STATEHOOD IN THE KURDISTAN REGION OF IRAQ

through an Economic Lens

by Ahmed Tabaqchali

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AMERICAN UNIVERSITY OF IRAQ SULAIMANI

IRIS

Institute of Regional and International Studies

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The information in this report is based on publicly available web sites, publications, presentations, and research reports as will be seen from the footnote references. In particular, the following sources were critical: reports from the International Crisis Group on the history of the relationship between the Kurdistan Regional Government & the Federal Government of Iraq; research by analysts at Pareto Securities for information on oil companies operating in the Kurdistan Region of Iraq (KRI); Robin Mills' report “Under the Mountains – Kurdish Oil and Regional Politics” on the development of the oil industry in the KRI; and the World Bank and IMF reports for hard economic data on the KRI and Iraq. The analysis, however, is the author's own and reflects his views and outlook.

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As a note, the calculations used throughout the report, due to the very nature of the underlying data, cannot be an accurate reflection of the KRG's finances. They are meant to portray the dynamics of these finances and the resultant consequences. This is because of the limited amount of avilable public data. Therefore, the calculations are based on these data, estimates, and assumptions.

ABOUT THE AUTHOR

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CONTENTS

EXECUTIVE SUMMARY

The paper is divided into separate sections as follows:

OIL: ASSETS, LIABILITIES, PRODUCTION, AND EXPORTS: reviews the KRI's total producing fields, including the Kirkuk related fields, by looking at current production and exports. It further analyzes the interactions that the KRG had with both the International Oil Companies (IOCs) and oil traders to ensure that the fields continue to produce, for the oil to be exported and to generate revenues to enable economic viability.

AN INDEPENDENT CENTRAL BANK AND A CURRENCY: reviews the possibility of an independent central bank and a currency by evaluating the impact of a potentially independent Kurdistan on its currency's stability in view of its trade balance and foreign currency reserves.

TRADE & TOURISM: reviews the relationship of an independent Kurdistan with Iraq as a result of its crucial role in Iraq's land trade routes and dependence on tourist inflows from the rest of Iraq.

DEBT: ARREARS AND BORROWINGS: reviews the KRG's debt using the latest data from the World Bank as of 2015 and attempts to use publicly available data to estimate the amount as of the end of 2017. It further studies the effect of these debts on the ability of an independent Kurdistan to access the debt markets.

REVENUES AND EXPENSES: reviews the KRG's budget using its current exports and examines the possibilities of independence under different assumptions of oil prices.

All of the above, while focused on the KRI's official borders, also extends analysis to the KRI's aspirational borders.

Finally, the appendix evaluates Deloitte's review of the KRG's oil production, exports, consumption, and revenue for the period of 1 January 2017 to 30 June 2017.

KEY TAKEAWAYS

The KRG successfully developed its oil industry over the last few years to create the conditions for the economic viability of independence. In 2017, the average monthly export volume was 550,000 bbl/d before the loss of the Kirkuk related fields.

However, this was anchored by the control of the Kirkuk related fields, a hold that was tenuous given the constitutional challenges of that control and the internal political contradictions.

Assuming an amicable separation from Iraq, an independent Kurdistan would start with a healthy level of foreign reserves to support its currency and enable trading with the outside world. However, its economic vulnerabilities due to an over-reliance on oil exports and an undiversified economy would lead to both a currency and an economic crisis.

The KRI's crucial position as a major trade route for the rest of Iraq results in a high dependence on that trade route as a source of economic prosperity, the loss of which would have negative economic consequences. Similarly, a high dependence on tourists from the rest of Iraq would place constraints on a unilateral separation.

The KRG has an estimated USD 17bn debt as of the end of 2015 that is estimated to have grown to USD 25bn by the end of 2017. While a large portion of this debt is in the form of arrears to state employees and private business, the servicing and repayment of the remainder of the debt would place serious constraints on the KRG's budget. Moreover, it would prohibit an independent Kurdistan from accessing debt markets.

The KRG would need Brent prices around USD 100 for many years to build the financial wherewithal to contemplate independence.

The paper has predicated its analysis on the basis of additional revenues from the disputed territories lost since October 2017, without taking into account implications if the KRG had taken full fiscal responsibility for these territories in the event of independence. Each section ends with a summary of the implications of the expanded domains.

Introduction

The viability of an independent Kurdish state has engaged policy experts and scholars for decades. Many, Iraqi Kurds and foreigners alike, have surmised over the years that the Kurdistan Region of Iraq (KRI)[1] would and could gain independence through its blossoming oil sector. This paper argues that the KRI did not have the economic capacity to become an independent state. Oil assets and exports, the creation of a central bank and currency, trade, debt and a balanced budget are all essential features of a future independent Kurdish state, without which no amount of political will, nationalistic messaging or international support could lead to a viable, let alone successful, secession from Iraq. The loss of the Kirkuk related oil fields[2] in mid-October 2017, as part of the reassertion of federal authority over the disputed territories, places statehood further and totally out of reach, at least from an economic perspective.

The economic implausibility of independence, however, does not imply that self-determination and economic prosperity are not possible. In fact, the opposite is true for the KRI within a federal Iraq, as the very same economic realities that would prohibit political independence become economic advantages. These advantages would amplify the KRI's economic prosperity as a gateway to the rest of Iraq benefiting from the economic boost as an access to a much larger market. These will be the subject to the sequel of this paper.

It should be noted that this paper is not intended as a comprehensive account of the dilemmas surrounding the independence of Iraqi Kurdistan. Rather, it selects and focuses on the key economic issues and challenges, and ultimately presents an economic assessment of their impact for a newly independent state.[3]

[1] Abbreviations: Kurdistan Region of Iraq (KRI), Kurdistan Regional Government (KRG), Federal Government of Iraq (FGI), barrels per day (bbl/d), barrels (bbl), International Oil Companies (IOC)s, Ministry of Natural Resources (MNR). North Oil Company (NOC), State Organization for Marketing of Oil (SOMO). Also, billion (bn) and million (m). Moreover, the KRG is used in discussing the current government within a federal Iraq, KRI is used in discussing the current region administered by the KRG, and Kurdistan is used in discussing the hypothetically independent state. The KRI's borders are defined as those defined by the 2005 constitution as the areas administered by the KRG prior to the 2003 invasion of Iraq, its aspirational borders refers to the KRI plus the areas within the disputed territories that came under effective KRG control after 2003 and after the fall of Mosul in 2014.

[2] The term "Kirkuk related fields" is used to mean the Kirkuk Super field (including the three domes: Khurmala, Avanah and Baba), Bai Hassan, Jambour, Khabbaz and other smaller fields. Although, should be noted that Khurmala Dome is still under the control of the KRG.

[3] As a note, all numbers in this report are rounded for ease of reading and as such tables might not add exactly; the official exchange rate of 1 USD = 1,182 IQD is used.

OIL: ASSETS, LIABILITIES, PRODUCTION, AND EXPORTS

Oil is the KRI's most significant economic asset. The majority of reporters tend to assert that the KRI alone accounts for one-third of Iraq's total reserves. However, those figures do not reflect a sophisticated understanding of what reserves actually are,[4] and the fact that Kirkuk, a disputed territory that has been controlled by both the KRG and the federal government of Iraq (FGI) in recent years, holds the majority of those reserves complicates the issue further. Moreover, the inclusion of Kirkuk's production and exports as a percentage of Iraq's total production and exports adds to the confusion of who has control over the fields.

This section will look at the KRI's *actual* producing fields, meaning those located within the KRI's current borders, as well as the Kirkuk-related fields, in the event that they return to KRG control in the future, to assert the main the thesis of the paper on the economic viability of secession. It will review the current producing fields and the revenues generated from the oil exported from them. Additionally, it will analyze the interactions that the KRG had with both the International Oil Companies (IOC's) and Oil traders to ensure that the fields continue to produce, for the oil to be exported and to generate revenues to enable economic viability. Crucially, it considers the implication of these interactions on the future of the KRI's oil production and exports and how it affects the viability of an independent Kurdistan. It will not consider the KRI's reserves, significant though they might be, for their potential exploitation is a long-term consideration.

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[4] This is mostly due to failure to understand technical terms. Iraq's Proved Reserves (technically referred to as 1P), defined as 90 percent of being technically and commercially producible, are estimated at 143 billion barrels (International Energy Agency "IEA" Iraq Energy Outlook 2012). The IEA estimated Kirkuk's Super Field Proved Reserves at 9 billion barrels while it estimated the KRI's Proved Reserves at 4 billion barrels. (IEA 2012). (*)

The KRG's Ministry of Natural Resources (MNR) estimates KRI's oil reserves at 45 billion barrels (most likely excluding Kirkuk) (**), however, the discrepancy between the figures is due to the nature of the reserves. The MNR's definition includes all possible reserves including unproved resources and exploration potential. Hence, the often-quoted figure of 45 billion barrels while is around a third of 143, yet it is meaningless to say that reserves estimate of 45 billion barrels (Proved + unproved resources + exploration potential) are a third of proved reserves of 143 billion barrels.

An important point to note in understanding reserves is that of "x percent possibility of being technically and commercially producible" as this classification is highly dependent on the price of oil and available technology at any given time.

* Iraq's Oil Ministry in February 2017 increased its estimates of oil reserves to 153 billion barrels. The Director General of Iraq's State Organization for Marketing of Oil (SOMO) stated that they are likely to be increased to 170 billion barrels by 2020 and in the near future to 178 billion barrels. However, these figures are aggregate figures and not by area and such for the purposes of consistent comparisons the IEA 2012 figures are used.
https://www.reuters.com/article/us-iraq-oil-reserves-opec/iraqs-oil-reserves-increase-to-153-billion-barrels-oil-minister-says-idUSKBN15Y0D2,
https://www.cwciraqpetroleum.com/(the event was held in London in May 2017, the website has been updated to reflect the upcoming event in 2018)
** The figure of 45 billion barrels was most likely taken from US Geological Survey (based on appraisals of satellite survey in 2000) that estimates that the Zagros fold belt of Iraq, a large part of which falls in the KRI contains 41 billion barrels. These figures were extremely optimistic as they preceded a string of exploration and development disappointments across several internationally operated fields. Plus the changed economics of lower oil prices played a factor in development disappointments. Source: Discussions with the editor and the study cited in footnote below

Total KRI's producing oil assets[5] are classified as those: (1) within the official KRI area; and (2) under effective KRG control within the disputed territories, in particular the Kirkuk related fields. Production figures are rounded and are averages or estimates for the whole of 2017.[6] Not all production is exported as some of it is used for internal consumption.[7]

Within the KRI

Table 1. Producing fields within the KRI (Total figure of around 335,000 bbl/d for 2017.)

Field	Production bbl/d	Comments
Shaikan	35,300	*Expected to be about 27,000-32,000 bbl/d in 2018. Medium term plans to increase production to 55,000 bbl/d.*
Tawke	106,000	*Expected to be about 90,000-95,000 bbl/d in 2018. No immediate expansion plans.*
Peshkabir	5,000	*The field's operator, in early December, reported increased production to 15,000 bbl/d. Could exceed stated end of 2018 target of 15,000-20,000 bbl/d.*
Taq Taq	18,000	*Peaked at 116,000 bbl/d in 2015,[8] down to 36,000 bbl/d at the end of 2016 and was expected to produce 24,000-31,000 bbl/d for 2017. Drilling success in late 2017 likely to slow rates of declines to current production of 14,000 bbl/d.*

[5] A comprehensive report on KRI's oil industry, that was a valuable source of material for this section, is "Under the Mountains – Kurdish Oil and Regional Politics" by Robin Mils. Oxford Institute of Energy Studies, 2016.
https://www.oxfordenergy.org/publications/under-the-mountains-kurdish-oil-and-regional-politics.

A review of Iraq & KRG's energy policy with a detailed review of the constitution and the implications on energy policy is a 2104 IRIS publications "Iraq and KRG Energy Policies: Actors, Challenges and Opportunities"
http://auis.edu.krd/sites/default/files/Iraq and KRG Energy Policies - Bilal Wahab.pdf

[6] Data from wells within the KRI are reported by the companies in their quarterly reports while production data within the disputed territories were provided by the KRG's Ministry of Natural Resources (MNR) until October 2016 but estimates afterword. The MNR stopped publishing production & export figures after October 2016, after it signed agreements with auditors Ernst & Young in November and Deloitte in October. While, the MNR in early January 2018 released the Deloitte's review of the KRG's oil revenue for the period 1 January 2017 to 30 June 2017 which provided overall levels of production but not specific field data.
The data was discussed with both of Pareto Securities (http://www.paretosec.com/) and The Iraq Oil Report (http://www.iraqoilreport.com)/to ensure that they are in-line with expert understanding.
http://www.rudaw.net/english/kurdistan/301120163
http://cabinet.gov.krd/a/d.aspx?s=040000&l=12&a=56305

Use was also made of data provided by WesternZagros Resources "Operator Activity Map for Kurdistan & Northern Iraq" as of February 2017. WesternZagros Resources (now privately held, with interests in two blocks in the KRI), as well as other operators frequently publish "Operator Activity Map for Kurdistan & Northern Iraq" using data from operators and the MNR. WesternZagros until February 2017 used to publish the most comprehensive such maps.

[7] Internal consumption includes refined fuels such as: (1) Kerosene/Liquid Petroleum Gas (LPG) for for domestic use; Fuel Oil/Naphtha for industrial use; Diesel for and power plants. The Deloitte report on the KRI's oil and gas for the first half of 2017 shows that of the 110.9m crude barrels exported and consumed, that 4.9m barrels or 19,000 bbl/d were delivered to refineries, 1.6 m barrels or 9,00 bbl/d were allocated to oil producers (either sold in the local market or used by their own refiners) and 5.1m barrels or 28,000 bbl/d were for local sales and swaps (which ultimately found their way to local refiners).
http://cabinet.gov.krd/uploads/documents/2018/Deloitte_Report_on_KRG_Oil_Export__Consumption_and_Revenues_for_First_Half_of_2017_ENG_KU_AR.pdf

[8] Initial high hopes for Taq Taq proved unfounded as the field went through a number of reserve downgrades over the years.
http://www.argusmedia.com/pages/NewsBody.aspx?id=1432338&menu=yes

Atrush	15,000-20,000	*Started production in July 2017 with near term plans to increase production to 30,000 bbl/day.*
Sheweshan	2,600	*Plans to increase production to 5,000 bbl/d in 2018.*
Sarqala	9,500	*No immediate expansion plans.*
Simrit	6,000	*Expansion plans and potential unclear.*
Swara	14,000	*Plans to increase production to 18,0000 bbl/d in the near term.*
Demir Dagh	3,800	*Future development outlook unclear after an unsuccessful drilling program.*
Khurmala Dome[9]	105,000	*The Khurmala Dome was not among the fields reclaimed by the FGI following the reassertion of federal authority on the disputed*

[9] The Khurmala Dome, while part of the Kirkuk supergiant field or Kirkuk Complex (see more info on the field below), extends into the Makhmour district of the Erbil governorate which historically was administered by the Erbil governorate, but not part of the official KRG borders as defined by the Green Line. The Makhmour district was below the Green Line established in 1991 (see below on Green Line) and so was under the control & administration of the Iraqi government until the invasion in 2003. Moreover, Makhmour, administered by the Ninewa governorate since 1991, voted in Ninewa since 2003 and in the January 2009 provisional elections (information as of 2009). As part of the Kirkuk Complex (see separate footnote further below), the FGI argues that Khurmala was part of an established field and was first developed in 1989 and thus part of its remit, as it is grandfathered by the constitution. While, the KRG argues that it is a separate field which was underdeveloped and thus not subject to the grandfathering of developed fields in the constitution. The development of the Khurmala Dome, was among the first three post-war oil production contracts to be offered to IOCs by the Iraqi interim government in August 2004. http://news.bbc.co.uk/1/hi/business/3879839.stm

In December 2004, the Iraqi Ministry of Oil (MoO), awarded a Turkish-Iraqi-UK consortium the right to develop the field to boost production to 100,000 bbl/d. https://www.energy-pedia.com/news/iraq/new-contract-awarded-to-develop-khurmala-dome-oilfield; https://books.google.co.uk/books?id=Bq-wmEqZ6PMC&pg=PA167&lpg=PA167&dq=Khurmala+field+development+2004&source=bl&ots=ZmjgtgdfxY&sig=njaCv5Cence7Yq6wepQ5GZZsCKQ&hl=en&sa=X&ved=0ahUKEwjf4dXuib7XAhWjBcAKHQJVCzI4ChDoAQg6MAE - v=onepage&q=Khurmala fiel

However, FGI & KRG conflict over the ownership and rights to develop the field continued until November 2007 when KRG awarded a contract to develop parts of the Khurmala Dome, as well as to build a refinery for the oil produced to the KRG owned Kurdistan National Oil Co. Shortly afterwards, the MoO claimed that Kurdish forces are preventing the development the field (announced above). This occurred again in June 2008. (http://www.spacewar.com/reports/Analysis_Kirkuk_project_battle_heats_up_999.html; https://www.upi.com/Iraqs-Khurmala-oil-field-sees-national-struggle-again/21531213733683/)

Subsequently, the two sides reached separate but related agreements in November 2008. The first was for the FGI to share the revenues from the exports of 100,000 bbl/d from the KRI's Taq Taq and Tawke oil fields (within the KRI's borders and unable to reach international markets) in return for allowing the shipment of said oil through federal pipelines from June 2009, to be marketed by SOMO. Importantly, the FGI did not accept the revenue sharing portion of KRG deals with the IOCs who developed the fields and thus left that particular dispute open. But both parties clearly accepted SOMO's right to market all Iraqi oil (relevant for the December 2014 deal and potentially to future legal disputes). The second agreement was for the FGI's to accept the development of Khurmala as announced by the KRG in November 2007, i.e. on paper agreed for a joint development and operation of Khurmala, but the dome was firmly under the control of the KRG. However, both parties continued to argue over the KRG's independent oil sales with the FGI delaying or withholding the KRG's 17 percent share of revenues and the KRG cutting the flow of exports through the pipeline (the final portions of which passes through its territory). Ultimately, the first agreement fell part while the second was upheld by facts on the ground through the presence of the Kurdish forces and the developments taken place since then.

Iraq Oil Report http://www.iraqoilreport.com/ (a number of communications)
http://www.energy-daily.com/reports/Analysis_Future_of_Kirkuk_field_unknown_999.html
Two detailed histories of the relationship and disputes between the FGI & KRG with excellent links and references are by the international Crisis Group, "Iraq and the Kurds: Trouble along the trigger line", 2009 (pages 20-22 on the Khurmala developments) https://www.files.ethz.ch/isn/103103/88_iraq_and_the_kurds.pdf
"Iraq and the Kurds: The high Stakes Hydrocarbon Gambit, 2012 https://d2071andvip0wj.cloudfront.net/120-iraq-and-the-kurds-the-high-stakes-hydrocarbons-gambit.pdf

For an article over the interpretation of field and the nature of the conflict see: http://ekurd.net/mismas/articles/misc2012/4/kirkuk728.htm

Green Line: The Green Line was marked by the unilateral withdrawal of Iraqi forces after the establishment of the safe haven and no fly zone by Western powers in response to the suppression of the 1991 Kurdish uprising following the Second Gulf War. The Green Line defined the official KRG boundary in the 2004 Transitional Administrative Law as the line that marked the areas administered by the KRG prior to the 2003 invasion. But there is no official rendering of the Green Line. However, there is an accepted and a clear 1996 UNICEF map clearly showing the Green Line (figure 1 in link below). https://www.usip.org/sites/default/files/resources/PW69.pdf

		territories on October 16th. As such it will be treated as within the official KRI border, esp. as it was under effective KRG control from 2008. *Long term plans to increase production to 175,000 bbl/d.*[10]
Khor Mor[11]	15,000	*Condensate.*[12] *The Khor Mor field was not among the fields reclaimed by the FGI following the reassertion of federal authority on the disputed territories on October 16th. As such it will be treated as within the official KRI border, especially as it was under effective KRG control from 2003.*

[10] The operator's long term expansion plans of 175,000 bbl/d, as of February 2015 as outlined in an interview https://investingroup.org/interview/190/baz-karim-kar-group/
However, the KRG's initial optimistic plans for Khurmala as of 2012, to increase its production to 250,000-300,000 bbl/d, are unlikely to be realized
https://uk.reuters.com/article/uk-kurdistan-oil/iraqi-kurdistan-sees-itself-as-home-to-oil-majors-idUKBRE88H1E920120918

[11] Khor Mor straddles the disputed territories and has a history similar to that of Khurmala. It is within the Sulaimani governorate but parts of it are not within the official KRG borders as defined by the Green Line. From 1991, those parts were under the control & administration of the Iraqi government until the invasion in 2003. Moreover, the related district was administered by the Kirkuk governorate since 1991. The whole field came under effective KRG control following 2003. The development of the gas field to IOCs was awarded by the KRG to an IOC in 2007, which commenced production in 2008. The FGI, however, did not raise issues with the KRG as the gas was used for domestic power generation. But the FGI strongly objected, and conflict arose with the KRG, when it was announced in mid 2009 that Khor Mor, and a similar positioned non-producing gas field Chamchamal would be developed further for exports to Turkey and ultimately to Europe.
"Iraq and the Kurds: Trouble along the trigger line", 2009 (pages 22-24 on the Khor Mor developments) https://www.files.ethz.ch/isn/103103/88_iraq_and_the_kurds.pdf

Khor Mor's straddling of the disputed territories, was a non-issue given the KRG's effective control, since April 2003, of areas beyond the Green Line. But, the events post October 16th change this as the FGI is insisting on reasserting its authority in all disputed territories.

[12] Condensates are a byproduct from the production of gas in Khor Mor and are included in the table, rather than gas, as they are part of the oil produced while gas is used for domestic power generation. Condensates are a low-density mixture of hydrocarbon liquids (mostly propane, butane, pentane, hexane, etc.) that are present as gaseous components in the raw natural gas produced from many natural gas fields. Condensates can be thought of as ultra-light crude, and the Khor Mor condensate is used to thin Kirkuk and Shaikan crude, so as to raise the quality and hence the price.
https://www.platts.com/latest-news/oil/dubai/analysis-iraqi-krg-faces-obstacles-to-maintain-26686863

Within the disputed areas[13]

[13] In early July 2014, a month following the fall of Mosul and the withdrawal of the Iraqi Army, Kurdish forces secured the Kirkuk related fields (Baba & Avanah domes), Bai Hassan, and eventually Jambur & Khabbaz (further relevant details are below in this footnote). The KRG said it would use the production for domestic use and claim its 17 percent share of the budget that was withheld by the FGI in early 2014. While the FGI disputed this, the new government in December 2014 signed a deal with the KRG that covers exports & revenue sharing which essentially called for:-

- the KRG to export 250,000 bbl/d from its own fields & 300,000 bbl/d from the Kirkuk related fields for a total of 550,000 bbl/d through its pipeline;
- FGI's State Oil Marketing Company (SOMO) to market the oil;
- the KRG will receive a 17 percent share of planned federal budget expenditures after the deduction of sovereign expenses.

However, the agreement did not address the ultimate ownership of the oil fields nor their operation leaving the outstanding disputes to be settled in the future. The essence of the deal seems to the same as that of November 2008 as regards (1) SOMO's remit over oil exports, the sharing of revenues and thus ownership of Iraqi oil, and (2) the joint operation of the Khurmala and the other Kirkuk related fields. The agreement fell apart after a few months with each side accusing the other of violating its terms. The KRG, having already begun independent oil exports in 2014 and continued partial independent exports throughout this period, fully abandoned its export of oil through SOMO and started full-capacity independent exports in June 2015. Both parties have allowed the status quo to carry on unresolved as they needed each other for the fight against ISIS.
https://www.cbsnews.com/news/kurds-take-2-vital-oil-fields-near-kirkuk-increasing-tensions-with-iraqi-government/
https://www.ft.com/content/d7ebbc7c-09af-11e4-86f9-00144feabdc0
https://www.washingtonpost.com/world/middle_east/as-iraq-fractures-kurds-find-best-opportunity-yet-to-gain-leverage/2014/07/04/2039ada7-79ce-4cee-b91b-05027e8603a0_story.html?tid=a_inl&utm_term=.e70a5201addc
https://www.ft.com/content/79cc4bae-7a32-11e4-9b34-00144feabdc0
https://www.nytimes.com/2014/12/03/world/middleeast/kurd-pact-with-baghdad-against-islamic-state.html?mcubz=3&_r=0

Further & relevant details on Baba & Avanah Domes, Bai Hassan, Jambur & Khabbaz:
In July 2014, following the withdrawal of the Iraqi Army after the fall of Mosul, Avanah and Bai Hassan were secured by Kurdish forces affiliated with the Kurdistan Democratic Party (KDP), while their operation passed from the NOC to KRI based KAR Group, who significantly upgraded their infrastructure and linked them to the KRI oil export pipeline connecting Kurdistan with the Iraq-Turkey pipeline in Turkey. Baba, Jambur & Khabbaz were secured by Kurdish forces affiliated with the Patriotic Union of Kurdistan (PUK), while the NOC continued to be their operator. The December 2014 FGI-KRG agreement (see above) has implicitly accepted the joint operation & development of these fields. The different military control of these fields was relevant to the situation post-ISIS as transpired in mid-October 2017, and to future inter-Kurdish politics on one hand and KRG-FGI politics on the other hand.
http://www.gppi.net/publications/iraq-after-isil-kirkuk/ (see footnotes, 21 & 22)

Background on the Kirkuk Complex:
Kirkuk Complex or the supergiant field (simply super field) includes the three domes or geological formations of Khurmala, Avanah & Baba but currently a distinction is made between what is now called the Kirkuk Field (Avanah & Baba Domes) and the Khurmala Dome. A footnote above discussed the complex background of the Khurmala Dome as it relates to its location within the disputed territories, however the Kirkuk Field falls within the disputed territories. The Iraqi constitution refers to "Kirkuk and other disputed territories", yet it does not specify them, but they include some areas with Kurdish majorities. The constitution envisioned a mechanism for their resolution by 2007 but successive Iraqi governments and the KRG failed to resolve their differences over its interpretation and the issue was not resolved.

The IEA estimates (2012) that it held about 9bn barrels out of a total of recoverable oil of 23bn barrels but since 14bn barrels of oil have been pumped from it since the 1920's, the recoverable remaining is 9bn barrels. Production from the Complex peaked at 1,000,000 bbl/d in the 1980s, severely dropped after the Kuwait invasion, got back to around 700,000 bbl/d in the 1990s, and then declined again after the U.S.-invasion. The decline continued over the years and by end of 2017 it was producing about 230,000 bbl/d.

Crucially, a combination of poor reservoir management practices, plus the injection in the 90's of unwanted large volumes of excess heavy fuel oil into the Kirkuk Complex (a by-product of aging refineries), esp. during the sanction days, may have permanently damaged the Complex. As a result, extracting the oil has become more difficult and thus more expensive to produce. Plus, the oil became heavier and sourer, which lowered its market price.

The FGI had preliminary deals first with Shell and then BP to rehabilitee the field and raise its production to 600,000-800,000 over a number of years but the deals were not signed due to security issues and the ongoing FGI & KRG disputes. The Ministry of Oil, invited BP to resume its work on the field following the reassertion of federal authority on October 16th. In January 2018 the FGI signed an agreement with BP to resume this work.
Iraq Oil Report http://www.iraqoilreport.com/(a number of communications)
http://wiki.openoil.net/Kirkuk_oil_field
https://www.reuters.com/article/iraq-oil-kirkuk/update-2-iraq-and-bp-sign-deal-to-boost-kirkuk-crude-output-oil-ministry-idUSL8N1PD28U

The Turkmen & Kirkuk: The struggle over the ownership of Kirkuk lies at the heart of disputed territories between the KRG & FGI. Lost in this is the issue of the Turkmens who claim Kirkuk as their capital. The last reliable and accepted census

Table 2. Producing fields within Iraq's disputed areas (Total production of around 385,000 bbl/d, and possibly 425,000 bbl/d if none of the fields experience technical issues.[14] The KRG's share, adjusted for output shared with the NOC, is 330,000 bbl/d & 350,000 bbl/d respectively.)

Field	Production bbl/d	Comments[15]
Bai Hassan	195,000	*No announced expansion plans.*
Avanah Dome	80,000	*No immediate expansion plans.*
Baba Dome	45,000	*No immediate expansion plans. Output shared with NOC (50 percent delivered to KRG & 50 percent to SOMO).*
Jambur	36,000	*No immediate expansion plans. Output shared with NOC (50 percent delivered to KRG & 50 percent to SOMO).*
Khabbaz	29,000	*No immediate expansion plans. Output shared with NOC (50 percent delivered to KRG & 50 percent to SOMO).*

The total combined production capacity from the KRI's producing oil assets for 2017 was around 665,000 bbl/d.[16]

Since its first independent exports in January 2014, the KRG sold its oil through oil traders, initially to bypass the legal challenges of the FGI, and then as a means of securing a steady income stream through forward oil sales to those traders in return for short-term financing. As a result, the blended average KRG oil tends to sell at a discount of USD 10-12 to Brent vs. the FGI's average discount of USD 5.[17]

The KRG's export history from 2014 until end of 2017[18] is shown in the figure below. Average monthly exports for 2017, until the loss of the Kirkuk related fields in mid-October, were of 550,000 bbl/d.

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by all is the 1957 census. The data show at the governorate level that the ethnic makeup was 48.2 percent Kurds, 28.2 percent Arabs and 21.4 percent Turkmens but the city of Kirkuk level it was 37.6 percent Turkmens, 33.3 percent Kurds and 22.5 percent Arabs. The discovery of oil in Kirkuk in 1927 and the rise of the oil industry diluted the Turkmen populations over the following years through migration of Kurds from the north and Arabs from the south. https://en.wikipedia.org/wiki/Kirkuk - Demographics

[14] The combined fields of Baba, Jambur & Khabbaz show a production of 110,000 bbl/d vs the FGI/KRG agreement of a production of 150,000 bbl/d shared equally between the two. The actual figures vary month to month depending on a number of technical issues

[15] The MoO signed a memorandum of understanding with BP in mid-January 2018 to more than double Kirkuk's production output to 750,000 bbl/d. However, as this is a major long-term redevelopment project, the comments state no immediate expansion plans. https://www.reuters.com/article/iraq-oil-kirkuk/update-2-iraq-and-bp-sign-deal-to-boost-kirkuk-crude-output-oil-ministry-idUSL8N1PD28U

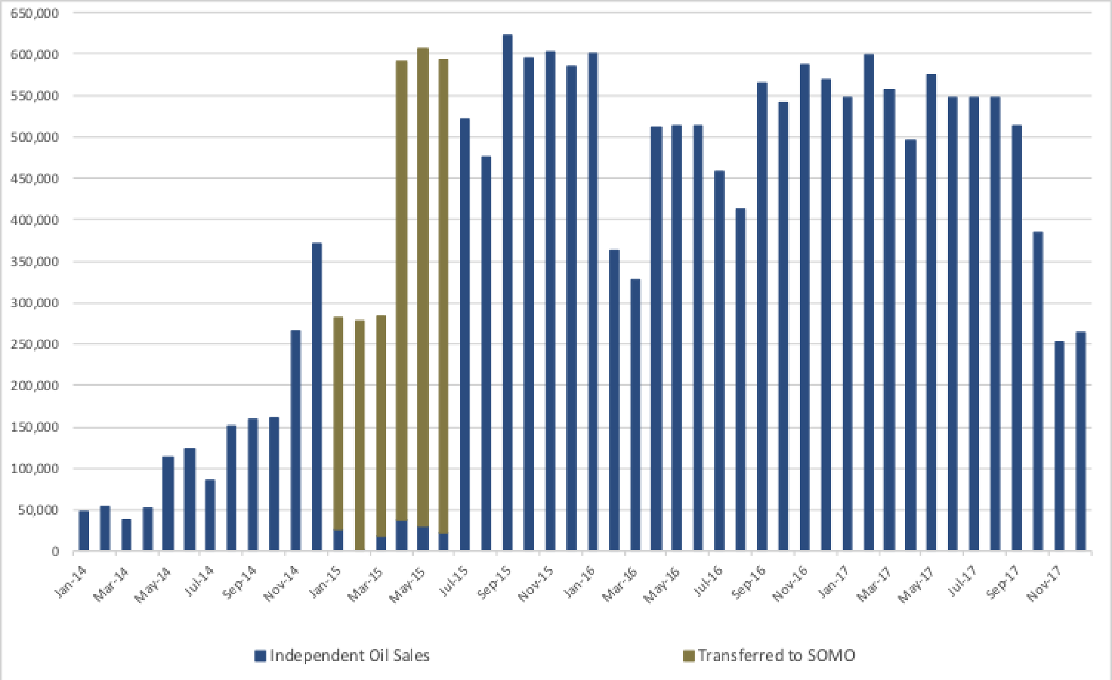
[16] The full production capacity is rarely achieved consistently as it is contingent on a number of factors that do not always align such as operational utilization at the fields, technical issues, or available storage to name a few. To illustrate the Deloitte report on the KRI's oil and gas for the first half of 2017, showed that KRI exported and consumed 110.9 m barrels or 612,000 bbl/d in the first six months of 2017.

[17] The larger discount also reflects the lower quality of the oil, which is generally heavier than the FGI's oil and higher in sulfate content or sourer. The Deloitte review on the KRI's oil and gas business for the first half of 2017, shows that the discount was USD 10/bbl discount for oil exported through pipelines, and USD 26/bbl discount for oil shipped by trucks. While, the average blended discount was USD 11/bbl for the period, yet it varied between USD 9/bbl to USD 12/bbl during the period depending on the mix-between pipeline/truck exports.

[18] Data sources were as follows:

- MNR data up to October 2017. http://mnr.krg.org/index.php/en/oil/monthly-export-production-data

Figure 1. KRG Oil Exports, 2014-2017 (Source: Ministry of Natural Resources, KRG)



The forward oil sales financings were believed to be around USD 1bn and payable over short periods. The KRG announced[19] a new set of deals with oil traders in February 2017, increasing the total amount of forward oil sales financings to USD 3bn, payable over three to five years. The deal with Rosneft[20] alone was estimated to be worth USD

- As noted in earlier footnotes, the MNR stopped reporting production and export figures in October 2016 after it hired Ernst & Young in November and Deloitte in October to audit oil production and exports. http://www.rudaw.net/english/kurdistan/301120163

- Estimates by Pareto Securities analysts based on a number of public sources, for November & December 2016
- Deloitte's review of the KRG's oil revenue for the period 1 January 2017 to 30 June 2017, http://cabinet.gov.krd/uploads/documents/2018/KRG_Oil_and_Gas_Sector__Infographics_ENG_KU_AR.pdf and http://cabinet.gov.krd/uploads/documents/2018/Deloitte_Report_on_KRG_Oil_Export__Consumption_and_Revenues_for_First_Half_of_2017_ENG_KU_AR.pdf
- Estimates for July & August 2017. The MNR's unaudited average of 445,051 for 2017 (point below) in combination with the Deloitte report (above), implies an average of 302,000 bbl/d for each of July and August 2017, which is highly unlikely and so the figure for June 2017 was applied for July & August.
- MNR's unaudited figures for September-December 2017 https://twitter.com/MNRKurdistan/status/949338708804866048

[19] https://www.reuters.com/article/us-iraq-kurdistan-oil/exclusive-iraqs-kurdistan-negotiates-new-terms-raises-oil-pre-payments-to-3-billion-idUSKBN1671F5

Among the oil traders, Gelencore announced a week earlier, that it had reached agreements with the KRG. It is believed that other traders include Trafigura, Vitol, and Petraco.

[20] The deal with Rosneft, developed further between June & October 2017. The agreements, in addition to the forward oil sales discussed earlier, cover the following: -

- Exploration and production of 5 blocks with an 80 percent working interest and a potential estimated 670 million barrels of oil reserves. Rosneft will invest USD 400m in an exploration program with hopes of starting production in 2018.
    - https://www.bloomberg.com/news/articles/2017-10-18/russia-s-rosneft-expands-in-kurdistan-with-five-oil-projects
    - The deal did not specify the location of the blocks, but by including access by Rosneft to the KRG pipeline, the blocks might include those in disputed territories (http://www.rudaw.net/english/kurdistan/060620174).

1bn, or one third of the total. This announcement, which included the extension of the timeline for repayment up to five years, solidly cemented the KRG's position in the oil marketplace. There were expectations that the oil price discount would decrease accordingly, but the loss of the Kirkuk related fields has dramatically impacted this improved positioning.

Due to the history of conflict between the KRG and FGI, the oil companies operating within the KRI rarely received payments[21] for the oil produced and exported from 2009 until 2015, when the KRG started making partial payments. In the process, they accumulated significant receivables against the KRG. Exact figures of these receivables are not available, as the KRG's Ministry of Natural Resources (MNR) has not published them. However, publicly listed companies have the obligation to disclose receivables and these were about USD 1.8bn with DNO ASA, Genel Energy and Gulf Keystone,[22] until most of that was settled in August 2017. It can be estimated that other receivables would be about USD 1.5bn-3.0bn[23] with other non-public companies such as the KAR Group, Pearl Petroleum Consortium (some members are public), and Addax (now a subsidiary of Sinopec Group).

- ○ Almost all of the KRG's oil blocks, including those signed in the disputed territories, were covered by exploration agreements with International Oil Companies (IOCs). However, in 2016 due to a combination of disappointing exploration results plus the changed economics of lower oil prices, 19 blocks were relinquished by IOCs including major international ICOs.
- The financing of the capacity expansion of the KRG crude pipeline from 700,000 bbl/day to 1,000,000 bbl/d and recover its investment plus profit by a combination of an equity stake in the pipeline through a long-term tariff agreement. Rosneft would take a 60 percent stake in the pipeline and, according to sources that it would invest USD 1.8 bn in expanding its capacity.
  - ○ https://www.reuters.com/article/us-mideast-crisis-iraq-kurds-rosneft/russias-rosneft-to-take-control-of-iraqi-kurdish-pipeline-amid-crisis-idUSKBN1CP16L
- Rosneft to participate in funding, around USD 1bn, in the construction of a natural gas export pipeline to Turkey. The plans are to initially supply the local market, then export to Turkey and ultimately to Europe. The pipeline is to have a capacity of 30 Billion Cubic Meters Annually (BCMA) and equal to 6 percent of total European gas demand.
  - ○ https://uk.reuters.com/article/uk-kurdistan-rosneft/russias-rosneft-clinches-gas-pipeline-deal-with-iraqs-kurdistan-idUKKCN1BT1G8

Interestingly, by including gas, the deals with Rosneft can be part of bigger geopolitical picture for Russia: The most likely export for Kurdish gas is Turkey & Europe which in turn depend on Russian gas for over 55 percent and 36 percent respectively for their gas imports and thus the deal could increase Russia's importance as a gas exporter to Turkey & Europe. the author explored the bigger geopolitical picture for Rosneft in a recent article: https://www.iraqincontext.com/single-post/2017/11/03/Rosneft-in-the-Kurdish-Region-Moscows-Balancing-Act

[21] The KRG is responsible for exporting the oil produced by the IOCs and as such payments are received by the KRG rather than the companies as per the terms of their Production Sharing Contracts (PSCs) with the KRG.

[22] For the production from Tawke, Taq Taq and Shaikan. Source: Company reports and Pareto Securities reports.

[23] No data is available and so a wide range is assumed. The lower end of the range could be conservative as the production of oil from the Khurmala is as much as that of Tawke and has been in full production for much longer. Bai Hassan and Avanah production is two and half as much as Tawke and have been producing since mid 2014. While, the types of these contracts is not known, yet given that these were known or developed, it is likely that they are Service Level Contracts (SLC) much in the same way that Khor Mor was awarded, and not a Profit Sharing Contract (PSC) like the rest. This seemed to be confirmed by the MNR's "Oil Production, Export & Consumption report for 2003-2013" which lists all PSC agreements but does not show Khurmala or Khor Mor among them.
http://mnr.krg.org/images/pdfs/MNR_Production_Report_2013_1.pdf

Moreover, the KRG's 750-mile independent pipeline to Turkey would have cost up to about USD 0.75 bn to construct by late 2013 (using rough industry estimates). While no payment details are known, it can be assumed that no full payment was made as was the case for most other such large construction projects in the KRI due to the deep financial crisis following the withholding of the 17 percent share of the federal budget in early 2014.

In September 2015,[24] the KRG started to make partial monthly payments to the oil companies for the oil produced in any given month, usually with a two- to three-month delay, plus about five percent of the outstanding receivables. The importance of the KRG making payments to IOCs is that these currently operating in the KRI are small companies and, unlike the large IOCs operating in the south of Iraq, do not have the financial resources to finance capital spending to maintain production, let alone increase it, without these payments to keep them afloat. Due to the non-payments, most companies have either cut back on capital spending, leading to production declines, or spent the minimal amount to just maintain production, but not growing it. However, the KRG needed those companies to continue spending and to grow production in order to increase its revenue stream. While the compromise payment mechanism reached in late 2015 seemed to balance the needs of both parties in the short run, it was unsustainable in the long term. The main reason is that it was highly dependent on the additional revenues from exports from the Kirkuk related fields to make these payments, and to continue operating as a government under an austerity budget that was itself unsustainable given sharply reduced salaries, including pensions, and curtailed investment spending.

The KRG reached a landmark deal, worth about USD 0.65bn,[25] with DNO and Genel in late August 2017.[26] By settling just under USD 1.8bn in outstanding receivables, the KRG has effectively given up its 20 percent share in the Tawke field and provided payment relief for the companies on certain obligations and higher revenue shares from the field's production. In other words, the companies exchanged receivables that might never be collected for increased ownership and increased monthly revenues. In the process, they also gained financial and strategic flexibility to allow them to ramp up field development and grow production. The KRG gains from increased oil production, which generates more revenues in the long run, but loses some short-term revenues. Moreover, the removal of payment uncertainties will result in significant benefits for the development of the KRI oil industry, as it will encourage other companies operating within the KRI to develop their fields.[27]

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[24] Data is only available for the public companies, but it can be assumed that the KRG would have made similar payments for all companies operating in the KRI.

[25] The figure of USD 0.65bn is based on Brent prices of USD 60/bbl by analysts at Pareto Securities http://www.paretosec.com/

[26] https://www.ft.com/content/695a04f0-88b2-11e7-bf50-e1c239b45787
Details of the debt and payments to DNO & Genel were from research reports and discussions with analysts at Pareto Securities (http://paretosec.com/

[27] To underscore the importance of the deal for encouraging further developments, DNO announced on September 9th, that it acquired half of ExxonMobil's Bashiqa exploration block in the KRI, but no information was provided on the potential size of the field or the transaction. The Bashiqa exploration block is within the Nineveh governorate, 60 km west of Erbil and 20 km east of Mosul. The ownership structure is (32 percent Exxon-Mobil, 32 percent DNO, 16 percent Turkish Energy Company (TEC) and 20 percent KRG).

ExxonMobil originally acquired 6 exploration blocks, including 3 in the disputed territories, from the KRG in 2011. However, in 2106 it relinquished the 3 blocks within Sulaimani, keeping the 3 within the disputed territories given their proximity to the export pipelines. However, ExxonMobil, has not had done any meaningful work on the blocks since first acquiring them
http://www.iraqoilreport.com/news/dno-takes-exxon-operatorship-25273/?utm_source=IOR+Newsletter&utm_campaign=10845d56a6-Email_Update&utm_medium=email&utm_term=0_f9870911e6-10845d56a6-192887133
https://www.ft.com/content/4e44f860-0bda-11e1-9861-00144feabdc0

The loss of the Kirkuk related fields should not affect the agreement the companies reached with the KRG. But the loss of the oil export income from these fields could compromise the KRG's ability to pay these companies for oil exported as the priority is to make payments to oil traders on forward oil sales,[28] while maintaining the minimum functioning of the government.

Shortly following these deals, the KRG settled its ongoing legal dispute with the Pearl Petroleum Consortium.[29] In a settlement of a legal ruling of USD 2.2bn and a further claim of USD 26.5bn for potential damages, the KRG paid USD 1bn to the consortium, granted the consortium two new blocks, and improved the original deal's terms. The

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http://www.eiu.com/industry/commodities/article/684910452/krg-plans-new-oil-block-tenders-as-exxonmobil-partly-exits/2016-12-12

This was followed shortly by reports that Chevron resumed drilling its first exploration well since ceasing activities in 2016. https://www.reuters.com/article/us-chevron-exploration/chevron-drills-oil-well-in-iraqi-kurdish-area-after-two-year-gap-sources-idUSKCN1BV1UG
Chevron, entered the KRI in July 2012 by acquiring two blocks, Sarta & Rovi, from India's Reliance Industries. It acquired a third block, Qara Dagh, in June 2013. In late 2015, it relinquished its Rovi block but started drilling following its previous exploration in Sarta block and completed in 2016.

After the events following October 16th, Chevron stopped its work once more but subsequently announced in January 2018 that it would resume its work in the Sarta Block. While the DNO/ExxonMobil could be in limbo given that the Bashiqa block was likely within the areas reclaimed by the federal government.

[28] This has not happened as of February 2018, as it was reported that the KRG made a payment of USD100m to DNO, Genel and other IOCs, in November, December, January, and February
http://www.reuters.com/article/us-iraq-kurdistan-oil/iraqs-kurdistan-makes-100-million-monthly-payment-to-oil-producers-despite-crisis-idUSKBN1D91UN
https://www.rigzone.com/news/genel_dno_confirm_krg_payments-19-dec-2017-152855-article/
https://uk.reuters.com/article/brief-dno-and-genel-receive-5371-mln-kur/brief-dno-and-genel-receive-53-71-mln-kurdish-payment-for-oct-2017-idUKASM000IBR
https://af.reuters.com/article/commoditiesNews/idAFASM000JB2
However, as the KRG has been about 2-3 months late in making payment to IOCsthe payments up to those in December would have been for the oil sold over the summer months that included exports from the lost Kirkuk related fields. While the payments made in 2018 would have been from the much-reduced oil exports, although somewhat offset by much higher oil prices. But it remains to be seen if such payments can continue for an extended period with an agreement with the FGI on an allocation from the federal budget..

[29] Over the course of disputes from 2013, the consortium won a partial settlement of USD 1.96 bn (and further delayed payments taking the figure to USD 2.24bn) from the London Court of International Arbitration in November 2015. The court further ruled in January 2017 that Pearl Petroleum's development work on its fields (Khor Mor and Chemchemal) were impeded and it will decide on damage awards in the third quarter of 2017. The consortium, nevertheless, in May 2017 took its case to US courts to secure the payment of the USD 2.24 bn award and to seek damages for USD 26.5bn. While, the case would likely have taken a number of years to be decided, it increased the risk that the consortium would be able to seize KRG's foreign assets in settlement of its award.

The settlement terms basically are: The KRG to immediately pay USD 600m to the Pearl Consortium, KRG to also immediately pay another USD 400m to go exclusively towards the consortium's further development of the fields to increase production. The balance of USD1.24bn will no longer be debt outstanding but classified as costs to be recovered by Pearl from future revenues from production at its fields. The consortium will also get two new blocks and the original deal terms will be improved to be in-line with those signed by international oil companies under its profit sharing contracts (PSC).

https://www.law360.com/articles/924029/kurdish-gov-t-must-pay-consortium-2b-award-court-told
https://www.cnbc.com/2017/08/01/reuters-america-update-1-dana-gas-partners-awarded-arbitration-payments-in-krg-dispute.html
https://www.bloomberg.com/news/articles/2017-05-30/dana-gas-venture-seeks-26-5-billion-in-damages-from-iraqi-kurds
https://www.reuters.com/article/us-dana-gas-arbitration/kurdistan-pays-1-billion-to-dana-gas-partners-to-settle-london-case-idUSKCN1BA272

It is believed by industry sources that the KRG borrowed more money from oil traders, including Rosneft to make the USD 1bn payment.
https://www.reuters.com/article/us-kurdistan-oil-loan/rosneft-traders-lend-more-to-kurdistan-ahead-of-referendum-sources-idUSKCN1BC565

consortium has pledged USD 400m of the settlement funds to accelerate the development of its fields, initially targeting the satiation of local gas demand. The benefits to both parties are similar to those under the former deal.

The loss of control of most of the disputed territories might affect the deal reached as the issues are: (1) almost half of Pearl's gas producing field (Khor Mor) straddles the disputed territories; (2) the ability of the KRG to provide the consortium with extra exploration blocks, if as assumed by many that these were to be in, or similarly straddle, the disputed territories. Moreover, depending on the terms of the agreement reached, the consortium might revert to its prior legal challenge possibly arguing that it was misled about the KRG's ownership of the blocks offered in settlement, or even its ability to award the Khor Mor field in the first place.[30]

In conclusion: The forward oil sales agreements reached in February secured a steady income stream for the KRG. While the two debts for equity swap[31] settlements, have essentially removed a long-term liability and a major impediment to the development of the KRI's oil and gas industry and hence enhanced its future economic viability. However, these were only possible and were anchored by the control of the Kirkuk related fields which provided the KRG with sizeable extra revenue stream from oil exports and a meaningful tangible producing asset in form the field's oil reserves.[32]

The enabling effect of the Kirkuk related fields on the viability of the deals, is expressed by the flexibility gained from their extra revenue stream: Firstly, it enabled the assumption of USD 4b in debt financed by an extra USD 4bn in forward oil sales, to fund current spending and to fund[33] the USD 1bn payment in the Pearl settlement. Secondly, it allowed the KRG to sacrifice some short-term revenues to fund the DNO/Genel settlement-as the immediate revenue loss is estimated at around USD 20m,[34] bringing

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[30] This risk is somewhat mitigated by reports that the consortium planned to increase output at Khor Mor by 20 percent by end of 2018.
https://www.mees.com/2018/1/19/corporate/kurdistan-oil-on-the-ropes-but-still-standing/951ba890-fd38-11e7-bc9b-09de8fbf2438

[31] The debt for equity swap is entered to as the KRG & IOCs exchange the KRG's liabilities towards the IOCs for the IOCs to acquire equity (ownership) in KRI assets that the KRG controls.
An overall review of these deals is : https://mees.com/2017/9/1/oil-gas/krg-gets-creative-in-bid-to-boost-investor-confidence/94b100a0-8f00-11e7-ab38-f774ebab244d

[32] The importance of the Kirkuk related fields extends beyond their enabling effects given the reduced near term outlooks for many of the major fields within the KRI such as Tawke, Shaikan & Taq-Taq. A large reason is the constrained spending of the operators due to payment issues, which would have been addressed by deals with the IOCs. However, some of the underlying declines seem higher than justified by reduced investment spending - the significant reserve downgrades at Taq Taq & Shaikan and reserve downgrade at Tawke are another main reason. This is due to the KRI's complex geology, unlike those in the Kirkuk related fields, which requires sophisticated and thus more complex techniques to assess. Also, aggressive production targets (to meet optimistic expectations or satisfy financial needs) might have contributed to the declines.
http://www.argusmedia.com/pages/NewsBody.aspx?id=1432338&menu=yes

[33] Noted earlier that it is believed by industry sources that the KRG borrowed more money from oil traders, including Rosneft to make the USD 1 bn payment.
https://www.reuters.com/article/us-kurdistan-oil-loan/rosneft-traders-lend-more-to-kurdistan-ahead-of-referendum-sources-idUSKCN1BC565

[34] The extra USD 20m was based on avg. Brent crude prices for October 2017 at about USD 57.5 a barrel and the same for the total of USD 100m. The payment made in October was for the following fields: Tawke USD 57m (inc. royalty), Taq Taq USD 9m, Shaikan USD 15m, Atrush USD 8m for a total of USD 89m. Other payments to a number of smaller fields

the total estimated monthly payments to all oil companies to about USD 100m per month, or USD1.2bn annually.[35]

However, given the KRG's financial constraints, the amount of flexibility is extremely sensitive to the amounts and price of oil exports from the Kirkuk related fields, and vulnerable to any adverse changes to either.[36] This happened in April-August 2016,[37] when disputes with the FGI over payments halted production from the NOC-operated fields with the loss of up to about 75,000 bbl/d (KRG's 50 percent share) from average exports of 550,000 bbl/d. While this lowered revenue stream accordingly, it had a larger effect on net revenues to the KRG after making unchanged payments to oil companies and oil traders. Even without the loss of the Kirkuk related fields, the KRG's hold on these 75,000 bbl/d was tenuous, given the FGI plans to develop a new export pipeline from Kirkuk via Iran,[38] which would make the loss of these 75,000 bbl/d a permanent one, especially given the internal political dynamics of the KRG.[39]

It was therefore essential for the KRG to resolve the issue of the control of the Kirkuk related fields and its control of parts of the disputed territories before embarking on the referendum exercise. The resolution would have had to be in a manner that was acceptable to both the FGI and KRG, and by extension to the international community. For even, if the KRG had not lost the disputed territories in mid-October 2017, given the almost unanimous international support for a unified Iraq, it follows that the FGI would be able to legally prevent the sale of KRI oil, and in particular of Kirkuk related fields' oil, on international markets - as it did prior to the December 2014 agreement. Moreover, the pipeline agreement between Iraq and Turkey, which was extended in 2010[40] for 25

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would round up the payment to USD 100m. (Source: Discussions with analysts at Pareto Securities). Also, a Reuters article http://www.reuters.com/article/us-iraq-kurdistan-oil/iraqs-kurdistan-makes-100-million-monthly-payment-to-oil-producers-despite-crisis-idUSKBN1D91UN

[35] Figures highly dependent on oil prices

[36] The loss of the exports of all of the Kirkuk related fields, at least half of the 550,000 bbl/d average daily export, would have a far more dramatic effect on net KRG revenues after making unchanged payments to oil traders and IOCs.

[37] Production at the NOC operated fields stopped due to payment disputes with the FGI, only resuming in September 2016 after the appointment of a new FGI oil minister who had a more conciliatory approach to the KRG. Moreover, an attack brought the pipeline down in early 2016 which negatively affected oil exports.

[38] In November and December, Iraq announced:

(1) An oil swap with Iran, in which Iraq would supply 30,000-60,000 bbl/d from the Kirkuk related fields by tanker trucks to Iran's refinery in Kermanshah in exchange for Iran supplying Iraq's southern port with similar amounts. However, its difficult to expect that this is a viable long-term solution as the logistical difficulty of trucking more than 30,000 bbl/d and the impossibility of accurately tracking oil shipped by trucks vs. that sent via pipelines. While, the announcement stated plans for the building a pipeline to replace the trucking route, it provided no specific details on the construction of the pipeline such cost or timing.

(2) Plans to divert most future output from Kirkuk oilfield to local refineries such as Kirkuk whose capacity was increased in November, Dora near Baghdad, and to Baiji, north of Baghdad.

https://www.reuters.com/article/us-iran-iraq-pipeline/iran-iraq-moving-closer-to-construction-of-kirkuk-pipeline-minister-idUSKBN1AF0K1
https://www.reuters.com/article/us-iran-iraq-oil/iraq-and-iran-sign-kirkuk-oil-swap-deal-idUSKBN1E30JE
https://uk.reuters.com/article/mideast-crisis-iraq-kirkuk-oil/update-1-iraq-to-divert-most-kirkuk-oilfield-output-to-iraqi-refineries-says-official-idUKL8N1NX3C3
http://www.hydrocarbonprocessing.com/news/2017/12/iraq-boosts-output-capacity-at-kirkuk-oil-refinery

[39] This would likely be an option favored by the PUK as it would provide it with a greater control or access to these specific oil revenues and increased leverage within the KRI.

[40] http://uk.reuters.com/article/iraq-turkey-pipeline-idUKLDE68I04V20100919

years, re-asserted that all fluids inside the Iraqi-Turkish pipeline belong to Iraq. It can thus be argued that the FGI could legally claim any oil exported through it as it seeks to block its sale in international markets.

Finally, while the loss of the Kirkuk related fields renders most of the above moot, yet the loss has consequences for the KRG and FGI that extend beyond the immediate loss of net revenues from exports. Some of the unknowns that will likely play out over the next few months are: (1) the deals signed with DNO & Genel; (2) the complications of the Pearl Petroleum deal and the potential re-emergence of the legal case, (3) the legal consequences of the forward oil sales made and mechanics of the enforcement of collection of these payments in the form of oil at ports, and/or whether they involved third parties such as Turkey;[41] (4) the implications of the deal with Rosneft.[42]

AN INDEPENDENT CENTRAL BANK AND A CURRENCY

Among the requirements for an independent state is an independent central bank to regulate the banking system, to implement monetary policy, to issue a currency with an active role in its foreign exchange[43] stability. In the case of the independent Kurdistan, an independent central bank would ensure the full flexibility to use both fiscal and monetary policy tools, including the issuance of bonds, to manage its economy. Currently, the KRG is governed by the same monetary policy as Iraq, which is determined by the Central Bank of Iraq (CBI).

One of the tools at the disposition of central banks is the banking reserve requirement.[44] This requirement mandates that banks deposit a percentage of customer deposits - in both physical vaults and with the central bank itself - to ensure that banks retain enough cash to meet customers' withdrawal requirements. By controlling the reserve percentage amount, a central bank can regulate the money supply, which ultimately affects inflation.

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http://www.al-monitor.com/pulse/ar/originals/2013/11/iraqi-kurdish-pipeline-turkey-oil-policy-export.html

The article below explores the legal issues surrounding the Turkey-KRG 2013 that allowed independent KRG oil sales as regards to Turkey's obligations to Iraq within the Iraq-Turkey Pipeline agreement.
https://www.al-monitor.com/pulse/tr/originals/2014/01/turkey-krg-energy-deal-oil-pipeline-agreement.html

[41] There is a possibility of a potential involvement by Turkey as a counterparty in the forward oil sales agreement: Given the importance of the export route through Turkey, it is logical to assume that there would either be an explicit or an implicit Turkish guarantee to allow the KRG to export the oil. This could arise from the 2013 energy deal that Turkey signed with the KRG that allowed the KRG to export its oil.
https://www.ft.com/content/bbde0bf6-a859-11e2-8e5d-00144feabdc0

The details of the deal continued to be secret as the KRG would not provide them to international auditors it appointed to audit its oil & gas industry.
http://www.nrttv.com/en/Details.aspx?Jimare=11728

[42] In a recent article, the author explored the bigger geopolitical picture for Rosneft and the implications for the a future KRG/FGI relationship: https://www.iraqincontext.com/single-post/2017/11/03/Rosneft-in-the-Kurdish-Region-Moscows-Balancing-Act

[43] As the KRG does not have its own central bank, it has instead relied on a combination of the CBI and foreign exchange through currency exchanges to swap Iraqi Dinars for USD and vice versa to facilitate its dealings with the outside world.

[44] An explanation is available at: https://en.wikipedia.org/wiki/Reserve_requirement

The Iraqi banking system is not developed[45] to the extent that would make this an effective monetary tool, yet Iraqi banks are still required by law to be fully reserved. Moreover, most banks are liquid with a sizeable percentage of their assets are in the form of cash. As a result, banks would deposit a high percentage of their cash with the central bank, given the security that this provides compared to leaving physical cash in vaults. An essential feature of economic health is market confidence in the central bank.

However, due to the unusual challenges posed by the severe economic crises since 2014, the KRG resorted to two extraordinary steps[46] with negative implications for such confidence in a future central bank in an independent Kurdistan. First, the KRG removed about USD 5.0bn[47] in cash from CBI branches in the KRI in 2014, which it used to pay salaries, including pensions, after the federal government froze KRG fiscal allocations in January 2014. The CBI branches in turn froze the deposits of commercial banks held with them.[48] Secondly, the KRG issued about USD 1bn[49] in checks for the benefit of individuals and businesses – mainly to public works contractors – which the banks honored and cashed to these customers but were unable to claim the funds in cash from CBI branches in the KRI due to lack of cash at the said CBI branches.

The immediate effect was that the banks, and particularly those based in the KRI, had very limited cash, thus facing extreme liquidity shortages. Most were unable to honor their customers' deposit withdrawals. The knock-on effects on businesses and consumers were profound and severely exacerbated the economic crisis.

However, in a significant move that would restore some of this lost confidence, reports circulated in late August that the KRG had returned USD 2bn,[50] or about 20 percent, of

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45 IRIS Fellow, Mark De Weaver's IRIS report http://auis.edu.krd/iris/iraq-report/inside-iraqs-cash-economy provides an excellent review of the banking system in Iraq and the effective means of controlling the money supply due to the non-effectiveness of the reserve requirement as a monetary tool.

46 World Bank Group. "Kurdistan Region of Iraq: Reforming the Economy for Shared Prosperity and Protecting the Vulnerable." May, 2016. Available at: http://documents.worldbank.org/curated/en/229971468195834145/pdf/106109-WP-P159972-KRG-Economic-Reform-Roadmap-post-Decision-Review-PUBLIC-v1-05-29-16-2.pdf

47 The World Bank notes that no official data are available and the USD 5bn is "anecdotal evidence obtained during interview with the CBI in the KRI". This figure was cited by many in the banking industry in discussing the issue. Company reports on banks listed on the Iraq Stock Exchange (ISX) indicate that under USD 2bn of bank deposits have been affected, which implies, that, if the USD 5bn is correct, that non-ISX listed private banks in the KRI bore the brunt of this deposit freeze.

A figure USD 5.8bn, rather than USD 5.0bn, was stated in a year end KRG statement of account seen by the author from sources familiar with the figures. Furthermore, some banking sources, claimed that the KRG seized USD 1.8bn in cash held at KRG-administered banks for the same purpose, i.e. to pay salaries including pensions.

48 As a result, the CBI removed the branches from its supervision and from its accounts as they were subordinated to the supervision of the KRG Ministry of Finance and Economy (MoFE)

49 The World Bank provides an estimate of USD 1bn that was cashed for the benefit of customers. Some banking sources, claimed that these cheques were up to USD 2bn, but not all were cashed by the banks for the benefit of customers.

50 In discussions with a number of ISX listed banks it emerged that most received about 20-25 percent of their frozen deposits, which would support the news reports.

the frozen amount to the CBI[51] branches, which in turn was returned, pro-rata, to the banks.

Currently, the KRG's official currency is the Iraqi Dinar, but an independent Kurdistan may decide to issue its own currency. While in itself creating a currency is relatively straightforward, maintaining or regulating its exchange rate vis-à-vis other currencies is a bigger challenge. In practice, this involves what is defined as foreign exchange reserves,[52] held with a central bank to back the currency and to provide market confidence in its stability as a means of exchange and a store of value. For a newly independent Kurdistan Central Bank, the initial amount would need to come from negotiations with the FGI, which could result in different outcomes.

Most likely, the KRG would receive USD 7.1bn, or 17 percent share of Iraq's foreign exchange reserves, estimated by the IMF[53] at USD 41.5bn. Given that 17 percent was accepted as the yardstick for the KRG's share of the federal budget, it is not unreasonable to expect that it may be used under a debt and asset negotiation agreement.[54] Of course, this would also imply that the KRG would assume 17 percent of Iraq's debt as well. An independent Kurdistan could also raise funds through a foreign exchange swap with the Central Bank of Iraq, as means of ensuring the economic stability of both Kurdistan and Iraq. It could also issue international bonds, although the amount issued, and interest rate paid would be highly dependent on the relationship with the FGI and material international support for a future independent Kurdistan. Finally, the new independent Kurdistan could solicit support in the form of deposits from international and regional stakeholders,[55] to be held in its Central Bank.

These reserves are further increased or decreased by Kurdistan's trade balance and capital flows. Capital or investment flows are dependent on investors' and businesses'

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[51] The development was unexpected given that the KRG did not have the financial resources to make this payment especially that it this was not a priority to the KRG and thus it was believed that it could have been part of a broader rapprochement with the FGI. However, the events following the referendum have laid rest to these assumptions but not to speculations for the reasons, the timing or the source of funds.
However, A potential source could be from the February 2017 forward oil sales financings. The Deloitte report, showed a utilization of forward oil sales financings of USD 1.25bn for the period. Given the reports of the increased forward oil sales to USD 3bn then the balance or USD 1.75bn could have used to make this payment in August. But with the time gap and the lack of official data these are at best educated guesses.

[52] http://www.investopedia.com/terms/f/foreign-exchange-reserves.asp

[53] https://www.imf.org/en/News/Articles/2017/08/01/pr17311-imf-executive-board-completes-second-review-of-iraq-sba-and-the-2017-article-iv-consultation
The CBI sources reported in November, that foreign reserves have increased to USD 49bn due to the higher oil prices, however, the IMF estimates will continue to be used in order to keep figures consistent with similar estimates for trade deficit, government revenues and so forth used throughout this paper.
https://www.reuters.com/article/iraq-cenbank-debt/update-1-iraq-plans-2-bln-bond-issue-trade-bank-of-iraq-to-establish-saudi-branch-idUSL8N1NW05S

[54] Although the KRG effectively received 13 percent, 17 percent was used as a gross figure, which included sovereign expenses. As such, the 17 percent was made up of the KRG's share of sovereign expenses, i.e. 4 percent and 13 percent due to the KRG.

[55] A report from Middle East Research Institute (MERI) examines the merits of support from regional stakeholders among a wider discussion of the KRG's economic options. "Averting an Economic Meltdown in the Kurdistan Region of Iraq: Aligning Political Objectives with Economic Necessities" http://www.meri-k.org/wp-content/uploads/2016/07/Averting-an-Economic-Meltdown-in-the-Kurdistan-Region-of-Iraq-Aligning-Political-Objectives-with-Economic-Necessities.pdf

confidence in the region and the opportunities available. The recent oil deals, together with the partial return of frozen CBI funds would have had positive influence on repairing the damaged reputation as a business and investor friendly destination. Moreover, the nature of an independent Kurdistan, its finances, underlying oil and gas reserves, and relationships with Iraq and its neighbors will play a considerable role in building confidence. Finally, depending on the future relationship with the FGI and subsequent border controls, international companies and agencies might continue to base their businesses in Kurdistan as a gateway to Iraq. However, the events following October 16th radically shifted the assumptions and confidence regarding an independent Kurdistan's economic potential. Most importantly, those events highlighted internal conflicts within the KRI and signaled political instability. While the loss of the Kirkuk related fields hindered the KRG's ability to make payments to IOCs and oil traders and reduced the KRI's underlying economic potential.

Trade balance is determined by imports and exports of goods and services. Hydrocarbon exports account for the bulk of the KRI's exports and these are highly dependent on the volume of oil exports and the price of oil. A rough estimate based on current exports and annual average Brent prices of USD 60/bbl assumes a net annual export income of USD 7.1bn and a budget deficit of USD 1.0bn.[56] Moreover, Kurdistan based businesses can export electricity and cement to the rest of Iraq, collect transit fees as a trade conduit to Iraq, and become a tourism destination for Iraqis. All of these sources of revenue would be additive to Kurdistan's trade balance but are highly dependent on the nature of the future relationship with Iraq as its closest and largest foreign trading partner. While no official figures are available on the value of imported goods and services, it can be estimated[57] to be USD 10.3bn. These rough estimates indicate a potential trade deficit of USD 3.2bn, or 13.1 percent, of an estimated GDP for 2017 of USD 24.5bn.[58]

Ultimately, the amount of foreign reserves and their rate of depletion or accumulation represent the number of months of imports that these foreign reserves would cover, i.e. import cover, which ultimately affects a currency's stability and value. As a rule of thumb, three months of import cover is considered adequate.[59] Using some basic calculations,[60]

[56] Based on table 6. Assumptions: (1) H1/2017 figures annualized the for the full year; (2) Brent price of USD 60/bbl; (3) Forward oil sales only for the first half of the year; (4) all others remain the same. These assumption result in net annual revenues of USD 7.1n (net to KRG after making payments to IOCs, Forward oil sales repayments, services and supplies, … etc.) and an annual budget deficit of USD 1.0bn.

[57] The KRG estimated its GDP at USD 23.6bn in 2011 or 13 percent of Iraq's GDP (link below). The World Bank (footnote 19) reports that the Kurdish Region Statistics Office (KRSO) uses a share of 14-17 percent of Iraq's GDP to arrive at estimates for the KRI GDP. But, in the absence of official data, the 13 percent will be used in calculations. However, it can be argued that the KRI accounted for the upper end of the KRSO estimate range during the boom years and at the low end during the bust years. The latest IMF estimates for Iraq's imports of goods is USD 31.7bn for 2017 and at 13 percent the KRI's goods import estimates would be USD 4bn; while Iraq's imports of goods and services can be calculated from the same IMF figures to be USD 79.5bn, and therefore it can be calculated that the KRI's goods and services imports would be USD 10.3bn
http://www.iraq-jccme.jp/pdf/arc/04_krg_Investment_factsheet_en.pdf

[58] Worth repeating that these figures are rough estimates given the lack of official data but are reasonable calculations and are based on current figures from the IMF and historic KRG data (see above footnote)

[59] http://www.economist.com/node/16793524

[60] Calculations assume that Kurdistan will use its reserves to fund its trade and its budget deficits. As it cannot depend on either foreign investments or debt to do the funding given the points raised on these later in the report.

an independent Kurdistan foreign reserves would start at a healthy 8.3 months of import cover, but within a year would drop to 3.4 months of cover, and to under one month of cover in under six months, which would trigger a currency crisis.

A further rise in oil prices could delay this decline, but not alter its fundamental, structurally dictated course,[61] while a decline would accelerate this course. This analysis does not take account of other revenues but given that oil accounted for over 90 percent of recent revenues, this would not alter the course of Kurdistan's trade deficit.

Kurdistan, would therefore, need to depend on capital or investment inflows to finance its trade deficit[62] in order to maintain its currency's stability or USD peg. Such a dependency implies a dependency on foreign investors and businesses confidence in the country, the reversal of which can cause a crisis of confidence and lead to a quick devaluation as happened in the Asian crisis of 1997. The KRI experienced a cycle of high foreign investments that contributed to its economic boom up to 2014,[63] but reversed sharply following the budget crisis, ISIS invasion and collapse in oil prices. The reversal of foreign interest contributed to its economic bust, but the KRI being part of a federal Iraq, it was shielded from the damage that rapid currency devaluation would have caused.

Alternatively, an independent Kurdistan could resort to borrowing in international markets to fund its current account deficit, but this is ultimately unsustainable if this debt was used to finance current spending and not to finance investments in infrastructure. A later section covers the KRG's debt which concludes that the current debt would preclude the KRG borrowing money and that its need for further debt, while high, would be used to fund current spending and the repayment of older debt.

All things equal, then, a hypothetical Kurdistan Central Bank – even if initially capitalized with the billions of dollars it requires – would eventually face a currency crisis,[64] without any means available to sustain either a USD peg (as most other oil export-dominated economies see fit to do) or to maintain a stable currency. A weak currency, while attractive for exporters or tourists, is negative both for residents, especially in a region that imports the vast majority of its consumer goods, including food, and for foreign

It should be noted, while simplistic these calculations are generous as they make two favorable assumptions (1) Brent price to average USD 60/bbl for the whole year, and (2) the current austerity budget of restricted current expenditure (i.e. reduced salaries, including pensions, benefits and subsidies, with almost nothing in the form of "capital or investment expenditure) is sustainable. While the first assumption might hold given the positive oil price sentiment, the second is highly unlikely, i.e. a normalized budget would take the USD 1.0bn deficit assumption up to USD 6bn. The implication is that currency crises would happen much earlier and probably in less than a year.

[61] This is because the KRI's economy, like the rest of Iraq, is dominated by the government, which is highly dependent on oil sales. Furthermore, the economy is extremely undiversified and dependent on imports to satisfy local demand for goods, while exports, other than hydrocarbons, are negligible.

[62] https://www.economicshelp.org/macroeconomics/bop/probs-balance-payments-deficit/

[63] Prior to 2014, the overwhelming flows of capital investment into the KRI were to the oil & gas sectors which are capital intensive, and thereafter to real estate, much of which was speculative, and thus by nature both did little for employment or broader economic growth. As such, even in benign circumstances, the established pattern of investment would not be sustainable.

[64] The foreign exchange market would discount the KRI's vulnerabilities early on by driving the currency lower and precipitating a currency crisis.

investors, whose holdings would decline in value vis-à-vis their national currency. A period of high inflation and high interest rates following a currency crisis[65] would lead to an economic recession on a larger scale than the KRI experienced in the period following 2014.

Finally, the effectiveness of the currency as a means of exchange would depend on its acceptance as the currency of choice by locals, who depend on its stability as a store of value. Iraq, including the KRI, is mostly a cash economy with over 85 percent of the currency in circulation outside the banking system, which underscores the importance of the population's acceptance and confidence in its value.[66]

Of course, it is possible that a future independent Kurdistan would use the USD as a currency. But this means that its monetary policy is tied to the US and driven by fundamentals of the US economy. It might also imply US Treasury Department oversight of both hard cash and bank balance sheet dollars. Alternatively, a future independent Kurdistan might continue to use the Iraqi Dinar (IQD) but this would likely require the agreement and corporation of the FGI in order to be functional. This latter arrangement might break down if the rest of Iraq experiences an undue penalty on the value of the IQD from the economy of the KRI. A further downside of these two choices is a loss of flexibility in monetary policy options and a larger reliance on fiscal policy.

Any of these currency choices will have huge implications for the value of all assets based in Kurdistan and ultimately on future investments in the region.

Finally, the analysis above applies to the KRI within its official borders and would be different for its aspirational borders, i.e. by incorporating Kirkuk and the disputed territories, which would increase its population and area by 40 percent.[67] This increase would mean a similar increase in its share of Iraq's foreign reserves, its share of Iraq's debt, and its percentage of Iraq's imports, but its revenues would remain the same. The result would roughly be a 40 percent increase in outgoings but no change in income as the addition of Kirkuk and the disputed territories would not bring additional oil fields to what was already under the KRG's control. The end outcome would be the same as that discussed earlier but the currency crisis with its associated negative economic consequences would happen much sooner and would be more severe.

[65] A rapid decline in the value of the currency following the currency crisis would raise the cost of imported goods & services, which the KRI is highly dependent on. This in turn would results in high or even hyperinflation and hit consumer spending which could contribute to a recession. This would be made worse as the Central Bank would raise rates to shore up its currency, which would further hurt consumer spending. Moreover, it would raise the cost of borrowing and would deter business investments.

[66] With the Iraqi Dinar, still in issue & usage throughout the KRI, could be still be used informally. While a Kurdistan currency may be rejected if it has been sufficiently inflated, in the case of a currency crisis, to have lost the confidence of the population.

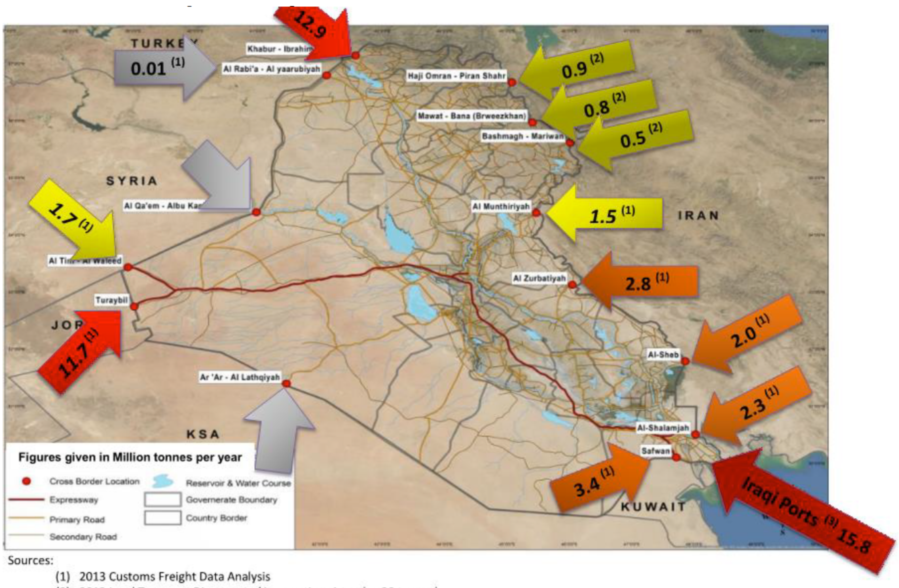
[67] http://carnegieendowment.org/sada/72740

TRADE & TOURISM

Trade and tourism are important sources of employment and revenue for the KRI, thereby contributing to economic viability and stability. Moreover, they are ideal for illustrating the relationship of a hypothetically independent Kurdistan with Iraq. The KRI's geographic position has made it a crucial part of Iraq's land trade routes, in particular those with Turkey[68] and to a lesser extent Iran, which accounted for 37.3 percent and 12.5 percent respectively of all imports into Iraq in 2014.[69] Moreover, a number of companies have made the KRI their main base of operations, as a gateway to the rest of Iraq, and importers have used the region's trade routes as entry points for their products into Iraqi markets.

Transit trade and the associated industries of retail and hospitality are important revenue generators for the KRG, which collects custom fees, employs many residents of the region, and drives demand for local businesses. Figure 2 below shows the value of imported goods to Iraq in 2014; the KRI routes accounted of 27 percent of all inbound goods.

Figure 2. Iraq's land trade routes 2014 (Source: World Bank. 2016. "Kurdistan Region of Iraq: Reforming the Economy for Shared Prosperity and Protecting the Vulnerable.")



Sources:
(1) 2013 Customs Freight Data Analysis
(2) 2012 Land Transport Directorate (Assumption: 1 truck = 20 tonnes)
(3) General Company for Ports of Iraq

Source: Transport Master Plan of Iraq (2014).

[68] While 67 percent of overall Turkish imports to Iraq in 2013, were destined for the KRI & 33 percent destined for the rest of Iraq, but that was during the boom years up to 2014 when investments were pouring into the KRI. In the changed outlook for investment spending following the budget crisis the importance of the transit element of the Turkey trade, i.e. trade destined for the rest of Iraq, will dominate in the near future.
http://www.washingtoninstitute.org/uploads/Documents/infographics/TurkeyKRGSignsofBoomingEconomicTies2.pdf

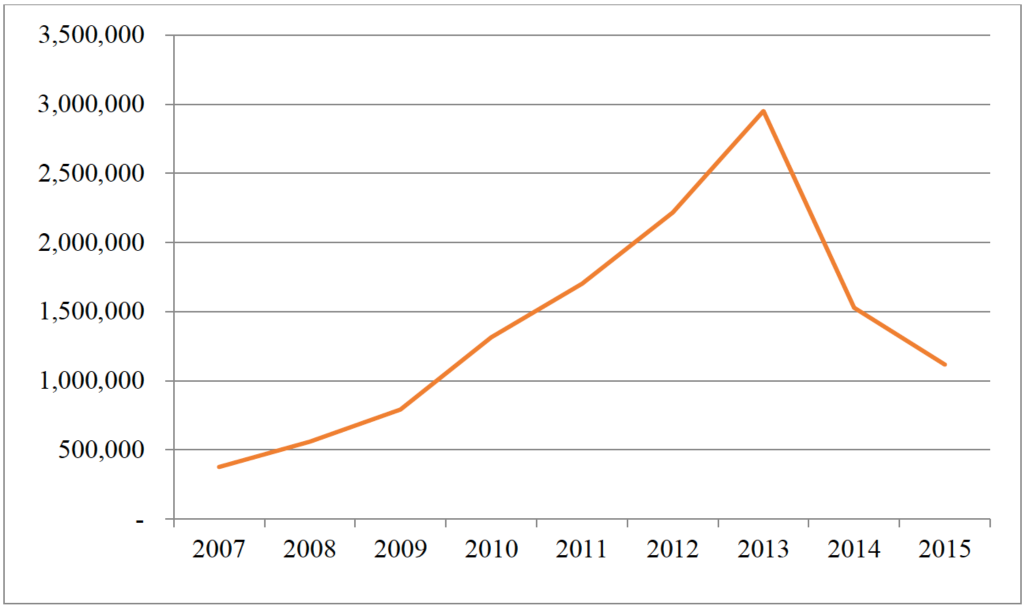
[69] World Bank Group. "Kurdistan Region of Iraq: Reforming the Economy for Shared Prosperity and Protecting the Vulnerable." May, 2016. Available at: http://documents.worldbank.org/curated/en/229971468195834145/pdf/106109-WP-P159972-KRG-Economic-Reform-Roadmap-post-Decision-Review-PUBLIC-v1-05-29-16-2.pdf

The year 2014 represents the last meaningful set of data for trade routes given that the ISIS invasion in the summer of 2014 forced a significant change of trade routes as traders used alternative, lengthier and costlier routes. The end of the ISIS occupation will return the viability and superiority of these trade routes, and thus the 2014 data is useful for future comparison purposes.

Following the dispute with the KRG over the taxation of imported goods through the KRI, the FGI established customs gates on the routes from the southern border of the KRI in June 2016, in order to monitor and tax the flow of imported goods as part of a nationwide plan to implement the "United Customs Law." The resultant double taxation on imported goods forced traders and importers to consider alternative trade routes with wide-ranging negative effects on KRI businesses and consequently on employment.[70] Therefore, it would have been essential for the KRG, before embarking on the referendum exercise, to work out a strategy or framework for customs dialogue with the FGI. This would have included a mechanism for import tax collection that ensures that these trade routes both remain commercially viable and protect KRI industries as part of the debt and asset negotiation leading to an independent Kurdistan.

Tourism is major KRI asset and a leading source of business and employment for multiple industries,[71] which depends to a significant extent on tourists from the rest of Iraq. Tourists from the rest of Iraq (referred to as tourists from outside the region in the figures below) are also its largest source of tourism revenue. The ISIS crisis has significantly hurt the industry, with the tourist numbers from the rest of Iraq declining 62 percent[72] from 2013 to 2015, yet they still constituted over 65 percent of all tourists in 2015 (see figures 3, 4, and 5 below).

Figure *3. Number of Tourists visiting the KRI 2007-2015 (Source: World Bank "Kurdistan Region of Iraq: Reforming the Economy for Shared Prosperity & Protecting the Vulnerable.")*



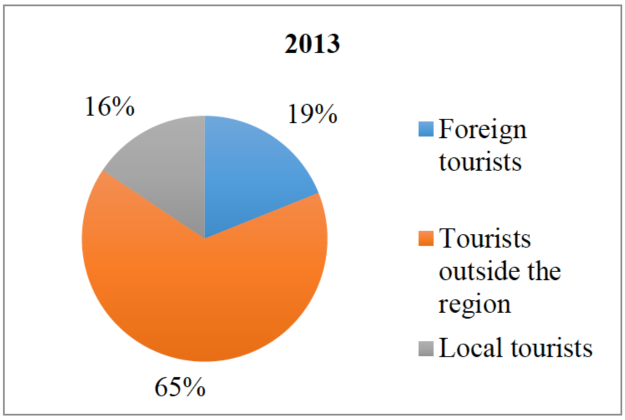
Source: Kurdistan National Board of Tourism, 2016.

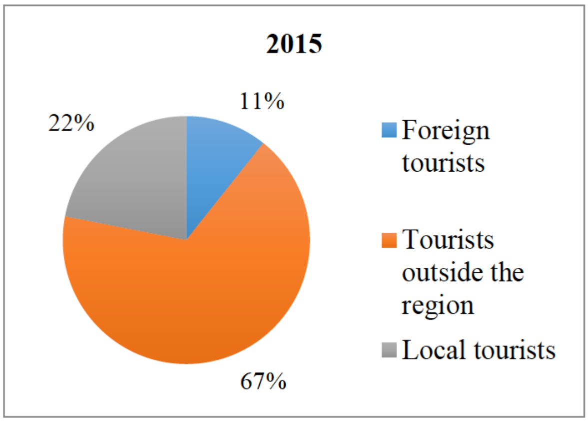
[70] http://www.rudaw.net/english/business/20012017
http://www.rudaw.net/english/middleeast/iraq/130820162

[71] In addition to the usual beneficiaries of tourism such hospitality and construction industries, the KRI's private health sector was a beneficiary of this tourist inflow.

[72] The numbers declined to 753,000 in 2015 from almost 2,000,000 in 2013.

Figures 4 and 5. Composition of Tourists visiting the KRI 2013 & 2015 (Source: World Bank "Kurdistan Region of Iraq: Reforming the Economy for Shared Prosperity & Protecting the Vulnerable.")





Source: Kurdistan National Board of Tourism, 2016.

The significant drop in the number of tourists worsened the KRI's economic crisis given the subsequent effects on the many businesses, especially construction and hospitality that depend upon tourism. However, the last two years have witnessed a meaningful recovery for the industry with reports suggesting the number of visitors has begun to rebound, but with a continued dependence on those from the rest of Iraq.[73]

Finally, the 79 percent decline in the number of foreign tourists[74]reflects the exodus of foreign investments, especially in the energy field and construction. The current number of foreign visitors is primarily composed of non-government organizations (NGOs), international organizations (e.g. the UN), and foreign officials and business visitors. These entities will continue to use the KRI as a base for operations for the whole of Iraq while the KRI is a part of Iraq. However, these bases would be relocated to Iraq in the case of independence, and these organizations would likely need a much smaller scale for a Kurdistan only representation. This would be subject to international recognition of an independent Kurdistan, which in turn depends on the nature of the settlement with the FGI. All of which implies a greater dependence on tourists from the rest of Iraq, to sustain the prospects of this vital non-oil sector, for the foreseeable future.

[73] The years 2016 & 2017 saw a major recovery for the industry with reports suggesting the number of visitors has recovered to 1.6 million in 2016, with mostly from the rest Iraq. Early data show figures doubling for the June 2017 Eid period compared to the same period in 2016, with over 70 percent of visitors from the rest of Iraq
https://english.aawsat.com/d-abdullah/business/tourism-sector-thrives-kurdistan
http://www.rudaw.net/english/kurdistan/050720173

[74] Figures 3, 4, and 5 show that foreign tourists dropped from 19 percent to 11 percent of all visitors, which is equal in absolute terms to a drop from roughly 570,000 in 2013 to 121,000 in 2015, or a decline of 79 percent in the number of foreign tourists. It is likely that the figures improved somewhat in 2016 & 2017 from 2015 but not in any meaningful way.

DEBT: ARREARS AND BORROWINGS

In much of the recent commentary on the KRG finances, a lot of noise is made about the size of the KRG's debt and the extent to which it is crippling the region. However, the important point to understand about debt is not its size per se, but its composition, the interest rate it carries, and the credibility of the KRG to service and ultimately pay the debt.

The KRG has formed a debt management office[75] in early 2017 to manage and repay its debt, but to date has not provided any public accounting of this debt. However, figures available from the World Bank[76] show that at the end of 2015, the KRG debt was around USD 17bn, with USD 8bn in arrears and USD 9bn in borrowings. What follows is a basic analysis[77] of the these based on available data to arrive at an estimate of what they would be as of the end of 2017, in order to assess the ability an independent Kurdistan to service and repay its debt, to take on new debt to refinance current debt or to fund investment spending.

No details were explicitly provided on the composition of the USD 8bn. Available data however allows one to estimate it, as Table 3 shows.

Table 3. KRG Arrears estimates for 2015 & 2017

USD bn estimate as of 2015	Notes	USD bn estimate at end of 2017
2.8	*Salary arrears for 2015*[78]	8.4
5.2	*Arrears to domestic and foreign private sector contractors and businesses. Turkish companies likely to account for the bulk of the foreign private sector.* *Likely to stay the same as no new projects were initiated since then and there were no reports of any payments made.*	5.2

The total arrears would be USD 13.6bn by end of 2017. While it is unlikely that salary and domestic arrears would carry any interest rate and the KRG could decide subject to domestic political expediency if, and if so when and how it would pay these over time. But foreign contractors are likely to demand a repayment with some form of an interest or some other compensation. The dilemma for the KRG is that the domestic private

[75] http://www.rudaw.net/english/business/180420171

[76] World Bank Group. "Kurdistan Region of Iraq: Reforming the Economy for Shared Prosperity and Protecting the Vulnerable." May, 2016. Available at: http://documents.worldbank.org/curated/en/229971468195834145/pdf/106109-WP-P159972-KRG-Economic-Reform-Roadmap-post-Decision-Review-PUBLIC-v1-05-29-16-2.pdf

[77] However, this analysis suffers from the fact that there are no clear data/official information and as such it is an approximation and subject to criticism that it is back of the envelope type of calculation.

[78] The same WB reports that KRG has cut its salary bill by about USD 2.8bn between the end of 2014 and Q1/2016 but that the cuts are temporary as it the KRG was withholding these portions of salaries, including pensions, that will be paid back later when fiscal situation stabilizes or improves.

sector would not be able to grow without being repaid while the foreign private sector might revert to legal means to seek payments against the KRG's foreign assets. However, the repayment can be in the form of debt for equity swap much like the deal with the oil companies or some form of concession such tax exemption or other such measures. This has the danger, like the oil deals, of public requirements for accountability and transparency or would lead to accusations of selling national assets. Furthermore, the risk with indefinitely delaying the salary arrears is public dissatisfaction and anger. Even, if the KRG was able to delay or not payback these arrears, they would still severely hinder its ability get further loans as most future creditors would take these into account as a liability.

Similarly, no details were provided on the composition of the USD 9bn in borrowings as end of 2015, but from available data, its composition can be estimated, and based on that its likely position by end of 2017 would be, as Table 4 shows.

Table 4. KRG Borrowing estimates for 2015 & 2017

USD bn estimate as of 2015	Notes	USD bn estimate at end of 2017
6	*USD 6bn in Bank debt as mentioned under an earlier section. It would have declined to USD 4bn at the end of August as discussed earlier. But, it's difficult to see how the KRG would have made the USD 2bn in payment without incurring additional debt[79] and so it is fair to assume that it would remain the same by end of 2017.* *This debt would not likely carry interest.*	6
1	*Forward oil sales.* *The World Bank group reported the MNR had incurred about USD 1bn forward oil sales as of 2015.* *This figure would have grown to about USD 4bn by end of 2017 based on:* *(1) the February 2017 announcement increasing this to USD 3bn, (2) USD 1bn was incurred in the Pearl Consortium deal.* *This debt is payable over 3-5 years in the form of oil sales with the interest paid in kind, i.e. in oil sales which means less net revenues to the KRG.* *This is probably the most important debt which the KRG cannot afford to delay or not pay.*	4

[79] A potential source could be from the February forward oil sales financings. The Deloitte report, showed a utilization of forward oil sales financings of USD 1.25bn for the period. Given the reports of the increased forward oil sales to USD 3.0 bn then the balance or USD 1.75bn could have used to make this payment. But with the time gap and the lack of official data these are at best educated guesses.

1.8	*Receivables for the benefit of IOCs. Converted to equity as part of the settlements reached.*	0
0.2-0.5	*Debt to Turkey*[80]	1.4

The total at the end of 2017 would most likely be USD 11.4bn

Other potential borrowings were not included in the World Bank report, but are known or estimated to have taken place then or shortly afterwards are shown in Table 5 below.

Table 5. KRG Other debt estimates for 2015 & 2017 (not included in total)

USD bn estimate as of 2015	Notes	USD bn estimate at end of 2017
2.4	*USD 2.4bn legal ruling and a further claim of USD 26.5bn for potential damages as a result of the Pearl Consortium case.* *Converted to equity as part of the settlement*	0
1.5-3.0	*Receivables for the benefit of non-public IOCs companies.* *Most likely would have been converted to equity in similar settlements.*	0[81]

Therefore, the USD 17bn in borrowings and arrears at end of 2015 is estimated to reach USD 25bn by end of 2017 or 100.2 percent of estimated 2017 GDP. While a large figure, it certainly is not as high as Greece at 179 percent or Lebanon at 146 percent of 2016 GDP estimates.[82] This is particularly important for immediate debt servicing, as the crucial debts to be serviced and paid are the forward oil sales debt at USD 4bn and USD 1.4bn to Turkey. However, the KRG would find it difficult to borrow more given the overall debt and its revenues vs. expenses imbalance (latter section).

[80] KRG received USD 500m in February 2015 and another USD 200 m in loans from Turkey in March 2016.
https://www.dailysabah.com/business/2015/02/25/turkey-gives-loan-to-kurdistan-regional-government
http://www.rudaw.net/english/business/11032016
Moreover, a number of reports suggest that the KRG was indebted to Turkey's TEC/BOTAS for about USD 1bn but not much details are known or that if it was repaid in full or partial nor the method of payment, i.e. whether in in cash, in oil sales or in debt for equity swap.

Moreover, WikiLeaks in December 2016, reported that the KRG had a total debt to Turkey of USD 1.6bn made up as (1) USS 1.15bn loan by the Turkish government (extended in 3 instalments of USD 0.5bn, USD 0.5bn and USD 0.15bn); (2) USD 0.514 bn in either a loan or arrears due to TEC which would be increasing every month; and (3) USD 1bn in arrears to Turkish companies and in particular construction companies.
http://ekurd.net/kurdistan-sell-oil-fields-turkey-2016-12-27

For the purpose of analysis, the debt portion would only look at the debt to the Turkish government and it estimates that the figure would have grown to USD 1.4bn by end of 2017 assuming an interest rate of 10 percent. It would assume the other figures (i.e. 2 & 3 above) are part of the USD 5.2bn in arrears discussed under the relevant topic.

[81] Following the events post October 16th, there is doubt on these deals, assuming that they have taken place, as such this amount of USD 1.5-3.0bn in debt might be included in the estimate for the total debt.

[82] https://tradingeconomics.com/country-list/government-debt-to-gdp

The loss of the Kirkuk related fields and the halved revenue base would make it impossible to service the current debt, let alone pay it or be in a position to borrow more.

It is important to note that the KRG has only been able to borrow by either: (1) withholding payments from its contractors or state employees, both have no option but to accept non-payment, i.e. effectively extend credit to the KRG; and (2) oil related businesses, i.e. IOCs or oil traders or oil related Turkish entities, which can exert considerable control over its oil production or export and thus are assured of the security of repayments. To date, the KRG has not been able to borrow from regular financing sources, such as local or international bond markets or banks. The current outstanding debt in relation to oil exports provides little scope for further financing through forward oil sales, and as such the only viable source is regular financing sources. However, these would require a confidence in the economic viability of the KRG, its finances and its ability to service and pay its current and potential new debts.

Moreover, an independent Kurdistan would likely assume 17 percent of Iraq's outstanding debt as part of a debt and asset negotiation with the FGI. Both parties have agreed on the 17 percent quota since the approval of the Iraqi 2005 constitution and the KRG received this share until 2014.[83] As such, it is difficult to see how an independent Kurdistan would avoid assuming 17 percent of Iraq's debt. A source of contention would likely to be the time period considered, i.e. the KRG might argue that the end 2013 marked the last full payment of its share of the federal budget and thus cannot be liable for any debt incurred afterwards. The counter argument would be that the December 2014 agreement on shared oil revenues, even if it failed, accepted the principle of receiving 17 percent of the federal budget in return for exports of 550,000 bbl/d. This seems to be the un-official understanding of both parties as the FGI can justify withholding the 17 percent arguing that the KRG is receiving the funds directly for the sale of the oil. While the KRG can justify selling the oil directly arguing that the revenues generated are in lieu of the 17 percent it is not receiving from the FGI.[84] Moreover, the KRG has, in the recent past, consistently claimed or asked for 17 percent of all loans and aid made to Iraq.

The IMF estimates Iraq's debt at end 2017 at USD 122.9bn, which would make the KRI's share USD 20.8bn. Combining this with the above estimates of KRG debt of USD 25bn would make the total debt USD 45.8bn or 187 percent of estimated 2017 GDP, which would make it worse than Greece.

The addition of 17 percent of Iraq debt, should they be assumed by an independent Kurdistan, would make it very difficult for Kurdistan to service its debt and almost

[83] The 17 percent figure includes the KRG's share of sovereign expenses and the KRG received the balance, or an average of 13 percent.

[84] This is exactly the same reasoning the KRG has made when its forces took control of the Kirkuk oil fields in June 2014 by stating "The KRG will also claim its constitutional share of oil revenues derived from these fields to make up for the huge financial deficit triggered by the illegal withholding of the KRG's 17 percent share of the federal budget by Baghdad". http://mnr.krg.org/index.php/en/press-releases/394-krg-statement-on-recent-events-at-oil-facilities-and-infrastructure-in-makhmour-district

impossible to borrow more without substantial aid or support from regional or international stakeholders.[85] Given, the almost unanimous international support for a unified Iraq, it is difficult to see how international stakeholders can provide support in the absence of an amicable agreement between the FGI and the KRG for the separation of the KRI from Iraq. Within regional stakeholders, Turkey has been a major economic partner of the KRI, however, extreme economic dependence on a single partner creates a number of challenges and complications.[86] The harsh response[87] from Turkey regarding the referendum and its subsequent actions highlights the vulnerability of such a high dependence on single regional partner.

The analysis above applies to the KRI within its official borders, but the outcome would be worse within its aspirational borders, which increase its population and area by 40 percent. This is because it would: (1) increase the KRG's costs, but as oil revenues would not change, it would increase the budget deficit, the build-up of salary arrears and ultimately its debt, (2) imply a similar increase in its share of Iraq's debt. The combination would increase the KRG debt even more and would make the total debt as a percentage of GDP much higher than 200 percent, making a bad position worse.

It is often argued that the withholding of the KRG's share of the budget by the FGI in 2014 was the reason for the build-up of the KRG debt. However, this was a direct result of a history of mutual distrust between the KRG & FGI over the course of many years and of the KRG seeking independent oil exports without collaborating with the FGI.[88] In order to explore the merit of this argument, a basic what if scenario exercise, i.e. no withholding of budget share in 2014, continued budget share allocations, no independent oil sales and a history of harmony between the KRG and the FGI, would show that:[89]

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[85] Such international support or aid would likely come with conditions to ensure debt sustainability and might require painful and immediate structural changes to the economy much in the same way that was required of Greece following its bailout.

[86] These were discussed at length in a report from Middle East Research Institute (MERI). "Averting an Economic Meltdown in the Kurdistan Region of Iraq: Aligning Political Objectives with Economic Necessities" http://www.meri-k.org/wp-content/uploads/2016/07/Averting-an-Economic-Meltdown-in-the-Kurdistan-Region-of-Iraq-Aligning-Political-Objectives-with-Economic-Necessities.pdf

[87] This should be tempered with the realization that Turkey imports over 90 percent of its oil consumption of which Iraq make up 41 percent (2015 figures, EIA, https://www.eia.gov/beta/international/analysis.cfm?iso=TUR) which essentially is oil exported by the KRG (including Kirkuk exports). This implies that Turkey ultimately imports 300,000 bbl/d out of the KRG's exports of 550,000 bbl/d underscoring the complexity of the mutual dependence.

[88] The conflict over independent oil exports and the history of mutual distrust is documented here: https://www.crisisgroup.org/middle-east-north-africa/gulf-and-arabian-peninsula/iraq/iraq-and-kurds-high-stakes-hydrocarbons-gambit
In describing the nature of the relationship of mistrust between the two sides over the years, the Crisis Group notes "Each side has its narrative, based on history, accumulated grievances and strong sense of entitlement. For now, neither is inclined to settle the conflict peacefully through serious, sustained negotiations, as each believes its fortunes are on the rise, and time is on its side"

[89] Assumes the KRG would receive 13 percent of Iraq's revenues (not from budgeted revenues but from actual revenues). Data from IMF Iraq country reports estimates, the latest of which is :
https://www.imf.org/en/News/Articles/2017/08/01/pr17311-imf-executive-board-completes-second-review-of-iraq-sba-and-the-2017-article-iv-consultation
There could be an argument that the KRG would be entitled to the share of the budget irrespective of actual revenues just like other budget outlays. However, this would not have happened in real life given the drastic cut in federal revenues in 2015 & 2016 and the cost of conflict which forced cuts across the board. Plus, even if the KRG was payed its budget allocation then the total debt for the country would have increased and so would have the KRG's share of that extra debt.

- The KRG's share of the federal revenues would be
    - USD 10.9bn, USD 6.42bn, USD 5.2bn, USD 7.9bn for 2014, 2015, 2016 and est. for 2017
- While the KRG's expenses for 2013 were: Salaries USD 6.5bn (climbing to USD 7.1bn in 2014), Social Security USD 3.0bn, Good & Services USD 3.2bn and Investment expenditure USD 3.3bn for a total of USD 16.0bn.

An accumulating budget deficit due to the mismatch between revenues and expenditures implies that the KRG's severe economic crises would have still happened. But it would have started in 2015 as opposed to 2014. In a replay of events, the KRG would have started accumulating arrears and debt from 2015 instead of from 2014, and would have accelerated its fiscal retrenchment, i.e. salary and subsidy cuts and investment expenditure cuts in 2016 instead of 2015. While it remains unknown how events would have unfolded, yet it is quite likely that the final debt and arrears position by end of 2017 could be at USD 14.1bn,[90] as opposed to the USD 25bn estimated earlier. This equates to a potential total debt and arrears representing 59 percent of GDP, and a total of USD 34.9b or 142 percent of GDP, including the assumption of 17 percent of Iraq's debt. This makes the latter position better, but would not alter the main conclusions in any meaningful way, especially regarding the KRG's ability to assume more debt. A similar analysis would apply to the position for the KRI's aspirational borders with similar conclusions to those reached earlier.

REVENUES AND EXPENSES

A recent IRIS publication, "The State of the Economy,"[91] provided a background on the KRI economy, the economic consequences of the major crises since 2014, and the measures taken by the KRG to realign its expenses with revenues to ensure sustainable growth. Therefore, this section will only look at current budget figures in the light of a potentially independent Kurdistan.

Data on 2013 KRG expenditures from World bank report 2015:
https://openknowledge.worldbank.org/bitstream/handle/10986/21597/940320KRG0Econ0Box0385416B00PUBLIC0.pdf?sequence=1&isAllowed=y
While updated data on KRG's finances are from:
http://documents.worldbank.org/curated/en/229971468195834145/pdf/106109-WP-P159972-KRG-Economic-Reform-Roadmap-post-Decision-Review-PUBLIC-v1-05-29-16-2.pdf

[90] Calculated by using the estimate of USD 25.0bn less the theoretical income from the federal revenues for 2014 of USD 10.9bn and assuming that the KRG's share of the federal revenues for 2015, 2016 and 2017 would have been the same as those from independent oil sales.

[91] http://www.auis.edu.krd/iris/sites/default/files/ECONOMY IRIS BOOKLET March17.pdf
A comprehensive report on the KRI economy is found at the World Bank report "Kurdistan Region of Iraq: Reforming the Economy for Shared Prosperity and Protecting the Vulnerable." May, 2016. Available at:
http://documents.worldbank.org/curated/en/229971468195834145/pdf/106109-WP-P159972-KRG-Economic-Reform-Roadmap-post-Decision-Review-PUBLIC-v1-05-29-16-2.pdf
Another excellent study "In Best of Times and Worst of Times: Addressing Structural Weaknesses of the Kurdistan Region's Economy", MERI January 2016: http://www.meri-k.org/wp-content/uploads/2016/01/MERI-Economic-Report-January-2016-2.pdf

The KRG has embarked on diversifying its revenue stream,[92] however, for the foreseeable future the main income will be from oil exports. This income is highly dependent on the amount of oil exported and on oil prices, which have been extremely volatile over the last three and a half years. As such the KRG's income is highly volatile, whereas its expenditures are stable, a combination that would require access to a borrowing facility to smooth the mismatch. Ideally this would be short-term bonds to cover monthly shortfalls or long-term bonds to cover longer-term shortfalls. The lack of official data on the KRG's budget makes an accurate study of the budget difficult, yet it is possible to arrive at a reasonable estimate of the budget would look using available public data. The World Bank in its 2015 and 2016 reports provided budget figures as of 2015. While, the KRG, in mid-January 2018, released Deloitte's[93] review of the KRG's oil revenue for the period 1 January 2017 to 30 June 2017. Using these reports, a preliminary analysis of the KRG Budget for first six months of 2017 is presented in the table[94] below, which considers the budget with the actual average Brent price for the period as well as what it would look at under different price assumptions for Brent.

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[92] Deals such the Rosneft gas infrastructure deal will lead to new revenue streams but they are still energy focused and more importantly their significant need for investment capital, while leading to higher income down the road, will involve compromises that likely mean giving up equity or short-term income or assuming more debt. This was evident in Rosneft taking control of 60 percent of the KRG Oil pipeline, sizable blocks at probably very attractive rates to Rosneft and probably the same dynamics for the proposed gas pipeline.

This assumption finds support in the recent statement by Rosneft's VP on the terms offered by the KRG "The terms that have been offered to us are remarkably value-accretive to Rosneft shareholders."
https://www.ft.com/content/c42aa230-e489-11e7-97e2-916d4fbac0da

[93] http://cabinet.gov.krd/a/d.aspx?s=010000&l=12&a=56305
See Appendix at end of report for a basic analysis of the Deloitte report

[94] The calculations are simplistic using some basic assumptions and simplifications (below) and based on available data. They are broadly right and aim to illustrate the dynamics of the budget. Main points:

- Deloitte's review of the KRG's oil revenue for the period 1 January 2017 to 30 June 2017, http://cabinet.gov.krd/uploads/documents/2018/KRG_Oil_and_Gas_Sector__Infographics_ENG_KU_AR.pdf and http://cabinet.gov.krd/uploads/documents/2018/Deloitte_Report_on_KRG_Oil_Export__Consumption_and_Revenues_for_First_Half_of_2017_ENG_KU_AR.pdf shows the following:
    - Oil exports of 100.2 million barrels for the period or an average of 553,414 bbl/d.
    - KRG oil sold for a blended discount of USD 11/bbl to Brent crude, with USD 10/bbl discount for oil exported through pipelines, and USD 26/bbl discount for oil exported by trucks.
    - Forward oil sales financings of USD 1.25bn for the period. Given the reports in February 2017 of the increased forward oil sales to USD 3bn then it can be concluded that the KRG used USD 1.25bn for its current expenditure and USD 1.75bn for other purposes such as to debt repayment. If so, the most likely repayment being a partial repayment in August of the USD 5bn taken from the CBI branches as discussed in an earlier footnote. But with the lack of official data these are at best educated guesses.
    - Forward oil repayments of USD 513m plus interest of USD 17.2 m for a total of USD 530m. An analysis of the data provided shows that monthly payments ranged from USD 94.1m to USD 172.1m in the period with a surprising negative payment in June of USD -109.6m indicating a drawdown, not a payment, in the KRG's account with the oil traders. While no information is provided on either the interest rate paid or duration and thus it is difficult to make any reasonable assessment, yet a few points are worth noting.
        - Forward oil sales would have increased to at least USD 4bn payable over 3-5 years with repayment and interest in kind, i.e. in the form of oil.
        - In 2015 the KRG tried to issue a semi-sovereign USD 0.5-1.0bn bond with a proposed interest rate of 11-12 percent but without much foreign interest
        - Oil trader Glencore in December 2016 tried to raise USD 0.5bn in bonds to finance the KRG's forward oil sales with an interest rate of 12 percent, much higher than its range of corporate bonds. As the interest rate of 12 percent was due to the fact that the bonds reflected KRG risk. Glencore was believed to have raised less than USD 0.5bn which implied that a higher rate was probably required to offset the risk, or that there was less demand for KRG related debt than aimed for. Thus, the rate charged by the oil traders would likely be at least 12 percent.
            - https://www.ft.com/content/36420726-209e-11e5-aa5a-398b2169cf79

Table 6. KRG estimated budget for the first half of 2017, under different Brent price assumptions

	Avg. bbl/d	bbl /6 months	Actual	Under different price assumptions for Brent			
Oil exports	553,414	100,167,897					
Brent price			51.64	45.00	60.00	65.00	70.00
KRG oil price			40.63	33.99	48.99	53.99	58.99
Revenues USD m							
Export oil revenues			4,070	3,405	4,907	5,408	5,909
Forward oil sales financings			1,252	1,252	1,252	1,252	1,252
Total revenues			5,322	4,657	6,159	6,660	7,161
Expenses USD m							
IOC payments			659	659	659	659	659
Forward oil sales (repayments + interest)			530	530	530	530	530
KRG direct payments			112	112	112	112	112
Third party payments			693	693	693	693	693
Total expenses			1,994	1,994	1,994	1,994	1,994
Net revenues USD m			3,328	2,663	4,166	4,667	5,167
KRG current expenditures USD m			4,010	4,010	4,010	4,010	4,010
Balance USD m			-681	-1,346	156	657	1,158

As can be seen, the KRG's budget was in a deficit for the period, which explains the known issues with the infrequency and shortfall of public salary, including pensions, payments. Without access to borrowing the KRG's only resource was to delay salary including pension payments in order to cover the deficit.

- https://uk.reuters.com/article/us-glencore-oil-kurdistan-exclusive/exclusive-glencore-seeks-550-million-to-raise-stakes-in-kurdish-oil-game-idUKKBN13D1O7
- https://www.reuters.com/article/us-glencore-oil-kurdistan/glencore-raises-money-for-kurdish-oil-deal-likely-short-of-target-sources-idUSKBN13V1S3
    - The February 2017 announcement of larger forward oil sales suggested an extend repayments period of 3-5 years, yet the repayment schedule for the first half of 2017 suggests that they are in line with those in the past. For example using the last monthly export report, released by the MNR in October 2016 shows a monthly gross income of USD 636m and a repayment of forward oil sales of USD 154m. http://mnr.krg.org/images/monthlyreports/EXPORTs/KRG_MNR_October_2016_Oil_Export_Report.pdf
  - IOC payments of USD 659m for the period, ranging from USD 82m to 140m. Given the reported payments to public IOC's in the period, and the implied average of USD 15m to Dana Gas (as part of the Pearl Petroleum consortium), it suggests that the KRG paid the non-public IOC's sporadically as and when it was able to make payments.
  - Direct KRG payments of USD 62m for Kirkuk petrodollars, and USD 50m to Ministry of Finance for oil security costs.
  - Payments of USD 693m to third parties by oil traders on behalf of the KRG. However, no details were provided other than a reference by the KRG that these were for services and supplies.
    - These could include pipeline fees, i.e. transit fees charged by Turkey for the oil shipped through its territory. Turkey used to charge Iraq, USD 1/bbl. According to industry sources the KRG's cost for the oil shipped through Turkey is about USD 10-15/bbl, which given the USD 10/bbl discount to Brent for KRG pipeline shipped oil implies that these could be up USD 5/bbl or more likely USD 3/bbl. (Based on discussions with Robin Mills of Qamar Energy, http://www.qamarenergy.com).
    - Moreover, the same report showed two oil shipments of 666,000 barrels and 450,000 barrels (off-spec oil) in January and April valued at USD 4-5/bbl, for a total value of USD 4.5 - 5.6m. These were in- kind payments for supplies and services.
- Data from the World Bank reports of 2015 & 2106 implies that KRG's expenditures were USD 16.0bn in 2013, USD 14.5bn in 2014 and USD 13.2bn in 2015. Moreover, the World Bank's 2016 report states that the KRG has cut its expenses by half between 2014 and first quarter 2016, which implies that its annual expenses would have declined to USD 8bn.
  - However, the KRG in November 2017, informed the FGI that its monthly wage bill is IQD 897.5bn, i.e. annually IQD 10.8trn or USD 9.1bn which implies that overall expenses would have been meaningfully higher than the USD 8.0bn assumed in these calculations. But the figure of USD 9.1bn included salaries for the Peshmerga, some of which were paid by the US. http://www.rudaw.net/english/kurdistan/011120175

For a budget surplus to occur over this period, Brent prices would have had to average USD 60/bbl. The forward oil sales of USD 1.25bn remain an important variable, without which budget balance would have been impossible with Brent prices lower than USD 70/bbl. It is difficult to expect that the KRG would be able to roll over this financing every six months, as in time this would entail building a significant debt position that would require ever increasing repayments that, at some stage, would prohibit the taking of new such financing.

The KRG can continue operating at a loss for some time, subject to the political and economic cost of underpaying government employees and contractors. Yet the situation is unsustainable: even with the Kirkuk related fields, revenues would not be enough to manage an independent Kurdistan. The immediate implication is the build-up of a meaningful deficit over time that would require obtaining new loans, which as discussed in an earlier section, is quasi impossible. As such the KRG would continue poor governance practices such as inconsistent and infrequent civil servant salary and pension payments, delayed suppliers payments, and extreme fiscal austerity.

The key reason for this unsustainability is that government expenditures are mainly austerity-level “current expenditures”, including sharply reduced salaries and pensions, benefits and subsidies, with almost no “capital or investment expenditure.” The crisis forced the KRG to cut almost all forms of investments in public infrastructure, which had a devastating impact on the affected private businesses. The KRI remains in need of massive public capital expenditure across all major sectors: roads, electricity, water supply, and waste management. Without increased public capital spending, it will be difficult for the private sector to be the driver of the KRI’s economy and become its main source of employment. Moreover, without foreign confidence in the economic soundness of the KRG, foreign investment would not make up for the local, government or private sector, shortfall.

The resumption of the capital or investment expenditure and restoring salary and pension payments would add considerable pressure on the budget. For instance, using 2015 expenditure levels yields the results shown in Table 7 below.

Table 7. Estimated normalized budget for the first half of 2017, under different Brent price assumptions

	Avg. bbl/d	bbl /6 months	Actual	Under different price assumptions for Brent			
Oil exports	553,414	100,167,897					
Brent price			51.64	45.00	65.00	85.00	95.00
KRG oil price			40.63	33.99	53.99	73.99	83.99
Revenues USD m							
Export oil revenues			4,070	3,405	5,408	7,411	8,413
Forward oil sales financings			1,252	1,252	1,252	1,252	1,252
Total revenues			5,322	4,657	6,660	8,663	9,665
Expenses USD m							
IOC payments			659	659	659	659	659
Forward oil sales (repayments + interest)			530	530	530	530	530
KRG direct payments			112	112	112	112	112
Third party payments			693	693	693	693	693
Total expenses			1,994	1,994	1,994	1,994	1,994
Net revenues USD m			3,328	2,663	4,667	6,670	7,672
KRG 2015 expenditures USD m			6,550	6,550	6,550	6,550	6,550
Balance USD m			-3,222	-3,887	-1,883	120	1,122

Table 7 shows that budget balance would have required Brent prices to have averaged around USD 85/bbl, and about USD 95/bb without the help of forward oil sales financings. Moreover, this budget would not cover the repayment of arrears or other debt. In fact, the KRG would need Brent prices to remain, for a multi-year period, around USD 100/bbl for a sufficient surplus to accumulate for both repayment of debt and to assume capital expenditure.

The loss of the Kirkuk related fields would reduce exports to about 250,000-275,000bbl[95] and would make budget balance impossible, even with Brent prices at 2008 levels or over USD 140/bbl. The KRG would need to rely on its share of the FGI budget to continue operating.[96]

So far, this paper has predicated its analysis on the basis of the additional revenues from disputed territories lost since October 16, without taking into account the implications of the KRG taking full fiscal responsibility for these territories had its expanded dominion been permanent. The financial implications of the inclusion of the disputed territories[97] within the KRI, as argued below, are clear: at consistently optimistic high oil prices at pre-2014 levels, even with the revenue from Kirkuk related fields, an independent Kurdistan could not begin to pay for the expanded populations and territories under its control. All of which will have huge implications for the future dialogue over the disputed territories.[98]

The inclusion of the disputed territories would have added two million people to the KRI's population and increased its territory by 40 percent.[99] Since the FGI was fiscally responsible for these territories, it would follow that the KRG or a future Kurdistan government would assume these responsibilities in the case of independence.[100] This

[95] In early January 2018, the MNR released unaudited figures for exports since September which showed: September at 514,051bbl/d, October at 384,659 bbl/d, November at 252,301 bbl/d, and December at 263,542 bbl/d. The November and December figures represent full months of export following the loss of the Kirkuk related fields.
However, data from TankerTrackers.com show lower figures for October at 344,440 bbl/d, but higher for November 268,575 bbl/d and December 275,575 bbl/d. Also, the same source provides a lower range of 500,000-550,000 bbl/d per month before the loss of the Kirkuk related fields.
https://twitter.com/MNRKurdistan/status/949338708804866048
https://twitter.com/TankerTrackers/status/949487907513004032
https://twitter.com/TankerTrackers/status/947393125802233856

[96] As a consequence, the KRG's bargaining power in a future KRG/FGI discussions is weaker than before as its contribution to the federal budget, in the form of oil sales, would likely be less than its share of the federal budget.

[97] The analysis considered the (1) KRI within in its official borders as those defined by the 2005 constitution as the areas administered by the KRG prior to the 2003 invasion of Iraq, (2) its aspirational borders includes the KRI plus the areas within the disputed territories that came under effective KRG control after 2003 and after the fall of Mosul in 2014. The inclusion of the aspirational borders increased the KRI's population and area by 40 percent (see footnotes 99 below). However, the full inclusion of all disputed territories would increase the KRI's area and population by more than 40 percent but will not increase its revenues in any meaningful way.

[98] The economic viability of the extended KRI, i.e. including the disputed territories, without the revenue allocation from the FGI will have major implications on: (1) the KRG-FGI dialogue over the disputed territories, (2) the choices expressed by the population of the disputed territories whether to be part of the KRI or within a federal Iraq, and (3) on international support for an independent Kurdistan that would include the disputed territories.

[99] http://carnegieendowment.org/sada/72740

[100] The KRG assumed partial fiscal responsibility for Kirkuk in the form of petro-dollar payments of USD 10.3m a month, however, the FGI paid 80 percent of the USD 124m budget of Kirkuk
https://twitter.com/Mikeknightsiraq/status/919273528725254145

would take the budget shortfall to that of crisis levels, necessitating draconian cuts to current expenditure. Salaries, including pensions, would bear the brunt of these cuts, being the largest component of current expenditures. These would include a replay of prior cuts to KRG employee salaries, including pensions, extended to those in Kirkuk, northern Ninewa, Diyala and Salahuddin provinces. The same logic would be extended to public infrastructure within these territories and thereby increasing the demands on a non-existent public infrastructure budget by 40 percent, with particularly high demands coming from Kirkuk, a city larger than Erbil, Dohuk, or Sulaimani. Assuming that the KRG would have been financially responsible for these territories in the first half of 2017 under the same current austerity budget, the same calculations as above results in Table 8 below.

Table 8. Estimated KRG budget for the first half of 2017, under different Brent price assumptions

	Avg. bbl/d	bbl /6 months	Actual	Under different price assumptions for Brent			
Oil exports	553,414	100,167,897					
Brent price			51.64	45.00	65.00	75.00	85.00
KRG oil price			40.63	33.99	53.99	63.99	73.99
Revenues USD m							
Export oil revenues			4,070	3,405	5,408	6,410	7,411
Forward oil sales financings			1,252	1,252	1,252	1,252	1,252
Total revenues			5,322	4,657	6,660	7,662	8,663
Expenses USD m							
IOC payments			659	659	659	659	659
Forward oil sales (repayments + interest)			530	530	530	530	530
KRG direct payments			112	112	112	112	112
Third party payments			693	693	693	693	693
Total expenses			1,994	1,994	1,994	1,994	1,994
Net revenues USD m			3,328	2,663	4,667	5,668	6,670
KRG (inc. disputed territories)current expenditures USD m			5,613	5,613	5,613	5,613	5,613
Balance USD m			-2,285	-2,950	-947	55	1,057

Table 8 shows that the KRG's budget would display a minor surplus, with the Brent price revolving around USD 75/bbl. As above, assuming a normalized budget using 2015 expenditure implies that the budget would only balance at Brent prices of around USD 115/bbl. Once again this does not include debt or arrears repayments.

Irrespective of all the foreseeable possibilities, or combinations of future possibilities, the basic dilemma for either an autonomous KRI or independent Kurdistan is the same. Basically, that is how to address the structural weaknesses of the economy that the KRI shares with the rest of Iraq but without Iraq's resources.

Briefly, these structural weaknesses that many studies[101] discussed and which the World Bank 2016 report states are: (1) "high dependence on oil;" (2) "an excessive role of the

http://cabinet.gov.krd/uploads/documents/2018/Deloitte_Report_on_KRG_Oil_Export__Consumption_and_Revenues_for_First_Half_of_2017_ENG_KU_AR.pdf

[101] http://documents.worldbank.org/curated/en/229971468195834145/pdf/106109-WP-P159972-KRG-Economic-Reform-Roadmap-post-Decision-Review-PUBLIC-v1-05-29-16-2.pdf
http://auis.edu.krd/sites/default/files/Iraq%20and%20KRG%20Energy%20Policies%20-%20Bilal%20Wahab.pdf
http://www.auis.edu.krd/iris/sites/default/files/ECONOMY IRIS BOOKLET March17.pdf
http://www.meri-k.org/wp-content/uploads/2016/01/MERI-Economic-Report-January-2016-2.pdf
http://www.meri-k.org/wp-content/uploads/2016/07/Averting-an-Economic-Meltdown-in-the-Kurdistan-Region-of-Iraq-Aligning-Political-Objectives-with-Economic-Necessities.pdf

public sector in the economy;" (3) "dependency on imports;" and (4) "weak financial system and dependency on cash-economy."

Any effort to deliver a sustainable KRI economy would take a four-pronged approach that is necessary but difficult to implement, even in the best of times.

The first would be to encourage the private sector to become the driver of the economy and to be the main source of employment. But it is difficult to see how this can start without public infrastructure spending and given that most of the non-oil private sector is in severe financial distress made worse by outstanding arrears.

The second is to diversify the economy away from oil. This will be hard to achieve without a vibrant non-oil private sector and a fully functioning public infrastructure.

The third is for the government to increase non-oil revenues through income taxes, consumption taxes, higher tariff taxes on imported goods and so on. This again has its challenges given the negative effects on consumer confidence and consumption. A start has been made with administrative improvements at customs barriers.

The fourth and the hardest is rationalizing public expenses by further shrinking the public payroll and the removal of benefits & subsidies for utilities such as electricity, water or waste management, which risk a repeat of the public backlash of 2015. This has started with removing subsidies for refined oil products, whose painless passage was helped to a large extent by lower oil prices. The scale of the challenges can be seen through cataloguing the payroll, i.e. biometric registration, which was only the first and easiest step in the process of rationalizing the payroll.[102]

Conclusion

The economic rationale for independence rested on the continued control of the Kirkuk related fields. However, even if the KRG could secure that control, as this paper showed, many other factors could individually preclude the economic viability of independence. The combination of those factors thus makes independence economically implausible, even with consistent international support. As unrealistic as this rationale is, the inclusion of the disputed territories in the quest for independence takes the KRG's rhetoric to the realm of economic wishful thinking. Even if, by some fortuitous event, independence materialized, the resulting state would be economically weak and unstable, forcing it to depend on other countries for its economic viability, thereby de facto surrendering any sovereignty gained in the process.

The economic implausibility of independence, however, does not imply that self-determination and economic prosperity are not possible. In fact, the opposite is true for

[102] These cuts in expenditures were discussed in recent 2016 IRIS publication by Mark DeWeaver: http://auis.edu.krd/iris/sites/default/files/IIR_Making%20Ends%20Meet_DeWeaver_2017.pdf

the KRI within a federal Iraq:[103] the KRI could become, as it was pre-2014, a gateway to the rest of Iraq. It can leverage its natural advantages in the same way that the UK did in the past, becoming a launch pad to Europe. The UK prospered[104] due to a compelling combination of an attractive business environment and as an access to a much larger European market. It also attracted in the process important foreign investments,[105] before it decided to forgo them in response to nationalist forces without taking economic realities into consideration.

A logical solution would be to reset the relationship with the FGI and invest in mutual co-existence, agree on the future of the disputed territories with the support of the UN, and work on addressing the economic structural weaknesses in a sustainable manner.[106] The roadmap for addressing the structural weaknesses presented in the World Bank 2016 report,[107] while difficult, is achievable. However, it requires a buy-in by all citizens and, crucially, economic and political stability, both of which are impeded by the current quest for independence.

In the short term, the KRI, like the rest of Iraq, should benefit from the expansionary economic effects produced by the reversal of the forces: escalating costs of war and collapsing oil prices that crushed the economy and squeezed liquidity over the last three years. Given the KRI's higher leverage to recovery, the upcoming economic expansion would give the region meaningful breathing space to stabilize and to begin addressing the challenges properly. The investment horizon for a stable KRI within a federal Iraq is arguably even better than that discussed for Iraq in a recent IRIS report (Iraq's Economy after ISIS: An Investor's Perspective).[108]

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[103] The logic extends to relationships with neighboring countries. For instance, the FGI & KRG working with a common agenda can exert greater leverage in dealing with Turkey over the issues of sharing river/water resources.

[104] For a highlight of how the UK economy has performed since joining the EU see https://www.inet.ox.ac.uk/news/Brexit. While this chart compares GDP per capita for the UK vs. EU nations since joining: https://ig.ft.com/sites/the-uk-in-europe/assets/uk-gdp.png

[105] This article highlights the advantages the UK had as a bridgehead to much larger market. It goes over the reasons that a major international auto manufacturer chose the UK for significant investments to use it as a launch pad to a much bigger European market http://www.telegraph.co.uk/finance/comment/12023939/Britain-is-our-bridgehead-to-Europe-because-of-its-world-class-talent.html

[106] A recent interview addresses the issue of investment in mutual co-existence http://www.rudaw.net/english/interview/29082017

[107] http://documents.worldbank.org/curated/en/229971468195834145/pdf/106109-WP-P159972-KRG-Economic-Reform-Roadmap-post-Decision-Review-PUBLIC-v1-05-29-16-2.pdf

[108] "Iraq's Economy after ISIS: An Investor's Perspective" http://auis.edu.krd/iris/sites/default/files/IRIS_Iraq Post-ISIS Economy AT_FINAL.pdf

Appendix: A look at the Deloitte review

The KRG, in mid-January 2018, released Deloitte's[109] review of the KRG's oil production, export, consumption and revenue for the period 1 January 2017 to 30 June 2017. The review provided much needed clarity, but it also raised a number of issues that are worth highlighting. Combining the data from the Deloitte review and the KRG's infographics[110] yields the following table.

	MNR Infographic							Deloitte review
	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	H1/2107	H1/2017
Exports bbl/month	16,950,499	16,774,420	17,303,760	14,866,084	17,827,408	16,445,726	100,167,897	100,167,897
Days	31	28	31	30	31	30	181	181
Exports bbl/d	546,790	599,086	558,186	495,536	575,078	548,191	553,414	553,414
Sales revenues (KRG)	**753,579,770**	**754,507,964**	**692,685,399**	**605,042,383**	**684,719,945**	**579,098,876**	**4,069,634,337**	**4,069,634,337**
Avg price	44.46	44.98	40.03	40.70	38.41	35.21	40.63	40.63
Brent avg	54.67	54.11	51.56	52.54	50.43	46.52	51.64	51.64
Discount to Brent	10.21	9.13	11.53	11.84	12.02	11.31	11.01	11.01
Pipeline oil discount to Brent								10.34
Trucking oil discount to Brent								26.19
MNR direct payments	26,756,801	31,852,763	32,356,387	33,298,803	33,360,560	44,589,558	202,214,872	202,214,872
IOC payments	124,583,530	67,008,031	107,893,012	102,384,914	73,111,758	93,836,994	568,818,239	568,818,239
as % of sales revs	16.5%	8.9%	15.6%	16.9%	10.7%	16.2%	14.0%	14.0%
Services & suppliers	191,000,000	58,518,937	40,000,000	119,519,387	166,115,453	117,379,229	692,533,006	692,533,006
as % of sales revs	25.3%	7.8%	5.8%	19.8%	24.3%	20.3%	17.0%	17.0%
Expenses (exc. forward oil sale repayments)	**342,340,331**	**157,379,731**	**180,249,399**	**255,203,104**	**272,587,771**	**255,805,781**	**1,463,566,117**	**1,463,566,117**
Rev - Expenses (above expenses)	411,239,439	597,128,233	512,436,000	349,839,279	412,132,174	323,293,095	2,606,068,220	
But : Net Cash from oil sales	317,209,739	448,095,564	404,447,090	233,492,395	239,982,217	432,875,537	2,076,102,542	2,076,102,542
Diff	**94,029,700**	**149,032,669**	**107,988,910**	**116,346,884**	**172,149,957**	**-109,582,442**	**529,965,678**	
Implies :Forward oil sale repayments (inc. interest)	94,029,700	149,032,669	107,988,910	116,346,884	172,149,957	-109,582,442	529,965,678	529,965,678
as % of sales revs	12.5%	19.8%	15.6%	19.2%	25.1%	-18.9%	13.0%	13.0%
Total expenses	**436,370,031**	**306,412,400**	**288,238,309**	**371,549,988**	**444,737,728**	**146,223,339**	**1,993,531,795**	**1,993,531,795**
as % of sales revs	57.9%	40.6%	41.6%	61.4%	65.0%	25.3%	49.0%	49.0%
Net Cash from oil sales	317,209,739	448,095,564	404,447,090	233,492,395	239,982,217	432,875,537	2,076,102,542	2,076,102,542
as % of sales revs	42.1%	59.4%	58.4%	38.6%	35.0%	74.7%	51.0%	51.0%
Additional forward sales	808,446,750	105,000,000	145,000,000	185,000,000	5,000,000	3,661,827	1,252,108,577	1,252,108,577
as % of net cash to KRG	71.8%	19.0%	26.4%	44.2%	2.0%	0.8%	37.6%	37.6%
Total Cash to KRG	**1,125,656,489**	**553,095,565**	**549,447,091**	**418,492,395**	**244,982,217**	**436,537,365**	**3,328,211,120**	**3,328,211,120**

While the time period and the lack of details or official clarifications, make a meaningful analysis difficult, yet the highlighted issues are.

Forward oil sale financings declined from USD 808.4m in January to USD 6.6m in June. But forward oil repayments[111] imply a negative balance of USD 109.6m in June, i.e. looks like a drawdown instead of a repayment. If so, it indicates the use of an overdraft facility and a need to continuously utilize these financings.

Forward oil repayments averaged 13.0 percent of oil sales revenues (range 12.5 percent - 25.1 percent). As noted above, the table implies a drawdown in June of USD 109.6m instead of a payment. Excluding June, repayments in January-May averaged 18.4 percent of sales revenues. These are high as a percentage of oil sales revenues and seem to be at odds with the expectations of better financing terms after the February 2017 announcement of up USD 3bn in forward sales and a repayment schedule of three to five

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[109] http://cabinet.gov.krd/a/d.aspx?s=010000&l=12&a=56305

[110] cabinet.gov.krd/uploads/documents/2018/
Deloitte_Report_on_KRG_Oil_Export__Consumption_and_Revenues_for_First_ Half_of_2017_ENG_KU_AR.pdf ...
http://cabinet.gov.krd/uploads/documents/2018/KRG_Oil_and_Gas_Sector__Infographics_ENG_KU_AR.pdf ...

[111] Referred to as changes in buyer account balances, with the buyers being the oil trading companies.

years. Without data or details it is difficult to assess the repayment terms,[112] yet the amounts seem to be in line with those in the past.[113]

Payments for services & suppliers were 17.0 percent of sales revenues (range 5.8 percent-25.3 percent). Not included in the figures is a payment in kind, in the form of two shipments of off-spec oil totaling 1.1 m bbl valued at USD 4-5/bbl. These are high figures as a percentage of sales and imply either a dependence on suppliers and service providers, or the uneconomic nature of the current rate of oil exports.

Payments to IOCs (excluding those made to Dana Gas[114]) were 14.0 percent of sales revenues (range 8.9 percent -16.9 percent). Given the reported payments to public IOCs in the period, it suggests that the KRG paid the non-public IOCs sporadically as and when it was able to make payments. As noted earlier in the report, regular and consistent payments to IOCs are essential for maintaining and increasing the KRI oil production.

Total oil sales expenses were 49.0 percent of sales revenues (range 25.3 percent - 65.0 percent). These were helped by the June drawdown. Adjusting for June, the January-May average was 53.3 percent of sales revenues. These are very high percentages and underscore the need to grow oil production significantly to achieve economies of scale and greater bargaining power with suppliers and service providers.[115]

Forward oil sales financings accounted for 37.6 percent of total cash for KRG (range 0.8 percent-71.6 percent). As such they were essential for the functioning of the government as can be seen from the report. However, it is difficult to imagine that the KRG would be able to continuously rollover this financing or to utilize an overdraft facility. The ever-increasing nature of the repayments would, eventually, prohibit their extension.

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[112] While no information is provided on either the interest rate paid or duration of repayments, and thus it is difficult to make any reasonable assessment, yet a few points are worth noting.

- Forward oil sales would have increased to at least USD 4bn payable over 3-5 years with repayment and interest in kind, i.e. in the form of oil.
- In 2015 the KRG tried to issue a semi-sovereign USD 0.5-1.0bn bond with a proposed interest rate of 11-12 percent but without much foreign interest.
- Oil trader Glencore in December 2016 tried to raise USD 0.5bn in bonds to finance the KRG's forward oil sales with an interest rate of 12 percent, much higher than its range of corporate bonds. As the interest rate of 12 percent was due to the fact that the bonds reflected KRG risk. Glencore was believed to have raised less than USD 0.5bn which implied that a higher rate was probably required to offset the risk, or that there was less demand for KRG related debt than aimed for. Thus, the rate charged by the oil traders would likely be at least 12 percent.
    - https://www.ft.com/content/36420726-209e-11e5-aa5a-398b2169cf79
    - https://uk.reuters.com/article/us-glencore-oil-kurdistan-exclusive/exclusive-glencore-seeks-550-million-to-raise-stakes-in-kurdish-oil-game-idUKKBN13D1O7
    - https://www.reuters.com/article/us-glencore-oil-kurdistan/glencore-raises-money-for-kurdish-oil-deal-likely-short-of-target-sources-idUSKBN13V1S3

[113] For example, the last monthly export report, released by the MNR in October 2016 shows a monthly gross sales income of USD 636m and a repayment of forward oil sales of USD 154m or 24.2 percent of sales revenues. http://mnr.krg.org/images/monthlyreports/EXPORTs/KRG_MNR_October_2016_Oil_Export_Report.pdf

[114] Dana Gas, as part of the Pearl Petroleum Consortium, was paid directly by the MNR as opposed to payments made by oil traders directly to the other IOCs. In the tables within the report, these payments were included with the overall IOC payments for consistency.

[115] The high level of expenses relative to oil sales make a compelling economic and financial logic for exporting the KRI's oil through SOMO.

Statehood in the Kurdistan Region of Iraq
through an Economic Lens

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