

ECONOMIC CHALLENGES IN POST-CONFLICT IRAQ

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March 17, 2010

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Economic Challenges in Post-Conflict Iraq

Economics are as important to Iraq's stability and political accommodation as security and governance, and they are equally critical to creating a successful strategic partnership between Iraq and the United States. It is far from easy, however, to analyze many of the key factors and trends involved. Iraqi data are weak and sometimes absent. U.S. and Coalition forces generally failed to look in detail at many of Iraq's most serious economic problems, or they issued heavily politicized reports designed to show that Iraqi "reconstruction" had been far more successful than it really was.

It is clear, however, that any analysis of a U.S. and Iraqi strategic partnership must examine these issues, which fall into four major categories:

- Iraq's near-term and mid-term dependence on its petroleum sector for much of its economic growth and most of its government revenue and self-financed development and security efforts.
- The critical problems in other sectors of the Iraqi economy, including industry and agriculture, and in many areas of government services like health and education.
- The impact of outside aid, where the Special Inspector General for Iraqi Reconstruction (SIGIR) and other reporting indicates that U.S. and other international aid efforts have fallen far short of their goals and sometimes done more harm than good.
- Iraq's ability to develop levels of security that will allow a normal economy to develop, which will reassure investors that foreign and domestic investment is safe, and that will ensure that investments in infrastructure and development are not attacked.

In the next few years Iraq will depend on oil revenues to fund most of its stability and reconstruction operations. However, there are still many political and economic factors that may impede this process and it will most likely take several months if not years for Iraq to increase its exports to the point where it can cover all of its reconstruction costs.

In the short run Iraq must find a way to fund these projects, particularly through foreign aid programs and loans. In the long run, Iraq must find a way expand other sectors of its economy at least to the point of self-sustainability—right now Iraq imports many of its products from neighboring countries, especially agricultural goods from countries like Iran. The government should also focus on improving business laws in the country and passing an oil law to ensure that current and future oil contracts are legitimate, and that the process of issuing these contracts runs smoothly. Otherwise Iraqis will have a hard time attracting foreign companies to invest in these industries.

Most importantly, Iraq must find ways to fund its development programs, especially its health and education sectors which are extremely lacking in funding and personnel. These aspects of reconstruction are crucial to meeting the needs of the Iraqi people and preventing a return to sectarian violence. If the Iraqi people do not perceive that the government is providing them with security and basic services then it cannot succeed at creating long-term stability and development.

There are never any easy answers to the economic problems of post-conflict reconstruction and long-term development but there are areas in which the Iraqi

government must now focus on improving, and areas in which the United States can help by providing additional funds, logistical support and advice. This is an essential part of the U.S.-Iraqi Strategic Framework Agreement and the United States must continue to follow up with the programs it started to ensure that Iraq has the resources and capacity to provide for its people.

1. The Costs and Risks of Dependence on the Petroleum Sector

This chapter addresses Iraq's petroleum sector and shows that reliance on oil revenues not only prevents Iraq from diversifying its private-sector economy, but also makes Iraq entirely dependent on export revenues that are highly unpredictable and subject to sudden drops in price. The constant stream of failed efforts to predict oil prices and revenues since 1973 is a grim warning about the ability to turn a temporary trend into a lasting prophecy. Back in 2008, peak oil prices seemed a new constant for the future until they took a sudden dive in 2009. Today, oil prices remain at lower levels although they are still higher than they were at the beginning of 2009. Tomorrow, a major global economic recovery may radically change Iraq's current economic position. No one can predict when and how sharply such a turnaround will take place.

The fact remains, however, that Iraq's political and internal stability depends heavily on both its ability to increase oil revenues to pay for economic recovery and development, and its ability to share petroleum earnings so that each major faction feels it has something approaching an adequate share. Oil revenues must also sustain government employment, move Iraq toward long-term development, and provide a level of overall economic activity that will produce acceptable levels of employment and income. Years of war and sanctions, a decline in industry and agriculture, and decades of systemic government mismanagement have left Iraq with an economy in which crude oil export revenues represented more than 75 percent of GDP (in 2008), and 86 percent of government revenues, according to estimates by the International Monetary Fund.¹

The Uncertain Status of Oil Export Revenues

Analytic graveyards are littered with the statistical corpses of failed efforts to predict oil revenues. The problems involved are further complicated by the fact that estimates are made in current and constant dollars, but the purchasing power of the dollar has altered radically over time and has dropped sharply in 2009—making Iraq's oil earnings much less valuable in terms of exports to non-US countries.

Two sets of data illustrate the challenges these problems pose for Iraq. **Figure 1.1** shows the instability in world oil prices over the past few years, particularly in the time period between 2007 and 2010. **Figure 1.1** also shows the recent fluctuation in Iraqi oil revenues relative to other states in the region and the impact of the dollar's loss of value.

The sudden drop in oil prices from 2008 to 2009, illustrated in **Figure 1.1** shows how revenue predictions based on oil prices one year can drastically change from actual oil revenues based on prices the next year. In 2009 the Iraqi government was forced to cut its budget by over 20 percent—most of it coming from the Ministry of Defense and Iraqi Security Forces. Since then oil prices have begun to rise again but unpredictable drops could affect the government's ability to provide security and basic services.

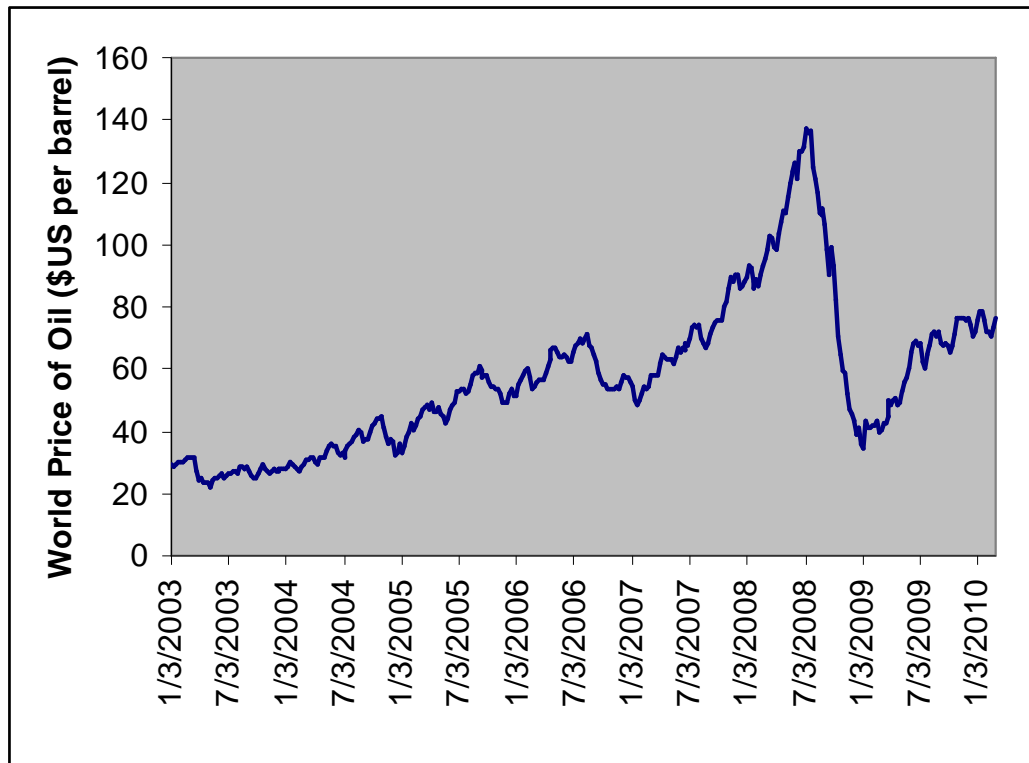
¹ "Iraq and Its Oil: Deterring Foreign Investors," *The Economist*, September 24, 2009.

The oil sector accounted for 53 percent of Iraq's gross domestic product in 2009, the third highest percentage among OPEC countries after Angola and Libya.² This dependence on oil revenues and vulnerability to sudden changes in oil prices became clear when Iraq's GDP growth dropped from 9.5 percent in 2008 to 4.3% in 2009.³ **Figure 1.2** illustrates this trend in GDP growth and shows how Iraq's oil sector ranks as a percentage of GDP along with other OPEC countries. Iraq must take these statistics into account when planning for future budgets based on oil revenues—it must save extra revenue in years when oil prices exceed expectations in order to cover the gap in expected revenue when oil prices drop below expected levels.

² Special Inspector General for Iraq Reconstruction (SIGIR), *Quarterly Report and Semi-Annual Report to the United States Congress*, January 30, 2010, 75

³ SIGIR, 76

Figure 1.1: OPEC Net Oil Export Revenues, 2003–2009 (In \$US price per barrel)



OPEC Country	Nominal (\$ billions)				Real (2000\$ billions)			
	2008	2009	2010	Jan-Nov 2009	2008	2009	2010	Jan-Nov 2009
Algeria	\$68	NA	NA	\$38	\$55	NA	NA	\$30
Angola	\$67	NA	NA	\$38	\$55	NA	NA	\$30
Ecuador	\$10	NA	NA	\$5	\$8	NA	NA	\$4
Iran	\$82	NA	NA	\$49	\$66	NA	NA	\$39
Iraq	\$60	NA	NA	\$33	\$49	NA	NA	\$27
Kuwait	\$79	NA	NA	\$41	\$64	NA	NA	\$33
Libya	\$57	NA	NA	\$31	\$46	NA	NA	\$24
Nigeria	\$69	NA	NA	\$41	\$56	NA	NA	\$33
Qatar	\$38	NA	NA	\$21	\$30	NA	NA	\$17
Saudi Arabia	\$284	NA	NA	\$139	\$230	NA	NA	\$111
UAE	\$91	NA	NA	\$46	\$74	NA	NA	\$37
Venezuela	\$59	NA	NA	\$30	\$48	NA	NA	\$24

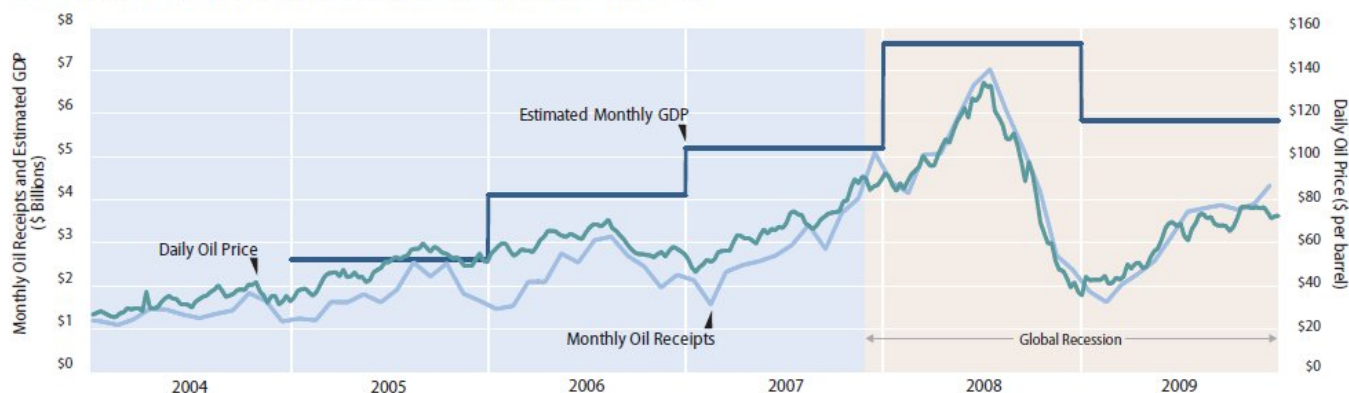
Total OPEC	\$965	\$575	\$759	\$512	\$781	\$459	\$598	\$409
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Sources: Energy Information Agency (EIA), U.S. Department of Energy, OPEC Revenues Fact Sheet, December 2009, http://www.eia.doe.gov/emeu/cabs/OPEC_Revenues/Factsheet.html.

Adapted from U.S. Energy Information Administration, Independent Statistics and Analysis – World Oil Prices, http://tonto.eia.doe.gov/dnav/pet/PET_PRI_WCO_K_W.htm

Figure 1.2: Influence of the Oil Sector on GDP in Iraq

RELATIONSHIP BETWEEN PRICE OF OIL, IRAQI OIL RECEIPTS, AND GDP



OPEC Oil Export Revenues, 2009

	NET (\$ BIL)	PER CAPITA (\$)	% OF GDP
Angola	42.2	3,294	61%
Libya	34.3	5,421	57%
Iraq	37.2	1,284	53%
Saudi Arabia	154.2	5,368	41%
Kuwait	46.0	17,061	40%
Algeria	42.7	1,250	32%
Nigeria	46.1	325	28%
Qatar	24.0	25,221	26%
UAE	52.2	10,863	23%
Iran	54.6	821	16%
Ecuador	5.8	411	10%
Venezuela	33.3	1,239	9%
OPEC	572.6	1,553	28%

The Lagging Development of the Petroleum Sector

Iraq's tapped oil reserves amount to approximately 115 billion barrels, which places it third after Saudi Arabia and Iran for housing the world's largest oil reserves. There is some speculation that the amount of oil in Iraq's untapped reserves is just as great, which would place it at the top of the list.⁴ The Department of Energy's Energy Information Administration (EIA) estimates that the oil in Iraq's 10 known undeveloped oil fields would fill about 41 million barrels worth nearly \$3 trillion.⁵

Iraq's petroleum sector has been badly undercapitalized, however, and its operating oil fields have been overproduced. Ever since Iraq began to go bankrupt in the early years of the Iran-Iraq war, it continued to concentrate on finding new export routes to compensate for Iran seizing its export terminals in the Gulf and Syria cutting off its pipelines to the Mediterranean. It has not modernized or rehabilitated most of its petroleum facilities and oil fields, nor its distribution and export systems.

EIA reported in June 2009 that⁶

Iraq's oil sector has suffered over the past several decades from sanctions, and its oil infrastructure is in need of modernization and investment. As of March 31, 2009, the United States had allocated \$2.05 billion to the Iraqi oil and gas sector to begin this modernization, but ended its direct involvement as of the first quarter of 2008, and does not have any ongoing construction projects in the oil and gas sector. The 2009 Iraqi budget allocated \$3.2 billion to the Ministry of Oil, a 50 percent increase from the 2008 base budget, to continue this work.

... Iraq's immediate goal is to boost production by 300,000 bbl/d by the end of 2010 to 2.7 million bbl/d. Iraq's 10-year strategic plan for 2008–2017 set a goal of increasing crude oil production capacity by 1.5 million bbl/d within 3–4 years, and by an additional 2 million bbl/d to a total of 6 million bbl/d within 10 years.

...According to reports by various U.S. government agencies, multilateral institutions, and other international organizations, long-term Iraq reconstruction costs could reach \$100 billion or higher, of which a third will go to the oil, gas, and electricity sectors. In addition, the World Bank estimates that at least \$1 billion in additional revenues needs to be committed annually to the oil industry just to sustain current production. Investment by the international oil companies will be aided by the passage of the proposed Hydrocarbons Law, which governs oil contracting and regulation. The law has been under review in the Council of Ministers since October 26, 2008, but has not received final passage.

According to the *Oil and Gas Journal*, Iraq's proven natural gas reserves are 112 trillion cubic feet (Tcf). An estimated 70 percent of these lie in Basra governorate in the south of Iraq. Probable Iraqi reserves have been estimated at 275–300 Tcf, and work is currently underway by several IOCs and independents to accurately update hydrocarbon reserve numbers. Iraq's proven gas reserves are the tenth largest in the world, and two-thirds of resources are associated with oil fields, including Kirkuk, as well as the southern Nahr (Bin) Umar, Majnoon, Halfaya, Nassiriya, the Rumaila fields, West Qurna, and Zubair. Just under 20 percent of known gas reserves are non-associated; around 10 percent is salt "dome" gas. The majority of non-associated reserves are concentrated in several fields in the North, including Ajil, Bai Hassan, Jambur, Chemchemical, Kor Mor, Khashem al-Ahmar, and al-Mansuriyah.

...Iraqi natural gas production has risen since 2003, and has returned to levels reached during the mid-1990s. However, its 2006 dry natural gas production of approximately 104 billion cubic feet

⁴ United Press International, "Violence Threatens Oil Deals," August 27, 2009.

⁵ "Iraq and Its Oil: Deterring Foreign Investors."

⁶ Energy Information Administration (EIA), *Iraq Country Report*, June 2009, <http://www.eia.doe.gov/cabs/Iraq/Background.html>.

(Bcf) per year is still far below its peak level of 215 Bcf reached in 1989. The Ministry of Oil reported that approximately 60 percent of associated natural gas production is flared due to a lack of sufficient infrastructure to utilize it for consumption and export. Significant volumes of gas are also re-injected to enhance oil recovery efforts. In addition, the flaring of the natural gas has meant lost Liquefied Petroleum Gas (LPG) output of an estimated 4,000 tons per day, while at the same time there are LPG shortages requiring imports of 1,200 tons per day. To reduce flaring, the state-owned South Gas Company signed an agreement with Shell in September 2008 to implement a 25-year project to capture flared gas and provide it for domestic use, with any surplus sent to an LNG project for export.

Iraq's 10-year strategic plan for 2008–2017 set a goal of increasing natural gas production to 2.5 trillion cubic feet per year, and to end the flaring of natural gas. As part of this plan, Iraq planned three licensing rounds. The first was announced June 30, 2008, and included an expected \$5 billion investment for natural gas fields with 22 Tcf of reserves, including Akkas in the western desert and al-Mansuriyah in the east. The contracts to develop these fields are planned for mid-2009. The second bidding round with 26 Tcf of reserves was planned for 2009, and includes the Siba field in the Basra area.

...The non-associated gas fields reportedly slated for priority development are mostly in the northern governorates near Kirkuk, including al-Mansuriyah and the nearby Khashem al-Ahmar and Jaria Pika, Kor Mor, Akkas, Chemchemal and Siba. It is also been reported that the government of Iraq plans to capture more associated gas at Rumaila and Az-Zubair within five to ten years.

Since the 2003 invasion, Iraq has done a poor job of renovating its petroleum sector and opening it up to expansion and foreign investment, although it finally began to make large-scale oil deals in 2009. The impact of civil conflict has been matched by political infighting, poor planning, and poor execution. Iraqis are deeply divided over whether the petroleum sector should be developed by the government or opened to private investment, and over what level of outside investment they will tolerate and on what terms.

Oil exports and production have been relatively stable during 2009, and the central government has made progress securing oil deals with oil giants like CNPC, BP, and Exxon Mobil, in addition to oil companies from a number of other countries. Revenue is still 22 percent below target rates, however, because of an unexpected drop in prices and lower-than-expected export volumes. Furthermore, the oil deals signed in 2009 involve 20-year service contracts that will take years to produce major increases in oil revenues, and could present serious security risks or fail to produce the levels of job creation promised by Iraqi officials and company managers.⁷

U.S. experts summarized the status of Iraqi efforts, and oilfield security as follows in August 2009:⁸

Despite higher crude oil production and exports in 2008, technical issues relating to wellhead equipment, field infrastructure, and field management—complicated by poor maintenance—will likely cause reductions in production throughout 2009.

Overall, crude oil production peaked at 2.54 million barrels per day ... in July 2008 and leveled off at approximately 2.36 [million barrels per day]...in the later months of the year. Iraq earned an estimated \$41 billion from crude oil exports in 2007, an increase of about \$10 billion over 2006. Oil

⁷ U.S. Department of Defense (DOD), *Measuring Stability and Security in Iraq*, Report to Congress in accordance with the Department of Defense Supplemental Appropriations Act 2008 (Section 9204, Public Law 110-252), October 30 2009, 15.

⁸ DOD, *Measuring Stability and Security in Iraq*, October 30, 2009.

revenues increased significantly to an estimated \$61.6 billion in 2008, primarily because of high world oil prices in the first half of the year. Production and exports appear stable for the first three months of 2009, but revenue is 35 percent below targets due to price and export volume deficiencies.

Security improvements have helped maintain production, exports, and increased domestic distribution. While there have been several minor pipeline interdictions over the last six months, none have impeded production, export, or refining. Iraqi technicians have conducted over 3,000 repairs since May 2008 on the Bayji-to-Baghdad pipeline corridor.

In December 2008, technicians re-commissioned the 16-inch natural gas line that provides fuel to power plants in North Baghdad. An Oil Pipeline Company repair team is currently repairing the 16-inch refined product line from Bayji to the Hammam Al Aleel depot near Mosul, and two other teams have carried out repairs on the 12-inch Naft Khana crude line. These repairs will increase the supply of crude to the Doura refinery in Baghdad and greatly increase the Ministry of Oil's (MoO) ability to distribute fuel to the largest city in the North. The Pipeline Exclusion Zone (PEZ) projects are incomplete due to MoD and MoI disagreements over contracts for guard towers along the three PEZs. The U.S.-funded piece of the Bayji-to-Baghdad PEZ program, currently 96 percent complete, remains on track. The U.S.-funded construction on the Doura-to-Hillah PEZ is complete.

Despite improvements, much of Iraq's crude oil infrastructure remains outdated, poorly maintained, and under-resourced. The MoO is initiating a series of project proposals aimed at modernizing and expanding production, specifically in the refining sector. Additionally, a strategy to restructure and revitalize the Iraqi oil sector and realign policy and responsibilities was supported by the Prime Minister in the early part of 2009. The CoM has approved a renegotiated contract with the China National Petroleum Corporation for the Ahdab field in Wasit; the previous production-sharing contract was signed in 1997. The seismic survey began in March 2009 and expectations are for four new wells and renovation of seven older ones. In September 2008, the GoI [government of Iraq] signed a Heads of Agreement with Shell for a 25-year project to capture flared gas for domestic use and for export. The GoI also launched two rounds of bidding on contracts to develop major oil fields, the second of which was announced on December 31, 2008. Bids from international companies are due mid-2009 after which the MoO will review and select bids. Given the length of the contract process, it is unlikely that there will be any significant foreign involvement in the Iraqi oil infrastructure before mid-2010.

After significant delays, Iraq has taken initial steps toward rebuilding its southern oil export infrastructure. The Southern Export Redundancy Project will provide redundancy and expansion of the Al-Basra and Khor Al-Amaya Oil Terminals (KAAOT), rehabilitate undersea pipelines, and eventually increase export capacity from 1.6 million barrels per day to 4.5 million barrels per day. The front-end engineering design contract was signed on December 21, 2008, and the kick-off meeting took place in March 2009. Surveys for unexploded ordnance in the Northern Gulf commenced in February 2009, and bathymetric surveys began at the end of April 2009. The progress on this project is still slower than might be expected given the strategic risk, impeded by a lack of good project management and timely decision-making. Iraq's water originates from outside its borders. Iraq and Turkey have discussed the possibility of releasing more water from the Euphrates and Tigris Rivers to increase irrigation. Negotiations on responsible water sharing between Turkey, Syria, and Iraq are ongoing.

Iraq also faces problems because it still depends on imports of petroleum products. Iraq's refineries produce a total of 600,000 barrels of refined petroleum per day, but are operating below capacity because of poor and antiquated infrastructure. Even if they were operating at capacity, the output would fall far short of the petroleum products necessary

to meet domestic demand.⁹ Although Iraq is increasing its crude oil exports and refinery capacity, it has not yet managed to secure the same level of investment for downstream development. As a result, Iraq continues to import high volumes of light oil and gas products from neighboring countries, relying on imports for one-fourth of the petroleum it consumes.

Iraq's current 10-year plan aims to increase its refining capacity to 1.5 million bbl/d by 2017 by constructing five new refineries.¹⁰ However, the Ministry of Interior has not outlined any set goals to increase the productivity of its existing refineries. Maintaining physical capital and training people to use it properly is often less expensive and more effective at increasing capacity than embarking on new infrastructure projects. Iraq's refineries are currently operating below 65 percent of capacity, far below the level needed to meet domestic demand, which totals about 600,000 bbl/d—this is roughly equal to the estimated capacity of Iraqi refineries.¹¹ Although Iraq should aim to increase its production capacity in the long run, it should also focus on updating and increasing the efficiency of these existing plants.

Furthermore, the government needs to better address disparities in the distribution of oil revenues by sect. Because most of Iraq's oil is located in the Shi'ite and Kurdish regions of the country, most of the money earned from exports tends to make its way back to those communities, excluding Sunnis from a lot of the revenue.¹² This does little to provide work for unemployed young men in these provinces or to quell the Sunni insurgency that still exists in many regions of the country. The government needs to distribute oil revenues more evenly, assuring that the benefits reach all communities in Iraq—not just the ones in power.

Even in predominantly Shi'ite provinces like Basra, where more than 80 percent of Iraq's oil is produced, people often do not see the positive effects of increases in oil production.¹³ Four of the country's five largest fields are in and around Basra—a province with more than 3 million residents—yet it is one of Iraq's poorest cities. Childhood cancer rates in the main city are among the highest in the country, people have very limited access to clean drinking water, the streets are filled with garbage, and almost everyone is unemployed.¹⁴ Although the number of oil jobs is increasing in the region, most residents of Basra lack the education and experience needed for available positions. Corruption is also rampant, and even educated Iraqis sometimes have to dole out bribes to get jobs in the oil industry.

Government officials in Basra have called for a fee of \$1 on every barrel of oil produced to go back to residents, but this brings up another issue: technically it is illegal to live on government property, in this case on an oil field. People in villages all around Basra basically live on a giant oil field so the government does not want to give them money to

⁹ EIA, *Iraq Country Report*.

¹⁰ Ibid.

¹¹ Saadallah al Fathi, "Major Bottlenecks in Iraq's Oil Refinery Sector," *Gulf News*, April 5, 2009.

¹² EIA, *Iraq Country Report*.

¹³ Timothy Williams "Marooned on Sea of Oil, but Unable to Tap Its Wealth," *New York Times*, November 7, 2009.

¹⁴ Ibid.

improve the infrastructure—they want to drive them out to clear the way for future drilling. This only adds to the resentment that many local Iraqis feel toward the government and oil companies.

Iraq's More Recent Oil Deals and Securing Foreign Investment

Iraq's oil negotiations improved in late 2009. After several months of negotiations, the Iraqi government finally got several oil companies to agree to lower terms of investment—securing deals with CNPC, BP, Exxon Mobil, Shell, Nippon, Eni, Occidental, and the Korea Gas Corporation to develop the country's largest oil and gas fields. Despite this success, many international firms were still wary of doing business in Iraq because of security issues, tensions between the KRG and the government in Baghdad, the country's lack of a hydrocarbons law, and its uncertain business laws and practices.

The first round of bidding on Iraqi oil and gas fields by international oil companies in June 2009 had only limited success. Eight international companies submitted offers, but the government awarded only one contract. The contract went to a consortium of BP and the China National Petroleum Corporation to develop the giant Rumaila field in southern Iraq—the largest in the country. Iraq approved the joint venture only after the companies cut their fees-after-development cost to \$2 a barrel from their original offer of \$3.99.¹⁵ The deal was finalized on October 8, 2009, when officials from the two oil companies signed the contract with Iraq's South Oil Company.¹⁶ All other companies refused to lower their prices to meet Iraqi demands.

The months following the first round of oil deals were far more successful. The Iraqi government signed deals for three more oil fields before even starting the second formal round of negotiations. In September 2009, Iraq auctioned off two more giant oil fields and Italy's Eni announced on October 13, 2009, that it was signing a contract to develop the Zubair field in a consortium with California's Occidental Petroleum and the Korea Gas Corporation.¹⁷ The Iraqi government said that the Eni consortium had agreed to the \$2 per barrel it originally asked for in June 2009. In addition, the central government announced in October 2009 that it had accepted a bid from the Japanese company Nippon over other competitors to develop the Nassiriya oil field in southern Iraq. Nippon expects to increase production in Nassiriya from 20,000 bbl/d to 100,000 bbl/d in one year and up to 200,000 bbl/d in two years.¹⁸

These successes seemed to support Baghdad's argument that its negotiating tactics were succeeding in attracting foreign investment on Iraqi terms, and the following events seemed to confirm this assertion. In November 2009, the Iraqi cabinet approved another deal with a consortium headed by Exxon Mobil and Royal Dutch Shell to develop the giant West Qurna oil field (phase one).¹⁹ The consortium agreed to a \$1.90 per barrel

¹⁵ Associated Foreign Press, "Iraq Aims to Increase Oil Production by up to Four Times," August 25, 2009.

¹⁶ "Iraq Signs Deal for Rumalia Field," *Financial Times*, October 8, 2009.

¹⁷ Ben Lando, "Ministry Claims Oil Policy Vindication," *Iraq Oil Report*, October 16, 2009.

¹⁸ Ben Lando, "Nippon Consortium Wins Nassiriya," *Iraq Oil Report*, October 20, 2009.

¹⁹ Associated Press, "Iraqi Cabinet Approves Exxon Mobile-Shell Oil Deal," November 10, 2009.

remuneration fee, even lower than the government of Iraq's original offer in June.²⁰ Other companies, including Shell, Conoco Phillips, and France's Total, also entered into talks with the GOI and considered lowering their initial offers for Iraqi oil fields.²¹

Of the 10 oil fields up for auction in the second round of negotiations on December 11–12, 2009, the Iraqi government managed to award seven contracts, mostly with companies from China, Russia and Europe. Two petroleum deals were secured on the first day. The first was by a consortium led by Royal Dutch Shell with Petronas, a state-owned Malaysian company, which beat CNPC and Total by bidding \$1.39 a barrel to win the giant Majnoon oil field (containing an estimated 12.6 billion barrels). The second was by a consortium led by CNPC, together with Petronas and Total, which won the Halfaya field (containing an estimated 4.1 billion barrels). That consortium beat out three other competitors for a bid of \$1.40 per barrel.²²

It is striking that few U.S. companies were willing to aggressively bid for these deals, partly for security reasons and partly because of uncertain costs and profitability.²³ Meanwhile, state-driven firms from China, Russia, and Malaysia and major European firms including Royal Dutch Shell, Eni, British Petroleum, and Statoil were willing to make riskier investments, in part because they have cheaper labor demands and because many of them do not answer to stockholders. Exxon Mobil was the only U.S. firm—out of seven major companies—to lead a major consortium, and Occidental was the only other U.S. firm to join a bid.²⁴

Five contracts for development rights were issued on December 12 for a total of seven fields. Iraqi officials again claimed that this showed that they were protecting Iraq's riches and ensuring that all oil contracts are in the best interest of the country and the Iraqi people.²⁵ In many ways they are correct—after several months of negotiations they were able to secure contracts on extremely favorable terms, particularly from deals made in the second round of negotiations.

The December auctions were also particularly successful for Iraq because all the major oil companies agreed to sign service contracts, in which they accept a fee for each barrel produced, rather than production-sharing contracts, in which the company holds an equity stake in the venture. Furthermore, all companies agreed to accept fees under \$2.00 per barrel—some companies went as low as \$1.40 per barrel—the same fee that only CNPC was willing to accept in the first round of negotiations. Companies may now be changing their minds because the government is offering lower taxes to firms operating in the oil industry, or because they want to get a foot in the door in what they know will be a profitable enterprise in the future.

²⁰ Ibid.

²¹ Ben Lando, "Meetings Move Iraq Closer to Next Oil Field Auction," *Iraq Oil Report*, October 19, 2009.

²² Ben Lando, "Halfaya Field Goes to China," *Iraq Oil Report*, December 11, 2009.

²³ Williams, "Iraq Auctions Development Rights to More Oil Fields; Londono, "US Firms Lag in Bids for Iraqi Oil."

²⁴ Ibid.

²⁵ Timothy Williams, "Under Tight Security, Iraq Sells Rights to Develop Two Oil Fields," *New York Times*, December 12, 2009, A8; Timothy Williams, "Iraq Auctions Development Rights to More Oil Fields, Hoping for Big Production Rise," *New York Times*, December 13, 2009, 20; Ernest Londono, "US Firms Lag in Bids for Iraqi Oil," *Washington Post*, December 13, 2009, A22.

At the same time, problems clearly remain. To begin with, there have been several disputes between the parliament and the central government over whether the Ministry of Oil can issue contracts without approval from the Council of Representatives. Shortly after the negotiations, the chairman of the parliament's oil and gas committee warned executives that lawmakers considered the newly signed contracts illegal.²⁶ He also called for the resignation of Oil Minister Hussain al-Shahristani. Any companies entering contracts to do business in Iraq should be aware of the political disputes that may hamper negotiations or ultimately nullify oil deals that have already been made.

In addition, no contracts were secured on three of Iraq's undeveloped fields, including the East Baghdad field near Sadr City, mostly because of security concerns.²⁷ Al Qaeda in Iraq has a heavy presence in the region, and Arab-Kurdish tensions often produce violent attacks that may hamper production.²⁸ As Iraq's security situation improves, the government might be able to secure contracts for those fields in unofficial negotiations, as it did in the months following the first round of bidding. However, the government must also be willing to compensate for the risks associated with working in the area and be more flexible on costs, as well as concentrate on improving oil security in the region.

There also was no firm guarantee that the new government will fully honor the oil contracts, or that the "more secure" fields would be secure enough to be developed on schedule. There are still many restrictions for foreign companies operating in Iraq, and nationalist sentiments remain strong. The parliament has strongly opposed several of the oil contracts already signed by the central government, and finalizing previous deals has been a slow process. As of December 2009, only the Rumaila contract had been finalized, while the Ministry of Oil kept delaying other approvals, claiming that it was still working on the details.

Uncertain Iraqi Progress in Creating the Right Climate for Investment

Iraq is gradually trying to create a better climate for investment in its petroleum sector and the rest of its economy.²⁹ In October 2009, for example, more than 300 Iraqi politicians and businesspersons met in Washington for a two-day conference sponsored by the U.S. Chamber of Commerce. More than 800 companies took part in the conference to discuss the possibility of investing in Iraq. President Obama heralded the conference as a sign of the transition in the relationship between the United States and Iraq to discuss issues beyond security like economics, trade, and commerce.³⁰ At the forefront of subjects discussed at the conference was that of repealing UN economic sanctions and resolutions that have been in place since Saddam Hussein's invasion of

²⁶ Londono, "US Firms Lag in Bids for Iraqi Oil."

²⁷ Williams, "Under Tight Security, Iraq Sells Rights to Develop Two Oil Fields"; Williams, "Iraq Auctions Development Rights to More Oil Fields"; Londono, "US Firms Lag in Bids for Iraqi Oil."

²⁸ Ben Lando, "No Bidders for Eastern Fields," *Iraq Oil Report*, December 11, 2009.

²⁹ Reuters, "Iraqi Investment Still Hindered by Politics, Bureaucracy," October 7, 2009.

³⁰ Steven R. Hurst, "Obama Renews Pledge on Troops," *Independent Online*, October 21, 2009.

Kuwait in 1990. Measures to cancel these sanctions are expected to happen sometime in the next few months to help bolster Iraqi investment.

This was scarcely the first conference on Iraqi investment, however, and did not produce noticeable results. Ten other meetings had been held since 2003 with the same purpose, and all failed to drum up much excitement for investing in Iraq. Iraqi delegates left the gatherings with little to show for their attendance. Abbas Shamara, owner of an Iraqi investment group, describes the situation as “a lot of speeches but not much action.”³¹ Despite all the talks and conferences, most companies still cite Iraq’s poor investment climate as the reason for their hesitancy to do business in the country.

Iraq’s opaque bureaucracy, nascent financial institutions, widespread corruption, and lack of business laws all combine to deter foreign investment. Improving security may provide greater incentive for petroleum companies to move into Iraq but it will not tip the scales. Iraq needs to offer better contract terms to compensate for these problems in the short run, but, as recent evidence shows, terms are negotiable and companies will sometimes settle for fees below their asking price. It is far more important for the Iraqi government to concentrate on establishing legitimate investment laws and practices. Securing a contract is one thing, but launching new projects and ensuring that ongoing projects run smoothly requires greater attention to detail, both in planning and legislating terms of investment.

Iraq needs to further advance legislation on investment and petroleum laws and modernize its financial sector. Iraq still relies on Saddam-era oil legislation to guide the process of investment, which brings the legitimacy of Iraqi contracts into question both abroad and at home.³² Iraq may benefit more from conferences on proper business practices, transparency, investment legislation, and financial innovation than from the kinds of investment conferences the United States has hosted so far – aimed mostly at generating interest from foreign companies. As Patricia Halsach, the U.S. ambassador to Asia-Pacific Economic Cooperation stated in an interview on Iraq’s efforts to increase investment, “The ball is in their court now. They can’t just say ‘we want you in invest here.’ It’s going to take commitment from the government of Iraq to make the necessary changes. That means the elected officials and the ministries have to make the hard decisions.”³³

Violence and the Lack of Suitable Legal Protection and a Hydrocarbons Law

The way Iraq has structured its past requests for bids and proposals has been only part of the problem. Violence in Iraq, the lack of oil laws and well-structured investment laws, threats of excessive taxation, and a lack of land ownership rights all combine to deter foreign companies from investing in Iraqi petroleum unless they can secure a deal that compensates for these risks.

³¹ Ibid.

³² Ben Lando, “First Rumalia Hurdle Cleared, Many Remain,” *Iraq Oil Report*, October 8, 2009.

³³ Bureau of Near Eastern Affairs, U.S. Department of State, *Iraq Status Report*, October 14, 2009.

International companies still have good reason to worry about the combined impact of security problems, political turmoil, and the lack of long-term legislation governing the oil and gas sectors.³⁴ Several politicians in the Iraqi parliament still support the idea of nationalizing the oil industry—which is of no comfort to international investors—and there is little chance that the Iraqi government will draft an oil law until the new government settles in. Almost all legislation has been set aside until after the formation of a new government as politicians focus on gaining or maintaining power by playing to popular fears and xenophobia.³⁵

Iraqi lawmakers in the Council of Representatives, trade unionists, and local politicians have been strong advocates of state management of petroleum reserves. In contrast, Prime Minister Maliki and Oil Minister Shahrastani, have shown more interest in getting as much foreign investment, help, and technology as quickly as possible in the effort to raise oil and gas export revenues—although Maliki seems to favor independent foreign efforts while Shahrastani has focused heavily on building up a nationally controlled, state industry-driven effort.

As a result the Iraqi Oil Ministry has signed contracts with several foreign companies to develop Iraq's oil fields without the consent of the Council of Representatives and while leaving serious uncertainties over taxes, facility security and protection, land rights, and how future governments will treat any current contracts.

Iraq has few business laws on its records and does not have a strong history of conducting international business transactions. In 2009, Iraq fell six places on the World Bank's Ease of Doing Business index from 152 to 181.³⁶ International investors may have reservations about doing business in Iraq for a number of reasons, including:

- **No immunity from Iraqi laws:** According to the Security Agreement that went into effect on January 1, 2009, foreign companies must abide by all Iraqi laws. They are subject to both criminal and civil liability in Iraq and must adhere to all legal and regulatory requirements for doing business there (e.g., entry and exit procedures, tax laws, vehicle registration requirements).
- **Tax payments:** According to the law, all Iraqis and non-Iraqis residing in Iraq must pay taxes on income earned from commercial activities in the country or activities of a commercial nature. Taxes for joint stock companies and limited liability companies are fixed at 15 percent although there are several loopholes and exceptions to what category a company fits under. All foreign individuals and companies must also obtain a business license from Iraq, which can be a convoluted, overly bureaucratic process.
- **Owning property:** Foreign citizens are prohibited from owning property in Iraq, although the Council of Representatives passed an amendment to the National Investment Law that allows foreign entities to own land – the law must still pass through the Presidency Council.³⁷

³⁴ Ben Lando, "Iraqi Forces Step up Oil Protection," *Iraq Oil Report*, September 24, 2009.

³⁵ Ben Lando, "Locals Look for Benefit in Oil Boom," *Iraqi Oil Report*, September 8, 2009.

³⁶ U.S. Department of State, Iraq Office, *Iraq's Economy*, March 2009.

³⁷ Special Inspector General for Iraq Reconstruction (SIGIR), *Quarterly Report and Semi-Annual Report to the United States Congress*, January 30, 2010, 78

- **Political risk:** Although the security situation in Iraq has improved, some areas of the country still experience frequent attacks. There is also some antagonism from political leaders and militias toward foreign companies operating in Iraq.
- **Corruption:** Iraq ranks near the bottom in Transparency International's annual Corruption Perception Index. Other foreign companies have had local partners forced on them and have faced problems in receiving full payments for services or products. Furthermore, U.S. companies operating in Iraq must be careful not to violate the U.S. Foreign Corrupt Practices Act that prohibits providing anything of value to influence an award of government business.
- **Enforceability of agreements:** Iraq is not yet a signatory to the New York Convention, the main treaty that ensures enforcement of foreign arbitral awards, and it has few investment laws on its records.
- **Entry and exit:** Visa processes for entering and exiting Iraq can take anywhere from a few weeks to a few months to process; companies are pushing for a policy that would guarantee entry and exit for the employees of any foreign company with an investment license.³⁸

The Iraqi government has addressed some of these issues, but it has yet to pass the most important measure toward securing foreign investment: the hydrocarbons law. There are no laws mapping out how the government must ratify contracts with foreign companies, which allows the parliament to frequently question the legality of agreements made by the Ministry of Oil. The lack of an oil law has also caused friction between the central government and the Kurdish Regional Government, which has signed dozens of contracts with foreign oil companies without the central government's approval. In response, Baghdad has stopped issuing payments to all companies operating in the Kurdistan region.

Most importantly, passing a hydrocarbons law will eliminate many of the uncertainties that plague Iraq's oil sector. If disputes between the central government and the regional government, and between the executive branch and Parliament, can be avoided by adhering to set regulations then the process of signing and implementing contracts will run a lot more smoothly. These kinds of disputes create an unpredictable business environment that few companies are eager to operate in. There are always fears that the parliament will nullify a contract and exert state control over the oil industry or that the central government will stop issuing payments if it deems an agreement illegal. The uncertainties that underlie these contracts are often a deterrent to doing business in Iraq, one that the government must eliminate by establishing a clear set of practices to govern the way these contracts are formed.

In addition, the lack of transparency in Iraq's oil sector and inconsistencies in the actions of the Iraqi government raise problems for foreign industries. The Norwegian firm DNO, one of the first companies to sign an exploration contract with the KRG, saw its shares drop by 50 percent on the Oslo Stock Exchange (Oslo Børs) after an insider trading scandal involving the KRG minister of natural resources, Ashti Hawrami.³⁹ The stock exchange accused Hawrami of playing middleman in a \$29.7 million sale of DNO stock to the KRG-contracted firm Genel Enerji of Turkey.⁴⁰ It also accused DNO of illegally

³⁸ "Doing Business in Iraq: 10 Smart Rules," *Business Week*, September 14, 2009.

³⁹ Ben Lando, "DNO Lashes out at Bors," *Iraq Oil Report*, September 24, 2009.

⁴⁰ Ibid.

concealing information about the sale from its investors, prompting the KRG to put a temporary freeze on all DNO assets.

The stock exchange cleared the KRG of any blame in the investigation, and Kurdish officials continue to assert that they “were never subject to investigation. We never did anything wrong. The issue was only with DNO and the way they handled their obligations vis-à-vis a regulator.”⁴¹ The KRG said it bought the shares to help DNO when the global financial sector was in turmoil and the firm was struggling to finance its projects. Rather than mediate the sale between DNO and another company, the KRG found it easier to just buy the shares (in October 2008) and sell them later (in April 2009).

Some media sources still claim that the KRG made a profit from the sale and engaged in illegal activities.⁴² Although the Oslo Stock Exchange did not charge the KRG with any wrongdoing and dropped insider trading charges against DNO, those allegations still tarnish the government’s reputation, making it more difficult to attract investment

Petroleum Security in the North

The Iraqi government has taken some measures to ease these concerns and cultivate a business and security environment that is friendly to foreign investors. For starters, oil infrastructure security is very good in Iraq. The government has taken great steps to improve security and make faster repairs to any damage to its pipelines and other oil facilities.⁴³ The oil sector is no longer an easy target for insurgents, and when attacks do happen Iraqi security forces have responded quickly and efficiently.⁴⁴

Petroleum operations in the north have experienced the greatest amount of security risk since the first Iraq War in 1991, but the region has recently seen significant improvement. At the height of sectarian violence in 2006 and 2007, Iraq had to switch to short-term individual tender sales, selling oil by the tanker-load rather than on long-term contracts, because delivery was so erratic.⁴⁵ The government also incurred high demurrage costs for deliveries delayed more than 65 hours. The Kirkuk-to-Bayji pipeline was closed 92 percent of the time in 2006, costing Iraq more than \$30 million per day in lost revenue. The pipelines from the Kirkuk fields cut southwest to Bayji, then south to Baghdad and north to the Turkish border, creating a slew of easy targets for insurgents along the way.⁴⁶

All this changed in 2007 after a joint U.S.-Iraqi project set up new Pipeline Exclusion Zones (PEZs) lined with berms, fences, razor wire, walls, and trenches, and secured by several armed guards at intermittent bases along the pipeline. Since then, oil exports have been able to reach the Turkish port of Ceyhan uninterrupted. In a significant turnaround, the Kirkuk-Bayji pipeline was open 94 percent of the time in 2008, and daily production rates rose from 520,000 bbl/d to 600,000 bbl/d in just three months (from November 2007 to February 2008).⁴⁷ The \$43-million PEZs paid for themselves in just two days.

⁴¹ Ben Lando, “KRG: Cleared by Oslo Stock Exchange,” *Iraq Oil Report*, September 28, 2009.

⁴² Ibid.

⁴³ Ben Lando, “Q&A: Security Snapshots,” *Iraq Oil Report*, September 24, 2009.

⁴⁴ Lando, “Iraqi Forces Step up Oil Protection.”

⁴⁵ Lando, “Q&A: Security Snapshots.”

⁴⁶ Ibid.

⁴⁷ Ibid.

In 2009, there were only eight attacks on Iraq's oil infrastructures, only one of which the U.S. Department of Defense assessed as effective.⁴⁸ There were no attacks on oil infrastructure in the last quarter of 2009. The Northern Oil Police Center also graduated 1,342 new Iraqi security officers in the same quarter to join the Iraqi Oil Police.⁴⁹

Petroleum Security in the South

The oil sector in southern Iraq has always been relatively calm and Iraqi forces continue to patrol the area successfully. The oil police in the southern region of Basra, for example, have planned a three-level cordon for all oil facilities and an increase in 24-hour patrols. There have been few attacks in the region and exports are rarely interrupted.

The Ministry of Oil has also started paying members of local tribes to protect the pipelines rather than tapping into or attacking them. The Shi'ite-led government has not formally conscripted these forces into the ISF, however, and some tribesmen have even complained that they are not being paid.⁵⁰ Smuggling also continues to occur frequently throughout the country, although the government is trying to step up its efforts to thwart these operations.

There were some breeches in security in late 2009 that could affect foreign investors' willingness to do business in Iraq. On October 17, 2009, for example, Iraqi insurgents—most likely members of Al Qaeda in Iraq (AQI)—detonated explosives on two bridges in Anbar province.⁵¹ The insurgents used a truck full of explosives to destroy the first bridge near Fallujah, connecting Anbar to Baghdad and Karbala.⁵² One day later, they blew up the Warrar Bridge west of Ramadi, which sits on a main highway and connects Iraq to neighboring Syria and Jordan. The attacks paralyzed traffic for hours and delayed business transactions throughout the country.

These attacks were fairly sophisticated in nature. The insurgents used a 40-pound roadside bomb in the second attack, planting it next to the bridge without arousing suspicion from local security forces. In Ramadi, insurgents were able to smuggle explosives past several checkpoints set up to control traffic in and out of the city.⁵³ If insurgents can still conduct these kinds of attacks with limited interference from Iraqi police, then they continue to threaten the regular flow of commerce in and out of the country. Stationing additional forces along key intersections like bridges may help reduce these kinds of disruptive attacks in the future.

Some Improvements in Investment Laws But More Is Needed

Iraq's government has also taken measures to ease investment laws in order to attract foreign business. In October 2006, the government enacted the National Investments Law granting foreign companies 10 years of tax-free treatment, guaranteeing full repatriation

⁴⁸ Special Inspector General for Iraq Reconstruction (SIGIR), *Quarterly Report and Semi-Annual Report to the United States Congress*, October 30, 2009, 60.

⁴⁹ Ibid.

⁵⁰ Ibid.

⁵¹ Uthman al-Mokhtar, "Insurgents Destroy 2 Bridges in Anbar," *Washington Post*, October 17, 2009.

⁵² "Suicide Truck Bomb Destroys Key Bridge in Western Iraq," *Xinhua*, October 17, 2009.

⁵³ al-Mokhtar, "Insurgents Destroy 2 Bridges in Anbar."

of investment profits in licensed projects, and giving companies a three-year exemption on import fees for equipment required for projects. The law also gave companies the right to employ foreign workers.⁵⁴ The Kurdistan regional government passed its own investment law as well, with even more lenient conditions for foreign companies.

In addition, the Council of Representatives passed an amendment to the National Investment Law at the end of 2009 that allows foreign companies and individuals to own land in Iraq. The amendment has moved to the Presidency Council for ratification and it expected to pass through at some point in 2010.⁵⁵ However, no one knows how well the law will be enforced and whether or not there will be any type of backlash from Iraqi citizens.

The fact remains, however, that the Iraqi government must develop a more realistic picture about how internationally competitive bidding systems work and the real-world incentives necessary to attract foreign ventures. Despite its success at securing oil investments in late 2009, the government still has a long way to go in finalizing these contracts and attracting foreign investment in other sectors of the Iraqi economy. Oil may be in high demand in the short run, but without established business practices and investment laws the GOI will have a difficult time maintaining relationships with foreign companies and expanding Iraq's role in international markets.

Developments in Natural Gas

There are some positive, if precarious, developments in Iraq's natural gas industry. On August 24, 2009, Royal Dutch Shell announced that Mitsubishi would take a 5 percent stake in a joint venture to produce natural gas in southern Iraq. Currently 800 million cubic feet of gas flare every day in southern Iraq as a byproduct of oil production. As a result, the country loses about \$40 million worth of natural gas each day because it lacks the infrastructure and technology to capture and commercialize the fuel.⁵⁶ Iraq would own 51 percent of the joint venture with Shell and Mitsubishi (Shell would take 44 percent).

In September 2008 Shell and Iraq's South Gas Company made plans to finalize the contract and start production by the end of 2009, but the Iraqi government may delay finalizing its deal with Shell until mid-2010 (after the formation of a new government). Prime Minister Maliki and Oil Minister Shahrastani both support the deal, but it faces opposition from Iraqi lawmakers, politicians, and trade unions, who want the agreement to go through the parliament first.

Popular Reactions, Resentments, and the "China Syndrome"

On the domestic side, Iraqi citizens often complain that they will not benefit from international contracts. Companies doing business in Iraq are not legally obligated to hire Iraqi employees; nor will Iraqis benefit directly from these new sources of energy, since

⁵⁴ "Doing Business in Iraq: 10 Smart Rules."

⁵⁵ Special Inspector General for Iraq Reconstruction (SIGIR), *Quarterly Report and Semi-Annual Report to the United States Congress*, January 30, 2010, 78

⁵⁶ Ben Lando, "Oil Ministry Productive Despite Politics," *Iraq Oil Report*, September 3, 2009.

the country exports most of its oil and natural gas. Processed gas has a very short shelf life, and without flexible and alternative routes to deliver to domestic consumers, it may sit on the market too long and be burned when it can no longer be used.⁵⁷ This does not bode well for either businesses or customers in a country where weeklong power outages are a frequent occurrence.

Local interests and disputes present serious obstacles to issuing oil and gas contracts to international firms. As the central government tries to secure deals with foreign companies to develop its oil fields, local Iraqi citizens complain that they are not sharing in the revenue and employment benefits that come with foreign investment. Consequently, members in the Iraqi parliament continue to voice criticism of foreign companies coming into the country to “steal Iraq’s oil.”⁵⁸

Iraqis have good reason to remember the iron grip that major oil companies had on Iraq from 1900 to 1960, and nationalization remains a popular policy in the country. The Iraq Oil Report (IOR) notes the following:

- Progress, gaining momentum now, hasn’t been easy. An oil and gas law and revenue sharing law have been slow moving, as have laws to reorganize the ministry into more of a regulatory body and the reconstitution of the Iraqi National Oil Co. The government relies on Saddam-era regulations of the oil sector largely because it hasn’t held a national discussion over the future of the oil sector, which begs disputes over the post-Saddam constitution and critics with every step the Oil Ministry takes.
- The backlash to almost any form of privatization has been spearheaded by civil society groups, especially the oil unions. Officially considered illegal—due to one of a few other Saddam-era laws kept on the books by subsequent American and Iraqi governments—the unions have gone as far as briefly stopping production over worker rights and privatization. Five union leaders are currently in the United States, guests of the American union federation AFL-CIO, which along with other American and international labor groups have helped modernize the unions. Even the unions, however, have said there is room for some level of foreign participation in Iraqi oil.
- Around the beginning of this year CNPC, the Chinese firm partnered with BP in Rumaila, began work on the one-billion-barrel Ahdab field in Wasit province. The Iraqi government held CNPC’s Saddam-era contract was still legitimate, but negotiated better terms for the country. Soon after work began, however, local residents and officials began to complain that promises of jobs and investment went unfulfilled. Equipment began to be sabotaged, a reminder to country and company that local needs must be attended to. In this way, Dhi Qar officials are being proactive, said Muna al-Safi, a member of the provincial council’s economic committee, who attended the Nassiriya oil field tour.⁵⁹

The difficulties that CNPC and BP have faced in Iraq are emblematic of a larger “syndrome” that may affect other foreign operations in the country. The companies have had a great deal of trouble operating in the Wasit province where local Iraqis have

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ “Locals Look for Benefits in Oil Boom,” *Iraqi Oil Report*, September 8, 2009, <http://www.iraqoilreport.com/the-biz/locals-look-for-benefits-in-oil-boom-2231/>.

protested by cutting electricity lines and destroying generators.⁶⁰ If local residents do not feel that they are benefiting from foreign oil ventures or that foreign companies are taking advantage of Iraq's dire situation, resentments may manifest themselves in this kind of violence and sabotage, further deterring investment in Iraqi oil.

Residents must see the benefits that they derive from having international companies extract oil in their country. The payoff must be noticeable, and the government cannot leave it up to oil companies to ensure that it is. A company's primary objective is to turn a profit, whether or not that is at the expense of Iraqi civilians. Consequently, the Iraqi government must have a quick turnaround for oil revenues—investing the money it earns from these ventures in security, infrastructure, and development programs so that residents understand how they are benefiting from international oil deals.

In the meantime, Iraqi politicians have taken on the responsibility of championing their cause. Two of the most prominent politicians on the Iraqi parliament's Oil, Gas, and Natural Resources Committee have denounced the Rumaila deal with CNPC and BP—and other, similar deals—as illegal, arguing that it must go through the parliament before the government can sign a contract with the foreign consortium.⁶¹ They argue that Iraq should play a much larger part in its oil industry, not just the 25 percent share agreed to with CNPC and BP. Policymakers have gone so far as to challenge the Rumaila contract in Iraq's federal court, and the parliament approved a request from members to question the oil minister.⁶²

Ben Lando of the *Iraq Oil Report* explains that it is common for the opposition to an oil contract to call it “illegal,” just as the parliament has done with the Rumaila contract and the central government has done with contracts issued by the KRG.⁶³ The problem stems mainly from the lack of an oil law governing the sector, legislation that has been pushed back again and again and caused much political infighting.

The Ministry of Oil still uses the guidelines set by Saddam-era oil legislation to govern foreign investment deals. Without a new law, there is no way to determine whether the Rumaila contract, or any other contract, is legal. Making accusations that such deals are “illegal” is, therefore, more of a political move than a governing tool. To correct the situation and ensure that future contracts are legally binding—which will also put investors at ease—the government needs to draft an oil law that clearly defines the parameters and procedures of awarding petroleum contracts.

Unfortunately, there is little hope that any of these things will happen before Iraq forms a new government, a process that can take several months. For now, Iraqi politicians feel “obliged to beat the nationalist oil drum, unable to tell voters that the country will earn more from its oil only if foreigners are drawn in.”⁶⁴ Instead, this responsibility will probably fall to the party that wins the national elections.

⁶⁰ “Deterring Foreign Investors,” *The Economist*, September 26, 2009.

⁶¹ Ben Lando, “First Rumaila Hurdle Cleared, Many Remain,” *Iraq Oil Report*, October 8, 2009.

⁶² *Ibid.*

⁶³ *Ibid.*

⁶⁴ “Deterring Foreign Investors.”

Kurdish-Arab Tensions

As discussed in earlier chapters, the Arab and Kurdish governments in Iraq dispute whether the KRG should be able to award contracts to foreign companies without going through the central government. The borders of the autonomous Kurdish region are still under debate, as is oil-sharing legislation that will determine how to split revenues from the massive oil fields located within Iraqi Kurdistan. The *IOR* reports:

- In the autonomous three northern provinces of Iraqi Kurdistan another dispute lingers. The Kurdistan Regional Government has signed two dozen oil exploration and production contracts with foreign oil companies. The KRG has struck success as two of the first contracts have begun exporting oil as of June 1 [2009]. But the companies have not been paid yet. The Iraqi government considers all but the earliest KRG deals an illegal usurpation of the federal government's right to be the sole oil deal-breaker.
- Other provinces have floated the idea of signing oil deals on their own, including Basra ... Its demand to be at the negotiating table helped stall the Shell gas joint venture. The state-run South Oil Co. exports 73 percent of Iraq's crude, most of which comes from the Basra province. Missan province, immediately east of Dhi Qar, was given its own national oil company from the least productive slice of Iraq's most productive state company, the South Oil Co.
- Many Iraqi provinces would be happier with the Baghdad-controlled system if it had a bigger payoff.⁶⁵

Tensions between Baghdad and the KRG have intensified ever since China's Sinopec Group took over development of the Taq Taq oilfield in northern Kurdistan through its purchase of Switzerland-based Addax Petroleum. Baghdad has repeatedly stated that it is opposed to the autonomous Kurdish region signing its own contracts; meanwhile, the KRG continues to sign dozens of contracts with foreign firms. In response to Sinopec's move into Kurdistan, the Iraqi Oil Ministry has declared all contracts issued by the KRG to be illegal, threatening to blacklist any companies that do business in Iraq without the approval of the central government.⁶⁶

The Iraqi government has stated that it will not allow Sinopec Group to participate in the second round of negotiations if the company completes its purchase of Addax and moves into Kurdistan. Similarly, the government stated that the Korean firm SK Energy will also be blacklisted from future bidding if it goes forward with its plans to sign an oil contract with the KRG.⁶⁷ Sinopec has already missed out on the opportunity to develop the Zubair field in a consortium with Eni, as the two companies had originally planned. The chief executive of Eni stated that Sinopec was no longer a part of the consortium because the Iraqi government asked them to exclude the company from the contract.⁶⁸

The KRG has responded by halting all petroleum exports from Kurdistan until Baghdad pays all companies operating in Kurdistan; so far, Baghdad has not issued any payments for exports from the region.⁶⁹ The KRG began exporting petroleum from its two main oil

⁶⁵ Ibid.

⁶⁶ "Iraq's Kurdish Oil: Kurdistan Goes Glug, Glug," *The Economist*, May 28, 2009.

⁶⁷ Ben Lando, "Blacklist Enlarged and Challenged," *Iraq Oil Report*, October 1, 2009.

⁶⁸ Reuters, "Sinopec 'Seeks Communications' with Iraq on Oil Talks," October 16, 2009.

⁶⁹ Timothy Williams, "Kurdistan Halts Oil Exports," *New York Times*, October 13, 2009.

fields, Tawke and Taq Taq, on June 1, 2009, but the central government has refused to pay the companies because it considers their contract with the KRG illegal. Kurdish oil accounts for only 100,000 bbl/d out of Iraq's total production of 2.4 million bbl/d. But with the rising cost of government programs and the increasing pace of production in Kurdish areas, any freeze in production will have an impact on Baghdad. International companies looking to invest in Iraqi oil may hesitate to do business with the KRG if the central government will not pay them.

On the other hand, the KRG tends to offer foreign investors better terms in its oil contracts than the central government does. The Kurds have signed production-sharing agreements (PSAs) in which foreign companies share in a percentage of the profits they earn from oil sales, while the central government has offered only service contracts under which the government pays each company a fixed fee per barrel and keeps most of the revenue.⁷⁰ Foreign companies generally profit more from PSAs, so many of them have approached the KRG about signing contracts to develop its oil fields despite objections from Baghdad. As of December 2009, 35 companies, including Addax and SK Energy, have signed production-sharing agreements with Kurdistan.⁷¹ If the two governments cannot cooperate on a way to issue oil contracts and agree on the terms for foreign investors, this problem may persist and jeopardize future oil negotiations.

The central government contends that the KRG should be responsible for paying the companies operating the fields because it does not submit its oil contracts to the central government for approval.⁷² The KRG continues to argue that the central government should pay the companies because it exports all of its oil through Iraqi pipelines. Past attempts to organize conferences and meetings to resolve the conflict have often ended in political bickering, with one side trying to embarrass or undermine the other rather than work toward a compromise.⁷³

As previously noted, most of these arguments stem from the lack of a national hydrocarbons law, which has failed to pass several times. Without a law to govern the procedures the government needs to follow to ratify oil contracts, all parties act at their own discretion and end up fighting over the legality of agreements with foreign companies. The Council of Representatives has stated that it will not review the package of hydrocarbon laws again until 2010.⁷⁴ Until then, the central government continues to refuse to pump oil from the Kurdistan region or pay the companies operating there, including Sinopec, DNO international, and Genel Enerji.

Regardless, the KRG continues to push contracts. The KRG Minister of Natural Resources has stated that, as of October 2009 the regional government has awarded contracts to more than 30 companies. **Figure 1.3** gives a timeline of oil activity in the Kurdistan region between June and October 2009.⁷⁵

⁷⁰ Ahmed Rasheed, Reuters, "China Starts Iraq's First Foreign Oil Work in Decades," January 2, 2009.

⁷¹ Lando, "Blacklist Enlarged and Challenged."

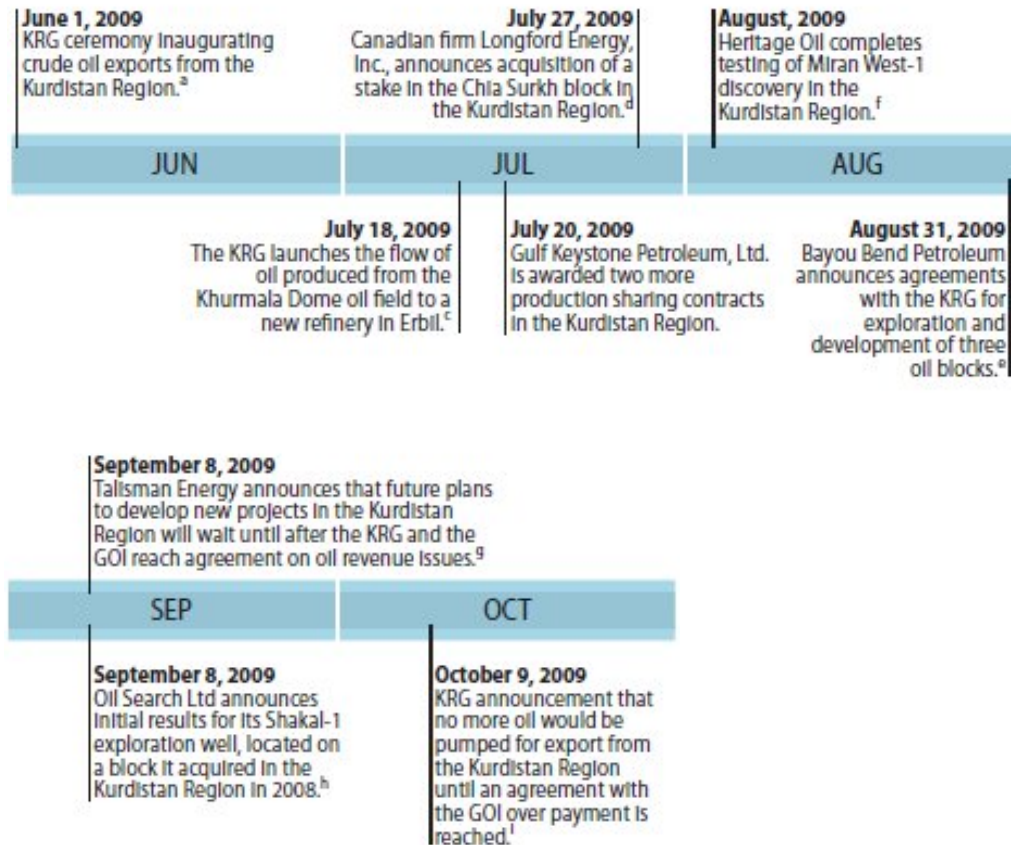
⁷² SIGIR, *Quarterly Report to Congress*, October 30, 2009, 59.

⁷³ Ben Lando, "Baghdad Sends Delegation to KRG," *Iraq Oil Report*, November 17, 2009.

⁷⁴ SIGIR, *Quarterly Report to Congress*, October 30, 2009, 59.

⁷⁵ Ibid.

Figure 1.3: A Timeline of Recent 2009 Oil Activity in the Kurdistan Region



Source: SIGIR, Quarterly Report and Semi-Annual Report to the United States Congress (30 Oct 2009), 60.

The Role the United States Can Play

Regardless of future oil prices, Iraq needs to do everything possible to increase oil production and exports *as soon as possible*. Iraqi politics and domestic needs will put constant pressure on the budget for at least the next decade. Iraq must do far more to meet civilian needs. At the same time it will have to fund the development of the ISF now that the United States has drawn down funds to train Iraqi security forces. Rapid rehabilitation and expansion of the petroleum sector is the only possible source of money at this time.

The U.S. government has not pursued consistent policies toward the development of Iraq's petroleum sector since 2003, although it has pursued initiatives in working with Iraqi officials and potential investors to "show those outside Iraq that this country is rich with potential."⁷⁶ It still needs to develop a more aggressive strategy to help the Iraqi government secure foreign investment contracts and move things forward with oil production. The United States must persuade Iraqis that doing so is in their best interest, and it must do its best to assure outside companies that they will have proper security and legal support in Iraq.

As for members of the Iraqi government, they still need to do more to make outside investment attractive. They must provide the security necessary to reduce risks and help companies deal with the Iraqi people and local interests in ways that ensure suitable progress. The Iraqis we met with tended to talk about the right to make market-driven oil deals, but then to revert to asking for U.S. government pressure to make companies invest. They also focused on the size of the prize, rather than on mapping out a plan to create the real-world conditions necessary to attract foreign investment.

The United States needs to center its economic policy toward Iraq on the fact that Iraqi progress in the petroleum sector will do as much to determine Iraq's future security and stability as will any other aspect of Iraqi or U.S. government activity. The United States will need to be extremely careful here. Some forms of U.S. government support for American petroleum firms will simply reinforce domestic fears that the United States is trying to steal Iraqi oil rather than encourage Iraqis to work with U.S. firms.

The United States also needs to be realistic about the international character of petroleum companies. The fact that some of these companies are headquartered in the United States does not mean that their success will lead to more U.S. jobs or to greater payments or increases in taxed income. Many "U.S." firms avoid taxes and repatriate profits to their stockholders, whether U.S. or foreign.

Accordingly, the United States will accomplish more by providing Iraq with technical advice and broad-based venture analysis than by simply promoting investment in Iraq for U.S. companies. One key tool that might help Iraq move forward in the petroleum, industrial, and agricultural sectors is to go beyond the conventional project focus on aid and concerns with Iraq's financial stability and to help Iraq see its future in terms of business models and show it how to compete in a global economy.

It is clear that the Iraqi government does not yet fully understand the mix of laws, security, profitability, and return on investment necessary to ensure that either Iraqi firms or foreign investors will act as quickly and decisively as possible to give Iraq the added petroleum income it so desperately needs. As is the case with so much of the Gulf, Iraq still fears neocolonialism and seeks to control all foreign investment. However, the government must not focus on the size of the prize but rather on the actions it must take to obtain the outside support the country needs.

This is too sensitive an area for the United States or any outside power to try to teach Iraq what it should do. It is also an area where building Iraqi expertise is critical, and where

⁷⁶ Reuters, "Iraqi Investment Still Hindered by Politics, Bureaucracy."

enough Iraqis need to be involved in any analysis so the result has credibility in Iraqi terms. One option would be to get the World Bank involved in Iraqi business planning. Yet another option would be to bring together Iraqi academic and business experts with experts from Arab oil companies like state-owned Saudi Aramco to develop business models based on real-world conditions that are transparent and to show Iraqis and outside investors alike what can and cannot work.

These same techniques can be applied separately to key aspects of Iraqi state-owned enterprises and options for developing private industries that go beyond the small- and medium-enterprise stage. As suggested earlier, they could also be applied to key aspects of Iraqi agricultural development.

2. The Broader Range of Economic Challenges and “Threats”

U.S. and international aid efforts since the invasion in 2003 have provided important benefits, but they have failed to address the broad range of real-world economic problems that affect ordinary Iraqis and shape the security and stability of Iraq. The United States alone had spent some \$52.3 billion in aid as of July 1, 2009, had obligated close to \$43 billion, and had disbursed \$38.5 billion.⁷⁷ Much of the civil portions of this aid, however, have produced as many failures as successes.

As the Special Inspector General for Iraqi Reconstruction has documented all too clearly in numerous reports, much of the international aid effort has been poorly structured and managed, and has involved substantial amounts of corruption and waste. Far too often, projects have not been tied to suitable analysis of Iraqi requirements. To exacerbate the situation, many of these efforts are now largely being phased out without a clear plan about how to transfer aid projects to Iraqi officials.⁷⁸

The United States bears responsibility for many of these problems and has failed to address the full range of issues involved. Far too much of recent U.S. analysis of the Iraqi economy has focused on macroeconomics and survey data without examining income distribution by sector, unemployment, corruption, and other economic security problems that affect ordinary Iraqis. Far less attention has been paid to the growing level of poverty since the beginning of the Iran-Iraq War, the failures of development projects, the lack of real-world reconstruction in virtually every effort, breakdowns in the quality of education, and demographic pressures.

Despite the billions of dollars spent on Iraqi relief and reconstruction operations, Iraqis have seen little progress in their day-to-day lives. Unemployment and underemployment are still dangerously high, the health care system is lacking, many basic services are still unavailable and the education system is still far behind where it should be. Often the focus on cutting ribbons exceeds that of meeting Iraqi needs. Transferring reconstruction responsibilities to elected Iraqi officials may, in some ways, improve this problem since these officials must be more responsive to local needs. However, the Iraqi government does not currently have the same capacity to carry out projects and Iraqis continue to see funds go to waste as their quality of life fails to improve.

⁷⁷ Since 2003, the United States has committed \$52.27 billion for the reconstruction of Iraq. The U.S. Congress appropriated more than 89 percent of this money to four major funds: the Iraq Relief and Reconstruction Fund (IRRF)—\$20.86 billion; the Iraq Security Forces Fund (ISFF)—\$18.04 billion; the Economic Support Fund (ESF)—\$4.18 billion; and the Commander’s Emergency Response Program (CERP)—\$3.63 billion. As of June 30, 2009, more than \$42.59 billion had been obligated from these four major funds, and \$38.49 billion had been expended. Nearly \$3.54 billion remains available to be obligated, and \$8.22 billion is unexpended. The preponderance of unexpended U.S. funds is in the ISFF, which supports Iraq’s military and police forces.

⁷⁸ SIGIR has provided massive amounts of documentation about these failures. The best summaries are in its quarterly reports, which can be found at <http://www.sigir.mil/reports/Default.aspx>.

Looking Beyond Petroleum: The Interaction between Governance and Economics

The Iraqi government will soon assume responsibility for Iraq's economic problems. Iraq must now cope with an economy that has not been properly funded since the country effectively went bankrupt during the Iran-Iraq War of 1982, when it had to turn to its Gulf neighbors for enough money to survive the war. A combination of war, misrule, low oil prices, and years of neglect and failure in other sectors of the Iraqi economy have produced a wide range of serious problems. Some have been driven by failures of governance by both Iraq and the occupying powers after 2003. Some are the results of factors like demographic pressures, and some are the result of structural problems in key sectors of the Iraqi economy:

- As has been noted earlier, Iraq is often described as an oil-wealthy country, but its oil wealth is limited when measured in terms of GDP or export income per person. As of November 2009, the CIA estimates that Iraq's per capita income is roughly \$3,700, ranking 161st in the world.⁷⁹ Moreover, its national income is poorly distributed, with wealthy Iraqis taking a large share. To put Iraq's position in perspective, Iran—another oil country with a large population and weak economy—has a per capita income of \$12,800 and ranks 87th. Other countries in the region: Bahrain, per capita income of \$37,000, ranks 28th; Kuwait, per capita income of \$57,400, ranks 5th; Qatar, per capita income of \$103,500, ranks 2nd; Saudi Arabia, per capita income of \$20,700, ranks 59th; and the United Arab Emirates (UAE), per capita income of \$40,000, ranks 21st.
- Iraqi demographics put a major burden on the economy. Iraq's population was 9.4 million in 1970, 23 million when the United States invaded in 2003, and nearly 30 million in 2009. The U.S. Census Bureau estimates it will rise to 33 million in 2015 and 40.4 million in 2025.⁸⁰ Nearly 39 percent of Iraq's population is 14 years of age and younger, and the annual burden of creating new jobs will increase steadily for at least two more decades.
- Reporting on unemployment and underemployment is uncertain at best, as is reporting on the development industry and the service sector. The United States reported in the summer of 2009 that underemployment (less than 35 hours of work per week) fell to 29.4 percent (from 37.8 percent in 2007), while unemployment increased slightly to 18.3 percent (from 17.6 percent in 2007). Most notably, the data revealed that over a third of the full-time work force was employed in the private sector, an increase from only 24 percent in 2007. Based on population demographics, Iraq's labor pool is growing at a rate of more than 200,000 people per year. The growth in jobs has roughly kept pace with the expanding labor pool. Additionally, Iraqis continue to be challenged by underemployment, as many are overqualified for the positions they hold or can only find part-time employment. Unemployment may be exacerbated by the return of displaced persons to Iraq as security conditions improve, as well as by the release of detainees who will seek to re-enter the work force.
- Some estimates put these figures much higher. Other U.S. government reporting indicates that there are at least several million unemployed and underemployed males.

⁷⁹ Central Intelligence Agency (CIA), *World Factbook*, available at <https://www.cia.gov/library/publications/the-world-factbook/index.html>.

⁸⁰ U.S. Census Bureau, International Data Base (IDB), <http://www.census.gov/ipc/www/idb/country.php>.

- Money and direct payments have been the glue that has helped hold Iraq together but major aid is running out; employment is at the crisis level in many areas, and there are serious problems in every sector of the economy. The Iraqi economy is heavily reliant upon oil revenues. Although the economy averaged 6 percent annual economic growth from 2007 to 2009, that growth was driven by large increases in oil export earnings and government spending. Achievement of high growth projections depend on further increases in oil production and private-sector activity. In response to lower oil prices, Iraq's 2009 budget set spending 25 percent below the original proposal.
- The United States reports that debt remains an issue. Iraq's Paris Club debt relief now totals nearly \$42.3 billion (80 percent of total Paris Club debt). Iraq has also received roughly \$13 billion in debt relief from non-Paris Club countries and \$20.9 billion in commercial debt relief. Iraq's neighbors and China are its largest remaining creditors. The UAE committed to complete relief of nearly \$7 billion but has not signed an agreement yet. Saudi Arabia has publicly committed to debt relief comparable to Paris Club levels (80 percent), although owed interest remains a point of contention. The U.S. Treasury estimates that Iraq's remaining bilateral debt outstanding (including that owed to the Paris Club) is between \$48.9 billion and \$76.9 billion.
- Infrastructure is improving, but there still are critical problems in water, sewers, power, and other key services, and the improvements fall far short of Iraqi expectations.
- National polling indicates that only 28 percent of Iraqis are either somewhat or very satisfied with health services, 9 percentage points lower than in November 2007.⁸¹
- The United States reports deep problems in Iraq's agricultural sector, although in ways that have a peculiar positive spin: "Iraq's agricultural industry, which accounts for 10 percent of the GDP and 25 percent of employment, is now rebounding in areas where security has improved, and access to working irrigation systems has counteracted the effects of the 2008 drought. Although agricultural output has increased, domestic food production remains below Iraq's potential due to restrictive government policies, outdated technology, unstable electric power, and a breakdown of the long-standing irrigation water-management system. Traditional GoI farmer support programs will likely be limited in 2009 due to budget shortfalls. Still, Iraqi farmers have made gains in production, particularly those with access to private financing. In January 2009, for example, 87 percent of Iraqis have reported that they have enough to eat at least some of the time."⁸²
- Ministry of Agriculture (MoA) programs, projects, and initiatives were limited in 2009 because of a reduced ministerial budget. In addition, given the low rainfall during the 2009 grain season and the likely shortage of water for irrigation, grain production in 2009 was expected to be only slightly better than the poor production in 2008, which resulted from the worst drought of the past decade.⁸³
- According to the United Nations World Food Program report, an estimated population of 930,000 (3.1 percent of the households sampled) were classified as food insecure. The findings of this survey also indicate that an additional 9.4 percent of the population (2.8

⁸¹ U.S. Department of Defense, *Measuring Stability and Security in Iraq*, Report to Congress in accordance with the Department of Defense Supplemental Appropriations Act 2008 (Section 9204, Public Law 110-252), June 2009 (issued August 2009).

⁸² DOD, *Measuring Security and Stability in Iraq*, March 2009.

⁸³ DOD, *Measuring Security and Stability in Iraq*, June 2009 (issued August 2009).

million) is extremely dependent upon the Public Distribution System food ration, without which they could be expected to become food insecure.⁸⁴

U.S. efforts to shape a strategic partnership with Iraq must address these problems in far more depth and with far more objectivity than in the past. Iraq will need help in addressing chronic problems in the agricultural sector, growing water and irrigation issues, and a lack of growth and modernization in industry. It will need help in dealing with unemployment, underemployment and productivity problems, overdependence on state-sector employment, the need to maintain and replace aging infrastructure, and a lack of competitiveness in the service sector. Even with such aid, Iraq will need most of the next decade to complete reconstruction and put all of its critical sectors on the path to broad-based, successful development.

Demographics and Unemployment

The United States still does not have accurate data on Iraqi unemployment, underemployment, and total population. U.S. and Iraqi economic analyses tend to ignore or understate the impact of demographics, its interaction with problems in income distribution, and how youth unemployment and underemployment affect the prospects for security. Even after half a decade of occupation, there are still limited data on these basic employment metrics, which are important to measure the progress of different sectors of the Iraqi economy.

Nevertheless, it is clear that Iraq faces major demographic and employment problems. The CIA estimates that Iraq's labor force numbers about 7.74 million and direct unemployment is at least 18.2 percent with unofficial estimates as high as 30 percent. This puts the number of unemployed Iraqis anywhere from 1.4 million to 2.3 million.⁸⁵ A large portion of this population consists of young men, those most likely to join insurgency movements.

Any effort to build a stable U.S. and Iraqi strategic relationship must take Iraqi population dynamics into full account. While there are no fully reliable data, the U.S. Census Bureau estimate in its International Data Base tends to have accurate information about Iraq demographics. **Figure 2.1-Part 1** shows a rate of explosive population growth that experts estimate will continue through 2050.

As shown, Iraq's population was only 5.2 million as recently as 1950. It was more than 2.5 times higher in 1980—13.2 million—when the Iran-Iraq War began. It was 18.1 million when the first Iraq war began in 1990 and was about 23 million when the U.S.-led invasion occurred in 2003. Today, it is over 28 million, and predictions are that it will rise to 56 million by 2050.

Reports indicate that underemployment fell to 29 percent in 2008 from 38 percent in 2007, and unemployment fell to 12.5 percent in the fourth quarter of 2008 from 17.6 percent in 2007.⁸⁶ Although these numbers appear to be falling, they are still quite high. Furthermore, the estimated unemployment rate for males aged 15 to 19 in 2008 remained

⁸⁴ Ibid.

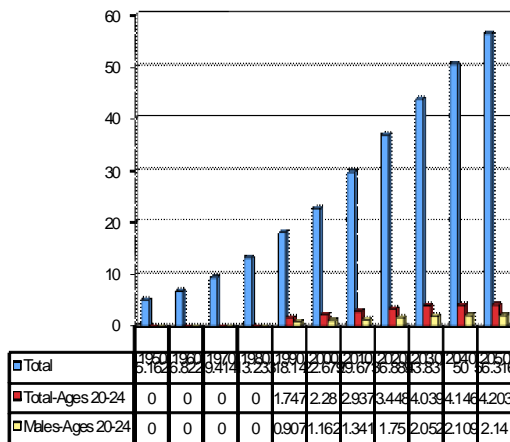
⁸⁵ Based on data in CIA, *World Factbook*, accessed September 27, 2009.

⁸⁶ DOD, *Measuring Security and Stability in Iraq*, October 2009 (issued November 2009).

high at 59 percent.⁸⁷ **Figure 2.1-Part 2** shows the various rates of unemployment by age and gender in 2009. The government needs to pay greater attention to providing either employment or education opportunities for this part of the population, as they are the greatest recruiting pool for insurgency movements.

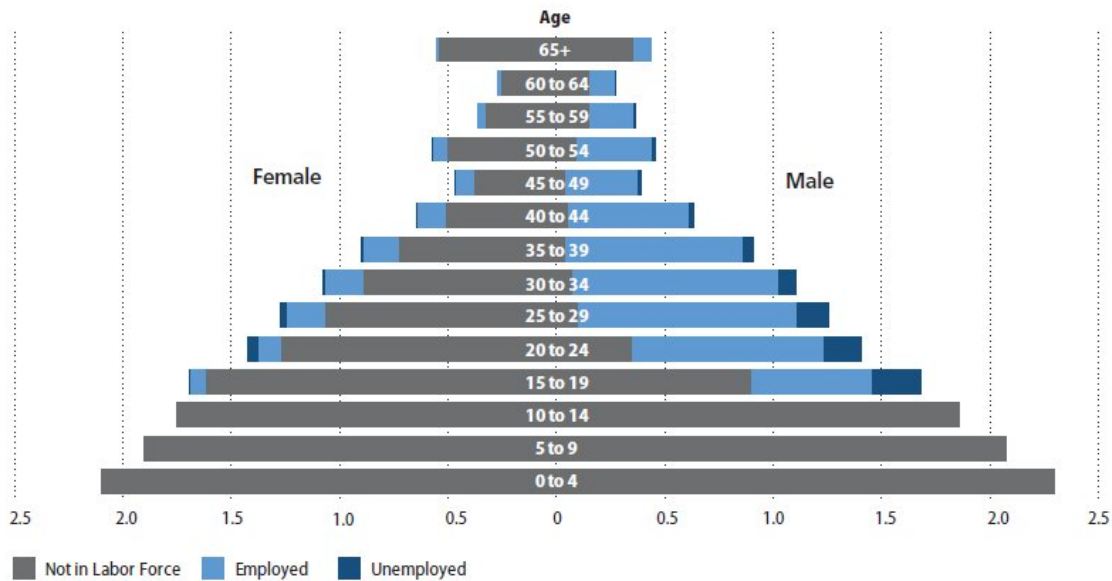
These dynamics show why “reconstruction” and development data that base their metrics and goals on static population figures are meaningless. This is particularly true if one looks at the results of focus groups from Iraq’s younger population, unemployment figures for ages 20–24, or the lack of economic status for the young males that make up the core of the insurgency.

Figure 2.1-Part 1: The Iraqi Population Leap (in millions)



Source: U.S. Census Bureau, International Data Base, Iraq, accessed September 26, 2009.

⁸⁷ Ibid.

Figure 2.1-Part 2: Employment Status of Iraqis by Age and Gender (in millions)

Iraq's Budget and Revenue Crisis

As most of the central government's revenue comes from petroleum, the volume of production has a large impact on how well Iraq can fund its government programs and reconstruction projects. However, the price of oil will always fluctuate unpredictably, and oil contracts with companies like CNPC and Exxon Mobil will take at least a year to finalize and start increasing production. Iraq must take this into account and base its FY2010 and FY2011 budgets on modest increases in petroleum exports and lower world prices. In addition, it must find a way to continue funding reconstruction projects when its revenues fall short of its expenditures, most likely by borrowing from other countries or asking for increases in economic aid.

The Iraqi economy grew at a rate of roughly 5.0 percent in 2009, which is a slight decrease from the 7.8 percent annual growth rate it experienced in 2008.⁸⁸ As has been the case since 2004, much of this growth was also driven by massive amounts of aid and wartime spending, and not by development. Such resources are not distributed in ways that produce productive and lasting employment and investment; rather, they distort Iraq's economy and support subsidized and often "dead end" jobs and projects.

The portion of Iraq's GDP growth that is driven by its own earnings continues to depend largely on oil exports and government spending. The government of Iraq had to cut its 2009 budget by 25 percent in response to lower oil prices and use much of its available fiscal reserves to fund a substantial deficit.⁸⁹ Major aid expenditures are coming to an end, and U.S. and other Coalition expenditures in Iraq are dropping sharply.

⁸⁸ Special Inspector General for Iraq Reconstruction (SIGIR), *Quarterly Report and Semi-Annual Report to the United States Congress*, April 30, 2009, 10.

⁸⁹ DOD, *Measuring Security and Stability in Iraq*, June 2009 (issued August 2009).

This means that Iraq's near-term to mid-term success in developing its economy, and in its efforts to improve political accommodation and fully defeat terrorism and insurgency movements, depends heavily on government expenditures—which in turn depend on future oil prices and revenues:

- Cuts in projected oil revenues forced the government to abandon dreams of an \$80 billion budget, and then of a \$68 billion budget in 2009.
- The Presidency Council approved the final 2009 budget schedules on April 2, 2009, and the budget was published in the *Official Gazette* on April 13, 2009. The 2009 Iraqi baseline budget was \$58.6 billion, representing an \$8.7 billion (17 percent) increase over the 2008 baseline budget of \$49.9 billion. Most of this increase correlated to operations, including salary and wage increases. The 2009 budget also included \$2.1 billion for provincial capital expenditures and \$9.6 billion for security capital and operating expenditures (\$5.5 billion for the Ministry of Interior and \$4.1 billion for the Ministry of Defense)—compared to \$3.3 billion for the 2008 provincial capital base budget and \$9 billion expenditures for security in the 2008 base budget. The projected budget deficit was \$15.9 billion.
- Although lower than initial drafts, the 2010 budget continues the trend of an overall increase of approximately 19 percent in expenditures over the previous year. Approximately 17 percent of the 2009 Iraqi budget is marked for MoD and MoI.
- Some 70 percent of salaried jobs are directly or indirectly financed by the government, and some experts (Vice President Adil Abd al Mahdi) estimate that operating costs could consume up to 80 percent of the budget.
- Lower than expected oil revenues in 2009 forced the government to cut its original budget by almost 50%. This decrease in spending produced serious cutbacks in infrastructure modernization, education, health, and most public services, and a failure to fund projects transferred by aid donors.
- If current price and production trends continue or increase only moderately, the government will have to take additional money from its reserves, reduce its spending significantly, or find alternative sources of funding or means for financing its spending. Iraq does have (or had) some \$35 billion in various accounts. It talks about spending an additional \$20 billion in 2010, but it is already clear that such a spending effort will present major problems and will mean cutting reconstruction projects and eliminating efforts to take up the slack from a near end to large-scale foreign aid.
- Unless oil prices rise significantly, Iraq will need to use most of its available fiscal reserves to fund future budget deficits. Low oil prices and stagnant oil production will place significant fiscal strains on the Iraqi economy and budget in 2010. Although crude oil production and exports increased in 2008, technical issues caused a slowdown in production in the south, a trend that may continue in the near future. Through the first quarter of 2009, Iraq was already 35 percent below its 2009 revenue target due to export volume and price deficiencies and increases in oil prices in the later half of the year did not compensate for these losses.
- Drawing additional money out of the reserves under current economic conditions will result in a smaller budget in 2010 because there simply will not be enough money remaining in the reserves to offset shortfalls in national revenue stemming from lower than anticipated oil production and prices. If the recession continues, and the government

continues to expend its reserves, the budget situation in 2011 could continue to decline, although this is subject to many economic factors.

Government Allocations and Funding

Iraq has had to deal with a serious budget crisis and major problems in allocating government funds that seem likely to continue until Iraq can significantly increase its oil export revenues. In 2009 the Council of Representatives passed a \$58.6 billion budget on March 5, 2009. Even with several cuts this budget was still a 17 percent increase over the government’s 2008 budget of \$49.9 billion. The government estimated that it would earn \$36.5 billion from oil revenues and only \$6.22 billion from all other sources, including customs, levies, taxes, and other fees.

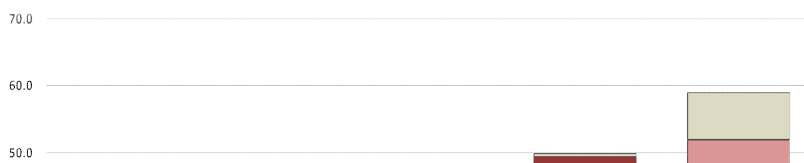
Depending on actual oil export revenues, Iraq will have to pay for the rest of its reconstruction projects and salary expenses using previous years’ surpluses. **Figure 2.2** and **Figure 2.3** illustrate how the government’s budget has grown during 2005–2009, how much money has been spent, and how much the government will earn from oil revenues to cover its spending.

The graphs indicate a slight decrease in oil revenue in 2009 along with an increase in spending. The year 2009 is also the first year in which the government’s budget exceeded its revenues. Although the government had a stockpile of funds carrying over from previous years’ surpluses to cover the spending gap in 2009, it will not be able to cover all of its expenses in the long run—at the end of 2009 alone Iraq had amassed a deficit of over \$15 billion.

Figure 2.2-Part 1: Government of Iraq Budget, Reserves, and Debt Budgets: 2006-2010



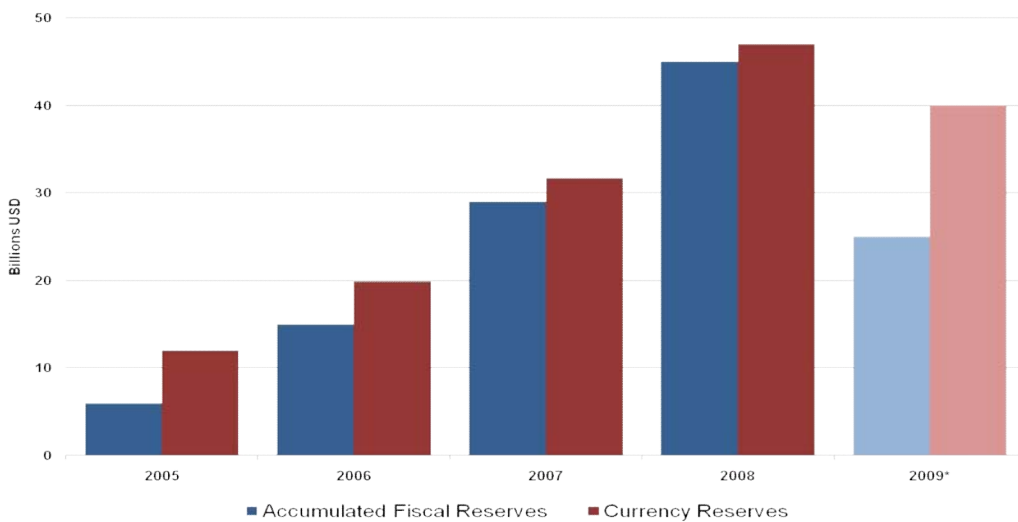
Spending: 2005-2009



Sources: SIGIR, *Quarterly Report to Congress*, November 30, 2009, 84.

Figure 2.2-Part 2: Government of Iraq Budget, Reserves, and Debt

Fiscal and Monetary Reserves: 2005–2009



Note: Currency reserves are legally unavailable for government expenditures; Source: Ministry of Finance.

Debt: 2003 vs. 2009

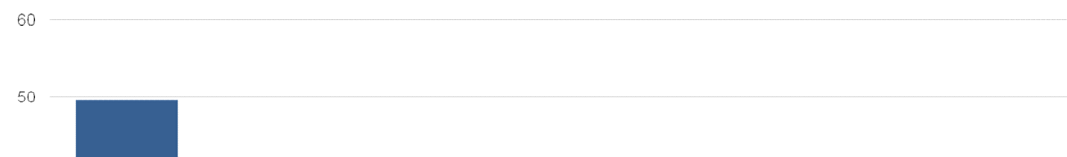
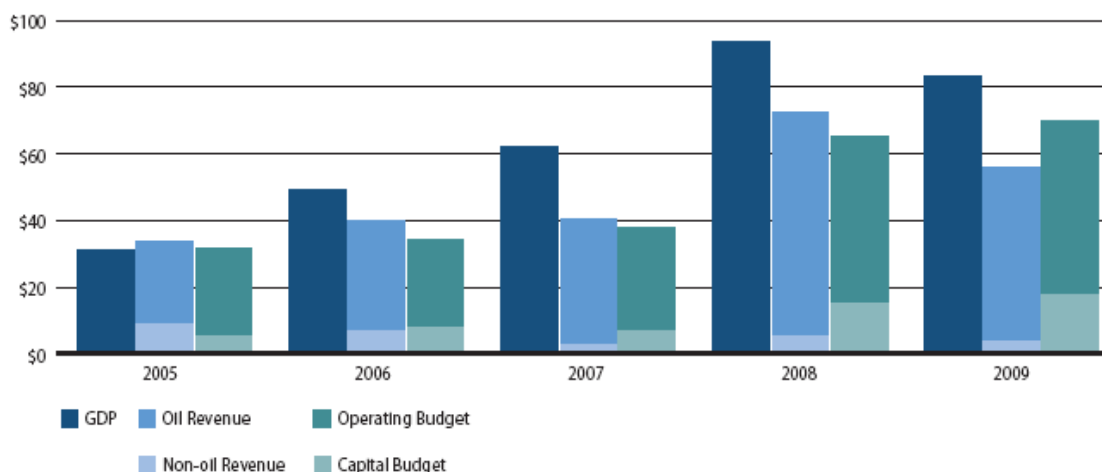


Figure 2.3: Iraqi GDP, Government Revenue, and Government Budget, 2005–2009 (\$ Billions)



Note: Numbers affected by rounding. IMF-estimated data for 2005–2006; IMF-projected data for 2007–2009. Non-oil revenue includes grants. Budget excludes contingency funds.

Source: SIGIR, Quarterly Report to Congress, July 30, 2009.

As discussed in the previous chapter, there have been some improvements in the government's ability to secure oil contracts with foreign companies, which will boost oil exports in the coming years. However, given the slow nature of negotiations over these oil contracts, significant increases in oil output are unlikely before 2011. In the meantime, Iraq must find a way to fund its increasing budget. The situation will no doubt improve over the next couple of years but until then the government will need to rely on loans from other countries and will most likely accrue a larger budget deficit over time.

SIGIR data show that the government of Iraq's 2009 budget included:

- A projected deficit of \$15.9 billion: The deficit will be covered by unspent revenues from previous years.
- \$45.9 billion in operating costs: The five ministries receiving most of the operating funds in 2009 were Finance, Interior, Education, Defense, and Trade. The Ministry of Defense's operating budget was down 21 percent, declining from \$4.92 billion in 2008 to \$3.85 billion in 2009. The Ministry of Interior's operating budget, however, was up 2 percent, from \$5.16 billion in 2008 to \$5.27 billion in 2009.
- \$12.7 billion in capital expenditures: The Ministries of Oil, Electricity, Finance, Water Resources, and Industry and Minerals received the largest allocations from the government's capital budget.⁹⁰

Figures 2.4. and **2.5** provide a summary and a detailed account of government spending by sector for 2008 and 2009. (Note: information is not available for all Iraqi ministries.)

⁹⁰ Ibid.

Iraq's National Investment Council predicts that the government's national development strategy will cost about \$187 billion from 2009 to 2012.⁹¹ Given the current price of oil, petroleum revenues will not be able to fund this plan. The Ministry of Planning has already started addressing Iraq's need for alternative sources of income by finding ways to further develop its industrial, agricultural, and tourism sectors. In the long run, this strategy may prove profitable, but over the coming years Iraq may still need greater financial support from international donors, especially the United States.

In the third quarter of 2009, the Council of Representatives submitted a supplemental budget request of \$4.6 billion, which increased the government's 2009 budget to \$63.6 billion. The request was based on an increase in the price of oil in October 2009.⁹² The extra funding is supposed to cover gaps in spending for salaries for the Sons of Iraq and for election costs.⁹³ Although this is a relatively conservative estimate, and the government does need the funds to pay for its election and security services, the government may be overestimating future oil revenues, especially given the recent volatility in oil prices.

A committee reviewing Iraq's 2010 budget proposals has recommended that the government base its expected revenue calculations on an average oil price of \$60 per barrel and average crude exports of 2.15 million barrels per day (similar to production amounts for 2009). Although Iraq plans to nearly quadruple production in 2010 by issuing service contracts to develop 10 new oil fields, the time it will take finalize contracts will probably extend beyond 2010.

On October 13, 2009, the Council of Ministers submitted its draft budget of \$66.7 billion for 2010 to the Council of Representatives,—, which represented a 14 percent increase over the 2009 budget of \$58.6 billion.⁹⁴ The government made these projections with two underlying assumptions according to the October 2009 SIGIR report to Congress:

- *Price:* The 2010 budget is based on the assumption that oil prices will average \$60 per barrel this year. This is 20 percent higher than the export price of \$50 per barrel assumed for 2009. For July – September 2009, the average price per barrel of Kirkuk crude oil on the global market was \$68.54.)
- *Export levels:* The draft budget also assumes export levels of 2.15 million barrels per day for 2010. This is an increase of 7.5 percent over the 2009 target of 2 million bbl/d. Iraq, however, averaged exports of 1.85 million bbl/d between October 1, 2008, and October 1, 2009, or 8 percent less than its desired target for 2009 and 16.2 percent under the 2010 goal.⁹⁵

Figure 2.6 compares the weekly oil price with the government's projected budget and price assumptions for 2006–2010. The trend in prices does appear to be heading upward, but as the graph indicates, price levels of oil have fallen rapidly and unpredictably in the past—particularly from 2008 to 2009. Furthermore, even if the price of crude oil does average \$60 per barrel in 2010, the probability that Iraq will increase exports by 16

⁹¹ Ibid., 11.

⁹² SIGIR, *Quarterly Report to Congress*, October 30, 2009, 1011.

⁹³ DOD, *Measuring Security and Stability in Iraq*, October 2009.

⁹⁴ SIGIR, *Quarterly Report to Congress*, October 30, 2009, 11.

⁹⁵ Ibid.

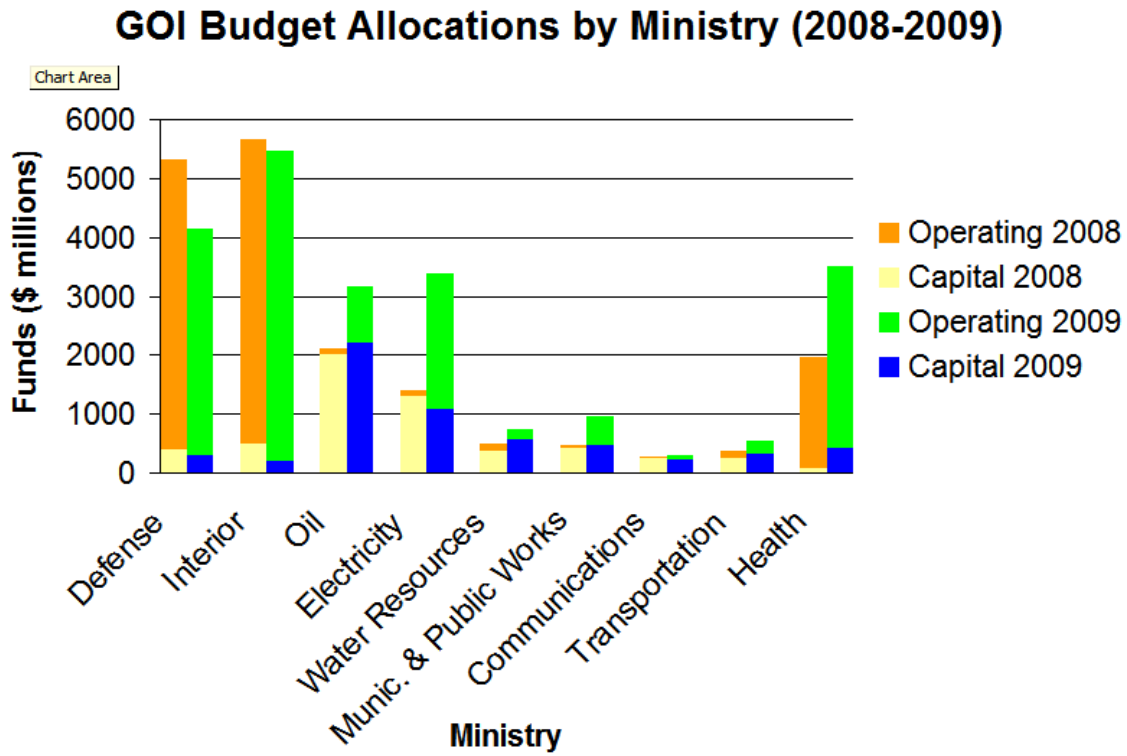
percent seems unlikely, given that it failed to meet its 2009 production target by 8 percent.

As mentioned earlier, one of the main barriers to increasing the production of petroleum has been the failure of the central government and the KRG to reach an agreement on revenue sharing and pass a hydrocarbons law. As long as the two government branches continue bickering over the terms of issuing and signing oil contracts, negotiations will be drawn out and the chances of increasing production to desired levels in 2010 will be much lower. The government must move quickly on this legislation so that the contracts it has already agreed to can go through and international companies can start increasing the productivity of Iraq's largest oil fields.

In July 2009, the UN Secretary General released a report warning the Iraqi government that "much remains to be done before a fully operational control and measurement system over oil production, distribution, and export sales can be comprehensively implemented in Iraq," estimating that the earliest these measures could be implemented would be 2011.⁹⁶ The Iraqi government needs to keep in mind that without improvements in policy, organization, and infrastructure, it will not be able to increase output at the rate it has predicted. Therefore, if it wants to continue funding the development projects that will help its economy grow in the long run, the government must find a way to fill the gap between its revenue stream and proposed budget, most likely by borrowing from other countries.

⁹⁶ Ibid.,12.

Figure 2.4: Government of Iraq Budget Allocations by Ministry
 Operations vs. Capital, 2008 and 2009*



* Statistics on government allocations not available for all ministries (e.g., Finance, Education, Trade)
 Source: Adapted using statistics from SIGIR, *Quarterly Report to Congress*, April 30, 2009); DOD *Measuring Stability and Security in Iraq* December 30, 2009, 12.

Iraqi Budget Expenditures and Execution 2006-2009

(\$ in billions)	2006	2007	2008	2009
Base Budget	34.0	41.1	49.9	58.6
<i>Capital Expenditures</i>	27.8	10.1	13.1	12.7
<i>Operating Expenditures</i>	6.2	31.0	36.8	45.9
Supplemental Budget			22.3	N/A
<i>Capital Expenditures</i>			8.0	
<i>Operating Expenditures</i>			14.3	
Budget Total	34.0	41.1	72.2	58.6
Mol Security Budget	1.9	3.2	5.7	5.5
<i>Capital Expenditures</i>			0.5	0.2
<i>Operating Expenditures</i>			5.2	5.3
MoD Security Budget	3.4	4.1	5.3	4.1
<i>Capital Expenditures</i>			0.4	0.3
<i>Operating Expenditures</i>			4.9	3.8
Security Budget Total	5.3	7.3	11.0	9.6
Base Execution (as of September 2009)	23.0	27.0	47.9	28.0
Supplemental Execution			2.6	
Execution Total	23.0	27.0	50.5*	28.0**

Source: DOD, *Measuring Stability and Security in Iraq* December 30, 2009, 12.

Figure 2.5: Government of Iraq Budget Allocations by Ministry, 2008 vs. 2009**GOI ALLOCATIONS TO THE MINISTRY OF OIL**

\$ Millions

BUDGET TYPE	2008	2009	% CHANGE
Operating	\$103.7	\$954.4	820% ↑
Capital	\$2,000.0	\$2,206.4	<1% ↑
Total	\$2,103.7	\$3,160.8	50% ↑

GOI ALLOCATIONS TO THE MINISTRY OF ELECTRICITY

\$ Millions

BUDGET TYPE	2008	2009	% CHANGE
Operating	\$89.1	\$2,310.3	2,492% ↑
Capital	\$1,300.0	\$1,080.1	17% ↓
Total	\$1,389.1	\$3,391.1	144% ↑

GOI ALLOCATIONS TO THE MINISTRY OF WATER RESOURCES

\$ Millions

BUDGET TYPE	2008	2009	% CHANGE
Operating	\$109.6	\$168.6	54% ↑
Capital	\$375.0	\$563.5	50% ↑
Total	\$484.6	\$732.1	51% ↑

GOI ALLOCATIONS TO THE MINISTRY OF MUNICIPALITIES AND PUBLIC WORKS

\$ Millions

BUDGET TYPE	2008	2009	% CHANGE
Operating	\$42.6	\$479.6	1,026% ↑
Capital	\$416.7	\$468.2	12% ↑
Total	\$459.3	\$947.8	106% ↑

GOI ALLOCATIONS TO THE MINISTRY OF COMMUNICATIONS

\$ Millions

BUDGET TYPE	2008	2009	% CHANGE
Operating	\$14.4	\$88.2	513% ↑
Capital	\$250.0	\$216.1	14% ↓
Total	\$264.4	\$304.3	15% ↑

GOI ALLOCATIONS TO THE MINISTRY OF TRANSPORTATION

\$ Millions

BUDGET TYPE	2008	2009	% CHANGE
Operating	\$121.6	\$209.7	72% ↑
Capital	\$250.0	\$324.2	30% ↑
Total	\$371.6	\$533.8	44% ↑

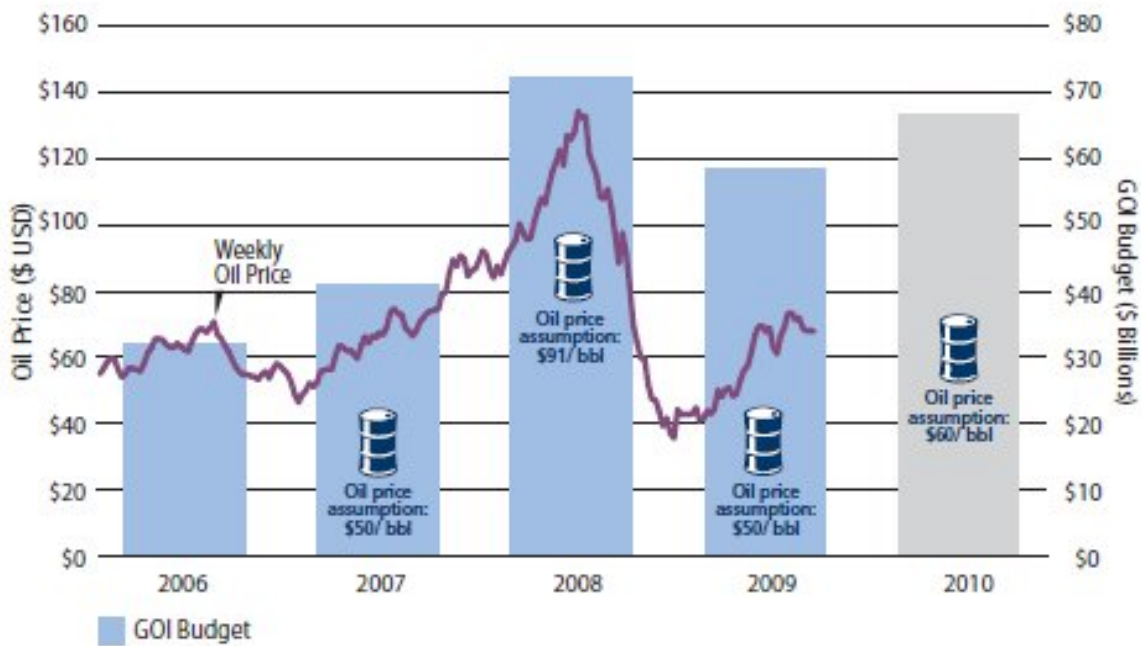
GOI ALLOCATIONS TO THE MINISTRY OF HEALTH

\$ Millions

BUDGET TYPE	2008	2009	% CHANGE
Operating	\$1,872.8	\$3,095.0	65%
Capital	\$83.3	\$408.1	390%
Total	\$1,956.1	\$3,503.1	79%

Source: Adapted from SIGIR, *Quarterly Report to Congress*, April 30, 2009.

Figure 2.6: Government of Iraq Budget and Oil Price Assumptions, 2006–2010



Source: SIGIR, *Quarterly Report to Congress*, October 30, 2009, 11.

Infrastructure

It is important to understand just how serious some of the impacts of these budget constraints are. There are still critical problems in water, sewers, power, and other key services, and, most importantly, the improvements that have been made fall far short of Iraqi expectations.

For example, recent U.S. reports note that “despite gradual and steady increases in electricity generation, years of neglect and lack of maintenance continue to hamper electricity generation and distribution in Iraq. An average of 100 megawatts (MW) per day in capacity is lost due to the lack of fuel and the need for improvements in transmission. Approximately half (51 percent) of Iraqis now feel they get the electricity they need at least some of the time, seven percentage points more than in January 2009. However, only 25 percent of Iraqis are somewhat or very satisfied by the amount of electricity they receive, down from 34 percent who felt satisfied in November 2007.”⁹⁷

The practical impact of these pressures is shown in **Figure 2.7**.

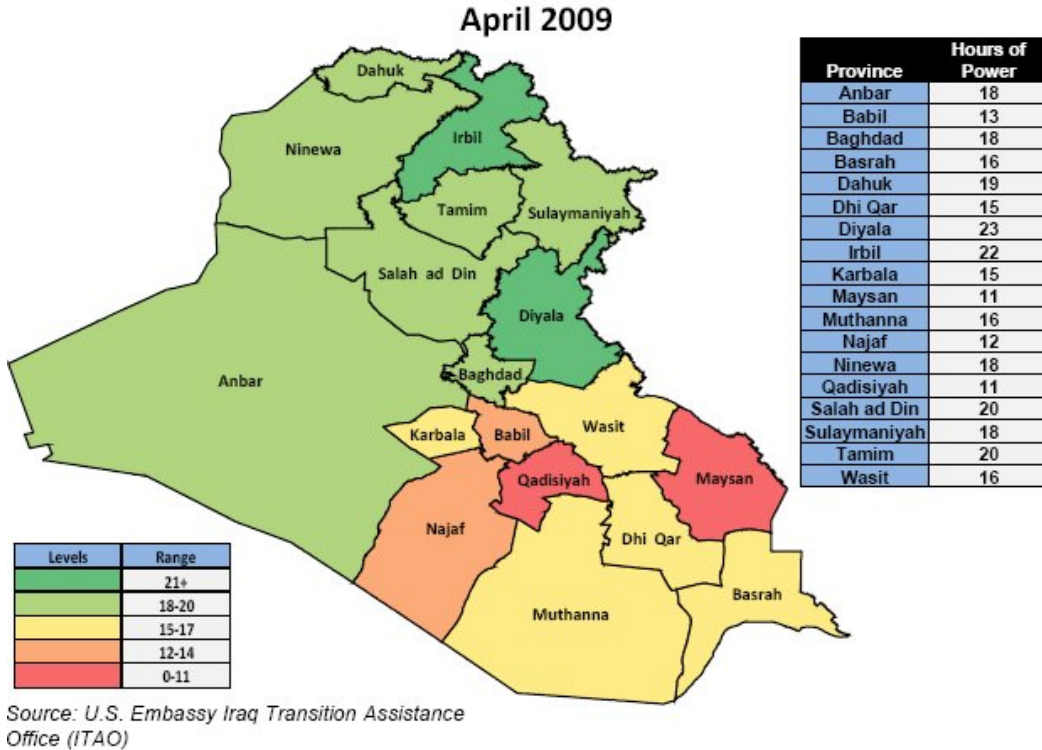
Similar problems emerge in key areas like water and sewage treatment. As DoD reports:

In April 2009, nearly 68 percent of Iraqis reported being able to get safe, clean drinking water at least some of the time, indicating no significant change from January 2009. Although the majority of Iraqis can get safe drinking water, only 34 percent are satisfied with the availability of drinking water, a two-point increase from January 2009. Only 46 percent of Iraqis state that they have a working sewage disposal system at least some of the time, down two percentage points from November 2007. The percentage of Iraqis satisfied with sewage disposal services is 29 percent, a three percent increase from January 2008.⁹⁸

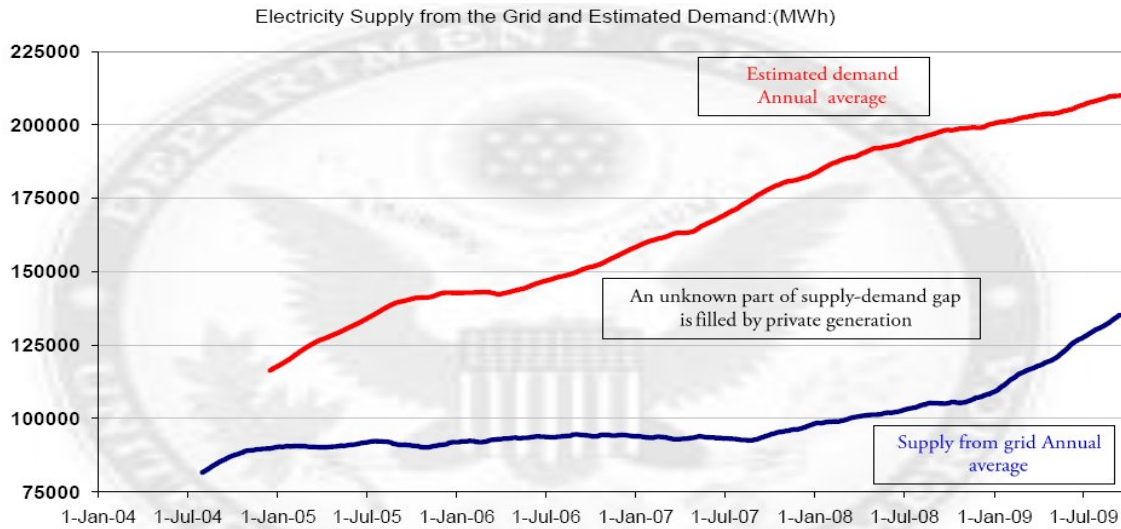
⁹⁷ DOD, *Measuring Security and Stability in Iraq*, June 2009 (issued August 2009).

⁹⁸ Ibid.

Figure 2.7: Electric Power as a Case Study: Average Daily Hours of Electrical Power per Province



Source: U.S. Department of Defense (DOD), Measuring Stability and Security in Iraq, Report to Congress In accordance with the Department of Defense Supplemental Appropriations Act 2008 (Section 9204, Public Law 110-252) (dated June 2009, but issued in August).



Source: U.S. State Department, Iraq Weekly Status Report, September 16, 2009, 15, <http://www.state.gov/p/nea/rls/rpt/c28011.htm>.

Iraq's Health Care System

Iraq also faces a crisis in critical areas like health and education. Coalition forces, NGOs, international organizations, and private donors have worked with the Ministry of Health (MoH) to develop Iraq's long-neglected health care system, which suffers from poor facilities and equipment, low salaries for physicians, and limited access to foreign innovations and technologies. Since 2003, however, the MoH has not made much improvement. The sector still suffers from a lack of health facilities, medicine, experienced physicians, and emergency health care services (ambulances).

In addition, health care prices are too high for the average Iraqi, who earns only \$70 per month. The average cost of a private primary care visit alone is \$25, more than one-third of the average monthly salary.⁹⁹ The mortality rate for children under 5 years in Iraq is 125 in every 1,000, which is disproportionately high compared with just 33 in every 1,000 in Egypt. Iraqis also experience relatively high rates of cerebral palsy and cancer.¹⁰⁰

Part of the problem with the Iraqi healthcare system is coordination. Before the invasion, International Medical Corps and several leading NGOs established the Joint NGO International Medical Corps in Iraq to address problems of coordination between organizations like the World Health Organization (WHO) and UNICEF operating in the country. They then established the NGO Coordinating Committee for Iraq to coordinate efforts, exchange information, monitor humanitarian issues, and provide the NGO community with shared services.¹⁰¹

After the UN headquarters bombings in August and September of 2003, however, all agencies participating in this program left Iraq for Jordan. This effectively ended any coordination of health activities—although NGOs did not have much interaction with the Coalition Provisional Authority or the military to begin with. In its place, the MoH adopted a strategy of implementing several disjointed, short-term projects—a system it follows today. These projects consist of large-scale efforts like the construction of a new maternity hospital (without adequately staffing the facility) while other primary medical facilities in desperate need of funds, staff, and equipment fall by the wayside.

Because health coordination in the past was handled primarily by the World Health Organization, coalition forces did not pay much attention to health care in their reconstruction plans and have not filled this role since the WHO left in 2003. As a result, half of Iraq's current primary care clinics are understaffed, ninety percent of Iraq's 180 medical facilities do not have basic medical and surgical supplies, and in some cases hospitals do not even have a physician on call.¹⁰² According to the WHO, in 2008 Iraq had 6.1 physicians and 12.6 hospital beds for every 10,000 persons; in comparison,

⁹⁹ Dr. Mike Bunning, Health Adviser, Baghdad Provincial Reconstruction Team (PRT), "Background Paper: Status of Iraq Health Care System," September 1, 2009.

¹⁰⁰ Timothy Williams, "US Fears Iraqis Will Not Keep up Rebuilt Projects," *New York Times*, November 21, 2009.

¹⁰¹ Bunning, "Background Paper: Status of Iraq Health Care System."

¹⁰² Williams, "US Fears Iraqis Will Not Keep up Rebuilt Projects."

Saudi Arabia had 21 physicians and 22.1 hospital beds and Jordan had 26.7 physicians and 18 hospital beds per 10,000 persons.¹⁰³ In a poll conducted in November, 2009, only 25% of Iraqis said that they were satisfied with the availability of health services.¹⁰⁴

This disparity has a lot to do with the fact that hundreds of thousands of Iraq's educated professional class, including doctors, nurses, engineers, and scientists, have either fled the country or been killed in the war.¹⁰⁵ Furthermore, although the United States has invested considerable money in reconstructing and equipping hospitals, it has not spent much money on training and educating Iraqi doctors on how to use the new equipment, rendering it useless.

For example, when the United States handed over responsibility for Iba Sina Hospital—the U.S. military's largest medical center in the country—over to the Ministry of Health, the MoH had to shut down the facility because it lacked the staff and equipment to reopen it.¹⁰⁶ The U.S. military claims it left behind \$7.9 million worth of equipment in the hospital, but Iraq simply does not have enough trained professionals to operate it. Similarly, the \$165 million Basra Children's Hospital has yet to open after four years of delays, and when it does open the MoH predicts that it will not have enough doctors and nurses to staff this facility either.

This shortage of medical facilities and personnel has fueled the insurgency in several ways. Iraqis have become frustrated with a lack of government effort to improve the affordability and accessibility of health care. Lacking options at home, many Iraqis have been forced to seek treatment outside Iraq, particularly in Syria and Iran, strengthening their ties to these countries. Many more cannot afford to seek medical care outside the country, as medical visas are difficult and expensive to obtain, so they are forced to remain in Iraq without adequate access to medical care, a situation that further contributes to poor mortality rates and anger and resentment toward the government and coalition forces.

To begin to remedy this situation, the United States and the Iraqi government should re-establish a coordinated effort among all NGOs, private donors, and international organizations to better implement changes in the health care system. Iraq must spend more money on training and hiring medical professionals rather than on superfluous facilities and equipment that few Iraqis are trained to operate. The government must also conduct regular surveys to establish which parts of the system are most in need of assistance. It must focus more on long-term strategic goals than on individual projects that will have only a small effect on the overall health of the Iraqi population.

Finally, it must allocate more resources to the health care system in general: current levels of funding are simply not enough to make health care both affordable and accessible to most Iraqis. To do this the government must better inform politicians on the status of Iraqi health care, the areas that need improvement, and ways that funding can contribute to that improvement.

¹⁰³ SIGIR, *Quarterly Report to the United States Congress*, November 30, 2009, 78.

¹⁰⁴ DOD, *Measuring Stability and Security in Iraq*, December 30, 2009, 22.

¹⁰⁵ Williams, "US Fears Iraqis Will Not Keep up Rebuilt Projects."

¹⁰⁶ Ibid.

Iraq's Education System

Iraq's education system faces equally critical problems, especially considering the progress the country has made in other sectors of its economy. Iraq joins Yemen and Egypt as the three Middle Eastern countries with the largest populations of uneducated youth.¹⁰⁷ Iraq's education system has been in decline since the 1980s, which is why older generations of Iraqis tend to be the best-educated out of the general population.

Although primary school enrollment for 6–11-year-olds averages 84.4 percent, intermediate and secondary school rates are far lower, particularly in rural areas and among women. **Figure 2.8** shows the intermediate and secondary school enrollment rates for both boys and girls in urban and rural areas. Intermediate school enrollment ranges from 45.5 percent for urban boys to 16.6 percent for rural girls. Secondary school enrollment drops even further to around 25 percent for both urban boys and girls and down to 7.2 percent for rural girls.¹⁰⁸

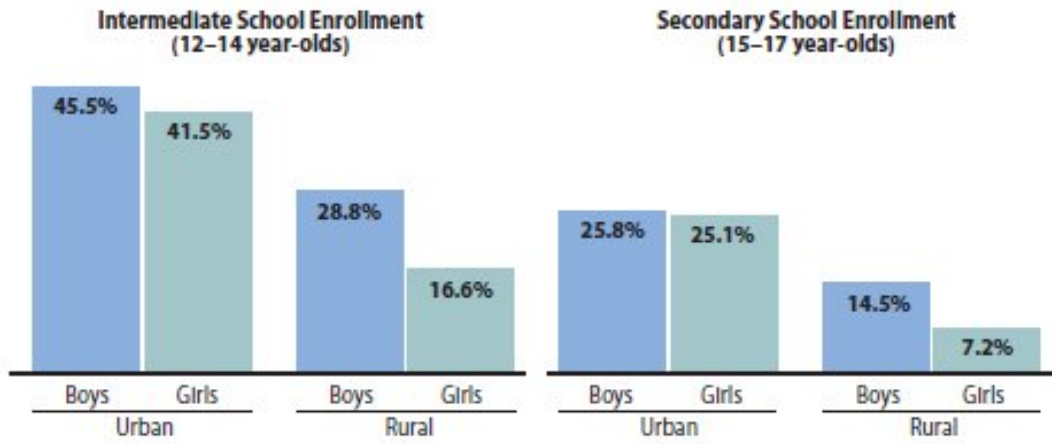
As the previous demographic analysis has shown, Iraq is a very young country with more than 40 percent of the population under 15 years of age. If the education system does not improve soon, it will produce a staggering population of young, uneducated, and unemployed men and women, who have always been the largest recruiting pool for insurgent groups. Even if the government manages to stabilize the security situation in Iraq now, it will face more problems down the road if it cannot manage to educate and employ its young population.

A small portion of Iraqi students do receive grants from the government and from other countries to earn their bachelors and masters degrees abroad. Those students are supposed to return to Iraq after graduation, but many try to circumvent the rule and continue to live abroad rather than return to their country. Furthermore, these students are usually wealthier and have benefited from private education opportunities. Instead, the government should focus on improving its first and secondary school institutions, which will have a greater effect on the general populations. The Iraqi government must step up its efforts to channel funds toward Iraqi schools if it wants to produce a more educated population that can contribute back to the economy and help stabilize the country.

Figure 2.8: Intermediate and Secondary School Enrollment Rates

¹⁰⁷ SIGIR, *Quarterly Report to Congress*, November 30, 2009, 79.

¹⁰⁸ Ibid.



Source: SIGIR, *Quarterly Report to Congress*, October 30, 2009, 79.

The Non-Petroleum Sectors of Iraq's Economy

As is the case with Iraq's petroleum sector, it is not possible to separate government activity from the other key sectors of the economy. Iraq's budget problems affect the scale of state employment and subsidies as well as the prospects for state and private investment. Although government officials assert that they are trying to build up the private sector, the government still interferes in virtually every area.

Similarly, government activity has a major impact on private investment. Although Iraq has tried to attract foreign investment in its private sector, it faces a multitude of problems, from widespread drought to a lack of electricity and machinery. In 1980 Iraq was self-sufficient in producing wheat, rice fruits, vegetables, and poultry products. It also exported a variety of manufacturing goods including textiles, leather goods (purses and shoes), steel, and cement.¹⁰⁹ But years of war, sanctions, poor management, international competition, and underinvestment have all but wiped out these once profitable industries.

The Financial Sector

Like everything else in Iraq, the financial sector has been severely hampered by nearly three decades of war and sanctions. Before the U.S.-led invasion, all industry in Iraq was state-owned and had little to no interaction with international businesses and markets.

Previous regimes held tight control over the state-run banking system. Private banks were not allowed to operate until 1992, and even then the government forbade them from conducting international transactions. The entire banking sector remained isolated from technological advances and new business practices until the collapse of Saddam's regime in 2003. At the time of the 2003 invasion, Iraqi banks had no way of processing electronic payments and were using an outdated system for clearing checks. Even documents and correspondence between branches of the same bank had to be carried by hand between buildings.¹¹⁰

Despite some technological improvements, not much has changed in Iraq's banking sector. CIA estimates show that the state-owned banks Rafidain and Rasheed, the two largest banks in the country, still account for 86 percent of all financial assets.¹¹¹ In December 2008, a private accounting firm conducted financial and operation audits of Rafidain and Rasheed and identified several weaknesses with the state-run businesses, including the following:

- No documented strategy, business plan, or objectives.
- No clear operational regulations or rules for employees.
- No clearly allocated reporting requirements and responsibilities.
- Inadequate and outdated information technology and infrastructure.

¹⁰⁹ Timothy Williams "Idle Iraqi Date Farms Show Decline of Economy," *New York Times*, August 15, 2009.

¹¹⁰ Iraqi National Investment Commission—Iraq by Sector, <http://www.investpromo.gov.iq/?q=en/node/20>.

¹¹¹ SIGIR, *Quarterly Report to Congress*, April 30, 2009, 101–103.

- Inadequate risk management.
- Limited product offerings, including no letters of credit.¹¹²

Both the U.S. Treasury and the World Bank are currently helping restructure these banks to help them incorporate modern business practices and technologies into their systems. The Task Force for Business and Stability Operations (TFBSO), established by the Department of Defense in 2006, has also helped improve the interbank lending system in Iraq by updating banks' electronic fund transfer systems and integrating them with international standards and practices. Still, the government must focus more attention on coming up with aggressive strategies to revamp the financial sector—particularly new means and channels for issuing loan services.

The number of private banks in Iraq has risen since 2003. As of August 2009, the government had issued 31 licenses for private banks and 22 of them were operating in Iraq.¹¹³ However, most Iraqis are suspicious of private banks and tend to have greater trust in the few state-owned banks that have been around since the Saddam era. Private banks also give out fewer loans because they are smaller and more risk-averse, and many of them lack credit departments. Furthermore, most of the directors of private banks in Iraq live outside the country—mostly in Amman, Jordan—and have little communication with the government or with other private banks operating in Iraq. TFBSO has done a lot to help with interbank exchange, but private banks still do not offer financial services to a large portion of the population.

The U.S. Treasury has identified several other problems with private banking in Iraq, particularly with the availability of loans and other financial services:

- Loan decisions are delayed because of the poor quality of loan applications and lack of credit officer experience. When potential bank customers seek financing, they draw on savings or relatives first and microfinance institutions last.
- The main source of bank revenue is not interest earned from loans: it is transaction fees for electronic funds transfer and the processing of state-owned enterprise transactions, such as direct deposits and cash disbursements. Reliance on fee income is safer because credit risk cannot be reliably assessed.
- There are no guidelines or manuals at the branch level to assess credit risk and no uniform loan application process. Disclosure standards and audit requirements are not available.
- Opening a personal or commercial bank account is a cumbersome and costly process at the private banks. Many types of identification, certifications, and approvals are required. The banks assess a 2 percent fee for making a deposit. ATM usage is minimal, although the SmartCard biometric debit card issued by state-owned banks seems to be gaining popularity.¹¹⁴

There is some hope that the banking sector will grow to become a profitable industry—particularly the private banking industry, which grew 80 percent in 2009.¹¹⁵ That growth

¹¹² SIGIR, *Quarterly Report to Congress*, January 30, 2009, 98.

¹¹³ *Ibid.*, 120–122.

¹¹⁴ *Ibid.*

¹¹⁵ Reuters, "Private Banks Flourish amid Iraq's Chaos," November 16, 2009.

is coming off of a small base, but financial experts expect to see the same kind of double-digit growth in 2010, although a bit lower. While the banking sector in most countries took a large hit following the economic meltdown in 2008, Iraqi banks have been flourishing because of the kind of lending they do. Most of them are lending to small, family-run businesses like restaurants and shops that have seen a large growth in profits since the decline in violence after 2007.¹¹⁶

Despite gains, however, Iraq's banking system lags so far behind international institutions that it will probably take several years before it catches up to the rest of the world. A well-funded, efficient banking system is the cornerstone of economic growth; and judging by the current financial system in Iraq, it will take a long time for Iraq to stabilize its economy. In the meantime, the banking sector needs more resources, greater oversight, more investment in human capital and technology, and better long-term planning.

The Industrial Sector

Progress in the industrial sector has also gotten off to a slow start. In early 2009, the Iraqi minister of planning and development cooperation named privatization as the key to success for state-owned enterprises (SOEs) in Iraq, but as of November 2009 only one joint venture existed between Iraqi SOEs and private international investment consortiums.¹¹⁷

The Task Force to Improve Business and Stability Operations has provided \$100 million to restructure and revitalize Iraqi SOEs, but these efforts have been difficult to evaluate due to a general lack of baseline data.¹¹⁸ TFBSO has failed to record such statistics as the number of Iraqis employed by SOEs before and after 2003 and average factory production levels. This may be because security concerns prevented data gathering or because SOE officials failed to cooperate with the program. Either way, it is difficult to get a clear picture of the effects of the program on profits and employment without this information. Some audits by SIGIR also revealed that many SOEs did not provide TFBSO with copies of invoices to verify how they had spent the funds or how much they had spent.

Furthermore, most investors are still put off by the lack of cooperation they receive from the Iraqi government, the unreliable power supply, and the uncooperative and sometimes hostile work force. Before Iraq can really diversify its industrial sector it must focus on using government revenues to fund infrastructure projects essential to private business and on developing sound business practices in order to attract foreign investment.

There is some hope for increasing Iraq's exports and foreign investment. In November 2009, Iraq held its first international trade fair since the invasion of 2003, with more than 400 foreign companies in attendance.¹¹⁹ Turkish and Iranian firms were the most prominent at the convention, although the United Arab Emirates still led the field with

¹¹⁶ Ibid.

¹¹⁷ Ibid.

¹¹⁸ SIGIR, *Quarterly Report and Semi-Annual Report to the United States Congress*, January 30, 2009, 101.

¹¹⁹ Reuters, "Baghdad Holds First Trade Fair in Over Six Years," November 2, 2009.

\$31 billion in Iraqi investments.¹²⁰ Surprisingly, given the United States' substantial investment in Iraq's security and infrastructure, U.S. companies have invested only about \$400 million in Iraqi projects. This is partly because U.S. companies are still cautious about operating in Iraq because of security concerns, but it is also because the Iraqi government has been trying to distance itself from the United States and work more with companies from the region.¹²¹

The Service Sector

Information on Iraq's service sector is scarce but the overall picture looks bleak. Like most businesses, service industries have seen increasingly more activity each year due to the improving security situation, but it is still generally difficult for people in Iraq to start up new businesses. As noted, access to capital is problematic and the financial sector is rather weak, decreasing the availability of loans for small businesses.

Industries like tourism are practically nonexistent in Iraq although the country does benefit from some local tourism and religious tourism to Iraq's holy Shi'ite sites. Most tourists come from neighboring countries, particularly from Iran, to cities like Najaf, home to more Shi'ite holy sites than any other city in the region, including the Shrine of Imam Ali, the son-in-law of the prophet Mohammad and a central figure in Shi'ism.¹²² Iraq is not yet secure enough to seriously attract other foreign tourists, and so far there are few commercial flights into the country, although construction on the new Najaf National Airport finished in September 2009.¹²³

The Iraqi government is also taking several measures to broaden the scope of tourism to include visitors from abroad. In November 2009, Iraqi Airways, Iraq's national airline, announced plans to resume flights between Baghdad and Paris for the first time in 20 years.¹²⁴ Iraqi Airways also began offering direct flights to Stockholm and has opened airline routes to several other cities around the Middle East. Attracting tourists is still somewhat difficult given the country's tentative security situation, but many new campaigns have appropriately begun to target tourists "seeking adventure."¹²⁵ World Travel Market chairman Fiona Jeffery lauds these efforts, saying, "It may be in its infancy but Iraq has the potential to become a viable tourism destination, just like Vietnam."¹²⁶

For now, Iraq's other service sector industries consist mostly of local businesses that spring up in small, individual communities. Transportation and communications are also growing businesses. Before the 2003 invasion, Iraq's fixed-line telecommunications system was limited and the country had no broad-based cell phone network. By 2002 Iraq

¹²⁰ Rod Nordland, "Rebuilding Its Economy, Iraq Shuns U.S. Businesses," *New York Times*, November 13, 2009.

¹²¹ Ibid.

¹²² Roy Gutman, "In Najaf, Iraq's Shiite Clerics Push for Direct Elections," McClatchy Newspapers October 19, 2009, available at <http://www.mcclatchydc.com/homepage/story/77413.html>.

¹²³ Bureau of Near Eastern Affairs, U.S. Department of State, *Iraq Status Report*, September 23, 2009.

¹²⁴ Reuters, "Iraq to Resume Baghdad-Paris Flights after 20 Years," November 9, 2009.

¹²⁵ Reuters, "Iraq Tries to Lure British Tourists in Search of Adventure," November 5, 2009.

¹²⁶ Ibid.

had a fixed-line density rate of only 3.5 percent.¹²⁷ For many years the Saddam regime forbade cell phone use, considering it a security threat, and later on sanctions prevented the country from purchasing a network. In 2003, Iraq was the only country in the Middle East that still did not have a cell phone network.¹²⁸ Since 2003, cell phone use has skyrocketed, with millions of new users every year. Cell phones have become one of the largest service sector industries in the country—many Iraqis now spend a large portion of their income on cell phone use, and many consider it a necessity.

Otherwise, large-scale service sector industry will likely take some time to develop. Until then the government should focus on gathering better data about how many people the service sector actually employs and what percentage of annual GDP comes from these industries, and on acquiring foreign investment to expand current industries.

The Agricultural Sector

Population growth, growing water problems, war, mismanagement, and competition from neighboring states all have had a major impact on Iraq's agriculture sector. Iraq, a country that exported food around the region, is now one of the world's biggest rice and grain importers.

Iraq has more water than most Middle Eastern states, but this fact can be misleading. The CIA estimates that only a little more than 13 percent of Iraqi land is arable and only 0.6 percent can support permanent crops. Some 67 percent of Iraq's population is urbanized rather than living on the land. The CIA estimates that only 5 percent of Iraq's GDP comes from agriculture, although some past estimates indicated the sector employs up to 17 percent of the country's work force.¹²⁹ Iraq also recently was affected by serious drought, a problem that may grow if climate change is a factor.

Key areas in the agricultural sector have suffered a particularly sharp decline, a situation best illustrated by the country's struggling date farms. Iraq once produced three-quarters of the world's dates, growing 629 different varieties. It now lags behind Egypt, Iran, and Saudi Arabia and produces roughly half the level of dates it did in the 1980s.¹³⁰ The number of date palms in the country has fallen from 33 million in the 1950s to 9 million. In a normal year, one date palm would produce 130 to 175 pounds of fruit, but in 2008 the average tree produced only 30 pounds. The number of date processing plants has also dropped, to 6 from the 150 that existed before the U.S. invasion in 2003. Iraqi dates are now packaged in the United Arab Emirates.

Production of wheat and aromatic rice also declined significantly in the past few years because of drought, insects, poor irrigation, red tape, salty water, and disease. Thirty years ago, Iraq exported these crops throughout the region, but today it relies heavily on imports to provide food for the general population.

¹²⁷ Iraq National Investment Commission, *Iraq by Sector: Telecommunications Sector*, <http://www.investpromo.gov.iq/?q=en/node/35>.

¹²⁸ Ibid.

¹²⁹ CIA, *World Factbook*, 2009, https://www.cia.gov/library/publications/the-world-factbook/geos/countrytemplate_iz.html; Energy Information Administration (EIA), *Iraq Country Report*, June 2009, <http://www.eia.doe.gov/cabs/Iraq/Background.html>.

¹³⁰ Williams, "Idle Iraqi Date Farms Show Decline of Economy."

Figure 2.9 shows recent trends in Iraqi grain production. A longer-term analysis could show just how much agricultural output has lagged behind the growth of population, but accurate data are not available. The same is true of trends in agricultural productivity, capital investment, growth in irrigated land, improvements in efficiency, and competitiveness with imports from Iran, Turkey, and other countries. War, sanctions, and decades of state mismanagement have all combined to have a brutal impact on this aspect of the Iraqi economy.

A 2009 USDA report described wheat production in Iraq:

- Iraq is experiencing its second consecutive drought-reduced wheat harvest owing to well-below-normal rainfall and significant irrigation supply shortages. Crop area is expected to be much below normal in major northern rain-fed provinces after poor autumn rainfall caused many farmers to abort sowing operations. Crop yields are also expected to be significantly reduced in major southern irrigated provinces this year owing to critical shortages of irrigation water in the Tigris and Euphrates river systems during the wheat growing season.
- Deficient moisture availability crippled many growers' ability to salvage a decent harvest this season, with overall vegetative crop development as bad as or worse than last year's severe drought. Total wheat production is expected to be little changed from last year, ranking as one of the worst harvests in the last decade. Given that winter grain crops usually account for 85 percent or more of total annual food grain production in Iraq, a significant domestic grain supply shortage is expected, requiring another year of above-normal grain imports in the 2009/10 marketing year.
- Cumulative rainfall in most of Iraq's provinces during the autumn 2008 and spring 2009 (2009/10 marketing year) winter grain growing season was only slightly improved compared to last year's extreme drought. Total rainfall accumulations averaged between 25 and 65 percent of normal for most of the primary wheat producing regions. This amounts to an average of 4–8 inches of rainfall during the eight months between September 2008 and April 2009. Well-below-normal rainfall conditions predominated in all but a handful of upland and far eastern growing areas.
- In the major non-irrigated grain provinces of northern Iraq, rain-bearing weather systems were scanty and infrequent. Huge areas apparently went unplanted, as autumn rains failed to arrive in sufficient quantity to ensure seed germination. This adversely affected potential crop area in Ninewa, Arbil, and At Tamin provinces that collectively account for 35 percent of the nation's wheat production.
- In addition, severe irrigation water shortages developed during the winter months when water levels dropped precipitously along the Tigris and Euphrates rivers owing to restricted releases of water from upstream reservoirs in Turkey. These shortages caused extensive harm to Iraq's irrigated winter grain crops, with severe moisture stress causing significant crop yield reductions over vast areas. The provinces of Diyala, Wasit, and Al Qadisiyah were heavily affected by these shortages, resulting in both reduced wheat area and production. These provinces typically account for 32 percent of total wheat production in Iraq.
- A comprehensive evaluation of winter grain establishment across Iraq was conducted during the 2009/10 winter growing season, comparing the current seasonal situation to those of recent years.[...] The results of the analysis clearly depicted a significant drought-related decline in grain production potential owing to a lack of grain crop

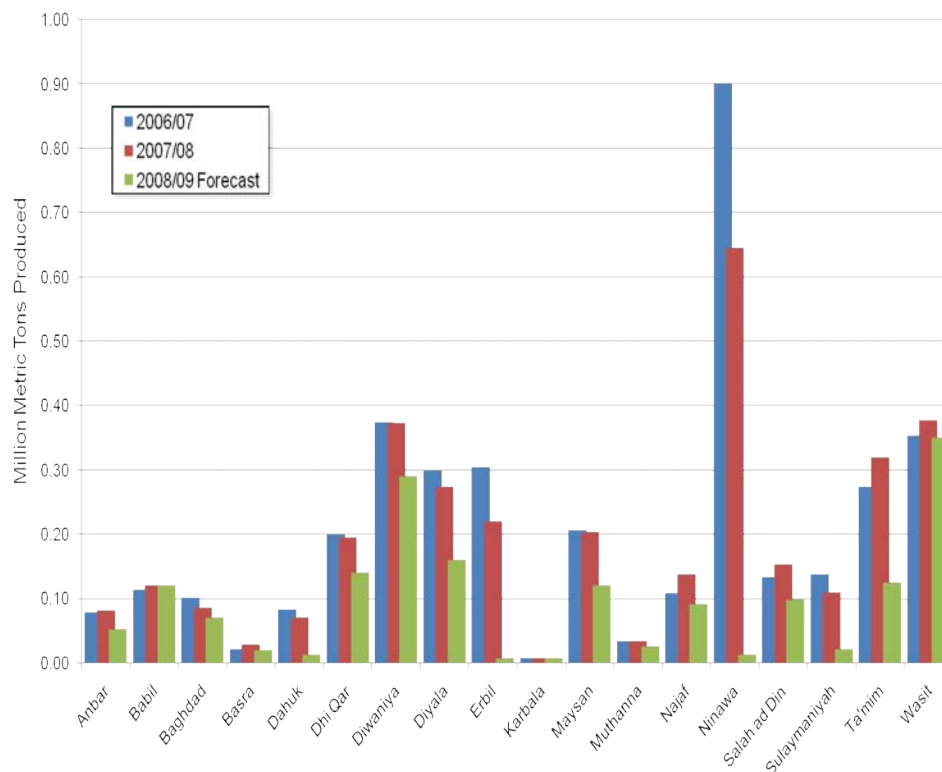
emergence and establishment in several major rain-fed grain growing areas, as well as late season moisture stress on non-irrigated crops that did get established.

- The severity of the decline in 2009/10 crop vegetation was exceeded only by the extremely poor situation last year. The worst declines in crop vegetation compared to normal in the northern rain-fed wheat producing governorates occurred in Ninewa, Arbil, At Tamin, and Sulaymaniyah, which together account for 36 percent of the country's wheat crop. Ninewa on its own is particularly hard-hit, and is the country's leading wheat producing region, normally accounting for 20 percent of total wheat production. In addition to these problem areas, the satellite image comparisons showed that grain area and/or crop vigor in primarily irrigated regions had also declined from normal. The most seriously affected areas were in the governorates of Diyala, Wasit, Al Qadisiyah, and Maysan that typically account for 37 percent of the nation's wheat output.
- There were significantly improved vegetative crop conditions in several northern Kurdish governorates that share borders with Turkey and Iran this year, but their combined production rarely exceeds 2-3 percent of the national total. The increased grain production prospects in these northern areas in 2009 are not expected to compensate for losses in the country's major producing regions, though they will provide a semblance of local grain self-sufficiency.¹³¹

Overall, Iraq's wheat harvest in 2009 dropped 40 percent below normal levels due to a rainfall decline of roughly 50 percent, the fourth consecutive year of drought in the country. Iraq produced less than 1 million tons of wheat compared to the 2.5 million tons it produced annually from 2000 to 2007. As a result, the country had to import 4 million tons of wheat to meet its annual demand of 5 million tons.¹³²

¹³¹ Adapted from U.S. Department of Agriculture, *Iraq: Drought and Irrigation Shortages Decimate Wheat Harvest in 2009/2010*, May 1.2, 2009 <http://www.pecad.fas.usda.gov/highlights/2009/05/iraq/>.

¹³² Anthony DiPaola and Caroline Alexander, "Iraq Drought Cuts Harvest, Boosts Imports as Oil Cash Slips," Bloomberg, August 5, 2009.

Figure 2.9: Combined Wheat and Barley Production, 2006–2009

Source: Adapted from U.S. Department of Agriculture, *Iraq: Drought and Irrigation Shortages Decimate Wheat Harvest in 2009/2010*, May 12, 2009, <http://www.pecad.fas.usda.gov/highlights/2009/05/iraq/>.

The shortage of water has been a main cause of the decline in Iraqi agriculture. Iraq was once one of the most fertile countries of the region, but a severe four-year drought significantly dried up the country's water sources. This not only affects agricultural output but also reduces the supply of electricity in Iraq—particularly southern Iraq—by an estimated 50 percent. Two of the country's four power-generating turbines stopped working as of August 2009 due to the rapidly falling levels of the Euphrates River, and the other two were expected to fail if water levels dropped any further.¹³³ Low rainfall is only part of the water problem. Hydroelectric dams in neighboring countries like Turkey and Syria have also cut the flow of water that travels down the Tigris and Euphrates rivers and into Iraq, eliciting angry accusations from Iraqi officials.¹³⁴

On a positive note, Iraq's water resources minister has reached out to these neighboring governments for the first time since Saddam Hussein took power. In September 2009, the water ministers from all three countries met to discuss the issue, which resulted in the first water-sharing agreement between the neighboring states. On September 18, 2009,

¹³³ Martin Chulov, "Water Shortage Threatens 2 Million People in Southern Iraq," *The Guardian*, August 26, 2009.

¹³⁴ Reuters, "Iraq Seeks 30-Year Plan to Fight Drought," September 15, 2009.

Turkey's energy minister agreed to increase the flow of water from Turkey to Iraq and Syria during the month of October to alleviate the regional drought. He agreed to ensure an average flow of 550 cubic meters of water per second into Iraq—up from 517 cubic meters per second—to help alleviate the effects of the dry season.¹³⁵ Syria also agreed to increase its flow of water into Iraq, and both countries agreed to boost energy cooperation as well.

This is one of the few signs of real progress that Iraq has made in furthering its private sector through regional cooperation, and the government should try to establish as many of these agreements as it can in the future. Still, the agreement was temporary and Iraq must continue pursuing this kind of cooperation on water-sharing between neighboring countries to ensure long-run prosperity and avoid future droughts. If the government cannot find alternative ways to irrigate crops and power residential and commercial buildings then Iraq will continue to struggle in its efforts to expand its exports beyond petroleum.

Iraq has taken some positive steps towards this goal. In fall 2009, the government was trying to put together a 30-year plan for managing the country's limited water resources.¹³⁶ Still, there is little evidence that Iraq can regain its status as one of the leading agricultural exporters in the region. Production is nowhere near the level that it could or should be at. Thirty years ago, the country had a much smaller population, so it was easier to grow food for export. Today, Iraq's rapid population growth has caught up to the agriculture industry, making it more difficult for Iraq to reclaim its role as a crop exporter, especially when it has a hard enough time meeting domestic demand.

Unfortunately, reliable statistics on Iraqi agriculture remain scarce and suspect, which make it difficult to evaluate exactly what the sector needs for growth. The information collected so far, with questionable data collecting methods—for example, the U.S. Foreign Agricultural Service (FAS) estimates annual crop yields using satellite data—gives only a vague picture of the inefficient and stagnant industry.¹³⁷ Further statistics about production and markets are needed to evaluate of the real potential of Iraq's agricultural sector.

Aside from production problems, Iraqi crops have a hard time competing with foreign products. Unlike governments in most countries, the Iraqi government does not protect or subsidize most of its farmers. As a result, Iraqi produce is more expensive than fruit and vegetables from countries like Iran, Syria, and Egypt.¹³⁸ These regional states heavily subsidize their farms and consequently flood neighboring markets with cheap food. Iraq also has to import most of its feed for sheep, goats, and cattle, thus raising the price of domestic livestock as well.

¹³⁵ Forbes, "Turkey Gives More Water to Iraq, Syria," September 18, 2009.

¹³⁶ Reuters, "Iraq Seeks 30-Year Plan to Fight Drought." ¹³⁷ Mike Tharp, "Once World's Bread Basket, Iraq Now a Farming Basket Case," McClatchy Washington Bureau, July 17, 2009, <http://www.mcclatchydc.com/226/story/72051.html>.

¹³⁷ Mike Tharp, "Once World's Bread Basket, Iraq Now a Farming Basket Case," McClatchy Washington Bureau, July 17, 2009, <http://www.mcclatchydc.com/226/story/72051.html>.

¹³⁸ Ibid.

The government has sponsored regional infrastructure programs, such as building greenhouses, teaching better farming practices, and running workshops, but none of this will make a difference if Iraqi products cannot compete in domestic and foreign markets. To evaluate the role agriculture will play in the country, the government needs to confer with private organizations and experts to find a way to either make the industry profitable or reduce national dependence on imports.

It is unlikely that Iraq will regain its position as a prominent regional exporter of agriculture anytime soon. The more immediate goals for the government should be self-sufficiency and sustainability. If Iraq can grow enough rice and grain to meet domestic demand and bring down the price of locally grown produce, then it can reduce its dependence on agricultural imports and contribute to a trade surplus. In addition to expanding infrastructure and irrigation systems that can enable farmers to grow and distribute their products throughout the country, Iraq should also expand regional diplomacy efforts to increase water flow to the country and create markets for domestic produce.

The Role the United States Can Play

To begin with, the United States needs to make massive improvements in the quality of its own analysis of the Iraqi economy. It needs to focus its analysis, advisory, and aid efforts on the issues and challenges that Iraq must overcome to achieve internal stability and security, rather than on studies designed to show that the United States has succeeded when it has failed. Rather than base economic success on Iraq's stability in the international financial system, the United States must focus on the government's ability to meet the needs of the Iraqi people.

The United States needs to pay attention to the following specific issues:

- The United States seems to have the right priorities for creating suitable investment laws, but it is unclear that it has a set of defined goals and actions to get laws and practices in place. A slow process of reform may be more politically acceptable, but the question arises as to whether it will meet the needs Iraq faces from 2010 to 2012.
- Iraq needs aid to understand the real world margins, conditions, and incentives necessary to encourage investment and develop the private sector. Showing Iraq models of how ventures actually work, and the present level of comparative Iraqi incentives and disincentives, and then regularly reporting on Iraqi progress might help bring these economic realities home.

Part of this process involves gathering data on Iraqi banks and cooperating with organizations like the IMF to develop better lending and borrowing networks for Iraqi businesses and consumers. Greater oversight and communication between different banks must be encouraged to create a more transparent and efficient banking sector. Without a strong financial system, Iraq will never see the kind of growth it needs to sustain its economy in the long run.

- Although the United States does emphasize agricultural reform, water, and related needs for power, these efforts seem fragmented and are often shaped around project-level efforts as ways of leading by example. Iraq's agricultural problems are deep structural problems. They need action and reform on a large scale and detailed economic analysis and planning.

- Given the scale of Iraq's agricultural problems, labor needs, and reliance on imports, there seems to be a need for a clear analysis of what can be done in national agricultural reform and how best to move Iraq forward more quickly. The broader question is how to help Iraq develop a far more comprehensive and realistic understanding of what it can and cannot do. The United States must help Iraq to develop and revitalize its agricultural sector so that domestic products can compete with imports (and deal with Iranian dumping). The goal is not to turn Iraq back into a regional agricultural supplier but to ensure self-sufficiency and food security in the country without spending vast amounts of money on imports. Furthermore, Iraq needs to learn how to honestly assess the impact of population growth relative to efficiency and to look at water and irrigation problems at both the national level and in terms of the probable increased use of water by upstream countries.
- Iraq must not fall into the trap of focusing on limited gains rather than structural reform, or repeat the mistakes aid agencies have made in so many other countries by focusing on agricultural potential (the "bread basket" fallacy) instead of real-world possibilities. One option would be to have the World Bank draw up an assessment of where Iraq should be in 10 years. Another would be to create a long-term U.S. aid project that would fund such planning with the help of Iraqi officials, agricultural experts, and farmers—supported by U.S., and outside expertise—to ensure that Iraqis are vested in the effort.
- There are few "magic bullets" that can quickly create thousands of jobs through one single project. State-owned enterprises, however, seem to be the best platform for both job creation and giving current state employment a meaningful degree of productivity. It is unclear whether beginning efforts in this direction will be sustained or move toward significant lasting success.
- Similarly, as privatization moves forward and increases in scale, the advisory and planning effort must look beyond the small- and medium-enterprise (SME) level. Iraq may need a much clearer plan to encourage proper use of the SOEs and success for larger-scale SMEs, and to ensure that modernizing the SOEs has suitably high priority.
- Iraq needs major infrastructure reconstruction, and better government services are a critical part of this effort. It is not clear that U.S. aid will properly fund long-term construction and maintenance of new infrastructure. Nor is it clear how the United States will help the Iraqi government develop future plans and incorporate its current projects into the JCP.
- One solution to help Iraq plan its long-term reconstruction goals would be to create a joint Iraqi-World Bank commission to oversee the process. The commission could take advantage of Iraq's improved security to do the accurate survey work that aid agencies have failed to conduct in the past, look at the country's real-world options given its income and capacity for capital spending, and develop regularly updated studies as a basis for Iraqi government action and future aid efforts. As with so many aspects of Iraqi development, there needs to be a reliable basis for judging what is needed and what is possible.
- Iraq needs sustained aid to improve the overall quality and capacity of government services. This need may also increase significantly once Iraq shifts from election politics to actual governance. It is not clear that detailed plans and options have been developed for such aid, particularly in the form of an integrated and properly prioritized approach versus a series of useful individual but only partly coordinated efforts.

- The United States and Iraq need better regional and sectoral economic metrics. Both the United States and Iraq need to avoid falling into the trap of relying on nationwide data and analyses that blur the very real differences between areas, sects, and ethnic groups. We also need to drill down far below the largely useless macroeconomic data to begin to determine income distribution, the true scale of the employment problem, what is really happening in the petroleum sector, progress with SOEs and SMEs, progress in investment, problems with infrastructure and water, the nature of problems in agriculture, and the modernization of the financial and service sectors.
- Both the United States and Iraq need to focus on the human impact of Iraqi economics, not gross statistics; only the former will determine the stability of the country. It is progress by sector that will determine development. Ensuring that budgets and development are spread throughout the various regions and across Iraqi fracture lines is what will bring about progress and political conciliation. These reporting systems need more development, and it is time to eliminate the word "reconstruction" from all cable traffic and U.S. government reporting. That term never made much sense. The goal has always been stability and development, not the standards of 2003.

Speaking generally, the United States can assist Iraq both by helping it do the kind of economic analysis it really needs and by conducting regular, independent analysis that will provide an objective picture of developments available to all Iraqis. It should encourage the Iraqi government to honestly address key issues and provide advice to outside investors. In an ideal world, the United States can turn this into a multilateral effort by asking the IMF or World Bank to assume some of the burden. However, past efforts to do this have focused on institutional needs and have rarely been timely or transparent.

Furthermore, there must be greater transparency and communication between different departments as to what they have actually spent government funds on, and there must be a way to measure how successful this spending has been. Measuring the success of a project by certain rubrics will help determine what types of future projects the United States should direct its funds toward and what types are less effective.

Several individual projects undertaken by local commanders using funds from the Commander's Emergency Response Program, or CERP, have done little to improve crucial aspects of life in Iraq like education and health care. Some of these projects include a sports complex in Baghdad that cost several hundred thousand dollars, a \$2.7 million hotel at Baghdad International airport, and expansion of the \$34 million-plus Baghdad economic zone.¹³⁹ Regardless of the economic or political benefits those projects may have, CERP funds would be better spent on projects that address more immediate needs like constructing new educational and medical facilities and hiring and training more teachers and physicians. The following section will discuss U.S. spending in greater detail.

Such projects should have a broader purpose; they should aim to influence factors in a certain sector or province (e.g., unemployment, distribution of income) or they should solve a specific problem (e.g., produce more electricity, cleaner water). Without those

¹³⁹ SIGIR, *Quarterly Report to Congress*, October 30, 2009, 4.

goals in place it is difficult to measure how effective the use of funds is and how future use of funds will affect other aspects of Iraq's security and stability. The first step to defining whether a project improves the current situation is to measure what that situation is. To do this the United States should expand the scope of its data collection to include several sectors of the Iraqi economy and the effect that economic activity has on the Iraqi population in different regions of the country.

One thing is clear. The United States cannot advise on what it does not understand. Individual elements of the U.S. government and advisory effort do have considerable understanding, and SIGIR has provided analysis in some areas. But one has only to look at the State Department maturity model, the USAID Web page, and the econometric analysis in the Department of Defense quarterly reports on Iraq to see how shallow and self-serving much of the open source analysis by the U.S. government has been to date.

The United States badly needs an effort that is fully integrated under one leader and staff and is truly relevant to Iraqi needs. This should be a key aspect of both the Joint Campaign Plan and the integrated civil-military plans that are needed for the future.