

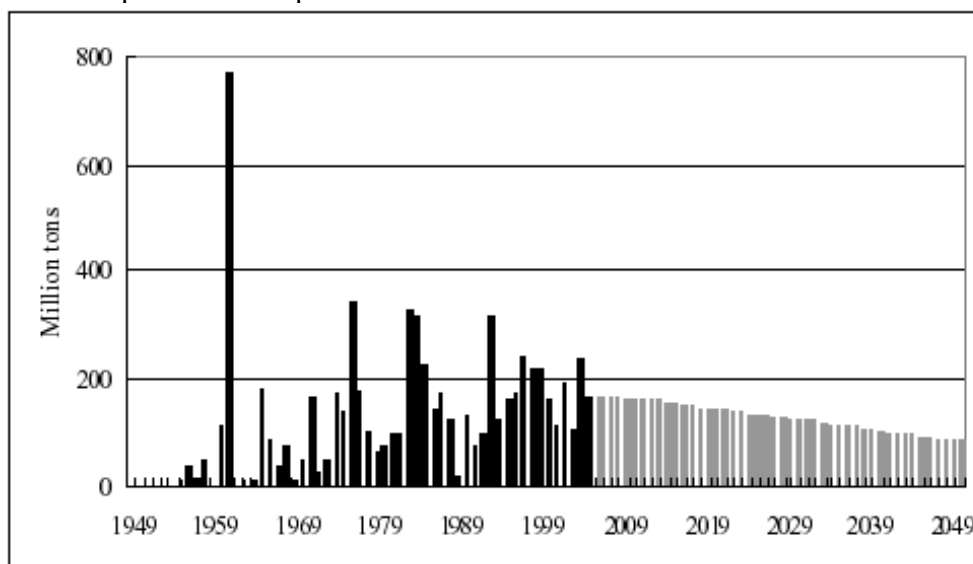
«More questions to Feng Lianyong on China's forecasts 11 May 2008»

Jean Laherrere

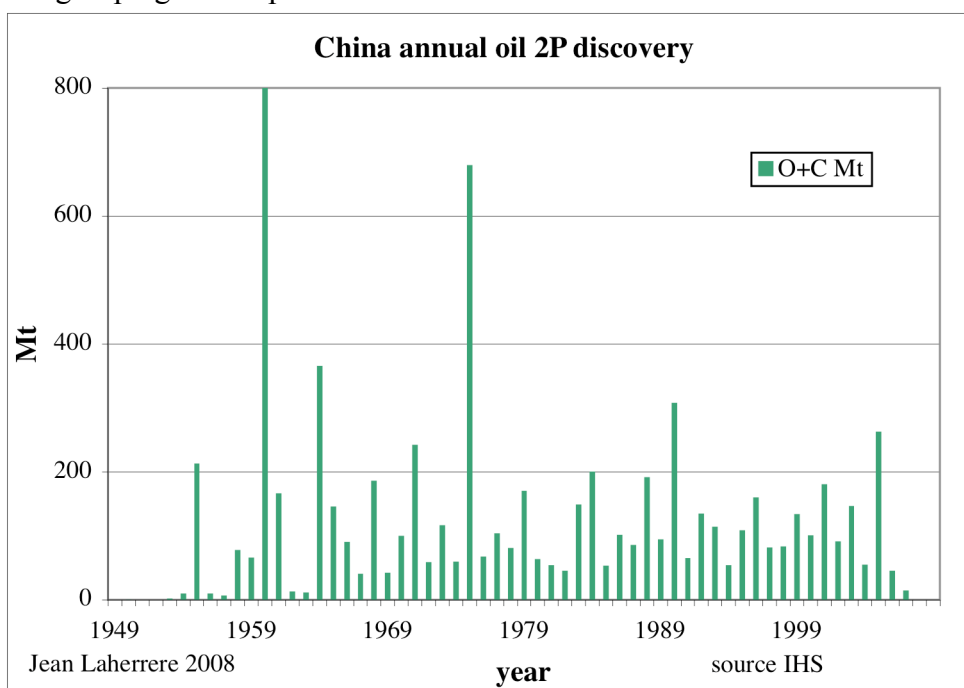
On ASPO Newsletter 89, May 2008, chapter 1033 “China assessment revisited” you display the annual discovery from 1949 to 2049, where the future discovery starts in 2007 at 175 Mt, higher than the past discovery of the last 20 years (about 120 Mt) and the decline is very long.

How to you justify a higher and long future discovery?

By finding a new deepwater or deeper basin ?



The annual discovery from IHS is slightly different. The peaks are higher. The backdating must be different, as the grouping of complex.



Do you backdate discovery value ?

What is the definition of your field reserves: proved, 2P=P50 or mean (expected value) ?

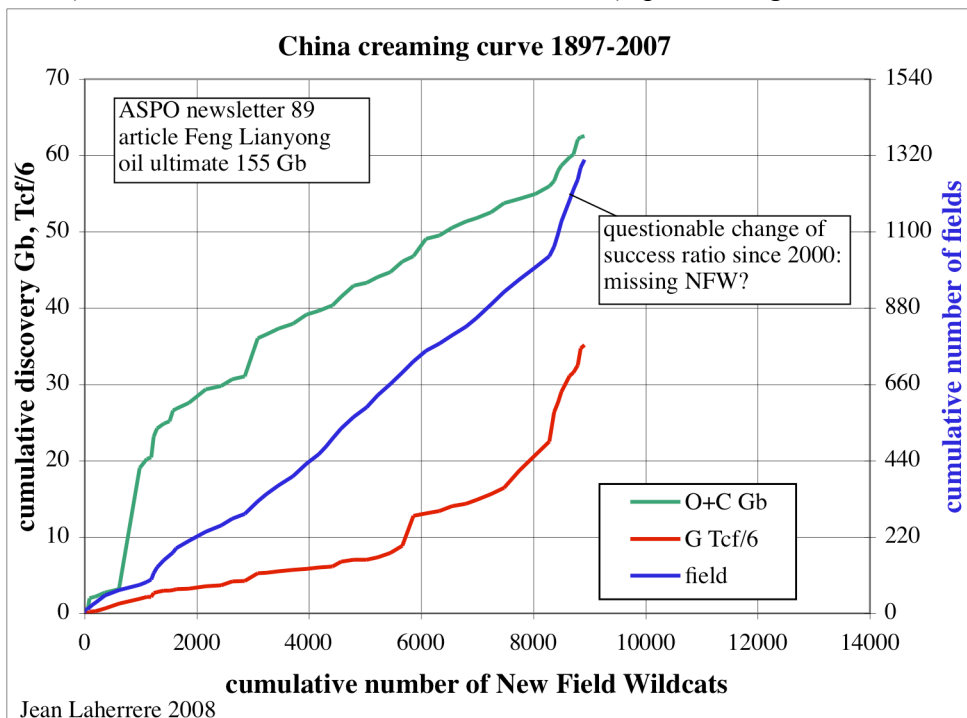
What is the present (end 2007) cumulative discovery ?

IHS database gives 62,5 Gb.

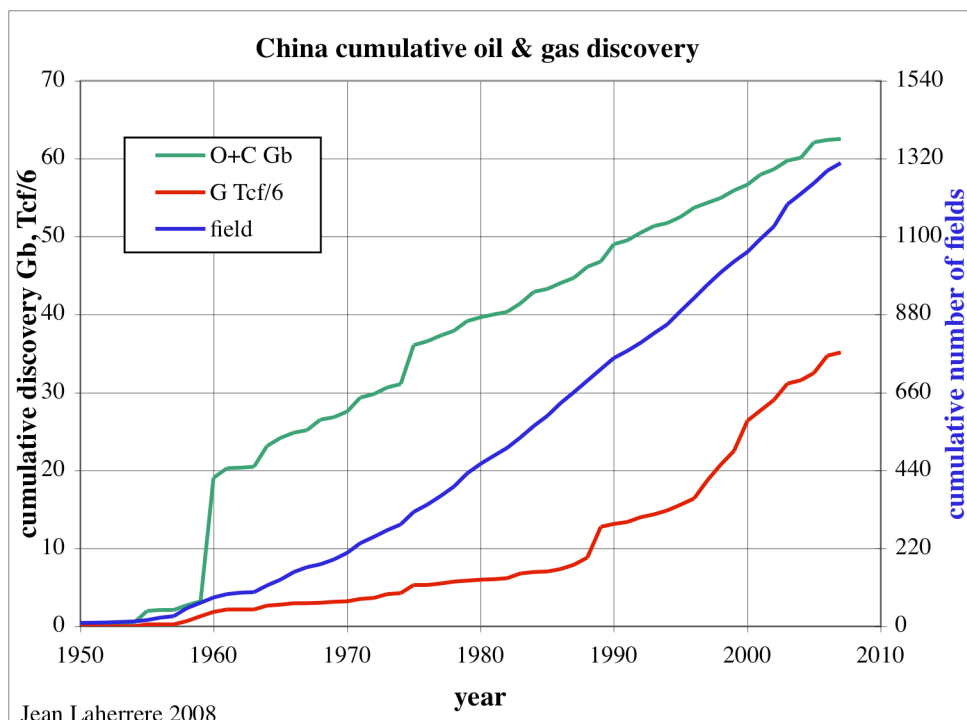
You estimate the oil ultimate at 155 Gb, more than the double of the present discovery (your last paper gave an ultimate of 113 Gb and my last ultimate was 70 Gb) .

Can you show the extrapolation of the past towards this ultimate?

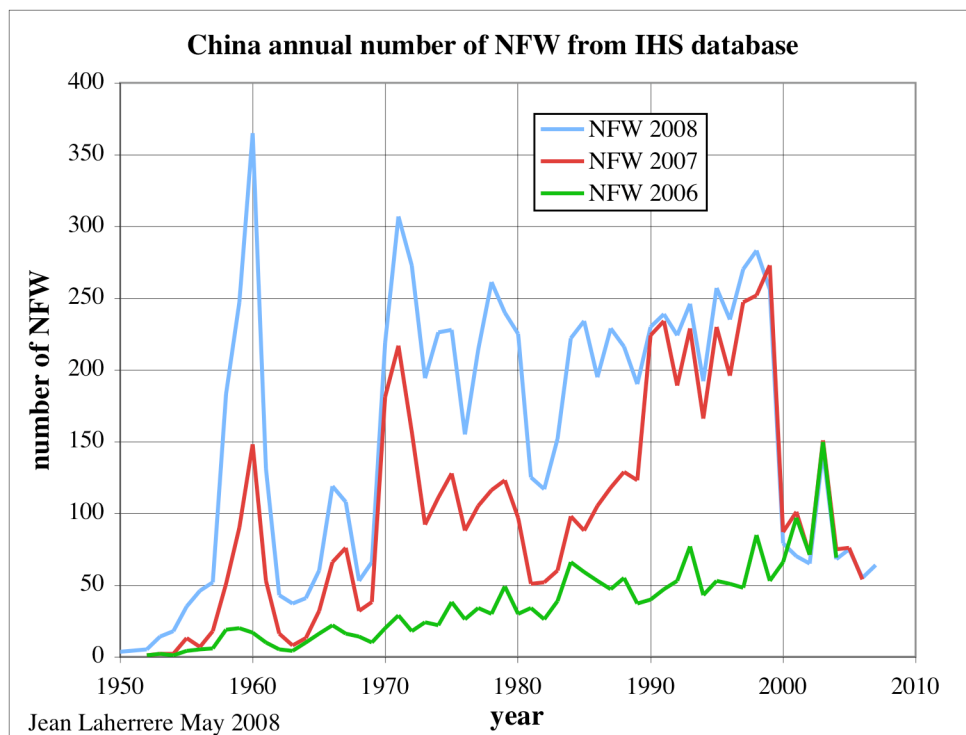
The best way to estimate ultimate is to extrapolate creaming curve (cumulative mean discovery versus cumulative number of pure exploratory wells = NFW= new field wildcat) .  
The creaming curve 1897-2007 from IHS database displays a strange break in 2000 on the discovery ratio (cumulative fields versus cumulative NFW) questioning the value of the NFW data



The cumulative discovery versus time shows no break either in discovery or in number, confirming questionable NFW data.



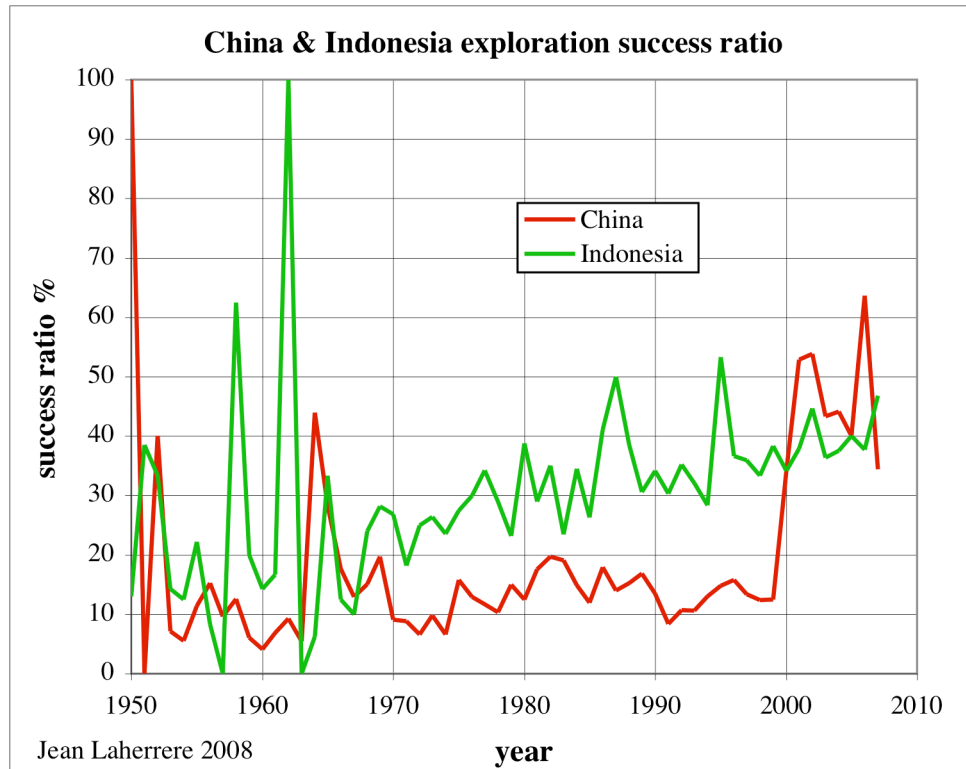
The plot of annual NFW for the last three years shows huge discrepancies



It is obvious that IHS NFW database was incomplete in the past and changed drastically before 2000, but now seems still incomplete since 2000. Or the 2006 NFW data is right and the recent 2007 and 2008 wrong ?

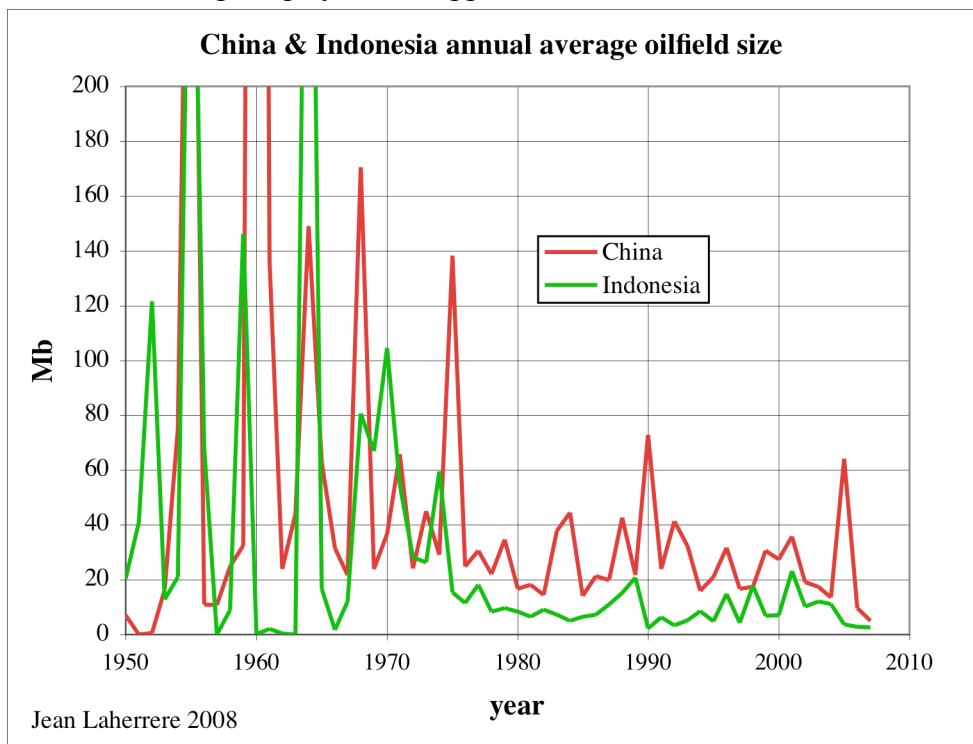
Can you provide the plot of the NFW (as the success ratio) since 1950 ?

The comparison of the success ratio between China and Indonesia since 1950 is interesting :

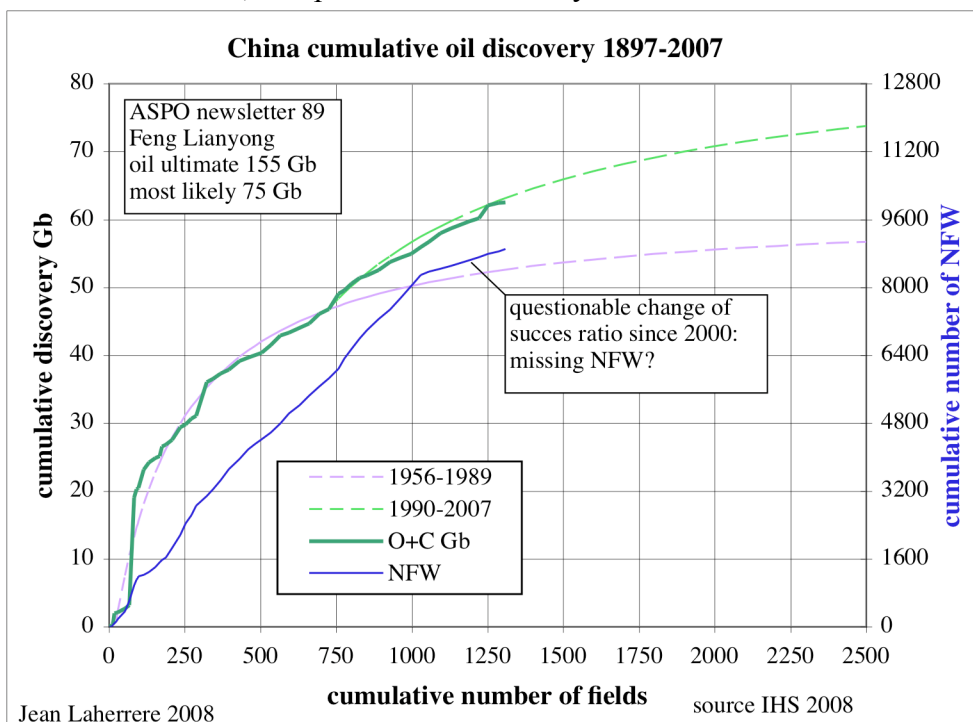


In Indonesia, thanks to better seismic and better knowledge (in fact maturity), success ratio is constantly improving since 1970. But in China the success ratio (from IHS database) improves only slightly with a unrealistic break in 2000. The data on NFW should be wrong before or after 2000.

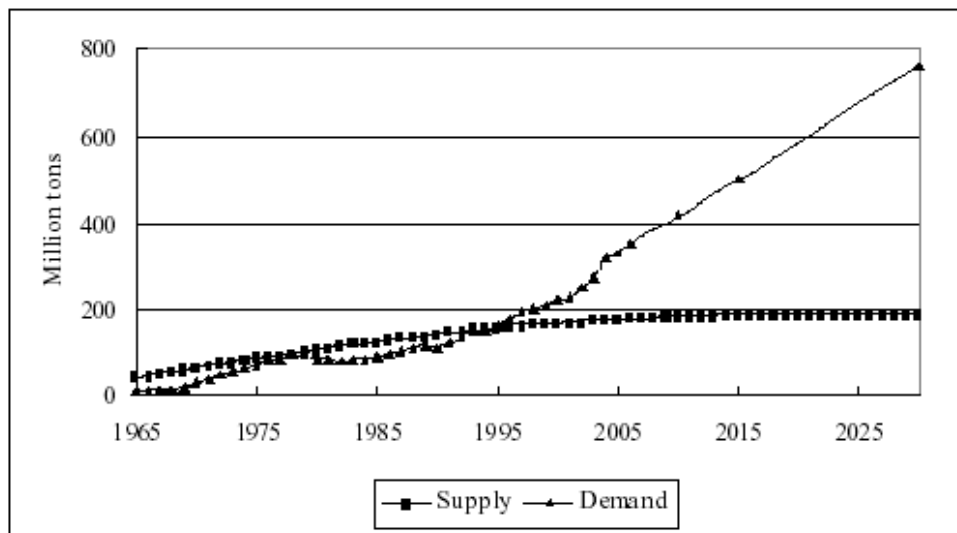
The comparison of the average oilfield size is also interesting. Both China and Indonesia display an decreasing trend, China being roughly twice bigger since 1980.



In order to use a proxy (assuming constant exploration success ratio), the creaming curve is then changed by plotting cumulative discovery versus cumulative number of fields. The oil trend is smooth and can be easily modelled with two cycles (1956-1989 and 1990-2007) giving an ultimate if no new cycle of about 75 Mt, compared to 70 Gb of my last assessment.

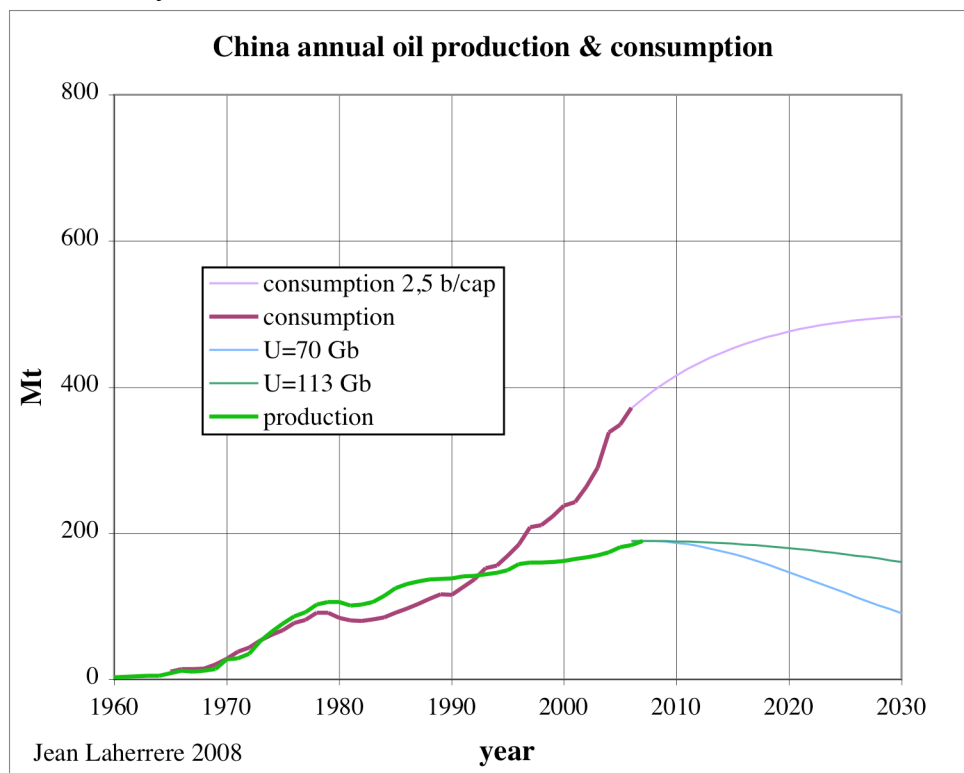


Your assumption on oil production (flat from now to 2030) and demand is the following



My forecast is different, your demand in 2030 is 750 Mt when mine, assuming a consumption per capita of 2.5 b/capita and UN 2006 population forecasts, is about 500 Mt (compared to 370 Mt today).

Your demand forecast is from IEA, using a constant growth, assuming no constraint from the supply, which is unlikely.



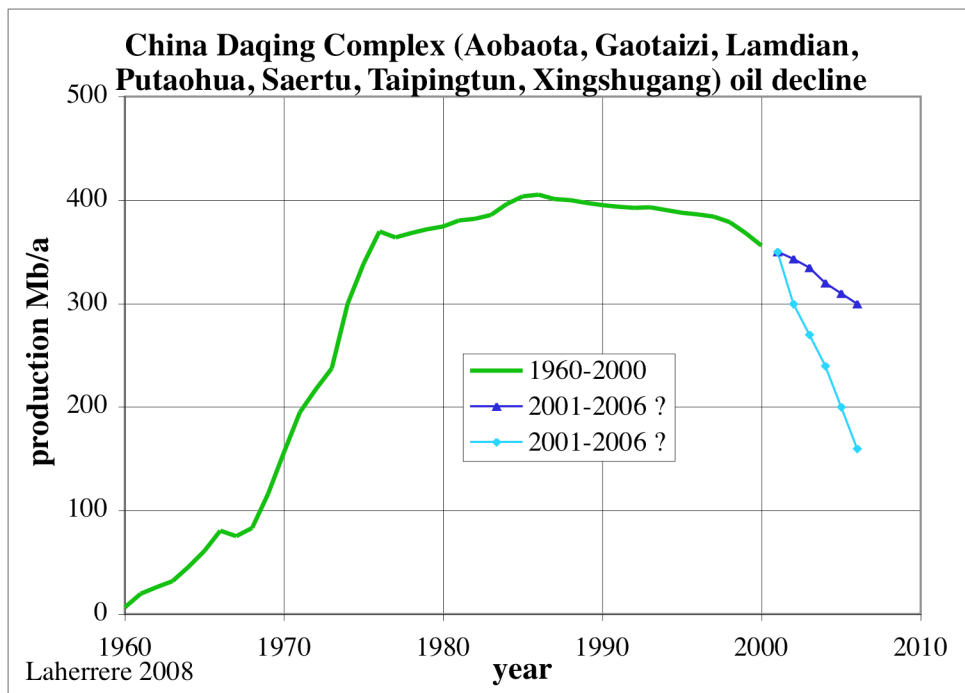
Have you your own scenarios of demand?

IEA, being a consumer club, takes the *business as usual* as reference, to please its members, but this reference scenario is now described by its former head (Cl.Mandil now retired) as unrealistic, unsecured, unsustainable and unattainable. It is amazing the see the changes after retirement as for S. al-Husseini statement on the 300 Gb speculaive resources increase of OPEC at end of 80s.

The big question is to estimate the decline of the mature fields in China.

The largest Daqing complex is difficult to get and my data (gathering 7 fields) stop at 2000 and I have incomplete values for 2006. I guesses two declines

Could you tell me which is the closest of reality ?



Because China does not fear competition in domestic exploration, confidentiality of data is not necessary and China should follow the examples of UK and Norway or US federal in reporting all production field data.

China is now importing oil and needs to know the reality of exporting countries reserves. The best way to ask the truth from exporting countries is to start telling the truth in its own country.

Telling the truth on past discoveries does not prevent to be optimistic on future discoveries.