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Role of the Central Bank of Iraq in Implimenting Monetary Policy

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TABLE OF CONTENTS

Introduction

Monetary policy in Iraq is driven largely by three elements, only two of which are under the control of the Central Bank of Iraq (CBI). These elements are: a) the foreign exchange inflows from oil sales, military expenditures, donor and NGO expenditures and the extent to which they are spent domestically, b) the sales of some of this foreign currency back to the market in the CBI's daily FX auctions, and c) dinar interest rates resulting from the CBI's dinar operations.

Iraq enjoys a large inflow of foreign currency from its oil exports, U.S. military expenditures in Iraq and domestic expenditures by donors and NGOs. The general environment in which policy takes place, in addition to the well known and very serious security problems, is an economy in which oil production is about 85 percent of GDP (three quarters of which is exported), per capita income is in the neighborhood of 1,500 U.S. dollars per annum, and government expenditures are around 90 percent of GDP. This is not a typical economy. On the other hand, M2 is about 45 percent of GDP and the deposit component of M2 has increased unevenly from around 40 percent at the beginning of 2005 to around 50 percent currently, ratios more typical of relatively developed economies.

The CBI's primary monetary policy goal is to maintain the value of the Iraqi dinar. Its primary instrument for achieving this goal is targeting the exchange rate of the dinar for U.S. dollars. A monetary policy based on targeting the exchange rate determines the external value of the dinar directly and its domestic value indirectly. The dinar price of the U.S. dollar (the exchange rate) indirectly determines the dinar price of American goods and services or of any tradable goods and services priced in dollars. Thus in general the price of tradable goods in dinars depends on the American dollar price of those goods and the dinar/dollar exchange rate. The dinar inflation rate, at least with respect to tradable goods, will tend to equal the dollar inflation rate less the rate of appreciation of the exchange rate.

One useful way of characterizing the determination of the dinar price level and inflation rate is that it is the result of equating the supply and demand for dinars. By offering whatever amount of dollars the market wants at the CBI's target exchange rate the CBI determines the exchange rate and the market determines the quantity of dinars it holds at the implied price level. In this way, the inflows of dollars and other foreign currencies from oil and other exports, foreign military, and donors that are not used to finance imports and that exceed the domestic economy's demand to add to its currency holdings are reexported and invested abroad. This mechanism brings about the necessary balance between capital inflows and outflows (the balance of payments), without the need for government imposed restrictions (capital controls).

Transportation costs to and within Iraq, significant economic restructuring, and the risks and supply interruptions resulting from the security situation limit the applicability of the above purchasing power parity relationship. Following the May 2004 exchange rate stabilization, inflation averaged closed to 30 percent per year. However, starting in February 2006 year on year CPI price increases jumped to 42 percent and kept rising until they peaked in August 2006 at almost 77 percent. They remained well above their earlier norm until January of this year when year on year inflation was still over 66 percent. In February the year on year inflation rate dropped to 37 percent, and in April remains at 41 percent.

Fiscal Policy

Government expenditures significantly exceed its domestic revenue. This difference is financed by its oil export revenues (about 99 percent of total revenue) and some amount of donor funds channeled through the government's budget. These foreign currency inflows, largely in U.S. dollars, are either spent abroad to finance imports or domestically for locally produced goods and services. The government's domestic expenditures of its dollar income are made in dinar by first selling the dollars to the CBI for dinar. But whether foreign currency is first converted to dinar or is spent directly, if it is spent domestically it adds to domestic aggregate demand. Thus fiscal policy plays a particularly important role in the inflationary process in Iraq.

The impact of government expenditures and other capital inflows on domestic demand is a key factor in Iraqi budget decisions, which it discusses with the IMF in the context of a Stand-By Arrangement (SBA) with the IMF. The Development Fund for Iraq (DFI) continues to provide a buffer between oil revenue inflows and government expenditures but Iraq has not yet adopted a formal Oil Fund policy found in most large oil exporting countries.

Exchange Rate Policy

The CBI's monetary policy focuses on the exchange rate. After introducing the new Iraqi dinar banknotes in the fall of 2003, the CBI stabilized the exchange rate at around 1460 dinars per U.S. dollar from May 2004. From March 2006 the rate gradually depreciated to the upper 1470 until the CBI started a policy of deliberate, gradual appreciation in September 2006. It increased the pace of appreciation in November. Since September the rate has appreciated about 14 percent (to 1277 on March 25, 2007).

The CBI conducts daily auctions of dollars at which it satisfies the market's demand at the CBI's target exchange rate. Thus excess dinars injected by government expenditures of dinars purchased from the CBI with dollars are resold to the CBI via the daily auctions. Likewise any excess supply of dollars in the moderately dollarized economy are invested abroad or used to purchase goods abroad when they are relatively cheaper than domestic goods.[1] Thus the quantity of money in Iraq is determined by market demand. The CBI has no real control over it as long as it pursues its exchange rate targets.

Over the first two full years after the change of government (2004 -2005) inflation averaged closed to 30 percent per year. However, starting in February 2006 year on

[1] Ironically Iraq imports a significant amount of refined petroleum products because of a lack of refining capacity. Heavily subsidized gasoline and Kerosene prices and import restrictions have produced famously long lines at gas stations and a large black market in imported gasoline and Kerosene and for jobbers willing to wait in line. Both the subsidies and import restrictions are being gradually removed, but it has been politically difficult for Iraq's very weak government to face the public outcry each time prices are raised.

year CPI price increases jumped to 42 percent and kept rising until they peaked in August 2006 at almost 77 percent. They remained well above their earlier norm until January of this year when year on year inflation was still over 66 percent. However, in February the year on year inflation rate dropped to 37 percent, about six to nine months after the initial steps by the CBI to tighten monetary policy, and only three to four months after these measures became more aggressive, a very short lag by international standards.

The persistence of moderately high inflation rates over the past three years, despite very stable exchange rates, has generally been attributed to security related supply constraints and to the economy's need for a more appreciated exchange rate in the face of large capital inflows related to donor expenditures on top of rising international oil prices. Supply shocks, however, are one off events. Each reduction in supply potentially causes a one time increase in prices, i.e. its inflationary impact dies out over time. The MOF can influence Iraq's international balance of payments through its spending decisions (how much oil revenue to set aside and invest abroad for future generations, and how much to spend abroad for current consumption), and the CBI can chose the amount of any remaining real exchange rate appreciation needed that takes the form of inflation via its exchange rate target. Balance of payments adjustments (via real exchange rate adjustments) are also one off events, though the full impact on the balance of payments of a real exchange rate adjustment can take several years.

In the face of the significant increase in the inflation rate last year and the judgment that it reflected in part the economy's need for a further real appreciation of the dinar, the CBI began to appreciate the dinar in September and more aggressively in November 2006. By appreciating the exchange rate, more of any real appreciation will take place through the appreciation of the nominal exchange rate and less through inflation.

Interest Rate Policy

While the CBI has little to no control over the domestic money supply, it can influence the attractiveness of dinars relative to foreign currencies and thus the degree of dollarization, through its influence on dinar interest rates. Given the underdeveloped nature and thus inefficiency of Iraqi financial markets, the CBI also enjoys some limited influence over domestic dinar liquidity and interest rates. Holding dollars for the average household can only be done in cash, which reduces the attractiveness of adjusting an excess quantity of dinars by converting them into dollars. The state banks, which in 2003 and much of 2004 could also only hold dollars as cash,[2] can now deposit dollars with the CBI but at interest rates that have been kept low.[3]

[2] The state banks, which account for about 90 percent of all deposits in Iraq, are still subject to deposit freezes abroad until foreign claims on the government of Iraq are fully rescheduled. However, the private sector banks are able to hold deposits and other investments abroad without the risk of attachment.

[3] In September 2004, the CBI began to invest its dollar reserves (previously held as cash in its vaults in Baghdad) in the Federal Reserve Bank of New York under the attachment protection of the UN authorized Development Fund for Iraq account and a U.S. Presidential Order. In August 2004 its holdings of U.S. dollar bank notes in its vaults reached over 6.4 billion dollars. By March 1 2007 the CBI's holdings of foreign banknotes in its vaults had fallen to 2.3 billion U.S. dollars (and tend to be kept between 2 to 3 billion) and its dollar investments in New York had risen to over 15 billion U.S. dollars.

In July and August 2004 the CBI took a number of steps to establish a more separate and transparent financial relationship with the Ministry of Finance (MOF) and with banks in order to facilitate the development of private sector money markets and to establish some control over domestic dinar liquidity and interest rates. It introduced standing lending and deposit facilities and a more modern reserve requirement. The MOF initially cooperated by replacing an earlier non-marketable debt instrument with modern t-bills, which it rolled over regularly in auctions conducted on its behalf by the CBI. After long negotiations and false starts MOF deposits and debt with the CBI were renegotiated and "regularized" with a repayment schedule for a reduced claim. Unfortunately the rescheduled claims on the MOF are not marketable but at least they are now clear and firm.

Standing Facilities

As part of the new infrastructure of policy instruments, the CBI sets a policy interest rate (in the absence of a well developed market from which to take a reference rate). Its lending and deposit facilities have interest rates that float above or below the policy rate. Initially, in August 2004, the CBI set its policy rate at 6 percent with its primary (short term, collateralized) lending rate at 8 percent and its overnight deposit rate at 4 percent (a very wide tunnel). These rates are very negative in inflation adjusted, real terms. Negative real rates impede market development and distort resource allocation with negative consequences for economic development. Where exchange rates are determined in the market, negative real interest rates also lead to (or result from) excess liquidity and excessive monetary growth and inflation.

Dominated by the two largest state owned banks, Rasheed and Rafidain, which have been lending very little, banks have been very liquid in dinar assets. In December 2004, banks held dinar vault cash and current account deposits with the CBI of 5 trillion dinar with required reserves of only 1.6 trillion dinars. After a few months delay the new overnight deposits, though remunerating only 4 percent, attracted up to 1.8 trillion dinar by June 2005. In July 2005 the CBI introduced 14 and 30 day fixed term deposits in which within a month banks' deposits exceeded one trillion dinars, reducing modestly the amounts in the overnight deposit facility.[4] In September 2005 the policy rate was raised modestly to 7 percent and to 8 percent in April 2006. In the face of accelerating inflation in 2006, the CBI began to increase its policy and related rates more aggressively in July, 2006 when it raised its policy rate to 12 percent and again to 16 percent in November when it began more aggressively appreciating the exchange rate. The rate was raised to 20 percent in January of this year. This raised the three deposit facility rates to 18, 19, and 20 percent and banks responded by increasing their deposits to about 5 trillion dinars at the end of January.

These measures where absorbing a larger share of dinar liquidity and reducing the extent to which rates where negative in real terms. Bank deposit and lend rates for their customers responded to these policies very slowly. Lending rates on 1 to 5 year

[4] Starting in March 2005, the CBI offered fixed term dollar deposits at 2 percent, which was raised to 2.5 percent in June. In August 2005, 30 and 90 day deposits where added at 3 and 3.25 percent. After the first few months these dollar deposits attracted between 1 and 1.5 trillion dinar equivalent and have remained more or less at that level.

loans rose from 14.3 percent on average in January 2006 to only 14.7 percent by September 2006. However, by March of this year they have increased more rapidly to 18.4 percent.

T-bills and open market operations

Absorbing liquidity with fixed term deposits is helpful in bring interest rates to more appropriate levels in real terms, though at such relatively low nominal rates they still remain well below the inflation rate. However, the deposit instrument does little for financial market development. It is desirable to replace all or most of the fixed term deposits with marketable bills. Banks should be willing to hold a one month bill at a slightly lower interest rate than a one month fixed term deposit because they are more liquid—potentially at least. Bills can be sold to others in the market before they mature if funds are needed. Once a secondary market develops they can be sold at a relatively predicable interest rate that reflects prevailing market conditions. The development of a secondary market both facilitates and encourages the development of better liquidity management by banks and enterprises, which lowers the cost of financial intermediation and promotes economic growth.

In recognition of the desirability of fostering financial market development the MOF had agreed to replace the claims on the government held by banks at the end of June 2004 with 91 day bills and to roll over and maintain this stock despite its lack of need for the funds. When the MOF doesn't need the funds and either invests them abroad or deposits them in the CBI without using them, MOF t-bills reduce bank liquidity in the same way as do the CBI's fixed term deposits (or issuing its own bills). The funds raised by the MOF in this way cost it the difference between the interest it has to pay the market on its t-bills and the interest it earns from investing the funds raised. The MOF's dollar investments in the DFI account at the Federal Reserve Bank of New York earn short term dollar rates (4 to 5 percent) and have generally been significantly below the rates on MOF t-bill auctions (initially 6.8 percent and 21 percent more recently). The MOF holds some of these funds in deposits with the CBI, which earn no interest.[5]

Because of these apparent costs to the MOF, rolling over its existing stock of debt at market rates has been controversial within the MOF, resulting in periods when it put pressure on banks owned by the state to keep bid rates low (driving the rate down to 1.2 percent in November 2004 and to cancellations all together of some auctions with interest rates it considered too high. After finally reestablishing an outstanding stock of t-bills of around 1.4 trillion in February and March 2006 (the level of MOF debt held by banks in June 2004), the MOF suspended regular auctions. It has completed only a few sporadic auctions since then, running down the outstanding stock to 0.2 trillion in January of this year. Regular biweekly auctions of 91 day bills resumed in May of this year.

In the First and Second Reviews of Iraq's Standby Arrangement with the IMF in July 2006, the MOF committed itself to resume its auctions at market rates, but obviously failed to do so:

[5] I have long recommended that the CBI remunerate the MOF's deposits of unneeded funds raised by its t-bill sales at the market rate for those bills so that this activity would cost the MOF nothing in the first instance.

"18. **The ministry of finance will resume bi-weekly treasury bill auctions.** The last auction was held in April 2006. The ministry of finance had been reluctant to continue with the auctions because it was already very liquid (reflecting the budget surplus in 2005). However, the ministry accepts the importance of keeping the treasury bill market alive in order to (i) maintain a potential market for new borrowing in case circumstances change (e.g., if oil revenues were to fall), and (ii) preserve a market reference point for interest rates."

The MOF's actions are very short sighted. Pressuring Rasheed and Rafidain to keep interest rates on t-bills artificially low and cancelling scheduled auctions undermine the development of the bill market and interfere with the CBI's monetary policy. The healthy development of the bill market is in the national interest and in MOF's long run interest in that it will reduce the liquidity premium on bills and allow the government to borrow at the lowest interest rate consistent with market conditions and monetary policy objectives. The development of money and securities markets more generally contributes to economic efficiency and development. It is the CBI's responsibility to determine the market conditions (including short term interest rates) appropriate for monetary policy. MOF efforts to thwart the immergence of such interest rates are a very unwise interference with monetary policy. Interest rates remain deeply negative in real terms, which is not healthy or sustainable in the long run. The profit impact of such concern to the MOF is a result of monetary conditions and cannot be prevented by suspending MOF t-bill sales (as explained below).

CBI bills

The unwillingness of the MOF to maintain, much less expand, its t-bill issue program, has lead the CBI to begin issuing its own bills. One year ago, on March 31, 2006 the CBI auctioned 180 billion dinar one year bills, which it has repeated once a quarter since. In addition it auctioned 100 billion dinar 182 day bills on August 21, 2006 which it has repeated approximately every other week (between scheduled MOF bill auctions). The stock of CBI bills has risen steadily to over 2,400 billion by April 1, of this year. The interest rate on the most recent auctions of 182 day bills was 21.0 percent (May 8), very modestly above the policy rate of 20 percent given the one year maturity and lack of liquidity of the secondary "market."

Unless the inflation rate drops well below its average of the last three years, the current policy rate and rates on MOF and CBI bills will surely need to be raised further. Though the recent monetary policy tightening seems to be working, the rate of growth of base money actually increased modestly in November and December before dropping back in January and February of this year.

The cost to the government of higher interest rates on MOF bills has now been shifted to the CBI through its interest payments on fixed term deposits and CBI bills. The CBI is rightly more concerned about reducing the inflation rate than making profits and has thus moved ahead with its interest rate increases and bill sales. The cost of these monetary policy measures in terms of reduced net income of the CBI—what might be called the loss of inflationary revenue from lowering inflation—is ultimately a cost to the government as a whole. Shifting these costs from the MOF to the CBI does not change the over all cost to the government.

For the development the bill market, it is helpful to have a well known and predictable issue schedule. Thus, Financial Ministries usually announce their issue schedules well in advance. Central bank open market operations, on the other hand, are usually spontaneous and tailored to achieve a target level of market liquidity (excess reserves or interest rate). Until now the CBI has been issuing bills in place of the MOF and doing so in a manner similar to the way Finance Ministries normally issue them (regular, fixed schedule) in the interest of market development. When central banks and finance ministries both issue securities, good coordination is important and helpful for market development. In these cases best practice is for the central bank to issue at the short maturity end and the ministry to issue at the longer end. This is the reverse of the situation in Iraq. Under current circumstances the CBI has had little choice as the MOF has not been a reliable partner.

Analysis

Because the domestic money supply is determined by the market through the above mechanism, the CBI's other policy instruments (Policy Rate, Standing Facilities, and open market operations) ultimately have very little impact on the money supply and inflation. However, when set at levels that make ID assets attractive they do contribute to the development of domestic financial markets, especially liquidity management by banks, and to efficient financial intermediation. Thus the proper use of the CBI's other policy instruments contribute to the economic development of Iraq.

With efficient financial and foreign exchange markets, interest rates and exchange rates are determined jointly by the operation of interest arbitrage and the law of one price. Dollar based investors, for example, will be indifferent between "risk free" investments in comparable dollar and Iraqi dinar instruments when the interest rate differential between them is equal to the expected appreciation of the exchange rate, that is when the expected depreciation in the dollar/dinar is equal to the excess of dinar interest rates over comparable dollar rates. Typically developing country interest differentials are greater than the expected depreciation in order to attract foreign capital because of higher returns to investment in the under capitalized developing economy. However, risks of various sorts are likely to be higher in developing countries and very substantially higher in Iraq requiring much larger interest differentials. Furthermore, expected future changes in the exchange rate are very uncertain. Once Iraqi's real exchange rate reaches equilibrium, the USD/ID exchange rate would be expected to depreciate at the rate of the difference between the Iraqi and U.S. inflation rates resulting in a comparable interest rate differential. The recent appreciation in the exchange rate and higher dinar inflation rate, by increasing the real exchange rate, should increase the expectation of future depreciation. Clearly interest parity conditions between dollar and Iraqi interest rates are fraught with uncertainty over and above other risk premiums required to attract foreign investment in Iraq (beyond the uncertainty with regard to aid flows and oil export revenues). It is very unlikely that investment motivated capital flows into Iraq will be sensitive to interest rate differentials for some time.

In their current state of development, banks and the financial system more generally in Iraq do not function efficiently. Several factors contribute to this condition. The banking sector is heavily dominated by two large state owned banks that are very poorly equipped and managed. Even the very small private banks are generally technically and financially backward. Thus the above mechanism of excess dinars being invested abroad (via purchases of dollars in the CBI's FX auctions) does not function smoothly and has resulting in the accumulation of considerable excess dinar liquidity in the banking system.

Under current legal, economic, and security conditions banks have not been willing to lend much in the domestic market.[6] As a result their liquid assets are about 78% of the total.[7] Of these about 16% are required and the rest take to form of fixed term deposits with the CBI, MOF and CBI bills, and excess (i.e. unremunerated) reserves. Increased bank lending will come when lending risks and costs are reduced, i.e., when the expected return from lending (and, from the other side of the transaction, from borrowing) is increased. In these circumstances the interest rate plays little role in bank lending. In efficient markets increases in real interest rates (i.e., after adjustment for the expected rate of inflation over the period of the loan) reduce the demand for loans.

The very high banking sector liquidity potentially depresses market interest rates, which in fact are well below the inflation rate (i.e. are negative in real terms). Negative real interest rates tend to distort resource allocation and thus hurt economic development. At such rates, for example, it is profitable to borrow to finance inventories, which on average can be sold in the future at prices that are rising more rapidly than the nominal interest cost of carrying them. Negative real interest rates also impede market development and encourage dollarization.

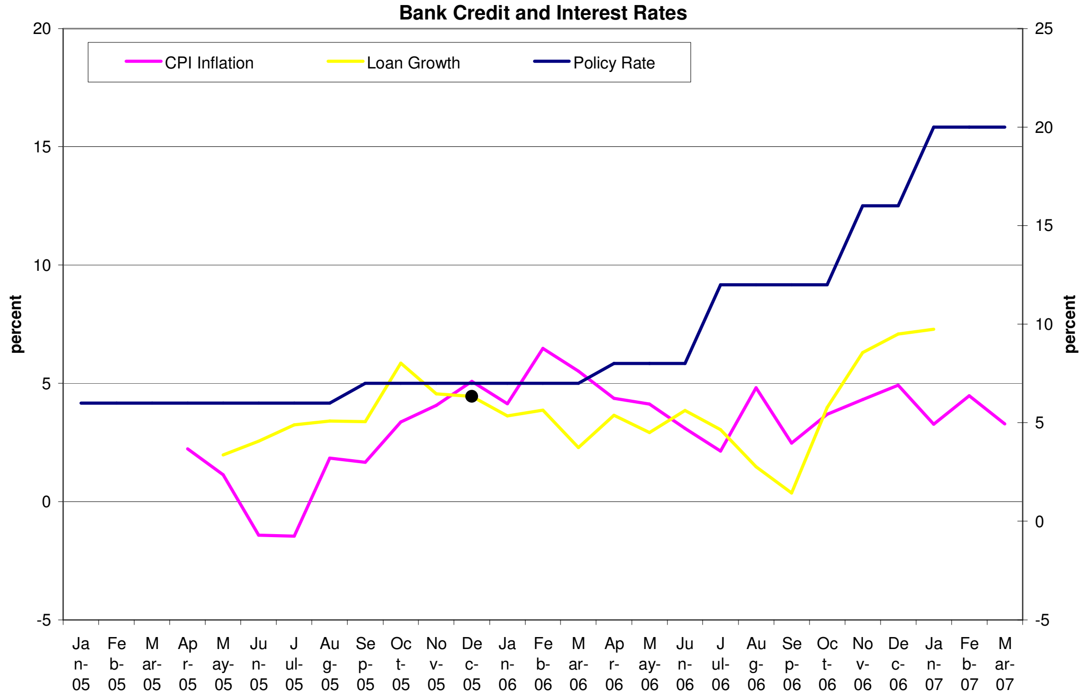
In the face of accelerating inflation in 2006, the CBI began to increase its policy and related rates aggressively in July, 2006 when it raised its policy rate from 8 to 12 percent and again to 16 percent in November when it began more aggressively appreciating the exchange rate. The rate was raised to 20 percent in January of this year. This raised the three deposit facility rates to 18, 19, and 20 percent and banks responded by increasing their deposits to about 5 trillion dinars at the end of January.

These measures allowed the CBI to absorb a larger share of dinar liquidity and reduce the extent to which rates where negative in real terms. Bank deposit and lend rates for their customers responded to these policies very slowly, however. Lending rates on 1 to 5 year loans rose from 14.3 percent on average in January 2006 to only 14.7 percent by September 2006. By March of this year they have increased more rapidly to 18.4 percent but lag far behind the increases in the policy rate. Recent increases in nominal interest rates (though still negative in real terms) in Iraq have not reduced bank lending because lending is constrained by the willingness of banks to lend not by demand (see chart). Further increases in bank lending rates, if anything, may increase bank lending.

[6] As of December 2006, bank loans were about 8.8% of their total assets. State banks loaned 7.7% of assets, while private banks loaned about 17.7%.

[7] Excluding Other Assets of the state owned banks from the total.

Bank Credit and Interest Rates



*Loan Growth and Inflation are 5 month average of m-t-m percent change: the m-t-m change for loans for Dec-05 was replaced with the average of that change for Nov-05 and Jan-06.

Conclusion

The CBI's monetary policy is anchored to the exchange rate and thus it has little to no control over the quantity of money and its growth rate.

Though the CBI's influence on dinar liquidity is limited, its influence on dinar interest rates has an important impact on dollarization and the development of domestic money markets.

Better cooperation between the MOF and the CBI would facilitate financial market development and monetary policy implementation.

The CBI's recent steps to appreciate the exchange rate and increase interest rates are already showing positive results, but Iraq is not out of the inflationary woods yet.

