

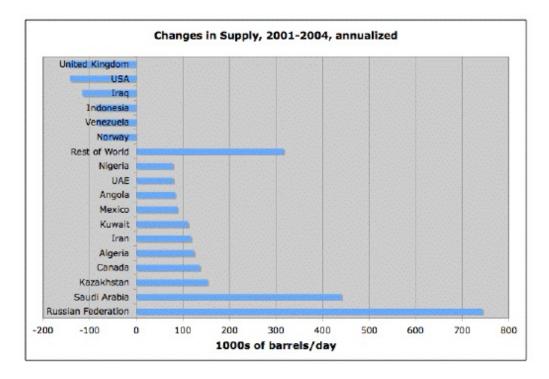
Who will save us from a 2005 peak?

Posted by Stuart Staniford on November 28, 2005 - 3:18am

Topic: Supply/Production

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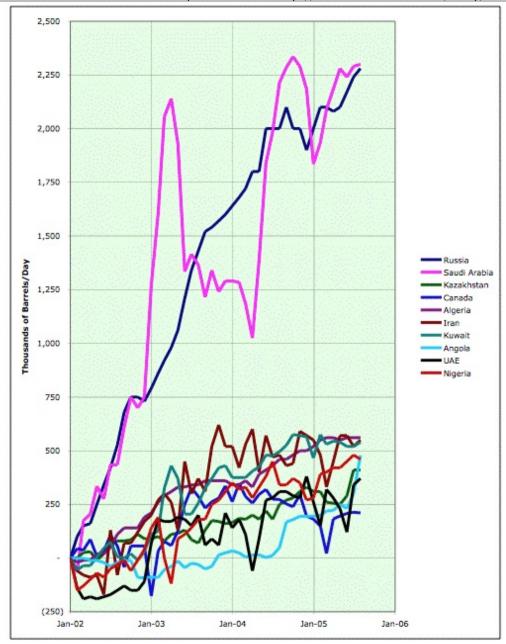
Can we find hope for those of us who might be thinking, to paraphrase St Augustine, "Lord, make us conserve oil, but not just yet!" Remember this picture? Let's check in with our top enablers of the last few years and see who might be good for another fix, and thus break this bumpy plateau since July last year.



Top increasing and declining oil supply countries between 2001 and 2004. Figures are from BP Statistical Review of World Energy, and thus include NGLs.

Recall on Thanksgiving day, I posted a graph, showing the monthly production of crude (ex NGLS) has not really managed to get past the July 2004 level (it very slightly topped it in May 2005, but barely). Thus the rise of the last few years has, at least temporarily, ended in a plateau. Demand has been forced to accomodate this. Could this plateau be the peak, or is the cavalry on the way to further increase production?

If we look at all the recent countries that have increased significantly and plot the change in their monthly production since Jan 2002 (the beginning of the demand recovery after the tech-crash), we get the following picture.



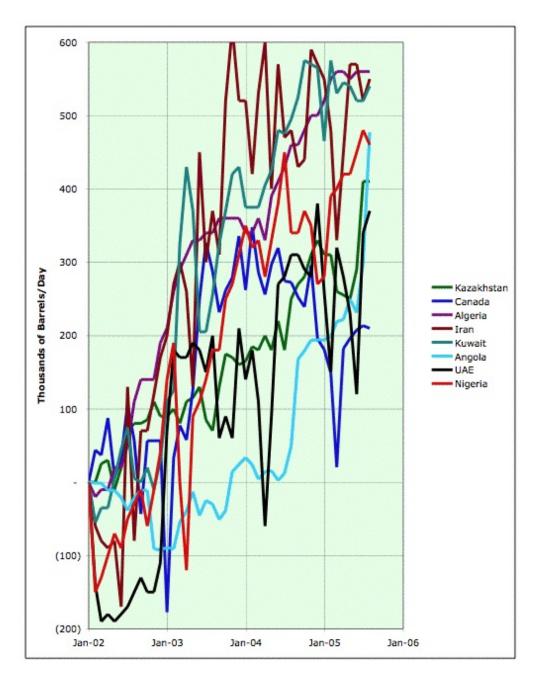
Change in monthly production for top increasing countries from January 2002. Mexico has been excluded. Figures are from Oil and Gas Journal, and exclude NGLs.

I excluded Mexico since it's fairly uncontroversial that it's going to begin declining pretty soon. Clearly, most of the recent increases are coming from Russia and Saudia Arabia. The Saudi's haven't increased much after the middle of last year. No major projects are coming on stream this year, and just one modest one (Haradh III) next year. (Though it should be noted that megaproject analysis is not much use when applied to Saudi Arabia anyway). The Saudis are reportedly working against 5%-12% declines in their existing production.

However, Russia, after plateauing last year, has squeezed out a little more this year. The best reference on Russia that I'm aware of is *Russian Oil Supply* by John D. Grace. His view is that the revival of Russian production is predominantly due to repairing the Soviet infrastructure, especially in West Siberia, after production became profitable again with the rouble devaluation of the late nineties and then rising oil prices. He doesn't believe production can go too much higher than now unless Russia develops a sizeable infrastructure of small independent producers (the

reverse of the current trend towards renationalization of the industry). However, I think continued Russian increases may well be the best hope for next year.

To help see the rest of the pack more easily, I took out Saudi Arabia and Russia and blew up the scale:



Change in monthly production for top increasing countries from January 2002. In addition to Mexico, Saudi Arabia and Russia have been excluded and the graph rescaled to make the rest easier to distinguish. Figures are from Oil and Gas Journal, and exclude NGLs.

In the midst of that knitting, we are looking for potential saviors - countries showing a strong upswing at the end that might carry into 2006. Here are my impressions, most optimistic first.

Angola

These guys are the pale blue line that's increasing dramatically towards the end of 04 and through 05. There's no question that Angola has a lot more deepwater to come onstream

and will increase more. However, I note that Angola's reserves are being developed almost entirely by the big publicly traded international oil companies (IOCs). The IOCs look <u>like they are flat or declining</u>, probably because they are struggling to overcome <u>big O(10%) internal decline rates</u>. So a risk is that Angola will only serve to offset declines elsewhere in the IOC portfolio.

Kazakhstan

This is kind of the same story. There's lots more production increases to come from here as the huge Tengiz and Kashagan fields come on stream. But it's all IOC production. <u>Dave has more to say about it here.</u>

Nigeria

Ditto Angola, but slightly less so.

Algeria

Nice steady production increases throughout the period. Seems like a country we need to look into further, though it's not on a track to become a Russia or a Saudia Arabia soon.

Kuwait

Was increasing well, but plateaued last year. Seems like with the <u>bad news about Burgan</u>, we probably shouldn't look for too much more here.

UAE

Increased moderately, but plateaued last year.

Iran

Plateaued since late 2003. EIA says 8%-13% FIP decline rate, plus significant geopolitical risk.

Canada

Has experienced moderate production decline since the end of 2003.

Now a key point (raised most recently by jkissing) is refinery capacity, which indeed appears to be a significant bottleneck, raising the question whether anyone will increase supply much further even if they could. (Though there's a chicken-and-egg consideration - maybe refinery capacity is not increasing because refiners don't expect supply to increase all that much). Detailed consideration of that will have to wait for another day, but I note one thing. Even if it's true we are refinery bottlenecked for a few years, we will still be depleting 30gb a year, mostly against the big old fields that the majority of production still comes from. We are going to be running up a steeper and steeper escalator as we go forward and so it will get harder and harder to hit that refinery bottleneck.

Could it be peak in May of this year for non-NGL crude oil? I think it very well could. Could some month next year go higher? I don't think we can rule it out yet. To believe next year could be higher, I think you have to believe some combination of these things:

- Saudi Arabia can begin increasing production again next year after being plateaued (presumably as a result of the now rapidly increasing rig count there more than offsetting declines in existing Ghawar wells). HO has been <u>questioning the feasibility of that</u> for some time.
- Russia can squeeze out some more after plateauing and then eking out a little more this year.
- The IOCs can turn around their recent declines by delivering enough new deepwater and Caspian projects to overcome their high internal decline rates.

One thing's for sure. Production is not going to go up much if it does go up. And I bet those happy new Chinese and Indian car owners will be getting out onto the barely dry concrete on their new freeway systems regardless. Get used to conserving.

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