ANALYZING THE DEBT STRUCTURE OF THE REPUBLIC OF IRAQ

SAURAV KASERA

ADVISOR:
Eric Fine- Managing Director
Morgan Stanley | Fixed Income Proprietary Trading
AIMS

• Analyze Iraq’s debt sustainability
• Establish credit risk metrics
• Perform Scenario Analysis
• Assign predicted ratings
• Iraq’s 2028
• Analyze the effects of partition (if time permits)
BASIC ASSUMPTIONS

• Oil is the only source of revenue for the government
• No domestic debt, only foreign debt in dollar terms
• Analysis done in real terms
MODELS

• Sustainability Model
• Credit Ratings Model

The output from the Sustainability Model is fed into the Credit Ratings Model
ASSUMPTIONS

• Iraqi Crude selling at a discount of $10 to WTI Brent
• Oil Production of 1.8 mbpd in 2006
• Domestic consumption of 0.65 mbpd in 2006
• $3 bn for 1 mbpd increase in production
• 5% compensation fund is established through UN Resolution 1483 [1] and will be used to serve the reparations claim.
## DONATIONS & RECONSTRUCTION COST

<table>
<thead>
<tr>
<th>Official Support Grants</th>
<th>Reconstruction Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 15,000</td>
<td>Government Institutions 15,000</td>
</tr>
<tr>
<td>Japan 3,750</td>
<td>Health, Education and Employment 3,750</td>
</tr>
<tr>
<td>World Bank 3,000</td>
<td>Infrastructure 3,000</td>
</tr>
<tr>
<td>Saudi Arabia 750</td>
<td>Agriculture and Water Resources 750</td>
</tr>
<tr>
<td>Kuwait 750</td>
<td>Private Sector Development 750</td>
</tr>
<tr>
<td>UK 626</td>
<td>Security and Police 626</td>
</tr>
<tr>
<td>Spain 225</td>
<td>Human Rights 225</td>
</tr>
<tr>
<td>EU 173</td>
<td>Other (CPA Estimates) 173</td>
</tr>
<tr>
<td>South Korea 150</td>
<td>Total 24,275</td>
</tr>
<tr>
<td>Italy 131</td>
<td></td>
</tr>
<tr>
<td>Canada 113</td>
<td></td>
</tr>
<tr>
<td>Sweden 24</td>
<td></td>
</tr>
<tr>
<td>Belgium 4</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong> 24,697</td>
<td></td>
</tr>
</tbody>
</table>
We assume a haircut of 80% for the Saudi debt in our base analysis.

<table>
<thead>
<tr>
<th>Stock of Debt</th>
<th>Haircut</th>
<th>Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Payments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paris Club</td>
<td>80%</td>
<td>41800</td>
</tr>
<tr>
<td>London Club</td>
<td>80%</td>
<td>3000</td>
</tr>
<tr>
<td>Other Commercial</td>
<td>80%</td>
<td>9000</td>
</tr>
<tr>
<td>Non - Paris Club</td>
<td>80%</td>
<td>12000</td>
</tr>
<tr>
<td>Reparations Claim</td>
<td></td>
<td>38000</td>
</tr>
<tr>
<td>Gulf Countries</td>
<td>80%</td>
<td>45000</td>
</tr>
<tr>
<td><strong>Total Stock</strong></td>
<td></td>
<td><strong>148,800</strong></td>
</tr>
<tr>
<td><strong>Total Principal Paid</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CREDIT RATINGS MODEL

• We use the scheme followed by most of the ratings agencies especially the Standard & Poor’s from which we have taken all the credit risk metrics.

• The quantitative metrics incorporate measures of economic and financial performance.

• As Iraq is a special case where the data itself is not very trustworthy, qualitative decisions have to me made while filtering and calibrating the data.
QUALITATIVE ANALYSIS

- The political and sectarian turmoil in Iraq is a major factor which is qualitative. Predicting outcomes is problematic and at best can be done in a expected value framework.
- There are two main factors in sovereign credit. First is the **ability to pay** and second is the **willingness to pay**. The ability to pay can be analyzed using quantitative measures but the willingness to pay requires a qualitative discussion. The main reason being limited legal redress in case the creditor doesn’t pay.

Willingness is a function of ability to pay in the long run.
CREDIT METRICS

• Debt Service/ Net Exports.
• Total Debt/GDP
• GDP/Capita
• Total Debt/ Net Exports
• GDP/Capita growth
• Hard Currency Resources/GDP*
Hard Currency Resources/GDP

• We call it “Hard Currency Resources” because this is the dollar resource available to the government excluding any FDI. It is basically the (net exports – debt servicing costs – reconstruction costs + donations). The function is very similar to the “Development Fund of Iraq” (DFI)
RATINGS GRANULARITY

- Investment Grade
  - A Median
  - BBB Median
- Non – Investment Grade but somewhat trivial probability of default
  - BB Median
  - B Median
- Non – trivial probability of default (includes rescheduling in case of Iraq)
  - CCC
SCENARIO ANALYSIS
SCENARIO VARIABLES

• Oil Price
  – Present: $50
  – Conservative: $20
• Oil Production
• Reconstruction Costs
• Reparation Claims
• Haircut
PRESENT OIL PRICES, MODEST PRODUCTION

- 5% every year and stabilizes at 2.68 mbpd at the end of 2015.
- Sustainability: Debt servicing won’t be a problem now but might be after 2018 when it starts repaying the debt back. But overall debt position should be quite sustainable.
- Ratings: An overall ranking of **B Median** with little scope of change as time progresses. With aggressive production the ratings reach **A Median** within 5 years.

![Graph showing debt service/net exports from 2006 to 2025 with B Median, BB Median, and BBB Median lines.](image)
PRESENT OIL PRICES, SAME PRODUCTION

- The crude production stays at 1.65 mbpd which is the worst case scenario perhaps for the production.
- **Sustainability:** We see that we have some problems over here. The debt service ratio never quite gets under 20% and shoots up when the time for principal payment schedule starts. The Total Debt/Exports never quite gets below 250%. Although they can still service their debt from the oil revenue but that will leave considerably less for their fiscal expenditures. The GDP/Capita deteriorates with time which is not a very good sign either.
- **Ratings:** We would rate it **B Median** throughout with greater chances of default as time passes by pulling it to the **CCC** category.
CONSERVATIVE OIL PRICES, AGGRESSIVE PRODUCTION

- The crude production that is now around 1.65 mbpd grows 15% every year until 2015 and then stabilizes at 6.68 mbpd.
- **Sustainability:** This situation will be much more risky. In fact until the year 2020, the Debt/Exports ratio will be more than 100%. The first few years, the Hard Currency Proceeds/ GDP will be negative that says that if oil prices come down so drastically even with a very aggressive production, the first few years can be very difficult for the government.
- **Ratings:** We would rate it less than *B Median* but with time and rising production the credit should steadily reach *BB Median*.
CONSERVATIVE OIL PRICES, MODERATE PRODUCTION

• The crude production that is now around 1.65 mbpd grows 5% every year until 2015 and then stabilizes at 2.68 mbpd.

• **Sustainability:** This is a really bad scenario. GDP/Capita drop downs to $400. The hard currency collections are negative for the first five years.

• **Ratings:** The bond becomes a **CCC** now we see a very little probability of that changing in the future. A growth of 10% will still have a chance to put it in the **B Median** but nothing less then that.
Conclusion

• Present Oil prices
  – A growth of less than 5% can demote the bond to CCC in the future unless the oil price goes above $100.
  – A growth of 10% or above will steadily raise it to the A Median category.
• Conservative Oil Prices
  – Will be hard to reach an investment grade even with more than 15% growth.

Punch Line:
To maintain a B Median: For every $5 decrease in the oil price, the production has to increase by 2% of the present production.
SAUDI DEBT

- Amounts to 45 bn dollars
- Huge uncertainty about the haircut
- Controversy exists regarding the amount and the denomination of the debt
- Resolution will depend on the future government of Iraq and their relations to Saudi Arabia
PRESENT OIL PRICES, MODERATE PRODUCTION, 0% HAIRCUT ON SAUDI DEBT

- The crude production that is now around 1.65 mbpd grows 5% every year until 2015 and then stabilizes at 2.68 mbpd.
- Sustainability: The Debt/ GDP ratio still remains above 100% for the entire horizon. The Debt Service Ratio decreases but remains above 20% until 2020 and thereafter increases as the principal payment begins.
- Ratings: Although sustainable, the bond will be still very risky. Therefore it can’t be given a B Median so it would be probably CCC. A growth above 10% would bring the bond to B Median and steadily to the BBB Median level.

![Debt Service/Net exports chart]

- **Debt Service/Net exports**
  - B Median
  - BB Median
  - BBB Median

- **Years:** 2006 to 2025
Conclusion

• With moderate production and present prices the rating falls down to CCC. But a production above 5% would keep it in the B median. A production of over 15% would make it investment grade (BBB Median and above)

• With conservative oil prices, a growth above 15% can keep it in the B Median.

Punch Line:
To maintain a B Median: For every $5 decrease in the oil price, the production has to increase by approximately 3% of the present. It will be hard to retain an investment grade if the price falls even with increasing production.
VARYING RECONSTRUCTION COSTS AND REPARATION CLAIMS

• Reconstruction Cost
  – Presently estimated to be 52 billion dollars spread over 5 years
  – Given the problematic security situation, this number can change drastically
  – We assume 2 times the reconstruction costs spread over 10 years of time.

• Reparation Claims
  – Presently estimated to be at 38 billion dollars
  – Might have huge variances
  – We stress by taking double of the existing reparation claims.
Conclusion

• Present Oil prices
  – Reconstruction: a growth of above 10% require for a B Median and above 15% for the investment grade status.
  – Reparation: a growth of above 10% for the investment grade and 5% for B median

Punch Line:
Very hard to get a B Median with conservative oil prices (even with a very high rate of growth). So decreasing oil prices coupled with increasing construction cost and reparation claims should pull the bond one notch lower.
## SPREADS

<table>
<thead>
<tr>
<th>Ratings</th>
<th>Spread (in bps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Median</td>
<td>10</td>
</tr>
<tr>
<td>BBB Median</td>
<td>50</td>
</tr>
<tr>
<td>BB Median</td>
<td>120</td>
</tr>
<tr>
<td>B Median</td>
<td>180</td>
</tr>
<tr>
<td>CCC</td>
<td>400+</td>
</tr>
</tbody>
</table>
RATINGS Vs SPREADS
IRAQ 2028

• Trading at around 450 bps
• We rate the 2028’s B Median according to the present economic and financial conditions
• It looks to us that the market is pricing a premium of around 250 bps for the political uncertainty
IRAQ 2028

- Trading decision will be based on the qualitative analysis of political premium.
- Regarding willingness to pay, “Iraq” has honored all her previous debt obligation.
- If the debt is rescheduled in case of worsening situation, it will be probably done without a haircut.
Oil Reserves and Population

- Oil resources distribution: 73% in the Shiite region, 15% in the Kurdish and 6% in the Sunni Region.
- Population: 36% Shiites, 24% Sunnis and 17% Kurds
- Baghdad houses some 6% oil and 24% population.
Partition Parameters

• The economic and political balance of power among successor states.
• The leverage exercised by sovereign and private creditors.
• The principal of equity.
Precedents

• Former Soviet Union and Yugoslavia
• Russia was the dominant state and had control of the administrative machinery. Not the case with Iraq.
• Much closer to the Yugoslav case
• IMF devised a key for the debt distribution.
Problems with Distribution

• Most of the debt is unallocated as opposed to the Yugoslav case
• Debt service not a problem if the Development Fund of Iraq (DFI) stays after the partition.
• The debt distribution would be a mix from different factors including oil reserves, population, etc.
Effects

• Though debt servicing might not be an immediate problem, the market might price the “partition” premium in the debt.

• The 2028’s that have been quite stable until now might see some unusual volatility in case this issue catches fire.
QUESTIONS / COMMENTS ?