

Future Oil Prices: A summary of the global situation and the consequences for transport for New Zealand

This short paper summarises the future oil price scenario and how we should respond.

Oil prices have doubled in price in the last year, but what are they likely to do in the future? Some believe the oil price will correct itself soon because...

...**"It's the weak US \$"**

This argument is tenuous given the magnitude of the oil price rise, it has far outstripped any weakening of the US\$. And in recent weeks the US\$ has strengthened yet the price of oil has continued to rise, pushing 91-octane to over NZ\$2 a litre.

...**"It's speculators driving the price up"**

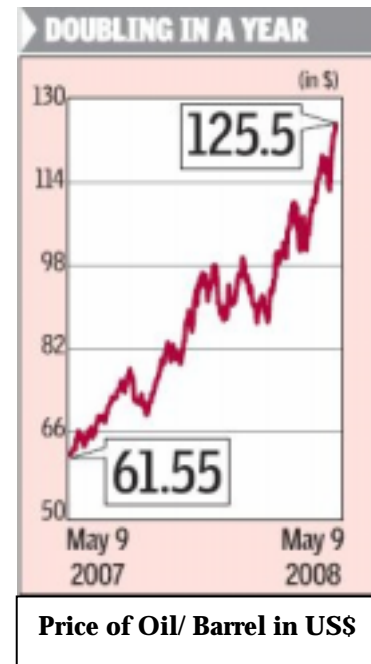
However a look at the Commitment of Traders report as of 29 April 2008 showed that on NYMEX, the non-commercials (popularly known as speculators) share of the open interest was a relatively modest 4 per cent. The all-time high was 18 per cent.

...**"Cars will become more fuel efficient and so less oil will be needed"**

Unfortunately the opposite is true. Known as 'Jevon's paradox' as efficiency increases, it becomes relatively cheaper to consume a resource and so more fuel efficient vehicles will actually encourage more oil consumption.

...**"New fuels will mean we don't need so much oil"**

This sounds good in theory, but there is no simple substitute for oil. The Government is relying on the potential of biofuels and electric cars, but these technologies are doubtful replacements. Biofuels are forcing up food crop prices and questionable in terms of their net CO₂ emissions and energy gain. Electric cars are yet to be developed into a commercial product, will be costly and would require the replacement of the existing two million vehicles in New Zealand.

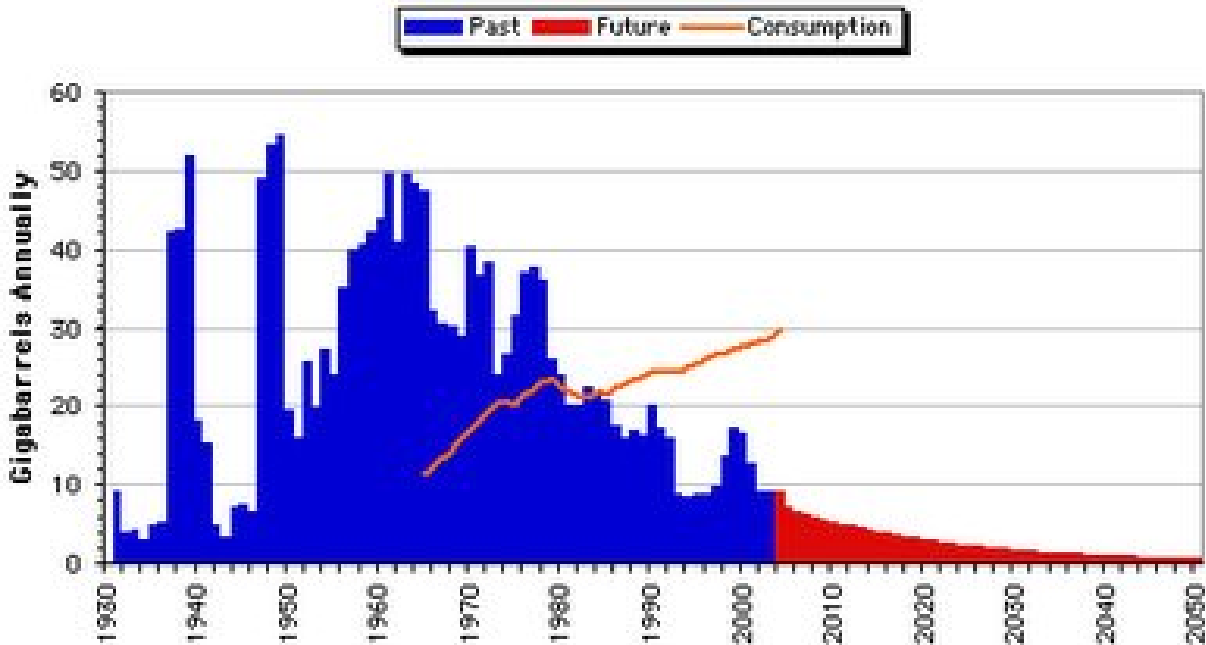


...”**There are large oil reserves in places like the newly found Brazilian fields**”

However such discoveries will take years to come on line, are difficult to access and therefore expensive to extract. And most importantly of all, the new discoveries are increasingly rare and not compensating for the decline in production in other countries...

Oil: Discovery Vs Consumption

Vertical bars represent Discovery. The orange line charts Consumption. Source: ASPO



The main reason why oil prices are increasing is because demand is outstripping supply

Oil discoveries peaked in 1964. Worldwide, oil consumption has been greater than annual discoveries of new reserves since 1980. Today we consume **four** barrels of oil for every **one** barrel that is discovered.

Many countries have exhausted their reserves and have declining oil production, yet the thirst for oil is growing faster than the world's capacity to produce it, at least 600,000 barrels a day faster, according to Energy Information Administration data. Any slow down in U.S. oil demand is being offset by growing demand from China and India.

The Wall Street Journal, 22.5.08

Energy Watchdog Warns Of Oil-Production Crunch

“This is a dangerous situation”

IEA's chief economist, Fatih Birol

The bottom line is: petrol prices will continue to trend up as supply of conventional oil declines, yet the demand grows.

FAST is an umbrella group of organisations and individuals who support sustainable transport solutions to meet the economic, environmental and social challenges of transporting people and goods in the Auckland region.

Moving forward – a silver lining to the cloud...

Whilst the challenges and consequences of high oil prices are very significant, there are a number of initiatives we can adopt to be better prepared. Many of the initiatives listed below have additional benefits, including:

- Reduced traffic congestion
- A more robust and balanced transport network
- An economy less vulnerable to oil price shocks
- Better return on investment than building new roads
- The reduction in CO2 emissions and air pollution
- Significant health and community benefits from greater public transport, walking and cycling

So how can New Zealand prepare?

Central Government:

- ✓ Make significantly more funding for public transport, walking and cycling projects available by increasing the financial assistance rate to 80% (from the current 50%)
- ✓ Revise the Cost-Benefit Analysis tool to take into account rising oil prices and re-evaluate all major roading projects that have not yet commenced construction
- ✓ Encourage the use of public transport through grants for new services, and ongoing funds to enable concession fares, or no fares for low income people
- ✓ All levels of Government should have a contingency plan for different oil price levels - \$US150, \$US200, \$US250, \$US500
- ✓ Secure supply guarantees for New Zealand from local oil suppliers

Transport Agencies, Regional and local councils:

- ✓ Start the bold planning required for a transport system that is no longer dominated by the motor car. The appropriate road user hierarchy is:
 1. Walking and cycling
 2. Public Transport
 3. Commercial traffic
 4. Private motor vehicles
- ✓ Prioritise walking and cycling to ensure their safety & pleasantness by slowing traffic speeds, restrict vehicle access and allocate enough road space to cycling.

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- ✓ Make the majority of transport investment in public transport, in particular electrified heavy rail and modern street trams (light rail)
- ✓ Work with business to develop strategies for protecting the NZ economy, despite oil price and any scarcity issues
- ✓ Incentivise greater use of rail & coastal shipping for freight and public transport
- ✓ Encourage the use of high occupancy vehicles (such as motorcycles, scooters, and near-full cars) through greater use of 'Transit' lanes
- ✓ Discourage motor vehicles from entering congested areas by implementing congestion and parking charges

Residents

- ✓ Start walking and cycling – if it's not safe where you live, ask your council to fix it, for example by:
 - by improving footpaths, installing zebra crossings and slowing traffic speeds
 - providing cycle lanes, bike stations, advance stop boxes for cyclists at intersections, and other cycle friendly measures
- ✓ Use public transport; if doesn't exist, talk to your neighbours about what you'd like and lobby your local council
- ✓ Try car-pooling with your workmates and plan your car trips carefully
- ✓ When you next change job or move houses, think about the consequences for getting to work, the shops, and children to school

Workplaces

- ✓ Reduce the provision of company cars and
- ✓ Offer employees a 'cash-out' option of their car park to encourage alternatives to driving
- ✓ Provide free parking to high occupancy vehicles (eg: car poolers), motorcycles, scooters and cycles
- ✓ Provide showers and bathroom facilities for walkers, runners and cyclists
- ✓ Introduce flexible working hours to reduce the need to travel at peak times
- ✓ Utilise broadband for connectivity, consider allowing staff to work from home part-time
- ✓ Reduce the need for physical travel by making greater use of audio-visual technology.

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