

THE STATE OF THE ECONOMY



IRIS Fellow Mark DeWeaver c

ECONOMIC ISSUES IN IRAQ & THE KURDISTAN REGION

KURDISTAN'S GREAT RECESSION:

From Boom to Bust in the Rentier Economy INSIDE IRAQ'S CASH ECONOMY: Fully Reserved Banking in a Monetary Dystopia

MAKING ENDS MEET Economic Reforms in the Kurdistan Region of Iraq

The following is a series of reports and articles by IRIS non-resident fellow Mark DeWeaver on post ISIS Iraq and the Kurdistan Region.

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or False?

- obligations should be netted against payments due to
- KRG should accept blocked checks as payment for tax n if they have been transferred to the taxpayer by
- KRG does not have the administrative capacity to
- are is no point in talking about system reform until the



DIRECTOR'S

The following is a series of IRIS Iraq Reports (IIR) on the economy of the Kurdistan Region of Iraq (KRI) by IRIS non-resident fellow, Dr. Mark DeWeaver.

DeWeaver joined IRIS in November 2015. He is an economist, owner of Quantarian Capital, an emerging-markets fund that currently invests in the Iraq Stock Exchange (ISX), and author of Animal Spirits with Chinese Characteristics: Investment Booms and Busts in the World's Emerging Economic Giant.

DeWeaver's IIRs focus on the political economy of the KRI. From a report on the post-2014 economic collapse to an analysis of government reforms a year later, and an intricate account of the cash economy and banking system, his papers are based on extensive interviews conducted in Sulaimaniya and Erbil. The reports aim to educate local and international stakeholders about the situation "on the ground" and inform policy that will address the region's economic challenges. More broadly, the studies serve as a case study of a petro-state.

As a research and policy institute based on the ground, IRIS's mission is to produce such in-depth, field-based and policy-oriented research, offering a unique perspective on issues facing Iraq and its Kurdistan Region.

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Kurdistan's Great Recession

From boom to bust in the rentier economy

by Dr. Mark DeWeaver

Not long ago, the future looked bright for the Kurdistan Region of Iraq (KRI). Long an oasis of peace in an otherwise unstable region, by 2013 the three Kurdish provinces of Erbil, Sulimaniyah, and Dohuk had become the most prosperous part of the country. Not only were they developing their own oil and gas resources but they were also diversifying into non-oil sectors such as cement, tourism, and real estate. In the major cities consumers were flush with cash—business was booming at shopping malls, car dealerships, gold shops, hotels, and restaurants. Iraq's tallest apartment and office buildings were under construction. The region's dream of becoming the "next Dubai" seemed to be fast becoming a reality.

Today the KRI's multi-year economic boom has turned to bust. Last year's 50% drop in oil prices, the occupation of neighboring provinces by Islamic State (IS) militants, and the suspension of fiscal transfers from Baghdad to the Kurdistan Regional Government (KRG) have resulted in a government-budget crisis of epic proportions. State-sector salaries have gone unpaid for months at a time, KRG-controlled banks have no cash to fund depositors' withdrawals, arrears to construction contractors are piling up, and billions of dollars in payments due to foreign oil companies have not been made.

The impact on the private sector has been little short of catastrophic. Consumer spending has collapsed, property prices have crashed, occupancy rates at four and five star hotels have plummeted, and work on many projects has come to a virtual standstill. Capacity utilization at cement plants is falling, car dealerships are struggling, income at banks and insurance companies is down sharply, and sales of big-ticket electronics items are slumping. Businesses that only two years ago were making record profits are now fighting for survival.

Outside of Iraq, Kurdistan's great recession has attracted surprisingly little attention. While the war against the Islamic State continues to monopolize the headlines, the KRI economy is seldom in the news. This one-sided emphasis on the security situation is unfortunate because it obscures some of the most serious problems the region is facing. The outsider might well be left with the impression that everything in Kurdistan will be fine once enough precision guided munitions have found their targets in the IS-controlled areas south and west of the border.

In this report, our objective is to fill in some of the gaps in previous coverage of the KRI by providing a comprehensive account of the region's current economic downturn. We believe that our findings will be useful not only to those following the KRI economy for practical reasons but also to researchers interested in the business cycle dynamics of commodity exporting countries.

In many ways the KRI fits the definition of a rentier economy quite closely. The KRG relies almost entirely on oil revenues, whether from its own exports or, during periods when it has received its constitutionally mandated 17% of the central government budget, from those of Iraq as a whole. The majority of the workforce is employed by the state. The private sector is quite small and consists primarily of providers of non-tradable goods and services.

These characteristics mean that the business cycle is driven primarily by the price of oil. Factors believed to be responsible for economic fluctuations elsewhere—monetary and fiscal policy, inventory cycles, productivity growth, or even the 'animal spirits' of private investors—are relatively unimportant. As a result, there are few internal forces that will naturally tend to move the economy back towards equilibrium during periods of overheating or recession.

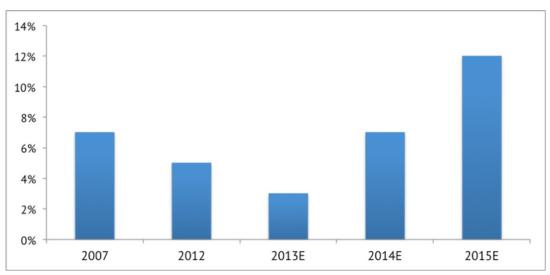
The current situation in Kurdistan is difficult to quantify because almost none of the statistics commonly published for most other economies are available. There is, for example, no monthly or quarterly time series data covering GDP, industrial production, capacity utilization, fixed asset investment, or employment. Indicators based on firm and household-level surveys, often among the most widely followed economic time series, are similarly unavailable.

In the absence of such statistical information, this report relies mainly on information about particular sectors. We interviewed people at companies and government ministries to learn about trends in prices and sales, financial conditions, investment plans, and issues affecting specific industries. The evidence they provided allows us to portray the magnitude and extent of the recession and forms the basis for our evaluation of possible policy responses.

If there were a business sentiment index for the KRI, our sources suggest that it would be at an all-time low. "Only during the civil war was the situation worse than it is now," one told us—referring to the mid-1990's conflict between the two main Kurdish political parties. "We had a very pessimistic business plan but weren't able to achieve half of it," said another. "Things are getting worse every week," said a third. Most business people characterized this year as the worst that their companies had ever experienced.

For households, these are hard times indeed. The Kurdistan Region Statistics Office told us they believe the poverty rate has risen from a low of 3% in 2013 to 12% at present, reflecting both worsening

conditions for long-time residents and the recent arrival of hundreds of thousands of destitute internally displaced people and refugees (Figure 1). KRI annual per capita meat consumption has fallen from a pre-crisis level of 45 kg to 23 kg (IRIS Roundtable, 2015).





This is truly a great recession by any definition of the term.

The remainder of this report examines the KRI's transition from boom to bust in detail. We begin with a brief account of the origins of the crisis (Section I), then examine key sectors of the economy including oil and gas and construction (Section II), consumer demand (Section III), property development and hotels (Section IV), and private investment (Section V). We conclude with a discussion of possible directions for government policy (Section VI).

I. Origins of the Crisis

People in Kurdistan tend to date the start of the crisis to June, 2014, when the Islamic State took over several neighboring provinces and briefly threatened the KRI capital of Erbil, thereby triggering a massive influx of refugees and disrupting transportation to the rest of the country. The region's troubles actually started earlier in the year, however, when Baghdad cut off the KRG's share of the national budget following a dispute over Kurdistan's right to export oil independently. Central government payments fell from IQD 14.3 trillion in 2013, when they accounted for 77% of the KRG's revenues, to just IQD 1.1 trillion in the first half of 2014 and nothing in the second half (Figure 2).

The KRG Ministry of Natural Resources (MNR) responded by selling oil directly to foreign buyers through a new pipeline network connecting fields under its control to a pipeline linking Fishkabur, just across

the border from Turkey, to the Turkish port of Ceyhan. This strategy kept revenues from collapsing during the first half of the year but government finances came under severe stress in the second half, when the IS crisis coincided almost exactly with the start of a precipitous drop in oil prices (Figure 3). Oil fell by over 50% from mid-2014 until the end of the year, even as military spending jumped and the population of internally displaced people rose from 250,000 to over a million, significantly increasing demand for public services (World Bank Group, 2015, 2).

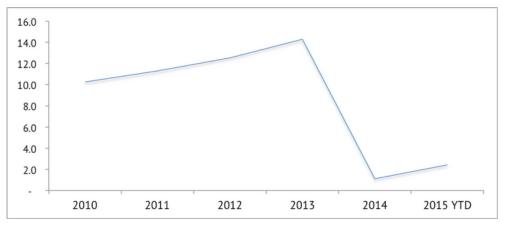


Figure 2. KRI Federal Budget Share (IQD trillion). Source: World Bank Group, MNR

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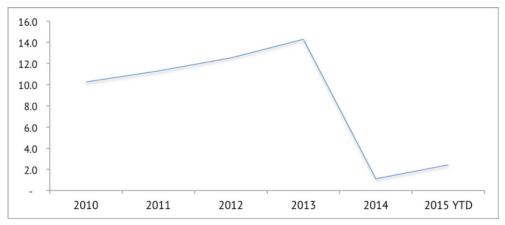


Figure 3. KRI Federal Budget Share (IQD trillion). Source: World Bank Group, MNR

A rapprochement with the new government of Prime Minister Abadi led to Baghdad restarting payments to the KRG at the beginning of this year. This proved to be short-lived. For the first five months, the MNR alleges that the central government turned over only a third of what had been agreed upon. Since June, Erbil has been relying entirely on its own oil export revenues (MNR, August 20, 2015, 2), which totaled \$3.3 billion YTD as of mid-November (MNR, December 1, 2015).

Under the MNR's initial projections, which were based on a price of \$55/barrel, these independent exports were expected to generate \$850 million per month (MNR, August 20, 2015). This would have been enough to cover KRG public sector salaries, which are equivalent to approximately \$750 million per month (Zhdannikov, 2015), but have fallen far short of the additional amount needed for state-sector investment projects and the repayment of debts including the equivalent of \$8 billion owed to local lenders and \$3 billion to international oil companies (Mahwy, 2015).

To make matters worse, exports have fallen short of expectations and since June oil prices have fallen another 20%. As a result, average monthly export revenues have been \$160 million below target (Osgood et al, 2015). Due to circumstances largely beyond its control, the KRG has been left without sufficient revenue even to cover all of its salary expenses.

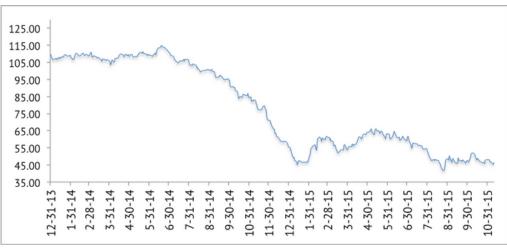


Figure 3. Brent Crude Prices (Daily, US\$/barrel). Source: Federal Reserve Bank of St Louis

II. Running on Empty

While the KRI resembles an independent country in many respects, the KRG lacks three important policy tools that would be available to most sovereign states in a similar situation. As it does not issue its own currency, it cannot increase the local money supply. Given the limited scope of its tax base, it cannot hope to solve its budget problems by raising taxes. And while it might in theory be able to borrow externally, in practice it has so far been unable to do so at an acceptable rate of interest.

The KRG has instead been forced to resort to much less satisfactory stopgap measures. These have included borrowing from local banks, postponing payments, and paying creditors with un-cashable checks. As a result, the region is now experiencing a severe liquidity crisis, depressed consumer spending and investment, and a wave of bankruptcies at construction contractors.

Repeated delays in paying government salaries have been the most visible sign of the budget crisis. This is a particularly serious problem given that the KRG employs approximately 70% of the workforce. Since the fourth quarter of last year the majority of KRG employees have been paid only every few months, often only after public protests and generally not the entire amount of back wages they are owed.

As the MNR itself has admitted, the international oil companies have received "hardly any payments" since May, 2014 (MNR, August 3, 2015, 2). Only in September of this year did the ministry finally authorize payments to the KRI's three main producers: \$30 million each to the Genel Energy/TTOPCO consortium and DNO, and \$15 million to Gulf Keystone Petroleum. It also pledged to make "additional revenue available to the exporting IOCs [international oil companies]...as oil export rises in early 2016" (MNR, September 7, 2015, 2).

Failure to pay these companies poses a series threat to the future of Kurdish oil production because without regular payments they do not have sufficient cash flow to invest in field development. Gulf Keystone, for example, has indicated that "in the absence of a regular payment cycle" it will be unable to carry out the second phase of the development plan for its Shaikan field, which is expected to expand production from the current level of 36,000 – 40,000 bpd to 100,000 bpd. Instead, "future production will decline" (Gulf Keystone Petroleum, 2015, 8).

Similarly, DNO, which is owed almost \$ 1 billion, produced over 150,000 bpd in the second quarter of this year at its Tawke field but noted in a recent press release that without regular export payments it "will not be in a position to make further investments." "Without further investments," it warned, "production from the Tawke field will decline" (DNO, 2015).

Genel, which reduced capex by 70% in the first half of this year, in October revised down its full-year 2015 production estimate from 90,000 – 100,000 bpd to 85,000-90,000 (Adams, 2015). Uncertainty about future cash flows has brought oil exploration in the KRI to a virtual standstill. The rig count for the region has fallen from a peak level of 36 before the crisis to only 3 today. The last time there were so few rigs operating was ten years ago, when the region's very first exploration and production contracts were being signed.

The potential revenue loss for the KRG is thus considerably greater than what would result solely from insufficient investment at existing fields. The present value of the revenue that might be lost over the next decade would in fact almost certainly exceed the \$3 billon now owed to the oil companies.

Following a multi-year expansion, government investment in infrastructure projects has also come to a halt. From 2010 to 2013, annual KRG investment spending rose at a compound annualized growth rate of 28% per annum to reach IQD 3.8 trillion (\$3.1 billion) (World Bank Group, 20). This year work on all but the most essential projects has been suspended, leaving roads half-done, power transmission networks unfinished, and contractors not only without new orders but also unpaid for work they have already completed.

Since the beginning of this year, the KRG has been paying contractors with checks that can be deposited in a bank account but not cashed. The payee can, however, transfer the funds to someone else's account. It has thus become possible for investors to purchase these "blocked checks" at a discount and this discount rate has become something of an unofficial indicator of the government's perceived creditworthiness. Around the end of last year, when many individuals and even some banks were buyers, it is said to have been 10-15%. By October, it had risen to 40-50% and demand had reportedly all but disappeared. If individuals and companies had significant obligations to the state it is conceivable that blocked checks might start to circulate as money. People would be willing to hold them simply because the government accepted them as payment. Even those without any taxes or fees to pay would always be able to find someone else who could use them.

But the rentier economy is an unlikely place for such a "chartal" currency to originate because government revenues come almost entirely from oil exports. While the KRG is reportedly accepting blocked checks as payment of taxes such as customs duties, the amounts involved are too small to generate much demand for these instruments. In recent years, average annual tax receipts have been the equivalent of only about \$600 million, a mere 5% of total revenue.

The contractors' difficulties are compounded by the fact that they generally have to have a letter of guarantee (L/G) from a bank in order to bid on government projects. L/G's are a means of ensuring that the contractor will complete the work specified in its contract. If it fails to do so, the bank pays a fine to the government and takes title to the contractor's collateral. Companies applying for an L/G must generally put up a percentage of the amount guaranteed as a security deposit.

Surprisingly, many contractors have found that they are still bound by the terms of their L/G's even though the government has failed to pay them or has paid with a check they cannot cash. They may thus find themselves in a situation in which they must choose between working without pay and forfeiting their collateral. Technical considerations may also make it difficult to abandon uncompleted projects. If left in an unstable condition, they may later have to be redone at the contractor's expense.

To make matters even worse, one contractor told us his company had been required to get the L/G for a government project it was working on from a KRG-controlled state bank. Even if it finished the job, the company would be unable to recover its security deposit because the bank has no cash to pay depositors.

Contractors finally got some good news at the end of November, when the KRG's Council of Ministers announced that companies will now be allowed to cancel their contracts (Ekurd Daily, 2015). While the details have yet to be made public, this new policy will presumably eliminate the contractors' L/G obligations as well.

Hundreds of contractors and sub-contractors are said to have gone out of business this year. In many cases the owners have been financially ruined. Some have even committed suicide.

III. Empty Showrooms, Falling Margins

The government budget crisis has had an immediate impact on practically every business that deals directly with consumers. Households at all income levels are cutting spending in any way they can, switching to the cheapest available options and eliminating non-essential purchases altogether. Sales are falling fast and for many companies profits are falling even faster as their product mix shifts toward lower-margin items.

These trends are apparent in sales of both big-ticket items and ordinary consumer goods. A distributor of Samsung televisions, for example, told us monthly unit sales for the KRI had fallen 70% since the first half of 2014. High-margin big screen TV's, which formerly accounted for 60% of KRI unit sales, now account for only 30%. The owner of a stationary shop had a similar story. Sales were down 60%. High quality products remained on the shelves while their low-end equivalents were sold out.

A goldsmith at the Sulaymaniyah bazaar reported that he formerly had a one-year backlog of orders. Last year this fell to only six weeks, now it is less than a month. He also noted that many shops that once sold jewelry on an installment basis are facing financial difficulties, estimating that about three quarters of these payments are now in arrears.

For auto dealers, the slowdown in sales to consumers has been exacerbated by a sharp drop-off in sales to the state sector. At one Sulaymaniyah Toyota dealership, monthly unit sales are down 35% compared to the pre-crisis period. In early 2014, 40% of sales were to government ministries. This has fallen to just 10%— only the Ministry of the Interior still has money for new vehicles.

At this point only small car sales are rising. The dealership used to sell 3-4 Corollas a month; now it sells ten. Meanwhile, revenue from the service center, generally the most profitable part of a dealership's operations, is down 10%.

The situation was much the same at the other dealers we visited. Sales of Mercedes were down 50%. A multi-brand outlet had seen a decline from 18-25 units/month to only 1-2. A Land Rover/Jaguar dealer that used to sell 100-150 units/month now sells 90—a major setback considering that in 2013 the KRI was Land Rover's biggest market in the entire Middle East.

At the same time, car loans are becoming almost impossible to come by. The Toyota dealership, for example, formerly provided financing through three local banks. Of these, only one is still lending and its credit terms have become much stricter. In the past customers could get a car loan for up to 50% of the value of their collateral (generally real estate) with no income-related questions. Now the loan-to-

collateral ratio is only 25% and the buyer must be able to document income covering three times the monthly payment. As a result only about 1% of the dealership's cars are now sold on credit, compared to 10-15% previously.

Lenders are right to be cautious. There have been numerous defaults by state employees who could no longer make their car payments after they stopped receiving their salaries.

IV. A Different Kind of Crash

Kurdistan's great recession has had a major impact on the property market. Prices and rents in Erbil and Sulaymaniyah have dropped sharply, work on major projects has slowed dramatically, and planned developments have been postponed or cancelled.

There are, however, two key differences between this real estate crash and similar episodes in other emerging markets. First, much less credit has been available for real estate speculation than would have been the case if the KRI had a well-developed financial sector. While developers were often able to get bank financing, their customers generally paid with blocks of US hundred dollar bills. Second, there is considerable demand for apartments from new arrivals from other parts of Iraq. These two mitigating factors have limited the number of bankruptcies and kept residential occupancy rates high.

Before the crisis, Erbil was in the midst of a major property boom. Unlike Sulaymaniyah, where the terrain is hilly and large lots of land are relatively difficult to acquire, Erbil's topography is quite flat and the city contains many sites suitable for property development. It is also the biggest population center in the KRI and home to the regional government.

Over the last ten years, the skyline has been completely transformed as numerous residential, office, hotel, and shopping mall projects have been completed. Erbil is now home to more modern built-up space than any other city in Iraq, including grade 'A' office and apartment blocks, gated communities of single detached houses, and several five star hotels.

One of the earliest of these developments was Italian Village, a community of two-story 100 square meter villas that first went on sale in 2009. Located at one apex of Erbil's toney "golden triangle" in the northwest quadrant of the city, these units have been much in demand both as residences and as office space. Corporate tenants have included international oil service companies, Turkish furniture makers, the Chinese telecoms company Huawei, and the Iraq Stock Exchange broker Rabee Securities.

In 2012, the second phase of this project seems to have set a local record for presales, selling out 1,760 units in just three days. Demand was so high that people who sold a week later are said to have made ten thousand dollars in profit just by putting up a five thousand dollar down payment on what was still only an empty lot.

MRF Towers, which now includes a total of 880 units in eleven towers just opposite from Italian Village, was another legendary property. In 2011, the first two towers sold out in just three days. Speculators reported putting \$25,000 down on day one and selling on day four for a \$30,000 profit.

Little wonder that some investors were known never to go out without tens of thousands of dollars in the inside pockets of their suit jackets. In those days, one might miss the deal of lifetime in the time it took to run home for some cash.

This golden age is now a distant memory. In Italian Village I, units that originally sold for \$100,000 in 2009 and peaked at \$385,000 in the first half of 2014 are now going for only \$220,000, a 43% drop. Rents have followed the same trajectory, starting at \$1,000/unit per month, rising to as high as \$3,000 per month, and then falling to \$1,200 per month. For the city as a whole, realtors say residential prices have fallen 30-50% with transactions down 80% (Abdullah, 2015).

If Erbil's speculators had relied heavily on borrowed money, most of those who bought after 2012 would now probably have negative equity in their properties. Those whose mortgage payments were just covered by the rents prevailing at the time they bought might also be facing bankruptcy.

As most paid with cash, however, bankruptcies are relatively rare even with rents down by as much as 60%. The main problem for all-cash buyers is that they may now be unable to make timely prepayments on new projects in which they have recently invested. But as the developers of those projects are unwilling to lose clients in a down market, they are generally willing to allow their customers additional time to pay. As a result, construction on their new buildings doesn't stop; it simply slows down to match the slower rate at which cash becomes available.

There are also surprisingly few vacancies thanks partly to migration from other parts of Iraq. Consider the situation at MRF Towers, where rents have fallen from \$2,200 to \$1,000 per unit per month. At these lower rates, tenants who might formerly have paid \$1,100 a month for an apartment in the predominantly Christian suburb of Ainkawa are now able to move into a much more exclusive address and save \$100 a month in the process. Meanwhile, rents in their old building may have fallen to only \$600, a price which many new arrivals from the South can afford (Figure 4).

Two and three-star hotels have similarly benefitted. Many are full of Arab Iraqis from IS-held areas even as tourism has fallen sharply due to the difficulty of travelling to the KRI and the economic downturn in the rest of the country.

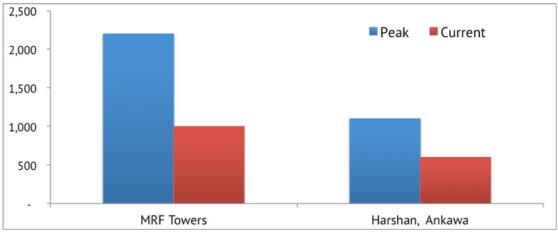


Figure 4. Erbil Rents (USD/unit/month) Source: Baghy Shaqlawa Real Estate

For the four and five-star hotels, it's a different story. There occupancy nosedived in June of last year, when foreign companies pulled out their staff in response to the IS advance. Properties like the Erbil Rotana and the Sulaymaniyah Grand Millennium, which had formerly been fully booked, were almost empty. Subsequently IS was pushed back, but the foreigners did not return. Hotel staff we contacted reported occupancy rates ranging from as low as 28% to no higher than 80%, with room rates down by 25% or more.

Last year's foreign company exodus is also bad news for Iraq's most ambitious grade 'A' office complex, the Empire World, located in the heart of the Erbil golden triangle not far from the Rotana. This includes a 30-story, 127 meter high, office tower—Iraq's tallest—surrounded by four 22-story, 79 meter high, mixed-use towers. These five buildings will have a total floor area of 76,446 square meters. All are due to be completed in 2016.

In front of these and on either side of the main entrance is the Empire Business Complex, which consists of six 25-meter high office buildings. These buildings, which have already been in use for some time, contain 30,600 square meters of space.

The development also includes numerous residential blocks, some already occupied, the rest in various stages of completion. A Marriott hotel is also on the drawing board.

At the time the Empire World was conceived, it would have been reasonable to expect strong demand from international corporations seeking business opportunities in the KRI or with plans to use the region as their "gateway to Iraq." Large local companies might have been buyers as well.

Today it is not clear who is going to fill this space. The oil companies that formerly occupied much of the Empire Business Complex have almost all either left the country entirely or moved into smaller, cheaper premises. Other foreign corporates are leaving as well, few are arriving to replace them, and not many local businesses are likely to be moving in.

Unlike Erbil's apartments and villas, where there are relatively few vacancies, many of the Empire World's offices may be empty for years.

V. A Dream Deferred

A natural consequence of the dismal state of the KRI economy is an exceptionally bleak outlook for private-sector investment. KRI Board of Investment approvals have fallen from a peak of \$12.4 billion in 2013 to only \$793 million for the first nine months of this year (Figure 5). Even these alarming statistics understate future declines in actual investment because much of what was approved in 2013 and 2014 is unlikely to go ahead under current conditions. Examples include the Erbil Downtown, a development by Dubai's Emaar Properties valued at \$2.4 billion; over \$2 billion dollars in approved cement plants; and Arbet Industrial City, worth \$2 billion. These projects alone account for about 40% of the 2013-2014 approvals total.

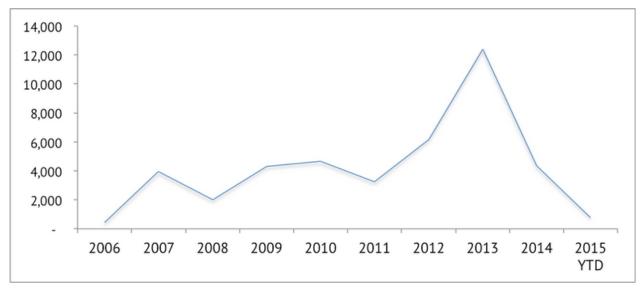


Figure 5. Investment Approvals (US\$ million, 2015 total through September). Source: KRG Investment Board, 2015, 60.

Patterned after Emaar's well known Dubai Downtown development, the Erbil Downtown might be considered the ultimate confirmation of the KRI's status as the next Dubai. The plans call for 11 residential towers, 10 office blocks, two high-rise hotels, a shopping mall, restaurants, schools, and swimming pools, all to be built on a 550,000 square meter site close to the center of Erbil. After the Empire World, this is probably the most ambitious such scheme in Iraq today.

But so far none of this new city center has been built and there seems to be little urgency about starting work. Erbil certainly will not need any more offices and hotels for the foreseeable future and the residential space is not priced to sell. One broker told us Emaar is asking for \$2,700 per square meter in cash upfront even as comparable flats in the MRF Towers are going for \$1,500 per square meter payable in installments.

Arbet Industrial City, just east of the city of Sulaymaniyah, is yet another victim of the economic downturn. This 6.75 million square meter site is supposed to be developed into Iraq's premier industrial estate. About 40% of the space is reserved for Iranian companies while the rest is expected to attract both local and foreign investment. Investors have expressed interest in setting up factories for products such as building materials, pharmaceuticals, processed foods, and bicycles.

Development is supposed to proceed in phases, with the first starting in 2014. Almost all of the \$2 billion project value is expected to come from the factory owners, who are responsible for site preparation and construction. The government has undertaken to provide power, water, and sewage connections, which will require a total of \$180 million over a five-year period.

So far only four companies are present. Iralex, an Iraqi producer of sandwich panels, aluminum sections, and coated window glass, is investing \$80 million. A Chinese company and an Iraqi company each have \$20 million projects—the former to manufacture steel sections, the latter, power cables. A Turkish furniture factory, which has so far only completed site preparation work, is supposed to put in \$10 million.

All four face the same problem—the government has no money to set up the high-voltage towers required to reach the existing power lines just 1.4 kilometers away. As a result, Iralex told us they have been forced to use two backup generators to power their sandwich panel line, which has just started production.

Using these generators requires switching from one to the other every five hours, each acting as a backup for the other when not in use. This arrangement is far from ideal. The added fuel and maintenance expenses make the cost five times higher than power from the grid. The result is an approximately 40% increase in total cost, making the product uncompetitive.

Clearly Arbet Industrial City will not be able to attract any more investors until this power issue has been resolved. A scheme to attract \$2 billion into the KRI's manufacturing sector thus appears to have stalled for want of the few million dollars the government would need to provide the electricity for Phase I. Where there might be numerous world-class industrial facilities one instead finds little more than a huge open field connected to the main highway by a single unpaved road. The province of Sulaymaniyah is also home to the famous Bazian "cement valley," the center of an industry whose total installed capacity has grown from zero in 2007 to 14 million tons per annum today. Bazian's cement plants supply the whole of Iraq and are thus affected not only by the recession in Kurdistan but by the slowdown in the rest of the country as well.

In Bazian things have been steadily getting worse since ever since the depreciation of the Iranian riyal in 2012, which resulted in a jump in low-cost imports from Iran. Since then capacity utilization—formerly 100%—has fallen to 60-70%. The cement price peaked at \$160/ton in the late 2000's, when demand was high and local capacity was still relatively low. It is now only \$60/ton.

The KRG budget crisis has hit the industry particularly hard, eliminating an annual 2-3 tons of demand that formerly came from government projects. At the same time, producers that had been providing vendor financing to Kurdish contractors are now owed tens of millions of dollars.

It is unclear what plans local business groups may have for the cement projects they have gotten approved over the last three years. But it seems safe to say that nothing remotely like the \$2.5 billion in investment that these would jointly require is going to be forthcoming. With demand collapsing not only in the KRI but in the rest of the country as well, there could hardly be a worse time to enter this sector.

VI. What Is to Be Done?

It might be argued that the nature of the rentier economy precludes any possibility of effective countercyclical government policy. If the business cycle is entirely driven by oil, perhaps there is nothing else to do during recessions except wait for the oil price to bounce.

In this case, however, the government is not entirely without options. Certainly the KRG cannot solve its budget crisis with money it does not have. But the KRI's state employees, contractors, banks, and oil companies have more than just a cash flow problem. Most of their claims are in the form of overdue receivables, which have no formal terms or any definite maturity date. This makes it difficult for them even to plan or to hedge risk.

The KRG could do a lot to improve visibility regarding when and how much it is eventually going to pay its creditors. The first step might be to generate detailed and transparent budget forecasts based on a variety of oil-price and production scenarios. For each of these, it could then provide guidance on what the status of its various obligations would be.

It might even go a step further and replace its obligations with government bonds having payoffs explicitly linked to those scenarios. Contractors holding blocked checks, for example, might be given

the option of exchanging them for a note linked to the price of oil. If the average price rose above a certain level for some pre-specified period of time, the payoff could be set above the face value. If the price fell, the holder would get less. Other creditors could be offered similar alternatives.

Restructuring the KRG's debts in this way would not necessarily imply any change in the total amount owed. In practice, the holder of an unpaid receivable is already holding an oil-linked instrument because the amount he or she is likely to receive is almost entirely dependent on growth in KRG oil revenues. The advantage of swapping receivables for bonds would simply be to make future cash flows more predictable. In addition, if the bonds were tradable, default risk could be transferred to those most willing and able to bear it.

Depositors at the KRI's illiquid banks have similarly been left holding claims without any definite terms. A resolution mechanism is urgently needed to deal with this problem. Here, a complicating factor is that the Central Bank of Iraq (CBI) branches in Erbil and Sulaymaniyah have never been properly integrated with the CBI headquarters in Baghdad. In fact, the CBI does not even consolidate the results of these branches in its annual financial reports. Yet bailing out the banks is going to require an injection of new cash, something only the headquarters can provide given that the Kurdish CBI branches do not issue their own currency.

Proper integration with the central bank system might thus be another step to consider. In addition to financial consolidation, this will also require harmonizing prudential supervision with the rest of the country. Otherwise, CBI headquarters is unlikely to go along. It will not want to be responsible for rescuing institutions that it lacks the power to regulate effectively.

Reform of the public sector is also an important part of the solution. In effect, the KRG is already cutting civil service salaries simply by not paying them. A more orderly and predictable reform process would clearly be beneficial from the point of view of both the government and its employees.

Reducing the government payroll will not be easy without a larger non-state sector to absorb laid-off workers. Cutting government spending must go hand in hand with promoting private enterprise. Some of the possibilities include improving water management for agriculture, protecting local industry through tariff barriers—which would also widen the tax base, strengthening contract enforcement, and clarifying vague and incomplete regulations (IRIS Roundtable Discussion, 2015).

Some readers may dislike the idea of tariff barriers because they are usually held to be economically inefficient. This objection would certainly be valid in an ideal world. But in a real economy, where there are generally multiple inefficiencies, things are less straightforward.

In the case of cement, for example, a tariff might actually enhance efficiency by increasing capacity utilization at Bazian's cement plants. The revenues raised could be used to eliminate inefficiencies elsewhere in the economy. They might cover the cost of providing Arbet's factories with electricity, for example. Here again, closer cooperation with Baghdad would be required. Tariffs will not work if they are collected at some Iraqi border crossings but not others.

To facilitate the migration of government employees to the private sector it will also be necessary to provide social safety nets to replace state-sector benefits. Some form of social security system might be an option. The insurance sector can also play a role by creating private-sector solutions, which might have the added benefit of stimulating the local hospital industry (IRIS Roundtable Discussion, 2015).

Naturally none of these measures is going to end Kurdistan's great recession. Only a spike in the oil price would do that. The goal should rather be to mitigate the short-term effects of the crisis while beginning a longer-term process of eliminating the booms and busts of the rentier economy altogether.

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Inside Iraq's Cash Economy

Fully Reserved Banking in a Monetary Dystopia

by Dr. Mark DeWeaver

As is the case in many conflict and post-conflict economies, in Iraq the private sector is primarily cashbased. Bank financing is unavailable for all but the largest companies and even then is limited mainly to overdraft facilities. While checks are often used for payments between businesses within the same city, cash transfers—via the movement of physical cash or through money transfer companies—dominate the payments system. The majority of households do not even have a bank account. Those with savings often hold them in the form of US dollar hoards in private safes.

This state of affairs places significant limitations on the financial system because it practically rules out fractional reserve banking. The business model for Iraqi institutions is necessarily quite different from that of banks in developed countries, which generally hold only a small share of their deposit base as reserves in the form of vault cash and reserve accounts at the central bank. Most of their deposits are available to be lent out. This is possible because depositors are likely to withdraw only a small fraction of these funds on any particular day.

The private banks and money transfer companies that serve Iraq's cash economy cannot really operate in this way. The former are subject, both individually and collectively, to large and unpredictable demands for cash from depositors; the latter do not take deposits at all.

As a result, Iraq's financial system has become a dystopic realization of the fully reserved banking schemes that Austrian economists have proposed as a means of eliminating boom-bust investment cycles. It bears a surprising resemblance, for example, to Huerta de Soto's "ideal model for the financial system of a truly free society," where there would be one hundred percent reserve backing for deposits, free (i.e. unregulated) banking, and freedom of choice in currency.

While not all Iraqi privately owned banks hold one hundred percent of their deposits in cash, those listed on the Iraq Stock Exchange (ISX) had a combined cash-deposit ratio of 97% at the end of 2014, an extraordinarily high figure in comparison to their international peers. System-wide, the combination of money transfer companies and cash in private safes is essentially a parallel fully reserved banking system in which different entities are responsible for custody and payments functions. The money

transfer companies also approach the ideal of free banking in that they are only lightly regulated and are disciplined mainly by reputational incentives. Finally, the partial dollarization of the economy affords Iraqis considerable freedom of choice in currency.

An important implication of one hundred percent deposit reserves is that demand deposits are not available to finance loans, which must instead be covered by bank capital. For Austrians, this is desirable because it precludes the possibility that money creation by the banks will lead to credit-fueled investment booms, which in fact is not a problem in Iraq. Iraqi episodes of over-investment have been primarily the result of high oil prices rather than excess credit.

It is not really the case, as Iraqis sometimes complain, that funds in fully reserved accounts or private safes are somehow unavailable to the "real" economy. Regardless of the form it takes, money does not literally "flow" into physical goods. Trade and investment do not transform the medium of exchange into commodities; they simply transfer it from buyers to sellers. Cash plays the same role in the payments system regardless of whether or not it available to be lent out. It is never "sitting idle."

What makes Iraq a dystopia, rather than the monetary utopia that Huerta de Soto and other Austrian economists have in mind, is the absence of the rule of law. The lack of effective bank supervision means depositors cannot be sure that their funds are safe, which naturally makes it difficult for banks to act as custodians. In an environment where armed robbery is an everyday occurrence, there are high transaction costs associated with guarding and transporting cash. Without reliable contract enforcement it is also impossible for financial intermediation to take place through pooled investment funds, which Austrians argue could substitute for bank lending in a fully-reserved system. Instead, medium and long-term financing must largely be limited to parties that know each other personally.

While Heurta de Soto's proposal might conceivably be optimal in a country with strong legal and regulatory institutions, the Iraqi version is merely a last resort. It is the best that can be achieved through "private orderings" in the absence of reliable public governance.

The remainder of this paper shows how fully reserved banking has become the norm in Iraq's private sector and explores some of the implications for policy making. Section I explains why Iraqi private sector banks tend to hold much higher levels of deposit reserves than their developed country counterparts despite the lack of any official requirement for full reserve backing. Section II demonstrates how money transfer companies make it possible for privately-held cash to take over the role that deposits normally play in the payments system, thereby allowing stashes of banknotes to serve as a kind of "homemade reserves." Section III looks at the central bank and explains why conventional monetary

policy, prudential supervision, and anti-money laundering regulations are generally ineffective or counterproductive under Iraqi conditions. Finally, Section IV concludes with a "second-best" argument for the Austrian "ideal model."

I. Fully Reserved Banking as a Last Resort

While the Central Bank of Iraq (CBI) requires private banks to hold 15% of their deposits as reserves, most hold well over 50%. Unlike foreign lenders, cash and equivalents rather than loans are the Iraqi private banks' single biggest asset. They have the dubious distinction of being among the most liquid financial institutions in world.

Consider the six ISX-listed banks that had foreign banks as major shareholders as of the end of 2014 (see Figure 1). Cash-deposit ratios ranged from 9% to 28% for the parents compared to 49% to 121% for the subsidiaries, whose combined cash assets covered 86% of deposits. For the locally controlled listed banks, the corresponding figure was even higher at 105%.

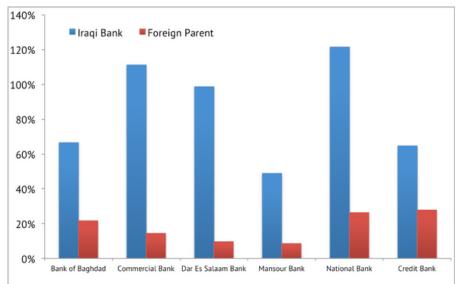


Figure 1. Year-end 2014 cash-deposit ratios at ISX-listed subsidiaries of foreign banks and their foreign parents, from left to right: Burgan Bank (headquartered in Kuwait), Ahli United Bank (headquartered in Bahrain), HSBC, National Bank of Qatar, Capital Bank (headquartered in Jordan), and National Bank of Kuwait. (Note that HSBC subsequently sold its entire stake in Dar Es Salaam.)

Iraqi bank managers will tell you that they need cash to meet unexpected large withdrawals by depositors. But this is true of banks everywhere. Why should Iraqi lenders be so much more liquid than their counterparts in other countries?

Their behavior does not seem so strange when you consider the fact that Iraq lacks a functioning interbank market. Ordinarily, banks with a cash shortfall at the end of the day can borrow overnight

from those with a surplus. As long as the public's demand for banknotes is unchanged, withdrawals from bank 'A' end up as deposits at bank 'B', ensuring that 'A''s demand for short-term money can usually be easily met.

In Iraq, a bank that ended up with a cash shortfall would in theory be forced to borrow from the CBI. This is a much less attractive alternative than borrowing from another commercial bank, however, and reportedly almost never happens in practice.

Institutions in developed countries that are perceived to be in trouble may still be able to access funds in the interbank market provided that they are willing to pay a high enough interest rate. The central bank, however, is both lender and regulator. It is not going to provide liquidity to the highest bidder, regardless of the circumstances. This is particularly true of the CBI, which lacks the strong oversight powers of monetary authorities in other countries. It could quite easily be taken advantage of by the commercial banks if it were to get a reputation for being a "soft touch."

Of course all of this begs the question of why there is no interbank market in the first place. Couldn't the central bank simply set up a system through which banks could make short-term loans to one another? The problem seems to be partly a result of the dominant role of the state banks, which together account for the vast majority of system-wide deposits. Without their participation, an interbank market would not work. There would be no guarantee that at the end of a given day the private banks collectively would not end up with a cash deficit while the state banks had a surplus. In a market where only the private banks participated, those with extra funds might not have enough to meet the demand of those with a shortfall.

So why not get the state banks involved? Unfortunately, that would not be ideal either. Like stateowned enterprises in general, these banks can always count on a bail-out if they get into trouble. This means that as interbank lenders they would be likely to act recklessly, making funds available to anyone willing to pay a high enough interest rate, regardless of counterparty risk. The inevitable result would be an increase in the state banks' non-performing loan ratios and a corresponding hit to the government budget.

There also can be no presumption that all of the cash withdrawn on a particular day would return to the banking system as new deposits. Much of the outflow might instead be hidden in people's homes. This might be the case, for example, during a crisis such as the Islamic State's takeover of northwestern Iraq in the summer of 2014. As long as the security situation is unstable, the banks will have to be prepared to meet sudden and unpredictable spikes in withdrawals at a moment's notice.

The need to hold large amounts of vault cash and central bank reserves naturally implies that the private banks' main business cannot be medium or long-term lending. Their activities are instead largely limited to foreign exchange trading, money transfers, and the provision of overdraft facilities, letters of credit for importers, and performance bonds for construction contractors. As would be true of the fully reserved banks imagined by Austrian economists, loans seldom exceed shareholders' equity.

In most countries, any bank holding over half of its deposits in cash would appear to be incredibly badly run. In Iraq, the reverse is more likely to be the case. Banks with low cash levels may be at risk of failing. Warka Bank, one of Iraq's worst bank failures in recent years, is a case in point. Once ranked first among the listed banks in terms of total assets, Warka was taken over by the central bank and delisted from the stock exchange in 2011. By the end of the second quarter of 2010, its cash-deposit ratio had fallen from 79% as of year-end 2009 to 12%—not a particularly alarming level by international standards but fatal in Iraq. By the second quarter of 2011, when the bank last published its financials, the ratio had fallen to a mere 1%.

II. Money Transfer Companies and "Homemade Reserves"

Money transfer companies (MTCs), known as *hawalas* in Arabic, play a key role in transferring funds among Iraqi cities and internationally. Their profits are generated almost entirely by money transfers and foreign exchange trading. Some hardly use banks at all, keeping most or all of their funds in cash. Others have relationships with the larger local financial institutions, as well as those with whom their major shareholders have personal connections.

These companies tend to be concentrated in bazaars, where they occupy modest premises often containing little more than a counter, safe, money counting machine, a few chairs and a table. While outwardly unimpressive and largely operating outside the formal financial system, they are participants in an extraordinarily complex global financial network with many similarities to those used to process commercial bank transactions. Average daily volume at even medium-sized outlets in Sulaymaniyah is reportedly well over one million US dollars.

Contrary to popular belief, money transfers do not involve any movement of physical cash. When the sender gives a sum of cash to MTC 'A', 'A' simply instructs a correspondent in another city, call it MTC 'B', to deliver that amount to the recipient, who is given a password and must also present some form of identification. The money does not "go" anywhere—'A' simply ends up with an increase in its cash balance, and 'B' with a decrease. Studies of international MTC remittances such as Passas (2003), Schaeffer (2008), and Maimbo (2013) tend to focus on the role of the transportation of physical cash or

tradable goods or the transfer of funds between bank deposits in effecting settlements among the MTCs themselves. Our informants in the Sulaimani bazaar, however, indicated that the majority of their outstanding balances are not settled in this way, but rather through a book-entry process.

In the simplest case, the imbalance between the sender and the receiver might be reversed through a subsequent transfer in the opposite direction. If 'B' later transfers money to 'A', 'B''s deficit could be eliminated when it receives cash from its customer, while 'A''s surplus might disappear when it pays the recipient.

Naturally incoming and outgoing transfers will rarely exactly offset each other in this way. In a more realistic case, settlement among MTCs will involve multiple parties. Suppose 'B' owes 'A' \$25 following net transfers from 'B' to 'A' totaling this amount. At the same time, perhaps 'C' and 'D' owe \$15 and \$10 to 'B', respectively, 'C' owes 'D' \$8, and 'A' owes \$25 to 'C' (See Figure 2). Settlement among these four MTCs could start with the following:

- 1. 'A' cancels its \$25 credit with 'B'.
- 2. 'B' cancels its \$15 and \$10 credits with 'C' and 'D'.
- 3. 'D' cancels its \$8 credit with 'C'.
- 4. 'C' cancels its \$25 credit with 'A'.

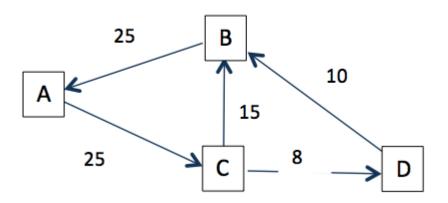


Figure 2. Multilateral netting among MTCs

It is easy to see how this works if we consider the effect on each MTC separately:

1. 'A' no longer owes \$25 to 'C' and no longer has a \$25 receivable from 'B'.

2. 'B' no longer owes 'A' \$25 and no longer has a combined total of \$15 + \$10 = \$25 in receivables from 'C' and 'D'.

3. 'C' no longer owes 'B' and 'D' a combined total of \$15 + \$8 = \$23 and no longer has a \$25 receivable from 'A'. 'C' thus ends up with a \$25 -\$23 = \$2 credit balance vis a vis the system as a whole, which could be eliminated through a payment from 'D'.

4. 'D' no longer owes 'B' \$10 and no longer has an \$8 receivable from 'C', ending up with a \$10 - \$8 = \$2 debit balance, which could be eliminated by a payment to 'C'.

Through those operations, system-wide obligations totaling \$83 have been reduced to only \$2 – the remaining imbalance between 'C' and 'D'.

In the Sulaimani bazaar – and presumably in similar venues elsewhere in Iraq –, arrangements like these are made directly among correspondents or may be facilitated through the intervention of brokers that bring together MTCs with complementary imbalances. These intermediaries do not hold cash themselves but work for a share of the commissions associated with the transfers they help to settle. Our informants had not heard of any companies using their own capital to consolidate MTC debits and credits.

For MTCs like 'A' and 'B' that start with equal credit and debit balances, settlement is solely a matter of making offsetting accounting entries. The possibility of physical settlement only arises in cases like those of 'C' and 'D', where the MTCs initially have non-zero net balances. Even then it is often not necessary.

MTCs often hold small balances with each other, which makes it possible for the book-entry settlement process to be completed over more than a single period. To ensure that this happens in a timely fashion, a common strategy for those with debit balances is to reduce or suspend transfers to their counterparties with the corresponding credits. This can be achieved by raising the commission rate on outgoing transfers or even temporarily refusing them altogether. Similarly, the party with a credit balance can reduce its rate or even waive it entirely to stimulate outgoing transfers. Over time, the imbalance will be reduced to zero as the debtor pays out cash to the beneficiaries of the creditor's incoming transactions.

The ability to control the volume of their transactions means that the MTCs have considerably more control over their cash flows than banks, which must pay out funds to depositors on demand regardless of the size of the required net withdrawals. MTCs do not face the same uncertainty—if they do not have

enough cash on hand they do not have to accept incoming transfers. They might lose business and credibility as a result, but are at least not at risk of bank runs.

Our informants reported that settlement is typically daily in the case of correspondents in major cities, and weekly for those in smaller cities with lower transaction volumes. Their network of correspondents is international in scope. Even balances among local counterparties may be settled in regional centers such as Dubai and Istanbul, or sometimes as far afield as Shanghai and Beijing.

We can get an idea of the relative importance of some of these overseas network nodes from the 2014 annual report of United Arab Money Transfer, the fourth largest of the fourteen ISX-listed MTCs in terms of revenue. Figure 3 shows receivables due from eight foreign correspondents, which together account for 39% of total receivables.

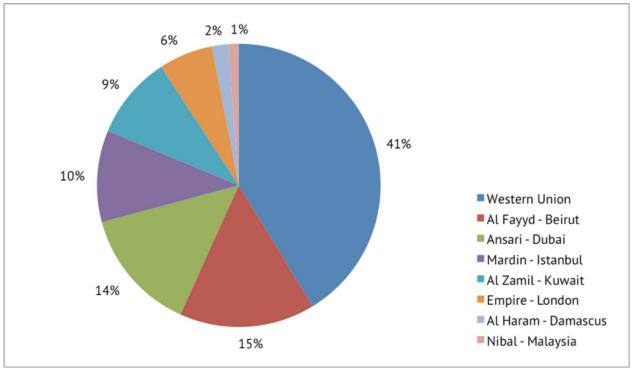


Figure 3. Year-end 2014 United Arab Money Transfer receivables due from foreign correspondents

As one might expect, MTCs based in regional financial centers have the biggest shares after Western Union, which has a large operation in Iraq. Its website lists 75 Iraqi outlets, of which eight are MTUA branches in Baghdad.

MTCs resemble banks not only as operators of a payments system but also as providers of short-term credit. Not only are they effectively making loans to the counterparties with which they have outstanding credit balances, they may also fund outgoing transfers for well-known clients—a service

much like a bank overdraft facility. One MTC in the Sulaimani bazaar told us it can cover anywhere from 10% to 100% of the transfer amount interest free, without collateral, for periods of up to ten days.

The main difference between MTCs and banks is that the former do not accept deposits and typically also do not hold cash balances as pre-funding for anticipated future transactions. The bank's normal custody role is essentially outsourced to the client himself, who only relinquishes control of cash when making a transfer.

We might think of all of the MTCs' clients' collectively as holding a "homemade" one hundred percent deposit reserve. Combining this with the MTCs' services results in what is perhaps the most basic form that a banking system could take. While obviously not an optimal arrangement for most economies, it is one of the outstanding success stories of the Iraqi private sector—a means of keeping economic activity from collapsing in an environment with few effective legal safeguards or government regulations.

III. Implications for Monetary Policy and Bank Supervision

Fully reserved banking has important implications for the conduct of monetary policy and bank supervision. In Iraq, most of the tools available to central banks and regulators in other countries are inappropriate or ineffective. In some cases, their application may in fact do more harm than good.

Consider interest rate policy, for example. In a country with a well-developed banking sector, raising rates can slow economic growth by creating a disincentive for individuals and companies to borrow. Cutting rates has the opposite effect. In Iraq, such measures make little difference because there is so little private-sector lending. They also do not matter much to the state sector, where the lack of hard budget constraints means that lending decisions are generally not going to be particularly interest-rate sensitive.

The same is true of changes to the required deposit reserve rate—one of the central bank's most potent weapons in many developing countries. For banks whose deposits are almost fully covered by cash and reserves, moves like the CBI's last reserve-rate cut—from 20% to 15% effective September 1, 2010—must invariably be non-events.

In Iraq the only really effective means of controlling the money supply is through the exchange rate, because money creation results primarily from the central bank's conversion of US dollars from

government oil exports into local currency. If the CBI raises the IQD/USD exchange rate, it will create more dinars for each dollar it buys from the government. If it lowers the rate, money-supply growth will slow.

Since exchange rate stability is one of the CBI's main objectives, however, its use of the exchange rate for macro-economic management has been limited. Instead, the price of oil has become the main driver of the Iraqi money supply. When the oil price rises, the Ministry of Finance has more dollars to exchange with the central bank. If the exchange rate is unchanged, more dinars will have to be created to purchase them and the money supply will increase. An oil price drop has the opposite effect.

Prudential supervision based on bank-capital ratios, is also inappropriate in the Iraqi context. For banks with large loan books, capital adequacy ratios (e.g tier-one capital to risk assets) are important because they measure a bank's ability to cover losses from bad loans. In Iraq, such ratios are not really relevant —the denominator may be close to zero. Given that liquidity risk, rather than credit risk, is the key issue, cash-to-deposits is clearly the best indicator for regulators to monitor.

The CBI's policy on bank and MTC capital is based on absolute capital levels. All private banks were required to raise capital to IQD 100 billion by the middle of 2011, IQD 150 billion by the middle of 2012, and to IQD 250 billion by the middle of 2013, for example. Similarly, the CBI recently required the MTCs to raise capital to IQD 45 billion. It is not clear how these policies can be justified on prudential grounds. They seem rather to be an attempt to force the banks to lend more, coerce the smaller banks into merging with one another (this has not happened), and reduce the number of MTCs. In other words, this policy appears looks more like an attempt to replace private orderings with central planning.

In some cases, the CBI's insistence on capital increases also appears to have led to increases in the quantity of capital at the expense of quality. Some majority shareholders are said to have used personal lines of credit from their banks to pay for their own rights-issue shares. The problem with this, of course, is that if those shareholders are unable to repay their loans, the banks will take a loss and the new capital will have to be written off.

Similarly, the CBI's anti-money laundering (AML) policies have sometimes had unintended consequences. In 2012, for example, the central bank introduced new regulations requiring anyone purchasing dollars at its official rate to provide documentary evidence of the purpose for which the foreign exchange would be used. Rather than blocking illicit currency flows to Iran and Syria, the new rules instead produced a market for Iraqi government-certified manifests, which could be used to prove the existence of a legitimate transaction. The policy did little more than create an opportunity for officials with access to the right government seals to make a quick profit stamping phony documents.

It is doubtful, in any case, that AML can be effective in the Iraqi cash economy. Requiring banks to follow AML best practice when sending bank wires, for example, leads not only terrorists but ordinary people to use MTCs instead. Dealing with a bank's required documentation is simply too time-consuming. Nor would it make sense to crack down on MTCs. They are not going to be in a position to satisfy "know-your-customer" requirements for clients whose transactions are entirely in cash and therefore leave little if any paper trail.

IV. Conclusion

In developed countries, the use of cash for all but the smallest transactions has become increasingly suspect. In the US, anyone trying to make a large purchase using hundred dollar bills would probably be assumed to be a criminal. Most of the foreign media coverage of money transfer companies focuses on their role as financers of terrorism. There have recently even been calls for the elimination of large denomination bills such as the 100 US dollar and 500 Euro notes (New York Times, 2016).

Understanding Iraq's monetary dystopia allows us to see cash in a more positive light. In cases where legal remedies and government regulations are ineffective, the cash economy is not primarily a haunt of terrorists and drug smugglers. It is rather the setting for most ordinary private-sector activity. The only alternative would be reversion to a barter economy.

The absence of fractional reserve banking in Iraq is not the fault of banks and MTCs or their customers. It is rather a natural consequence of the dominant role of banknotes as a means of exchange and a store of value. Forcing these companies to raise capital, insisting that they implement Western-style moneylaundering procedures, or otherwise attempting to convert them into "real banks" will not change the way they do business. Without any improvement in the effectiveness of state institutions, private-sector actors will continue to rely primarily on cash. Changing the current fully reserved system will inevitably prove to be an illusory goal.

Naturally none of this is evidence either for or against the position that one hundred percent reserve banking would be optimal in developed economies. The point is rather that in countries like Iraq this system may be the only one that will work. Its advantage in this context is not the amelioration of the business cycle, as would be the case in an Austrian monetary utopia, but rather the protection of private wealth in highly uncertain and often lawless environments.

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Making Ends Meet

Economic Reforms in the Kurdistan Region of Iraq

by Dr. Mark DeWeaver

The Kurdistan Region of Iraq (KRI) is now in the third year of an unprecedented economic downturn. Following the cutoff of payments from Baghdad to the Kurdistan Regional Government (KRG) in the first half of 2014, the KRG's finances were subsequently dealt a mortal blow by the 2014 crash in world oil prices, which fell by over 50% in the second half of that year. The resulting collapse in KRG revenue led to an abrupt reversal of the rapid growth the region had previously enjoyed and left the economy in a state of crisis from which it has yet to emerge.

The situation is even more serious than that faced by many other oil exporters because of the extent to which the KRG is dependent on oil (whether its own or the federal government of Iraq's) and the relative importance of the public sector. Prior to the crisis, the regional government relied on its share of the Iraqi federal budget for around 90% of its revenue, 70% of which was spent on salaries, pensions, and stipends to beneficiaries such as former political prisoners and the families of martyrs (World Bank Group, 2016, 1, 9). 44% of the workforce is employed by the KRG (World Bank Group, 15) and most private sector activity involves the provision of services to the government (e.g. infrastructure construction and electric power generation) or its employees (e.g. residential property development and wholesale and retail distribution).

These structural imbalances are compounded by the fact that the KRG lacks the countercyclical policy tools available to sovereign countries in similar situations. It does not issue its own currency so it cannot cover deficits by printing money. Unlike Saudi Arabia and the Gulf states, the KRI did not have a sovereign wealth fund at the time the oil price collapsed (legislation authorizing one was only approved in April 2015). The KRG's narrow tax base leaves it with few alternative revenue sources and it has not been able to raise money by issuing bonds, either domestically or internationally.

Given these limitations, efforts to make ends meet must primarily involve cutting costs. Initially this happened in a seemingly haphazard fashion—the government would simply stop paying its creditors when it ran out of money. As the situation has steadily worsened, the KRG has started thinking more strategically. Balancing the budget is increasingly being considered in the context of a long-term effort to reform the KRI's bloated public sector.

There are indeed many areas in which relatively simple administrative fixes could make a significant difference. In the past, taking money from the government has been a bit like taking candy from a baby. So little attention was paid to how government funds were being spent that Erbil, the capital of the KRI, does not even know exactly how many employees it has. Subsidy programs were put in place without a clear economic rationale, imposing an additional burden on the region's finances for the sake of a suboptimal outcome. Obligations to the regional government, such as electricity tariffs and corporate taxes, have been collected erratically or not at all.

This report looks at how the KRG is using the opportunity presented by the economic crisis to address these longstanding problems. Section I shows how Erbil is improving accountability in the system for paying civil servants in an effort to reduce its payroll expenditure. Section II considers the elimination of subsidies for refined oil products and electricity. Section III describes a new program to improve tax collection. Finally, Section IV concludes with some observations on the obstacles to reform and the difficulty of achieving a permanent improvement in public sector governance.

I. The Biometric Revolution

The KRG's payroll problems are neither new nor unique. As is the case in rentier economies throughout the world, state-sector employment has long been one of the primary channels through which oil export revenues are distributed among the population. As these revenues rise, the number of sinecures invariably increases as well.

Prior to the administrative separation of the Kurdistan Region from the rest of Iraq, following the first Gulf War in 1991, tribal sheiks loyal to the regime were often rewarded by being allowed to put their followers on the public payroll (Noori, 2016). Later, as the region evolved into a quasi-independent entity, civil service posts continued to be used as rewards for loyalty.

This practice intensified after 2003. As the federal government's revenue grew in line with increased oil production and rising prices, the value of the KRG's revenue share rose as well, thereby making more money available to pay salaries. During the eight years prior to 2015, the number of KRG employees rose by 100,000 to 682,000. As might be expected, "clientelism and party affiliation, rather than expertise and experience, were the main criteria for recruitment" (Noori, 2016, 11).

Fraud and abuse have become commonplace. In many cases people get paid without ever showing up for work or receive multiple fraudulent payments from different departments. Supervisors take advantage of poor internal controls by collecting salaries for more subordinates than they actually have, keeping the payments to the extra "ghost" employees for themselves. Many people who never worked for the government are reportedly receiving government pensions.

When times were good, there was plenty for everyone and none of this seemed to matter. Today, however, the KRG can no longer afford to support its enormous unproductive bureaucracy. Since the start of the crisis in mid-2014, the government has consistently been short of funds to pay employees. Most were paid for only eight out of twelve months in 2015. Starting in March 2016, salaries were cut by 15% to 75%, depending on the pay grade, with the average cut being about 60% (World Bank Group, 11).

Employees have responded by not showing up for work, understandably seeing no reason why they should work for free. In Erbil, government workers are coming in only three days a week; in Sulaimani, only once a week. Teachers have been on strike since the start of the current academic year. As of the end of December, public school students had already missed three months of school.

It would clearly be better to reduce the KRG's payroll burden by eliminating fraud than by imposing draconian pay cuts on the entire workforce. For the KRG, figuring out which salaries are legitimate and which are not has become a top priority.

The first step in addressing this problem is to create a centralized list of KRG employees. Under the current system, different parts of the government keep track of their staff independently, using paper records or disaggregated computer files, making it impossible even to get a precise number for the total headcount. The obvious solution of having supervisors produce employee rosters would be unlikely to succeed, given the risk that many of them would pad the rolls with fictitious names.

The KRG has instead opted to require biometric registration for the entire workforce. This addresses the ghost-employee problem by having civil servants come to a local registration center in person. There, they submit forms filled in with their employment details, present their ID cards, are fingerprinted, and have retinal scans. Their files are sent electronically to a central office in Erbil, where they are checked and added to a centralized database.

This new program was initiated on October 10, 2016 and now includes 76 centers throughout the KRI. Generally, these are in the offices of KRG-controlled banks, which have the necessary IT connections and tend to be familiar locations to those registering. The initial phase, during which employees with salaries totaling IQD 660 – 670 billion per month are expected to register, is supposed to last three months. After this time, anyone who has not registered will in theory no longer get paid. In practice, it is expected that extensions will be granted given that there are bound to be employees with legitimate reasons for missing the deadline.

The next step will be to identify anyone whose name appears on the list more than once. These cases will naturally have to be reviewed to determine whether or not the multiple salaries involved are legitimate.

The registration process is supposed to be completed in the first half of 2017. After that, the KRG is planning to initiate a new system for disbursing salaries. Traditionally supervisors have withdrawn all the cash needed to pay their subordinates from a government bank account and distributed it at the workplace. Or, in the case of large organizations, someone at the top of the hierarchy might provide cash to lower ranking managers who would in turn be responsible for making payments.

Under the new system, the employees will go to the bank and get their salaries themselves. This has the obvious advantage of making it easier for the government to track the cash being paid out and harder for supervisors to line their own pockets with withdrawals for non-existent workers. There will also be no need for any new banking arrangements. Once it is clear exactly who is on the payroll, each salary recipient will be able to withdraw funds from an existing payroll account.

At some point, biometric registration will be expanded to cover the 420,000 people who are now receiving pensions and other forms of government stipends. These payments come to IQD 220 – 230 billion per month.

Over the long term, possibly within the next five years, the KRG intends to issue ID cards to all employees. There is also a plan to begin paying salaries through direct deposit. This is not likely in the foreseeable future, however, given that 90% of households do not currently have bank accounts.

It would be hard to imagine a better way to eliminate ghost employees and fraudulent multiple salaries than biometric registration. How well it will work in practice is unclear. If there is no effective enforcement, those who are currently defrauding the government will continue to do so, regardless of what the new centralized database uncovers. People will simply go on withdrawing more salaries than they have subordinates or receiving payments for extra jobs they do not actually do.

The KRG's pervasive corruption problems have thus led some to conclude that the registration program is unlikely to make any difference. This seems too pessimistic an assessment. Registration clearly will not solve the government's payroll problems once and for all. People with the best political connections may have little to fear. But those who initially relied on more tenuous relationships to get special deals for themselves years ago when money was free for the taking may now be out of luck. Even with only minimal enforcement, they may find that they no longer have the "wasta" to perpetuate their old frauds under the new regime.

For purposes of cutting the KRG's salary expenditure it is not really necessary to catch "both tigers and flies," as the Chinese say. Even taking out the lowest tier of flies should be a meaningful improvement.

II. Subsidy Reform by Default

Subsidies for refined products and electricity have long been a significant burden on the KRG budget. In a presentation at the 2016 Middle East Research Institute (MERI) Forum, KRG Minister of Natural Resources (MNR) Ashti Hawrami put the cost of subsidies for publicly distributed products (mainly petrol, diesel, and naphtha) and fuel for electric power generation (diesel and heavy fuel oil) at IQD 1,670 billion and IQD 2,720 billion, respectively, in 2014. The magnitude of this cost, which comes to a total of IQD 366 billion per month, has made subsidy reform second only to reducing the wage bill as a priority for improving the KRG's finances (Hawrami, 2016).

Unlike public-sector salaries, these subsidies do not necessary involve a net cash outflow because the government can barter physical crude oil for the subsidized items. In the case of refined products, the MNR provides oil to a refinery, which then returns products to the MNR in exchange for a tolling fee, after which the Ministry sells the products to distributers at a subsidized price. In the case of power generation, the diesel or fuel oil received from a refiner is provided to the Ministry of Electricity (MoE). The MoE delivers it to a power plant, buys back the electricity generated, and transmits and distributes it to the end user-again at a subsidized price (Figure 1).

The issue here is the opportunity cost of using the oil in this way rather than selling it in the export market. Eliminating refined product subsidies reduces the budget deficit primarily by increasing the amount of cash coming in rather than by reducing expenditures.

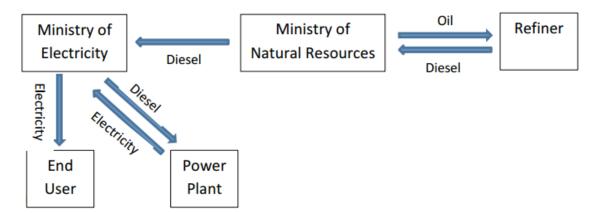


Figure 1: Electricity subsidies using oil-for-fuel and fuel-for-electricity swaps.

The petrol subsidy was the first to be eliminated. This had a long history prior to the crisis, when there were separate filling stations for government-supplied and imported petrol. Drivers received a monthly coupon allowing them to purchase a set amount of the former per month at a heavily discounted price.

In 2014, there was a brief period of de-liberalization during which the KRG banned imports and attempted to supply the entire market. Unfortunately, local refining capacity was insufficient. In order to boost output, the government had the refiners produce fuel with the lowest octane rating allowed by Iraqi petrol standards (#88), which maximizes production volume per barrel of oil. This was quite unpopular with motorists, many of whom found that this low-quality product clogged their fuel pumps or, in the worst cases, even started car fires.

In 2015, this policy was reversed and imports were once again allowed. But the government did not restore the former subsidy system. The MNR, which desperately needed more oil revenue, no longer had barrels to spare for oil-for-petrol swaps with refiners.

This change was welcomed by drivers, who once again could buy higher octane petrol—imported mainly from neighboring countries such as Iran, the UAE, and Turkey. They also found that they were getting a better deal than before thanks to a steady decline in international prices. Where the price of #88 was set at IQD 500 per liter in 2014, today #91 is available in Sulaimani for IQD 550.

This was a rare case of an entirely painless subsidy reform. It was also a big win for the KRG, helping to bring about a major reduction in the cost of subsidies for publicly distributed refined products. Dr. Hawrami's presentation showed this falling by 53% in 2015 to IQD 781 billion and to only IQD 150 billion year-to-date as of the October 25, 2016 date of the MERI Forum.

This year the subsidy on naphtha (also referred to locally as kerosene or white oil) has also been removed. It is common for families to burn this fuel in small stoves to heat their homes during the winter months. In the past, the government supplied households with one barrel each winter for IQD 40,000. A typical family in Sulaimani might need to supplement this with an additional 2-3 barrels, which at the current market price would cost IQD 125,000 each.

Bakers of traditional Kurdish flatbread were also entitled to receive naphtha allocations at subsidized prices. They generally sold their ration tickets in the market and used the proceeds to purchase compressed natural gas (CNG), which they preferred to use for baking and could obtain in sufficient quantities for less than what they got from the ticket sale. Some people even used phony baker's licenses to obtain those allocations.

Sulaimani Governor Sardar Qader Ali told us that this year the MNR will no longer be distributing naphtha to the population. He said he had managed to obtain 30 million liters for the governorate from the federal government in Baghdad, and hoped to obtain another 30 million. But even this would still leave a 43 million liter shortfall: he put the governorate's total subsidized naphtha requirement at 103 million liters.

The termination of the main refined product subsidies leaves government-provided electricity as the main remaining challenge for subsidy reform. This will be a more difficult problem to solve. Government employees getting by on a fraction of their salaries are not going to be willing to pay higher electricity tariffs and the government is not likely to risk the social unrest that would result from cutting off power to those who do not pay.

Tariff collection is already a significant problem. Many households and businesses do not pay their electric bills. End users often are not metered properly or may bribe the meter reader to reduce their payment. These collection issues, combined with transmission losses due to technical factors, mean that no revenue is received for 30 to 50% of the electricity supplied to the grid (World Bank Group, 59). This compares to the 10 to 20% loss ratios that are typical internationally.

One solution would be to privatize electricity distribution. Private companies would have much stronger incentives to maximize collection and their involvement could also help to disabuse consumers of the idea that electric bills should be deducted from their accumulated salary arrears rather than paid in cash. Privatization is already underway in the rest of Iraq, starting with one pilot neighborhood in Baghdad, and is currently being planned for the KRI as well.

The KRG is fortunate in having an alternative to the diesel fuel on which it has traditionally relied for electric power, thanks to new natural-gas fired capacity that has come on line in recent years. The problem is that this is not yet sufficient to replace diesel generation entirely and the MNR can no longer afford to provide power plants with enough diesel to make up the shortfall. As a result, the supply of electricity from the grid has fallen sharply. While a few years ago this was approaching 24 hours a day, in Sulaimani as of the end of November it was down to just four.

Households must now turn to local neighborhood diesel generators to make up the difference, at considerably greater expense. But even these are in many cases not able to cover all the hours when the government supply is out. In Sulaimani, neighborhoods are now experiencing as many as seven hours a day without power from any source. Households that rely on electric heaters are of course without heat as well.

enough cash on hand they do not have to accept incoming transfers. They might lose business and credibility as a result, but are at least not at risk of bank runs.

Our informants reported that settlement is typically daily in the case of correspondents in major cities, and weekly for those in smaller cities with lower transaction volumes. Their network of correspondents is international in scope. Even balances among local counterparties may be settled in regional centers such as Dubai and Istanbul, or sometimes as far afield as Shanghai and Beijing.

We can get an idea of the relative importance of some of these overseas network nodes from the 2014 annual report of United Arab Money Transfer, the fourth largest of the fourteen ISX-listed MTCs in terms of revenue. Figure 3 shows receivables due from eight foreign correspondents, which together account for 39% of total receivables.

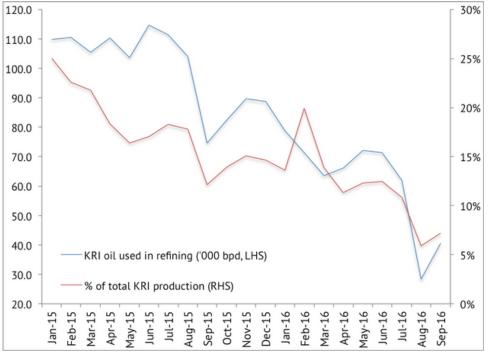


Figure 2. Oil used in refining (Ministry of Natural Resources, 2016)

Provision of electric power is thus effectively being privatized, but in the worst possible way. According to Dr. Hawrami's MERI presentation, the subsidy costs associated with the MNR's supply of diesel to power plants has fallen from IQD 2,513 billion in 2015 to IQD 725 billion for 2016 year-to-date. But this supply is to a large extent simply being replaced by the private-sector imports now being burned in thousands of small private generators.

With 5,000 MW of installed capacity and peak demand of 4,500 MW, there is a priori no reason for this suboptimal outcome. Households ought to be better off buying all of their electricity from the grid at

market prices. The amount they owed the government would increase but their total electricity expense should be lower because it would not be necessary for them to pay a second bill to relatively inefficient neighborhood generator operators.

Any such attempt at subsidy removal would almost certainly backfire, however. Households would welcome the increased electricity supply but many would view it as compensation for cuts to their government salaries rather than as a service for which they were supposed to pay. End users would pay an even smaller percentage of their government power bills than before and the cost of the subsidy to the government would go up.

It thus makes sense to postpone the complete removal of the electricity subsidy until all of the KRI's power plants have been converted from liquid fuels to natural gas, which the government is hoping to accomplish over the next two to three years (World Bank Group, 63). This conversion will lower the cost of generating electricity by approximately 82% (World Bank Group, 59), making it possible to carry out this reform without imposing an additional burden on the consumer.

While there are important differences in the ways that the KRG has removed refined product and electricity subsidies, the underlying dynamics are the same in all cases. Lower oil prices mean that the MNR has to export more barrels to earn the same amount of revenue. As a result, it has less oil available to convert into subsidized products and is forced to stop supplying them. The sharp decline in the share of oil deliveries to refiners shown in Figure 2 tells the whole story.

In theory, eliminating subsidies could make households relatively better off. The government would return the resulting revenue gains to the population through increased salary payments. Consumers could then spend this money on whatever basket of goods they chose, rather than being forced to overweight consumption of the limited set of items that were formerly subsidized. They would thereby reach the optimal outcome achievable at current low oil prices.

How things will work out in practice may be quite a different story. Unfortunately, households are not the only claimants on the KRG 's revenue. Payments to oil companies must continue or investment in field development will stop and output will decline. The KRG also has little choice but to pay back the US\$ 1.5 billion it has pre-sold oil international oil traders. It is not surprising that there has yet to be any improvement in the salary situation.

At the moment, the situation is clearly getting worse for the 'man on the street'. For the past two years, he has been running down his savings while receiving only a fraction of his normal income. Now he must get through the winter without enough electricity or naphtha to light and heat his home properly.

III. Improving Tax Collection

In addition to boosting revenues by exporting more of the oil it formerly used for subsidy programs, the KRG is also trying to boost its top line by collecting more in corporate profit taxes, particularly from "large" taxpayers. This involves both increasing collections and improving the transparency of the assessment process.

According to the tax law, companies owe the KRG 15% of net profit based on audited financials. In the event that these are not available or, as is commonly the case, are considered to be inaccurate, taxes are instead based on "deemed income schedules" that are supposed to provide reasonable estimates of what profits might have been for different types of business in any particular year (World Bank Group, 21-22).

In practice, this "presumptive tax system" leaves a lot to be desired. One small business owner told us that he is entirely unable to identify the rationale behind the taxes that his company pays. The inspectors who calculate how much he owes never base their assessments on his financials, which they routinely rule out as not credible despite having no justification for this claim. The amount is almost the same year after year, even including 2015, when the economic recession made it quite unlikely that there could have been any profits to be taxed. Strangely, he was told that since he hadn't declared bankruptcy the business must have been profitable.

The process is evidently more of a negotiation than a calculation. One year, he complained to the tax authorities that his company's tax should be lowered because a ten-thousand dollar generator had burned out and had to be replaced. He was able to get a break not on the strength of any evidence relating to the age of the asset, its original cost, or the cost of the replacement, but simply by showing the inspector a photograph of the ruined equipment.

Paying taxes is not easy either. Generally, his lawyers have to bring a cash payment to the tax office several times before the right person can finally be found to accept it. Requests to be allowed to pay by wire transfer fall on deaf ears.

Under these circumstances large, well-connected, businesses will naturally have a significant advantage. Many may be able to negotiate their taxes down to almost nothing. And in the absence of any clear procedure for calculating what they owed, it might not even be possible to accuse them of tax evasion.

In order to address some of these problems, the KRG has set up a "large taxpayer office" (LTO) and is moving to the self-assessment method common in other countries. Taxpayers will work out how much

they owe and submit this amount with their filing. The tax authorities will reserve the right to audit the returns but will have to have a reason for requiring a higher payment.

The LTO expects to begin collecting taxes from the KRI's 400 to 500 largest private companies next year. They are supposed to begin submitting returns for the 2016 tax year starting in June 2017.

Interestingly, it seems that in most cases it will not be possible for taxpayers to net out amounts that the KRG owes them from the tax they owe. This is an important issue, for example, for the privately owned power plants and oil refineries, which together, according to one of our sources, have unpaid receivables from the MNR of approximately US\$ 2.5 billion. In these cases, it seems that the Ministry of Finance, which will be collecting the tax, may not recognize the MNR's obligations. The taxpayer's situation may be more like that of someone with payables and receivables due to and from unrelated parties than that of someone dealing with two different departments of the same government.

Skeptics doubt that the LTO will be able to collect much from the large taxpayers. As with the biometric program, the key question is enforcement. Unless there is a credible threat that these companies' returns may be audited, it seems unlikely that they will report much profit to the tax authorities. And it might be entirely legitimate for the power plants and refineries to provision against the amounts the KRG owes them, in which case they could easily recognize large losses. Trying to tax them may be an exercise in getting blood from a stone.

Nevertheless, the move to regularize tax collection is certainly a step in the right direction. How much revenue can be raised in the short term remains to be seen. But in the longer run, it may be possible not only to broaden the KRG's revenue base, but also to level the playing field for small businesses.

IV. Conclusion

Some view the KRG's economic reform program as a case of ill-timed fiscal austerity, not unlike the contractionary measures the Europeans forced on Greece following its debt crisis. But the KRG really has no alternative. In the absence of any other way to make ends meet, cutting expenses and raising revenues are its only options.

The issue for the policymakers is not whether to close the deficit hole, but rather how to close it. Returning the KRI to its golden era of pre-crisis prosperity will not be a real possibility as long as oil prices stay low. The goal must rather be to balance the budget in a way that optimizes resource use, hopefully moving to a more efficient economic model in the process. Reducing payroll fraud, eliminating subsidies, and improving tax collection are all good ideas. Subsidy elimination is clearly the easiest of these and is, not surprisingly, the only area where significant progress has been achieved so far. The other two objectives will require overcoming considerably more difficult enforcement challenges and make much greater demands on the KRG's limited administrative capacity.

Insiders report that there has never been as much high-level political support for reforms as there is today. The biggest problem, they say, is the lack of a system to implement them. The bureaucracy is corrupt and poorly managed, lacks competent staff, and is so underfunded as a result of the salary crisis that employees are coming in as infrequently as only once a week. Under these circumstances, there is bound to be a considerable gap between how policies are supposed to work in theory and how they actually turn out in practice.

It is naturally too early to say whether any of the changes now underway will lead to permanent improvements in public sector governance. If oil prices return to their pre-crisis levels, any progress that is made now may well be rolled back as the KRG returns to its traditional role in distributing export revenues. Collecting taxes may no longer be viewed as essential, indiscriminate hiring may once again seem unobjectionable, and powerful people looking for a bigger piece of the pie may find it easy to override whatever new internal controls had previously been put in place.

During the current crisis, it is relatively easy to reduce waste, fraud, and abuse simply because the government has so little money to hand out. But with the economy in recession, there is also little hope of laying off redundant workers, developing the private sector, or diversifying away from oil. Later, when oil prices finally recover, diversification will no longer be an urgent priority. The system will be as dependent on fossil-fuel exports as ever and generate the same powerful incentives for rent seeking and corruption as it always has.

There is reason to be cautiously optimistic about the KRG's efforts to make ends meet in the short term. Phasing out subsidies has already made a significant contribution to balancing the budget. And while the effectiveness of biometric registration and the large taxpayer office may fall short of expectations, they nonetheless have the potential to brighten the fiscal picture next year.

But the extent to which these initiatives can bring about lasting reform is less clear. The old habits of the rentier economy will be hard to break.

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