Basic Report

The Oil Price and Oil Companies

The regular OPEC meetings held to set oil production limits and encourage higher oil prices, keep us continually reminded of the extent to which these countries depend on oil production and oil price. The question for the investor interested in equities is whether the price of oil is as important a factor for oil shares as it is for the producer countries.

1. Oil Price Forecast

Despite various OPEC meetings, the oil price situation remains unstable, and this is reflected in relatively large daily fluctuations. Annual volatility since 1974, however, amounts to a mere 9.83% (standard deviation). Against an average 1988 price (West Texas Intermediate, "WTI", is our oil price reference) of $16 per barrel, for 1989 we forecast an average price of not quite $15.

This gives rise to the question whether oil shares still represent an attractive investment despite our forecast of a decline in price? Can we gauge the impact of oil price on company earnings and share prices – remembering that oil companies do not go by the oil price level of a few days' standing but by the average price for the year?

2. The Sensitivity of Oil Shares to Oil Price

For the investor what matters in the end is the change in price of his shares, and this depends primarily on market sentiment and the company's earnings situation. In order to isolate the influence of oil price on share price, we will assume a static stock market, where the percentage change in price corresponds to the percentage change in earnings. Our estimate for oil companies' price sensitivity is shown on the table overleaf – the companies were chosen primarily according to how well known they are.

The relatively low sensitivity demonstrated by the large oil companies, such as Royal Dutch, whose earnings per share fall only 4.5% on a fall in oil price from $ 16 to $ 15 (−6.25%), may surprise the reader. The explanation is found in the fact that oil companies do not only produce oil, they also refine it, as well as having an extra support in the form of chemical activities. We estimate that for the companies surveyed, operating profit is split evenly between the three: one third each from oil production, refining, and the chemical divisions.

Essentially, therefore, the oil share's degree of sensitivity depends on the sales and earnings split between the three sectors. This diversification within the companies itself is relatively effective in smoothing out fluctuations in oil price, for, in the case of falling oil prices for example, while earnings from oil production do slip, this is accompanied simultaneously by a widening in refining margins – because the cost of the raw material (oil) comes down immediately, whereas there is usually a certain time-lag before sale prices for petrol, for example, are lowered, nor is the fall usually passed on in full. Integrated oil companies also switch to buying more oil on the market, rather than producing it themselves. In contrast, success in chemical divisions does not depend first and foremost on oil price but on the state of the economy.

In spite of this qualification on sensitivity, our survey clearly shows that, with the exception of Burmah Oil, oil companies' **earnings** benefit overall from a rising oil price and suffer, conversely, from a **falling price.** This would suggest the conclusion that on our forecast oil price scenario, oil share holdings should be decreased. However, such a conclusion would be premature given that these shares do not depend on earnings alone.

Union Bank of Switzerland

Investment Research – January 1989

Oil Companies

Company	Country	Beta value (5 years)	Dividend Yield as at Dec. 30, 1988 in %[1]	Dividend Payout (1988 E)	Estimated % Change[2]	
					Earnings per share	Share price
Burmah Oil	GB	1.11	4.6	0.40	0.3	0.3
Elf Aquitaine	F	0.86	5.8	0.35	– 4.0	– 4.0
Royal Dutch / Shell	NL (I)	0.69	5.6	0.65	– 4.5	– 4.5
Exxon	U.S.A. (I)	0.55	5.0	0.60	– 6.0	– 6.0
Phillips Petroleum	U.S.A.	1.07	3.7	0.25	– 6.0	– 6.0
Amoco	U.S.A.	0.55	4.7	0.45	– 6.5	– 6.5
Pennzoil	U.S.A.	0.27	4.2	0.90	– 7.0	– 7.0
Mobil	U.S.A. (I)	0.94	5.3	0.50	– 7.5	– 7.5
Atlantic Richfield	U.S.A.	0.78	5.0	0.50	– 9.0	– 9.0
British Petroleum	GB (I)	0.83	6.9	0.80	–10.0	–10.0
Imperial Oil	CDA	1.03	3.2	0.50	–10.5	–10.5
Chevron	U.S.A. (I)	0.80	5.7	0.60	–11.0	–11.0
Amerada Hess	U.S.A.	0.90	1.9	0.50	–13.5	–13.5
Unocal	U.S.A.	0.97	2.6	0.60	–18.0	–18.0
Texaco	U.S.A. (I)	0.60	5.9	0.90	–19.5	–19.5
Average		0.80	4.7	0.57	– 8.9	– 8.9

[1] In local market
[2] Assuming a fall in oil price (West Texas Intermediate) from $16 to $15 per barrel (all other factors constant)
(I) = Multi-national oil company

3. Why We Should Expect a Deviation from the Theoretical Share Price Change

To assume that the other conditions remain stable is unrealistic, so we must turn to a dynamic analysis.

So far we have worked on the basis of a sideways moving equity market; in reality, the market reacts strongly to changes in the price of oil. When oil prices go up, the inflation expectations held by market participants rise, which depresses bond prices and pushes up bond yields. The equity market loses in attraction against the bond market, and shares suffer a setback in price. Conversely, **when oil prices fall**, inflation fears ease, and the result is rising bond prices and a **strong stock market**. The inference is therefore that oil shares do advance when oil prices rise, but not to the extent we forecast in our table, given that the market will tend to weaken at the same time. The opposite happens when oil prices fall: oil shares will fall less than expected because the market will tend to move upwards. In other words: In our forecast scenario of falling oil prices, the setbacks for oil shares should be less than indicated in our table.

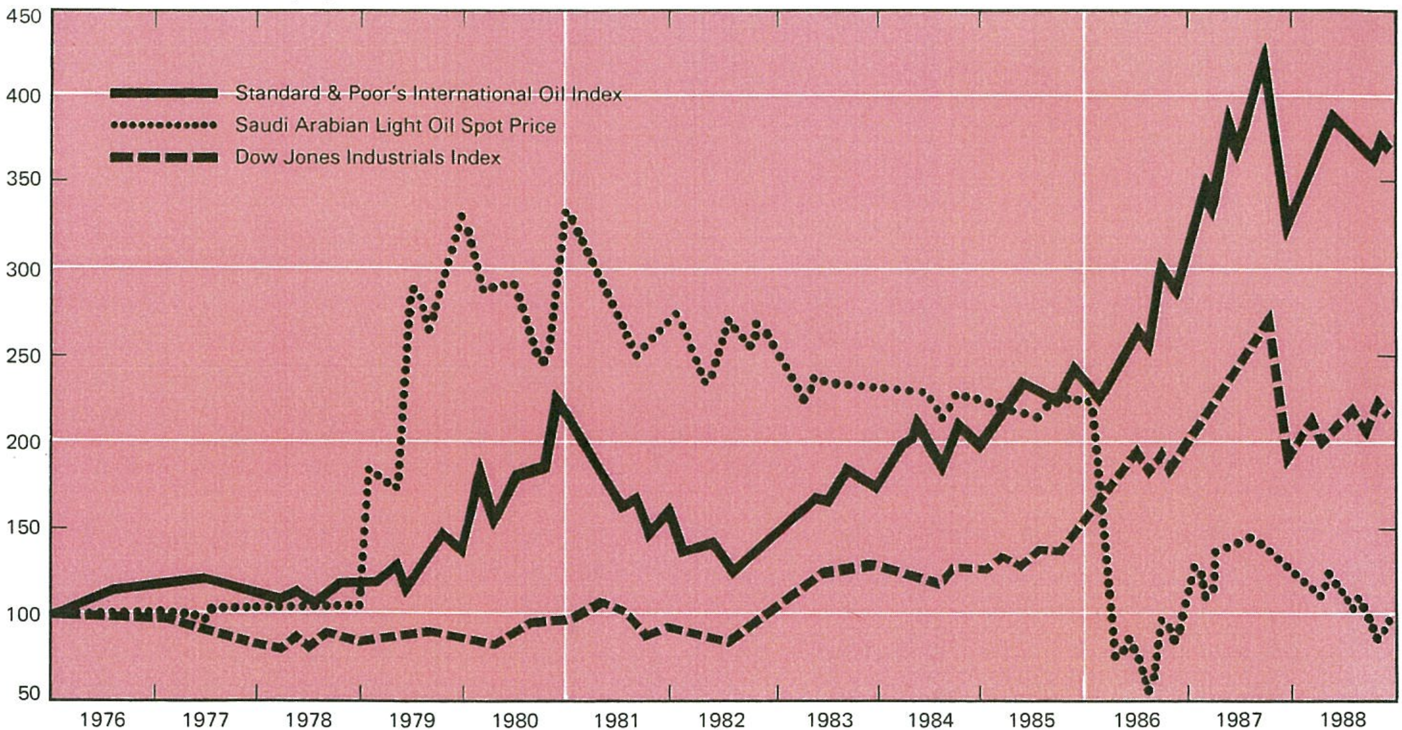
Today many oil stocks represent high quality, high yield paper, which is bought by many investors not for their expected earnings performance but for their high yield. Earnings forecasts for these companies may be undergoing some pruning because of lower oil prices, but their shares will fall less then expected as long as there is no need to worry about a cut in dividend. Since dividend payout averages merely 57%, earnings theoretically would have to fall 43% before a reduction in dividend was absolutely unavoidable. Because of the high cash position held by most of these companies, a dividend payout ratio of 100% would be no problem – Royal Dutch, for example, has a cash position amounting to approx. US$ 9 billion.

There is little probability of share setbacks of a longer duration, because of the **share buy-backs** likely in that event. That the necessary funds are there, we have already shown in the Royal Dutch example above. The reasons why a company will buy back its shares, which increases earnings per share, indirectly pushing up share price as well, are to be found in part in the fear of an unfriendly take-over bid.

4. How Oil Shares Have Moved in Reaction to Oil Price in the Past

A striking feature emerges from an historical survey of the impact of oil price on multi-national oil stocks and on their relative market performance: they are virtually unaffected by a collapse in oil price. Although the price of oil slumped heavily in the period end–1985 to mid–1986, oil shares managed to keep pace with the market as a whole.

Conversely, in the period 1979 to 1980, when oil prices soared, their performance was significantly stronger than that of the market. Thus we must suppose that oil shares' price sensitivity is greater when oil prices rise than when they are on the decrease. This means that falling shares behind weaker oil prices are met with purchase orders from investors who interpret the lower prices as a good opportunity to buy.



5. The Conclusion for the Investor

The investor's yield is determined by the change in share price plus the dividend yield.

Assuming a fall in oil price from $16 to $15 per barrel this year, the average drop in earnings is 8.9% for the companies included in our survey. This decrease in earnings will probably be accompanied by a fall in share price, but one significantly less than 8.9% because of the factors mentioned above. To a very large extent, the average dividend yield of almost 5% should offset the price setback expected. If we look at the defensive oil stocks (which react little to changes in oil price), the high yield will more than compensate for the expected fall in price (which has been over-estimated).

Because of the expected fall in oil price, there is **no call for an aggressive stance vis-à-vis oil groups at the moment. However, good defensive stocks with a high dividend yield should be held.**

These remarks and the graph above show that the multinational oil companies have never under-performed the market over the longer term. Most of these shares also carry a much lower risk factor than the market as a whole (a beta value below 1), which gives **oil equities a positive risk/reward ratio over the longer term.** On these grounds we recommend investors with a longer term view **to use setbacks on the shares covered here to build up positions to market weighting (they represent 11% of S & P 500).**

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