Rating: Buy S&P 500: 1316

# PetroChina Company Ltd. Future Natural Gas and Downstream Profits

Symbol	PTR	Ebitda Twelve Months ending 12/30/07 (US\$mm)	41,000
Rating	Buy	North American Natural Gas/Ebitda (%)	0
Price (US\$/sh)	106.15	Natural Gas and Oil Production/Ebitda (%)	91
Pricing Date	9/14/06	Adjusted Reserves/Production NTM	14.7
Shares (mm)	1790	EV/Ebitda	4.8
Market Capitalization (US\$mm)	190,000	PV/Ebitda	6.3
Debt (US\$mm)	10,000	Undeveloped Reserves (%)	36
Enterprise Value (EV) (US\$mm)	200,000	Natural Gas and Oil Ebitda (US\$/boe)	34.25
Present Value (PV) (US\$mm)	260,000	Present Value Proven Reserves(US\$/boe)	12.08
Net Present Value (US\$/share)	140	Present Value Proven Reserves(US\$/mcfe)	2.01
Debt/Present Value	0.04	Earnings Next Twelve Months (US\$/sh)	11.35
McDep Ratio - EV/PV	0.77	Price/Earnings Next Twelve Months	9
Dividend Yield (%/year)	4.5	Indicated Annual Dividend (US\$/sh)	4.82

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

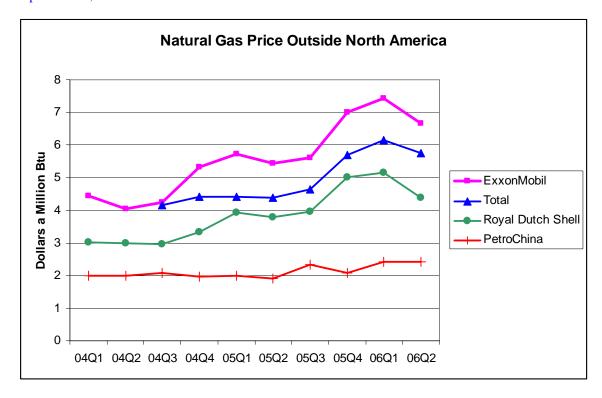
Reported results may vary widely from estimates. Estimated present value per share revised only infrequently.

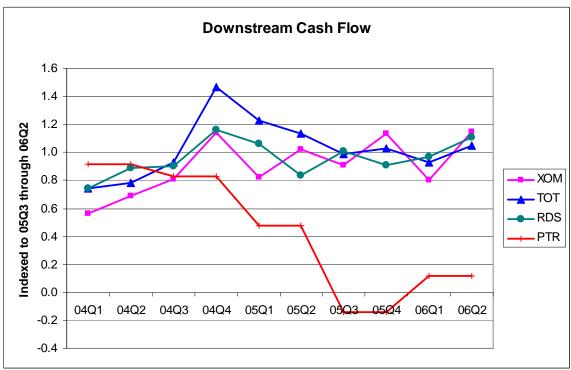
The Peoples Republic of China holds 90% of the outstanding shares.

#### **Summary and Recommendation**

Projected 2007 cash flow for buy-recommended **PetroChina Company Ltd. (PTR)** could be some 20% higher, about half from natural gas and half from downstream, if we credited the company with a competitive natural gas price and normal refining margins. The 90% government-owned company reports a natural gas price of just a third to a half of the amount reported by mega cap producers (see chart). Downstream cash flow that ought to be perhaps 20% of crude oil cash flow has declined to almost nil from two years ago (see chart). Price controls on natural gas and oil products may meet short-term political demands, but are likely to be lifted ultimately. Meanwhile crude oil production has provided ample cash flow to justify the company's stock price performance despite an excise tax expected to be temporary. Volumes, primarily from the giant Daqing field, have been surprisingly strong and oil reserves apparently are growing. The stock offers prospective 32% appreciation to estimated net present value (NPV) of \$140 a share that presumes a long-term benchmark crude oil price of \$60 a barrel as well as continued natural gas and downstream profits below the global norm.

Kurt H. Wulff, CFA





### PetroChina Functional Cash Flow and Present Value

		NTM Ebitda (US\$mm)	Adjusted <u>R/P</u>	PV/ <u>Ebitda</u>	Present Value <u>(US\$mm)</u>		
	Natural Gas	2,400	23.1	8.8	21,000	8%	
	Oil	35,000	12.2	6.2	218,000	84%	
	Downstream	3,800		5.8	22,000	8%	
		41,200	14.7	6.3	261,000	100%	
	Debt (US\$mm)					10,000	
	Net Present Value (US\$mm)					251,000	
	Shares (mm)					1,790	
Net Present Value - Standard Estimate (US\$/sh)							
Net Present Value - Approximation by Correlation (US\$/sh)							

## PetroChina Company Limited Half-Yearly Financial Results

H2   Year   H1   H2E   Year   2005   6/30/06   12/31/06   2006E   6/30/07   12/31/07   11/37   12/31/07   11/37   12/31/07   11/37   12/31/07   11/31/07   12/31/07	07 5
NY Harbor 3-2-1 (\$/bbl)         12.88         10.63         11.39         8.45         9.92         10.25         11.46         9.33           Revenue (RMB)         Upstream (from quarterly table)         205,481         355,958         215,275         217,961         433,236         215,189         224,894         433,15           Downstream Value Added         94,259         196,271         111,270         126,270         237,540         126,270         126,270         252,54           Total         299,740         552,229         326,545         344,231         670,776         341,459         351,164         685,68           Expense         162,939         295,054         175,640         179,732         355,372         178,346         183,199         358,07           Ebitda (RMB)         Exploration and Production         140,029         249,194         148,156         149,498         297,654         148,112         152,965         297,61           Other         (3,228)         7,981         2,749         15,000         17,749         15,000         15,000         30,00           Exploration         7,038         15,566         8,750         8,750         17,500         8,750         8,750         29,910         29,	5
Revenue (RMB)           Upstream (from quarterly table)         205,481         355,958         215,275         217,961         433,236         215,189         224,894         433,15           Downstream Value Added         94,259         196,271         111,270         126,270         237,540         126,270         126,270         252,54           Total         299,740         552,229         326,545         344,231         670,776         341,459         351,164         685,68           Expense         162,939         295,054         175,640         179,732         355,372         178,346         183,199         358,07           Ebitda (RMB)         Exploration and Production         140,029         249,194         148,156         149,498         297,654         148,112         152,965         297,61           Other         (3,228)         7,981         2,749         15,000         17,749         15,000         15,000         15,000         15,000         15,000         15,000         15,000         15,000         164,498         315,403         163,112         167,965         327,61           Exploration         7,038         15,566         8,750         8,750         17,500         8,750         8,750	0
Upstream (from quarterly table)         205,481         355,958         215,275         217,961         433,236         215,189         224,894         433,15           Downstream Value Added         94,259         196,271         111,270         126,270         237,540         126,270         126,270         252,54           Total         299,740         552,229         326,545         344,231         670,776         341,459         351,164         685,68           Expense         162,939         295,054         175,640         179,732         355,372         178,346         183,199         358,07           Ebitda (RMB)         Exploration and Production         140,029         249,194         148,156         149,498         297,654         148,112         152,965         297,61           Other         (3,228)         7,981         2,749         15,000         17,749         15,000         15,000         15,000         15,000         15,000         164,498         315,403         163,112         167,965         327,61           Exploration         7,038         15,566         8,750         8,750         17,500         8,750         8,750         29,910         29,910         29,910         29,910         29,910         29,910	
Downstream Value Added         94,259         196,271         111,270         126,270         237,540         126,270         126,270         252,54           Total         299,740         552,229         326,545         344,231         670,776         341,459         351,164         685,68           Expense         162,939         295,054         175,640         179,732         355,372         178,346         183,199         358,07           Ebitda (RMB)         Exploration and Production         140,029         249,194         148,156         149,498         297,654         148,112         152,965         297,61           Other         (3,228)         7,981         2,749         15,000         17,749         15,000         15,000         30,00           Total         136,801         257,175         150,905         164,498         315,403         163,112         167,965         327,61           Exploration         7,038         15,566         8,750         8,750         17,500         8,750         8,750         17,50           Deprec., Deplet., & Amort.         25,514         51,305         29,910         29,910         59,820         29,910         29,910         59,82           Other non cash         <	
Total         299,740         552,229         326,545         344,231         670,776         341,459         351,164         685,68           Expense         162,939         295,054         175,640         179,732         355,372         178,346         183,199         358,07           Ebitda (RMB)         Exploration and Production         140,029         249,194         148,156         149,498         297,654         148,112         152,965         297,61           Other         (3,228)         7,981         2,749         15,000         17,749         15,000         15,000         30,00           Total         136,801         257,175         150,905         164,498         315,403         163,112         167,965         327,61           Exploration         7,038         15,566         8,750         8,750         17,500         8,750         8,750         17,500           Deprec., Deplet., & Amort.         25,514         51,305         29,910         29,910         59,820         29,910         29,910         29,910         29,910         29,910         29,910         29,910         29,910         29,910         29,910         29,910         29,910         29,910         29,910         29,910         29,	Λ
Expense         162,939         295,054         175,640         179,732         355,372         178,346         183,199         358,07           Ebitda (RMB)         Exploration and Production Other         140,029         249,194         148,156         149,498         297,654         148,112         152,965         297,61           Other         (3,228)         7,981         2,749         15,000         17,749         15,000         15,000         30,00           Total         136,801         257,175         150,905         164,498         315,403         163,112         167,965         327,61           Exploration         7,038         15,566         8,750         8,750         17,500         8,750         8,750         17,50           Deprec., Deplet., & Amort.         25,514         51,305         29,910         29,910         59,820         29,910         29,910         59,82           Other non cash         104,249         190,304         112,245         125,838         238,083         124,452         129,305         250,29           Interest         1,577         2,762         889         889         1,778         889         889         1,77           Ebt         102,672         187,5	U
Ebitda (RMB)           Exploration and Production Other         140,029 (3,228)         249,194 (148,156)         149,498 (149,498)         297,654 (148,112)         152,965 (150,000)         297,616 (150,000)         30,000 (150,000)         30,0	9
Exploration and Production Other         140,029         249,194         148,156         149,498         297,654         148,112         152,965         297,61           Other         (3,228)         7,981         2,749         15,000         17,749         15,000         15,000         30,00           Total         136,801         257,175         150,905         164,498         315,403         163,112         167,965         327,61           Exploration         7,038         15,566         8,750         8,750         17,500         8,750         8,750         17,50           Deprec., Deplet., & Amort.         25,514         51,305         29,910         29,910         59,820         29,910         29,910         59,82           Other non cash         104,249         190,304         112,245         125,838         238,083         124,452         129,305         250,29           Interest         1,577         2,762         889         889         1,778         889         889         1,77           Ebt         102,672         187,542         111,356         124,949         236,305         123,563         128,416         248,51	9
Other         (3,228)         7,981         2,749         15,000         17,749         15,000         15,000         30,00           Total         136,801         257,175         150,905         164,498         315,403         163,112         167,965         327,61           Exploration         7,038         15,566         8,750         8,750         17,500         8,750         8,750         17,50           Deprec., Deplet., & Amort.         25,514         51,305         29,910         29,910         59,820         29,910         29,910         59,820           Other non cash           Ebit         104,249         190,304         112,245         125,838         238,083         124,452         129,305         250,29           Interest         1,577         2,762         889         889         1,778         889         889         1,778           Ebt         102,672         187,542         111,356         124,949         236,305         123,563         128,416         248,51	
Total         136,801         257,175         150,905         164,498         315,403         163,112         167,965         327,61           Exploration         7,038         15,566         8,750         8,750         17,500         8,750         8,750         17,50           Deprec., Deplet., & Amort.         25,514         51,305         29,910         29,910         59,820         29,910         29,910         59,82           Other non cash           Ebit         104,249         190,304         112,245         125,838         238,083         124,452         129,305         250,29           Interest         1,577         2,762         889         889         1,778         889         889         1,77           Ebt         102,672         187,542         111,356         124,949         236,305         123,563         128,416         248,51	1
Exploration         7,038         15,566         8,750         8,750         17,500         8,750         8,750         17,50           Deprec., Deplet., & Amort.         25,514         51,305         29,910         29,910         59,820         29,910         29,910         59,820           Other non cash           Ebit         104,249         190,304         112,245         125,838         238,083         124,452         129,305         250,29           Interest         1,577         2,762         889         889         1,778         889         889         1,77           Ebt         102,672         187,542         111,356         124,949         236,305         123,563         128,416         248,51	0
Deprec., Deplet., & Amort. Other non cash       25,514       51,305       29,910       29,910       59,820       29,910       29,910       29,910       59,82         Ebit       104,249       190,304       112,245       125,838       238,083       124,452       129,305       250,29         Interest       1,577       2,762       889       889       1,778       889       889       1,77         Ebt       102,672       187,542       111,356       124,949       236,305       123,563       128,416       248,51	1
Other non cash         Ebit         104,249         190,304         112,245         125,838         238,083         124,452         129,305         250,29           Interest         1,577         2,762         889         889         1,778         889         889         1,77           Ebt         102,672         187,542         111,356         124,949         236,305         123,563         128,416         248,51	0
Other non cash         Ebit         104,249         190,304         112,245         125,838         238,083         124,452         129,305         250,29           Interest         1,577         2,762         889         889         1,778         889         889         1,77           Ebt         102,672         187,542         111,356         124,949         236,305         123,563         128,416         248,51	0
Interest         1,577         2,762         889         889         1,778         889         889         1,778           Ebt         102,672         187,542         111,356         124,949         236,305         123,563         128,416         248,51	
Ebt 102,672 187,542 111,356 124,949 236,305 123,563 128,416 248,51	1
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In a man Tan 20 024 54 190 20 675 42 720 74 407 42 247 44 046 96 07	3
Income Tax 30,934 <b>54,180</b> 30,675 43,732 <b>74,407</b> 43,247 44,946 <b>86,97</b>	9
Net Income (RMB)	
Exploration and Production 123,387 <b>208,080</b> 124,452 <b>124,452</b>	
Other (13,565) (12,721) (9,159) (9,159)	
Unallocated (38,084) (61,997) (34,612) (34,612)	
Total 71,738 <b>133,362</b> 80,681 81,217 <b>161,898</b> 80,316 83,470 <b>161,53</b>	3
<b>Shares</b> (millions) 1,778 <b>1,769</b> 1,790 1,790 1,790 1,790 1,790 1,790	0
Earnings per share (RMB) 40.35 <b>75.40</b> 45.07 45.37 <b>90.45</b> 44.87 46.63 <b>90.2</b>	4
Ebitda Margin (E&P) 68% <b>70%</b> 69% 69% 69% 69% 68% <b>69</b>	%
Tax Rate 30% 29% 28% 35% 31% 35% 35% 35	%

#### PetroChina Company Limited Quarterly Operations

									Twelve
	Q3	Year	Q2	Q3E	Q4E	Year	Q3E	Q4E	Months
	9/30/05	2005	6/30/06	9/30/06	12/31/06	2006E	9/30/07	12/31/07	12/31/07
Volume									
Natural gas (bcf)	257	1,152	325	340	389	1,413	359	389	1,470
Natural Gas (mmcfd)	2,793	3,156	3,566	3,694	4,225	3,872	3,900	4,225	4,028
Days	92	365	91	92	92	365	92	92	365
Oil (mmb)	199	842	211	214	214	846	214	214	848
Oil (mbd)	2,161	2,307	2,323	2,323	2,323	2,319	2,323	2,323	2,323
Total gas & oil (mmb)	242	1,034	265	270	279	1,082	274	279	1,093
Total gas & oil (mbd))	2,626	2,833	2,917	2,939	3,027	2,964	2,973	3,027	2,994
Price									
Natural gas (\$/mcf)									
Henry Hub (\$/mmbtu)	8.56	8.65	6.81	6.58	6.47	7.21	7.44	8.61	7.99
Company	2.34	2.08	2.43	2.43	2.43	2.43	2.43	2.43	2.43
Oil (\$/bbl)									
WTI Cushing	62.52	56.31	70.47	70.66	64.18	67.16	69.35	69.83	68.61
Company	55.19	48.88	62.71	62.88	57.11	59.48	61.72	62.14	61.07
Total gas & oil (\$/bbl)	47.89	42.12	52.91	52.76	47.22	49.71	51.42	51.08	50.65
Revenue (\$mm)									
Natural Gas	600	2,396	789	826	945	3,434	872	945	3,573
Oil	10,972	41,157	13,257	13,440	12,206	50,350	13,191	13,281	51,784
Total	11,572	43,553	14,046	14,265	13,151	53,785	14,063	14,226	55,356
Total(RMB)	94,155	355,958	116,080	113,410	104,551	433,236	111,800	113,094	440,083
RMB/\$US	8.14	8.17	8.01	7.95	7.95	8.06	7.95	7.95	7.95

**Disclaimer:** This analysis was prepared by Kurt Wulff doing business as McDep Associates. The firm used sources and data believed to be reliable, but makes no representation as to their accuracy or completeness. This analysis is intended for informational purposes and is not a solicitation to buy or sell a security. Past performance is no guarantee of future results.

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Research Methodology/Ratings Description: McDep Associates is an independent research originator focused on oil and gas stocks exclusively. The firm applies the thirty 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. Buy recommendations are expected to deliver a total return better than 7% per year above inflation. Hold recommendations assume the attributes of the underlying business are reflected in the current price of the stock. Sell recommendations are expected to deliver a total return less than inflation.