



Meter Reader

A Weekly Analysis of Large Cap Oil and Gas Stocks

December 8, 2009

Buy Petrobras for Long-Term Oil Growth

Summary and Recommendation

Emerging market participation and the most value in undeveloped oil reserves among the largest companies gets us interested in owning shares in buy-recommended **Petroleo Brasileiro (PBR)**. Development will take money and time with occasional unpredictable setbacks as history has shown with other new oil provinces, such as Alaska and the North Sea, for example. We're betting that the ultimate prize will be worth it despite major uncertainties of government policy, deep water frontier technology and oil price. Momentum is positive today with stock price above its 200-day average and the futures prices for oil delivered over the next six years above the 40-week average (see charts on page 2, [Petrobras Stock Price](#) and [Six-Year Commodity Price Meter](#)).

The seventh largest producer in our global coverage, Petrobras may double volume by 2020, (see slide on page 3 from October 26 company presentation). We attempt to quantify roughly new discoveries not currently contributing to cash flow by including a value for "Pre-Salt Deep Water Oil" at 29% of NPV (see table on page 3, [Functional Cash Flow and Present Value](#)). Hundreds of billions of dollars of investment are likely to be required.

The swing of downstream profits illustrates the overriding influence of government regulations. Positive downstream (Other) profits in 2009 are making up for losses in 2008. Product prices have not come down as much as crude oil in 2009 after not going up as much as crude oil in 2008 (see table on page 4, [Next Twelve Months Operating and Financial Estimates](#)). Brazil is motivated to provide a profitable environment for Petrobras because investors are needed to supply equity capital for the development of the oil finds.

Attracted by deep water oil discoveries, investors have made Petrobras the second largest by Enterprise Value among oil and gas companies more than half publicly held (see Table 1). Estimated Net Present Value (NPV) of \$58 a share leads to a McDep Ratio of 0.89, implying further appreciation potential (see Table 2). Enterprise Value to Ebitda of 8.1 times compared to a median 5.6 times for larger companies illustrates how much more investors are already paying for higher growth (see Table 3).

Finally, new life in natural gas affects Petrobras indirectly. Along with the arrival of cold weather in the Northern Hemisphere, six year natural gas mounts a new attempt to begin an uptrend as the latest quote of \$6.77 a million Btu again exceeds the 40-week average now at \$6.68 (see chart on page 9, [Six-Year and One-Year Natural Gas and Oil Futures](#)). While the quoted price is for North America, it has global implications transmitted through the international liquefied natural gas market.

Kurt H. Wulff, CFA

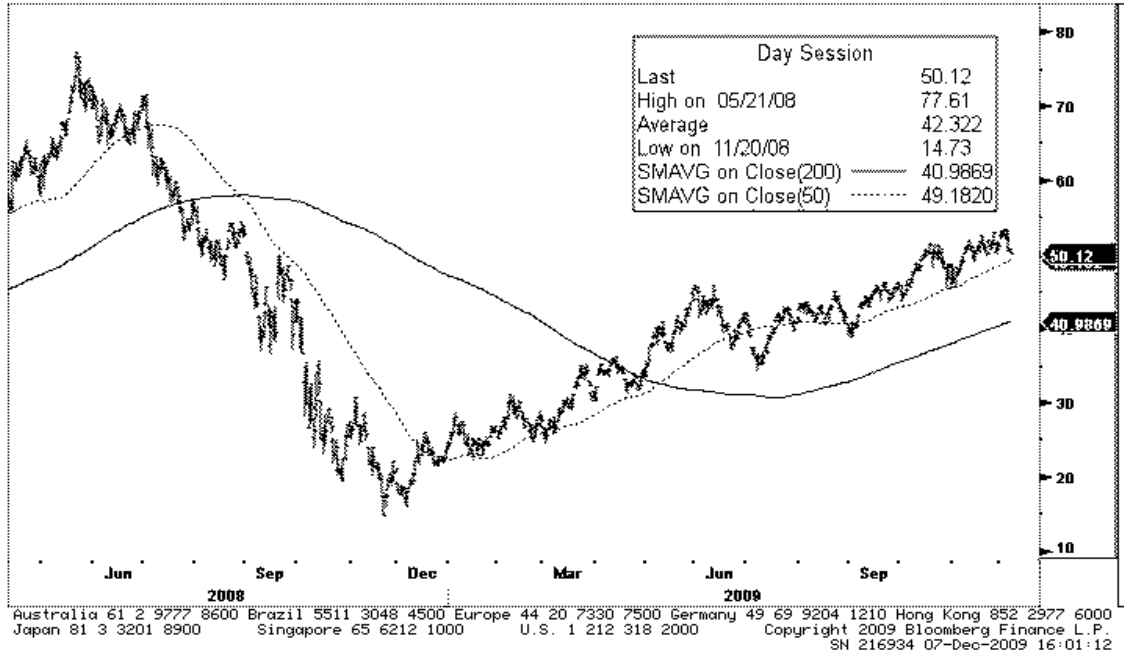


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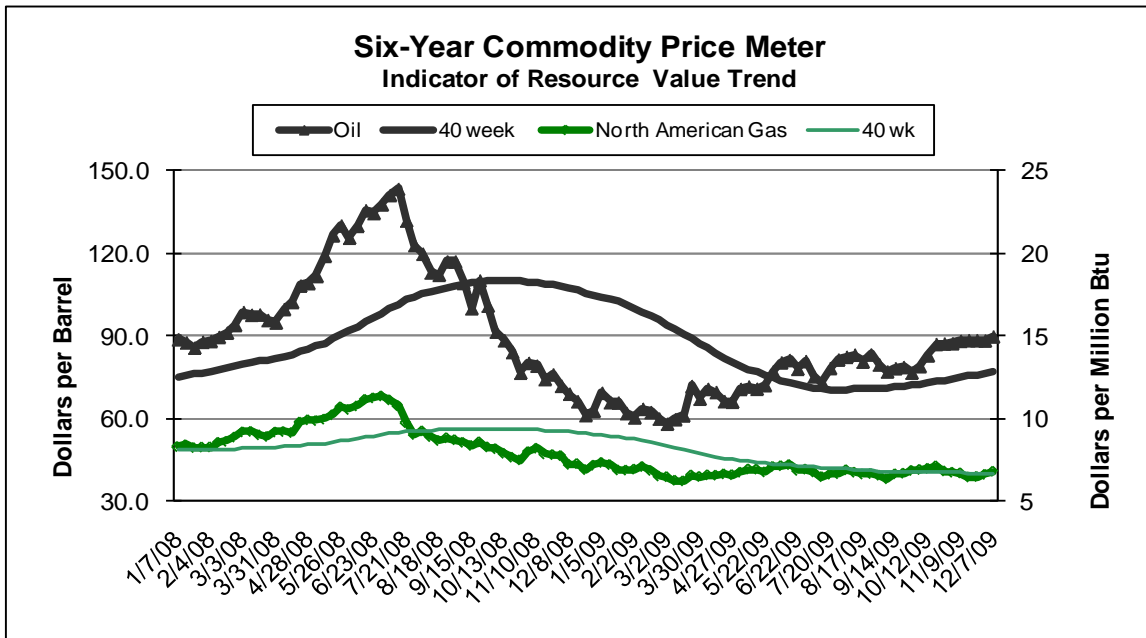
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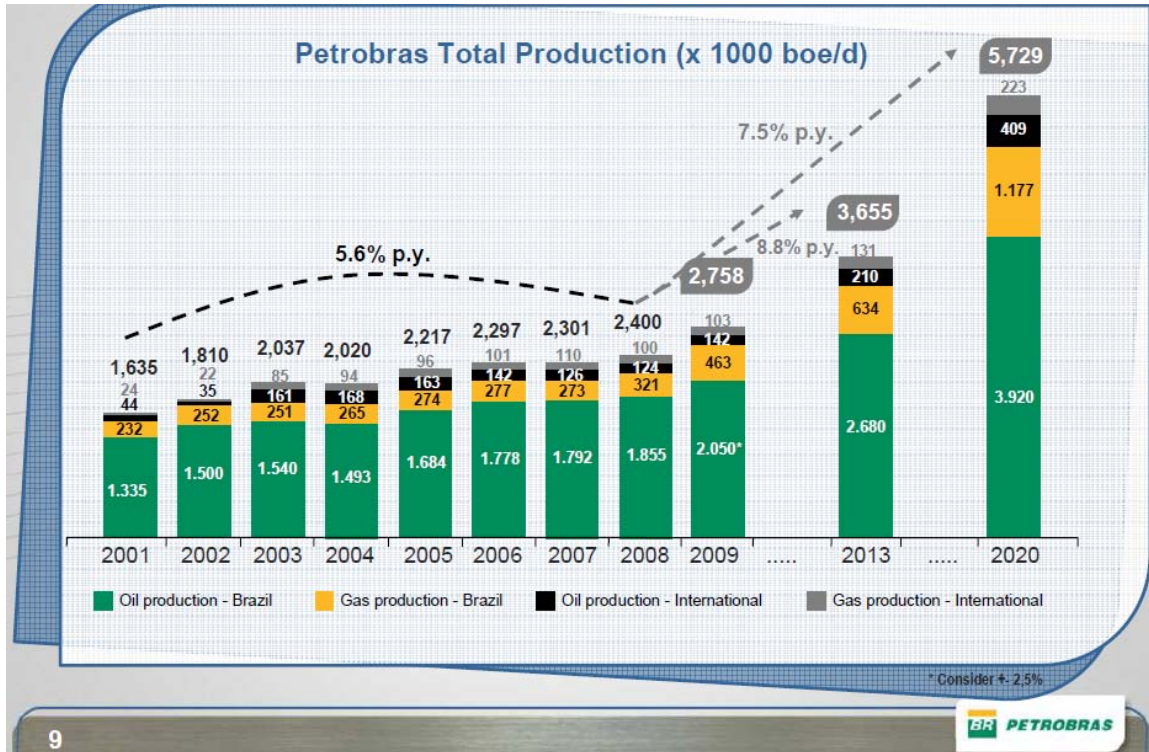
December 8, 2009

PBR US \$ ↓ **50.12** - .68 N 1621s N 50.13/50.14 N 6x52
 At 16:00 Vol 11,454,584 Op 50.5 B Hi 51.04 D Lo 50.07 B ValTrd 578.426m
 PBR US Equity Edit Options Bookmarks Show G 45 - Brazil, China, Russia
 PBR US Equity : PETROLEO BRASILEIRO S.A.-ADR Daily 4/10/2008 - 12/7/2009



Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
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Petrobras					
Functional Cash Flow and Present Value					
	<i>NTM Ebitda</i>	<i>Adjusted</i>	<i>PV/</i>	<i>Present</i>	
	<i>(US\$mm)</i>	<i>R/P</i>	<i>Ebitda</i>	<i>Value</i>	
				<i>(US\$mm)</i>	
Rest of World Natural Gas	1,330	9.6	8.3	11,000	4%
Oil	28,060	9.0	6.2	174,000	57%
Downstream	4,400		7.5	33,000	11%
Pre Salt Deep Water Oil				89,000	29%
	33,790	9.1	9.1	307,000	100%
Debt (US\$mm)					53,000
Net Present Value (US\$mm)					254,000
Shares (mm)					4,387
Net Present Value - Standard Estimate (US\$/sh)					58
NPV Approximation by Cash Flow Multiple Depending on Reserve Life (US\$/sh)					63



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Petrobras									
Next Twelve Months Operating and Financial Estimates									
(U.S. Accounting, US\$)									
									<i>Next Twelve Months</i>
	<i>Q3</i>	<i>Q2</i>	<i>Q3</i>	<i>Q4E</i>	<i>Year</i>	<i>Q1E</i>	<i>Q2E</i>	<i>Q3E</i>	<i>12/31/10</i>
	<i>9/30/08</i>	<i>6/30/09</i>	<i>9/30/09</i>	<i>12/31/09</i>	<i>2009E</i>	<i>3/31/10</i>	<i>6/30/10</i>	<i>9/30/10</i>	
Volume									
Natural Gas (mmcf)	2,580	2,520	2,478	2,825	2,563	2,424	2,520	2,726	2,696
Days	92	91	92	92	365	90	91	92	365
Oil (mbd)	2,007	2,104	2,121	2,200	2,126	2,200	2,200	2,333	2,289
Total gas & oil (mmb)	224	230	233	246	932	234	238	256	1,000
Total gas & oil (mbd)	2,437	2,524	2,534	2,671	2,553	2,604	2,620	2,787	2,738
Price									
Natural gas (\$/mcf)	7.13	3.47	3.00	3.00	3.47	3.00	3.00	3.00	3.00
Oil (\$/bbl)									
WTI Cushing	117.99	59.52	68.22	76.24	61.73	75.82	79.51	81.50	80.01
Brent	115.00	59.00	68.00	75.99	61.75	75.58	79.26	81.24	79.75
Company	98.82	48.69	63.56	71.02	54.38	70.64	74.08	75.93	74.65
Total gas & oil (\$/bbl)	88.93	44.06	56.13	61.68	48.77	62.47	65.09	66.49	65.35
NY Harbor 3-2-1 (\$/bbl)	11.84	9.49	9.45	5.23	8.34	7.94	9.50	9.66	8.28
Revenue (mm\$)									
Natural gas	1,692	796	684	780	3,245	654	688	752	2,952
Oil	18,247	9,323	12,402	14,375	42,200	13,987	14,830	16,298	62,369
Total production	19,939	10,120	13,086	15,155	45,445	14,641	15,518	17,050	65,321
Other	16,144	11,462	12,789	12,789	48,168	12,789	12,789	12,789	51,157
Total	36,083	21,582	25,875	27,944	93,613	27,430	28,307	29,839	116,478
Expense									
Production	8,364	4,847	7,328	8,335	24,743	8,053	8,535	9,377	35,927
Other	18,683	8,697	11,314	11,689	40,158	11,689	11,689	11,689	46,757
Ebitda (mm\$)									
Production	11,576	5,272	5,758	6,820	20,702	6,589	6,983	7,672	29,395
Other	(2,540)	2,766	1,475	1,100	8,010	1,100	1,100	1,100	4,400
Total Ebitda	9,036	8,038	7,233	7,920	28,712	7,689	8,083	8,772	33,795
Exploration	463	368	396	396	1,580	396	396	396	1,584
Deprec., Deplet., & Amort.	1,662	1,677	2,013	2,013	7,031	2,013	2,013	2,013	8,052
Other non cash	(1,893)	844	(815)						
Ebit	8,804	5,149	5,639	5,511	20,228	5,280	5,674	6,363	24,159
Ebt	8,804	5,149	5,639	5,511	20,228	5,280	5,674	6,363	24,159
Income Tax	2,838	1,201	1,866	1,929	6,293	1,848	1,986	2,227	8,456
Net Income (mm\$)									
Production	6,575	2,534	2,700						
Other	(609)	1,414	1,073						
Total Net Income	5,966	3,948	3,773	3,582	13,935	3,432	3,688	4,136	15,703
Shares (millions)	4,387	4,387	4,387	4,387	4,387	4,387	4,387	4,387	4,387
Per share (\$)	1.36	0.90	0.86	0.82	3.18	0.78	0.84	0.94	3.58
Ebitda Margin (E&P)	58%	52%	44%	45%	46%	45%	45%	45%	45%
Tax Rate	32%	23%	33%	35%	31%	35%	35%	35%	35%



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Table 1											
McDep Energy Portfolio											
Geographic Domicile and Business Segments											
	Symbol/Rating	B = Buy	Price (US\$/sh)	EV/ Market Cap	Enterprise Value (\$mm)	Present Value by Segment (%)					McDep Ratio
						Natural Gas	Rest of World Natural Gas	Oil Prod'n	Down- stream		
U.S. Integrated											
Exxon Mobil Corporation	XOM	B	73.77	1.14	405,000	5	22	54	19	0.85	
Chevron Corporation	CVX	B	78.17	1.20	187,000	4	10	71	14	0.80	
Marathon Oil Corporation	MRO	B	31.84	1.50	34,000	8	5	61	26	0.69	
ConocoPhillips	COP	B	50.82	1.69	128,000	12	11	64	13	0.61	
<i>Total or Median *</i>	<i>30%</i>	<i>9%</i>	<i>13%</i>		<i>754,000</i>					<i>0.75</i>	
Europe											
BG Group	BRGXF	B	18.09	1.15	70,600		21	48	31	0.84	
Royal Dutch Shell plc	RDS-A	B	60.83	1.32	246,000	3	27	49	22	0.82	
BP plc	BP	B	58.17	1.33	245,000	6	9	63	22	0.78	
Statoil ASA (33%)	STO	B	24.62	1.40	36,200		49	51	-	0.77	
Total S.A.	TOT	B	63.61	1.26	179,000		19	59	22	0.75	
<i>Total or Median *</i>	<i>31%</i>	<i>11%</i>	<i>17%</i>		<i>777,000</i>					<i>0.78</i>	
Brazil/China/Russia											
CNOOC Limited (34%)	CEO	B	154.17	1.01	23,700		11	89	-	1.14	
Petrobras	PBR	B	50.12	1.24	273,000		5	80	15	0.89	
PetroChina Company Ltd (14%)	PTR	B	126.40	1.08	35,000		15	69	15	0.85	
Lukoil Oil Company	LUKOY	B	56.60	1.14	54,700			67	33	0.45	
Gazprom (50%)	OGZPY	B	22.08	1.31	86,000		76	24	-	0.41	
<i>Total or Median *</i>	<i>19%</i>	<i>11%</i>	<i>17%</i>		<i>472,000</i>					<i>0.85</i>	
U.S. Independent											
Anadarko Petroleum Corp.	APC	B	58.27	1.48	42,800	48		47	5	0.99	
EOG Resources	EOG	B	87.27	1.16	25,300	68	5	28	-	0.96	
XTO Energy Inc.	XTO	B	41.15	1.46	34,900	73		27	-	0.91	
Occidental Petroleum Corp.	OXY	B	78.24	1.08	68,800	10	1	82	7	0.83	
Chesapeake Energy Corp.	CHK		22.80	1.90	27,200	88		12	-	0.79	
Devon Energy Corporation	DVN	B	65.79	1.31	38,800	61		39	-	0.73	
<i>Total or Median *</i>	<i>10%</i>	<i>14%</i>	<i>17%</i>		<i>238,000</i>					<i>0.87</i>	
Canada											
Cenovus Energy Inc.	CVE	B	24.21	1.33	24,300	24		64	11	0.92	
Canadian Natural Resources	CNQ	B	65.36	1.33	46,900	20		80	-	0.85	
EnCana Corporation	ECA	B	27.79	1.50	31,300	93		7	-	0.85	
Imperial Oil Limited (30%)	IMO	B	37.31	1.09	10,500	5		79	16	0.79	
Suncor Energy	SU	B	34.93	1.33	73,000	5		85	10	0.73	
Canadian Oil Sands Trust	COSWF	B	27.90	1.10	14,900			100	-	0.69	
<i>Total or Median *</i>	<i>8%</i>	<i>14%</i>	<i>20%</i>		<i>201,000</i>					<i>0.82</i>	
Income and Small Cap (see separate weekly analysis)											
		<i>2%</i>	<i>41%</i>	<i>17%</i>	<i>43,500</i>	<i>39</i>		<i>61</i>		<i>0.92</i>	
Composite											
<i>Enterprise Value Weighting</i>	<i>100%</i>				<i>2,485,500</i>	<i>10</i>	<i>15</i>	<i>60</i>	<i>15</i>	<i>0.78</i>	
<i>Equal Weighting</i>		<i>100%</i>				<i>33</i>	<i>6</i>	<i>54</i>	<i>6</i>	<i>0.84</i>	
<i>Equal Weighted Buys</i>			<i>100%</i>			<i>26</i>	<i>10</i>	<i>55</i>	<i>9</i>	<i>0.80</i>	
* Percentages in Symbol column refer to current market Enterprise Value weightings; Rating column, equal weightings.											
* Percentages in Price column refer to equal weighted buys.											

Please see disclosures on the final page.

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Table 2								
McDep Energy Portfolio								
Net Present Value and McDep Ratio								
			Price (US\$/sh)	Shares	Market Cap (US\$mm)	Net Present Value (US\$/sh)	Debt/ Present Value	McDep Ratio
	Symbol/Rating		7-Dec 2009	(mm)				
	B = Buy							
U.S. Integrated								
Exxon Mobil Corporation	XOM	B	73.77	4,803	354,000	89.00	0.11	0.85
Chevron Corporation	CVX	B	78.17	2,001	156,000	102.00	0.13	0.80
Marathon Oil Corporation	MRO	B	31.84	711	22,640	53.00	0.23	0.69
ConocoPhillips	COP	B	50.82	1,498	76,000	105.00	0.25	0.61
<i>Total or Median</i>					<i>609,000</i>		<i>0.18</i>	<i>0.75</i>
Europe								
BG Group plc	BRGXF	B	18.09	3,390	61,320	22.00	0.11	0.84
Royal Dutch Shell plc	RDS-A	B	60.83	3,066	187,000	79.00	0.20	0.82
BP plc	BP	B	58.17	3,156	184,000	80.00	0.20	0.78
Statoil ASA (33%)	STO	B	24.62	1,051	25,870	35.00	0.22	0.77
Total S.A.	TOT	B	63.61	2,237	142,000	90.00	0.15	0.75
<i>Total or Median</i>					<i>600,000</i>		<i>0.20</i>	<i>0.78</i>
Brazil/China/Russia								
CNOOC Limited (34%)	CEO	B	154.17	152	23,460	135.00	0.01	1.14
Petrobras	PBR	B	50.12	4,387	219,880	58.00	0.17	0.89
PetroChina Company Ltd (14%)	PTR	B	126.40	256	32,380	150.00	0.06	0.85
Lukoil Oil Company	LUKOY	B	56.60	847	48,000	135.00	0.06	0.45
Gazprom (50%)	OGZPY	B	22.08	2,965	65,500	64.00	0.10	0.41
<i>Total or Median</i>					<i>389,000</i>		<i>0.06</i>	<i>0.85</i>
U.S. Independent								
Anadarko Petroleum Corp.	APC	B	58.27	494	28,800	59.00	0.32	0.99
EOG Resources	EOG	B	87.27	251	21,900	92.00	0.13	0.96
XTO Energy Inc.	XTO	B	41.15	580	23,870	47.00	0.29	0.91
Occidental Petroleum Corp.	OXY	B	78.24	814	63,700	95.00	0.06	0.83
Chesapeake Energy Corp.	CHK		22.80	626	14,270	34.00	0.38	0.79
Devon Energy Corporation	DVN	B	65.79	450	29,600	98.00	0.17	0.73
<i>Total or Median</i>					<i>182,100</i>		<i>0.23</i>	<i>0.87</i>
Canada								
Cenovus Energy Inc.	CVE	B	24.21	751	18,180	27.00	0.23	0.92
Canadian Natural Resources	CNQ	B	65.36	542	35,400	80.00	0.21	0.85
EnCana Corporation	ECA	B	27.79	751	20,900	35.00	0.28	0.85
Imperial Oil Limited (30%)	IMO	B	37.31	256	9,570	48.00	0.07	0.79
Suncor Energy	SU	B	34.93	1,572	54,910	52.00	0.18	0.73
Canadian Oil Sands Trust	COSWF	B	27.90	484	13,500	42.00	0.06	0.69
<i>Total or Median</i>					<i>152,000</i>		<i>0.20</i>	<i>0.82</i>

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

Estimated present value presumes a long-term price for oil of US\$75 a barrel and natural gas, \$8 a million btu.



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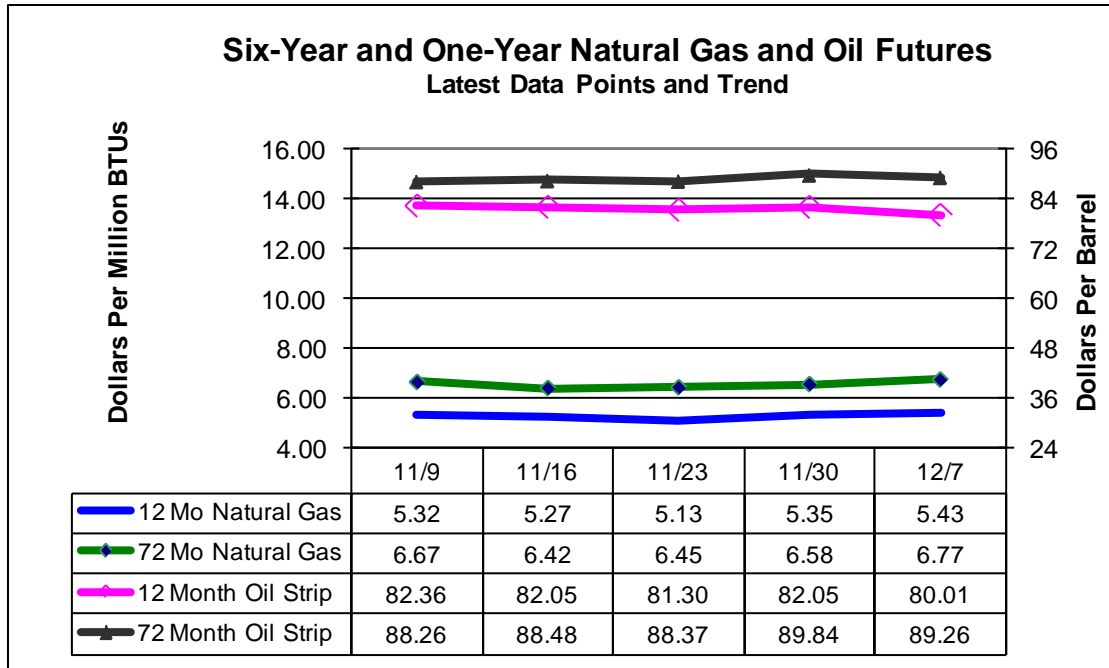
			<i>Price</i> (US\$/sh)	<i>Adjustd</i> <i>Resrvs/</i>	<i>PV/</i>	<i>EV/</i>		<i>Divd or</i> <i>Distrib</i>
	<i>Symbol/Rating</i>		<i>7-Dec</i>	<i>Prod</i>	<i>Ebitda</i>	<i>Ebitda</i>	<i>P/E</i>	<i>NTM</i>
	B = Buy		<i>2009</i>	<i>NTM</i>	<i>NTM</i>	<i>NTM</i>	<i>NTM</i>	<i>(%)</i>
U.S. Integrated								
Exxon Mobil Corporation	XOM	B	73.77	12.4	8.6	7.3	13	2.3
Chevron Corporation	CVX	B	78.17	9.7	7.0	5.6	12	3.5
ConocoPhillips	COP	B	50.82	11.2	8.4	5.2	9	3.9
Marathon Oil Corporation	MRO	B	31.84	9.3	7.1	4.9	10	3.0
	<i>Total or Median</i>			<i>10.4</i>	<i>7.8</i>	<i>5.4</i>	<i>11</i>	<i>3.2</i>
Europe								
BG Group plc	BRGXF	B	18.09	8.1	9.1	7.6	15	1.2
Total S.A.	TOT	B	63.61	9.4	7.4	5.6	10	5.3
Royal Dutch Shell plc	RDS-A	B	60.83	7.9	6.8	5.6	12	5.5
BP plc	BP	B	58.17	9.6	6.9	5.4	9	5.8
Statoil ASA (33%)	STO	B	24.62	7.5	6.4	4.9	22	5.2
	<i>Total or Median</i>			<i>8.1</i>	<i>6.9</i>	<i>5.6</i>	<i>12</i>	<i>5.3</i>
Brazil/China/Russia								
Petrobras	PBR	B	50.12	9.1	9.1	8.1	14	2.7
CNOOC Limited (34%)	CEO	B	154.17	6.9	5.8	6.6	12	3.3
PetroChina Company Ltd (14%)	PTR	B	126.40	13.9	7.6	6.5	16	3.2
Lukoil Oil Company	LUKOY	B	56.60	16.3	8.7	3.9	7	2.3
Gazprom (50%)	OGZPY	B	22.08	24.6	8.3	3.4	4	0.2
	<i>Total or Median</i>			<i>13.9</i>	<i>8.3</i>	<i>6.5</i>	<i>12</i>	<i>2.7</i>
U.S. Independent								
EOG Resources	EOG	B	87.27	9.8	9.1	8.7	27	0.7
XTO Energy Inc.	XTO	B	41.15	10.7	8.9	8.1	14	1.2
Chesapeake Energy Corp.	CHK		22.80	11.1	10.1	8.0	12	1.3
Anadarko Petroleum Corp.	APC	B	58.27	8.9	7.3	7.2		0.6
Occidental Petroleum Corp.	OXY	B	78.24	11.2	8.0	6.7	15	1.7
Devon Energy Corporation	DVN	B	65.79	8.9	7.9	5.8	11	1.0
	<i>Total or Median</i>			<i>10.3</i>	<i>8.4</i>	<i>7.6</i>	<i>14</i>	<i>1.1</i>
Canada								
Imperial Oil Limited (30%)	IMO	B	37.31	20.9	13.0	10.3	21	1.0
Canadian Oil Sands Trust	COSWF	B	27.90	23.1	13.5	9.3	14	6.3
Cenovus Energy Inc.	CVE	B	24.21	9.8	9.1	8.4	20	3.3
EnCana Corporation	ECA	B	27.79	8.7	9.6	8.2	24	2.9
Suncor Energy	SU	B	34.93	13.9	10.3	7.5	26	1.1
Canadian Natural Resources	CNQ	B	65.36	7.5	8.2	7.1	13	0.6
	<i>Total or Median</i>			<i>11.8</i>	<i>10.0</i>	<i>8.3</i>	<i>20</i>	<i>2.0</i>
EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended December 31, 2010; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses								



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