



Submission

By Matt Mushalik

# Western Sydney Rail Needs Scoping Study

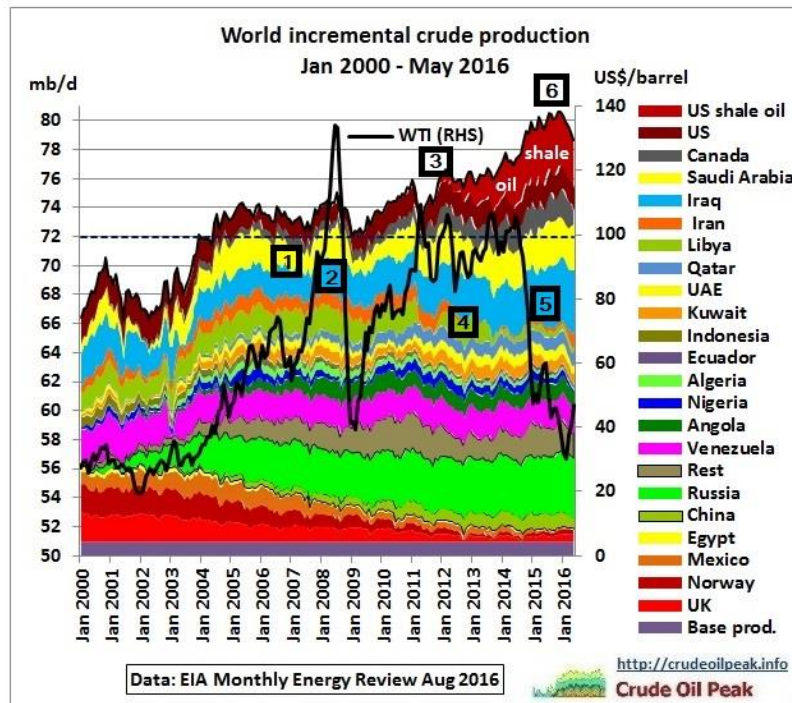
Discussion paper, October 2016  
TfNSW\_WSRN\_DiscussionPaper.pdf

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## (1) Introduction and context: Peak oil at an advanced stage

This submission can only be understood after comprehending and accepting facts in relation to debt, oil and global warming



- 1 Saudi decline
- 2 Saudi rebound and Oilympic peak
- 3 US shale oil boom starts
- 4 Iran sanctions
- 5 Iraq rebound
- 6 US shale oil peak
- horizontal line shows crude production outside US and Canada still on 2005 level

Crude oil production started to peak in 2005. Production declined until 2007. High oil prices as a result of these insufficient oil flows (supply shock, Saudi decline) caused the US recession end 2007. In 2008 China went on the oil market with 800 kb/d of extra demand for the Olympic Games. That pushed oil prices to over \$140 a barrel and broke the camel's back.

High petro dollar debt from ever increasing US oil imports had accumulated since the 1970s oil crisis (Nixon shock). In car dependent US suburbia \$4 per gallon petrol prices in combination with an ill-timed mortgage reset triggered the financial crisis.

Causes and Consequences of the Oil Shock of 2007–08

[https://www.brookings.edu/wp-content/uploads/2016/07/2009a\\_bpea\\_hamilton-1.pdf](https://www.brookings.edu/wp-content/uploads/2016/07/2009a_bpea_hamilton-1.pdf)

The financial crisis caused companies to reduce their tax burden. Company closures also contributed. 80% of the Australian federal budget deficit is caused by lower company tax income after the GFC.

Read my article here:

28/6/2016

80% of Australian budget deficit comes from lower company tax revenue after GFC (part3)

<http://crudeoilpeak.info/80-of-australian-budget-deficit-comes-from-lower-company-tax-after-gfc-part-3>

In the US, the response to the conventional oil peak was low interest rates, money printing (so that economy could afford high oil prices) and shale oil (with easy money to drill for more expensive oil). But despite increases in shale oil production in 2010/11, oil prices did not go down then, contrary to conventional wisdom that more supply lowers prices. The high oil price period 2007-2014 has irreversibly damaged the financial system (more debt, budget deficits) and the economy (company closures and job losses), like a heart attack or stroke when the flow of blood is restricted.

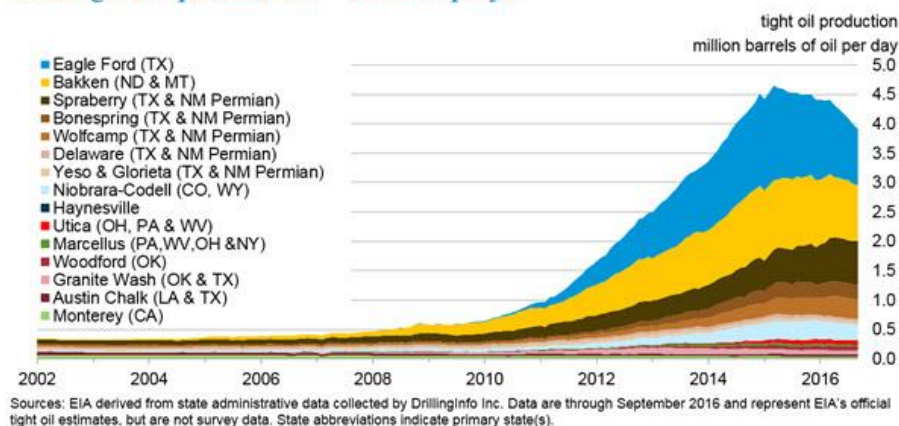
In 2014 oil prices dropped for following reasons:

- End of QE announced by the Federal Reserve: higher US dollar – lower oil prices inverse relationship
- Oversupply of US shale oil after import substitution of similarly light oil (around 2 mb/d) and refinery adjustments were completed
- Maximum production by oil companies to generate cash flow for servicing debt incurred in the high oil price period
- Lower demand growth due to a weakened economy as a result of the preceding high oil price period and increasing debt

These factors are changing over time. The experiment with money printing, \$100 oil prices and shale oil has ended in failure. Shale oil has peaked in 2015. In other words we are soon back to the 2005 situation with additional problems, however:

- The world got accustomed to higher consumption i.e. yet more oil dependent infrastructure has been built for more traffic and more cars/trucks
- Oil fields are now more depleted than before, requiring more costly infill drilling
- The time to prepare for oil decline (i.e building alternative rail infrastructure) has been irreversibly shortened

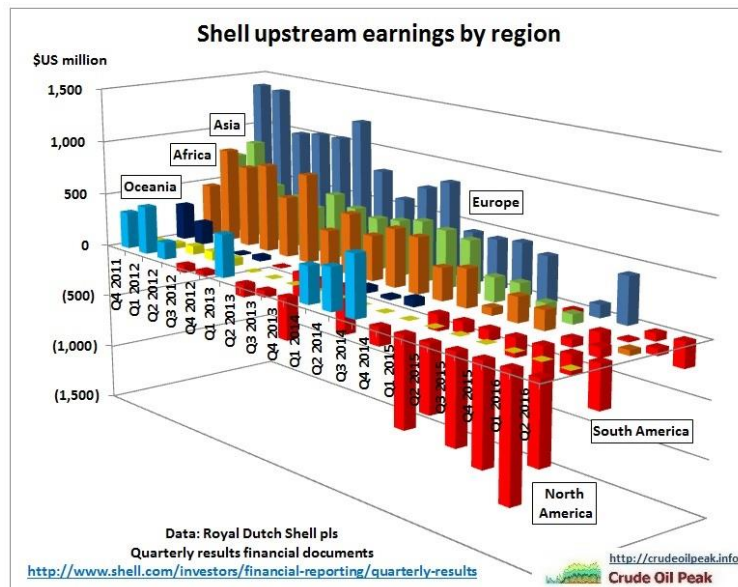
#### U.S. tight oil production – selected plays



[http://www.eia.gov/energy\\_in\\_brief/article/shale\\_in\\_the\\_united\\_states.cfm](http://www.eia.gov/energy_in_brief/article/shale_in_the_united_states.cfm)

The longer oil prices stay low, the more this is the result of a weak economy, especially in China.

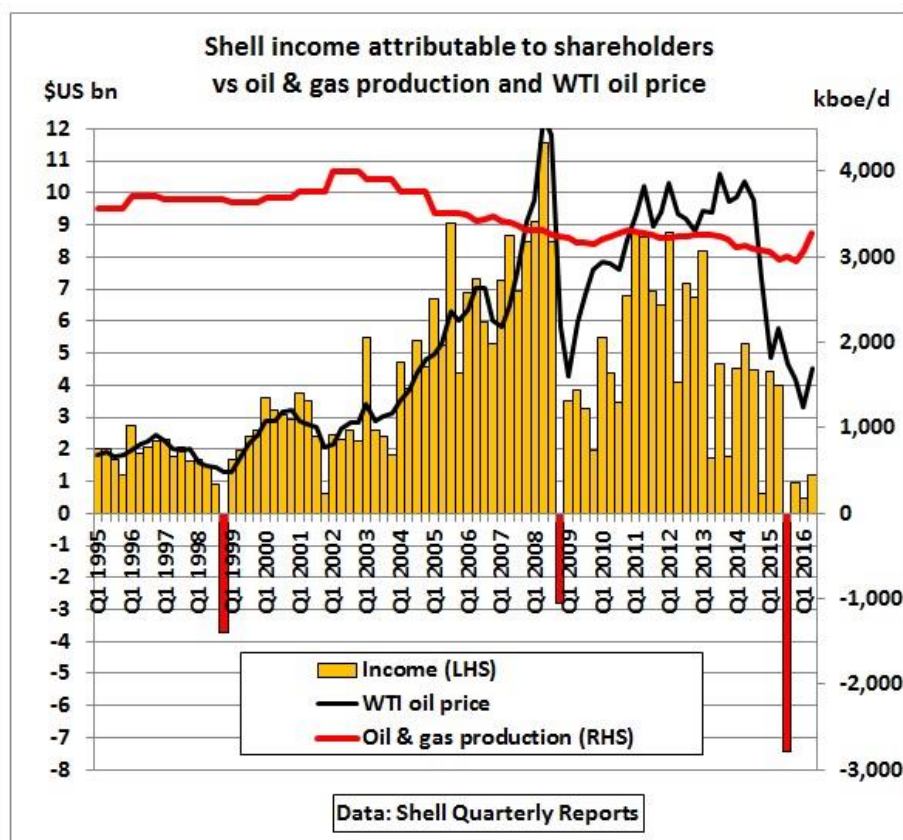
Lower oil prices are a big problem for oil companies. For example, Shell's upstream sector is now deep in the minus which obviously cannot last long.



16/10/2016

Royal Dutch Shell's upstream earnings peaked 2008, now in the red

<http://crudeoilpeak.info/royal-dutch-shells-upstream-earnings-peaked-2008-now-in-the-red>

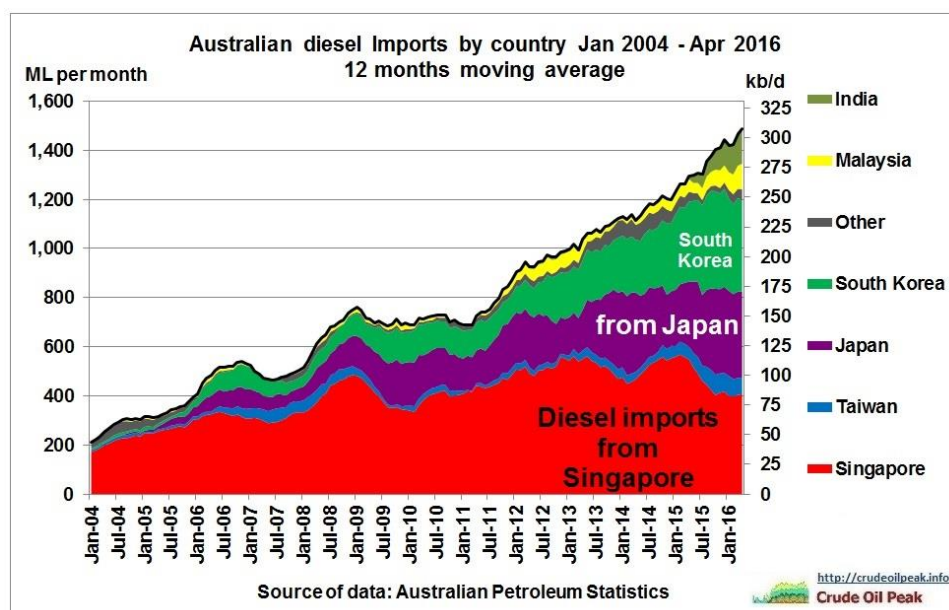


We can see that before the financial crisis, income followed oil prices, but after 2009 income did not increase as expected. This suggests there is a structural problem: the low cost oil (different from low priced oil!) is gone, for good. So even if oil prices were to go back to \$100 (which would further damage the economy) it is unlikely that income would recover to previous levels.

Oil companies have already reduced investments in new oil fields which are needed to offset natural decline in legacy fields. They are still commissioning projects started in the high oil price period. But once this portfolio of old projects has been worked through, decline will set in, most likely by or before 2020. Many argue shale oil production will save the day, but most of that oil is too light to be universally useable by refineries all over the world. Lighter fractions of US shale oil are double that of Arabian light, for example. Cracking Bakken tight oil yields 2/3 of gasoline and only 25% of light cycle oil for diesel which is in higher demand in Europe and Asia. The US crude oil export ban has been lifted but shale oil exports are small in volumes, mainly as blending components.

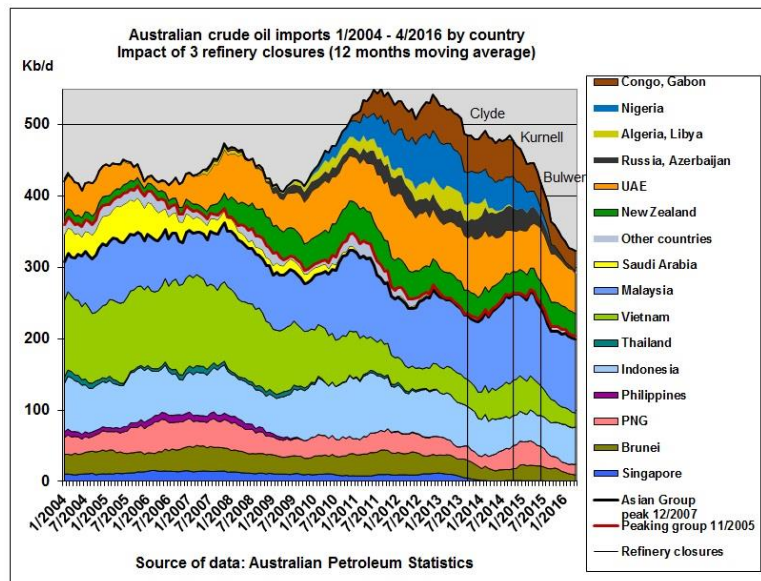
In summary, the world is trapped between high priced oil which damages the economy and low priced oil which does not allow oil companies to make adequate profits. There is no statistical evidence during the last 15 years that oil prices stayed at an intermediate level of, say, \$70 for a very long time. This level was always quickly passed either on the way up or down. Oil companies cannot make long term decisions on the basis of transitory oil price movements.

On top of this problem we have spreading wars in the Middle East and last not least tensions in the South China Sea, through which Australia imports increasing quantities of fuels from South Korea and Japan, countries which in turn import most of their crude from the Middle East.





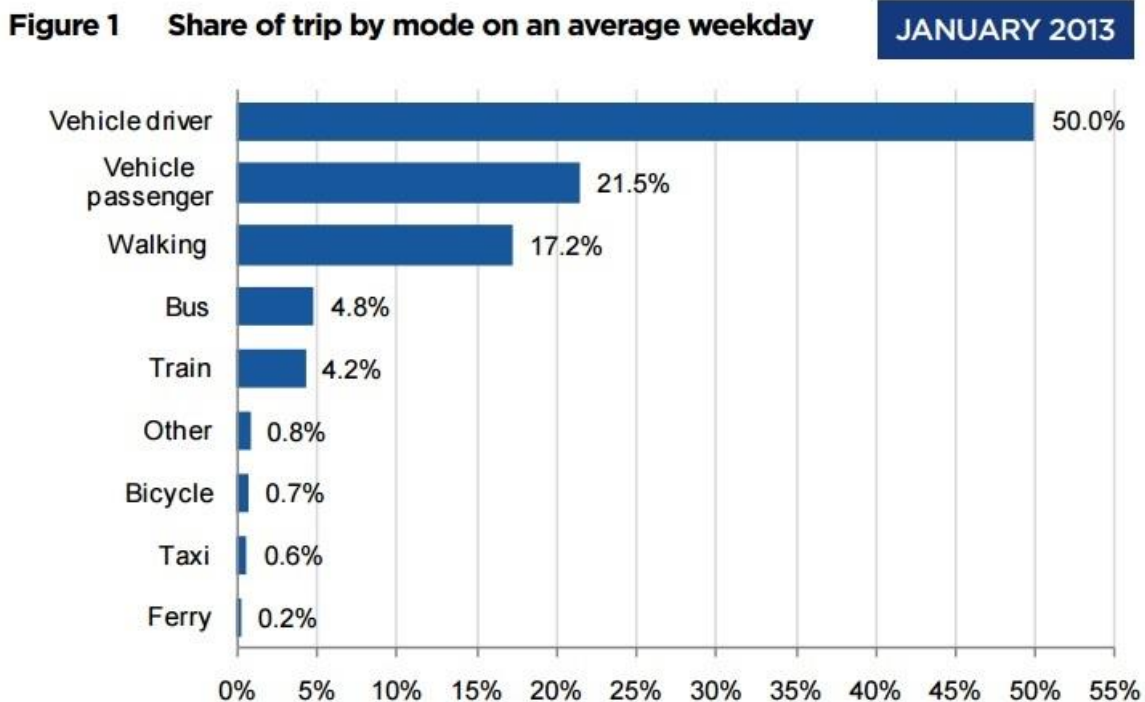
While previously, crude oil imports were more diverse:



This high vulnerability means that Australia cannot afford any experiments in the transport sector. The planning horizon should not be decades of growth but just years to prepare for a looming oil crisis which would have already hit hard had it not been for US shale oil (and – to a certain degree - tar sands).

## (2) The actual task

Let's look at the modal split in Sydney (Trans Figures)



If we leave out walking, train usage would be 5% of the total. When (not if) there is an oil crisis, Sydney would become dysfunctional.

Therefore, the job to reduce oil and car dependency is gigantic. Compared to Frankfurt which is just ¼ the size, Sydney should already have

- 84 kms of metro
- 176 kms of light rail
- 256 kms of trams

When will it happen and where will the money come from? It is now wasted on road tunnels.

The urgent job at hand is to REPLACE existing car traffic, not metros serving flats for immigrants yet to arrive.

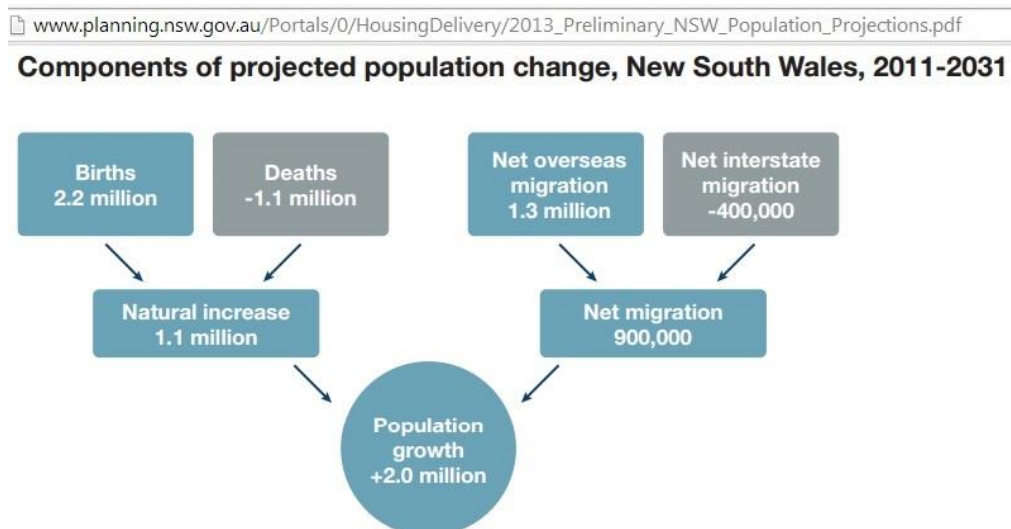
### (3) Western Sydney Rail Needs Scoping Study Discussion Paper

#### Population Growth

**Quote (p 9):** “In the next 20 years, Western Sydney’s population is expected to grow by about one million people”

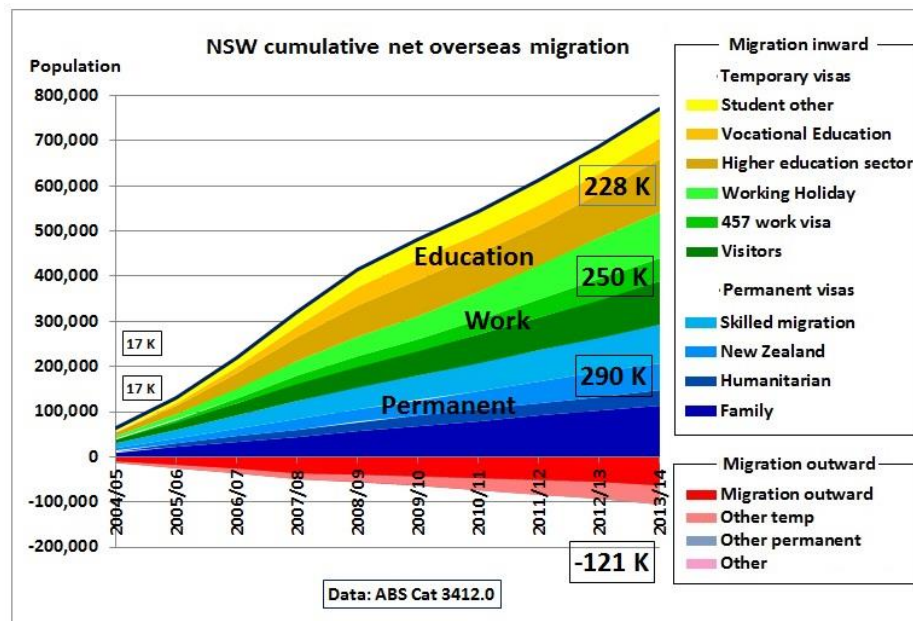
**Comment:** That is unsustainable in terms of energy consumption, pollution from the proposed 2<sup>nd</sup> Sydney airport and temperatures under global warming conditions (lack of basin ventilation). The MacArthur air quality report described very well how cool air from the Blue Mountains at night pushes pollution East-ward, only to be driven back by sea breezes, thus contributing to an accumulation of polluted air masses over the West. This is an unhealthy environment which will drive up cost to Medicare.

We have to distinguish between natural population growth (which the government cannot and should not control) and immigration which can be reduced by the Federal government.



In NSW 65% (=1.3/2) of population growth comes from Net Overseas Migration. Therefore, all problems can be reduced by that percentage: housing affordability, traffic congestion, pollution, schooling problems and later fuel shortages at filling stations.

The following graph shows that the immigration program is out of control

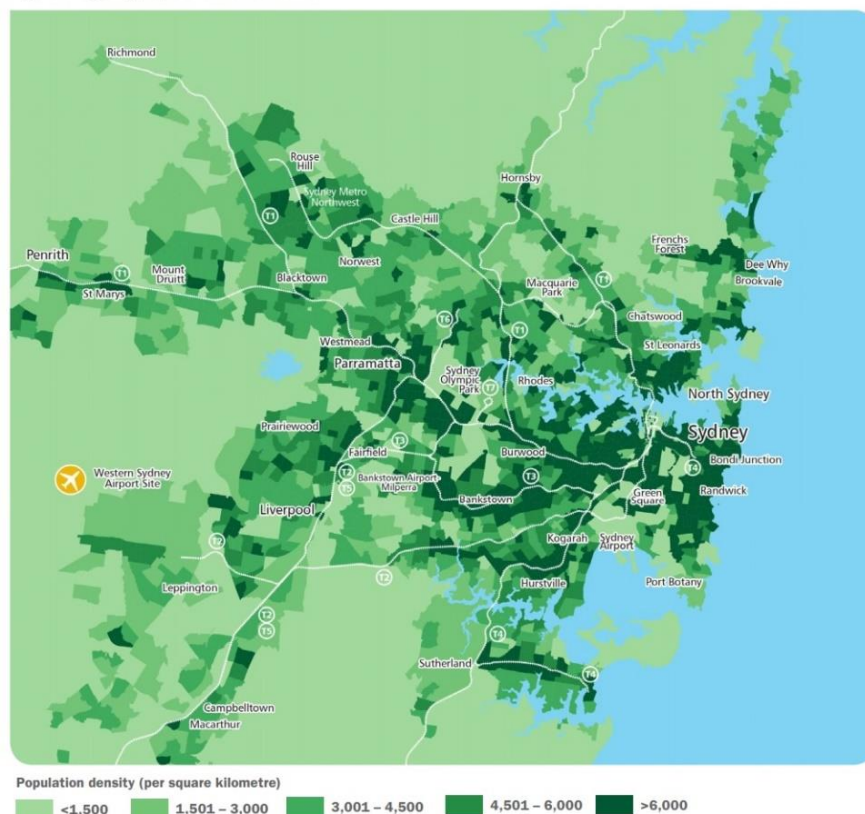


The more people there are, the longer the petrol lines

**Recommendation:** Calculate natural population growth separately from immigration which should be reduced.

<https://s3-ap-southeast-2.amazonaws.com/ehq-production-australia/80e995d9cbe843ce505583e6ad938b8a763e9651/documents/attachments/000/038/757/>

Figure 4 Sydney population densities 2051



This map for 2051 is totally academic



## Classification of rail (p 19)

### The different types of metropolitan rail services

In line with the approach of focusing on the specific needs of different customers, *Sydney's Rail Future* is delivering a three-tiered system.

#### TIER 1: Metro (rapid transit)

- Frequent 'turn up and go' services without the need to consult a timetable
- Fast, single-deck trains, with more doors, designed for easy boarding and alighting.

#### TIER 2: Suburban

- Timetabled services
- Double-deck trains with more seats per train.

#### TIER 3: Intercity

- Timetabled services
- Double-deck trains for Central Coast, Newcastle, Wollongong and Blue Mountains services
- Comfortable services for long-distance commuters and leisure travel, with on-board facilities for improved customer convenience.

This 3 tier system is inadequate and shows Sydney has little idea about urban rail (see hierarchy on next page).

Note that Sydney's double deckers were introduced as a quick fix alternative to building new rail lines. This is taking revenge now as construction costs for new rail lines in tunnels (whether double decker or single decker makes little difference) are astronomical.

Also note that metro lines in European cities are usually in addition to heavy rail lines with shorter distances between stations, not a replacement for heavy rail as is done now for the NWRL.

## Appendix C: Hierarchy of Urban Rail System in Frankfurt

### Heavy rail



Double deckers are used as city or regional express only; limited stops every 15 mins or so



Single deckers for all stopper services. Average distance between stations: 2.5 kms

### Metro



Stops every 800-1000 m, runs every 5 mins



Also above ground on dedicated track.

### Light rail – surface metro



8 car trains - high platforms - frequent stops



Simple stations can be built fast

### Trams – low floor



Sharing road way



On dedicated track; car lanes gone

## CBD centric planning

Figure 10 Sydney train network capacity (2051)<sup>90</sup>

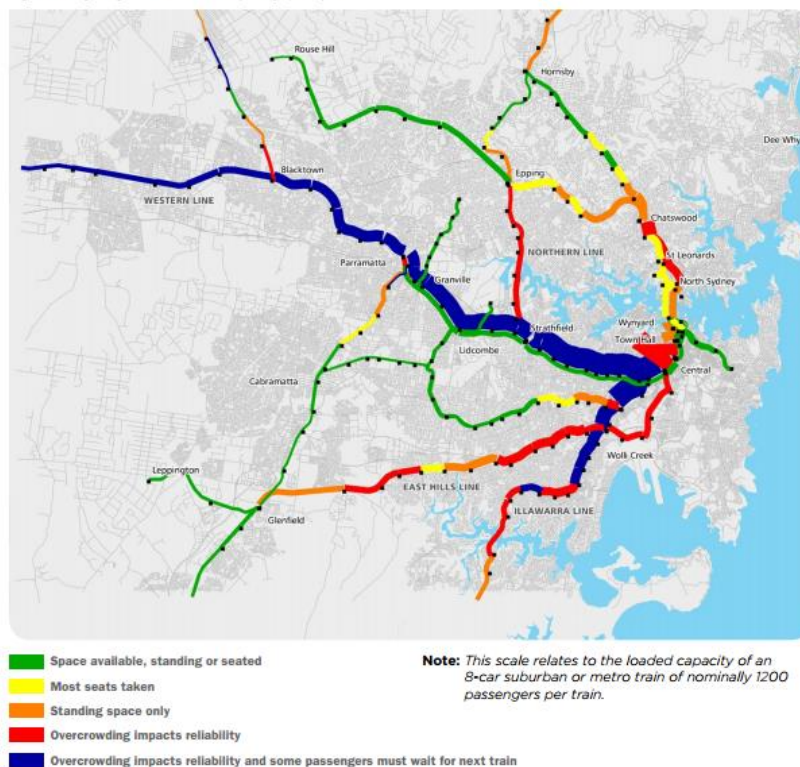


Fig 10 on page 26 of scoping study

If this is the result of land use planning for 2051 then this is a total failure of the concept “city of cities” where traffic flows would be distributed more evenly over the whole Sydney region.

## Route options Western Sydney

### Option A

<http://www.westernsydneyrail.transport.nsw.gov.au/route-options-western-sydney>

or p 39 of scoping Study

## CBD-Parramatta metro

**Quote:** “This line requires a tunnel to be built between Sydney and Parramatta / Westmead with stations located every few kilometres.”

**Comment:** Then this is not a metro – which stops every 800-1000 m. Look at Paris, London or Berlin.

A CBD-Parramatta metro will benefit the CBD more than Parramatta. It is a city-centric proposal (harbour view mentality) while we actually need

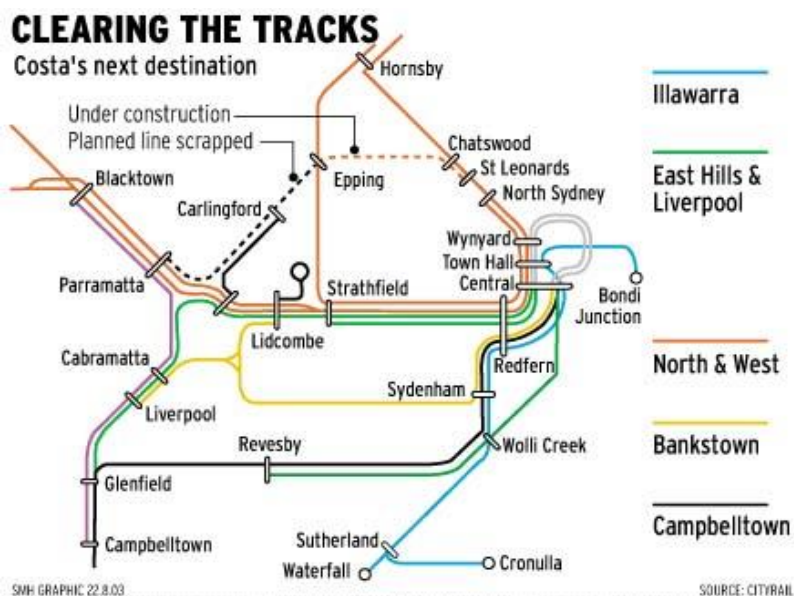
- New city wide network connections increasing the overall functionality and getting away from mono-directional traffic flows to/from the CBD



- decentralization and strengthening of subcentres by building new rail infrastructure serving their own catchment areas in surrounding suburbs

But the Parramatta metro is mainly a red herring. The government has decided on WestConnex, not on a rail solution.

Already during the EIS for the Parramatta - Chatswood rail link in 1999/2000 it was established by the transport department that the capacity of Strathfield - CBD would be reached by 2016. The idea was to divert Western trains to Chatswood via a tunnel so that commuters working along the North Shore would not have to go through the CBD. Then treasurer Costa arbitrarily cancelled the Epping - Parramatta leg because “every passenger costs me money”



<http://www.smh.com.au/articles/2003/08/21/1061434990699.html>

The result can be seen every day:  
Take a 5 pm train from Epping to Emu plains or Richmond via the CBD and there is standing only by the time it has reached



Milsons Point. In Wynyard it's chaos.  
It is a self-inflicted problem. The metro Rouse Hill – Bankstown will not solve it because it requires changing trains at Central for Penrith and does not even connect to the Richmond line.



And because of a 500 m long section of small diameter tunnel North of Epping with a stub to Parramatta the **option to divert western double deck trains via Epping has been irreversibly botched** even if a Parramatta – Epping rail tunnel were built. Where is Costa?

And things are being made even worse by converting the Epping - Chatswood tunnel to single decker use only. This means operational flexibility is lost. And only because of ideological, privatization reasons.

The only solution would be to use normal (not automatic) single deck trains but then the signalling must not be removed and the ramps at Chatswood not disconnected.

The most immediate problem is now this:

Given that the financial and oil supply systems are highly unstable and looking at what is happening in the Middle East it is suicide to close the Epping - Chatswood tunnel in 2018 for this completely unnecessary conversion to single deckers.

My proposal is that between Epping and Chatswood drivers should take over the automatic trains, using existing signalling and allowing the use of double deckers in that tunnel.

I had written these posts:

4/1/2015

Sydney mismanages transition to driver-less single deck trains (part 2)

<http://crudeoilpeak.info/sydney-mismanages-transition-to-driver-less-single-deck-trains-part-2>

30/12/2014

Sydney plans to dismantle rail infrastructure built just 6 years ago (part 1)

<http://crudeoilpeak.info/sydney-plans-to-dismantle-rail-infrastructure-built-just-6-years-ago-part-1>

But the NSW government is stubborn and continues with its plans.

What has been done since 2010 is a total rail planning disaster, making Costa's cancellation much worse.

## **Option B**

### **Converting Airport line to metro**

This is completely unnecessary

## **Option C**

### **Metro Bankstown – Liverpool**

Already the conversion of the Bankstown line to a metro is a waste of funds The more so any extension to Liverpool

## Option D

### Advanced train management system

This is a no-brainer. The question is only how platforms and stairs in CBD stations could handle the additional number of passengers.

## Option E

### High speed tunnel Parramatta – CBD

See comments for option A

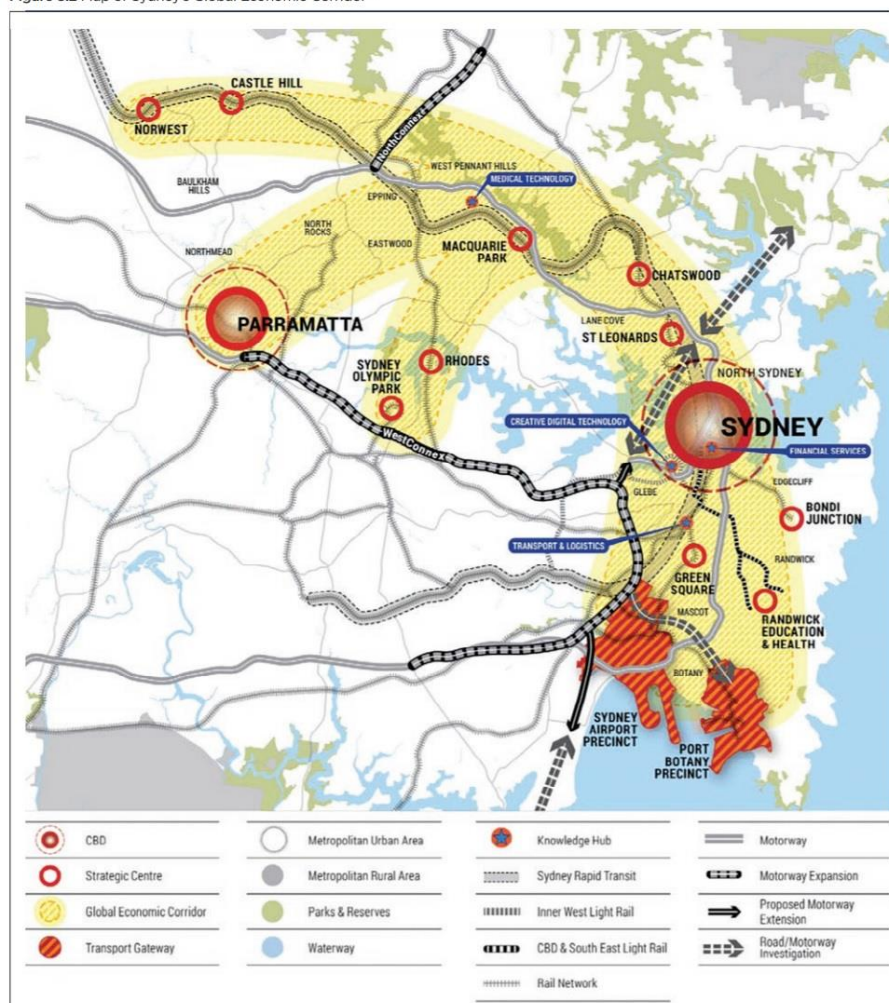
## (4) Business Case Chatswood – Bankstown

In the recently published "business case" for the Chatswood - Bankstown metro

<http://www.sydneymetro.info/sites/default/files/Sydney%20Metro%20CSW%20Business%20Case%20Summary.pdf>

① [www.sydneymetro.info/sites/default/files/Sydney%20Metro%20CSW%20Business%20Case%20Summary.pdf](http://www.sydneymetro.info/sites/default/files/Sydney%20Metro%20CSW%20Business%20Case%20Summary.pdf)



Figure 3.2 Map of Sydney's Global Economic Corridor<sup>®</sup>



the global arch Airport - CBD - Rouse Hill got 2 new babies: Parramatta and Olympic Park (Fig 3.2 page 34). Both have no proper rail connection to the global arch. Bankstown is not even on the global arch, with only 2,400 new jobs against 17,400 jobs in the North West (table 6.4), so the proposed metro Rouse Hill – Bankstown is completely out of balance.

① [www.sydneymetro.info/sites/default/files/Sydney%20Metro%20CSW%20Business%20Case%20Summary.pdf](http://www.sydneymetro.info/sites/default/files/Sydney%20Metro%20CSW%20Business%20Case%20Summary.pdf)

**Table 6.4** Economic activity and productivity outcomes of Sydney Metro in 2036

Metric	North west corridor	North west corridor	South west corridor	Global Sydney (Sydney CBD and North Sydney)	Total
	Value add (\$ million)	2,886	453	5,223	<b>8,562</b>
	Productivity per worker (\$)	669	452	381	-
	Additional jobs (number)	17,435	2,442	24,368	<b>44,245</b>
	Income per worker (\$)	301	142	322	-

## (5) The Olympic Park Master Plan 2030

[http://www.sopa.nsw.gov.au/planning\\_and\\_development/?a=347335](http://www.sopa.nsw.gov.au/planning_and_development/?a=347335)

It proposes a high density area around the Olympic Park loop



so at least there is a rail connection although inconvenient to go to Macquarie Park. The light rail alignment (see Fig 3.11) is only indicative.



Figure 3.11 Public Transport Plan



Key

	Local Bus		Ferry Route/Ferry Wharf		Northern Line/Newcastle/Central Coast Line
	Suburban Bus		Walking Route to Concord West		Stations to be upgraded
	Utilise Event Bus routes		Olympic Sprint-Lidcombe Shuttle		Direct Event Rail Services
	Potential SOP shuttle Bus		Western Line/Blue Mountains Line		Future Light Rail indicative
	Future Local Bus				

[https://majorprojects.affinitylive.com/public/eea1a316a991fda841da9c6e9a2ccb75/MP2030%20\\_2016%20Review\\_%20Section%203.pdf](https://majorprojects.affinitylive.com/public/eea1a316a991fda841da9c6e9a2ccb75/MP2030%20_2016%20Review_%20Section%203.pdf)



And here is the Global Arch commuting link (the area marked yellow by planning bureaucrats in Macquarie St)

- (1) Bus to Rhodes station 10:46 – 11:07 (11:08 train gone – read newspaper 15 min )
- (2) Train to Epping 11:23 – 11:35
- (3) “Metro” to Macquarie Park 11:41- 11:45

Has anyone tested it already? It’s 1 hr. So much for the 30 min city

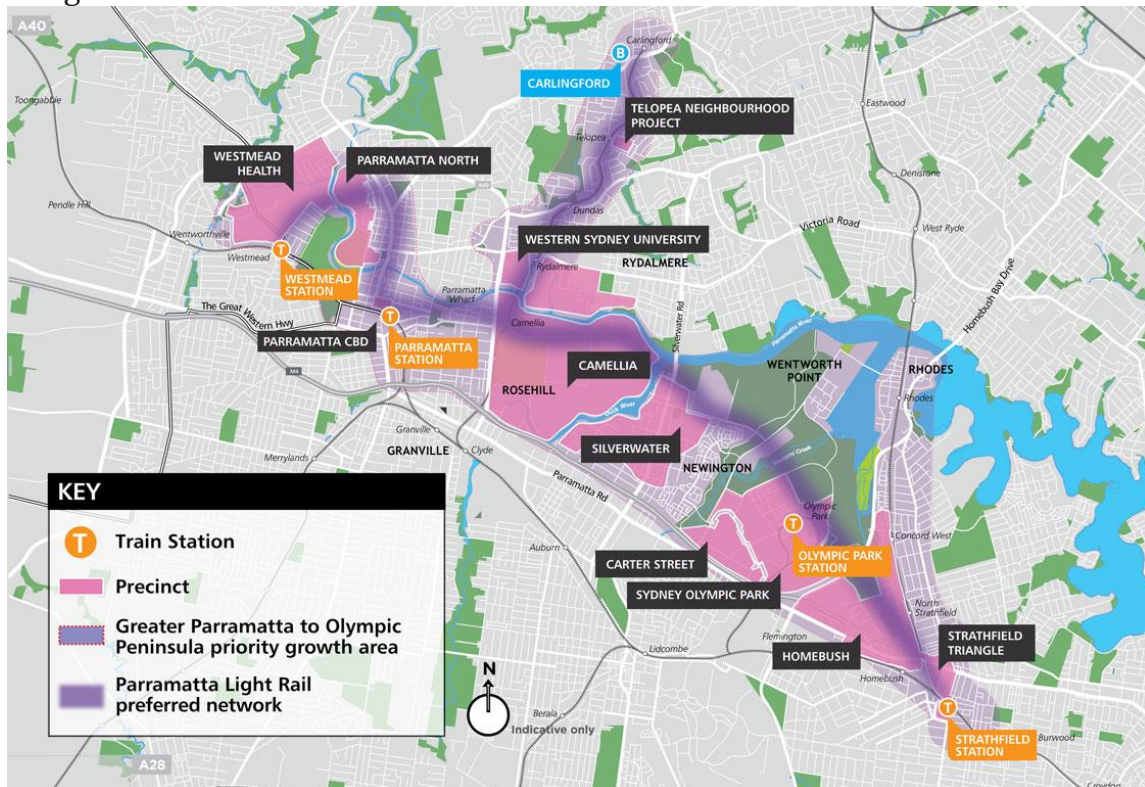
And with the proposed light rail stopping at Carlingford, the yellow global arch areas in Fig 3.2 of the business case is just a shading on paper.

## **(6) Parramatta Light rail**

### **Parramatta light rail costs blow out to more than \$3.5 billion**

16/10/2016

The cost of Mike Baird's signature public transport promise for western Sydney has ballooned to more than \$3.5 billion – \$2.5 billion above what has been budgeted, secret government documents show.



<http://www.smh.com.au/nsw/parramatta-light-rail-costs-blow-out-to-more-than-35-billion-20161014-gs300q.html>

The length of the above alignment is approximately 22 kms (out of which 5 kms for the Carlingford branch), a whopping \$160 m per km.

## **(7) Metro example Frankfurt Europe quarter**

In Frankfurt they are building for a new business park (30,000 jobs, 10,000 residents) on a disused railyard 2.7 km of metro including 4 stations costing 280 million Euro (400 million

AUD or \$ 150 million per km). Half of the alignment is above ground. The tunnel goes through treacherous clay which I know only too well from my apprenticeship (not sandstone). These costs do not include the additional rolling stock and other infrastructure like depots, maintenance yards etc because these already exist (for 65 kms length of which 21 km tunnel). There was also a cost blow out from the original estimate of 210 million in 2014.



Huge new transmission lines will have to be built to bring wind power from the North Sea to operate the skyscrapers in the background. Everywhere the same problems.



Model of Europe quarter now under construction



## **(8) Light rail, Frankfurt example**

Works which are more comparable with a light rail project cost around 10 million Euro per stop including track work between stops @ 500 m. That would be around 20 million Euro per km (29 million AUD)



This is technically very simple subcontractor work. No need for international contractors with expensive consultants. If the government established a small department with experienced, dedicated staff they could manage the work easily. But no, everything has to be privatized



There are high platforms because these light rail cars (next page) also use metro tunnels (hybrid light rail – metro). Such design of course requires to abandon the priority for cars, something Sydney will probably never do until it is too late. As can be seen the area is similar to the inner West.



Trains can be up to 75 m long in road space and 100 m long for lines on graded track.



75 m long light rail train compatible for use in metro tunnels



Parramatta light rail is a tram

**Conclusion:** \$3.5 billion for 22 kms is too expensive for something which is basically a tram. For that sort of money you should get a proper metro with around half of the alignment above ground.



Conspiracy theories say that someone made the project expensive so that it does not go ahead because it is in competition to part of WestConnex (M4)  
If planning continues like this, Sydney will never make it before the curtain falls in the Middle East and/or oil companies run out of money.

## (9) Rail to 2<sup>nd</sup> Sydney airport

A 2nd Sydney airport – and therefore any rail connection - is based on following untested assumptions:

- China and therefore Australia will experience perpetual growth for decades to come
- Sydney's West will be a desirable place to live because it will not be affected by global warming
- There will be no oil crisis
- Mortgage debt can grow endlessly, allowing huge housing developments

A typical business as usual view:

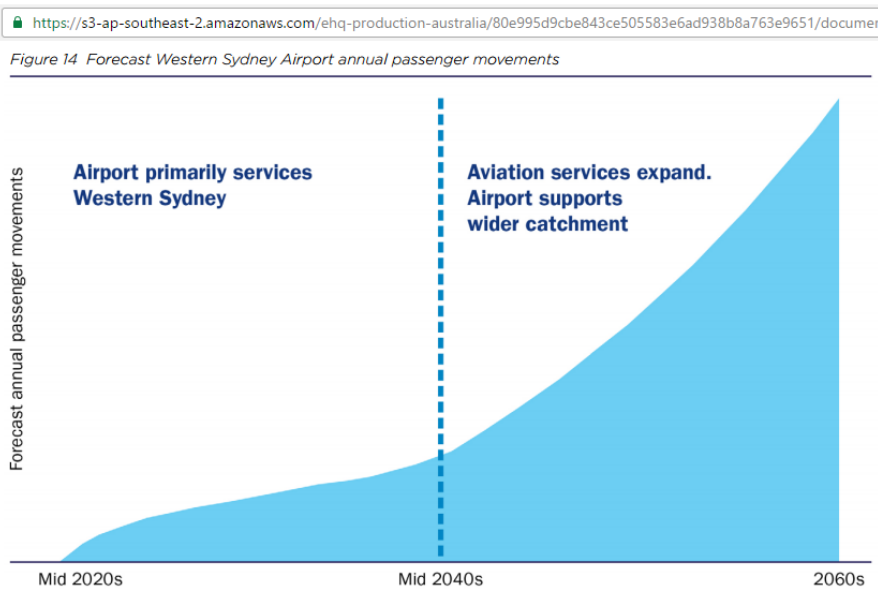
### Demand for aviation in the Sydney region

China is currently Australia's fifth largest international market, with 1.7 million passenger movements in 2010. This represented a growth of 22 per cent on the previous year. Trips to Sydney comprised nearly 50 per cent of these movements (857,000 out of 1.7 million passenger movements).<sup>63</sup>

In terms of international visitor arrivals, the Tourism Forecasting Committee expects demand from China to grow a total 110 per cent (or eight per cent per year) between 2010 and 2020.

Key growth areas will be in family visits and education

[http://westernsydneyairport.gov.au/sydney\\_av\\_cap/files/sac\\_part\\_three\\_demand\\_for\\_aviation.pdf](http://westernsydneyairport.gov.au/sydney_av_cap/files/sac_part_three_demand_for_aviation.pdf)



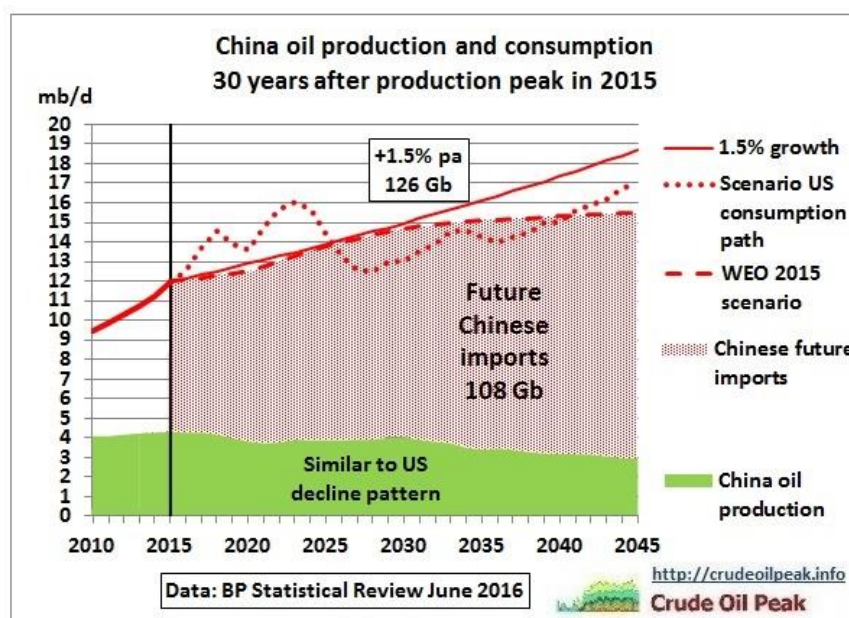
The economic growth necessary to bring about such an increase in air traffic assumes a continuation of our carbon based consumer society which would cook planet Earth way beyond 2 degrees (for which the carbon budget is exhausted by 2040)

## (10) The future of China

And planners should first calculate China's oil import requirements for the next 20 years before dreaming.

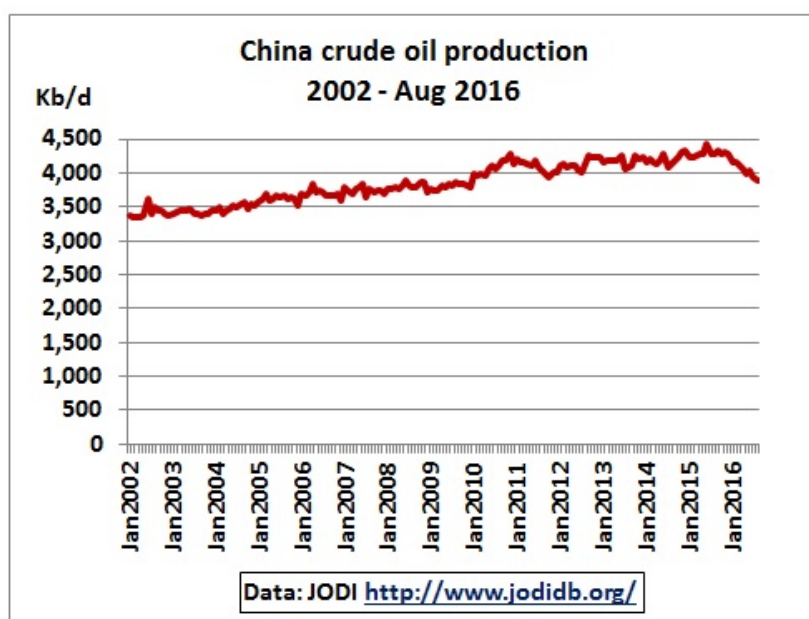
5/9/2016

China's oil peak 45 years after the US peak



Where will that oil come from? At which price? After how many oil wars?

<http://crudeoilpeak.info/chinas-oil-peak-45-years-after-the-us-peak>



According to latest data from JODI, China's crude production has declined by 12% after its peak in 2015. This could either be the geological peak or the government is trying to save local oil resources by rather importing oil (and storing it in a strategic reserve)

Apparently the NSW government is unable or unwilling to analyse what is happening in China. They missed the following Aljazeera documentary:

### The End of China Inc?

As time is running out for China to pay off its bad debts, 101 East investigates if this could be the end of China Inc.

15/9/2016

<https://www.youtube.com/watch?v=C3zLqrO38HM>

<http://www.aljazeera.com/programmes/101east/2016/09/china-economy-160913081105227.html>

Employment certificates, loan documents, everything is fraudulent. Angry workers.

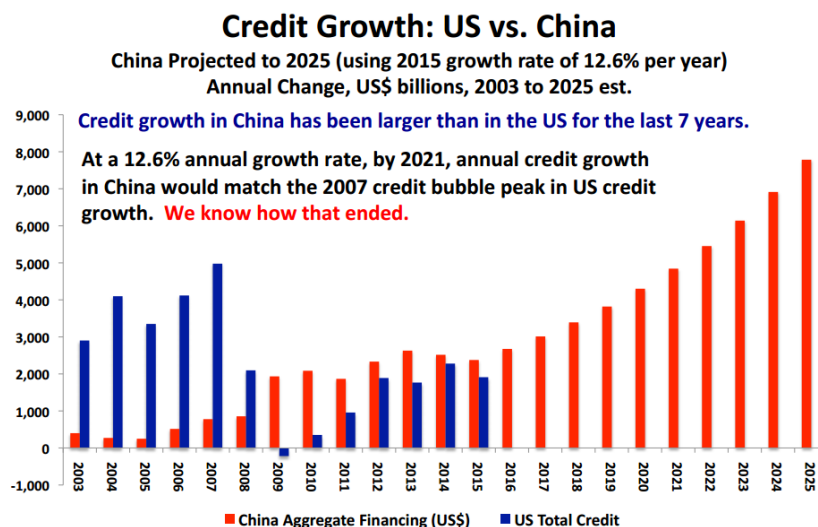


The mother of all subprime mortgage crises is looming in China's ghost cities

The film included an interview with the China expert Anna Stevenson Yang from

<http://www.jcapitalresearch.com/china-equities.html>

She did the following presentation last year at CSIS



China Reality Check: Has the Hard Landing in China Already Started?

20 Feb 2015

[https://www.youtube.com/watch?v=C2SSft-k\\_A](https://www.youtube.com/watch?v=C2SSft-k_A)

<https://www.csis.org/events/china-reality-check-has-hard-landing-china-already-started>

In April 2016 she calculated that China would run down Forex to a dangerous level in 9 months time

<http://www.grantspub.com/files/presentations/Stevenson-Yang%20Spring%202016.pdf>

And the oil industry is in trouble, too

## CNOOC suffers big loss on low oil price

25/8/2016

Oil major loses 7.74b yuan, and PetroChina earnings drop 98% in the first six months  
CNOOC Ltd posted its first-ever half-year loss as crude's plunge and writedowns on assets, including Canadian oil sands, destroyed profit at China's biggest offshore oil and gas producer.

The company swung to a 7.74 billion yuan (\$1.16 billion) loss in the January to June period, compared with a net income of 14.7 billion yuan a year earlier, the Beijing-based oil exploration firm said in a statement to the Hong Kong stock exchange on Wednesday. Oil and gas revenue fell 28.5 percent to 55.08 billion yuan

[http://europe.chinadaily.com.cn/business/2016-08/25/content\\_26588825.htm](http://europe.chinadaily.com.cn/business/2016-08/25/content_26588825.htm)

End of China growth means lower oil demand, low oil prices, no profits for oil companies....

How the NSW government is oblivious of all these developments is beyond comprehension.

### (11) Imported rail cars and international contractors

It was a bad policy decision that NWRL's driverless trains – a technology not mastered in Australia – have to be imported instead of using existing workshops familiar with the design of Sydney double deckers. A lot of development and design effort was put into the procurement of Tangaras, Waratahs and Oscars. It has all been thrown away, a humiliating disregard for the workforce. Moreover, it shows the NSW government hasn't understood that a rail car industry has to be built up locally for the 1000s of trains needed to replace car traffic.



What's worse: a new fleet of intercity trains (picture, up) has been ordered from a South Korean company Hyundai-Rotem which made a loss in the years 2014 and 2015.



https://www.hyundai-rotem.co.kr/Eng/InvestInfo/Financial/FinancialStatement.asp

HYUNDAI Rotem | Company | Business | Investor Relations | Public Relation | CSR | Careers | KOREAN | CONTACT US | SITE MAP | HYUNDAI MOTOR GROUP

## INVESTOR RELATIONS

Financials | Condensed Financial S...

### Condensed Financial Statements

#### Condensed Consolidated Income Statement

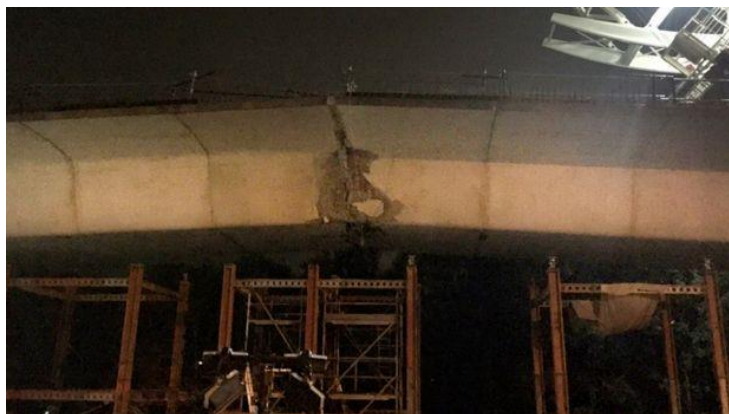
(In 100 million won)

Category	2014	2015	2016(Q1)
Revenue	31,911	33,091	7,241
Cost of Sales	29,804	33,211	6,599
Operating Income	66	-1,929	308
Other Income	1,123	971	192
Other Expense	803	1,203	252
Financial Income	110	128	82
Financial Expense	614	943	309
Income before Income Taxes	-115	-2,970	21
Income Tax Expense	36	75	5
Net Income	-151	-3,045	15
Shares Owned by the Controlling Stockholder	-167	-3,062	9
(Shares Owned by Non-controlling Stockholders)	16	17	6

<https://www.hyundai-rotem.co.kr/Eng/InvestInfo/Financial/FinancialStatement.asp>

It is unbelievable that the NSW government makes business with a loss-making company.

This is not a unique case. The contractor for the skytrain, Salini Impregilo, which was recently found to have installed faulty prestressed bridge spans,



<http://www.smh.com.au/nsw/span-cracks-buckling-risks-causing-major-delay-to-skytrain-for-northwest-metro-line-20161018-gs5g50.html>

also showed a loss from continuing operations in the financial year 2012, preceding the signing of the contract in December 2013

## CONSOLIDATED INCOME STATEMENT

(In millions of Euros)	2012	2011(*)
Revenue	2,281.0	1,878.2
Costs	(2,196.7)	(1,687.8)
Gross operating profit	84.3	190.4
Gross operating profit %	3.7%	10.1%
Operating profit (loss)	(25.5)	128.4
R.o.S.	-1.1%	6.8%
Net financing costs	(30.7)	(59.3)
Net gains on investments	1.4	3.8
Profit (loss) before tax	(54.8)	72.9
Income tax expense	(59.3)	(12.8)
Profit (loss) from continuing operations	(114.0)	60.1
Profit from discontinued operations	717.0	119.7
Profit attributable to the owners of the parent	602.7	177.4

(\*) Following the three-installment sale during the last quarter of 2012 and early 2013, EcoRodovias group's operations have been considered as discontinued operations pursuant to IFRS 5. The 2011 corresponding figures were restated accordingly.

<http://www.salini-impregilo.com/en/investor-relations/annual-report-2012.html>  
[http://www.salini-impregilo.com/static/upload/bil/bilancio\\_web\\_uk1.pdf](http://www.salini-impregilo.com/static/upload/bil/bilancio_web_uk1.pdf)

Could it be that bids from these companies were lower than others because they were desperate to get jobs?

All this would not have happened if my proposal had been followed, namely to build the North West rail line on the M2 and M7 (linking to Quakers Hill) with branches on arterial roads to Castle Hill and Rouse Hill.

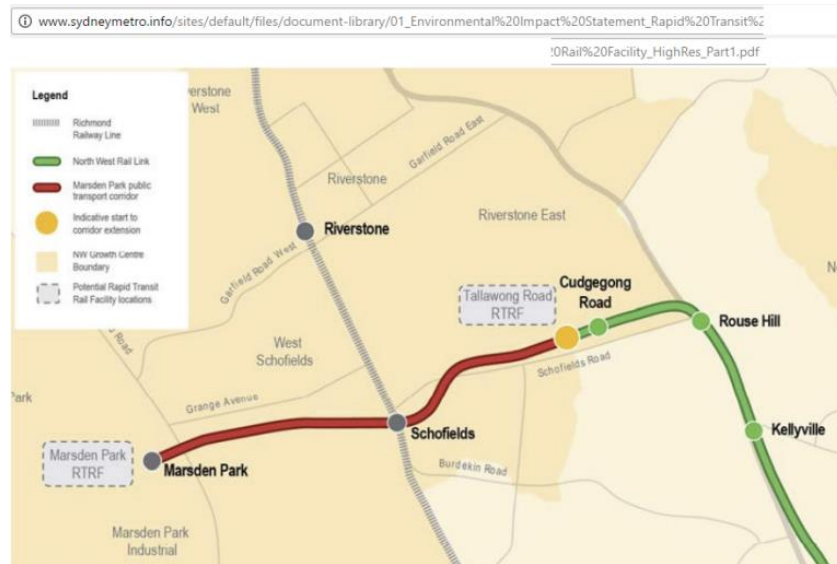
### (12) What to do

It is very difficult to make recommendations which would fix Sydney in the short time now remaining. So many wrong and inconsistent decisions have been made over many years by different governments and Ministers that they cannot be corrected. A multiple systems failure is very likely. Nevertheless:

- Stop doing business as usual (like road tunnels and airport planning), abandon costly and luxurious solutions (like the Chatswood – Bankstown metro) and go into emergency mode
- Do NOT convert the Epping-Chatswood tunnel for use by automatic trains only. Do NOT remove tracks on ramps. Do NOT remove existing signalling. Government will need the operational flexibility to run double deckers through this tunnel. If there is an oil crisis in 2018 this will end badly. Think of a big storm damaging overhead wiring South of Epping and/or North of Chatswood. Then the Newcastle express has to use the Epping-Chatswood tunnel. The solution is to have the automatic trains operated by drivers between Epping and Chatswood. That will also allow passengers to change to double deckers at several stations, not just in Chatswood. The 5 min interval for metro

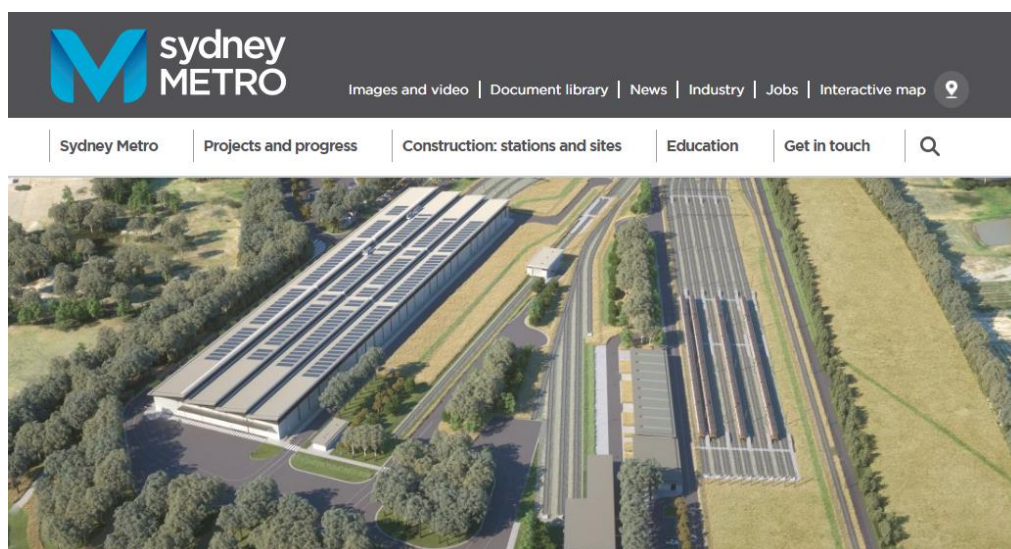
trains will be uneconomic as trains cannot be filled at that capacity because of the low population density in the catchment of stations. Many highrise projects around stations will be needed. But an apartment glut is developing. And the M2 has just been widened.

- (c) As a minimum, the North West Rail link should be extended to connect to the Richmond line (at Schofields). This should have been done right from the beginning in order to increase network function, as indicated in the EIS, July 2013, but this was never followed up:



[http://www.sydneymetro.info/sites/default/files/document-library/01\\_Environmental%20Impact%20Statement\\_Rapid%20Transit%20Rail%20Facility\\_HighRes\\_Part1.pdf](http://www.sydneymetro.info/sites/default/files/document-library/01_Environmental%20Impact%20Statement_Rapid%20Transit%20Rail%20Facility_HighRes_Part1.pdf)

Now the metro trains facility is in the way (also occupying prime residential land in what is supposed to become the North West Growth Centre), another piece of botched planning.



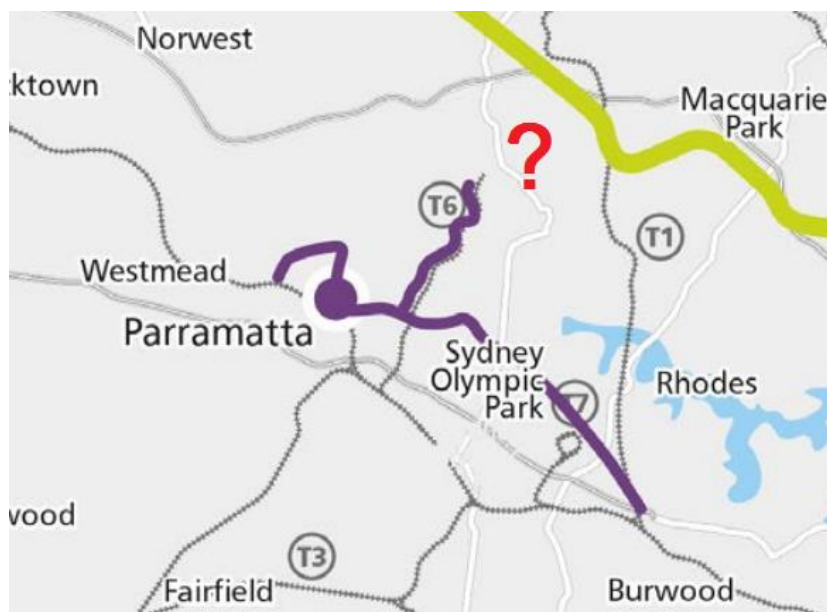
<http://www.sydneymetro.info/station/sydney-metro-trains-facility>





A rail link to the Richmond line is needed (in red). And because automatic trains are incompatible with trains running on that line passengers would have to change trains. It was a big mistake to introduce automatic trains 5 min before 12.

- (d) The old issue of a Parramatta – Epping rail link has to be revisited to create the originally planned network flexibility. The originally proposed tunnel has a twisted history and the latest proposal of a light rail line Parramatta – Carlingford stops half way, totally unsatisfactory. The Premier commented: “There are opportunities to go further, and



longer and wider in the longer term”. This means never. No strategic thinking.

Any continuation towards Epping needs a short tunnel at the Carlingford Court shopping centre, due to topography and a sharp bend at Pennant Hills/ Carlingford Rd, an intersection which is very busy and will become completely clogged when the NorthConnex tunnel (2x2 additional lanes) dumps 30% more traffic on the Pennant Hills Rd, South of NorthRocks Rd with only 2x2 lanes! Good luck Mr. Charlton. The looming oil crisis will save us from this avalanche of cars.

10/2/2015 NorthConnex road tunnel contract signed only days after USD 150-200 oil price warnings in Davos

<http://crudeoilpeak.info/northconnex-road-tunnel-contract-signed-only-days-after-us-150-200-oil-price-warnings-in-davos>



Southern end of the NorthConnex tunnel, intersection Pennant Hills Rd – M2  
Sydney is still living in the 1960s

At Epping the only place for a light rail terminus is the Parramatta Council car park near Coles but there are ideas to overbuild it with a skyscraper. Converting the Carlingford line to 700V DC for light rail limits further options and should only be undertaken when commitments for a continuation are made and proper plans are irreversibly in place. In a recent public consultation meeting the Parramatta Administrator, appointed by the Premier, could not give any guarantees.

- (e) When the NorthConnex road tunnel financially fails (like other tunnels before – visit the I-told-you-so menu on my website <http://crudeoilpeak.info/i-told-you-so>) this can be used to link Carlingford and Hornsby by rail provided the gradient is not too steep. That would be part of a much needed South – North connection (Liverpool – Parramatta – Hornsby) which would strengthen the role of Parramatta much more than options A and E.

- (f) Land use planning must avoid more traffic flows to/from the CBD. For example, the unnecessary overdevelopment of Barangaroo has created more traffic and required a costly pedestrian access to Wynyard.
- (g) The government needs to select transport solutions it can implement at minimum cost with local companies and contractors in order to maximise employment in Australia.. The next problem will be the proposed Harbour rail crossing which is reportedly risky as it partially cuts through sediments sitting on rock. A hasty acquisition of properties for this project is driven by electoral considerations.

## Summary

The government has no idea it is running out of time since the 1<sup>st</sup> peak oil war in Iraq in 2003. It takes decades to oil proof Sydney. In June 2004, Howard released a totally flawed energy white paper saying there are 40 years of sufficient oil supplies. Already 1 year later, prices shot up, meaning that supplies were NOT sufficient. I advised him peak oil might be in his term (conventional peak was in 2007) and that there will be problems already before the global peak is reached because oil production growth would not be enough for a growing economy. He did not want to listen and replied with the usual semantic somersault “I agree to disagree”.

We have lost 12 years in which Sydney could have built many kms of much cheaper rail lines in road corridors (Transperth model). For example, I advised Maxine Mckew in early 2008 to build a light rail line on Victoria Rd to replace car traffic there. Nothing happened.

Instead the next NSW government opted for a luxurious, incompatible metro designed to bring yet more mono-directional traffic flows to the CBD. And all these projects are financed by one-off asset sales. So all this will come to an end when the last department has been privatized? Who will then turn off the lights?

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