined 23% in stock price compared to median 5% decline for the other three issues. Meanwhile we apply the McDep Ratio to three more companies bringing the total to 43 energy stocks. From those stocks we draw our recommendations for current action to build a diversified energy portfolio. In separate analysis of the same date, we initiate a buy recommendation on **PetroChina (PTR)** (see Stock Idea, *PetroChina*, June 11, 2001). Four other recent recommendations are **American Electric Power (AEP)**, **Marathon Group (MRO)**, **Burlington Resources (BR)** and **Energy Partners (EPL)** (see Valuation Tables L-1, L-2, S-1, S-2).

McDep Ratio Spread Contracts and Widens

We initiated posting of McDep Ratios in cyberspace on three royalty trusts and one master limited partnership on about January 21, 2000. The weekly updates for each stock are in past editions of *Meter Reader* (for the latest edition see *Meter Reader Tables - Small Cap*, June 11, 2001). In the sixteen months since then the valuation spread contracted and widened several times (see top panel of chart).

Just to be sure we know our definitions, the McDep Ratio compares market cap and debt in the numerator to present value in the denominator. Since the three trusts and one partnership have no debt, the numerator is just stock price.

Differential stock price performance generally caused contraction (see middle panel of chart). As a result, by definition, high ranked stocks had to under perform low ranked stocks.

Technically, price performance should include distributions in order to capture total investor return. While we ignore distributions in this discussion, keep in mind that the payout by DHULZ was lower than that for the royalty trusts.

Changes in present value caused widening (see lower panel of chart). That appeared to be the case for the gradual lagging of present value for CRT and it was the case in an abrupt change for DHULZ.

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We Try to Make the McDep Ratio Objective

Cross Timbers Royalty Trust is one of our favorite stocks. Yet the McDep Ratio gave a clear signal of temporary over valuation. The correctness of the signal has since been confirmed. The stock is now in line again with peers.

But is our analysis really right? For example, the present value calculation does not capture the difference between a net revenue interest (NRI) and a net profits interest (NPI). CRT has the former, while the other three have the latter. Without elaborating on the difference, NRI looks better in a downturn, while NPI looks better in an upturn.

That is only one issue. Even with stocks as understandable as those of natural gas producers the questions could be endless.

Regression to the Mean Helps the McDep Ratio Work

A powerful mathematical/behavioral force helps us even before we apply further analysis. By definition the volatility of stock price implies that investors are at times too optimistic and at times too pessimistic. Price almost always returns to trend value. The McDep Ratio would highlight deviations even if we just used historical stock price as the denominator in the ratio.

Relying just on price fluctuations in the numerator uses only half the power of the technique. Determining the appropriate denominator offers the promise of further added value.

Fundamental Analysis Makes the McDep Ratio More Effective

The royalty trusts have a simple enough structure that we can do a thorough analysis of fundamental value. The trusts represent nearly pure ownership of natural gas reserves in a predetermined area. All cash flow after development is paid out to unitholders. Quality of management is not an issue except to the extent of operating existing properties. Since the beginning of 2000 we have posted a new calculation every week that takes account of forward commodity prices, interest rates, inflation rates and any new information on operating cost and production volume.

Use the McDep Ratio in Energy Investment Strategy

Our experience with the four natural gas producers convinces us once again the McDep Ratio is worth applying. It is our proprietary tool in developing energy investment strategy. Applying McDep valuation is likely to be beneficial in a relative sense even if energy is not as rewarding an investment sector as we believe it will be.

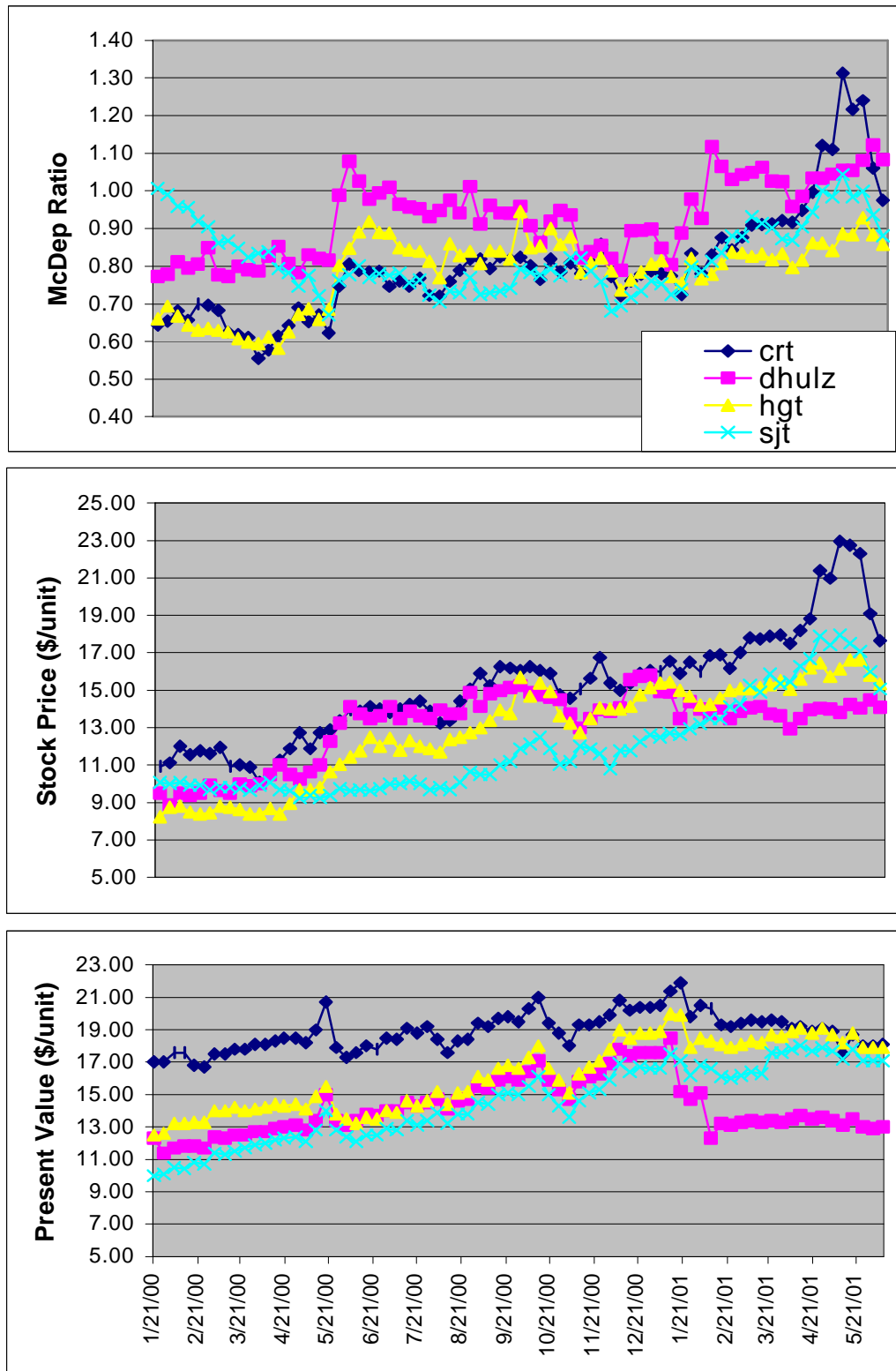
Kurt H. Wulff, CFA

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Table L-1
Mega Cap and Large Cap Energy Companies
Rank by McDep Ratio: Market Cap and Debt to Present Value

	<i>Symbol/ Rating</i>	<i>Price (\$/sh) 8-Jun 2001</i>	<i>Shares (mm)</i>	<i>Market Cap (\$mm)</i>	<i>Net Present Value (\$/sh)</i>	<i>Debt/ Present Value</i>	<i>McDep Ratio</i>
Mega Cap							
Exxon Mobil Corporation	XOM	89.39	3,510	314,000	74.30	0.09	1.19
BP PLC	BP	53.20	3,720	198,000	48.90	0.17	1.07
TOTAL Fina Elf S.A.	TOT	74.02	1,400	104,000	72.00	0.16	1.02
Royal Dutch/Shell	RD	61.03	3,580	219,000	60.80	0.09	1.00
Chevron (incl. Texaco)	CHV	96.44	1,060	102,200	103.40	0.15	0.94
	<i>Total or Median</i>			<i>937,000</i>		<i>0.15</i>	<i>1.02</i>
Power							
Enron Corp.	ENE	51.13	814	41,600	16.90	0.68	1.65
Calpine Corporation	CPN	45.80	313	14,300	21.40	0.48	1.59
Dynegy Inc.	DYN	47.01	338	15,900	20.60	0.56	1.57
Mirant Corporation	MIR	37.50	353	13,200	11.70	0.75	1.56
Williams Companies	WMB	37.66	485	18,300	16.60	0.69	1.39
Duke Energy Corporation	DUK	41.97	752	31,600	20.90	0.62	1.39
AES Corporation	AES	41.37	538	22,300	23.00	0.65	1.28
American Electric Power Co. Inc.	AEP 2	48.27	324	15,600	25.90	0.73	1.23
El Paso Corporation	EPG	57.00	521	29,700	40.00	0.50	1.21
Southern Company	SO	22.99	683	15,700	16.90	0.54	1.17
Exelon Corporation	EXC	64.69	324	21,000	55.30	0.51	1.08
	<i>Total or Median</i>			<i>239,000</i>		<i>0.62</i>	<i>1.39</i>
Natural Gas and Oil							
Occidental Petroleum	OXY	29.51	370	10,900	35.60	0.46	0.91
Burlington Resources, Inc	BR 2	45.40	215	9,800	56.30	0.19	0.85
ENI S.p.A.	E	65.50	800	52,400	91.90	0.10	0.74
Phillips (incl. Tosco)	P	62.50	379	23,700	102.10	0.27	0.72
Anadarko Petroleum Corp.	APC	59.88	249	14,900	90.90	0.17	0.72
Conoco Inc.	COC.B	29.99	623	18,700	48.00	0.21	0.70
	<i>Total or Median</i>			<i>130,000</i>		<i>0.20</i>	<i>0.73</i>
Service							
Halliburton Company	HAL	44.80	430	19,300	27.20	0.13	1.56
Schlumberger Ltd.	SLB	60.30	581	35,000	44.00	0.12	1.32

Buy/Sell rating after symbol: 1 - Strong Buy, 2 - Buy

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Table L-2
Mega Cap and Large Cap Energy Companies
Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

	<i>Symbol</i>	<i>Price (\$/sh)</i> <i>8-Jun 2001</i>	<i>EV/Sales</i> <i>2001E</i>	<i>EV/Ebitda</i> <i>NTM</i>	<i>P/E</i> <i>NTM</i>	<i>Dividend or Distribution</i> <i>NTM (%)</i>	<i>PV/Ebitda</i> <i>NTM</i>	
Mega Cap								
	E Exxon Mobil Corporation	XOM	89.39	1.6	8.3	17	2.0	7.0
	BP PLC	BP	53.20	1.3	7.5	12	2.6	7.0
	TOTAL Fina Elf S.A.	TOT	74.02	1.1	7.2	17	1.5	7.0
	Royal Dutch/Shell	RD	61.03	1.5	7.0	15	2.3	7.0
	Chevron (incl. Texaco)	CHV	96.44	1.1	5.7	11	2.7	6.0
	<i>Median</i>			<i>1.3</i>	<i>7.2</i>	<i>15</i>	<i>2.3</i>	<i>7.0</i>
Power								
	Enron Corp.	ENE	51.13	0.4	16.5	29	1.0	10.0
	Calpine Corporation	CPN	45.80	4.1	14.3	23	-	9.0
	Dynegy Inc.	DYN	47.01	0.4	14.1	22	0.6	9.0
	Mirant Corporation	MIR	37.50	0.7	12.5	18	-	8.0
	AES Corporation	AES	41.37	4.1	11.5	21	-	9.0
	Duke Energy Corporation	DUK	41.97	0.9	11.1	16	2.6	8.0
	Williams Companies	WMB	37.66	3.6	11.1	16	1.6	8.0
	El Paso Corporation	EPG	57.00	0.7	9.7	17	1.5	8.0
	American Electric Power Co. Inc.	AEP 2	48.27	0.7	8.6	13	5.0	7.0
	Southern Company	SO	22.99	2.7	8.2	14	5.8	7.0
	Exelon Corporation	EXC	64.69	2.6	7.6	14	2.6	7.0
	<i>Median</i>			<i>0.9</i>	<i>11.1</i>	<i>17</i>	<i>1.5</i>	<i>8.0</i>
Natural Gas and Oil								
	Burlington Resources, Inc	BR 2	45.40	3.3	5.9	9	1.2	7.0
	Occidental Petroleum	OXY	29.51	1.3	5.4	8	3.4	6.0
	Anadarko Petroleum Corp.	APC	59.88	2.0	4.3	9	0.3	6.0
	Phillips (incl. Tosco)	P	62.50	0.7	4.3	8	2.2	6.0
	Conoco Inc.	COC.B	29.99	0.6	4.2	8	2.5	6.0
	ENI S.p.A.	E	65.50	1.2	3.7	7	2.4	5.0
	<i>Median</i>			<i>1.2</i>	<i>4.3</i>	<i>8</i>	<i>2.3</i>	<i>6.0</i>
Service								
	Halliburton Company	HAL	44.80	1.5	12.5	30	1.1	8.0
	Schlumberger Ltd.	SLB	60.30	3.1	10.6	30	1.2	8.0

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended March 31, 2002; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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Power							
Constellation Energy Group	CEG	43.44	152	6,600	37.10	0.45	1.09
CMS Energy Corporation	CMS	28.75	128	3,700	19.80	0.80	1.09
Sempra Energy	SRE	26.50	203	5,400	23.10	0.65	1.05
	<i>Total or Median</i>			<i>15,700</i>		<i>0.65</i>	<i>1.09</i>
Natural Gas and Oil							
TEPPCO Partners, L.P.	TPP	29.15	38	1,110	13.20	0.65	1.42
Barrett Resources Corporation	BRR	69.85	34	2,400	53.80	0.21	1.23
Petro-Canada	PCZ	27.87	272	7,600	35.20	0.09	0.81
Unocal Corporation	UCL	37.67	256	9,600	51.90	0.27	0.80
PanCanadian Pete Ltd. (15%)	PCP.TO	32.67	38	1,250	41.80	0.07	0.80
Valero Energy Corp.(with UDS)	VLO	43.73	112	4,900	70.70	0.42	0.78
USX-Marathon Group	MRO 1	31.97	309	9,900	44.80	0.23	0.78
Devon Energy Corporation	DVN	55.90	135	7,600	80.10	0.16	0.75
PetroChina Company Ltd (10%)	PTR 2	21.60	176	3,800	32.50	0.15	0.72
Norsk Hydro ASA (49%)	NHY	42.00	128	5,400	65.90	0.15	0.69
	<i>Total or Median</i>			<i>53,560</i>		<i>0.18</i>	<i>0.79</i>
Small Cap							
Dorchester Hugoton, Ltd.*	DHULZ	14.09	10.7	151	13.00	-	1.08
Cross Timbers Royalty Tr*	CRT	17.65	6.0	106	18.10	-	0.98
Encore Acquisition Corporation	EAC	15.50	30.0	470	16.40	0.15	0.95
San Juan Basin Royalty Tr*	SJT	15.06	46.6	700	17.10	-	0.88
Hugoton RoyaltyTrust*	HGT	15.35	40.0	610	17.90	-	0.86
Energy Partners Ltd.*	EPL 1	11.10	27.0	300	18.40	0.04	0.62
	<i>Total or Median</i>			<i>2,340</i>		<i>-</i>	<i>0.92</i>

Buy/Sell rating after symbol: 1 - Strong Buy, 2 - Buy

McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses

* For small cap stocks marked with asterisk, estimated present value recalculated weekly.

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Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

		Price (\$/sh)	EV/ Sales	EV/ Ebitda	Dividend or Distribution	PV/ Ebitda
	Symbol	8-Jun 2001	2001E	NTM	P/E NTM	NTM (%)
Power						
Constellation Energy Group	CEG	43.44	2.2	7.7	14	7.0
CMS Energy Corporation	CMS	28.75	0.9	7.6	10	7.0
Sempra Energy	SRE	26.50	1.2	7.4	10	7.0
	<i>Median</i>		<i>1.2</i>	<i>7.6</i>	<i>10</i>	<i>7.0</i>
Natural Gas and Oil						
TEPPCO Partners, L.P.	TPP	29.15	0.7	11.4	15	8.0
Barrett Resources Corporation	BRR	69.85	5.3	7.4	15	6.0
Unocal Corporation	UCL	37.67	1.7	4.8	13	6.0
Petro-Canada	PCZ	27.87	1.1	4.5	10	5.5
PanCanadian Pete Ltd. (15%)	PCP.TO	32.67	1.4	4.4	8	5.5
Valero Energy Corp.(with UDS)	VLO	43.73	0.3	4.3	5	5.5
USX-Marathon Group	MRO 1	31.97	0.4	3.9	6	5.0
Devon Energy Corporation	DVN	55.90	2.8	3.7	8	5.0
PetroChina Company Ltd (10%)	PTR 2	21.60	1.5	2.9	5	4.0
Norsk Hydro ASA (49%)	NHY	42.00	0.8	2.8	7	4.0
	<i>Median</i>		<i>1.2</i>	<i>4.3</i>	<i>8</i>	<i>5.5</i>
Small Cap						
Cross Timbers Royalty Tr*	CRT	17.65	5.2	7.9	8	8.1
Dorchester Hugoton, Ltd.*	DHULZ	14.09	6.0	7.6	8	7.0
San Juan Basin Royalty Tr*	SJT	15.06	5.7	7.0	9	7.9
Hugoton RoyaltyTrust*	HGT	15.35	4.9	6.8	9	8.0
Encore Acquisition Corporation	EAC	15.50	3.9	5.7	14	6.0
Energy Partners Ltd.*	EPL 1	11.10	1.8	2.8	10	4.5
	<i>Median</i>		<i>5.0</i>	<i>6.9</i>	<i>9</i>	<i>7.5</i>

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended March 31, 2002; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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