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Further Comment for Subscribers

UAE: Technical and political implications of the oil concessions renewals

Egypt: Personnel reshuffle at the state oil companies brings little real change

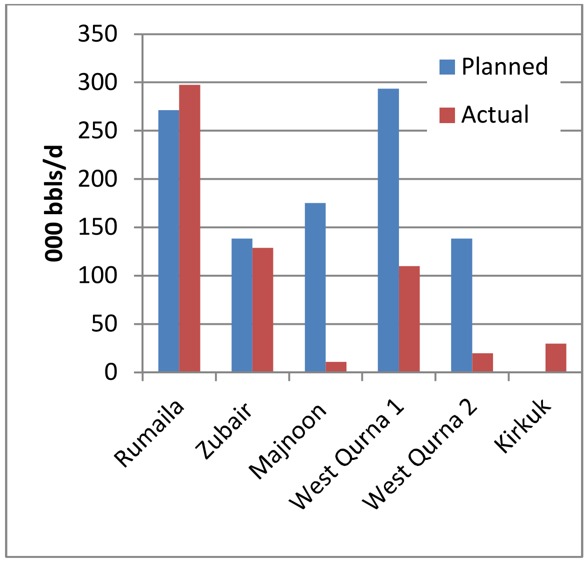
Saudi Arabia: Expansion of oil production capacity – little action until 2015

Iraq Comment

by Jaafar Altaie

2013 is likely to create a new balance between Iraqi nationalism and federalism. The recent tensions between Baghdad and Erbil indicate the growing momentum of Iraqi nationalism, coupled with an unprecedented budget surplus and the distinct growth of Iraqi military capabilities.

Due to setbacks in the management of Baghdad's service contracts and internal inefficiencies, oil production growth is unlikely to surpass 20% in 2013, being about half of Baghdad's production growth targets (see chart). The producing brown-fields Rumaila and Zubair are on-target, but the less mature green-fields, requiring new infrastructure, are well behind.



The situation for the Kurdish region will be marginally better, with the KRG achieving about 60% of its targets if tensions with Baghdad continue. Baghdad's mobilization of the Dijla (Tigris) force on the border with KRG was a strategic move. Provoking or responding to attacks by the KRG's Peshmerga troops could portray the KRG as an aggressor against national unity. This could have the effect of isolating Erbil from the political process in Baghdad, and creating tensions between rival Kurdish factions, especially considering PUK leader Jalal Talabani's tenure in the Iraqi presidency and the question of his replacement after his recent stroke.

In favour of the Kurds, a potential deal with Turkey to build an international pipeline promises to give the KRG autonomous export capabilities which could strengthen the KRG, sideline Baghdad and create the prelude to greater Kurdish autonomy or outright independence from 2013. Prime Minister Nouri Al Maliki's ability to develop a strong balance between nationalist and religious players in Baghdad, within the framework of a more progressive economic policy, will decide the strength of Baghdad's position with the Kurds. Long-term economic and military potential favour Baghdad, but weaknesses in Baghdad's political process and economic policies (particularly in the oil sector) favour the Kurds. The way in which Baghdad and Erbil play to their strengths and/or correct their weaknesses will decide the resulting balance of power in 2013.

OPEC's Output Challenge

by Robin Mills

If 2011 was a remarkable year for oil exporters, 2012 was a Wonderland. In 2011, for the first time ever, the oil price averaged over $100 per barrel of Brent crude. In 2012, prices have been even higher: $111.90 per barrel. As Lewis Carroll's heroine Alice would have observed, it was increasingly curious that such high prices persisted despite a weak global economy and rising stocks.

Reflecting on the high oil prices from 2003 until now reveals three key drivers. Developing Asian countries, above all China, were undergoing economic booms and fast-rising demand. Non-OPEC production was weak, due to maturing fields and geopolitical upsets. And therefore OPEC, enjoying tight markets, was able to maintain discipline – making sharp production cuts to revive prices after the 2008 economic crash.

Over the past decade, Saudi Arabia and its Gulf allies, the UAE and Kuwait, made only measured increases in production while potential rivals – Iran, Iraq, Venezuela, Libya and Nigeria – struggled.

In 2012, these factors persisted. Though China's opaque demand grew only moderately, developing countries' consumption again outweighed declines in the OECD. Some significant non-OPEC producers were below capacity – Syria and Yemen felled by civil war and sabotage; South Sudan by a transit dispute with Sudan; Colombia by guerrilla attacks; and China and Brazil by oil spills. And, just as Libya was largely removed from OPEC's production total by the 2011 revolution, so Iran's exports have been halved this year by sanctions.

In 2013, the situation could look rather different. Of course, the geopolitical imponderables remain. Nigeria might be racked by further civil unrest; there might be conflict involving Iran; and the Syrian struggle seems set to grind on despite some opposition gains and the seizure of two major oil fields.

On the other hand, as the London-based Centre for Global Energy Studies points out, South Sudan appears likely to reach a deal with Khartoum; Libya has some further room for recovery from its revolutionary conflict; and Kuwait, having unexpectedly reached 3 million barrels per day (bpd), is enjoying its windfall.

And US oil output, driven by production from shale oil, should register another bumper year, as a single state, North Dakota, overtook OPEC member Ecuador in 2011, and Qatar this year. The US Energy Information Administration forecast 2012 production would grow by some 200 000 bpd – the actual outcome was a gain of 700 000 bpd. Shale developments are spreading to Canada; Australia is next; Russia and Argentina on the horizon.

The great imponderable is Iraq. Output has risen significantly this year, helping to sustain US sanctions against its supposed ally Iran. Constraints on export pipelines, government bureaucracy, and the continuing dispute with the autonomous Kurdish region will keep the country short of its ambitious goals. Nevertheless, while the total requirement for OPEC crude is likely to fall next year, Iraq's share will increase.

The bursting of the internet bubble in 2000 and the real estate crash in 2008 should have reminded us all not to believe in looking-glass worlds where "this time, things are different", or where a "supercycle" or "new paradigm" has suspended the normal laws of economics. High oil prices destroy demand, encourage new non-OPEC supply, and rouse envy between OPEC members.

Instead of repeating this year's curiosities, next year may see us return to a more normal situation. The most bearish forecasting group, Raymond James, sees prices dropping as low as $80, but with the consensus forecast of $107.50 still near historic highs, the Gulf producers can make modest production cuts to survive, and even prosper. Some of their peers – Iran, Venezuela and Russia come to mind – are, like Carroll's Red Queen, running as fast as they can just to stand still.

Jordan's Energy Crisis

by Robin Mills

"To play with prices is to play with fire," read the placards of demonstrators around the Al Husseini Mosque in downtown Amman on Friday 16th November. More than ten thousand marched to protest against the removal of fuel subsidies. Demonstrations and riots spread to several cities throughout the country, and slogans became increasingly political.

The government is increasing the price of bottled gas, used for cooking and heating, and diesel and low-grade petrol. This is to save some of the $2.3 billion it spends annually on handouts, almost a quarter of its budget, and the main reason for a deficit that has ballooned to $3.5 billion.

Muslim Brotherhood deputy Zaki Bani Arshid, part of the opposition to the government, presented no policy other than demanding the withdrawal of the price increases. Finance Minister Suleiman Hafez announced that Friday that cash disbursements would begin to low- and middle-income Jordanians to cushion the blow of the subsidy removal. But the details of this compensation policy have been under discussion for the last two years.

Energy crises have a familiar pattern. There are warnings over years of inadequate provision for future demand, or vulnerability to cut-offs. But politicians resist charging higher prices to consumers, and important new projects are caught up in bureaucracy.

When the crisis does come, the country or state utility runs out of money, or the lights go out, and the realisation dawns that there is no quick solution. Then the political will and focus may finally be sustained over several years to implement deep reforms and build new power plants and pipelines.

In Jordan's case, the arrival of the crisis has been accelerated by the cut-off of gas supplies from Egypt due to repeated sabotage and Egypt's own shortages. Jordan has had to turn to expensive oil for electricity generation. The Syrian crisis next door has been a further blow to the economy.

Jordan is quite not as resource-short as it often appears to be. But none of the solutions to its energy crisis are quick and cheap. Hoping to start a liquefied natural gas terminal to receive imports by mid-2014, it is unlikely to get a hoped-for cut-price deal from Qatar. Iraqi gas by pipeline is an obvious option – but Baghdad has shown no urgency to seize this opportunity. Instead, Israel's new offshore gas, more than enough for its own needs, may capture this market and reinforce Amman's strategic dependency.

In the near term, with abundant sun, plans for renewable energy can help fill the gap, but its wind project has had several false starts. BP is drilling for shale gas, and mining for "oil shale" is going ahead – a hydrocarbon-rich black rock that can be burnt in power stations or processed into oil.

A nuclear power programme has been in the works since 2007, but still faces major challenges of skills shortages, financing and water to be ready for the ambitious start-up date of 2019.

Jordan can continue to muddle through for some time. King Abdullah can make selective concessions, as he did in September when rescinding a 10 percent hike in petrol prices. He can sack unpopular ministers and negotiate side-deals with different interest groups. The IMF's $2 billion loan in August came with the condition of raising electricity prices, but Jordan's strategic importance means the US and Gulf States will no doubt make more money available if required.

Powerful friends give Amman the luxury of postponing tough choices. But it needs to combine its commitment to subsidy reform with real progress on new energy projects and systematic reform of social welfare. Otherwise, the government has no choice but to continue juggling with fire.

Versions of these two articles appeared in The National newspaper on 20th November and 4th December 2012

Recent & Forthcoming Events

Jaafar Altaie and Robin Mills presented at the Centre for Global Energy Studies in London on 27-28th November 2012 on Iraq and on the implications of Middle East geopolitics for the oil markets. Key messages were:

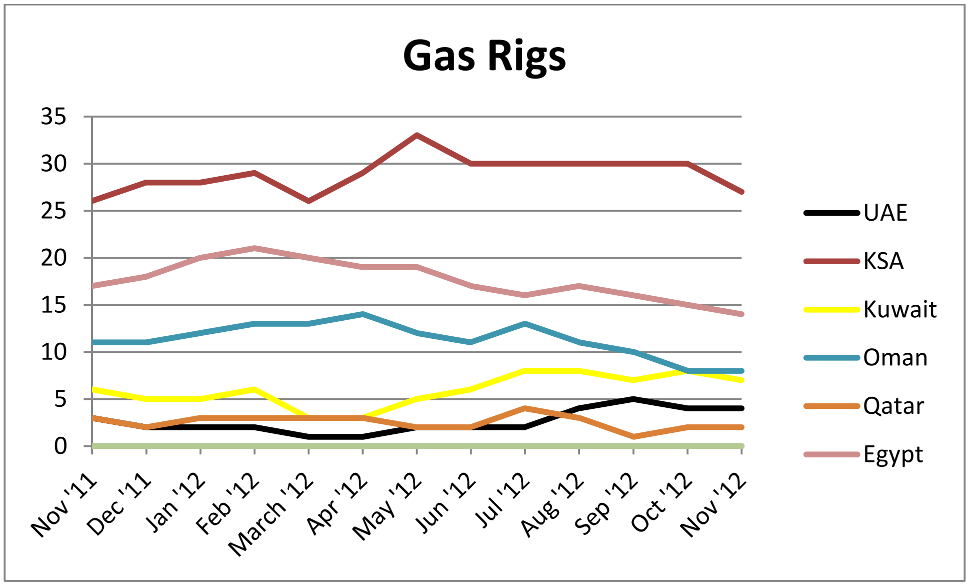
- Iraq is likely to fall short of its ambitious production growth targets, with about 60% success in delivering against plans so far, but mostly from the easier 'brown-fields'
- The weaknesses of the existing Technical Service Agreements are becoming increasingly clear, with the exit of several major companies. A hybrid joint venture contract model may evolve and be more suitable
- Iraq needs to think through its policy on OPEC, including its desired quota level
- The Gulf as a whole is weighing its long-term options with the US 'pivot to Asia', and beginning tentatively to search out additional security guarantors, but the future architecture of Gulf security is unclear

Jaafar Altaie and Robin Mills presented at a joint workshop on Middle East gas on 6th December 2012 on Iraq, the UAE and Qatar. Key messages were:

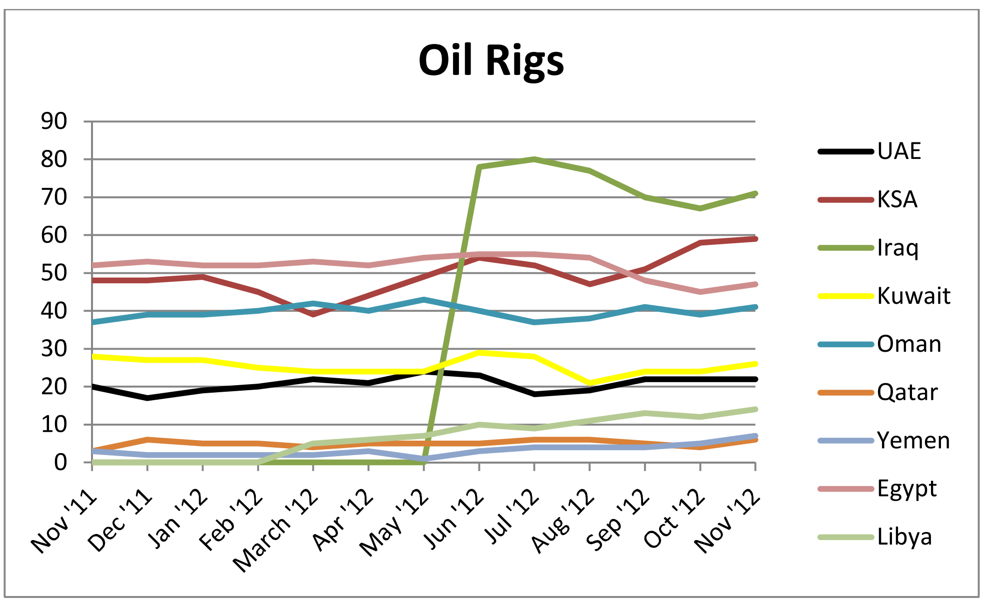
- Iraq has not articulated a coherent strategy for its gas industry and exports. The focus so far has been on increasing oil production, despite the growing urgency of dealing with gas, and competition for regional markets from East Mediterranean gas and other new sources
- The region needs radical reform of its gas pricing and investment policies to increase production to meet demand, and match its share of global reserves
- Alternative energy (solar PV and nuclear) is economically-competitive against oil and LNG in the Middle East; however, unconventional gas is potentially more competitive still
- There are numerous potential and proved unconventional gas plays in the region (sour, tight, shale, etc)

Jaafar Altaie presented on 11-12th December 2012 at the Iraq Energy Institute in Baghdad on Iraqi petroleum fiscal systems. Presentation material available to subscribers

Regional Energy Statistics

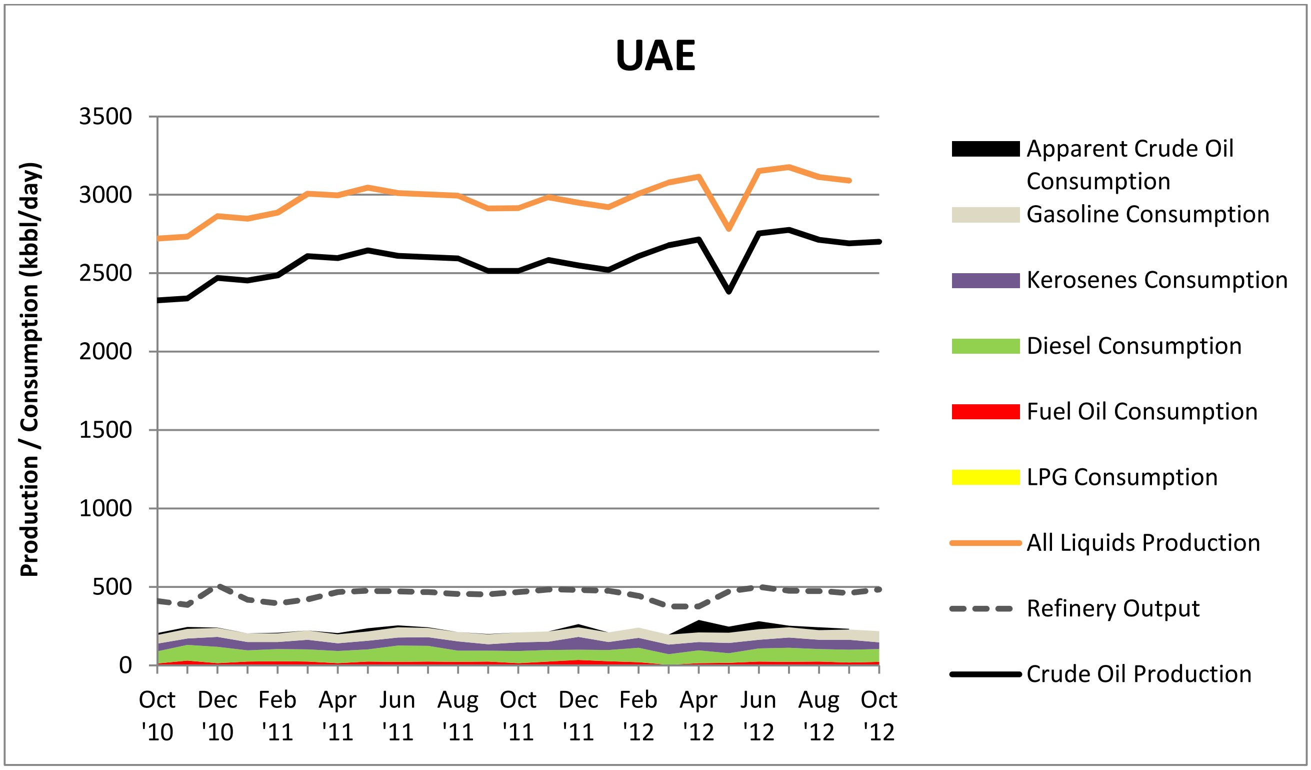


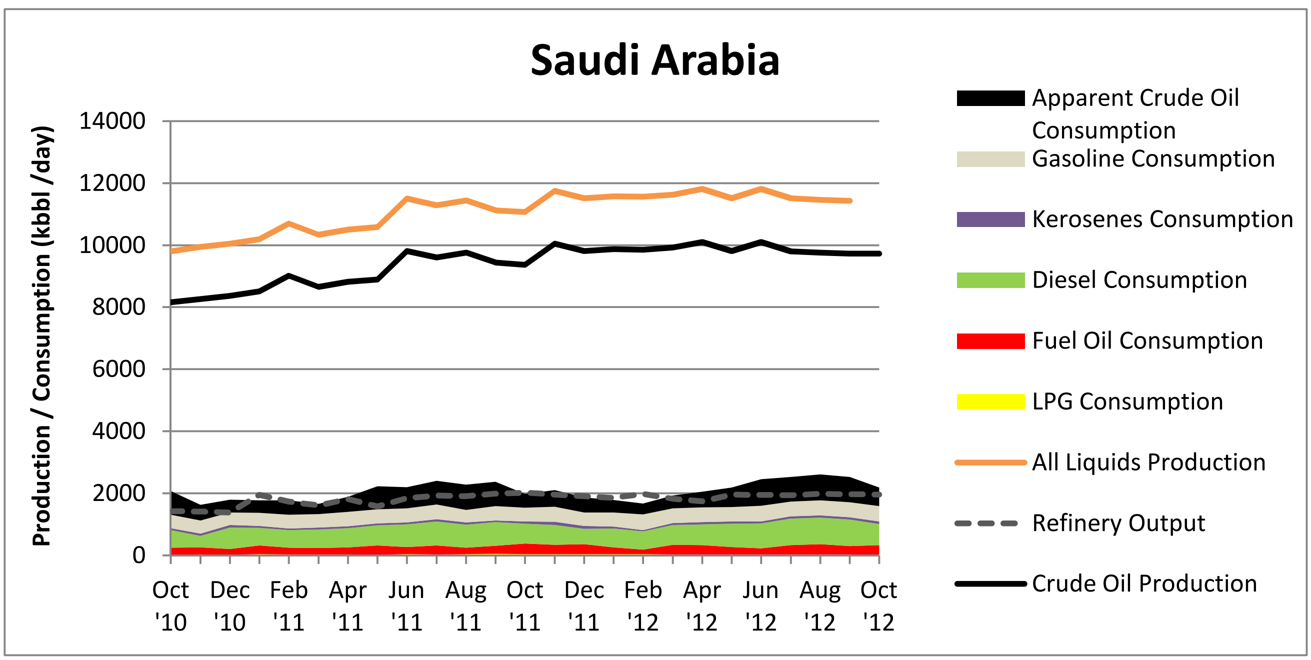
- Saudi Arabia continued as the region's largest gas driller with work on the Karan and Wasit offshore projects
- Kuwait and the UAE ramped up gas drilling on the northern Jurassic and Shah fields respectively
- Egypt's gas-directed drilling continued to decline with political and payment uncertainty

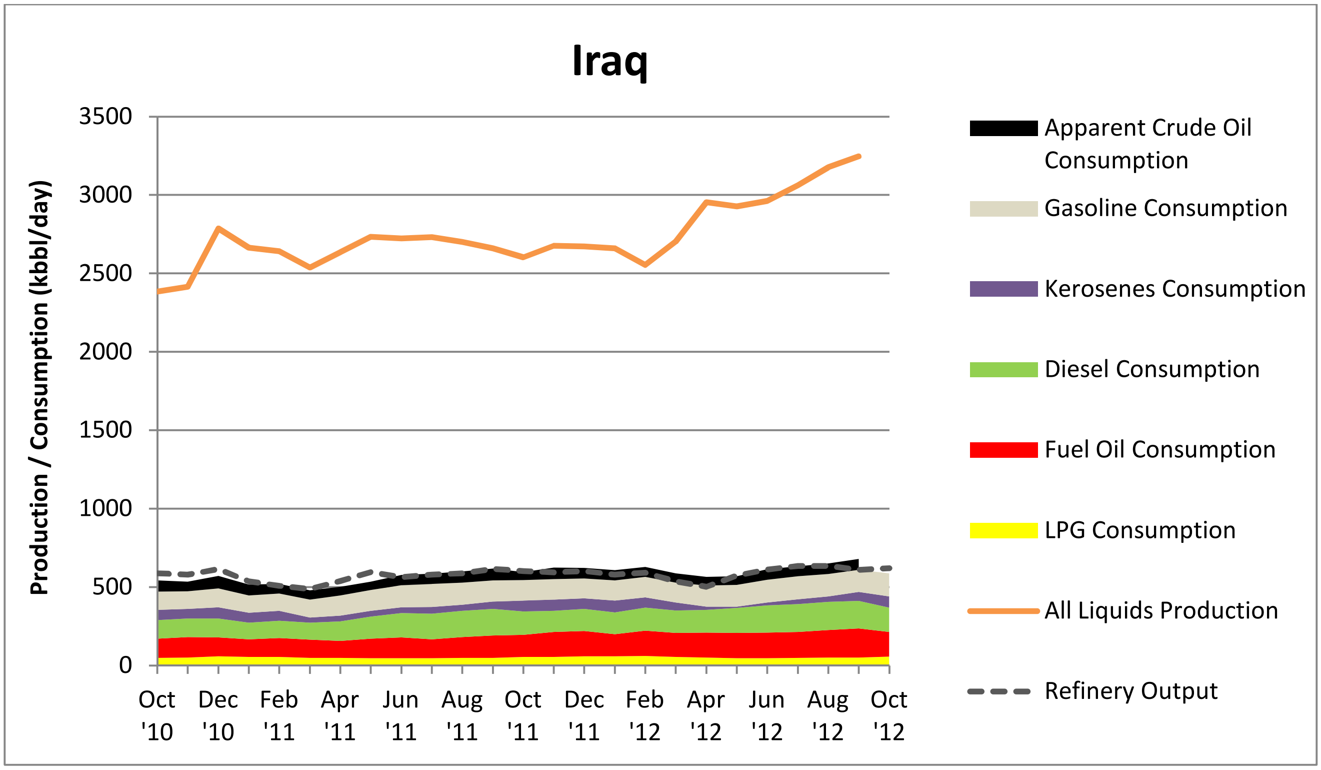


Source: Baker Hughes

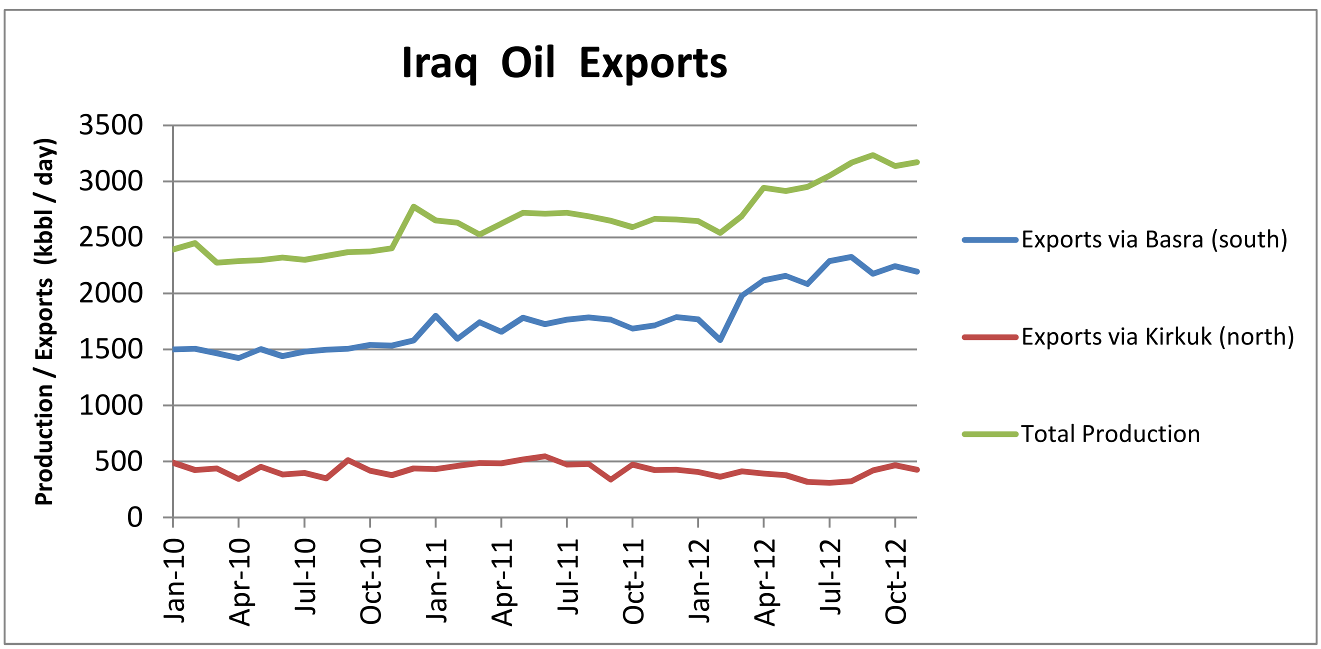
- Saudi Arabia reached record highs for oil-directed rigs due to maintenance of its unusually high production.
- Egyptian oil drilling stabilised after sharp declines in recent months.


UAE
Production / Consumption (kbbl/day)
3500
3000
2500
2000
1500
1000
500
0
Oct '10
Dec '10
Feb '11
Apr '11
Jun '11
Aug '11
Oct '11
Dec '11
Feb '12
Apr '12
Jun '12
Aug '12
Oct '12
Apparent Crude Oil Consumption
Gasoline Consumption
Kerosenes Consumption
Diesel Consumption
Fuel Oil Consumption
LPG Consumption
All Liquids Production
Refinery Output
Crude Oil Production


Saudi Arabia
Production / Consumption (kbbl /day)
14000
12000
10000
8000
6000
4000
2000
0
Oct '10
Dec '10
Feb '11
Apr '11
Jun '11
Aug '11
Oct '11
Dec '11
Feb '12
Apr '12
Jun '12
Aug '12
Oct '12
Apparent Crude Oil Consumption
Gasoline Consumption
Kerosenes Consumption
Diesel Consumption
Fuel Oil Consumption
LPG Consumption
All Liquids Production
Refinery Output
Crude Oil Production

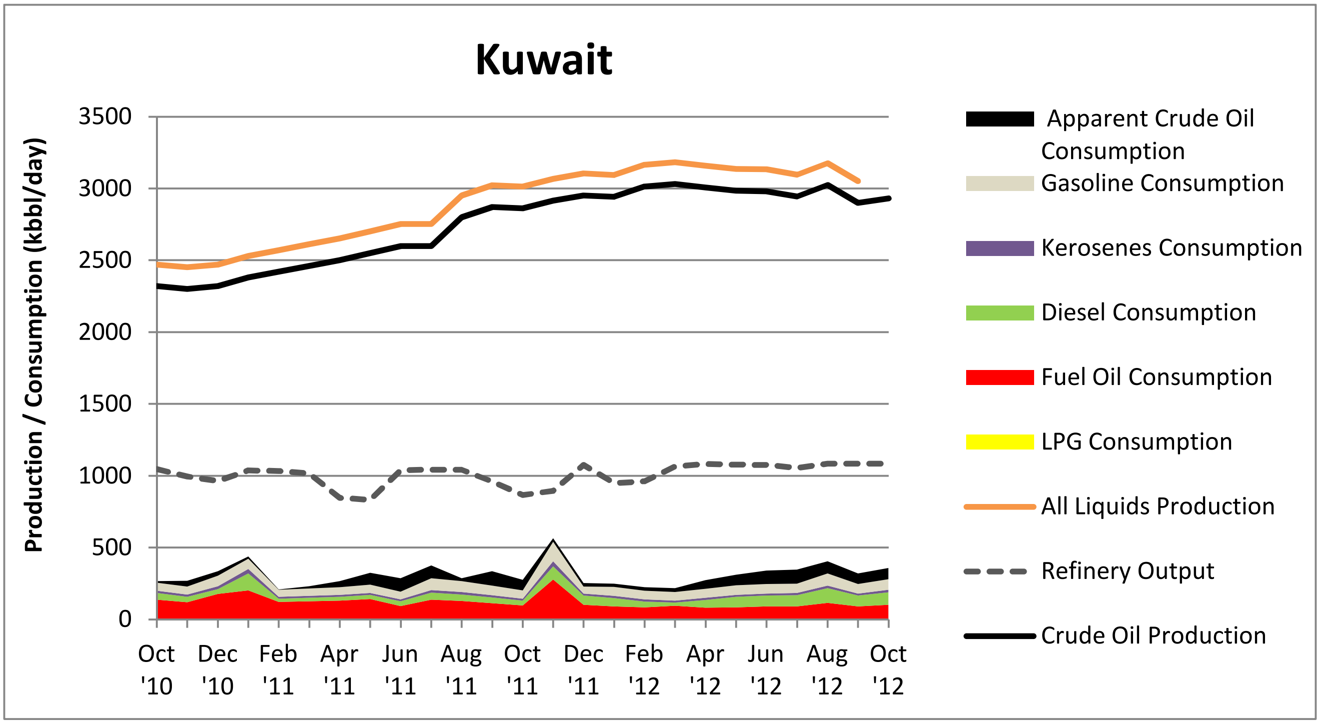


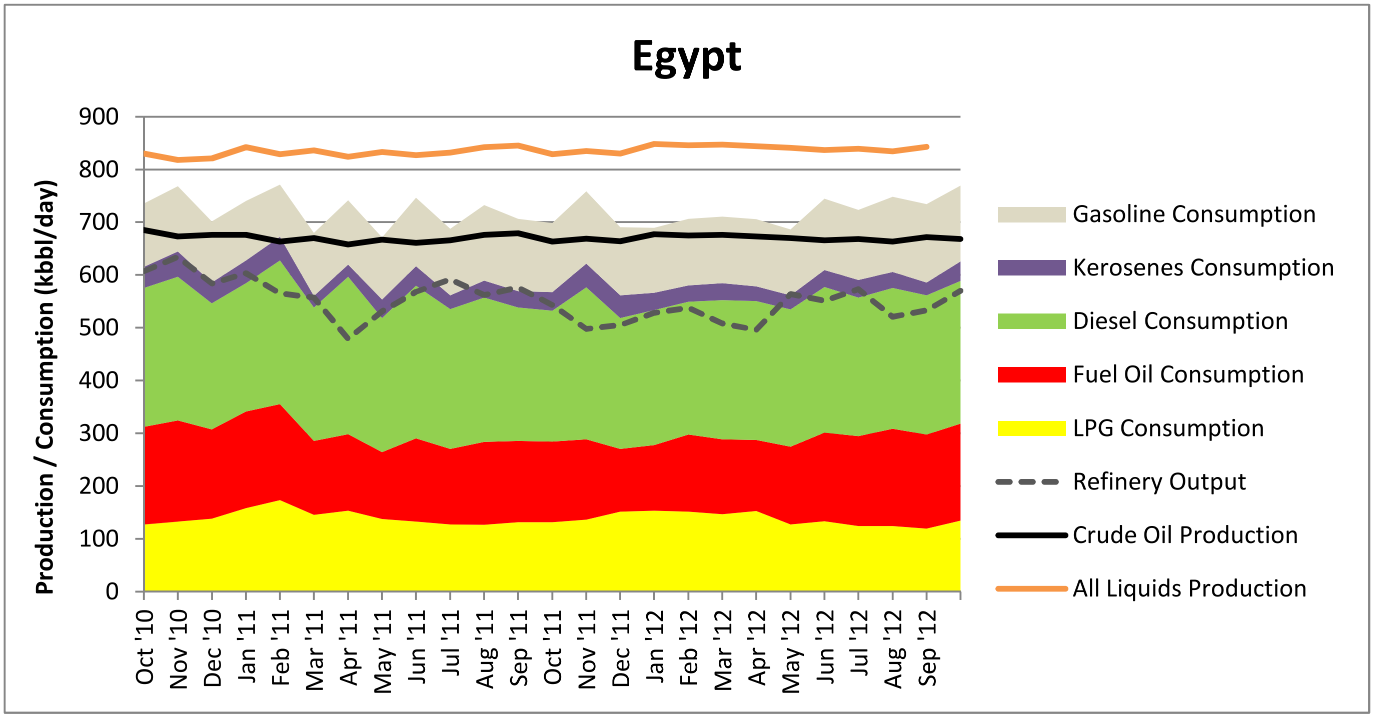
NB: Iraq's production of non-crude liquids is small due to limited processing of associated gas.



Source: Iraq Oil Ministry

- Iraq's southern exports jumped significantly in March with the start-up of the first Single Point Mooring (SPM), easing export constraints.
- Northern exports continued to decline, with a slight pick-up in October when the Kurdish region and Baghdad reached a temporary agreement.
- Total export revenues, $86.5 billion for the year to date, already exceed the whole of 2011 ($83 billion)





Source: JODI, Middle East Economic Survey & EIA

NOTE: All crude oil consumption values are apparent due to unreported / misreported stock change values.

Recent & Forthcoming MENA Licensing Rounds

Country	Round	Launch Date	Blocks on Offer	km² offered	Blocks Awarded	Closing Date
Egypt	EGAS	Jun – 12	15	57,300	-	Feb – 13
Egypt	EGPC	Sep – 11	15	18,000	11	Mar – 12
Iraq	4th Licensing Round	Apr – 11	12	80,700	3	May – 12
Iraq	5th Licensing Round	NA	>60	NA	-	NA
Lebanon	1st Licensing Round	Q412 / Q113	NA	NA	-	-
Syria	Offshore	May – 11	3	9,038	0	Oct – 11
Oman	MOG	Jan – 12	4+1	26,837	2	Aug – 12
Oman	MOG	Nov – 12	7	103,422	-	Jan – 13
Yemen	6th Licensing Round	Sep – 12	4+1	20,132	-	NA

Source: Deloitte

Northern Iraq's Oil Chessboard

by Robin Mills

A version of this article will appear in Insight Turkey in December

Landing in Erbil (Hewler), capital of the Kurdish region of Iraq, one of the first things striking the visitor is the role of Turkey. Western oil executives and Iranian traders are prominent, but Turkish businesses, visitors, engineering and construction companies, restaurants and products are ubiquitous. Kurdistan's energy resources make it an important economic and strategic partner for Turkey in the region, but also involve Ankara in the complexities of intra-Iraq politics.

A complicated three-way chess game is being played out here between Erbil, Baghdad and Ankara. Yet even the pieces on this chessboard - Iraqi, Kurdish and Turkish politicians, western oil companies and ordinary Iraqis – have their own agendas. Outside powers such as Iran and the US are also watching the game carefully, perhaps even moving pieces of their own. Turkey has a lot to gain from engaging with the Kurdistan region, and can improve its own energy security, particularly in the area of gas. Nevertheless, it also has major long-term interests in the rest of Iraq, and has to play carefully to avoid compromising these. Meanwhile, Erbil is seeking to use its oil and gas to secure its own economic future and political autonomy from Baghdad. Given the realities of politics and geography, this makes it dependent on Turkey for export routes.

Kurdistan: an emerging hydrocarbon power

Kurdistan's oil and gas reserves are relatively modest compared to those of 'federal' Iraq (the country excluding the autonomous Kurdish region). Federal Iraq's reserves are put at 143 billion barrels of oil, the fifth largest in the world (and likely to grow further, to 200 billion barrels or more) and 127 trillion cubic feet (Tcf) of gas (12th largest in the world, but also likely to increase).

By contrast, the Iraqi Kurds hope to find some 30-60 billion barrels (bbl); excluding the Kirkuk field, which remains in disputed territory, they currently have some 12 billion bbl of oil and 22 Tcf of gas. Amongst the largest fields so far are the Shaikan field with potential for 3.3 billion bbl of oil reserves, Bardarash with 1.2 billion bbl, and Khor and Chemchemal with some 10 Tcf of gas between them. Most advanced in development are DNO's Tawke field (430 million bbl reserves), Taq Taq (350 million bbl) held by the Turkish company Genel, and Khor Mor which is supplying gas to local power stations[1].

Although the Kurdish region's oil resources are only a tenth or so of Iraq's total, this is still highly significant in the context of a population of almost 5 million. Current discovered resources are probably larger than the reserves of OPEC member Ecuador (population 15 million) or major exporter Azerbaijan (9 million). The Kurdish Regional Government (KRG) plans to reach production capacity of 1 million barrels per day (bpd) by 2016[2], also larger than Ecuador or Azerbaijan. This would generate revenues of around $35 billion per year at current oil prices[3], compared to the current Kurdish share of the national budget which amounts to around $12 billion. This does indicate that Kurdistan's oil and gas could be the foundation for a viable economy.

These resources have largely been discovered since 2005 by a variety of international oil companies (IOCs), initially small but now joined by several large IOCs. The Kurdish Ministry of Natural Resource (MNR), under Minister Ashti Hawrami, has carefully selected its partners to give a wide variety of representation, including Turkish, European, Canadian, American, Chinese, Indian, Russian, Emirati and other companies. Not all have been successful, and some have withdrawn, including the Korean National Oil Company and India's Reliance but the overall geological success rate has been impressive. One dramatic difference between Kurdistan and the rest of Iraq is in the provision of electricity. Kurdistan has some 650 MW of hydroelectric capacity, but it has augmented this in recent years with gas-fired power plants contracted with independent power producers (IPPs), and now has almost 24-hour electricity. By contrast, generation in the rest of Iraq has expanded too slowly to keep up with demand, and grid electricity is available for only some 8-12 hours per day, depending on the province and season. The KRG has been supplying some electricity to Kirkuk and other bordering areas, partly to extend its political influence.

The energy resources of northern Iraq outside the Kurdistan region are also very significant. The Kirkuk field, although old (it was discovered in 1927) is still the cornerstone of northern oil production, with several other important fields such as Jambur, Khabbaz and Bai Hassan nearby. The Kurds are developing the northernmost part of Kirkuk, the Khurmala Dome. From Kirkuk, the main export pipelines run north, crossing the Turkish border in KRG territory at Fishkhabour, and terminating at the Mediterranean port of Ceyhan. The twin pipelines have a theoretical capacity of 1.6 million bpd, but sabotage and lack of maintenance limits this to around 0.3-0.4 million bpd.

The Shaky State of Baghdad-Erbil Relations

Relations between the federal government in Baghdad and the Kurdish regional government in Erbil have long been problematic. Two of the major problem areas are the status of the 'disputed territories' in Kirkuk, Ninewa, Salahaddin and Diyala provinces; and the right of the Kurds to sign independent oil exploration contracts, with the associated question of oil exports, payments to the IOCs operating in the KRG, and the KRG's share of the national budget.

In the energy context, the disputed territories are significant because of their oil and gas resources, notably the Kirkuk field, though the question of political control is separate from that of oil operations and revenues. Several of the contracts signed by the Kurdish authorities with IOCs cover disputed areas. The Kirkuk issue is also complicated by the presence of an ethnic Turkmen population, backed by Turkey.

In November, confrontation flared in Tuz Khurmatu in Salahaddin province between Baghdad's 'Dijla Force' and the Kurdish peshmerga forces. However, the US intervened to encourage the sides to cool off, and Iran's Qassem Suleimani, commander of the Qods Force, reportedly reassured both KRG President Barzani and Iraq President Jalal Talabani that Iran would not allow military conflict between the peshmerga and Iraqi army. The standoff has been exacerbated by the stroke suffered by President Talabani on the 18th of December, and subsequent moves by Prime Minister Nouri Al Maliki against political rivals.

The Kurdish authorities take the view that under the Iraqi constitution, they are entitled to sign contracts for 'future fields' (essentially all fields, as only the Taq Taq, Chemchemal and Khor Mor fields were known prior to the approval of the constitution, and they had not been developed). The IOCs in Kurdistan operate under Production Sharing Contracts (PSCs), unlike the service contracts favoured by Baghdad.

Baghdad's position is that PSCs are forbidden by the constitution. There are also accusations that the Kurdish PSCs are too generous, leading theoretically to an IOC share of some 20% of profits[4], as compared to Baghdad's service contracts which typically pay $1-2 per barrel (i.e. 1-2% of profits at $100 per barrel oil price). However, any view of the 'generosity' of the KRG's contracts has to be tempered by the geological risk in Kurdistan, as compared to the development of giant discovered fields in south Iraq; the generally smaller size of the Kurdish fields; and the continuing political and payment risks.

At the moment, exports through the federally-controlled pipelines to Turkey are episodically allowed by agreement with Baghdad, in early 2011 and again in September 2012, but these accords have repeatedly broken down. Revenues are remitted to Baghdad, which then pays the KRG a share to cover the costs (but not profits) of the IOCs. In the absence of consistent exports, IOCs in Kurdistan have to sell much of their production locally for a price currently around $60 per barrel. It is then used in small-scale local refineries or, reportedly, exported via Turkey and Iran, considered to be smuggling by the federal Iraqi authorities.

Ultimately, whatever the legal arguments on each side, these questions are not susceptible to a legal resolution – the constitution is too vague, and the outcome too important to both sides. Prime Minister Maliki has relied on Kurdish support at various times in the past, notably during 2008's 'Charge of the Knights' operation against militias in Basra, and when scrambling to assemble a majority following 2010's parliamentary elections. It remains to be seen what type of coalition he will attempt to amass for the 2014 polls. But at the moment, the Kurds have a significant political role in Baghdad via their members of parliament, and leading officials including Iraqi President Jalal Talabani (head of the Patriotic Union of Kurdistan party) and foreign minister Hoshyar Zebari.

Maliki has also used crises, often ones which he himself instigates, to preserve his role as the indispensable arbiter. Both sides have shown a preference for maximalist negotiating positions, encompassing a swathe of other issues. These stances also play well to nationalist political supporters on both sides: Kurds in the KRG; and Sunni Arabs in the disputed territories who are not natural Maliki voters, but who may be drawn to him by a strong stance against the Kurds.

A compromise could be reached: for instance, it should be possible to separate the issue of oil resources from territorial control, and oil resources in the disputed territories could be developed jointly. A national oil and gas law, long-discussed, could be passed which legitimises the KRG's PSCs, perhaps in return for some legal and fiscal adjustments. An agreement on oil and gas export infrastructure from the KRG could be reached, while further electricity exports would help ease the situation in federal Iraq.

In the absence of a resolution, deputy prime minister for energy (and former oil minister) Dr Hussein Al Shahristani has adopted a policy of blacklisting IOCs which sign contracts with the KRG, preventing them from bidding for contracts in the south. Initially this applied to companies with contracts in Kurdistan, such as Sinopec (after its acquisition of Addax) and Hess. In October 2011, ExxonMobil upset this policy by signing for six blocks in Kurdistan, while already the operator of the West Qurna-1 project near Basra, a cornerstone of Baghdad's production growth plans. As the 'blacklist' was an Iraq Oil Ministry (MoO) policy, not a legal or contractual principle[5], Baghdad's options for retaliation were limited.

However, it now seems (as of November 2012) that ExxonMobil, finding the contractual terms and government support in West Qurna-1 disappointing, will sell its share, hence avoiding problems without resolving the underlying issue. Gazprom and Total are in a similar position, having signed contracts with the KRG while having deals in the south of Iraq; there have been threats by the MoO against Gazprom but it remains to be seen whether either will be forced to leave. There are also persistent rumors that other companies in the south, notably Shell and BP, may also enter Kurdistan. There are now relatively few open opportunities, so future new entrants would be likely to have to acquire the shares of existing smaller players.

The KRG has also succeeded in attracting several other notable companies – supermajor Chevron (which was not active in federal Iraq), Chinese national oil company Sinopec (via its acquisition of Addax), Spain's Repsol, Canada's Murphy, the US Hess and Marathon, Austria's OMV and Hungary's MOL. This gives it a good technical and financial basis for developing its resources. However, some of the smaller companies with large discoveries, notably Gulf Keystone (developing the Shaikan field) will probably need partners or will be acquired. Conspicuous by its absence from the Kurdish energy scene is Iran[6], which offers little technically or financially.

In September, Genel CEO (and ex-BP CEO) Tony Hayward suggested, "The scale of the opportunity for Kurdistan and for Iraq is so large that there will be a resolution. Over the next year or two, Kurdistan production capacity will grow towards 1 million barrels a day - that's too much oil to be shut in as a consequence of a political dispute. So one way or another, it's going to get resolved."[7]

But it is far from clear that his optimism is warranted. The required investment to reach 1 million bpd of production capacity will not be made without a clear right to export, and the relatively small companies who have made most of the large discoveries to date – Genel, DNO, Gulf Keystone and Afren – will find it difficult to finance on their own. Baghdad is aware of the leverage it holds by controlling the Kurds' export route.

In July 2012, Turkey and the KRG reached a deal, denounced by Baghdad, to export crude (initially by tanker) in return for refined products, of which the KRG complains of an inadequate allocation from Baghdad. Tanker exports are expensive and limited in volume, and therefore cannot provide a large-scale, long-term solution.

However, Turkey has not so far chosen to break with Baghdad by sanctioning an independent Kurdish oil or gas pipeline. On 4th December 2012, Turkish energy minister Taner Yıldız was expected to make a major announcement on Turkish energy investment and perhaps export pipelines from the KRG at a conference in Erbil; however, the Baghdad government prevented his flight from landing (or indeed, taking off). The substance of this announcement therefore remains unclear, though the central government's opposition to it is clear.

The Five Pillars of the KRG-Turkey Energy Relationship

Iraq's Kurdish region is significant to Turkey for five main energy reasons (apart from, of course, non-energy considerations). Firstly, the KRG is a potentially significant supplier of oil and gas which would transit via Turkey and/or could be sold in the Turkish market. Oil is normally a fungible commodity; however, it is arguable that, having no other geographic outlet, Kurdish oil is a captive source of supply for Turkey in the event of disruptions elsewhere.

It would be in Turkey's interest to provide Iraq with alternative export routes. This is partly because it would earn some transit fees, and partly because it would gain some political leverage over Baghdad. But most crucially, it would reduce the threat of a cut-off of Iraqi oil exports, a possibly unlikely scenario but one which would drive up oil prices for all consumers, including Turkey. Alternative export routes serve as a deterrent to any country (most likely Iran) that might seek to block Gulf shipping lanes. This should not be confused with any physical security of oil supply to Turkey, although it is worth noting that Turkish oil consumption of around 700 kbpd could be entirely met by a rehabilitated Kirkuk-Ceyhan pipeline, or a new Kurdish pipeline of 1 million bpd capacity[8]. In the event of a crisis blocking exports through the Gulf, Ankara's control of Iraq's only remaining export route would give it major leverage[9].

However, Turkey realises that permitting an independent Kurdish oil export route in defiance of Baghdad would be an extremely provocative move. Even at a time when it is far from happy with the Maliki government, it seems unlikely to break relations so dramatically. This might also meet with substantial opposition from anti-AK Party media and political groups in Turkey, which would present it as encouraging Kurdish independence and other separatist movements, notably in Syria.

Turkey's interest is clearer in the case of gas, where it is in a position to negotiate favourable terms for the supply of Kurdish gas, which could be aggregated with other supplies (from Azerbaijan, Russia and Iran) and supplied to European markets. It was hoped that Kurdish/Iraqi gas would be a foundation source of supply for the Nabucco pipeline, intended to diversify European supplies away from Russia.

Nabucco will now not go ahead, at least in its original form, due to delays in securing supply commitments. Russian progress on the South Stream pipeline (which runs under the Black Sea) also raises the possibility that the European gas market will be oversupplied – due to recession and lack of gas competitiveness versus coal, European gas demand is unlikely to recover to its 2005 peak level before 2020. Nevertheless, Turkey is making progress on the Trans-Anatolian Pipeline (TANAP) which then leads to a number of options for supplying south-eastern and central Europe and perhaps Italy. Kurdish gas is therefore of potential significance to Europe, even if not of the importance that it appeared a few years ago.

Reliable gas supply from Iraq would strengthen Turkey's negotiating hand with Azerbaijan, Russia and Iran. Iranian supplies in particular are unreliable, often cut off during winter when Iranian domestic demand increases. Turkey has found it difficult to pay for its gas deliveries from Iran due to the growing strength of sanctions against the Iranian financial sector, leading to a 'gold-for-gas' trade[10], itself targeted by further US Senate-led sanctions proposed in December 2012.

Turkish gas consumption, of 4.4 Bcf per day in 2011, is the fourth-largest in Europe[11], and growing exceptionally rapidly, at a compound annual growth rate of 11% since 2001. By contrast, most other large gas markets in Europe are shrinking. Turkey's gas balance in 2011 was as follows:

Source	**Volume (billion cubic feet/day)**
Domestic production	0.45
Russia (pipeline)	2.28
Azerbaijan (pipeline)	0.36
Iran (pipeline)	0.81
Total pipeline imports	3.45
Liquefied natural gas (LNG) imports	0.6
Total imports	4.05
Domestic consumption	4.43
Exports (pipeline)	0.069

Source: BP Statistical Review of World Energy 2012; Manaar research.

In this context, possible Kurdish exports of around 1.45 Bcf per day would be highly material, more than enough to replace Iran, or, to meet three years of demand growth at the prevailing rate of around 10%. Since the only route to market for Kurdish gas, barring a major improvement in relations with Baghdad, is via Turkey, the Turks should be able to extract a favourable price, and/or reduce the price they have to pay to another supplier. Indicatively, a discount of $1 per million British thermal units (MMBtu) for the Kurdish import volumes would save Turkey more than $500 million per year (European gas import prices are currently about $12 per MMBtu).

Secondly, the Kurdish region is an important market for Turkish companies. The head of the economic committee in the province of Sulaimaniyah (Slemani), Ahmad Haj Rashid, put KRG-Turkey trade at $12 billion in 2011[12]. Turkish trade with Iraq was $7.5 billion in 2010, of which 70% was with the Kurdish region, and the Turkish consul general in Erbil states that business with the KRG exceeds that with Syria, Lebanon and Jordan combined[13]. Turkey's Genel Enerji was one of the early leaders in developing Kurdish oil and has continued to increase its footprint following its acquisition by ex-BP CEO Tony Hayward's corporate vehicle. Turkish engineering companies are important players in developing the energy sector. Strong economic growth in the Kurdish region is driven by oil and gas revenues (mostly remitted from Baghdad), and policies friendly to trade and foreign direct investment generally.

Thirdly, Turkey is the key transit route for Kurdish hydrocarbons to world markets, and for supplies to enter the Kurdish region. This gives Turkey leverage over Erbil and underpins its policy of constructive economic and political engagement. The Erdoğan government appears to have taken the view that a stable, prosperous Iraqi Kurdistan region, economically dependent on Ankara, is the best outcome in dealing with its own Kurds. Turkey has also sought to work with the KRG's president Massoud Barzani to moderate the behaviour of Kurdish parties in the north-east of Syria (itself an important oil region) during the continuing civil war against President Assad. Were Assad to be overthrown, the regional picture would change sharply and unpredictably – perhaps, though this is far from certain, giving the KRG other options for hydrocarbon exports.

Fourthly, relations with Erbil are a source of Turkish leverage against Baghdad. Turkey has not wished to break relations with the government of Nouri Al Maliki, but relations have deteriorated over factors including Baghdad's perceived support for the Assad government in Syria; Turkish foreign minister Ahmet Davutoğlu's visit to the disputed city of Kirkuk, made without informing the Baghdad government; and the presence in Turkey of Iraqi vice-president Tareq Al Hashemi, sentenced to death in absentia in Baghdad on charges of running a murder squad. However, Davutoğlu has come under domestic pressure recently as his policy of "zero problems with neighbours" has run aground on the Syrian civil war, the breakdown of relations with Israel, and disputes with Baghdad[14]. The continuing conflict in Syria has, of course, both ethnic and sectarian dimensions, with Shi'a governments in Iran and Iraq supporting the Assad regime[15], the Gulf states and Turkey backing the largely Sunni Arab opposition, and the (predominantly Sunni) Kurds playing an ambiguous role in the middle.

Fifthly, the KRG has significance for Turkey's relationship with its own Kurdish population. As well as the Kirkuk-Ceyhan pipelines, the 1 million bpd Baku-Tbilisi-Ceyhan oil pipeline and Baku-Tbilisi-Erzurum gas pipeline from Azerbaijan run through Kurdish areas and have been attacked by the Kurdish separatist PKK group. The spill-over of prosperity into south-eastern Turkey would help improve conditions in a historically deprived part of the country.

Turkish direct interest in federal Iraq's energy is less, though its global importance is much greater. Turkish state oil company TPAO has significant involvement in federal Iraq, with 10% in the Badra oil-field development on the Iranian border, 11.25% in the Missan oil-field, 40% in the Siba gas field near the Kuwaiti border, and 50% (operator) in the Mansuriya gas field in Diyala. Siba and Mansuriya total some 3.6 Tcf of gas reserves with estimated investment at $3.9 billion. In November, however, TPAO was expelled by the MoO from the Block 9 exploration project in southern Iraq, against the backdrop of worsening Turkish-Iraqi relations.

The direct energy importance of federal Iraq to Turkey is debatable. Iraq has not shown particular urgency to rehabilitate or expand the Kirkuk-Ceyhan pipeline, nor the north-south 'Strategic Pipeline' which would allow for moving oil from south to north (or vice versa). This is surprising in view of Iraq's near-total dependence for its current oil exports on the facilities around Basra, which are vulnerable to bad weather, accidents and sabotage, and on free passage through the Persian Gulf and the Strait of Hormuz. Iraq has also moved slowly on gas exports, partly due to a mistaken perception that it has only limited volumes available for export after satisfying domestic demand.

However, Turkey clearly recognises that federal Iraq, with 25 million people against the Kurdish region's 5 million, and oil resources probably ten times greater, is a more important long-term prize. And Kurdistan has no other natural regional allies, while Iraq is close to Iran and has improved relations with Kuwait and Jordan. The KRG does therefore run the risk of being taken for granted by Ankara, or even cast aside as part of a larger game, as the Iraqi Kurds were by the Shah of Iran in 1975. It is possible that Baghdad could make a more tempting offer to Turkey, recasting its tough fiscal terms, to wean it away from the KRG. However, Turkey would always have to be sceptical of the Baghdad government's will and ability to deliver. And, given the poor and deteriorating state of Ankara-Baghdad relations, this appears more of a long-term eventuality.

Conclusions

Iraq's energy resources are of potentially global importance, particularly in oil. The Kurdistan region's oil and gas is much less significant on the world stage, but is very important for the future of the autonomous region itself. Securing Kurdish gas would be of considerable value to Turkey in its negotiations with Russia, Iran and Azerbaijan. Kurdish economic and political stability is also valuable to Turkey as it seeks to manage its relationship with its own Kurdish population and that in Syria.

Turkey has so far balanced carefully between Baghdad and Erbil. Similarly, the Maliki government in Baghdad, though enduring a number of crises with the KRG, has always managed to reach temporary solutions. This dynamic might persist for an extended period. The key aim for the KRG is to secure export routes for oil and gas independent of Baghdad's control, but these would still be reliant on Turkey. A decision by Ankara to deal directly with the KRG on oil and gas exports, and to pay for them without the intermediation of Baghdad, would have momentous implications for Turkey's implicit recognition of the KRG's sovereignty, for its relations with its own Kurdish population and the Kurds of Syria, and for the continuing integrity of a united Iraq.

A grand bargain within Iraq itself, including a federal oil and gas law, would be a less inflammatory and more satisfactory and durable solution, but awaits a major political realignment.

The energy triangle between federal Iraq, the Kurdish region and Turkey thus presents a fascinating situation in which oil and gas resources – as yet only at a very early stage of exploration and development – have become a key economic and political tool for each player. The weakest participant, the KRG, has played its pieces skilfully so far.

This game greatly needs a resolution, but the logic of the struggle does not allow either Ankara or Baghdad a swift checkmate.

Footnotes

1. All of these reserve estimates are likely to increase as appraisal and field development work progresses.
2. http://ikjnews.com/?p=2091
3. Minus production costs, perhaps on the order of $3-6 billion per year though higher initially.
4. Though the KRG retains a 20-25% carried share in most blocks, and depending on the costs and bonuses paid, the IOC's share may be as low as 7%.
5. Though the 4th Round contracts mention it explicitly.
6. Though Iran is heavily involved in the economy and politics of both the Kurdish region and the rest of Iraq.
7. http://uk.reuters.com/article/2012/09/07/uk-genel-kurdistan-idUKBRE8860K320120907
8. Turkey, of course, also transits some 1 million bpd in the BTC pipeline, and some 2. 9 million bpd of mostly Russian and Caspian oil via the Bosphorus Straits.
9. Iraq is considering developing alternative oil export routes, with a pipeline via Jordan the most likely medium-term option.
10. E.g. http://blogs.ft.com/beyond-brics/2012/11/23/turkey-so-it-is-gold-for-gas-afterall/#axzz2DGk08HSsall/#axzz2DGk08HSs
11. Excluding the former Soviet Union. Only Germany, the UK and Italy have larger consumption.
12. http://ikjnews.com/?p=142. Trade with Iran was $10 billion.
13. http://ikjnews.com/?p=881
14. e.g. http://www.al-monitor.com/pulse/originals/2012/al-monitor/davutoglu-blame-fail.html?utm_source=&utm_medium=email&utm_campaign=5385
15. Though both have hedged against his eventual downfall.