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New Evidence on the Iraqi Surge from World Financial Markets

Civilian casualties may have gone down after the recent military surge in Iraq, but world financial markets indicate that the prospects for a stable Iraq have declined. A new study by Michael Greenstone, an economics professor at the Massachusetts Institute of Technology and a nonresident senior fellow at Brookings, finds that the default risks of Iraqi government bonds has soared 40 percent since the surge began.

Greenstone's analysis applies modern statistical techniques to assess the surge and is based on a new data file derived from more than a dozen of the most reliable and widely cited sources—including Brookings's Iraq Index. It assesses the surge's impact on three key dimensions: the current functioning of the Iraqi state (including civilian casualties), military casualties, and the financial markets' assessment of Iraq's future.

The analysis reveals mixed evidence on the surge's effect on key trends in Iraq. The security situation has improved insofar as civilian fatalities have declined without any concurrent increase in casualties among coalition and Iraqi troops. However, other areas, such as oil production and the number of trained Iraqi Security Forces have shown no improvement or declined. Evaluating such conflicting indicators is challenging.

The price of Iraqi government bonds traded on world financial markets may provide a more direct measure of the surge's success. As with political campaigns and prediction markets in other contexts, the market for the Iraqi bonds aggregates the wisdom of crowds looking at the future situation in Iraq. Billions of dollars are at stake on the outcome of the predictions and there isn't room for political considerations or personal biases in these markets. The appeal of using financial markets is that traders' only concern is to make profitable decisions and this requires making correct projections.

Relative to comparison bonds from other emerging markets, the price of the Iraqi bonds declined sharply in the 6 months since the surge began. This decline translates into an approximate 40 percent increase in the expected annual probability of default. In other words, the world financial markets are saying that Iraq's prospects declined after the surge.

Greenstone's analysis of the bond yields includes the assumption that financial markets, which aggregate public and private information from diverse sources, will reflect changes in domestic U.S. politics. He concludes that the increases in default risks remain even after controlling for the probability that a Democrat will be elected president in 2008.

BACKGROUND

Background on the Surge

- On January 10, President Bush announced that the number of troops deployed in Iraq would be increased by roughly 30,000. The purpose of this troop increase was to provide the manpower necessary so that the US military could reduce the sectarian violence that was centered in Baghdad. The larger and more important goal of the surge was to improve security so that the Iraqi government can grow and govern more effectively, ultimately leading to a stable Iraq.
- The additional troops began to arrive in Iraq in February and the surge became operational on February 14. The additional troops had not completely arrived until June and at this point the surge became fully operational.

Background on the Iraqi Bonds

- Prior to Iraq's invasion of Kuwait in 1990, Iraq issued about $130 billion in debt on which they defaulted. With the debt spread worldwide after the 2003 invasion of Iraq, the U.S. government brokered a deal so that the new Iraqi government would not be hamstrung by the debt. This debt relief agreement allowed the new Iraqi government to issue roughly $2.66 billion in U.S. dollar-denominated notes in January 2006, which pay fixed coupons of 2.9 percent twice a year and have a maturity date of January 15, 2028.
- The secondary bond market provides a venue for market participants to buy and sell bonds and thereby reach an agreement on the determinants of a bond's value—the expected probability of default and the yield curve.
- Once the Iraqi bonds were issued, they entered the world financial markets and all indications are that there is a liquid and competitive market for them. For example, they began to trade on world financial markets on January 20, 2006, and their prices and yields are reported in Bloomberg's financial services database. A trader at JP Morgan said that as much as 90 percent of them were sold by the original holders to investment funds. Additionally, there is an active market in credit default swaps for these bonds that provide insurance against default.

Comparison of Iraqi Bond with Three Alternatives

- The Iraqi bond was compared to the Qatari bond, the Lehman Emerging Market Bond Index Yields, and the U.S. Inflation Indexed Treasury Bond. The comparisons allow separation of the impact of the military surge from other drivers of default risk or shifts in the yield curve.

- The *Qatari bond* is due in 2030 with a 9.6 percent coupon rate. Like Iraq, Qatar's economy is heavily dependent on oil revenues. Besides having a close maturity date, the comparison adjusts for changes in the probability of default due to changes in oil prices.

- The comparison with the *Lehman Emerging Market Bond Index Yields* adjusts for changes in yields due to macroeconomic factors that affect the default risk of developing countries generally.

Background on Other Data Sources

- The remainder of the analysis was conducted with a new data file that relies on more than a dozen separate sources and falls into two categories. The first involves the functioning of the Iraqi state and includes variables on the number of civilian fatalities, the size of Iraqi Security Forces, crude oil production, and hours of electricity available to Iraqis. The second category is military casualties and includes information on coalition fatalities, non-fatal US casualties, and Iraqi Security Forces fatalities. The Brookings Iraq Index played a key role in putting this data file together.

RESULTS

Functioning of the Iraqi State

- The analysis shows mixed evidence on the surge's effect on the current functioning of the Iraqi state. Perhaps the crudest expression of the security situation in Iraq is the rate of civilian fatalities. The paper finds a substantial reduction in civilian fatalities in Baghdad and the rest of Iraq. Further, there isn't a decline and there may be an increase in the number of hours of electricity available to Iraqi consumers (although not in Baghdad). On the less positive side, the size of the Iraqi Security Force was about 10 percent lower 25 weeks after the Surge began than would have been predicted by trends prior to the surge. Additionally, the analysis finds that oil production didn't increase and may have decreased. Oil is Iraq's primary source of income.

Military Casualties

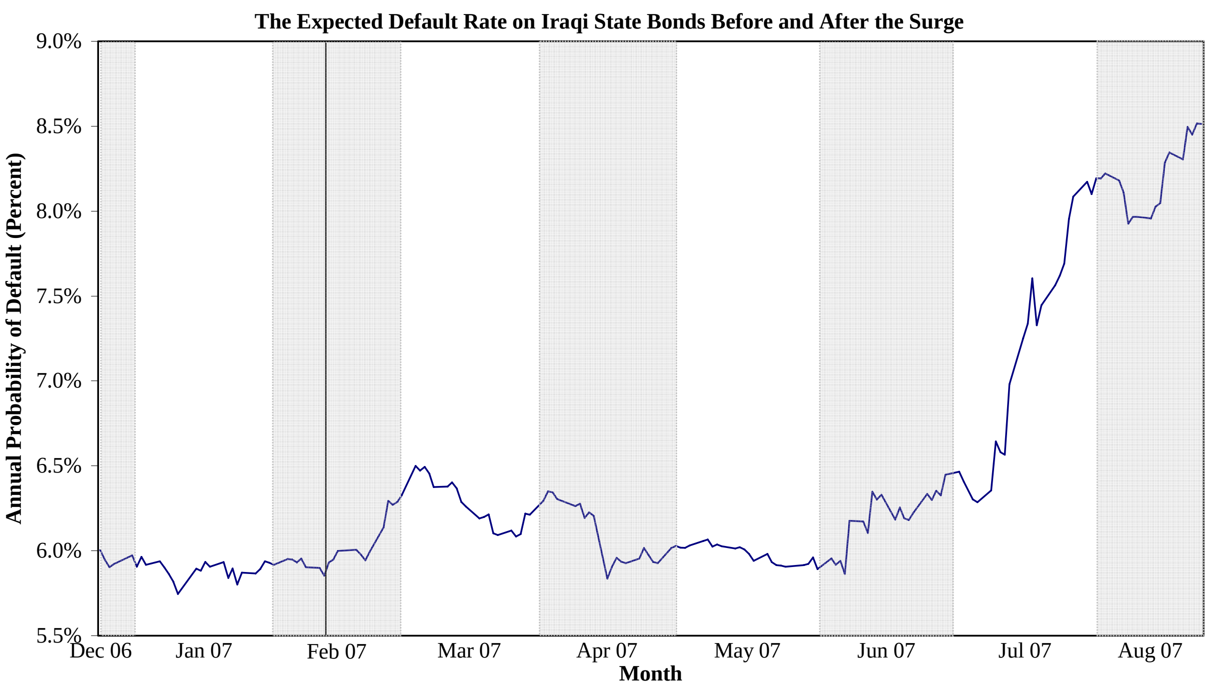
- The analysis indicates that the surge had little impact on the number of casualties suffered by coalition and Iraqi Security Force troops. There is even some evidence of a decline in the number of non-fatal casualties per day among U.S. soldiers. Since the number of U.S. troops in Iraq was increasing in this period, these findings are noteworthy.

Iraqi Bonds

- The market's expected annual probability of a default on the Iraqi bond ranges between 5.65 percent and 6.10 percent in the days before the surge and is at 5.75 percent at the date the surge begins in February. After the surge begins, it is never this low again, implying that news bearing on Iraq's future has been worse than expected at the outset – and since July much worse. (See figure attached)

- Compared to alternative bonds, the yield on the Iraqi bonds increased by roughly 150 basis points after the surge. Similarly, the premium for insurance against default of the Iraqi bonds increases substantially. The increase in bond yields and insurance premiums signaled an approximate 40 percent increase in the market's expectation that Iraq will default.

- This finding suggests that to date the surge is failing to pave the way toward a stable Iraq and may in fact be undermining it.



Notes: The vertical line is drawn at February 14, 2007 which is the date that the surge began.
The jump on the probability of default around mid July coincides with two events: the administration's "Initial Benchmarks Assessment Report" that found that the surge had not led to substantial progress in meeting political goals and the Senate Democrats tried to force a vote on a resolution that would have withdrawn troops from Iraq.