

Rating: Buy
S&P 500: 1105

BP p.l.c. **Russia Distinction**

<i>Symbol</i>	BP	<i>Ebitda Next Twelve Months ending 6/30/05 (US\$mm)</i>	36,100
<i>Rating</i>	Buy	<i>North American Natural Gas/Ebitda (%)</i>	8
<i>Price (US\$/sh)</i>	52.32	<i>Natural Gas and Oil Production/Ebitda (%)</i>	74
<i>Pricing Date</i>	8/25/04	<i>Adjusted Reserves/Production NTM</i>	9.7
<i>Shares (mm)</i>	3651	<i>EV/Ebitda</i>	6.2
<i>Market Capitalization (US\$mm)</i>	191,000	<i>PV/Ebitda</i>	7.0
<i>Debt (US\$mm)</i>	32,800	<i>Undeveloped Reserves (%)</i>	46
<i>Enterprise Value (EV) (US\$mm)</i>	223,800	<i>Natural Gas and Oil Ebitda (US\$/boe)</i>	18.70
<i>Present Value (PV) (US\$mm)</i>	251,800	<i>Present Value Proven Reserves(US\$/boe)</i>	10.30
<i>Net Present Value (US\$/share)</i>	60	<i>Present Value Proven Reserves(US\$/mcf)</i>	1.72
<i>Debt/Present Value</i>	0.13	<i>Earnings Next Twelve Months (US\$/sh)</i>	4.32
<i>McDep Ratio - EV/PV</i>	0.89	<i>Price/Earnings Next Twelve Months</i>	12
<i>Dividend Yield (%/year)</i>	3.3	<i>Indicated Annual Dividend (US\$/sh)</i>	1.70

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

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

Summary and Recommendation

We continue a Buy rating on the common shares of **BP (BP)** as a competitive mega cap energy investment with possible enhancement through investment growth in Russia. Distinctive among its peers, BP has a 50% equity stake in a large Russian company that accounts for more than 20% of the company's oil and gas production. Russian production can last longer with potential reserve growth and be more profitable with improved efficiency. Without counting explicitly on those improvements, we describe a calculation that BP's stock is priced for a seven percent a year real return at a constant real oil price of \$30 a barrel in contrast to an average nominal price in the futures market for the next six-years more than \$35 a barrel.

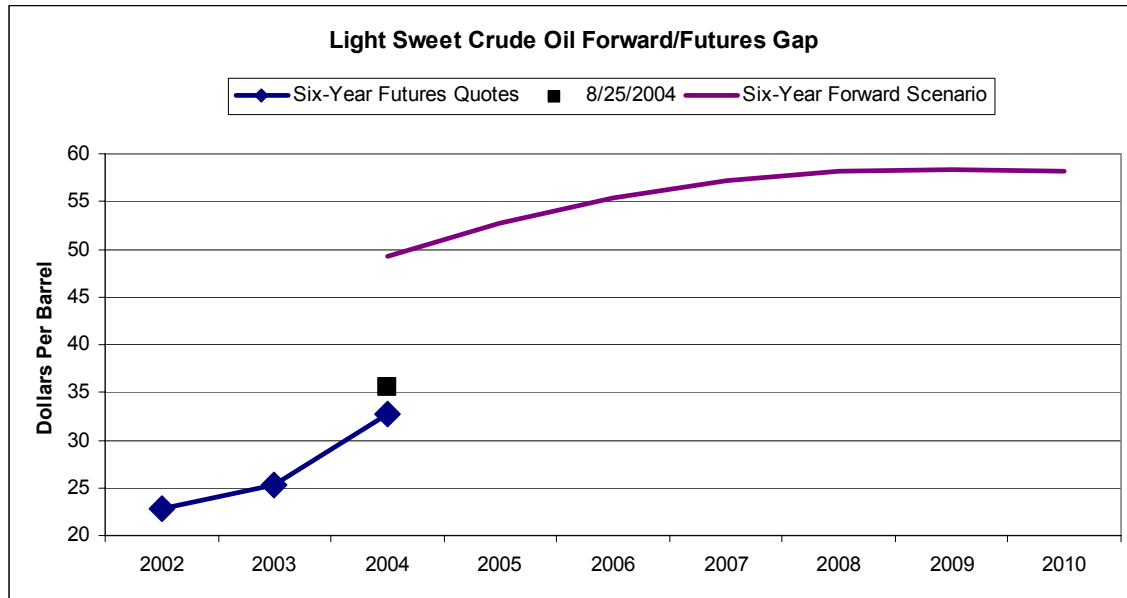
Moderate Oil Price Scenario

The value of the company depends in large part on the future price of crude oil. Publicly traded in the commodity markets, futures contracts for delivery over the next six years continue in a steep uptrend. Whether the trend will slow for awhile we cannot know. Our scenario is that a move that began in the low \$20 and is now in the upper \$30 could reach \$50 (see chart [Light Sweet Crude Oil Forward/Futures Gap](#)).

To construct the scenario we assumed oil would peak in 2010 at \$50 in 2003 dollars. That is more moderate than the peak in early 1981 at more than \$80 in 2003 dollars. Then we applied 3% per year inflation and calculated six-year averages to build a forward curve.

Economics support the price trends. Oil demand is strong with world economic growth paced by developing countries, especially China. Supply growth is limited as spare capacity has virtually disappeared. The largest producing fields in the Middle East are now mature. It will take time, large amounts of capital and a secure political climate to boost producing rates.

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Monetary factors favor oil investment as interest rates below inflation drive investors to real assets for protection against the dollar losing value. If similar past periods are any guide, the authorities may not raise interest rates above inflation for the rest of the decade.

Environmental factors favor higher oil and gas price. Coal is still a quarter of world primary energy supply. Cleaner oil and gas are undervalued as long as we tolerate environmentally disadvantageous coal.

Political factors favor higher oil price in consuming countries and producing countries. Consuming governments often resort to artificial forces to hold down oil price that can appear to work temporarily.

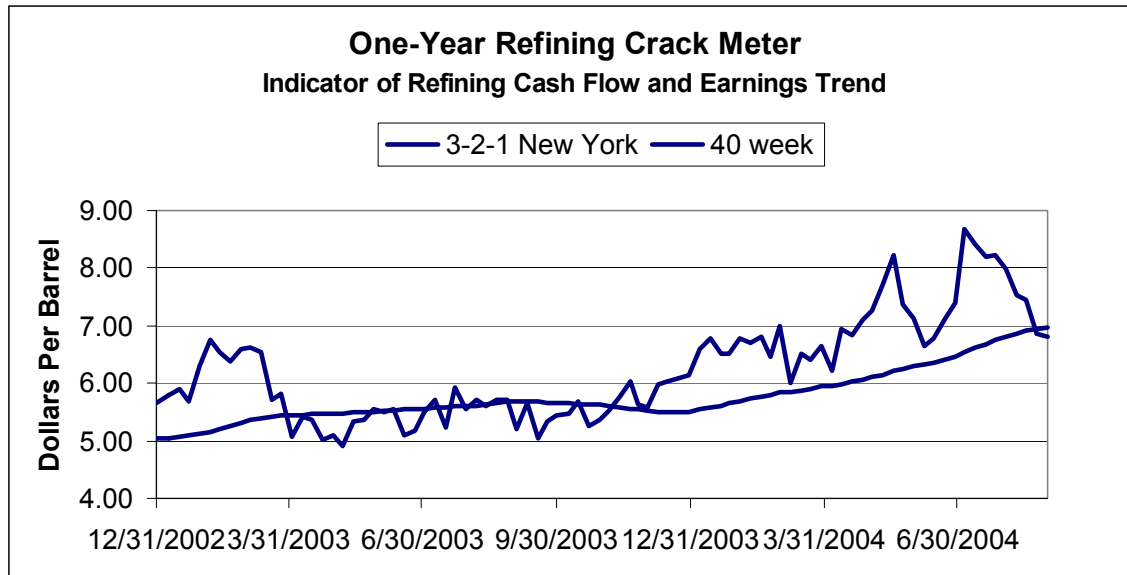
In producing countries we have seen time and again that oil production goes down when international oil companies are not welcome. After Iran, Iraq and Venezuela, now Saudi Arabia appears vulnerable to political change that may bring about production decline.

Too much of a gain in oil price might cause problems of economic adjustment though we think much of the concern expressed is exaggerated. Nonetheless we have a threshold of 60% gain in monthly price compared to a year earlier when we start to become concerned about weak demand for oil. October futures currently near \$45 a barrel would have to remain above \$52 for the 60% threshold to be breached.

Refining Crack on 40-Week Average

About a quarter of projected cash flow for BP would be generated by downstream businesses, primarily refining/marketing of petroleum products. The unusually strong trend in expected future margin, the one-year refining crack, has softened in recent days (see chart [One-Year Refining Crack Meter](#)). The New York Harbor indicator can only approximate worldwide conditions for BP. Moreover, gasoline has a high weighting in the crack calculation. Surprises ahead of the coming winter are more likely in fuel oil price.

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One-Year Futures Point to Higher Cash Flow and Profits

As our next twelve months (NTM) cash flow model moves ahead to the period ending June 30, 2005 expectations also advance mainly because of advancing one-year futures. We relate natural gas and oil price to the quotes for commodities traded on the New York Mercantile Exchange (see table [Next Twelve Months Operating and Financial Estimates](#)).

Investors who want calendar year estimates can find 2004 in the table. For 2005 we suggest using the next twelve months as a rough estimate. Estimates can change frequently along with oil markets.

Present Value at Real Price and Real Return

NTM estimates determine to a large extent the first year of projected cash flow that we discount to present value (see table [Present Value of Oil and Gas Reserves](#)). The calculation is set up on the basis of a barrel of proven reserves, 0.54 developed and 0.46 undeveloped.

While there are many assumptions that could be discussed, discount rate and oil price are especially important. Price escalation and discount rate interact. In this case we make the simplification of dealing in constant dollars. That assumes price escalation, cost escalation and discount rate are all net of inflation.

For discount rate we use a 7% real return per year on an unlevered basis. That means a buyer who pays present value would earn 7% per year above inflation if all the projections were to materialize as stated.

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Next Twelve Months Operating and Financial Estimates

	<i>Q1</i>	<i>Q2</i>	<i>Q3E</i>	<i>Q4E</i>	<i>Year</i>	<i>Q1E</i>	<i>Q2E</i>	<i>Next Twelve Months</i>
	<i>3/31/04</i>	<i>6/30/04</i>	<i>9/30/04</i>	<i>12/31/04</i>	<i>2004E</i>	<i>3/31/05</i>	<i>6/30/05</i>	<i>6/30/05</i>
Volume								
Natural Gas (mmcf)								
U.S. (or North America)	2,869	2,790	2,790	2,790	2,817	2,790	2,790	2,790
Overseas (or Int'l)	5,731	5,635	5,635	5,635	5,674	5,635	5,635	5,635
Total	8,600	8,425	8,425	8,425	8,492	8,425	8,425	8,425
Oil (mbd)	2,533	2,518	2,518	2,518	2,522	2,518	2,518	2,518
Total gas & oil (mmb)	361	357	361	361	1,440	353	357	1,432
Price								
Natural gas (\$/mcf)								
Henry Hub (\$/mmbtu)	5.64	6.10	5.57	6.16	5.87	6.94	6.06	6.18
U.S. (or North America)	4.72	5.11	4.67	5.16	4.91	5.82	5.08	5.18
Overseas (or Int'l)	3.32	2.97	3.45	3.35	3.27	3.25	3.15	3.30
Total	3.79	3.68	3.85	3.95	3.82	4.10	3.79	3.92
Oil (\$/bbl)								
WTI Cushing	35.23	38.34	44.45	43.25	40.32	41.98	40.60	42.57
Worldwide	30.48	33.27	38.57	37.53	34.97	36.43	35.23	36.95
Total gas & oil (\$/bbl)	27.68	29.26	33.03	32.58	30.64	32.20	30.75	32.15
NY Harbor 3-2-1 (\$/bbl)	6.98	11.71	7.20	5.95	7.96	6.83	6.91	6.72
Revenue (\$mm)								
Natural Gas								
U.S. (or North America)	1,232	1,297	1,198	1,324	5,051	1,461	1,289	5,271
Overseas (or Int'l)	1,734	1,524	1,786	1,738	6,782	1,650	1,614	6,789
Total	2,966	2,821	2,984	3,062	11,834	3,111	2,903	12,060
Oil	7,026	7,623	8,936	8,695	32,280	8,255	8,074	33,959
Other	59,488	60,709	60,709	60,709	241,616	60,709	60,709	242,837
Total	69,480	71,154	72,629	72,466	285,730	72,075	71,685	288,856
Expense								
Production	4,084	4,606	4,902	4,869	18,460	4,791	4,713	19,274
Other	56,956	57,565	58,171	58,392	231,085	58,449	58,437	233,449
Ebitda (\$mm)								
Exploration and Production	5,908	5,838	7,019	6,888	25,653	6,575	6,264	26,746
Other	2,532	3,144	2,538	2,317	10,531	2,260	2,273	9,388
Total Ebitda	8,440	8,982	9,557	9,206	36,185	8,835	8,536	36,134
Exploration	67	89	89	89	334	89	89	356
Deprec., Deplet., & Amort.	2,814	2,738	2,738	2,738	11,028	2,738	2,738	10,952
Other non cash	(1,000)	-	-	-	(1,000)	-	-	-
Ebit	6,559	6,155	6,730	6,379	25,823	6,008	5,709	24,826
Interest	152	145	145	145	587	145	145	580
Ebt	6,407	6,010	6,585	6,234	25,236	5,863	5,564	24,246
Income Tax	2,242	2,104	2,305	2,182	8,832	2,052	1,947	8,486
Net Income (\$mm)								
Exploration and Production	4,568	4,558						
Other	1,114	1,986						
Unallocated	(1,517)	(2,637)						
Total	4,165	3,907	4,280	4,052	16,403	3,811	3,617	15,760
Shares (millions)								
Per share (\$)	3,681	3,651	3,651	3,651	3,659	3,651	3,651	3,651
Ebitda Margin (E&P)	1.13	1.07	1.17	1.11	4.48	1.04	0.99	4.32
Ebitda Margin (E&P)	59%	56%	59%	59%	58%	58%	57%	58%
Tax Rate	35%	35%	35%	35%	35%	35%	35%	35%

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Present Value of Oil and Gas Reserves

Volume Decline (%/yr):	14	Nymex Oil Price Post 2005 (\$/bbl)	35
Volume Enhancement (%/yr):	13	Price/Nymex Post 2005 (%):	91
Variable Cost (%):	33	Development Cost (\$/bbl):	3.00
Capex/Cash Flow (%):	14	Real Discount Rate (%/yr):	7.0

Year	Basic (bbl)	Volume Enhanced (bbl)	Total (bbl)	Price (\$/bbl)	Revenue (\$)	Fixed Cost (\$)	Var. Cost (\$)	Cash Flow (\$)	Cap Ex (\$)	Free CF (\$)	Disc Factor	Present Value (\$)
Total 2005 through 2024; years ending on 6/30												
	0.540	0.459	0.999	31.87	31.85	4.75	10.36	16.75	1.39	15.36	0.66	10.20
2005	0.079	0.000	0.079	32.15	2.53	0.24	0.82	1.47	0.21	1.27	0.97	1.22
2006	0.068	0.010	0.078	31.85	2.49	0.24	0.81	1.44	0.20	1.24	0.90	1.12
2007	0.059	0.019	0.078	31.85	2.47	0.24	0.80	1.43	0.20	1.23	0.84	1.04
2008	0.050	0.027	0.077	31.85	2.45	0.24	0.80	1.42	0.20	1.22	0.79	0.96
2009	0.043	0.033	0.076	31.85	2.43	0.24	0.79	1.40	0.20	1.21	0.74	0.89
2010	0.037	0.038	0.076	31.85	2.41	0.24	0.78	1.39	0.19	1.20	0.69	0.82
2011	0.032	0.043	0.075	31.85	2.39	0.24	0.78	1.38	0.19	1.18	0.64	0.76
2012	0.028	0.047	0.075	31.85	2.37	0.24	0.77	1.36	0.00	1.36	0.60	0.82
2013	0.024	0.040	0.064	31.85	2.05	0.24	0.67	1.14	0.00	1.14	0.56	0.64
2014	0.021	0.035	0.055	31.85	1.76	0.24	0.57	0.95	0.00	0.95	0.53	0.50
2015	0.018	0.030	0.048	31.85	1.52	0.24	0.49	0.79	0.00	0.79	0.49	0.39
2016	0.015	0.026	0.041	31.85	1.31	0.24	0.43	0.64	0.00	0.64	0.46	0.30
2017	0.013	0.022	0.035	31.85	1.13	0.24	0.37	0.52	0.00	0.52	0.43	0.22
2018	0.011	0.019	0.030	31.85	0.97	0.24	0.32	0.42	0.00	0.42	0.40	0.17
2019	0.010	0.016	0.026	31.85	0.84	0.24	0.27	0.33	0.00	0.33	0.37	0.12
2020	0.008	0.014	0.023	31.85	0.72	0.24	0.23	0.25	0.00	0.25	0.35	0.09
2021	0.007	0.012	0.019	31.85	0.62	0.24	0.20	0.18	0.00	0.18	0.33	0.06
2022	0.006	0.011	0.017	31.85	0.53	0.24	0.17	0.12	0.00	0.12	0.31	0.04
2023	0.005	0.009	0.014	31.85	0.46	0.24	0.15	0.07	0.00	0.07	0.29	0.02
2024	0.005	0.008	0.012	31.85	0.40	0.24	0.13	0.03	0.00	0.03	0.27	0.01

First year oil price is from the futures market. We hold it constant at an arbitrary level thereafter. The assumed price listed in the upper right hand corner is the commonly quoted benchmark Light, Sweet Crude. A price of \$35 a barrel leads to present value of future cash flow from a barrel of reserves equal to \$10.20 (see box in right hand column).

Present Value per Barrel Leads to Present Value per Share

We illustrate the calculation of Net Present Value (NPV) in a sensitivity table where each column is headed by a different oil price (see table Net Present Value Calculation). Oil price corresponds to present value per barrel which then leads step by step to the final result. The price of \$35 a barrel corresponds to our standardized present value of \$60 a share. In reverse fashion, for a present value of \$52, near the current stock price, the corresponding constant real oil price would be \$30.

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Net Present Value Calculation

Constant Oil Price (\$/bbl):	30	35	40	50
Present Value per Barrel (\$):	8.70	10.20	11.80	14.90
Oil and Gas Reserves (million barrels equivalent):	18,085	18,085	18,085	18,085
Present Value of Oil and Gas Reserves (\$mm):	157,300	184,500	213,400	269,500
Present Value of Other Businesses (\$mm):	67,100	67,100	67,100	67,100
Total Present Value (\$mm):	224,400	251,600	280,500	336,600
Debt (\$mm):	32,800	32,800	32,800	32,800
Present Value of Equity (\$mm):	191,600	218,800	247,700	303,800
Shares (mm):	3,651	3,651	3,651	3,651
Net Present Value (\$/sh):	52	60	68	83

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