



## Iraq Could Delay Peak Oil a Decade

Posted by [Gail the Actuary](#) on January 6, 2010 - 10:22am

Topic: [Supply/Production](#)

Tags: [iraq](#), [peak oil](#) [[list all tags](#)]

*This is a guest post by Stuart Staniford, former Oil Drum staff member. It was originally posted in Stuart's blog [Early Warning](#).*

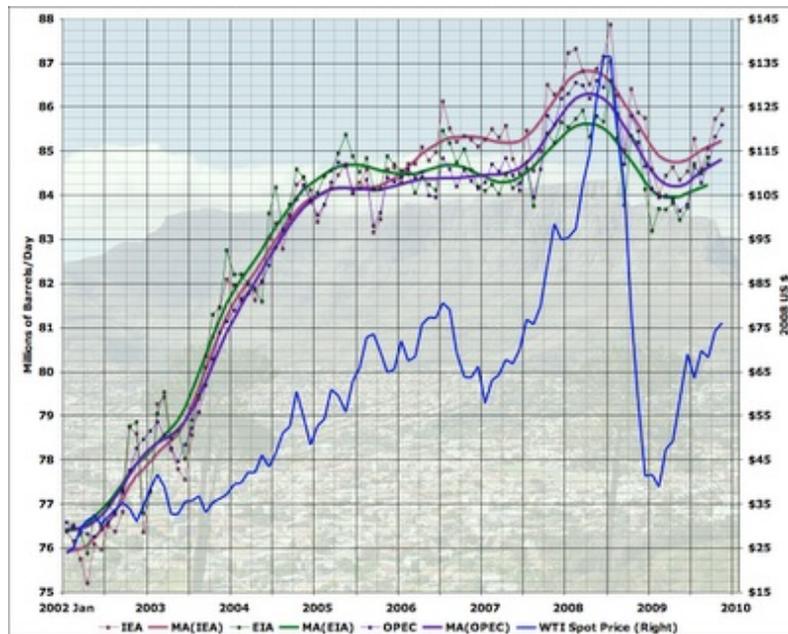


*Historical annual Iraqi oil production, together with linear implementation of Iraqi capacity growth plan announced in 2009. See text for details*

Iraq could delay peak oil a decade--with the emphasis on the *could*.

I have been associated with the view that the stagnation of oil supply growth from late 2004 on was likely to be the onset of a "bumpy plateau" of oil production - that oil production would not go too much higher, although it wouldn't decline quickly either. You can see articulation of this point of view, for example, at old Oil Drum pieces like [Why Peak Oil is Probably About Now](#), and [Hubbert Theory says Peak is Probably Slow Squeeze](#).

Generally, events of the past few years have been reasonably kind to this point of view. The major producers (eg Russia and Saudi Arabia) seemed to have more-or-less reached production plateaus. Overall global production bumped up a little in late 2007 and early 2008 in response to the very high prices, but not much. Similarly it fell in 2009 in response to the great recession, but not much. Bumps on the bumpy plateau, it has seemed to me (and this would be even more true if you looked at the data ex-biofuels). Now production is [going up again](#). Here's what the latest data for global liquid fuel production looks like (with the monthly price on the right axis):



However, I think it's important to note that a potential game-changer has developed recently that *could* render that point of view obsolete (which is a kinder, gentler way of saying "wrong" :-). A couple of years ago, Iraqi oil production was declining and it didn't seem too likely the country would stabilize any time soon to allow that to change. However, the post-surge stabilization of Iraq has now allowed Iraqi oil production to start creeping up, and in 2009 the Iraqi oil ministry has announced large numbers of contracts with major oil companies to bring production up from the current 2.5mbd or so to 12 mbd over the course of the next 6-7 years. It is also announcing a series of projects to increase the physical export capacity of the country in line with these oil production projects.

It seems to me that the possibility that Iraq may actually succeed in doing this should be taken seriously. If it did succeed, that would act to delay the final plateau of oil production by a decade (ballpark), make that plateau be at a higher level (95-100mbd ballpark), and significantly moderate oil prices in the meantime, with even some possibility of causing a serious breakdown of OPEC discipline and a period of significantly lower prices akin to the 1980s-1990s lull (though probably not as long or as deep a lull as that). If that *were* to occur, it would likely have profound consequences for alternative energy projects, biofuel companies, and automobile fuel efficiency. A period of lower oil prices will put adaptation projects on hold for the duration.

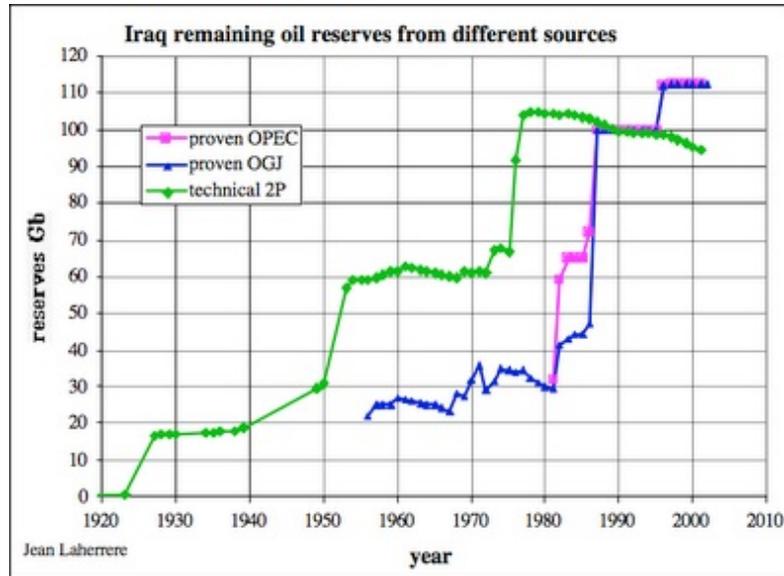
At the same time, even in this scenario, there's a real chance of another oil price shock *before* the main rise in Iraqi oil production arrives.

At this stage, it seems too soon to say the Iraqis definitely *will* succeed. But the scenario that they might seems worth serious consideration. In this post, I'd like to take a first look at the situation, including:

- Status of Iraqi oil reserves
- History of Iraqi oil production
- Shape of the announced oil production plans
- Character of the architect of the Iraqi plans, oil minister Hussain al-Shahristani
- Indications of the improving stability of Iraq.
- Implications and conclusions.

## Iraqi Oil Reserves

There doesn't seem to be too much dispute that Iraq has enough reserves to support far higher production than has actually occurred in the past. Jean Laharrere (well known oil industry veteran and coauthor with Colin Campbell of the 1998 [SciAm peak oil article](#)) recently [summarized the situation](#) as follows:



The "technical 2P" numbers here are from proprietary Petroconsultants (now IHS) data and claim to represent the best estimates of the petroleum engineers of how much oil is likely to be recovered (ie with 50% probability, as opposed to the 90% probability required for proven reserves). "Gb" = billions of barrels of recoverable oil.

There is a great deal of controversy about the potential of Iraq's western desert, which is largely unexplored. IHS [has claimed](#) that there might be as much as 100Gb there in addition to the known reserves, but since none of this has been confirmed with drilling, it remains speculative (and Laharrere for example doesn't accept this estimate). Big Gav had an Oil Drum post [Iraq's Oil: The Greatest Prize Of All?](#) some time back with more background.

However for my purposes today it's enough to note that even if there is only 90Gb, with an initial 5% depletion rate (in line with industry practice) that could support a rate of 12 million barrels/day (the depletion rate is what fraction of the known reserves are produced in a year). So the announced Iraqi plans would not seem to be precluded by lack of reserves. As we will see below, the field by field reserve estimates and production plans that have been made public also seem generally consistent with the plan.

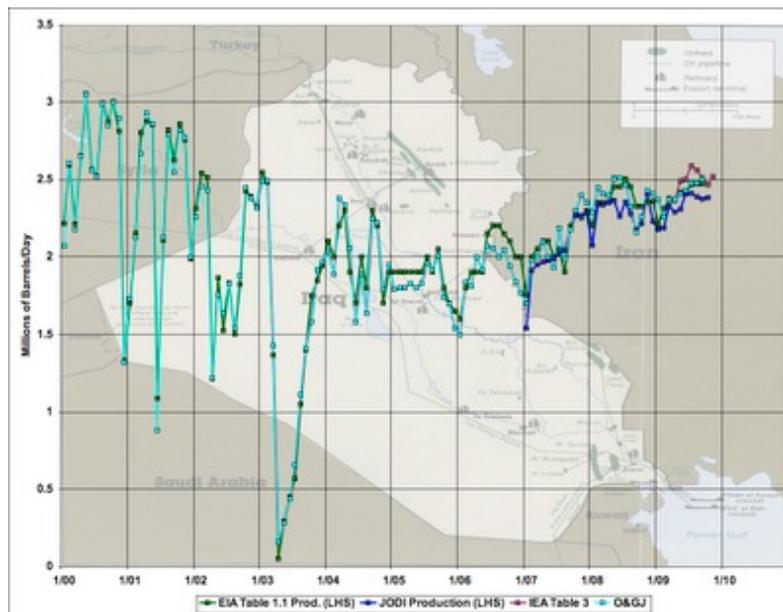
## Historical Iraqi Oil Production

This next graph shows annual average Iraqi oil production over the long term - since the beginning (with a gap for 1956-1964 which falls between my two data sources). I deliberately made the y-axis scale run from zero to 12 mbd to emphasize that Iraq has never produced anywhere close to its potential.



Production was increasing rapidly and roughly exponentially until 1979 when Saddam Hussein took power. Since then, it's been one war or crisis after another, and production has never even reached the 1979 level again, let alone continued up close to the now proposed 12mbd.

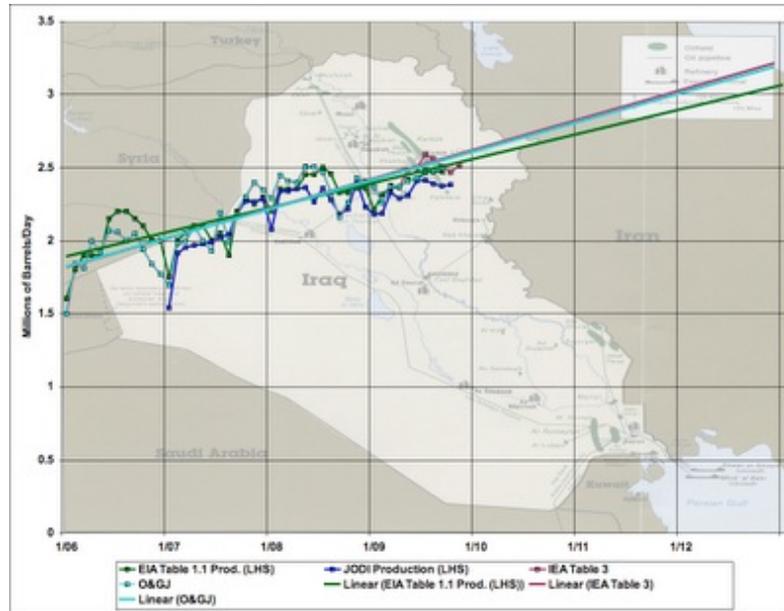
A more detailed graph shows the monthly production over the last decade according to various data sources:



We can think of this in several eras. Prior to early 2003, Iraq's oil production was under the control of the United Nations [Oil-for-Food Program](#) which apparently resulted in highly variable production. Then in the spring of 2003, the US invasion resulted in an almost complete cessation of oil production for a short period. Following the US invasion, there was a partial recovery in oil production, but this gradually decayed amidst worsening violence, reaching a low of about 1.5mbd in February 2006. Following this, and especially after the [2007 troop surge and associated developments](#) the country has been getting more stable and oil production has been steadily increasing.

If we simply extrapolated the existing rate of improvement forward, we'd get something like the

following:



We'd cross 3 million barrels/day by the end of 2012, perhaps reaching close to 3.5mbd (versus about 2.5mbd today). This would not be very game-changing.

However, Iraq has now announced plans that are much more ambitious than that.

#### Iraqi Oil Production Plans

Iraq held two rounds of auctions for oilfield management contracts in 2009 that the large international oil companies have responded to. The first round, in June, were for fields that were already in production and set up contracts in which companies get paid a fee per barrel for all production over the existing level. The second round, last month, were for fields not yet on stream. The Iraqis seem to have driven hard bargains - the oil companies are being paid a flat fee per barrel that is generally under \$2/barrel in the safer parts of the country, and thus will not benefit from high oil prices - all price risk/reward remains with the Iraqis. Nonetheless they were able to attract some bids from large competent oil companies with a track record - the likes of Shell, Exxon, Statoil, and Lukoil, and have been signing preliminary contracts with them. According to the oil ministry, the total contracts awarded amount to 12mbd of production, and this could be achieved [within six years](#). The BBC reports:

Iraq's oil capacity could reach 12 million barrels per day (bpd) in six years, the country's oil minister says.

Hussein al-Shahristani told reporters in Baghdad that oil producers would not necessarily operate at full capacity, but would take into account demand.

From various news reports and other sources, I have put together the following table of the fields and contracts that have been announced. So far, I have been able to account for 11.2mbd out of the 12mbd, and 65gb of reserves, on a field by field basis with actually announced contracts/awards.

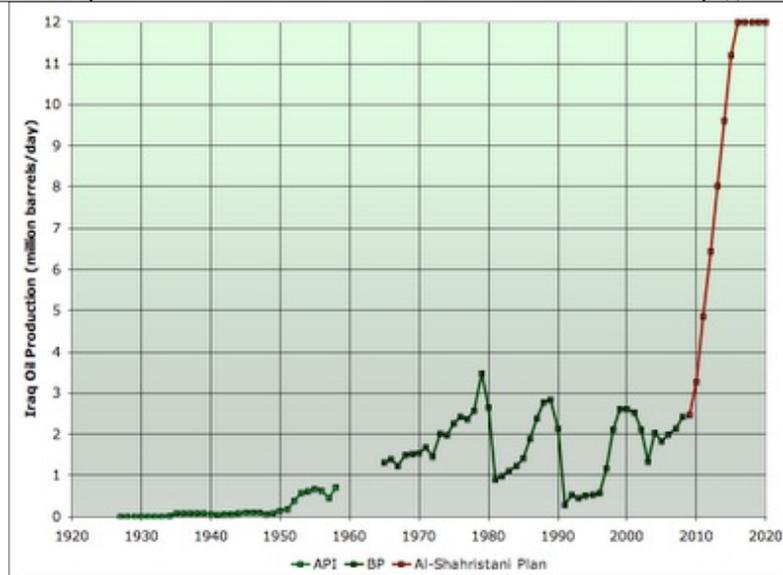
Field(s)	Plateau (mbd)	Co.	Resv (gb)	Depletion	Fee (\$/b)	Links
Rumaila	2.85	BP, CNPC	17	6.1%	\$2.00	<a href="#">1</a>
West Qurna Ph I	2.33	Exxon, Shell	8.7	9.8%	\$1.90	<a href="#">1</a> , <a href="#">2</a>
West Qurna Ph II	1.8	Lukoil, Statoil	13	5.1%	\$1.15	<a href="#">1</a>
Majnoon	1.8	Shell, Petronas	12.6	5.2%	\$1.39	<a href="#">1</a> , <a href="#">2</a> , <a href="#">3</a>
Halfaya	0.535	CNPC, Total, Petronas	4.1	4.8%	\$1.40	<a href="#">1</a> , <a href="#">2</a> , <a href="#">3</a>
Zubair	1.125	ENI, Kogas, Occidental	6.6	6.2%	\$2.00	<a href="#">1</a> , <a href="#">2</a>
Gharaf	0.23	Petronas, Japex	0.86	9.8%	\$1.49	<a href="#">1</a> , <a href="#">2</a>
Badra	0.17	Gazprom, Petronas, Kogas	0.8	7.8%	\$5.50	<a href="#">1</a> , <a href="#">2</a> , <a href="#">3</a>
Al-Ahdab	0.115	CNPC	N/A	N/A	\$3	<a href="#">1</a>
Qaiyarah	0.12	Sonangol	0.8	5.5%	\$5.00	<a href="#">1</a> , <a href="#">2</a>
Najmah	0.11	Sonangol	0.9	4.5%	\$6.00	<a href="#">1</a> , <a href="#">2</a>
Total	11.185		65.36			

Given that there are still ongoing talks about Kirkuk, Nassariya, and other smaller fields, the 12mbd number seems like not much of a stretch for the sum of the contracts by the time all talks are finalized. Some of the depletion rates appear fairly high, but not outside known industry practice (it's not hard to find projects in the [Megaprojects Wiki](#) that have 10%-15% initial depletion rates), and some of the fields may have more reserves than is initially known. In other cases, however, we may see only a decade of plateau production, and/or the plateau is an aggressive estimate (though obviously in every case we have well known oil companies signing up to do this).

So how fast is all this supposed to happen? Well, it's supposed to start in the middle of this year, [as reported by Bloomberg](#):

Iraq will get about \$200 billion a year from the development contracts awarded to international companies in the two rounds. The winning bidders will spend about \$100 billion developing the deposits, al-Shahristani said after the auction ended in Baghdad yesterday. The work is scheduled to start about six months from the signing of the deals.

and there are multiple press reports of al-Shahristani being quoted on achieving the 12mbd of capacity in six years. Six years is not a *crazily* short period for a large oilfield development in a flat desert - a fairly undemanding operating environment by oil industry standards (modulo the security situation, which I devote a section to later). If it was done that fast, and if we speculate that production climbs linearly from the middle of this year through the following six years, that would look as follows:



Note that the red line is capacity, which might or might not actually get used (depending on demand, prices, OPEC arrangements, etc).

Of course, Murphy will probably have his say here, and we might guess this process would take longer than the currently planned six years - maybe a decade might be a better guess, even assuming no major relapse into violence and civil war in Iraq.

Indeed, initially I was sceptical that the country could physically export anything like that much oil any time soon -- present export capacity is only a few million barrels/day -- but plans are in progress to address that. According to a recent Dow Jones story [Iraq Has "Master Plan" To Boost Oil Exports - Oil Min:](#)

LUANDA, Angola (Dow Jones)--Iraq is working on a "master plan" to construct new infrastructure to boost the country's oil export capacity, after the award earlier this year of 10 large contracts to international oil companies, the country's Oil Minister Hussein al-Shahristani said Wednesday.

Shahristani also said new offshore pipelines would be constructed to replace ones that connect Basra and Khor al-Amaya terminals with crude deposits in Basra. A network of new oil pipelines will be also built in southern and northern Iraq.

and

Two floating oil terminals are already under construction at the main Basra oil terminal in southern Iraq and work on two others will start soon, Shahristani said, adding the four platforms would be able to handle 2 million barrels a day. Basra and the nearby smaller Khor al-Amaya port currently can handle up to 1.6 million barrels a day.

"I expect these [floating] terminals to go through fast-track development to be ready in time when we have increased production," the minister said.

Foster Wheeler announced in February that it was awarded a contract by the Iraqi

government for the basic engineering of new oil export facilities to supplement the existing Basra terminal. The new offshore facilities would include new single point mooring tanker loading buoys, together with oil pumping, metering and pipelines, to achieve an export capacity of 4.5 million barrels a day, Foster Wheeler said at the time.

and

The ministry is planning to build a new pipeline to go with the existing strategic pipeline that connects southern and northern oil fields.

The ministry will also build a new pipeline to go with the existing northern export pipelines that links Kirkuk oil fields with the Ceyhan terminal in Turkey, Shahrستاني said.

Similarly, [Resource Investor reports](#):

“The amount of work required for the infrastructure to handle such a massive production and to transport it and to export it is huge,” said Shahrستاني. He said a pipeline and export master plan will be completed soon after assessing the needs of the fields awarded for development.

“There will be another port there and also a network of pipelines extended from the north of Iraq to the south and from the east to the west of Iraq to export oil from different areas,” he said. Such a move will diversify recipients, increase delivery to those already served, and allow it to separate the different qualities of crude instead of selling it as a concoction of one.

He at least seems to appreciate the problem. I'm sceptical that all these moving parts can come together in only six years, but clearly it can't be altogether ruled out either.

Hussain al-Shahrستاني, Iraqi Oil Minister

It's worth spending a little time on the question - who **is** this guy who apparently plans to turn the oil world upside down? I found a couple of profiles of him that are of interest. A [2004 profile in the Times of London](#), when al-Shahrستاني was a contender for prime minister, had this to say:

Dr Hussain al-Shahrستاني, 62, a Shia Muslim nuclear scientist tipped to become the new Iraqi prime minister, is widely respected and regarded by many Iraqis as the best man for the job at the moment.

While imprisoned and tortured at Abu Ghraib prison for 11 years under Saddam Hussein for "religious activities" he refused to help build a nuclear weapon for the country.

He had a dramatic escape from the notorious jail when it was bombed in the first Gulf War and fled to Iran with Bernice, his Canadian wife.

A devout Muslim from a prominent family, he has little political experience, but has close ties to Grand Ayatollah Ali Sistani, Iraq's most powerful Shia Muslim cleric whose support is essential for the viability of an interim government.

and

A diminutive bespectacled man, Dr Shahrstani won a scholarship to Moscow before studying at Imperial College in London, where he graduated with a bachelor's degree in chemical engineering in 1965. He went on to get a PhD in nuclear chemistry from the University of Toronto in 1970.

There he also married the woman who typed up his dissertation, Bernice Holtom.

In 1978 he was appointed chief scientific adviser to the Iraqi Atomic Energy Commission. He was in a board meeting there the following year, when security officers turned up to bundle him off to be questioned.

He had thought he was respected enough to be safe in complaining to colleagues about the wave of executions and arrests of Shia Muslims. But he was sentenced to 20 years after another captive at security headquarters accused him of "religious activities". He was tortured by being hanged from the hands and having electric cattle prods applied to his genitals.

For a few months during his long imprisonment he was removed from the horror of Abu Ghraib, where he said that he witnessed the results of horrific torture.

Saddam's half brother and head of the secret police Barzan al-Takriti, who housed the scientist in a palace, asked him to help the regime build a nuclear bomb. Dr Shahrstani said that he did not have the expertise. He was not believed.

His work had been in food safety, decontaminating mercury-laden grain. He was punished with ten years' solitary confinement back at Abu Ghraib.

Some more color comes in a Wall St Journal piece [Big Oil Ready for Big Gamble in Iraq](#):

But Mr. Shahrstani, architect of the plan, is under attack from many quarters. Falling oil prices have triggered a budget crisis, and he is being blamed for not boosting production enough to make up the difference. Lawmakers and some oil officials, meanwhile, say the auction will give foreigners too much access to Iraq's resources. Mr. Shahrstani also has been called to appear before parliament for questioning about alleged corruption and mismanagement at the ministry.

"He should not continue," says Jabber Khalifa al-Jabber, secretary of the parliament's powerful Oil and Gas Committee. "Let someone who is qualified do the job....I can't name one accomplishment."

Prime Minister Nouri al-Maliki's spokesman, appearing earlier this month with the oil minister, voiced confidence in him and reaffirmed that the auction would take place as scheduled.

In a recent interview, Mr. Shahrستاني, 66 years old, says he has done nothing wrong, and that lawmakers critical of him have a political agenda. He says he looks forward to answering questions from parliament about corruption and mismanagement.

"I'm not a political animal, and I don't enjoy politics," he says. "The only reason I've accepted and continue with my responsibility is to protect the Iraqi wealth from unclean hands."

Deals in Iraq often are reached over cups of tea late at night, but Mr. Shahrستاني doesn't like schmoozing. In a capital built on patronage, he has denied plum jobs to longtime friends. He's earned a reputation as a stickler for rules, including cumbersome purchasing regulations that other oil officials blame for slowing down Iraqi oil development. He has refused even small gifts, such as neckties, from visiting oil executives, he says.

and

Around that time, Mohammed Baqir, a family friend who had helped Mr. Shahrستاني escape from prison, asked for his help in finding government jobs for relatives. Mr. Shahrستاني refused. "Shahrستاني's problem is he is too straight and clean," Mr. Baqir says. "As a politician, you need to be flexible."

After a new government led by Mr. Maliki was formed in 2006, the prime minister named him oil minister. His new ministry, like other government agencies at the time, was overrun by militia members, and corruption was rampant, according to Mr. Shahrستاني and other current and former oil officials.

Over the next two years, hundreds of ministry employees were murdered or kidnapped. By the end of 2007, many top technocrats had fled the country, and various political parties had filled the ministry with patronage employees, according to Mr. Shahrستاني and the other officials.

Mr. Shahrستاني fired 250 members of the ministry's security staff thought to be militia members, and replaced top security officials with people he trusted. He turned over evidence of wrongdoing to the ministry's inspector general, and fired or transferred those suspected of malfeasance.

"Before, there was lots of interference in the ministry from political blocs, but he got rid of all that," says Abdul Mahdy al-Ameedi, head of the ministry's contracts department.

The purge stirred resentment. Some employees claimed they were wrongly targeted. Others accused Mr. Shahrستاني of being too by-the-book. He cracked down on absenteeism and introduced a card-scan check-in system. He scaled back bonuses.

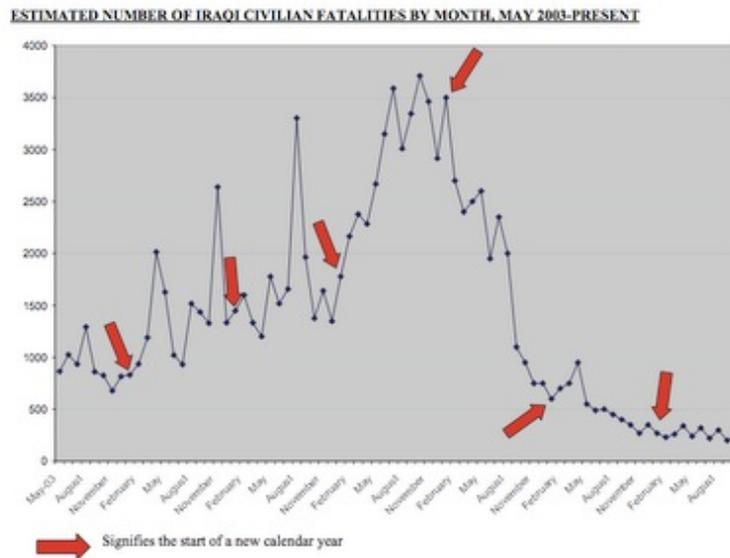
Both articles are well worth reading in full. It's hard to judge a person from thousands of miles away via a handful of news reports. But al-Shahristani has just held very transparent auctions in which he drove very hard bargains with international oil companies (there are multiple reports of oil companies initially refusing to bid, and then finally agreeing to Iraqi terms). Combining that with the reputation for probity and it seems that Iraqis may have been well served by their oil minister. Dr al-Shahristani will return to full time science next year following national elections in Iraq. In the meantime, he has certainly set a fascinating process in motion.

Barriers to the al-Shahristani Plan

## Violence and Civil War

Iraq still periodically makes the news for outbreaks of violence. However, the country does seem to be making progress in stabilizing. Obviously the most relevant index for our purposes is the fact that oil production has been increasing as documented above. Beyond that, the best compilation of data that I'm aware of for assessing this is the [Brookings Institute Iraq Index](#). There are a ton of graphs there, and I just picked a few.

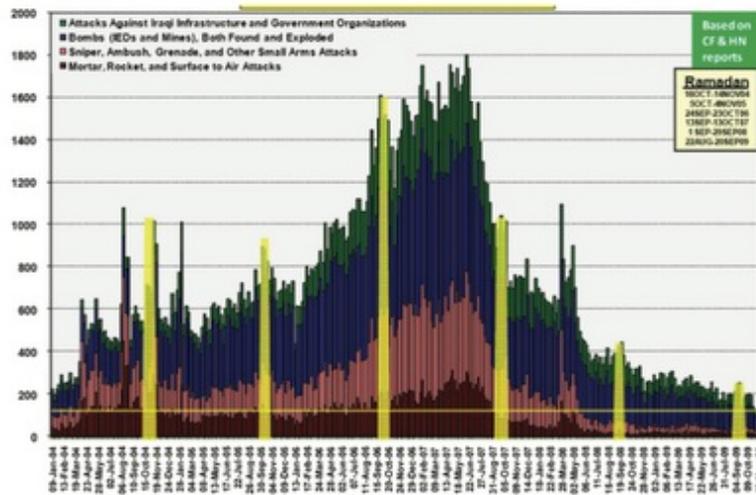
Firstly we have the number of Iraqi civilian casualties of the violence:



As you can see, we are still having a couple of hundred casualties a month due to bombings etc. Iraq is not a normal country yet. However, the rate is massively lower than a couple of years ago, and is still trending down.

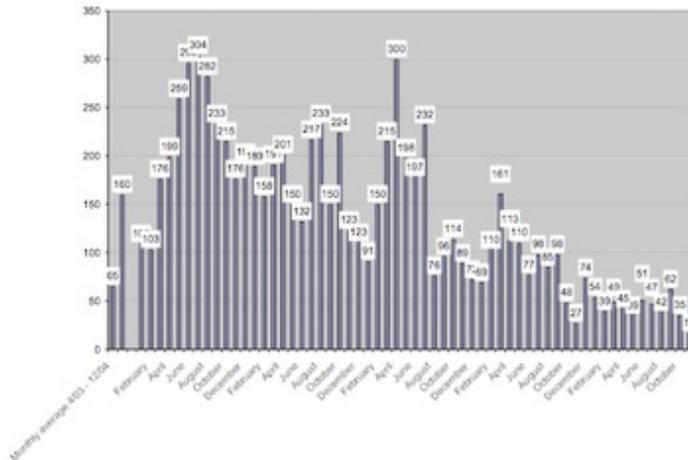
Attacks on coalition forces are also way down and still dropping:

**ENEMY-INITIATED ATTACKS AGAINST THE COALITION AND ITS PARTNERS, BY WEEK<sup>3</sup>**



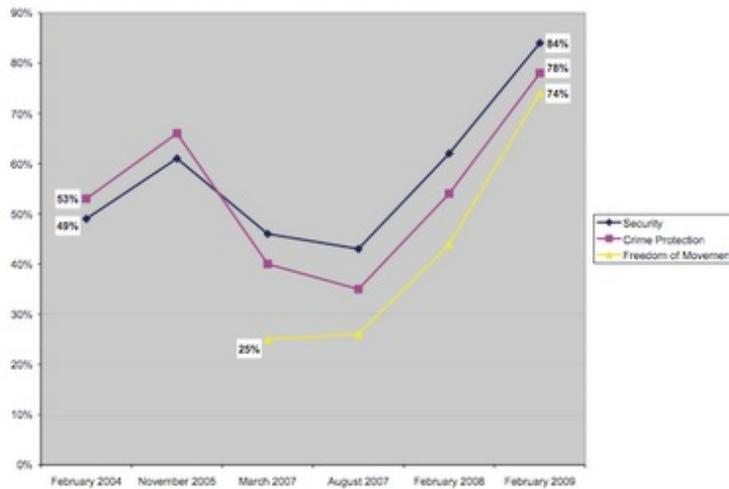
As are deaths amongst the Iraqi security forces:

**IRAQI MILITARY & POLICE KILLED MONTHLY<sup>3</sup>**



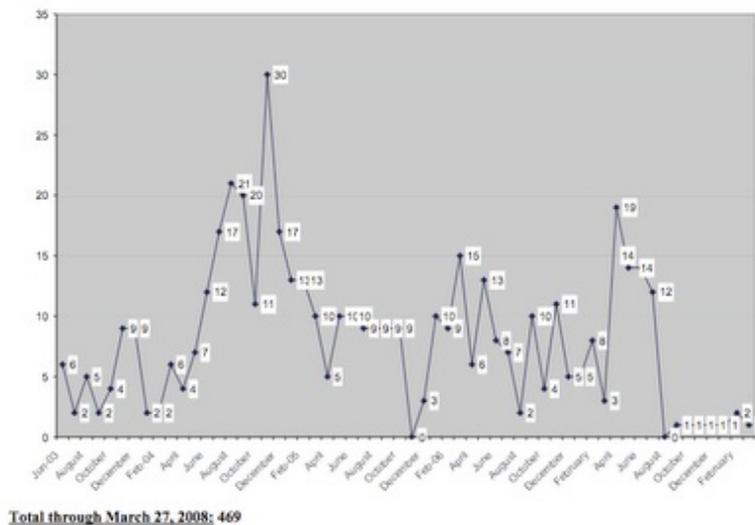
Iraqi public perception of the situation is improving correspondingly:

**QUESTION: HOW WOULD YOU RATE THE FOLLOWING LOCAL CONDITIONS?**  
 (% WHO ANSWERED "VERY GOOD" OR "QUITE GOOD")



And although the data is unfortunately not up to date, the improvement in security for oil and gas infrastructure is clear:

**ATTACKS ON IRAQI OIL AND GAS PIPELINES, INSTALLATIONS & PERSONNEL<sup>14</sup>**



However, there are still some [problems](#):

(AFP) – Dec 19, 2009 BAGHDAD — Oil exports from northern Iraq have been halted by a sabotage attack on the pipeline to the Turkish port of Ceyhan, oil ministry spokesman Assem Jihad said on Sunday.

"A 55 kilometre (34 mile) section of the pipeline was damaged in the attack, causing a large oil spillage. Exports have stopped and technicians from the northern oil company (NOC) have gone to the site to survey the damage," Jihad told AFP.

The attack took place around 325 km (200 miles) north of Baghdad.

"We are asking the multinational forces to carry out more patrols to protect the pipeline, which was sabotaged for the fourth time in six weeks. We will not know when exports

will resume until we have surveyed the damage," the spokesman added.

The pipeline usually transports between 420,000 and 450,000 barrels per day of oil, although it has the potential to ship 600,000 bpd, according to Jihad.

Total Iraq exports stand at around two million bpd of crude oil, and all its exports from the north flow through the pipeline to Ceyhan.

Improved security along the pipeline has limited the number of attacks in recent years. But after an 18 month period of calm, sabotage resumed on October 26.

All-in-all, it appears that if present trends in Iraq continue, it's quite conceivable the country could be stable enough to allow for major infrastructure investments such as the al-Shahrastani plan. Clearly, major oil companies are betting that this will be so since they are signing up to spend lots of money in order to produce oil for a fairly small per-barrel fee.

## Political Risks

The Iraqi parliament has never passed the famed oil law, and eventually Prime Minister Maliki and his oil minister got tired of waiting and just went ahead and auctioned the oilfield service contracts anyway, even without a really clear legal framework.

There will be national elections in Iraq [probably in March](#). This could lead to a government change and then the unclear legal status of the contracts could potentially be a problem.

My guess would be that with facts on the ground in the form of existing contracts under way, combined with the fairly beneficial terms of the contracts to Iraq and the transparent way the auctions were conducted with many players bidding, will mean that the plan will continue under a new administration. Having all that oil revenue is going to appeal to a government of any stripe. According to [Reuters' reporting](#), most of the major players currently say they will honor the contracts:

Maliki's State of Law coalition, one of the main contenders in the March polls, will surely honour the oil deals should it hold onto the clout it currently enjoys.

Some political groups say they will respect the contracts, but that could change in political wrangling during the formation of a new government after the March election.

The Supreme Islamic Iraqi Council (ISCI), which heads the Iraqi National Alliance, a coalition likely to be Maliki's main challenger at the ballot box, will also stand by the contracts, said Jalal al-Din al-Sagheer, a senior ISCI member.

"Of course it will be obligatory for the next government to honour these deals, regardless of reservations of any political entities right now. For that reason we advise that these contracts should be shown to parliament (before they are signed) so there is political consensus to ward off future problems."

Salim al-Jubouri, a senior member of the Iraqi Islamic Party, an important Sunni Muslim political group and frequent critic of Maliki's Shi'ite-led government, agrees.

"What this government signs will also be a commitment for the next government. They are signing in their official capacity (as government officials) ... and in the end it will be very difficult to go back on these agreements," said Jubouri, who is also the deputy head of parliament's legal committee.

"Maybe those individuals who signed can be held to account for their mistakes, but the deals will remain valid."

The Islamic Party is the biggest member of the main Sunni group contesting Iraq's March polls.

Iraq's ethnic Kurds are another of Iraq's key political players, and they are seen as powerbrokers and kingmakers because of their skilled manoeuvring.

"These contracts will hold because they are legal, and they have no connection with political differences between the government and parliament," said Feriyad Rawanduzi, spokesman for parliament's Kurdish bloc.

However, clearly there has to be some risk of a new government mishandling the country resulting in relapse into civil war, or deciding to declare all the al-Shahristani contracts illegal and renegotiate them, resulting in a big delay. However, [informed observers are growing increasingly optimistic](#):

Fresh from a weekend trip to Iraq, U.S. Rep. Jim Marshall said he saw a strong sense of optimism that the country will survive as a democracy, and he witnessed an unprecedented effort to move equipment from Iraq to Afghanistan as a troop surge is readied.

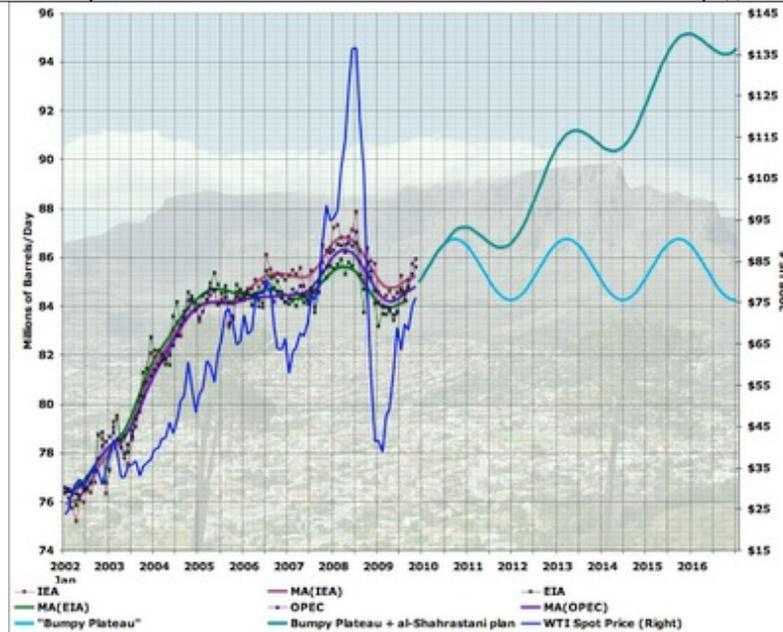
This was Marshall's 16th or 17th trip to Iraq, he said, giving him a series of snapshots of the situation there. He traveled briefly with Army Chief of Staff George Casey and met with Iraqi Prime Minister Nouri al-Maliki, as well as some of the country's department ministers and American soldiers.

"There was a real sense of optimism this time around that I had not seen in prior trips," said Marshall, D-Georgia. "You can't guarantee this, but it does seem that the momentum (for democracy) is now to the point that it's just not going to be reversed by al-Qaida ... or Saddam (Hussein) loyalists."

Obviously, there's high uncertainty, but it sounds to me more likely than not that something like the al-Shahristani plan will occur, albeit probably with some delays.

### Implications and Conclusions

The implications are complex, and not altogether clear. First, the impact on global oil production. If you believed, like me, that in the absence of this plan global production was now on a bumpy plateau, then the effect of the plan on global liquid fuel production is summarized in this next graph:



Here I made a "Bumpy Plateau" scenario from a sine wave! Obviously, I'm not claiming to actually know when the bumps will occur, or exactly how big they would be, so the particulars here are just to illustrate the general idea of what I was expecting. However, as you can see, adding a large and rapid expansion of Iraqi production changes the picture in a qualitative way - we spend the next six-seven years in a serious expansion of global production, followed, presumably, by a new plateau at a higher level until global declines become serious enough to overcome efforts to develop new production.

The implications for oil prices at one level are simple: they will be much less than they would otherwise have been! However at another level, there is a lot of complexity. Firstly, given the speed with which [global production is currently recovering](#), and the possibility of various delays in implementation in Iraq, there is some potential for the world to burn through current OPEC (mainly Saudi) spare capacity *before* the Iraqi expansion really gets going and cause another oil price spike in 2010/2011.

Once Iraqi expansion does begin in earnest the question becomes how the rest of OPEC responds. Right now, Iraq is not under a quota, but the last quota it had in 1998 [was only](#) 1.3mbd. Obviously, this is not going to work, and the Iraqi's have broached the subject, as [Alsumaria reports](#):

Ministry of Oil called OPEC Organization to reconsider the share of its members according to the reserves of each of the same. Iraq Oil Ministry stressed that Iraq will bid in the upcoming years to export 12 million barrels of oil per day. Oil Ministry Spokesman Assem Jihad said in an interview with Alsumarianews website that trying to hoist Iraq oil output in the upcoming years is a natural right of Iraq as it owns huge oil reserves. Oil Ministry Spokesman called OPEC to grant Iraq its natural right in exporting crude oil so as its share becomes fair with regards to its oil reserves.

This is obviously going to cause [considerable concern](#):

Once Iraq more than quadruples its output capacity, OPEC will have to take steps to prevent Iraq from flooding the market, and force Baghdad to realign its supply policy with other members and stick to an output target. If not, the current level of supply and demand which OPEC has worked hard to achieve, which provides oil at a price it deems reasonable to producers and consumers - currently around \$75 a barrel - will come under threat.

"This will certainly cause ructions within OPEC because Iraq has huge resources and we can only assume that the Iraqis are going to pump as much as possible because they need the money," Judith Kipper, the director of the Energy Security Group of the Council on Foreign Relations in Washington, told Deutsche Welle. "If they get to the predicted number of barrels produced per day, this is really going to be a real issue within OPEC."

however, it's not clear how much leverage OPEC really has:

"If Iraq refuses to abide by the OPEC output level rules, then there's not much OPEC can do. Iraq may be land-locked but it has a couple of major pipelines which could be restarted and if relations with Syria and Lebanon ease then we could see Iraq pumping its oil to a Syrian or Lebanese port, bypassing OPEC countries."

Hazhir Teimourian agreed: "Iraq flooding the market will be very bad news for Saudi Arabia and OPEC and neither could do anything to stop it," he said. "Why should Saudi Arabia be the only ones to export eight or nine million barrels a day and we have to stick to a lower OPEC output? In fact, Iraq could actually leave OPEC and go it alone. OPEC and Saudi Arabia will just have to take it."

I see two general classes of scenario here. In one case, if the global economy recovers well and global demand grows nicely in coming years (the [million barrels/day](#) extra each year from developing countries, plus a bit more from the OECD), then it's quite possible the Iraqis and Saudis will be able to strike a deal and co-ordinate the Iraqi rise in production in such a way that oil prices remain in the \$60-\$80 range that has now become the new normal.

On the other hand, if they are unable to work together effectively, prices could collapse. In particular if there is any material hiccup in global demand, there is a serious risk of a breakdown in OPEC discipline (such as it is) and a price collapse. For example, if there were a [double dip recession](#) in the OECD due to the aftermath of the global financial crisis, that could do it. Alternatively, if it's true that there is a [Chinese asset price bubble](#) and it burst and caused a Chinese recession, that could also cause a slump in global demand. Either way, the world could then find itself awash in spare oil capacity, which would be very likely to bring prices far below the new normal, at least for a while.



In general, the development of this Iraqi capacity, assuming it happens, seems to me likely to bring about an era a bit like the 1980s-1990s, in which energy issues retreat to the background for a while. I don't think prices are likely to fall as far or for as long as they did in those decades, but still I think there may be some qualitative similarities. From the perspective of the Iraqis obviously this plan is a good thing, and who can begrudge it to them? At the same time, in my view this is not really a good thing for the rest of us, as it allows us to postpone the inevitable for a little while longer. To use Richard Heinberg's [party metaphor](#) it's as though Dick Cheney and his crew managed to organize one last trip to the liquor store before everyone was too blind drunk to drive. Now the party can stagger on till everyone is *really* wasted. Sprawl in the US and Europe, sprawl-enabled-obesity, SUVs, growing Chinese auto-dependence, growing carbon emissions etc, all get a new lease on life.

In particular, just as the 1970s efforts at alternative energy were seriously damaged by the low oil prices of the mid 1980s and 1990s (as Alaska and the North Sea came on line), there is a risk that the current crop of biofuel and alternative energy companies, as well as hybrid and electric car efforts, will all suffer through an era of low oil prices, only to not be there when we really need them ten years from now.

I'm not saying for sure any of this will really happen. But it seems like a real risk, which I shall [continue to track](#).



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