

Rating: None  
S&P 500: 1454

## **Petrobras** **Energy Mega Cap**

<i>Symbol</i>	PBR	<i>Ebitda Next Twelve Months ending 9/30/08 (US\$mm)</i>	31,100
<i>Rating</i>		<i>North American Natural Gas/Ebitda (%)</i>	0
<i>Price (US\$/sh)</i>	107.76	<i>Natural Gas and Oil Production/Ebitda (%)</i>	82
<i>Pricing Date</i>	11/9/07	<i>Adjusted Reserves/Production NTM</i>	9.8
<i>Shares (mm)</i>	2200	<i>EV/Ebitda</i>	8.5
<i>Market Capitalization (US\$mm)</i>	237,000	<i>PV/Ebitda</i>	8.3
<i>Debt (US\$mm)</i>	26,000	<i>Undeveloped Reserves (%)</i>	55
<i>Enterprise Value (EV) (US\$mm)</i>	263,000	<i>Natural Gas and Oil Ebitda (US\$/boe)</i>	37.00
<i>Present Value (PV) (US\$mm)</i>	257,000	<i>Present Value Proven Reserves(US\$/boe)</i>	18.41
<i>Net Present Value (US\$/share)</i>	105	<i>Present Value Proven Reserves(US\$/mcfe)</i>	3.07
<i>Debt/Present Value</i>	0.10	<i>Earnings Next Twelve Months (US\$/sh)</i>	6.74
<i>McDep Ratio - EV/PV</i>	1.02	<i>Price/Earnings Next Twelve Months</i>	16
<i>Dividend Yield (%/year)</i>	1.6	<i>Indicated Annual Dividend (US\$/sh)</i>	1.70

Note: Estimated cash flow and earnings tied to one-year futures prices for oil and natural gas.

Reported results may vary widely from estimates. Estimated present value per share revised only infrequently.

Estimated present value presumes a long-term price for oil of US\$66 a barrel and natural gas, \$11 a million btu.

The Brazilian Government has voting control and with public sector entities owns 40% of Petrobras' equity.

### **Summary**

After reacting to news of an oil bonanza offshore Brazil, the stock of 60% widely-held **Petrobras (PBR)** appears valued similarly to the buy recommendations in our mega cap group of the world's largest energy companies (see table [Oil and Gas Producers – Mega Cap](#)). In third quarter results released late Friday, unlevered cash flow (Ebitda) dipped from the second quarter despite higher production revenue (see table [Next Twelve Months Operating and Financial Estimates](#)). Projected cash flow capitalized at unlevered multiples (PV/Ebitda) related to reserve life (Adjusted R/P) mostly supports NPV after adding \$25 a share for the new deep water oil province (see table [Functional Cash Flow and Present Value](#)). While production is several years away for the latest discovery, current production capacity jumps some 25% in the next few months. At the same time a renewed rise in oil price may carry six-year futures to another double as was the case from the end of 2004 to mid 2006, subject to short declines from time to time. Conceptually, Petrobras also may see growing profit from providing downstream service to producers of ethanol from sugar cane.

Kurt H. Wulff, CFA

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**Oil and Gas Producers - Rank by McDep Ratio**

	<i>Symbol/</i>		<i>Price</i> <i>(US\$/sh)</i>	<i>Shares</i>	<i>Market</i>	<i>Net</i>	<i>Debt/</i>	<i>McDep</i>
	<i>Rating</i>		<i>9-Nov</i> <i>2007</i>	<i>(mm)</i>	<i>Cap</i> <i>(US\$mm)</i>	<i>Present</i> <i>Value</i> <i>(US\$/sh)</i>	<i>Present</i> <i>Value</i>	<i>Ratio</i>
<b>Mega Cap</b>								
Petrobras	PBR		107.76	2,200	237,070	105.00	0.10	1.02
BP plc	BP	B	75.13	3,177	239,000	75.00	0.18	1.00
Exxon Mobil Corporation	XOM	B	86.85	5,536	481,000	92.00	0.05	0.95
Total S.A.	TOT	B	82.67	2,273	188,000	89.00	0.14	0.94
Royal Dutch Shell plc	RDS-A	B	83.42	3,143	262,000	94.00	0.11	0.90
Gazprom (50%)	OGZPY	B	53.15	2,990	158,900	62.00	0.07	0.87
Chevron Corporation	CVX	B	87.26	2,206	193,000	105.00	0.08	0.85
ConocoPhillips	COP	B	82.56	1,644	136,000	112.00	0.19	0.79
	<i>Total or Median</i>				<i>1,895,000</i>		<i>0.11</i>	<i>0.92</i>

**Petrobras**  
**Functional Cash Flow and Present Value**

	<i>NTM Ebitda</i> <i>(US\$mm)</i>	<i>Adjusted</i> <i>R/P</i>	<i>PV/</i> <i>Ebitda</i>	<i>Present</i> <i>Value</i> <i>(US\$mm)</i>	
Rest of World Natural Gas	1,904	10.5	6.8	13,000	5%
Oil	23,426	9.7	6.8	159,000	62%
Downstream	5,743		5.2	30,000	12%
Pre Salt Deep Water Oil				55,000	
	31,073	9.8	8.3	257,000	100%
Debt (US\$mm)				26,000	
Net Present Value (US\$mm)				231,000	
Shares (mm)				2,200	
Net Present Value - Standard Estimate (US\$/sh)				105	
Net Present Value - Approximation by Correlation (US\$/sh)				96	

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**Petrobras**  
**Next Twelve Months Operating and Financial Estimates**  
(Brazilian Currency)

	<i>Q1</i>	<i>Q2</i>	<i>Q3</i>	<i>Q4E</i>	<i>Q1E</i>	<i>Q2E</i>	<i>Q3E</i>	<i>Next Twelve Months 9/30/08</i>
	<i>3/31/07</i>	<i>6/30/07</i>	<i>9/30/07</i>	<i>12/31/07</i>	<i>3/31/08</i>	<i>6/30/08</i>	<i>9/30/08</i>	
<b>Volume</b>								
Natural Gas (mmcf/d)	2,262	2,286	2,310	2,310	2,310	2,286	2,310	<b>2,310</b>
Days	90	91	92	92	91	91	92	<b>366</b>
Oil (mbd)	1,911	1,906	1,908	1,908	1,908	1,908	1,908	<b>1,908</b>
Total gas & oil (mmb)	206	208	211	211	209	208	211	<b>839</b>
Total gas & oil (mbd)	2,288	2,287	2,293	2,293	2,293	2,289	2,293	<b>2,293</b>
<b>Price</b>								
Currency (R\$/US\$)	2.11	1.98	1.92	1.92	1.92	1.92	1.92	<b>1.92</b>
Natural gas (\$/mmbtu)	4.62	4.94	5.13	5.13	5.13	5.13	5.13	<b>5.13</b>
Oil (\$/bbl)								
WTI Cushing	58.08	64.91	75.48	91.29	92.23	89.70	87.47	<b>90.17</b>
Brent	57.75	68.76	74.87	90.55	91.49	88.98	86.77	<b>89.45</b>
Company	47.48	56.34	63.82	77.19	77.99	75.84	73.96	<b>76.24</b>
Total gas & oil (\$/bbl)	196.55	203.43	58.27	69.40	70.06	68.34	66.71	<b>68.63</b>
NY Harbor 3-2-1 (\$/bbl)	11.68	24.96	12.64	7.78	10.51	14.94	14.82	<b>12.01</b>
<b>Revenue (mmR\$)</b>								
Natural gas	1,984	2,034	2,091	2,094	2,071	2,049	2,094	<b>8,307</b>
Oil	17,215	19,348	21,486	26,015	25,998	25,284	24,927	<b>102,225</b>
Total production	19,198	21,382	23,577	28,109	28,069	27,333	27,021	<b>110,532</b>
Other	19,696	20,416	20,892	20,892	20,892	20,892	20,892	<b>83,567</b>
Total	38,894	41,798	44,469	49,000	48,961	48,225	47,913	<b>194,099</b>
<b>Expense</b>								
Production	11,712	10,486	13,686	15,741	15,719	15,307	15,132	<b>61,898</b>
Other	16,870	17,510	18,497	17,992	18,066	17,986	18,497	<b>72,541</b>
<b>Ebitda (mmR\$)</b>								
Production	7,487	10,896	9,891	12,368	12,350	12,027	11,889	<b>48,634</b>
Other	2,826	2,906	2,395	2,900	2,826	2,906	2,395	<b>11,026</b>
Total Ebitda	10,312	13,802	12,286	15,268	15,176	14,933	14,284	<b>59,660</b>
Exploration	655	391	453	453	453	453	453	<b>1,812</b>
Deprec., Deplet., & Amort.	2,411	2,655	2,789	2,789	2,789	2,789	2,789	<b>11,156</b>
<b>Operating Income</b>								
Brazil E&P	8,075	12,981	8,460					
International	(154)	500	227					
Downstream	3,199	3,497	1,895					
Total operating income	11,120	16,978	10,582					
Exchange and other	3,874	6,222	1,538					
<b>Ebit</b>	7,246	10,756	9,044	12,026	11,934	11,691	11,042	<b>46,692</b>
Interest	883	768	721	721	721	721	721	<b>2,884</b>
<b>Ebt</b>	6,363	9,988	8,323	11,305	11,213	10,970	10,321	<b>43,808</b>
Income Tax	2,227	3,168	2,779	3,957	3,925	3,839	3,612	<b>15,333</b>
<b>Net Income (mmR\$)</b>	4,136	6,820	5,544	7,348	7,288	7,130	6,709	<b>28,475</b>
<b>Shares (millions)</b>								
Per share (R\$)	0.94	1.55	1.26	1.67	1.66	1.62	1.52	<b>6.47</b>
Ebitda Margin (E&P)	39%	51%	42%	44%	44%	44%	44%	<b>44%</b>
Tax Rate	35%	32%	33%	35%	35%	35%	35%	<b>35%</b>

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