Inflation Analysis

and

Policy Recommendations[1]

Executive Summary

Highlights

- The August CPI rose 77 percent from a year earlier, driven largely by surging fuel prices. The CPI excluding Fuel & Light was up 35 percent from a year ago.
- On a month-to-month basis, the August CPI was up 15 percent; ex. Fuel & Light it was up about 5 percent from July.
- Recent money growth rates have been similar to the rates of inflation excluding Fuel & Light. This money growth has been dominated by rising deposits rather than by currency holdings.
- The CBI's Policy Rate was raised in July to 12 percent, still significantly negative in real terms. At 9 percent, the MOF 91 day T-Bill rate remains below the Policy Rate.
- Recommendations for Monetary Policy include a large increase in the Policy Rate, continued gradual appreciation of the dinar, and continuation of the MOF and CBI Bill issuance programs.

Background

The August CPI was 77% above a year earlier. This is a sharp increase over the 12 month rate of 52% just two months earlier and 22% in January. The recent spike was largely driven by increasing fuel prices (partially reflecting the increase in world prices). A rough adjustment to remove the influence of fuel and fuel related items from the index removes most of the recent spike. None-the-less, the resulting "core" inflation measure (year on year) still rose over the last four months from the neighborhood of 30% (which the CPI has averaged most of the last three years) to 35% in August.

While the CBI has little influence over the money supply as a result of targeting the exchange rate,[2] the prevailing inflation rate and its recent modest increase are higher

[1] Prepared by Warren Coats and Jonathan Corning, both BearingPoint consultants; and informally discussed with Mark Stone, IMF; Ahmad Al-Juboori, Deputy Governor CBI; and Kasim Mudher, member of the Board and DG of Research and Statistics Department CBI.

than can easily be explained by the market's attempt to appreciate the real exchange rate. Year on year growth in M2 in July (regrettably the latest available) was 34%, a significant jump from the June rate of 27%. Money growth is close to the core inflation rates referred to above and significantly below the full CPI inflation.

Declining real money balances might reflect the consequences of increased dollarization. The possibility of increased dollarization is not supported by the data (the share of dollar deposits in total deposits has declined), though dollar cash holdings cannot be measured. The decline in the real value of money balances over the past year is also consistent with an increase in inflationary expectations. Raising interest rates to positive real levels would help address either of these causes.

Interestingly, recent monetary growth has been dominated by the growth in deposits, especially since the beginning of the year. Over the past six months the deposit component of the money supply grew at a 152% annual rate, while the currency component of the money supply grew at a negligible 3% annual rate. In Iraq's highly underdeveloped banking and financial markets, the CBI potentially has more influence over the behavior of deposits and credit growth than of the currency component of M2. It has drained excess bank liquidity with its reserve requirement (3.7 trillion ID in August) and fixed term deposits and CBI bills (2.3 trillion in August). In addition, it holds 1.6 trillion ID equivalent of U.S. dollar deposits beyond those used to satisfy the reserve requirement. Increasing the reserve requirement ratio is not considered here as a policy response because the unremunerated rate is already painfully high.

None-the-less, bank excess reserves have recently risen to 3.2 trillion ID (August) from the low of 1.6 trillion in February, but are still below the roughly 4 trillion level in early 2005. While the CBI's Policy Rate (and related deposit and lending rates) was raised from 8% to 12% in July, it remains well below even the core inflation rate. Strangely the MOF 91 day t-bill rate remains below the Policy Rate (and the overnight deposit rate) at 9%. The reason for this odd behavior is that the GOI appears to be directing the actions of the state banks at the bill auctions. Since the first of August, both T-Bill and CBI Bill auctions have been dominated by one state owned commercial bank. Auctions, which had been oversubscribed and attended by multiple bidders, are now reduced to one "competitive" bidder in the case of CBI Bills and two in the case of T-Bills. Meanwhile, bank deposit and loan rates have barely moved from their low levels in the last four years.

Recommendations for Monetary Policy

The CBI should communicate clearly to the public its assessment of the situation and the policy steps it is taking to deal with it. These should include:

- A large increase in the Policy and related rates followed by modest further monthly increases (½ to 1 percentage points) until real rates are positive;

[2] With a fixed exchange rate, the money supply is market determined. The public can easily adjust its dinar holdings to desired levels through the daily FX auctions (effectively translating excess dinars into dollar investments abroad).

- A continuation and modest increase in the pace of appreciation of the dinar started several weeks ago.
- A continuation of the exciting MOF and CBI Bill issue programs. Once the environment is stabilizing, a modest increase in the size of Bill auctions until CBI fixed term deposits are largely replaced by Bills, and excess reserves have been reduced (all in support of increasing market rates to positive real levels).

Recommendations for Economic and Fiscal Policies

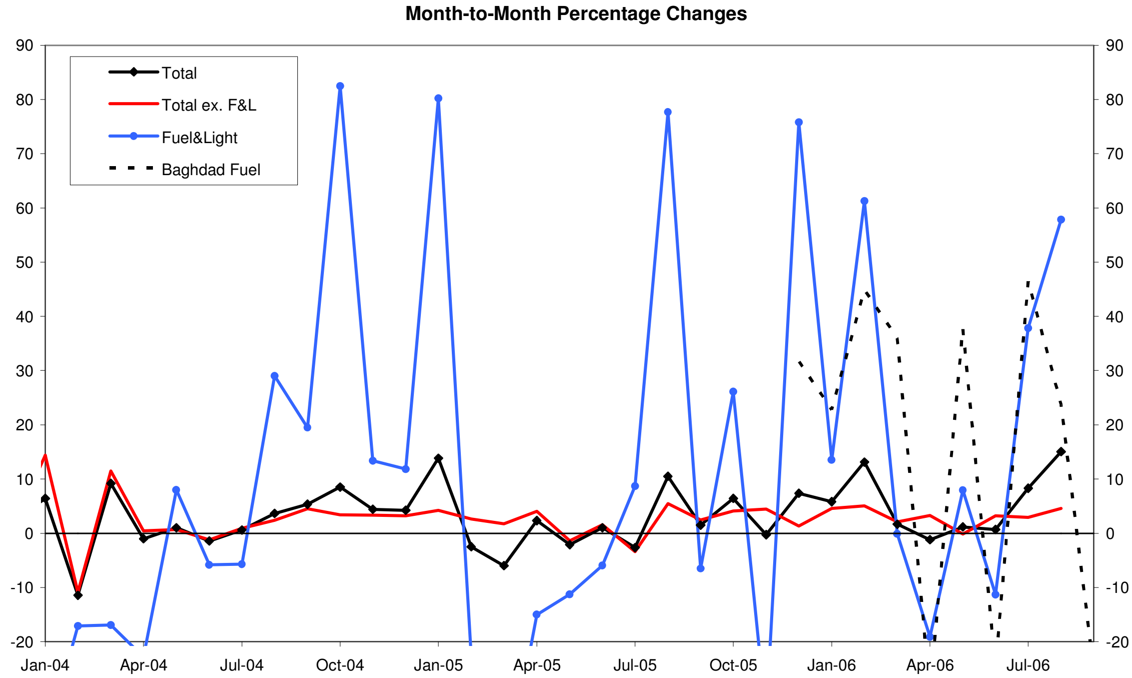
- Growth of externally financed government and donor domestic expenditures should be limited to rates that are non-inflationary.
- Price and trade liberalization, subsidy programs redesign, and market and economic development need to go forward to improve supply and living standards.

Inflation Analysis

CPI Data Summary

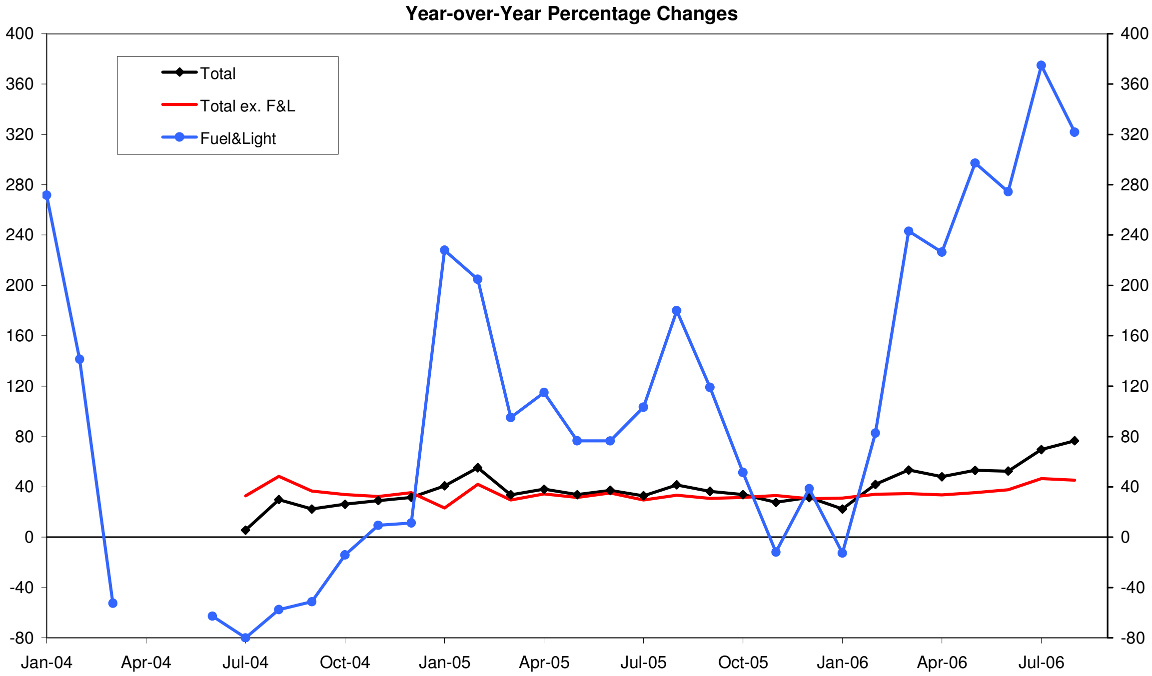
For August, the most recent month of available data, the month-to-month change in the CPI was 15.1 percent, which included a Fuel & Light increase of almost 60 percent. Without that component, the index rose 4.6 percent. Over the past two years, the CPI excluding F&L has generally remained in a (relatively stable) band between 0 percent and 5 percent.

As the following chart shows, the month to month variations in Fuel & Light are not only large, but volatile as well. Over the past two years, there have been several spikes in Fuel & Light that have been even larger than the recent one. Also apparent is that these spikes have been one-month increases, with the following month showing increases near or below the initial rate. However, the recent F&L spike is the only instance where it remained elevated, although lower, during the month following the spike. Furthermore, the rise in overall inflation in July and August is coming on the heels of four consecutive increases of less than 2 percent, during which time Fuel & Light increases were generally negative.

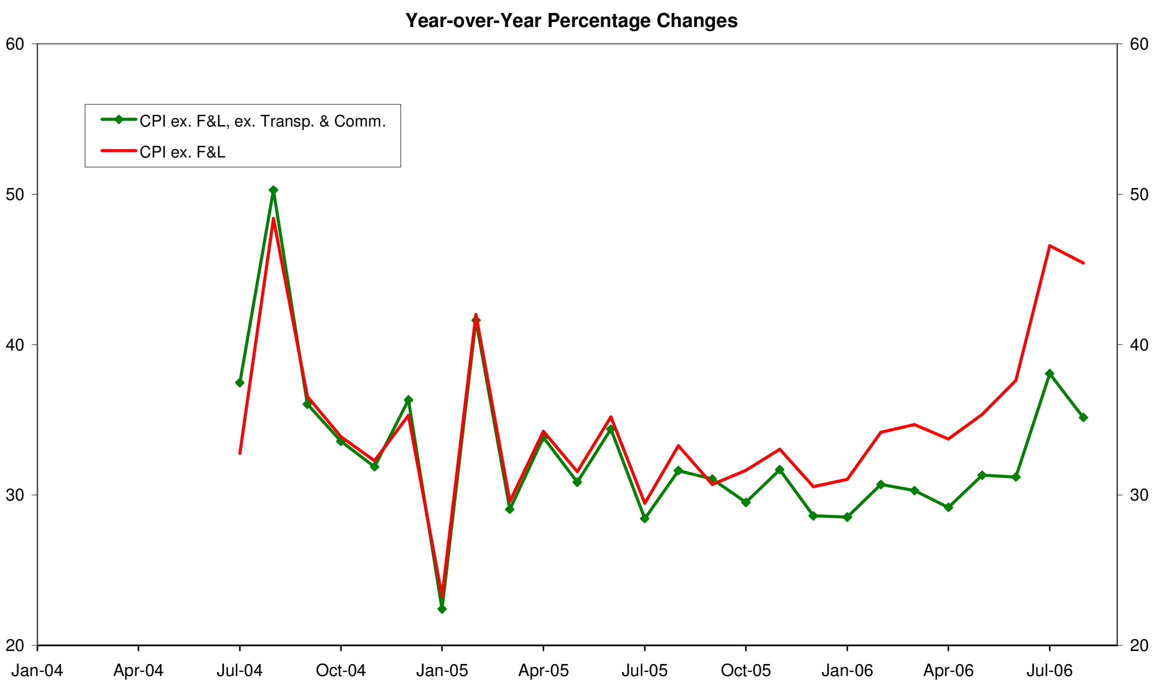


Also shown in the chart is the F&L component of the Baghdad Index (dotted line). While the magnitudes of this index differ from those of the CPI, the Baghdad Index does track changes of the CPI with a high correlation. More recent data is available for this index, and in September the Baghdad F&L slows further. If correlation between the two indexes continues, growth in the national F&L can be expected to slow in September as well.

On a year-over-year basis, an upward trend in the CPI seems to emerge. Over most of the series until January 2006, the CPI increases were generally in the 30 percent to 40 percent range, and then from February until June the rate was steady around 50 percent. However, in July the rate rose to 70 percent and then 77 percent in August. Meanwhile F&L increases have risen from about 250 percent at the beginning of the year to around 350 percent in late summer.



Removing another energy-containing component eliminates most of the recent surge. The following chart shows the CPI excluding F&L along with the CPI ex. F&L ex. Transportation & Communication. The recent peak in July and August remains, but it is no longer near a series high and no gradual rise from the beginning of the year is apparent.



The remainder of the recent pick-up comes from the heavily weighted (63 percent) Food Stuffs category, which of course is an energy intensive sector. Food Stuffs inflation exceeded 40 percent for the first time in July, but moderated slightly in August.

Weaknesses of the CPI

From a monetary policy standpoint, referencing either the ex. F&L or the ex F&L, ex. Transp. & Comm. probably makes more sense than the overall CPI. Obviously, the energy price increases will pass through to the other components, but what is driving the energy prices would seem to be supply-side factors rather than excess demand. Further, some of the reported increase in energy prices may be due to a change in the construction of the F&L component. It may be the case that COSIT is beginning to weight black market energy prices more heavily than in the past. A change in these weightings could be causing discrete jumps in the index.

The component weights used in the calculation of overall CPI have not been updated since the series began in 1993, and thus may be in need of revision. For example, the current weight on F&L of 2.1 percent seems quite low, while the Food Stuffs weight of 63.2 percent may be high. However, with F&L currently recording the highest inflation, any upward adjustment of its weight will only raise the overall rate. It is clear that the existing CPI is a defective measure of inflation and some priority should be given to improving it (modernizing the basket components and weights).

Recent Data Release[3]

The September CPI release shows a pause or possibly slight easing in the upward trends begun earlier in the year and reinforces the pattern of sharp spikes in the F&L component. It is likely that the energy portions of at least three components continue to boost Total CPI inflation, pushing it above the 30 percent range.

In September, year-over-year inflation eased somewhat from the previous month. Compared to last September, Total CPI inflation was 52 percent, while the CPI ex. F&L rose 38 percent. On a month-to-month basis, the F&L component fell sharply bringing the CPI inflation rate down to -13 percent. Other components also declined, however, and excluding F&L, CPI growth fell to -2 percent.

[3] The September CPI was released too late for complete inclusion in this report.

Policy Recommendations

Monetary Policy

Year on year inflation has risen from 22% at the beginning of the year to 77% in August. Even "core" inflation has increased from the roughly 30% rate of the last few years to 35% in August.

The increase in M2 in July over the year earlier level was 34%, up from the 27% rate the month before. This growth was largely in the deposit component of M2. The growth in the currency component of the money supply has slowed fairly steadily from around 50% (year on year) in early 2005 to 15% in July 2006. In contrast, the growth rate of the deposit component of M2 slowed fairly steadily from 123% in January 2005 to about 10% at the end of that year and increased steadily thereafter to 62% in July.

Real (inflation adjusted) money balances have either declined slightly (core inflation) or quite a lot (total CPI inflation). If the degree of dollarization has increased, the total effective money stock (ID and USD) will be relatively larger than measured by M2 alone. The possibility that the decline in the real value of (ID) money resulted from increased dollarization is not supported by the modest growth in dollar deposits. After increasing from nothing to about one to one the last quarter of 2005, the ratio of dollar deposit to the deposit component of M2 has more or less steadily declined to below 0.6 in July. Dollarization could be taking place in the form of cash but this can not be measured. From the beginning of this year through the end of September, the CBI sold U.S. dollar cash (bank notes) in its daily FX auction amounting to 8.8 billion USD, but it is not known what amount of that has stayed in the country.[4] Furthermore, dollars and other foreign currency cash can enter the country in other ways as well.

An alternative or supplemental explanation is that the public's expectations of future inflation have increased. Real money balances traditionally decline (velocity increases) when the public's inflationary expectations increase (and thus desired real balances decline).

Raising interest rates on Dinar assets to positive real (inflation adjusted) levels would tend to counter and reduce (though very slowly) dollarization as well as lower inflationary expectations. Thus a significant increase in interest rates is called for whether the decline in real balances is from either source.

With a monetary policy of targeting the exchange rate—the Dinar/dollar rate has been within a few points of 1475 for the past two years—the CBI has little control over the

[4] Interestingly, in May the CBI introduced the possibility of settling dollar sales in the auction by deposit transfer. A premium was added to cash settlements to reflect the higher cost to the CBI of dealing in cash. The share of deposit transfer settlements of the total rose from 15% in May to 47% in September.

money supply. In the underdeveloped state of Iraq's banking sector, this is particularly true of the currency component of M2. The available evidence suggests that the CBI's failure to reduce bank liquidity, and hence bank credit and deposit growth, sufficiently to establish positive real interest rates is a contributing factor to inflation rates that are otherwise largely driven by supply factors (such as oil prices and insurgency related supply interruptions), and the economy's need for a real appreciation in the face of large oil revenues and donor inflows into Iraq. To the extent that these dollar inflows are not spent or invested abroad, they must be absorbed by increased money demand or contribute to dinar inflation.

In short, the CBI could better utilize its limited control over monetary conditions to raise ID interest rates to positive real levels and to satisfy more of the market's desire to appreciate the real exchange rate through a modest increase in the nominal exchange rate. It should also more convincingly demonstrate to the public its control of the situation (to the extent possible) by more regular and extensive explanations to the public of price developments and what the CBI is doing in light of them.

In particular, the CBI should significantly increase its policy and related interest rates to positive real levels. Given the fragility of Iraq's financial "markets", this increase should be gradual but rapid enough to signal serious intent to the market. A relatively large initial increase followed by more modest increases would capture attention. Depending on the outcome of the CPI for September, the CBI might double its current Policy (and related) rates from 12% to 24% or increase it more modestly if the inflation picture improves significantly. This should be followed by more modest monthly increases until rates are positive in real terms.

The Iraqi economy has been experiencing a significant appreciation of its real exchange rate for several years. This need results from a number of factors but is dominated by large domestic expenditures of foreign capital (oil revenue, donor project financing, foreign military expenditures, etc) that exceed the domestic economy's absorptive capacity. The real appreciation encourages larger imports and reduced exports in an effort to counter excessive domestic demand. A real exchange rate appreciation can take place by appreciating the nominal exchange rate or by domestic inflation. A modest increase in the pace of the recently initiated slow appreciation of the dinar would allow the real appreciation to continue with lower inflation. An appreciation is a clearly visible signal to the market that the CBI is combating inflation. Significant or rapid changes in the exchange rate are not without risks, however. Up to this point the exchange rate has been the clearest and most stable anchor of inflation expectations.

The expansion of the t-bill market is more a matter of financial market development than inflation fighting and thus changes in current issue programs should probably wait for some months until the inflation environment has improved. For bill market development purposes and bank liquidity management purposes (and ultimately for the improvement of the transmission of monetary policy), the stock of bills implied by the existing issue programs should be increased. It is preferable for a given level of central bank liquidity absorption that it take the form of marketable securities rather than fixed term deposits. Ideally all bills should be issued (in a limited number of maturities) by the MOF. The MOF has no financing need to issue bills currently, thus the revenue from any expansion of MOF bills would need to be impounded in government deposits with the CBI. Currently the MOF is unwilling to undertake this activity, which has led the CBI to issue its own bills. With two issuers of government bills close coordination is desirable for healthy market development. Traditionally, when both the MOF and the central bank issue bills, the central bank issues bills with shorter maturities and the MOF issues bills with longer maturities. The management of the two dominant state owned banks should also be instructed by their owner (MOF) to manage their liquidity and participate in interbank and bill markets competently and on a commercial basis.

The effectiveness of the CBI's efforts to reduce inflation will also depend importantly on the effectiveness of its communication to the public of the policy measures it is taking. On the occasion of each month's announcement of the CPI, the CBI should issue a statement of its interpretation of the latest inflation data and its responses (if any) and how these responses are expected to address the inflation situation.

Fiscal Policy

On the fiscal and structural side, the inflow and domestic expenditure of oil revenue and donor funds should be limited to the economy's absorptive capacity, and the GOI should continue to liberalize petroleum imports, energy prices, and investment laws to augment supplies of goods in the market and thereby relieve price pressures. These and related very important fiscal aspects of inflation are not further addressed here.