January 2014

Submission Senate Inquiry on Commission of Audit

This submission relates to following website:

http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Abbott_Governments_Commission_of_Audit/Commission_of_Audit

Summary

It is very important that Australia reduces its oil consumption so that expenditure on oil as percentage of GDP is reduced. Douglas Westwood, a UK based oil analysis consultancy, calculated that in the case of the US a recession sets in when oil expenditure reaches 4% of GDP. Up to recently Australia was insulated from high global oil prices (in US$) by a high AU$. But this situation is changing and the AU$ is softening. Should the Australian dollar fall to 70 US cents a 4% limit could be reached. Treasury needs to do research on what the threshold percentage is for Australia's economy.

US shale oil (tight oil) has given us a couple of additional years to get away from oil dependent infrastructure but this opportunity is not being used because governments still have not understood that high oil prices in the 1st decade of the 21st century triggered the financial crisis, a crisis which has impacted on budgets, thus reducing the paying capacity of governments for infrastructure. The debt problem has not been solved which means the financial crisis can go into its next, more damaging phase anytime. Moreover, US shale oil will peak – like all other fields or accumulation of fields – quite likely before 2020. So we are running out of time to prepare for higher oil prices and oil shortages.

Every economic activity is a transformation of primary energy into useable energy. If this transformation is not efficient or if the costs are too high –including environmental and climate change costs- then the economy suffers. Governments do not pay sufficient attention to these facts in their planning.

About Crude Oil Peak

The website http://crudeoilpeak.info/ uses government and publicly available company data to design graphs showing the evolving peaking of crude oil production. The global peaking is to be considered as a complex process which started in 2005, not just an event in the year of maximum production yet to be seen in the rear view mirror 5 years after the global peak. Peak oil has already happened in many countries (e.g. UK, Egypt, Yemen, Syria) and has affected many companies. Latest examples in Australia are refineries (Clyde, Kurnell), mining (Olympic Dam, Gove), aviation (Qantas) and car manufacturing (Holden).

The website contains:

- Currently 170 posts spanning a period of 10 years
- A main menu with graphs on oil production, consumption and imports in many countries, with a focus on Australia
- A menu allowing easy access to all posts by category
- A sidebar menu with popular themes on oil
- External links to ABC TV oil crunch stories

Addressing the Terms of Reference

Eliminate wasteful spending

Item from:
http://www.financeminister.gov.au/docs/NCA_TERMS_OF_REFERENCE.pdf

and

Improving the efficiency and effectiveness of government expenditure

Funding infrastructure

Items from
http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Abbott_Governments_Commission_of_Audit/Commission_of_Audit/Terms_of_Reference

The Abbott government does not support subsidies to industry. However, parts of the proposed infrastructure program intend to subsidise toll-way operators:

a) $1.5 billion for Melbourne's East West Link (+ $224 m + $70 m from VIC Govt)
b) $1.5 billion for Sydney's WestConnex (+ $1.8 bn from NSW government)
c) $405 million for Sydney's F3 to M2 Link (+ $ 400 m from NSW government)
d) $1 billion for Brisbane's Gateway Motorway (+ $263 m from Qld government)

Total $4.4 bn (+$2.8 bn from State governments)

If Holden, Qantas and SPC are not subsidised then why is Transurban or any other toll-way operator supported? If the private sector needs public money for toll-way projects then obviously these projects are not commercially viable or too risky.

Subsidies for toll-ways have a high risk of failure. 4 Road tunnels have already financially collapsed:

Xcity tunnel in Sydney
http://crudeoilpeak.info/cross-city-tunnel

Lane Cove tunnel in Sydney
http://crudeoilpeak.info/lane-cove-tunnel

Clem7 tunnel in Brisbane
http://crudeoilpeak.info/i-told-you-so/north-south-bypass-tunnel-clem7-brisbane

Airportlink tunnel in Brisbane
http://crudeoilpeak.info/airportlink-brisbane

Moreover, we are in year 10 of peak oil. I have done following analysis:

a) East-West Link
   5/9/2013
   Melbourne's East West Link tunnel proposal has low benefit cost ratio and high oil price risk
   http://crudeoilpeak.info/melbournes-east-west-link-tunnel-proposal-has-low-benefit-cost-ratio-and-high-oil-price-risk

b) Westconnex
   12/11/2013
   Sydney's Westconnex road tunnel proposal based on too many untested assumptions
   http://crudeoilpeak.info/sydneys-westconnex-road-tunnel-proposal-based-on-too-many-untested-assumptions

c) F3 – M2 Link
   During the public consultation in 2007 I had participated in a hearing in Parramatta Court and warned about the dangers of peak oil.

   The Hon. Mahla Pearlman AO wrote in her final report, on page 82:

   "I note these claims [that road development will not solve the problems of global warming and peak oil] for completeness, and so that they will not be lost sight of in any further progress of the Link."
   http://investment.infrastructure.gov.au/publications/reports/pdf/F3toM7_final.pdf

   Transurban has submitted an unsolicited proposal in May 2013
   http://www.transurban.com/1225812(1).pdf
   which proposes additional non-recourse debt raising to finance the link. However, this debt is unlikely to be paid back, given Transurban's past record:

   14/8/2012 Transurban does not pay back its debt
   http://crudeoilpeak.info/transurban-does-not-pay-back-its-debt

Recommendation: Toll-ways should not be subsidised, neither from State nor Federal budgets. Under no circumstance should the government cover the down-side risk of (embellished) traffic and (eternal) GDP/population growth projections based on linear trends.

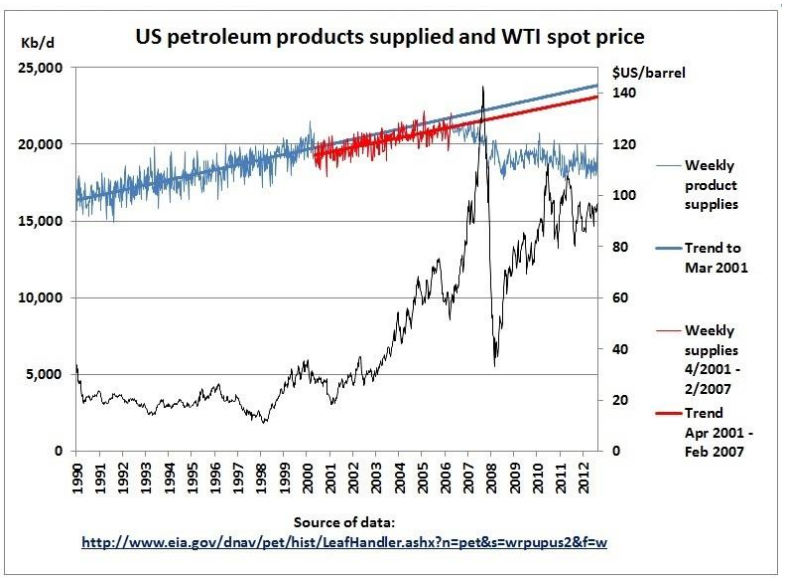
Comments on document tabled by T. Shepherd 15/1/2014

Quote: *Australia faces the challenges of an ageing population, poor productivity performance, a persistently high Australian dollar, high energy costs, heavy reliance on the resources sector and a volatile global political and economic outlook.*

Comments:

a) High AU$

This is due to the AU$ being a commodity currency but also because of Quantitative Easing in the US, which is a response to high oil prices. Bernanke has learned from the oil crises in the 70s when rising oil prices brought about higher inflation and higher interest rates. The result was a recession but also efficiency improvements in the use of oil. Now, in the 3rd oil crisis, the US also suffered a recession starting end 2007:



http://crudeoilpeak.info/us-oil-demand-peak-was-in-2007

This triggered the financial crisis. In contrast to the 70s, QE allowed the US economy to continue affording high oil prices – without collapsing. US expenditure for oil is around US$ 55 bn per month but QE was running at US$ 85 bn a month.

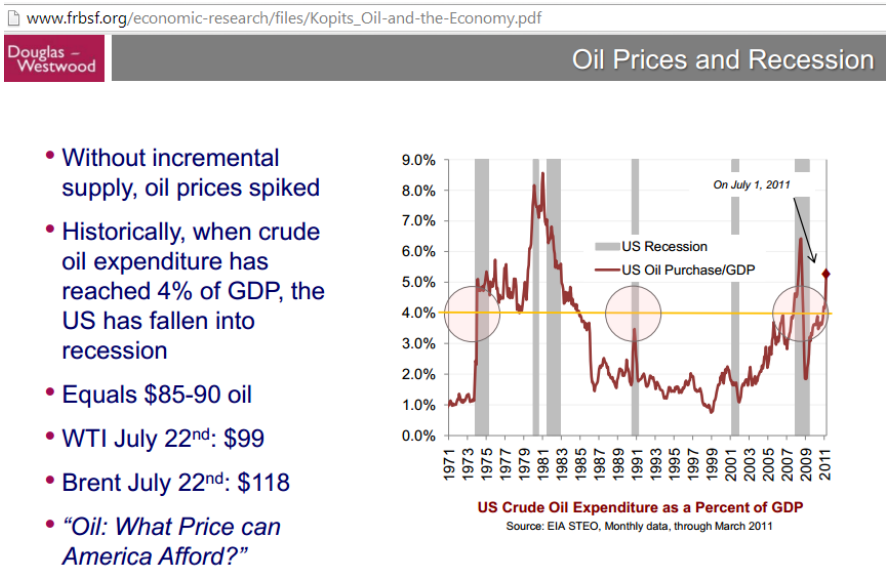
Currency wars *Many of the world's central banks have used this [QE] to stimulate their country's weak economy, hoping to push investors into equities and riskier assets than government bonds as they search for greater yield. Essentially, this means that the bank increases the money supply by flooding financial institutions with capital, in an effort to promote increased lending and liquidity. Another objective of this policy is to weaken the home country's currency. For a country like Australia that has a floating currency and is not itself engaging in QE, the result is that its currency appreciates as these policies unfold.*

http://www.tyndall.com.au/files/investment_research/TAM_AUD_Mar13.pdf

In other words, the high AU$ is an unexpected by-product of peak oil.

But the AU$ has recently softened as a result of announcing QE tapering in the US and lower growth expectations in China, which also faces a debt crisis.

Douglas Westwood, a UK based oil analysis consultancy, calculated that in the case of the US a recession sets in when oil expenditure reaches 4% of GDP



http://www.frbsf.org/economic-research/files/Kopits_Oil-and-the-Economy.pdf

Should the Australian dollar fall to 70 US cents a 4% limit could be reached.

Recommendation: Treasury needs to do research on what the recession threshold percentage is for Australia's economy.

b) High energy cost

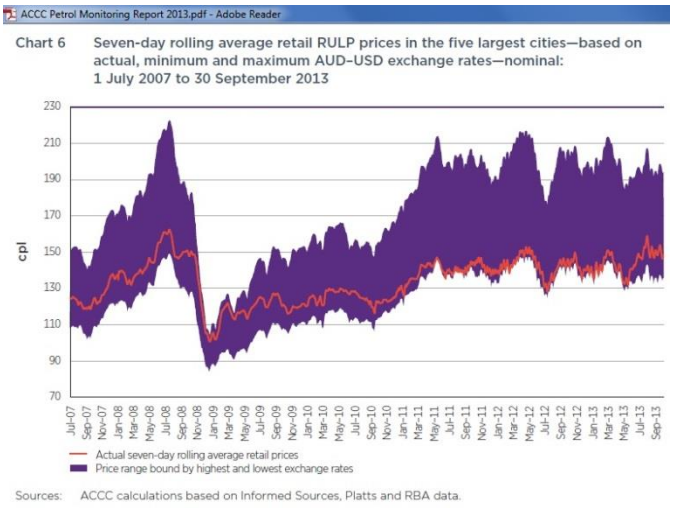
Gas prices have been driven up by LNG gas exports contracts – result of a wrong energy policy. Related articles on my website:

9/5/2012 Queensland plans to export more than 10 times the gas NSW needs (part 3)
http://crudeoilpeak.info/queensland-plans-to-export-more-than-10-times-the-gas-nsw-needs-part-3

6/5/2012 Howard's wrong decisions on offshore gas exports start to hit transport sector now
http://crudeoilpeak.info/howards-wrong-decisions-on-offshore-gas-exports-start-to-hit-transport-sector-now

13/10/2011 NSW gas as transport fuel. Where are the plans?
http://crudeoilpeak.info/nsw-gas-as-transport-fuel-where-are-the-plans

11/10/2011 Australia's natural gas squandered in LNG exports
http://crudeoilpeak.info/australias-natural-gas-squandered-in-lng-exports



In relation to oil, costs could have been much higher had it not been for the high AU$ and therefore lower import prices.
<< The ACCC prepared a nice chart showing a band of higher oil prices.

More details can be found in this post:

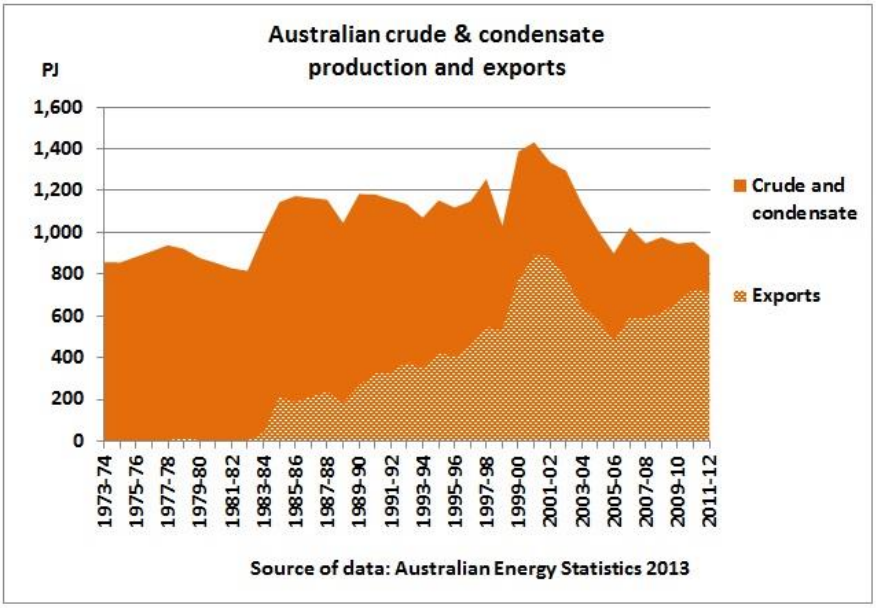
15/12/2013 Lucky country dodged $2 a litre bullet - for now
http://crudeoilpeak.info/lucky-country-dodged-2-a-litre-bullet-for-now

The problem with lower fuel cost is of course that a necessary adaptation has been delayed, that traffic continued to grow and that this is seen as a need to build more highways.

c) Reliance on resource sector

It is an irony that Australia's ambitious LNG export strategy has harmed the local industry by driving up gas prices as mentioned above. Latest example is the Gove alumina refinery which could not get domestic gas to replace expensive fuel oil.

In relation to oil, Australia literally exports itself oil poor:

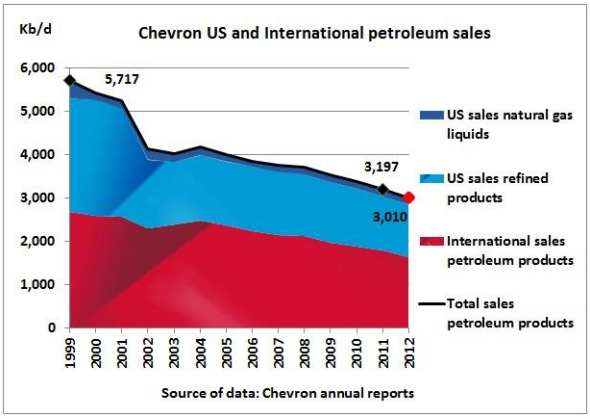


Australia's iron ore exports help China to manufacture 15 million cars per year. These millions of new Chinese motorists compete with Australian motorists for fuel from Asian refineries.

27 May 2013 World car production grows 3 times faster than global oil supplies
http://crudeoilpeak.info/world-car-production-grows-3-times-faster-than-global-oil-supplies

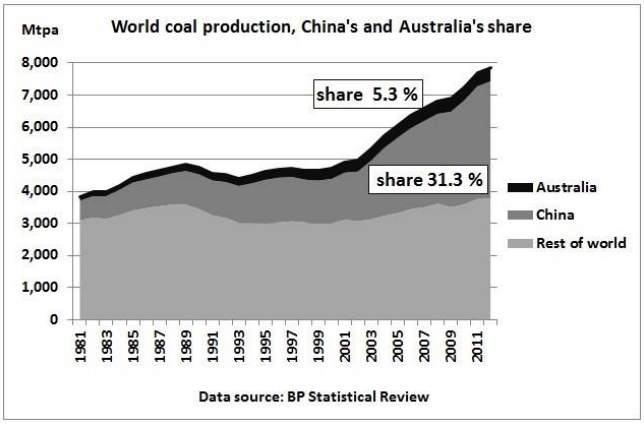
The Caltex refinery in Sydney will close this year.

28/8/2013 Chevron's oil production, sales decline by 5%



http://crudeoilpeak.info/chevrons-oil-production-sales-decline-5

Finally, Australia's coal exports will generate very costly compensation claims in future
http://crudeoilpeak.info/compensation-claims-from-global-warming-damage



8/3/2010
NASA climatologist James Hansen at Sydney Uni: "Australia doesn't agree now that they got to stop their coal, but they are going to agree. I can guarantee you that within a decade or so because the climate change will become so strongly apparent that's going to become imperative"
20 seconds clip: http://www.youtube.com/watch?v=qMD2sdolPeg
Full lecture: http://www.youtube.com/watch?v=5E5EdbiB4HU
From here:
http://www.usyd.edu.au/sydney_ideas/lectures/2010/professor_james_hansen.shtml

http://www.stormsofmygrandchildren.com/

Hansen writes in his latest research:

"The "climate dice" became noticeably "loaded" by the first decade of the 21st century, as shown by the third column in Fig. 9. The chance of having a summer-mean temperature anomaly warmer than +3 standard deviations relative to 1951-1980 climate now exceeds 10%. However, the observed bell curve for winter remains closer to the idealized (Gausian) 1951-1980 bell curve. The likelihood of having a winter judged unually cold by 1951-1980 standards (blue area in Fig. 9) remains large enough to correspond to approximately one face of a 6-sided die and increased somewhat in the past three years."

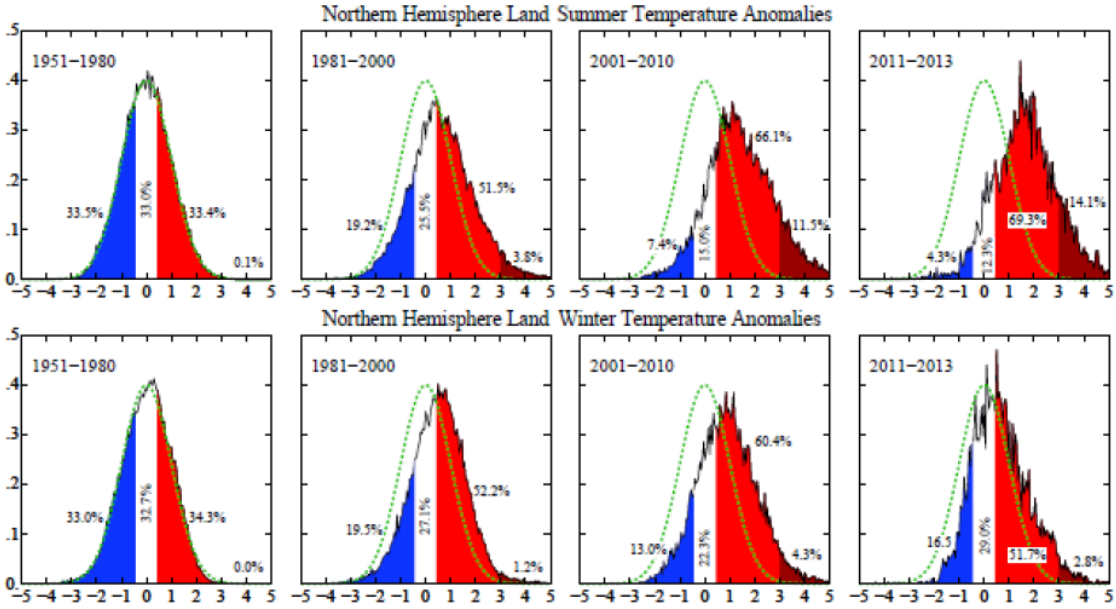


Fig. 9. Frequency of occurrence of local Jun-Jul-Aug (top row) and Dec-Jan-Feb (bottom) temperature anomalies for Northern Hemisphere land areas in units of the local standard deviation (horizontal axis).

http://www.columbia.edu/~jeh1/mailings/2014/20140121_Temperature2013.pdf

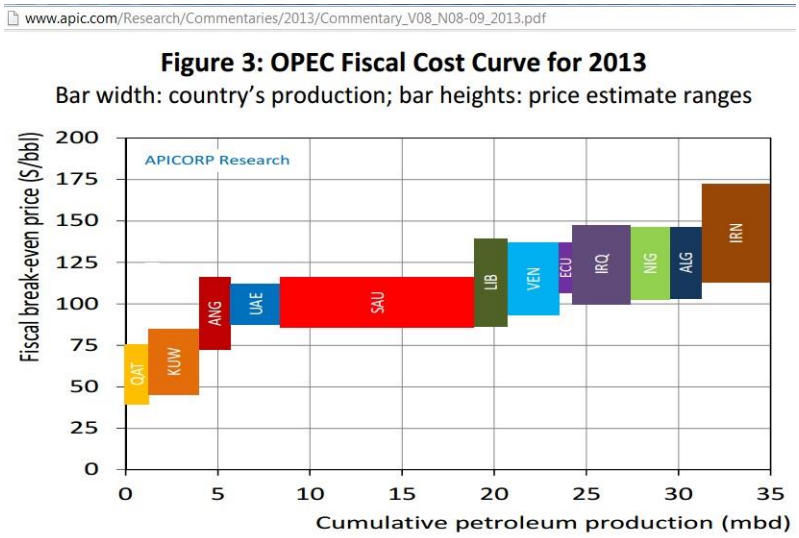
d) Global outlook

The global economy will continue to struggle with high oil prices. From the IEA:

Light tight oil does not diminish the importance of Middle East supply, IEA says in latest World Energy Outlook

12/11/2013
Although rising oil output from North America and Brazil reduces the role of OPEC countries in quenching the world's thirst for oil over the next decade, the Middle East – the only large source of low-cost oil – takes back its role as a key source of oil supply growth from the mid-2020s.
http://www.iea.org/newsroomandevents/pressreleases/2013/november/name,44368,en.html

This could of course happen much earlier if US shale oil peaks earlier (see Appendix). In any case, oil prices will remain high:



OPEC's fiscal break even oil prices

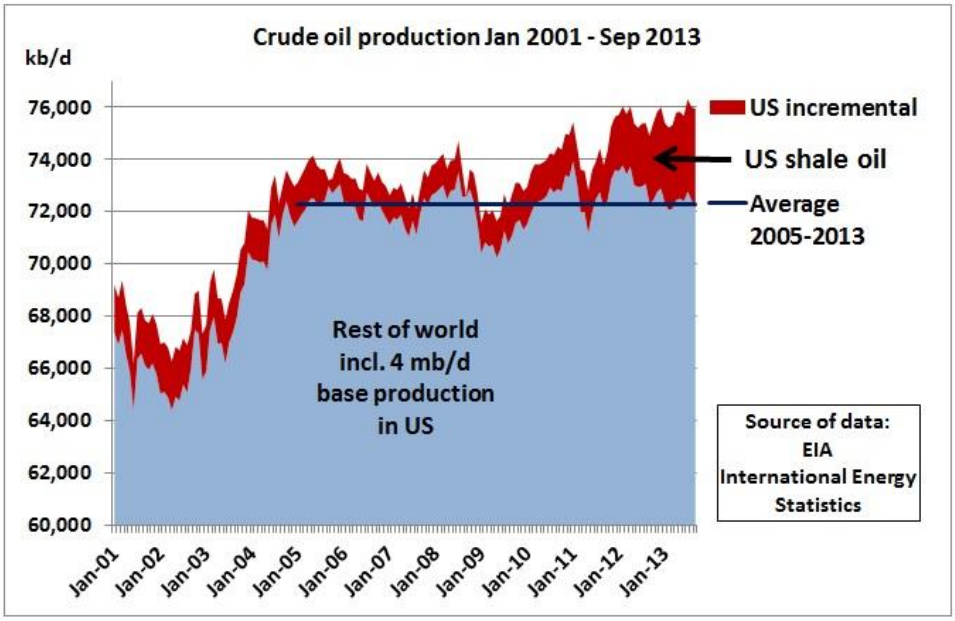
14/8/2013 OPEC's average fiscal break-even oil price increases by 7% in 2013
http://crudeoilpeak.info/opec-fiscal-breakeven-oil-price-increases-7-in-2013

Alan Kohler writes:

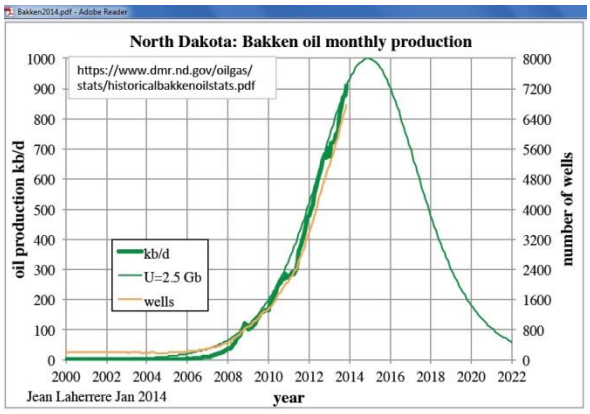
30/1/2014
Last year Australia's population grew 1.8% or 407,000, compared with 0.7 per cent for the United States, 0.5 per cent for Europe and China, and minus 0.1 per cent for Japan.
The extra 400,000 or so people a year is the reason Australia has not had a recession for 23 years and it's why GDP growth is now around 2.5 per cent. On a per capita basis, Australia's economic growth is among the weakest in the world, and per capita consumption growth is zero.
In other words, population growth is the only reason it looks like the economy is growing.
http://www.abc.net.au/news/2014-01-29/kohler-infrastructure-emergency/5224586

Conclusion: The government needs to re-think its whole strategy on energy, climate, transport infrastructure, overseas migration, urban and regional planning. Without this, calculating a 1% of GDP surplus in year 202X is highly theoretical.

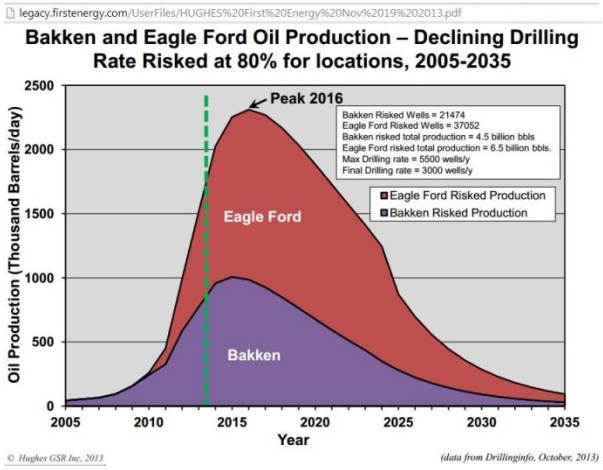
Prepared by Matt Mushalik mushalik@tpg.com.au



The US shale oil sits like the icing on a flat pan cake (rest-of-world crude production in 2013 back to 2005 levels). When US shale oil peaks, there will be some surprises.



<< French oil geologist Jean Laherrere calculates a peak of Bakken shale oil by end 2014
http://aspofrance.viabloga.com/files/JL_Bakken2014.pdf



<< David Hughes estimates a combined Bakken and Eagle Ford peak around 2016

http://legacy.firstenergy.com/UserFiles/HUGHES%20First%20Energy%20Nov%2019%202013.pdf

The Hirsch report http://en.wikipedia.org/wiki/Hirsch_report recommended that preparations for peak oil be started 20 years before the peak. Are new high-ways a preparation for peak oil?

392659.pdf - Adobe Reader

GROUP DRAWN DEBT AT 30 JUNE 2013

transurban

TRANSURBAN CORPORATE DEBT	AUD ($ MILLION)	USD ($ MILLION)
Working capital lines[1]	–	266
Term bank debt	600	–
US Private Placements	1,336	162
Domestic AUD bonds	1,050	–
Canadian MTN (CAD Notes)	233	–
TOTAL	3,219	428

NON RECOURSE (AUD $ MILLION)	ASSET DEBT	OWNERSHIP	PROPORTIONAL
Lane Cove Tunnel	260	100.0%	260
M1 – Eastern Distributor	520	75.1%	391
Hills M2 – Hills Motorway[2]	733	100.0%	733
M5 Interlinks Roads[3]	587	50.0%	294
Westlink M7	1,260	50.0%	630
TOTAL	3,360		2,308

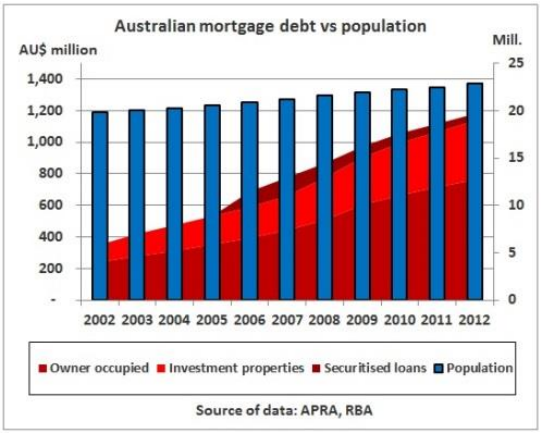
NON RECOURSE (US $ MILLION)	ASSET DEBT	OWNERSHIP	PROPORTIONAL
Pocahontas 895 – Senior	306	75.0%	229
Pocahontas 895 – TIFIA[4]	189	75.0%	142
95 Express Lanes – Senior	242	67.5%	163
95 Express Lanes – TIFIA[5]	–	67.5%	–
495 Express Lanes – Senior	589	67.5%	398
495 Express Lanes – TIFIA[6]	658	67.5%	444
TOTAL	1,984		1,376

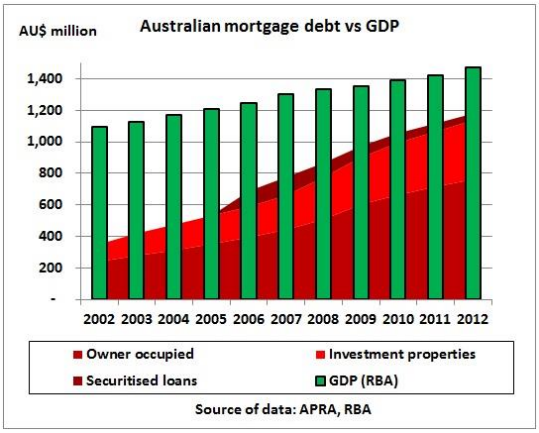
Transurban's debt. In the next credit crunch the problem of rolling over debt will get worse.

More details are in this article:

12/2/2013 No debt repayment plan for Sydney's toll-ways
http://crudeoilpeak.info/no-debt-repayment-plan-for-sydney%e2%80%99s-toll-ways

14/8/2012 Transurban does not pay back its debt
http://crudeoilpeak.info/transurban-does-not-pay-back-its-debt





Mortgage debt grows faster than both population and GDP. This cannot continue and will have an impact on infrastructure planning in capital cities.

More details are here:

Submission on Metropolitan Strategy
http://crudeoilpeak.info/wp-content/uploads/2013/06/Submission_Draft_MetroStrategy_June_2013_by_Matt_Mushalik.pdf