

THE TRANSPORT NEEDS OF SYDNEY'S NORTH-WEST SECTOR

Organisation: Australian Association for the Study of Peak Oil and Gas
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Our organization is a group of professionals from various professions studying the timing of the peaking and decline of world petroleum production and its implications for society as a whole. It is Australia wide and is affiliated with ASPO International. There are now over 20 countries with ASPO organisations.

We are concerned that a viable and sustainable transport policy that is not based on oil is required for the NW of Sydney. The current mortgage stress is a precursor to the problems it will face, as will most of NSW, as the end of cheap abundant petroleum becomes more evident.

The world's petroleum is nearing a peak in production and the peak of world discovery was back in 1965. All current data and projections we have seen points to the simple fact that world oil production is at or near peak.

Recent price increases over the past 12 months show that peaking is close at hand as bidders for available oil become more intense. Recent evidence seems to indicate demand is being destroyed via a coming prolonged recession.

NW Sydney will share part of this pain in mortgage defaults, unemployment and falling house prices. This does not include the personal costs to individuals in stress and ill health. Areas with inadequate public transport (especially rail) will be the most affected.

Our organization has a clear voice when it comes to transport and it is the same as the Chief Economist of the IEA Mr Fatih Birol "get out of oil before oil leaves us". He recently said this in an interview "With the World Energy Outlook 2007. It was a clear signal to the governments of all our member countries. They take energy and oil security much more important than before, now. And when we present the WEO 2008 this November, I think it possible that the sirens will shrill even louder."

We advocate the following.

- Investment in rail, other forms of public transport, walking and cycling is essential.
- Land use planning based around the car has to stop as it has limited chances of enduring the energy transition upon us.
- We see freeway building as over and Cross City tunnel, the Lane Cove tunnel as well as Bris Connections floats as proving our point. We see proposals for the F3 to M2 as being contrary to the future energy availability and sustainability requirements of the future.

We support an electrified rail solution that allows for both passengers and freight as both Peak Oil and Climate Change require solutions that work together. Land use planning has to be around new urbanism principles rather than suburban sprawl that is, reliant on the motor vehicle. In other parts of Sydney where there is rail, improved urban amenity and land use planning is occurring around railway stations. This way public transport improves the lifestyle of people.

Our organization is willing to brief Committee members on Peak Oil in much more detail than has been presented here and welcomes the opportunity to comment on the important subject of NW Sydney Transport.



ASPO-Australia

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1 October 2008

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Re Transport Needs for North West Sydney

Our organization is a group of professionals from various professions studying the timing of the peaking and decline of world petroleum production and its implications for society as a whole. It is Australia wide and is affiliated with ASPO International. There are now over 20 countries with ASPO organisations.

We are concerned that a viable and sustainable transport policy that is not based on oil is required for the NW of Sydney. The current mortgage stress is a precursor to the problems it will face, as will most of NSW, as the end of cheap abundant petroleum becomes more evident. At the same time new population projections from ABS suggest that Sydney will have to cope with an extra half million residents by 2031, compared to the projections on which the Metropolitan Plan is based, As demographer Bernard Salt asked, writing in The Australian: "Can Kellyville and Rouse Hill really accommodate the 'storm surge' generated by new projections. And if not, where are those extra bodies going to fit? "

The NW Growth Area is currently seen as a distant dormitory area for the growing workforce in the CBD and other centres, but journeys to, from and at work only account for 30% of weekday movement citywide – the other 70% of trips are more local, and all contribute towards greenhouse emissions if made by car. The NW needs a railway linking it to as many employment centres as possible to cater for the 30%, which constitutes a substantial part of peak demand, but it also needs a more local movement system, perhaps focussed on Parramatta rather than the CBD, to provide an alternative to car use for shorter trips. Castle Hill to Parramatta could well be improved by a Bus Transit Way with a later conversion to Light rail.

From the City of Ryde's own planning documents they make the following assumptions

- The Macquarie Park Corridor within Ryde has a current commercial zoning just under 1 million m2.
- The current commercial zoning allows for an additional 1.2million m2.
- The current commercial capacity total under the current zoning is 2.25 million m2.
- There is also 600,000 m2 development proposed by Macquarie University (40 year planning horizon)
- The total floor space for the corridor could be 2.85 million m2 which would permit employment for around 140,000 total workers, plus an extra 40,000 student / staff capacity at the Uni which is a total of 180,000 'workers' potential at Macquarie Park.
- This 180,000 represents 80% of the current CBD (Sydney) workers total of 220,000.
- Ryde is also the recipient of the \$2.25 billion Chatswood to Epping rail infrastructure investment, comprising 3 new rail stations opening in 2008.
- Ryde's support for economic development contributes significantly to the States' "Global Economic Corridor" which is clearly identified by the NSW Metropolitan Strategy.
- The corridor of concentrated jobs and activities in centres stretches from North Sydney to Macquarie Park and from the City to Airport and Port Botany and will remain the powerhouse of Australia's economy.
- This corridor encompasses Macquarie Park, Chatswood, St Leonards, North Sydney in the north; the Sydney CBD and Pyrmont-Ultimo, and major research, health and education facilities, residential and industrial areas; and Sydney Airport and Port Botany to the south.
- Around 700,000 of Sydney jobs (32% Sydney's total) are located in the global economic corridor.

A key aim of this Strategy is to build on the strengths of the global economic corridor and to grow 150,000 new jobs in this corridor over the life of the Metropolitan Strategy.

Against this the world has been producing more oil than it finds since 1985. (fig1) The world's petroleum is nearing a peak in production and the peak of world discovery was back in 1965. All current data and projections we have

seen points to the simple fact that world oil production is at or near peak (figs 2,3,5,6)

Recent price increases over the past 12 months show that peaking is close at hand as bidders for available oil become more intense. Recent evidence seems to indicate demand is being destroyed via a coming prolonged recession. However this time the price of oil could well stay high due to declining production. In Australia two things mainly influence the price of petrol: the price of crude (in US dollars - starting to rise again after a recent fall); and the exchange rate (Australian dollar versus US).

Most new supply from the new oilfield projects are costly as the oil is in very remote places so any fall in price will mean producers will shut in these projects. Cost blowouts on oil field projects due to rig, materials and ageing labour force are now very common in this industry.

<http://www.upstreamonline.com/live/article163609.ece>

With rising prices we have seen oil exporters many with lower per capita GDP and rising populations increasingly consuming more of their own oil, meaning there is less for export (figs 4,8). For example Mexico, the United States number 3 exporter, is in serious decline and by 2012 will no longer export to the US. This will mean that the market for available oil will continue to decrease. (Fig 7)

In the Canadian Imperial Banking Corporation (CIBC) World Markets April 2008 Report the Age of Scarcity (see Table 1) it was argued that demand in OECD countries will fall by some 4.8 million barrels a day due to prices on average rising to US\$225 a barrel by 2012. This is to take into account demand from growing economies, such as Brazil, Russia, India and China. What this means for NW Sydney reliant on the motor vehicle is more pain and viable alternatives to the car are required.

http://research.cibcwm.com/economic_public/download/sapr08.pdf

The current reality of high prices means we are now locked into a bidding auction for available petroleum and as such we have three options;

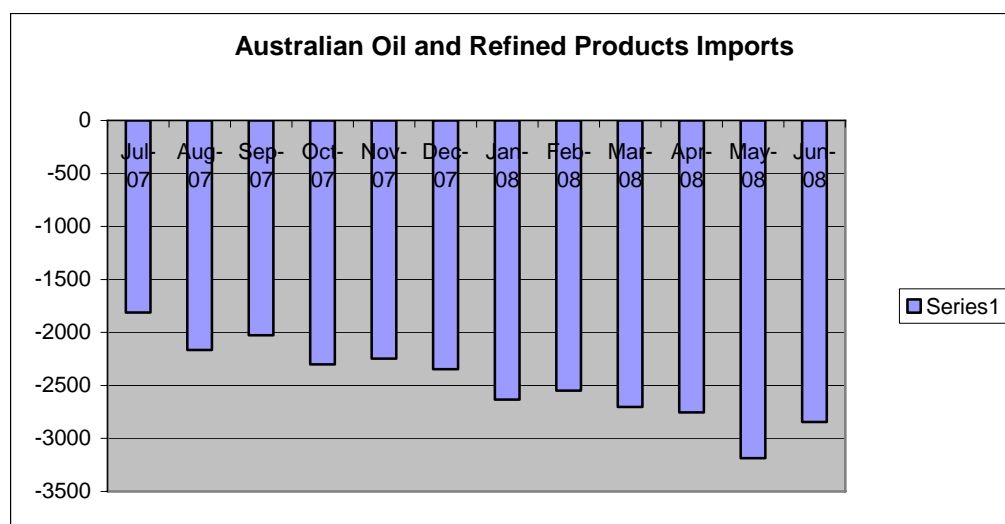
- a) Pay or go broke, - current strategy hoping problem will go away
- b) Adapt by moving transport away from oil and plan our cities to be less oil dependent. – **Most advisable option**
- c) Enter into costly wars for remaining energy with both producer and consumer nations- **Neither- advisable or capable of succeeding.**

NW Sydney will share part of this pain in mortgage defaults, unemployment and falling house prices. This does not include the personal costs to individuals in stress and ill health. Areas with inadequate public transport (especially rail) will be the most affected. This is in line with the work of Messrs Dodson & Sipe from Griffith University in their paper Unsettling

Suburbia: The New Landscape of Oil and Mortgage Vulnerability in Australian Cities- August 2008 This makes this point very clear.

http://www.griffith.edu.au/data/assets/pdf_file/0003/88851/urp-rp17-dodson-sipe-2008.pdf

Australia's own dwindling production and increasing consumption is now contributing to a very poor balance of trade report. On ABS figures we imported oil and refined products worth \$29.6 billion in 2007/08(not including the imported vehicles to use some of this fuel). This helped contribute to the \$18 billion Trade Deficit for the 2007/2008, year. (Source ABS). This was money that left Australia for foreign shores and was paid for by borrowing more foreign debt. This position is not sustainable especially given the current banking and financial crisis.). Long-term sustainability should be independent of short-term crises, even if the present crisis won't be short-term.



Source ABS

Investment in oil-based transport by State governments also creates national security implications for the country. In times of high oil prices we are increasing demand for oil to nation states that help fund terrorism. Hezbollah has been one beneficiary of high oil prices via Iran. Hamas is funded jointly by Saudi Arabia and Iran. Both organizations and their armed wings are seen as terrorist organisations by the Federal government.

Australia is currently in breach of its IEA obligations to hold 90 days worth of oil, and circumvents it by counting tankers on the water as storage. As such we could face serious disruptions should unfavourable geopolitical events occur in the world. Again areas with high motor vehicle dependency will be the most affected by this.

Our organization has a clear voice when it comes to transport and it is the same as the Chief Economist of the IEA Mr Fatih Birol "get out of oil before oil leaves us". He recently said this in an interview ***"With the World Energy***

Outlook 2007. It was a clear signal to the governments of all our member countries. They take energy and oil security much more important than before, now. And when we present the WEO 2008 this November, I think it possible that the sirens will shrill even louder."

At this stage we do not see sufficient action at State government level to address IEA concerns. This compares to the Queensland Government that has already begun planning to address its oil vulnerability.

http://www.epa.qld.gov.au/environmental_management/sustainability/oil_vulnerability_mitigation/

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Our organization recognises the fact that Epping to Chatswood is in essence the first stage of the NW Rail Line. As such we urge the completion of the line in a heavy rail configuration to Rouse Hill. This would ensure efficient use of the current investment in the Epping Chatswood Rail line.

This would allow for NW passengers to travel with ease to their work destinations in the Northern job arc of the city. It also allows the ability for line to be used for freight in the future. The nature of jobs and the composition of industry could well change and flexibility in infrastructure planning is essential.

However we realise that Victoria Road corridor transport needs a metro or some form of lighter rail. We would encourage detailed plans that address this in light of declining oil production and decreasing net oil exports as a separate project.

We would also encourage the NSW government to request funding from Infrastructure Australia for the quadruplication of the Main North Railway from Strathfield through to Newcastle to allow for passengers and freight the ability of not competing and causing problems. This would ensure the future of East Coast rail and allow it to more effectively compete with road freight. Road freight already has problems with high fuel costs that will be borne by the

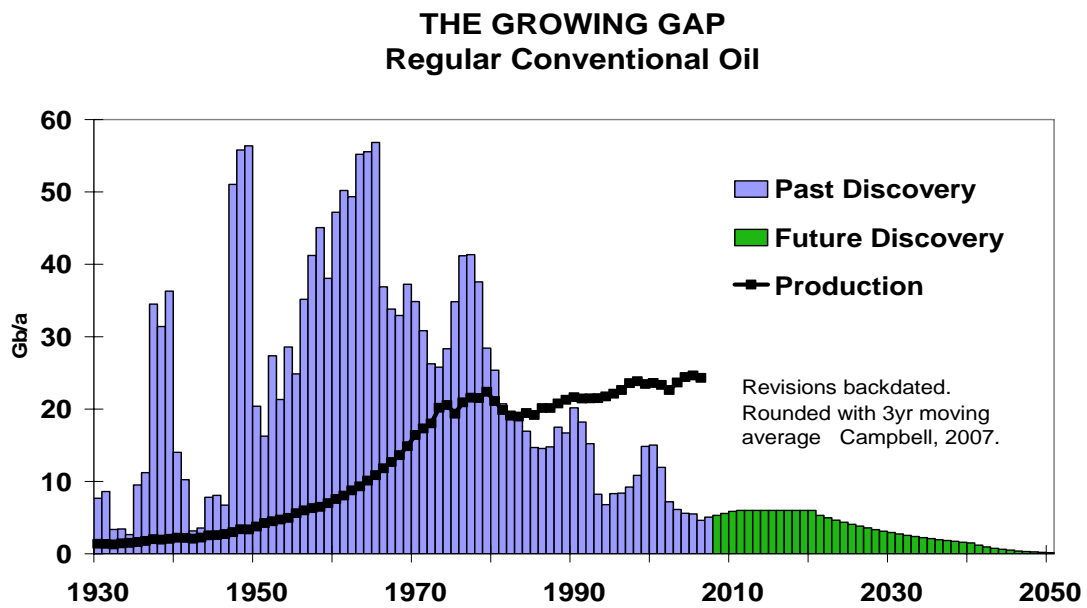
general public. It is also a drain on our balance of trade in essence creating negative growth from imports of fuel and adding to foreign debt. Availability of liquid fuels in the future will be a problem for the road freight industry as well as the fact that the industry is unable to sequester its carbon emissions. Electrified trains can also run on green power.

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Yours sincerely

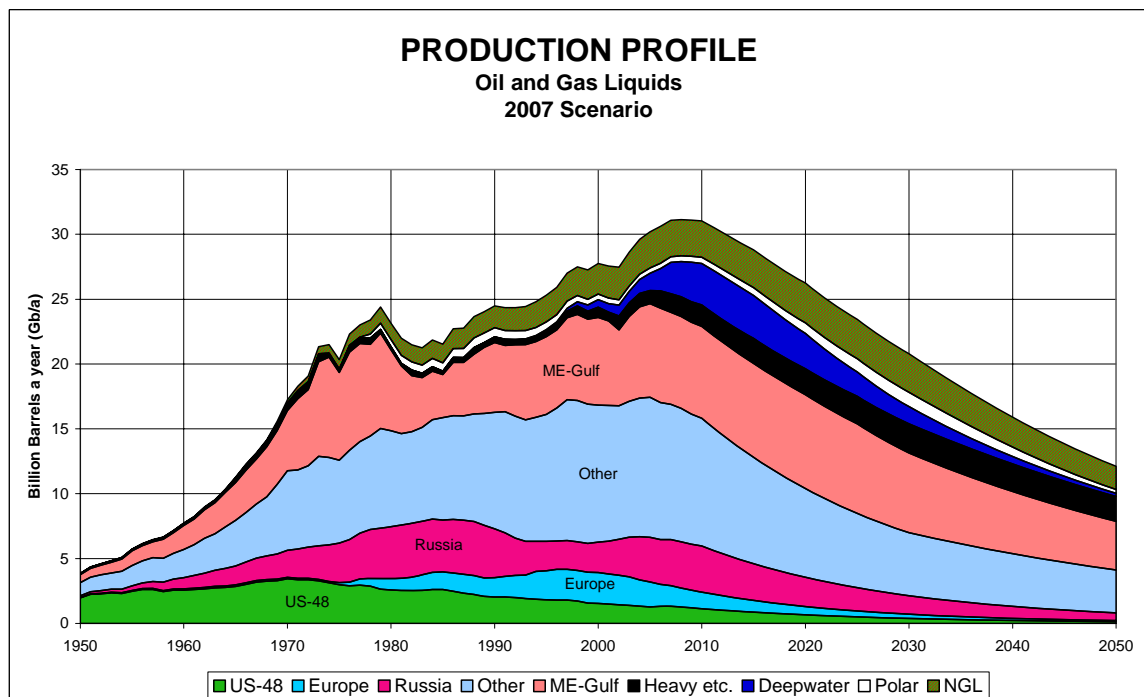
David Bell
Sydney Convenor

Fig 1



Source ASPO International

Fig 2 ASPO Forecast Production



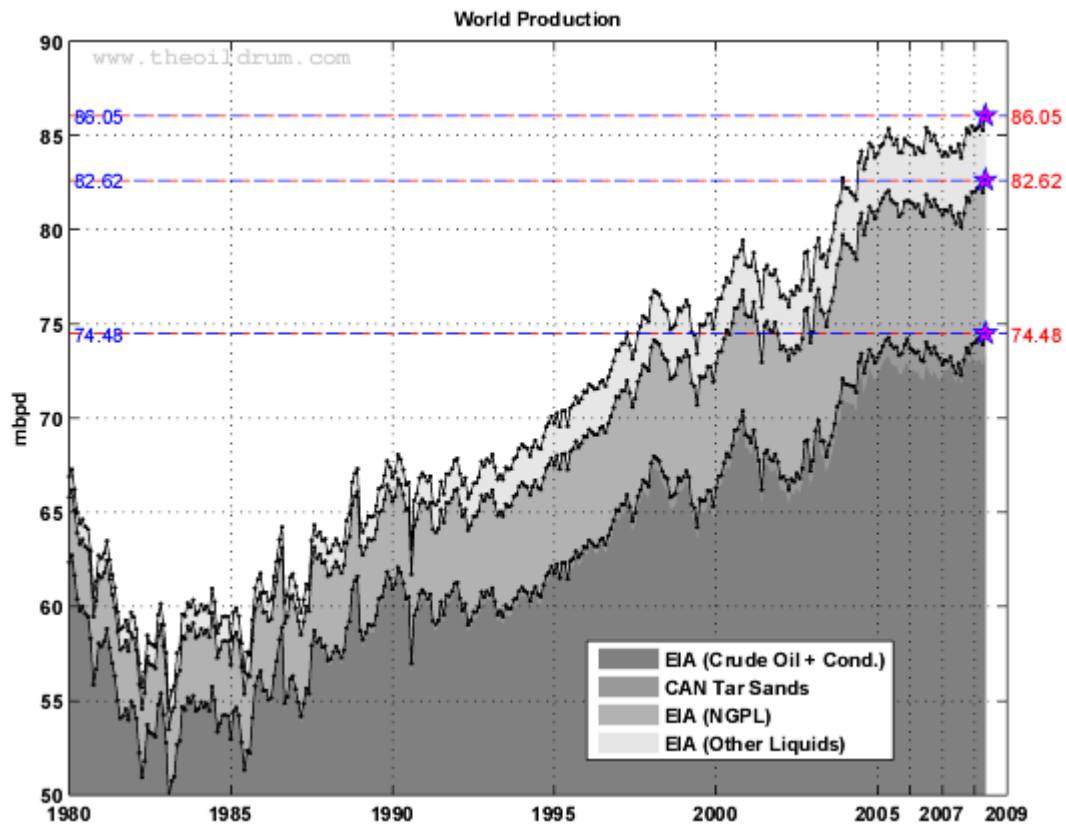


Fig 3.- World production (EIA data). Blue lines and pentagrams are indicating monthly maximum. Monthly data for CO from the EIA. Annual data for NGPL and Other Liquids from 1980 to 2001 have been upsampled to get monthly estimates. (Source The Oil Drum)

Fig 4 World Net Exports Top 20 Oil exporters –93% of all exporters

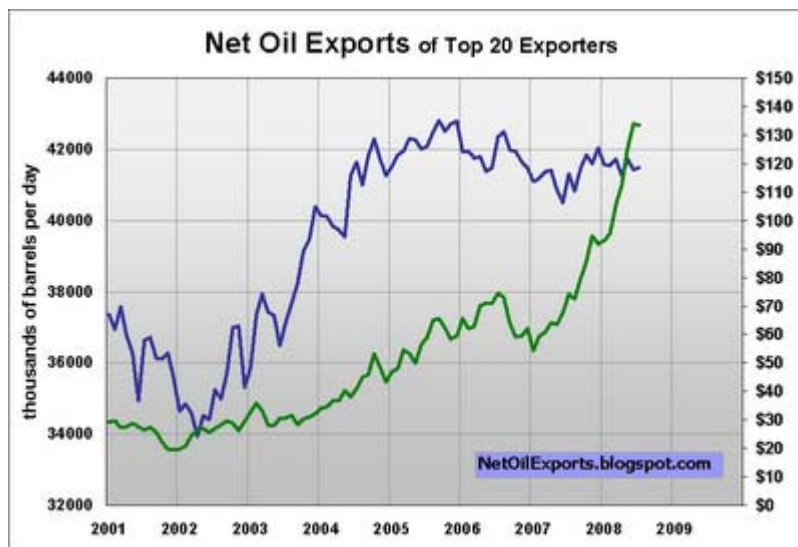


Fig 5

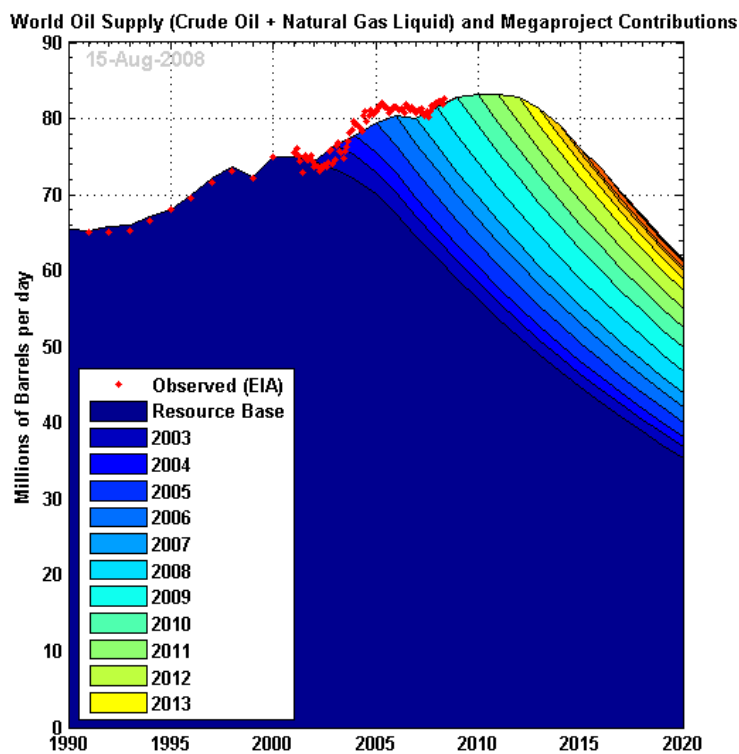


Fig 6

Wikipedia Oil Megaprojects Database, Moderate Decline Rate (4.5% per annum) Scenario, world oil supply and megaproject contributions, compared to observed EIA production data.

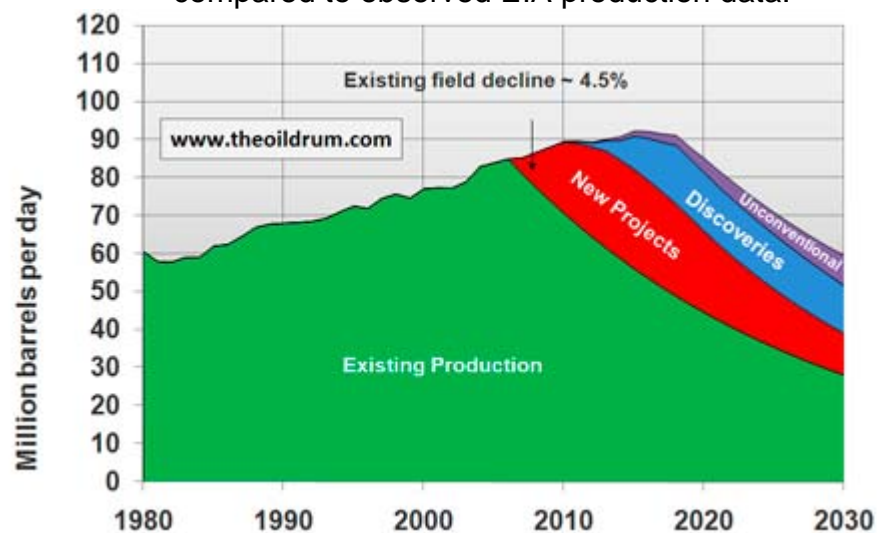


Fig 7 Mexico Production

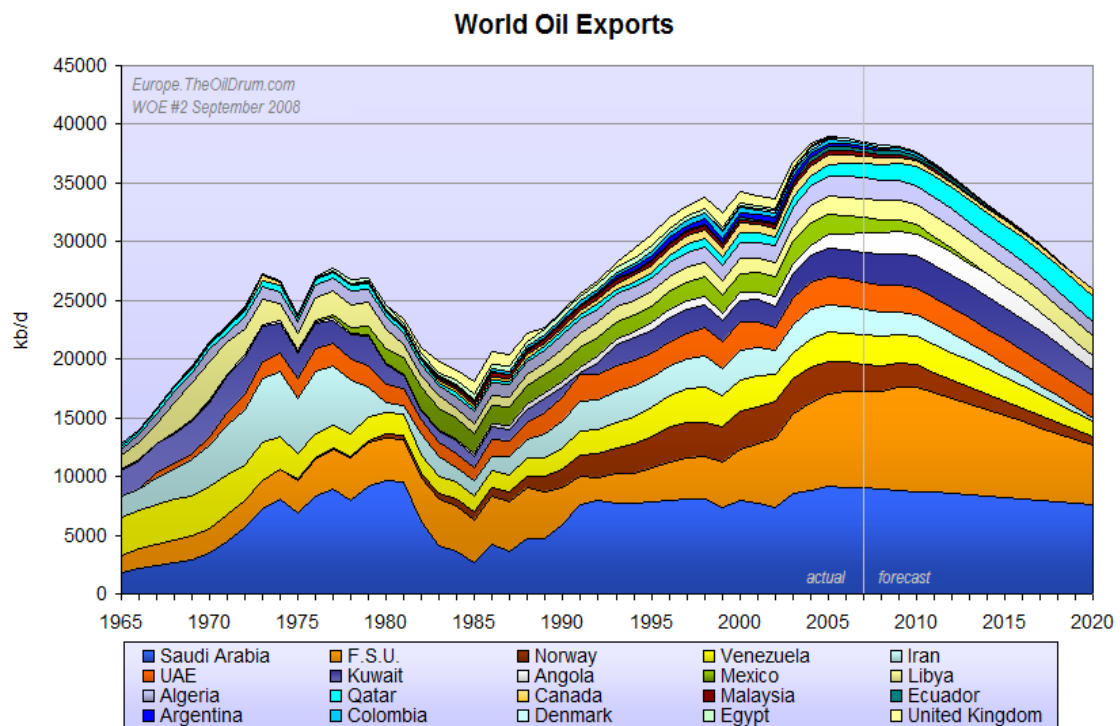
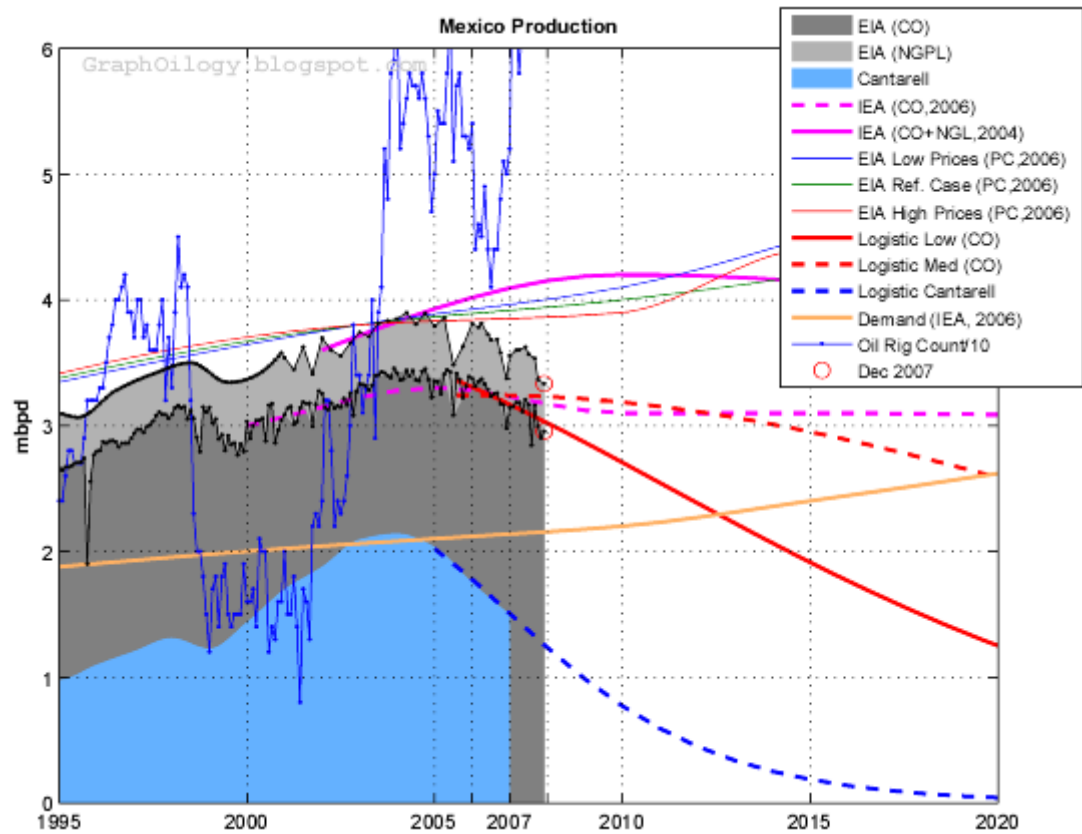


Table 1

CIBC World Markets Forecast

Table 1

Global Oil Supply Forecast

	2008	2009	2010	2011	2012
<i>All Petroleum Liquids Production (Jan. Forecast)</i>	86.1	87.0	87.9	88.4	88.4
Minus: Natural Gas Liquids Production	8.2	8.5	8.8	9.1	9.4
Latest Global Supply Forecast (ex NGL)	77.9	78.5	79.1	79.3	79.0
World Oil Demand	77.8	78.0	78.4	78.7	79.0
- % ch.	-0.3	0.3	0.5	0.4	0.4
OECD	43.8	42.7	41.6	40.3	39.0
- % ch.	-2.5	-2.6	-2.6	-3.0	-3.1
non-OECD	34.0	35.4	36.8	38.4	40.0
- % ch.	2.7	4.1	4.2	4.3	4.1
Prices					
West Texas Crude	115	130	150	190	225
Retail Gasoline (annual avg) (US\$)	3.90	4.50	5.00	5.75	6.50
(summer peak) (US\$)	4.25	4.80	5.50	6.00	7.00

Source: Oil Megaprojects Task Force/The Oil Drum, company, industry & govt. reports. Field start-up dates have been adjusted by CIBC World Markets where appropriate to reflect expected delays due to political, technological and other factors.