Investment opportunities in New Zealand

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Abstract

There is no shortage of investment opportunity in New Zealand, although this paper will not canvass the latest "dot-com" stock offering. Rather it will consider the factors influencing investment in the NZ oil sector from the perspective of the equity markets. It will consider three aspects of the market: forecasting the oil price, the performance of oil companies in global equity markets, and will consider how this may apply to NZ.

While the magnitude and pace of oil price recovery since early 1998 matches the late 1970s when OPEC first flexed its supply-side muscles, this has failed to ignite the equity markets. In the 1970s, the equity markets pushed up oil company share prices, implying no apparent upside limit on oil price or oil company earnings – the "oil bubble". Why, this time around, does the equity market remain unmoved? The explanation appears to have two components. First, experience has indeed shown what goes up must come down. Second, the mantle has now passed to the current "blue sky" sector, the technology stocks. While inevitably, the clouds will gather there too, technology companies are currently attracting all "speculative" money once directed at oil.

The NZ equity market is not booming like several offshore markets. However, when those markets are adjusted to reflect the mix of sectors represented in NZ, our market performs in line. NZ's under-performance is principally attributed to its lack of a "new age" or "technology" sector, and generally mimics "old economy" or commodity indices.

Nevertheless, the opportunities for explorers today are better than at any time in the last 30 years. Even should the oil price retrace, NZ lacks the gas reserves necessary to match its prodigious appetite. Despite long being recognised, the gas market is only slowly becoming less hostile. The principal challenge will be to broaden the base of explorers, by attracting well-funded companies able to execute a sustained exploration effort.

Introduction

This paper is written from the context of the equity market. Investors, free to choose their investments, direct their resources into the most "rewarding" sector. Portfolio theory would suggest the prudency of diversification, both across asset classes (cash, bonds, equities and property) and equity sectors. However, the history of equity markets attests to periodic structural distortions, where emerging opportunities have offered, for a time, superior gains on the promise of extraordinary earnings growth. These "bubbles" have included the railroad stocks in the 1920s, the telegraph and automobile companies, the oil sector (1970s-80s), property (mid-1980s), and currently "technology" stocks. Each "bubble" is characterised by new opportunities, usually the result of technological advances (although oil followed action by a cartel), offering apparently limitless "blue sky". Share prices soar ahead of earnings fundamentals, typically driven by an excess of available capital (including debt), all seeking "super" gains. The bubble inflates, following the principal of the "greater fool" theory, until the available capital is absorbed. The clouds of reality form when it becomes apparent that the market's earnings expectations cannot be met, and the "bubble" deflates, usually very quickly. As investment icon Warren Buffet recently stated, he does not understand the "technology" (e-commerce) sector, and cannot identify which participants have a truly durable competitive advantage. While the obsession with the technology cycle impacts on the market pricing of other equity sectors, the earnings fundamentals of those others sectors generally remain sound.

This paper will consider three issues:

1. The pitfalls of oil price forecasting.
2. The equity market performance of oil companies.
3. Oil investment opportunities in NZ.

Some pitfalls of oil price forecasting

Oil has been traded as a global commodity for over a century, and was one of the first commodities over which futures contracts were taken. Despite the size of the oil trade, forecasting the oil price has been, to say the least, challenging. Price is subject to the normal global supply-demand drivers of all commodities, such as the weather, economic climate and technological advances. However, oil is also overlaid by geopolitical tension (wars) and a global cartel - OPEC.

The oil price is the principal driver of oil industry economics. In normal times, the conventional wisdom is that no one supplier can influence the market price. However, in 1973, OPEC harnessed the oil immense reserves of its members, and completely changed the paradigm. By restricting supply (or even just threatening to), the oil price ascended from its long-term price of US$10/bbl levels, pushing relentlessly upwards, over a full decade, to north of US$60/bbl (inflation adjusted). This transformed market perceptions of the value of oil, stimulating considerable investment in new exploration, to significant extent funded by the equity markets. It became apparent that global demand is very price inelastic (at least over short periods). In time, OPEC's success undermined its resolve, the new wealth fuelling the OPEC creed from "need" into "greed". Having declined for some decades, non-OPEC share of global production reversed, rising to 70% by 1985. However, as the oil price settled, OPEC's share again rose to now stand at 40%. By early 1998 oil price had fallen alarmingly (ironically due to OPEC earlier boosting output quotas). OPEC rallied, with success as extraordinary as that in the 1970s.

Oil price forecasting

On this turbulent surface must skate oil forecasters. Pre-1970 the benign oil price environment meant this was hardly relevant. Despite repeated assertions that oil was a "finite" resource, soon to be exhausted, the oil price was low (below US$13/bbl inflation adjusted) and stable. By 1980 that paradigm had changed, with oil relentlessly climbing towards US$60/bbl (inflation adjusted). The common "wisdom" projected the price even higher, with forecasts over US$100/bbl drawing no derision, and much agreement. In this environment, is it any wonder that the oil sector experienced its Golden Years? As became apparent in retrospect, it was an "investment bubble", and the comfort (or resignation) a signal of a turning point - oil had topped out.

Chart 1 reflects the legacy of the pre-1980 "blue sky" period. While oil prices tracked relentlessly down, the memories of the 1970's compelled forecasters to anticipate an upswing - the classic forecaster's "hockey stick", and by no means unique to oil. However, over a long period of time, when the oil prices resolutely undershot forecasts, the hockey stick started from a yet lower base and got flatter. There was, of course, the Gulf War, which briefly fanned the flames, although the price spike was short-lived and oil prices once again fell back into a downward holding pattern.

It is ironic that the seed of OPEC's current success was precipitated, in late 1998, by its failure. With an history of its inability to enforce quotas (cheating averaged over 20%), Saudi Arabia in particular tired of being OPEC policeman. Buoyed by a brief period of price strength, in September 1998 OPEC increased it quotas by 10%.

This set the oil price on a dramatic descent, plumbing uncharted depths near US$10/bbl. While OPEC fiddled, the weight of the trend inspired some deep market pessimism, with the oft-quoted Economist article attracting little derision in its prediction of US$5/bbl oil. However, at these levels almost all non-OPEC production (60% of the total) would be sub-economic. Simply, these prices could not be sustainable. Again, hindsight would suggest that market resignation was the sign of the bottom. Publications of the time gave no indication of what was to occur, the unprecedented recovery in the oil price, both in magnitude and pace.

Consensus forecasts

Perhaps a shorter time frame would improve the reliability of forecasts. Consensus Economics of London monthly publications of economic data, including 3-month and 12-month forward oil (WTI) forecasts. These represent a

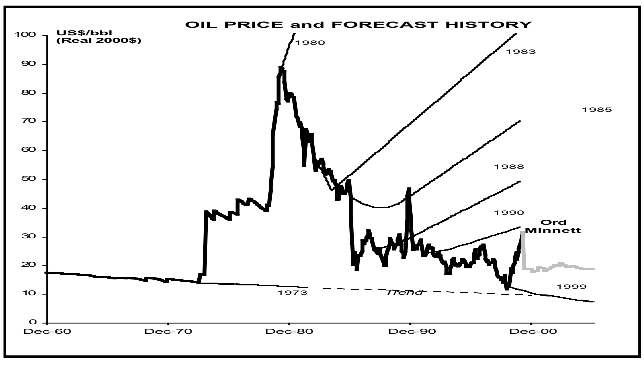

Chart 1: Oil forecasts resemble hockey sticks. Ord Minnett assumes mean reversion to long-term average.

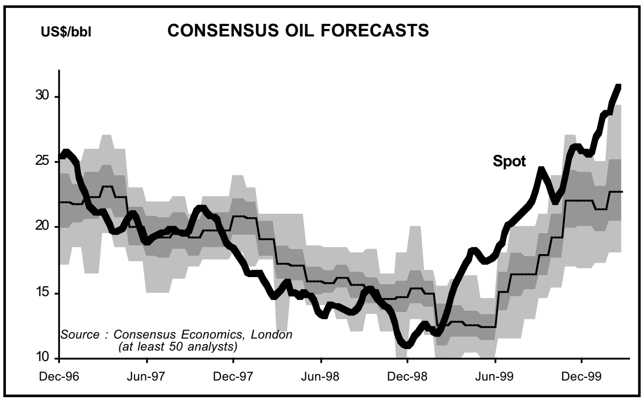

Chart 2: Consensus Forecasts miss the mark. Show best correlation when with past spot prices.

summary of at least 50 rated oil analysts, with the high, low, mean and standard deviations for both periods being published. The results are quite astounding - they provide no useful predictive information.

Over the last 3 years, admittedly a period of some volatility, the actual spot price has fallen outside the range of 3-month forecasts more than 40%, and outside their standard deviation 70% of the time. That is, the most pessimistic of 50+ forecasters proved to be too high when prices fell (or the most optimistic too low on the ascent) for 5 months out of every year. For the 12-month forecasts, the failure rate is nearly 50% (75% outside the standard deviation). Even worse, the best regression (maximum r^2) between the mean published forecasts (both 3 and 12 months) and the spot price is when the forecast prices are correlated with the spot price of a month before the publication. Clearly the analysts are applying the maxim "the best indicator of the future price is [last month's] spot price" too literally.

Ord Minnett's view

Despite these pitfalls, Ord Minnett does courageously forecast oil prices (shown on Chart 1). Our main premise is that oil price, like most openly traded commodities, will mean revert, that is, over time it will oscillate around some long-run average (which we assess to be US$18-19/bbl). We also make a general observation that the price oscillations will be deeper and more violent than the market expects. We anticipated a sharp price recovery from the February 1999 lows (although had not anticipated the fall to those levels), and currently anticipate a sharp fall from the US$30/bbl highs.

While we may fail to properly anticipate short term price oscillations, such errors have less impact on our company valuations than the long-run oil price. By keeping our long-run oil price stable, our valuations oscillate within a relatively narrow range.

Substitutes

There are no immediately conceivable technologies which could offset our consumption of oil. Despite technology reducing vehicle fuel consumption rates, and increasing gas-electricity conversion efficiencies for gas turbines, demand for oil is nevertheless expected to increase.

Technological developments will, however, snap around the edges of oil's patch, these including solar and fuel cell technologies. To the extent they can substitute for that marginal barrel of consumption, in time the may influence the oil price. However, one technology that could compete on equal terms is crop ethanol. Crop-enhancement and ethanol processing technologies have bought the production price down from US$160/bbl a decade ago to US$40/bbl now, with an expectation that US$30/bbl (and even US$20/bbl) ethanol can be achieved. Ethanol can substitute for oil in existing applications (internal combustion engines, and the distribution-vending infrastructure). Perhaps down the track, we will be held to ransom not by OPEC, but raped by OCEP, the Organisation of Corn to Ethanol Producers.

Equity market performance of oil companies

Historically, investors have supported commodity companies, tolerating the cyclical nature of earnings and share price. However, investment time frames appear to be shortening (and better capital gain opportunities evident elsewhere), resulting in rising tensions. Rather than ride out the cycles, there is increasing evidence that "long-term" investors (the mutual funds) are "playing the cycle", attempting to pick the price top and bottom to exit and enter these sectors. This has increased share price volatility in commodity stocks.

Absolute performance

Our first observation of the oil and gas exploration and production (E&P or oil) sector is that the share price indices have correlated closely with the oil price (which are directly linked to earnings). Unlike gold, there is little evidence of the extensive use of hedge contracts to smooth earnings, while its also apparent that the time horizon of many investors is short given the close correlation of share price with spot price.

The falling oil price (1980-1998) placed considerable earnings pressure on oil companies, prompting some major structural changes in the industry. We have observed considerable downsizing and refocussing of international oil companies, and more recently we have seen a large number of mergers, including several amongst the global oil majors. This effort is aimed at reducing operating costs, so lowering the break-even threshold to survive the tough times and cream the good times. However, Chart 4 shows us that, despite all those efficiency gains, the oil companies have not even managed to hold their ground. In absolute terms the oil indices have fallen over the past 10 years.

New Zealand

In NZ, there was a plethora of oil floats during the early 1980s oil bubble. However, it is difficult to track the performance of this sector. The challenge of being a successful explorer proved too much for many, particularly when faced with a falling oil price. NZ saw a number of these companies "adapt". Taking what was considered the "sound" option,

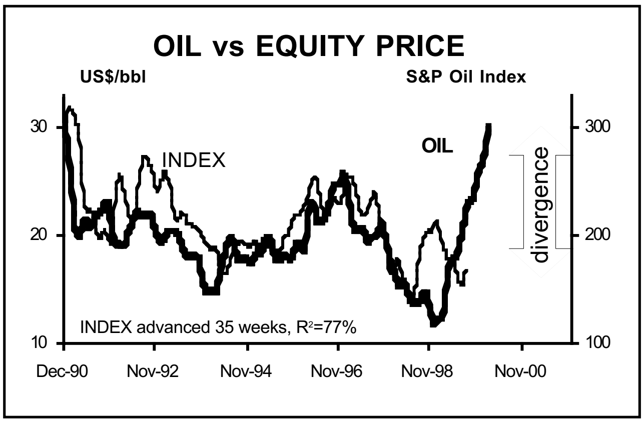

Chart 3: Oil equities have correlated with oil price (R2= 77%,with 35week lag – until recently).

many NZ "oils" transformed themselves into the then hot sector, property. Those that diligently stuck to their roots in the oil sector have typically survived (but not flourished), while most newly-minted property companies succumbed when the property bubble burst in 1987.

Ironically, history is now repeating itself in Australasia, with a number of small "unfavoured" companies (typically small gold explorers) transmogrifying themselves into "sexy" e-commerce stocks. Where will that end, I wonder?

Relative performance

While the oil industry is failing to hold ground in absolute terms, in relative terms its is falling far behind the wider equity markets. While the DJ, S&P500, FTSE and other share indices have soared, few oil companies have matched.

However, oil is not alone in its under-performance, as commodity and "old economy" companies have lost investor support (despite strong earnings fundamentals), being spurned in favour of the "growth' offered by "new age" stocks. Adjusting these indices for the "new age" phenomenon, we can see that oil is more "in the pack".

The "new age" bubble being observed will inevitably burst, brought to heel as earnings reality dawns. The current divergence between the oil indices and the oil price illustrates an interesting market dynamic. The soaring oil price in the 1970s drove the "oil bubble", where the market prices of oil companies anticipated earnings growth based on an ever higher oil price. This is the case of the "egg leading the chicken". Technology stocks are currently going through the same process. However, despite similar oil price performance as in the 1970s, the "old economy" oil companies are now trading on a different, more conventional paradigm. Forecast earnings (and hence share prices) are now discounting the spot oil price – the more normal case of the "chicken leading the egg".

Already we have seen the market becoming selective of which dot.coms may survive, with most share prices (in number if not market capitalisation) 30% off their peak. Even the professionals, the fund managers, while struggling to rationalise the price, have been investing. However, the recent

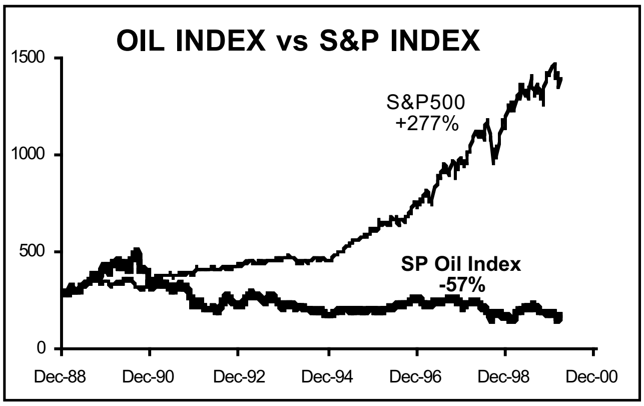

Chart 4: Oil equities have considerably under-performed equity markets, although are more in line with "old economy" stocks.

flattening may represent those funds achieving their desired portfolio weightings. This cycle will not be different as some might claim. The real flight to quality, where "potential growth" becomes discounted, and solid earnings and cash flows once again valued, will represent the renaissance of "old economy" stocks. Indications are that this process is already starting.

The oil sector will share the return of investor interest, the flight to "earnings quality". The extent of "oil's" participation in this renaissance will increase should more oil companies add shareholder value (returns above their cost-of capital), rather than undershoot as have historically they do now. Oil stocks will, nevertheless, enjoy brief periods in the investment sun.

Oil investment opportunities in New Zealand

The opportunities for exploration in NZ are widening. Indeed there is a growing imperative to replenish the gas reserves base and manage the transition from fixed price, TOP Maui gas into an open competitive market with many competing suppliers.

In broad terms, NZ consumes 600PJ/yr in domestic (ex-Methanex) raw energy, of which 130PJ is gas and 220PJ is oil (largely imported). Of the 600PJ of raw energy, over 150PJ is lost in conversion into forms required by the market (gas, water and steam in to electricity). Normalising for the renewables (water and steam), gas contributes 25% of NZ energy supply, oil 42%. NZ is heavily dependent on both.

Oil is a global commodity, with few barriers to trade. While being self-sufficient has clear economic benefit, NZ can readily balance its oil demand through trade.

Not so gas. Gas is a domestic fuel, with any import-export facility being very capital intensive. NZ does participate in a global gas trade (Methanex converts gas to methanol), while Australia exports LNG. However, these options are very capital intensive, and lack the flexibility to meet short-term supply-demand fluctuations.

NZ's gas reserves peaked in 1976 with the discovery of Maui. While this was a blessing for NZ given the "oil shocks" of the 1970s, the Maui gas contract has created a challenging legacy. Chart 5 shows the dominance of Maui, and despite the additions of several new fields, these appear as the rind on the back of an elephant. By the mid-1980s, the essential gas infrastructure had been developed (with a North Island reticulated gas system, gas-fired electricity generation plants and a new petrochemicals industry), Since 1990, demand has been typically in the 180-200PJ/yr. On current demand projections, existing gas reserves will carry us forward for barely a decade.

In most counties, 10 years reserves life would not be cause for concern. The difficulty for NZ is that the Maui contract penalises entitlement holders for drawing less than the contract (take-or-pay) quantity, and the price deflates (PPI-3%). The Maui entitlements are split between Natural Gas

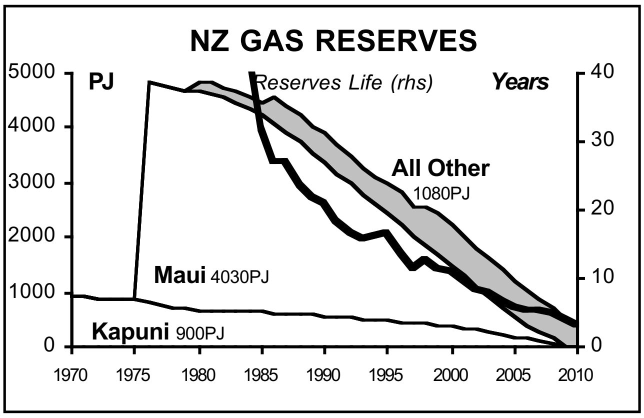

Chart 5: Maui has dominated NZ gas reserves since discovery in 1969. The Maui gas contract has frustrated attempts by most other fields to establish a market presence.

Corp. (reticulated market), Contact Energy (electricity generation) and Methanex (methanol). Until recently, Natural Gas Corp. and Contact Energy had drawn less gas than the TOP quantity, so accumulating considerable pre-paid gas reserves. This had created an overhang in the gas market, resulting in an environment hostile to new reserves. However recently both have off-loaded their excess (pre-paid) gas, leaving their forward demand for Maui gas matching their remaining entitlements. Natural Gas Corp. has signed term supply contracts with Genesis (90PJ) and Petrochem (35PJ). Similarly, Contact Energy has off-loaded 130PJ of Block B gas to Methanex, while also building a significant retail gas presence (20PJ/yr).

While these developments have eased the immediate excess gas supply, the capacity of Maui to meet foreseeable gas loads over the remaining field life (and the incentive of the Maui contract to maximise Maui sales) suggests the new market opportunities for uncommitted "independent" gas will remain limited. Those uncommitted reserves include:

1. Kapuni (onshore gas discovered 1959, 300PJ remaining) field owners have been free to sell gas to the reticulated market since the 1996 High Court judgement, although have yet to secure a significant share of third party sales.
2. Kupe (offshore gas, d.1986, 250PJ) has remained undeveloped since discovery in 1986, requires >$3/GJ to be economic.
3. Mangahewa (onshore deep gas, appraised 1998, >100PJ), retested known gas field, currently awaiting a mining license to commence production, with Methanex the expected buyer.
4. Kauhauroa (East Coast gas, d.1998, first potentially viable NZ field outside Taranaki, >100PJ) continues to undergo field appraisal, although is remote from established market.
5. Rimu (onshore Taranaki discovery, d.1999, perhaps 100 mmboe) is in early appraisal, although is well placed to connect into the Taranaki gas infrastructure.
6. Gas caps from existing oil fields (McKee, Ngatoro, Kaimiro) have found markets, although being by-product sales, have not set price benchmarks.

NZ exploration activity

While the longer-term imperative for new gas discoveries is apparent (recall, the 1994 Conference was titled "The Post-Maui Challenge"), exploration activity in NZ has yet to reflect the new paradigm. Drilling has been circumscribed by absence of an open gas market (the Maui factor) and the high cost of exploration (lack of industry scale).

Exploration activity peaked in mid-1980s, tailing off into the 1990s. By the mid-1990s the indicators looked encouraging, with the acreage under license considerably higher than any time in the last 20 years. Closer scrutiny does not substantiate higher exploration activity. In the 1980s exploration acreage was made available through periodic gazettals, intended to maximise the work programmes through competitive bidding. However, NZ lacked the international interest, so the time delays in this process simply frustrated what demand did exist.

Acreage under license has increased greatly since 1996 when the Acceptable Frontier Offer regime was introduced, it being more flexible (any acreage offer considered at any time, first in first served). However, those early AFO licenses are now facing the Year 3 well commitment. Given much of the acreage is high-risk (and/or held by under-funded joint-ventures), the number of relinquishments has increased. Licensed acreage has fallen in all regions over the last two years.

The mix of explorers has also changed. Shell has been active in NZ continuously since the 1950s (although is principally focused on Maui), while the activities of Fletcher Energy (state-owned pre-1988) remain centred on producing fields (it has a stake in all except Kapuni). The environment for exploration during the 1980s was generally buoyant, with NZ managing to attract a number of substantial oil companies (Arco, Total, Chevron, TCPL, Western Mining), with activity further boosted by tax incentives. Interest in NZ faded with the oil price, some short-sighted government decisions and a dearth of discoveries (see Chart 1), particularly as NZ was competing for funds against more promising international regions (such as PNG, Timor, Myanmar).

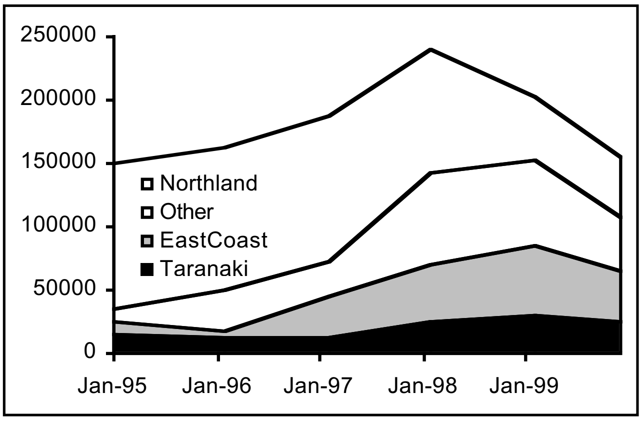

Chart 6: Acreage in all regions increased with 1996 introduction of AFO system. The recent decline reflects the Year3 well requirement and weak oil price.

The AFO boom attracted a larger number of small oil companies in the mid-1990s, many of whom hold large acreage positions. While poor economics has subdued exploration (a difficult gas market, recent weak oil price), in my view inadequate funding has been the major impediment. While small explorers have identified some attractive prospects, the lack of funds (either own or via farm-out) has restricted drilling activity.

Conclusions

The "oils" have not been a favoured equity sector for nearly two decades, a consequence of falling oil prices, a long history of inadequate return on capital, poor dividend yields – and better opportunities elsewhere. Accordingly, equity funding has been more discerning, attracted to opportunities where the risks are low (mature basins, low costs, known management) or where the upside is substantial (new basins of opportunity – ex-USSR, Latin America, Asia).

These factors have certainly been apparent in NZ, perhaps more so. NZ competes in an international market for exploration funds, which has often come from major oil companies farming in to existing licences to earn equity.

NZ, however, has not stacked up over the last decade. It has been labelled gas-prone, and source limited. An inadequate discovery rate, and the complexity and challenge of the local gas market, have deterred investment. Furthermore, a complex process of gaining resource consents has not assisted NZ. The Resource Management Act, despite its merits, seems unfairly weighted against the developer.

Threads of encouragement

Several factors, however, are contributing to an improving environment for explorers in NZ.

1. Most crucially, if NZ is not concerned now, it will be desperate for energy supply within a decade. Maui's artificially low gas price, and its dominance of supply, is giving the market few signals of impending shortfalls, and so a false sense of security. When the marginal cost of energy is set by imports (oil, coal or LPG), domestic suppliers will finally have market clout.
2. Exploration in NZ has focussed on Taranaki, the location of all producing fields. While onshore Taranaki is the most heavily explored part of NZ (by km seismic or number of wells per square km), even it is not "mature" when compared with international basins. The Rimu and Mangahewa discoveries, both new play types, highlight possibilities for further discoveries, with the advantage of established (and typically under-utilised) infrastructure.
3. While all sedimentary basins in NZ have attracted some exploration attention, in many we have only the most rudimentary understanding. Basic questions remain unanswered, such as structural evolution, stratigraphy, and petroleum systems. There is the potential to "hide" several Maui-sized fields within the sparse existing seismic coverage. We note that on average an East Coast license is larger than the entire onshore Taranaki.
4. The current high oil price, driven by restricted supply, is stimulatory for exploration, although company budget processes result in significant lags. While our forecasts suggest oil will mean revert to the long-run average (US$18-19/bbl), recent events have underscored the world's vulnerability to OPEC action, and the possibility of higher prices.
5. Break-through discoveries such as Kauhauroa have increased the prospectively of frontier basins, despite the remaining unresolved challenges: geological, infrastructural and market.
6. The "dot-com" bubble will deflate (if not burst). Those investment dollars not lost in the carnage (current price premiums suggest a soft-landing is unlikely) will quickly seek a home in the safe "old economy" sectors, including oil exploration. Equity funding new ventures will become, once again, a possibility.
7. The oil industry has, to some extent, conditioned itself to lower oil prices. As a consequence of high recent oil prices, we expect the oil industry will report a raft of positive earnings surprises. So long as cost-cutting efforts are not squandered in a high price environment, the industry's earnings performance should exceed other sectors.

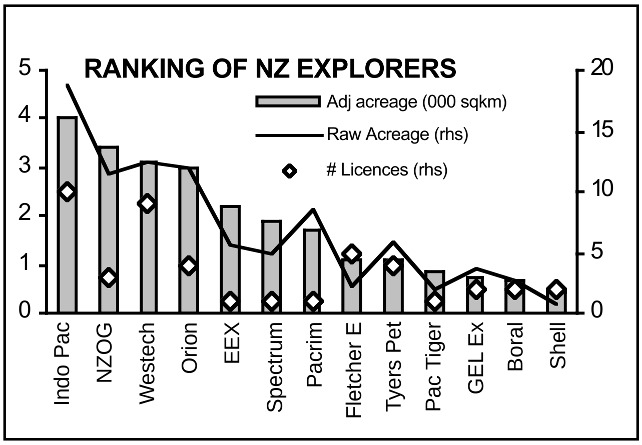

Chart 7:NZ's exploration acreage, even when adjusted for "prospectivity", is dominated by small companies. The absence of well-funded companies is a concern.

Pending issues

The fundamentals of the NZ energy market are screaming out for further investment in exploration. However, funding remains a major issue. That investment will occur as the pendulum finally swings back in favour of the supplier.

NZ is a small market, lacking the shoulder-room to accommodate many substantial explorers. However, to justify an exploration foray into NZ, these larger oil companies will require scale of opportunity (available acreage including by farm-in) and upside (expansion acreage and prospectivity). Given most explorers are applying portfolio theory to their exploration programmes, they would ideally seek small (30-50%) stakes in a number of projects.

To be sustainable, at least three such well-funded oil companies will need to be present in NZ, enabling an exploration effort to be sustained and so generating sufficient scale to lower exploration costs. In recent years there have been no such examples.

There are over 30 oil explorers currently in NZ, falling into several categories. First, there are the large, established companies able to fund an strong exploration effort. Fletcher Energy is a NZ$1.5b NZ-listed oil company with substantial NZ production assets (including 69% of Maui, and interests in all producing fields except Kapuni). Shell Petroleum Mining focuses its activities on Maui and Kapuni production, although has interests in the Maari and Pohokura licences. Todd Petroleum is a partner to Shell in those assets, and has a holding in Conoco's Northland licence. However, despite generating substantial cash flow from NZ production, these three companies have a relatively weak exploration acreage position. Conoco, while large, has no NZ cash flows, and holds only one (huge) licence. A second group of the explorers hold substantial exploration acreage positions, including Canada-NZ-based Indo-Pacific, US-based Westech (and partner Orion) (who share the Kauhauroa discovery), and NZ Oil and Gas (who have production from Ngatoro). Many of the remaining explorers hold frontier acreage, and typically have limited funding.

While most explorers would ideally farm-out some exploration exposure, Fletcher Challenge Energy is the only listed company expected to invest more. However, it faces a conundrum. While its production base and cash flows are heavily based in NZ (especially Maui), and it has the opportunity to farm into almost any licence, the dearth of other cashed-up explorers suggests it could struggle to build a sustainable portfolio (given the funding restrictions faced by its potential joint-venturers).

Summary

The oil sector will continue to attract equity market investment, and far more so when the "new age" stocks peak. The criteria needed to attract new equity will include:

- exploration track record (of management, if a start-up company);
- diversity of portfolio (a number of licences with a prudent (<50%) exposure to any one licence);
- sustainable joint venturers (able to fund an ongoing exploration programme);
- acreage prospectivity, with some mix of low risk and frontier (high upside); and
- production would be an asset to provide operating cash flow (even if not sufficient to cover exploration capex).

The buoyancy observed recently in the Canadian gas market reflects sustainably stronger gas prices driven by a greatly improving fundamental outlook (unsatisfied US demand). A similar environment for gas will develop in NZ over the next decade, and provide opportunity for considerably better profitability than achieved over the last two decades.

This paper has not painted a rosy picture for equity funding of oil exploration in NZ. The sector has not delivered substantial new reserves and cash flows, and, perhaps with the exception of Fletcher Energy, remains on the fringe for most investment funds. However, the shift of power to the gas producers (as supplies dwindle) is expected to spark considerably more equity market interest in the future.

Author

CHRIS STONE is a geologist currently serving a term as Equities Analyst for Ord Minnett NZ (6 years to date, release promised pending good behaviour). He analyses the E&P, energy utility, infrastructure and chemical sectors. Prior to that, he spent 11 formative years working as a geophysicist with NZ Oil and Gas. He has greatly appreciated the chance to look at the oil industry from the outside, and before his term as an analyst is up, hopes to understand it. Chris has an MBA from Victoria, Wellington , and BSc (Geology) and BSurv from Otago.