THE PHASED REDUCTION IN THE CASH RESERVE RATIO OVER 9 MONTHS

High interest rates have been a major feature of the macro-economic imbalance in the Jamaican economy for the past four years.

Both high and low interest rates have major benefits for the economy and both also have major costs to the economy. The aim then is to strive to achieve an interest rate which balances the costs and benefits to the Jamaican economy in order to stimulate growth. The major benefit of high interest rates is on the deposit rate side. Deposit rates higher than the inflation rate help to mobilize savings which will add to the pool of available loanable funds in order to foster investment. On the other hand however, deposit rates below the rate of inflation discourage savings resulting in financial repression, which discourages investment because of unavailability of enough loanable funds.

Whenever investors are looking at interest rates, they look at the real interest rate. Investors are interested in the real return on their investment(ie how much it can buy in goods and services). The real interest rate is the nominal interest rate less the expected inflation rate. In setting interest rates what is looked upon is the expected inflation rate.

High lending rates have the disadvantage of discouraging investment. A project which might be profitable with lending rates of between 28%-35% may definitely not be profitable with rates of 45%-60%. So only exceptional projects can be financed at these high levels of interest rates. It is important to note that Jamaica does not have many exceptional projects to be undertaken and so these high interest rates do not support the basic investment needs of Jamaican investors. What Jamaica has at the moment is both high lending rates - discouraging investment - and low savings rates - discouraging savings.

The interest rate in Jamaica's financial system is lopsided, small savers are given negative real return on their savings while large savers are given very positive return on their savings. What one finds happening is that large savers are encouraged to save while small savers are not. With high lending rates and low savings rates the spread between lending and saving rates is very large. This presents a situation where the small surplus units in the Jamaican economy are not accumulating the capital which is needed for investment and growth.

The root cause of this conflicting situation is Government's high interest rate policy and the tools it uses to achieve and maintain this policy. On the lending side the main tool used by Government is a high liquid asset reserve's ratio (which is presently 47%)of the deposit liabilities of commercial banks. This ratio is made of 22% non-cash reserve and 25% cash reserves. The non-cash reserves are mainly held in the form T-bills and LRS which earn interest while the cash reserves are held in BOJ's vault and earn no interest. The cash portion of this ratio is therefore critical to the determination of lending rates in the commercial banks.

As at February 1996, there were J$63 billion worth of J$ deposits in the commercial banking system. This means that J$15.7 billion of commercial banks' deposits were sitting in the vaults of Bank of Jamaica not earning interest. To compensate for holding this high portion of non-performing (sterile) funds on which they have to pay interest but earn nothing, the banks offer low deposit rates and charge high lending rates to earn enough to offset the overall costs. This is the underlying cause of the current high interest spread between deposit and lending rates and the resulting very high real interest rates that borrowers must pay. This scenario has served to deter investment and growth in the economy. However, the government continues with this policy in order to defend the present parity of the Jamaican currency and to neutralize the effect of its inability to control the money supply. It is noteworthy that inflation is affected by the growth rate of money supply not the money stock

2

because inflation itself will reduce the value of that money stock.

In 1996, money supply growth for the first four months of this year is estimated at 0.53%. The government claim that because of this and the deepening of the foreign exchange market the inflow of foreign currency has increased significantly and this explains why the Jamaican dollar has revalued.

But a revaluing dollar causes a lot of hardship on our export sector which is the only sector which can drive growth in real terms in Jamaica. In recognition of this the central bank has recently been buying up some of this excess foreign currency in the.system and stabilizing the exchange rate.

The following proposal it is hoped will both stabilize the exchange rate and get the economy growing again or at least enable some Jamaican companies to retool and re-equip and position themselves for the global competitive market.

THE PROPOSAL

AIM: To reduce lending interest rates and encourage growth in the economy without increasing the inflation rate or destabilising the exchange rate.

METHOD TO ACHIEVE THIS OBJECTIVE

This will be accomplished reduction in the cash reserve ratio over a period extending nine months. This involves a 4% reduction every three months for a period of nine months. This (based on research and economic model being done) would have the impact of reducing lending rates by between 4.8% and 5% every three months.

This reduction in lending rates would not have any significant impact on deposit rates based on models and statistical estimation done by the PSOJ and effective interest rates would be

still competitive enough to attract foreign inflows and encourage savings.

A 4% reduction in the cash reserve would release J$2.51 billion into the system which would, based on the current money multiplier (supplied by BOJ and verified in-house), cause an increase in money supply (M2) of 6.019 billion J$ spread over a three months period which would mean an average increases in money supply over the three months of 2.8% per month. This would be the case without the C.N.B closure by the Ministry of Finance. The C.N.B.closure will affect the outcome of this proposal in the following ways:

1.   It will increase the currency to deposit's ratio of the non-banking public. This will be so because the ordinary non- banking public will hold a high proportion of currency relative to deposits. This in effect will reduce the money multiplier of the Jamaican economy because this will reduce the stock of deposits in the banking system for the banks to lend out. To deal with the tide of withdrawals, banks in turn will begin to try to bobster their reserves, raising the reserve ratio (including excess reserves) and this will further reduce the money supply.

2   The closure of C.N.B. will effectively reduce the monetary base of the banking system by about three billion J$. This reduction in the base will, over a three to five month period, result in a J$7.2 billion reductions in the money supply. This would make the current tight liquidity scenario of the financial system worse and many other banks and non-banking firms will be in serious cashflow problems.

This has already been seen as on the BOJ Balance Sheet dated July 10, 1996,notes and coins in circulation have increased from J$9,031,248,000 to J$ 9,402,889,000 while deposits at BOJ from commercial banks decreased from J$ 22,746,966,000 to J$ 22,403,017,000. This is already showing these massive movement in just 14 days. If the central bank does not do something to rectify the situation then the amount of deposits in the banking system will be

4

reduced even further. This will reduce the stock of loanable funds which along with an increase demand for loans by businesses which have deposits at Century National Bank. This increased demand for loans and decreases supply of loanable funds will causes a real interest rate to increase, this will cause the J$ to continue revaluing putting more pressure on the export sector of the Jamaican economy. This high real interest rate will cause banks to have a higher portion of non-proforming loans which will put small financial institutions in further trouble. Jamaica can ill afford another bank closure because then the damages would be irreparable.

The authorities need to be reminded that the money creation process does not work in one direction and that just as an increase in the money base can cause multi increases in the money supply so too a decrease in the base money can cause multi decreases in the money supply. This then does not argue well for the real economy. The likely impact will be further closure and downsizing of organizations and the resultant increase in unemployment

Hence in light of all these developments the increase in the money supply as a result of the adaptation of the above-mentioned proposal would still result in a net decrease in the money supply of 1.008 billion J$ in the first three months of this proposal as the contractionary impact of C.NB.'s closure would be greater than the expansionary impact of the cash reserve reduction.

In addition to that is the fact that liquidity is very tight and government has reached its targeted level of NIR and hence has no need to create money to buy foreign currency - see graph three for relationship between NIR accumulation and money supply growth.

Over this 9-month period, assuming that banks behave rationally, commercial banks lending rates would have been reduced by between 12% and 15%, without the negative side effects

of high inflation and an unstable exchange rate.

This adjustment would have the effect of allowing fewer funds to remain sterile, while increasing the level of loanable funds to the banks, resulting in less pressure to uphold high lending rates, while not significantly reducing deposit rates. In this way Jamaica could have the benefit of lower lending rates that would allow for some investment and growth along with relatively attractive deposit rates that would encourage saving and foreign currency inflows hence contributing to the pool of available loanable funds and a stable exchange rate.

There would be more stability in the banking system and the decreased likelihood of a deterioration in the level of non-performing loans, reducing the risk of the financial system falling apart. The economy would also be put on the road to growth in a timely manner without any significant increase in inflation.

ADDITIONAL MEASURES

1.   In light of the fact that the projected target for the NIR has already been met, the central bank should not continue to buy the current portion of foreign exchange from the commercial banks, authorized Dealers and Cambios. This will in fact reduce part of the source of increases in the money supply as the following graph shows NIR growth and the growth of money supply are highly correlated. When the central bank buys foreign currency, the J$ it pays increase the supply of J$ to the public and constitute high powered money. After the initial three months period is up and the second phase of the reduction is implimented it will result in some net increases in the money supply.

2.   If there is any apparent pressure on the exchange rate, the government should sell

some of its NIR. This would have the twofold effect of decreasing the money supply - because when the BOJ sells foreign currency it takes in J$ - and increasing the supply of foreign currency to the foreign exchange market thus releaseing some of the pressure on the exchange rate.

3.   The government should continue to limit the avenues for money creation by reducing its borrowing from the central bank.

4.   Tight fiscal management is needed not only of central government but also of other government agencies and statutory bodies.Genuine fiscal surpluses should be generated to take funds out of the financial system to be sterilised in the BOJ.

TECHNICAL ANNEX

(1) *Lending Rate:*

The sensitivity of lending rates to major macroeconomic variables for the period 1990-95 is estimated based on monthly data from the Bank of Jamaica Statistical Digest. The Regression analysis is based on the following model.

$$WLR = \acute\alpha_1 + \acute\alpha_2 CPI + \acute\alpha_3 CPI\text{-}1 + \acute\alpha_4 CPI\text{-}2 + \acute\alpha_5 CPI\text{-}3 + \acute\alpha_6 CMS + \acute\alpha_7 CMS\text{-}1 + \acute\alpha_8 CMS\text{-}2 + \acute\alpha_9 CRR + \acute\alpha_{10} LAR + \acute\eta$$

WHERE

$\acute\alpha_1$	INITIAL CONDITIONS
CPI	CURRENT MONTH CHANGES IN CPI
CPI-1	LAST MONTH'S CHANGES IN CPI
CPI-2	TWO MONTHS AGO CHANGES IN CPI
CPI-3	THREE MONTHS AGO CHANGES IN CPI
CMS	CURRENT MONTH CHANGES IN M2 MONEY SUPPLY

CMS-1	LAST MONTH'S CHANGES IN M2 MONEY SUPPLY
CMS-2	TWO MONTHS AGO CHANGES IN M2 MONEY SUPPLY
CRR	CURRENT MONTH CASH RESERVE RATIO
LAR	CURRENT MONTH LIQUID ASSET RATIO
$\acute{η}$	RANDOM ERROR
WLR	WEIGHTED LOAN RATE OF COMMERCIAL BANKS

The following is the estimated equation.

$$WAR = 1.55 + 0.0585CPI + 0.119CPI\text{-}1 + 0.194CPI\text{-}2 + 0.2265CPI\text{-}3 - 0.00003CMS$$

$$(0.428)\ (0.859) \quad (1.501) \quad (2.422) \quad (3.1) \quad (-0.799)$$

$$-0.00003CMS\text{-}1 - 0.0005CMS\text{-}2 + 93.2CRR + 27.87LAR$$

$$(-0.075) \quad (-1.361) \quad (4.661) \quad (5.821)$$

$$R\text{-}SQ = 0.9$$

t-stat in parenthesis

(2) *3-6 months deposit rates of commercial banks:*

The regression analysis is based on the following model.

$$DR = \acute{α}_1 + \acute{α}_2 CMS + \acute{α}_3 CMS\text{-}1 + \acute{α}_4 CMS\text{-}2 + \acute{α}_5 CMS\text{-}3 + \acute{α}_6 CPI + \acute{α}_7 CPI\text{-}1 + \acute{α}_8 CPI\text{-}2$$

$$+ \acute{α}_9 CPI\text{-}3 + \acute{α}_{10} LAR + \acute{α}_{11} CRR + \acute{η}$$

WHERE

$\acute{α}_1$	INITIAL CONDITIONS
CPI	CURRENT MONTH CHANGES IN CPI
CPI-1	LAST MONTH'S CHANGES IN CPI
CPI-2	TWO MONTHS AGO CHANGES IN CPI
CPI-3	THREE MONTHS AGO CHANGES IN CPI
CMS	CURRENT MONTH CHANGES IN M2 MONEY SUPPLY

CMS-1	LAST MONTH'S CHANGES IN M2 MONEY SUPPLY
CMS-2	TWO MONTHS AGO CHANGES IN M2 MONEY SUPPLY
CMS-3	THREE MONTHS AGO CHANGES IN M2 MONEY SUPPLY
CRR	CURRENT MONTH CASH RESERVE RATIO
LAR	CURRENT MONTH LIQUID ASSET RATIO
DR	3-6 MONTHS AVERAGE DEPOSIT RATE
ή	RANDOM ERROR

The following is the estimated equation.

DR = 6.08 -0.00219CMS -0.00154CMS-1 -0.0017CMS-2 +0.00008CMS-3-

   (0.894) (-3.161)   (-2.284)   (-2.423)   (0.104)

   0.0736CPI +0.062CPI-1 +0.28CPI-2 +0.538CPI-3 +7.96LAR +65.75CRR

   (-0.581)   (0.419)   (1.878)   (3.936)   (0.89)   (1.761)

   R-SQ=0.59

   t- stat in parenthesis

(3) *Foreign currency inflow (monthly purchases):*

The regression analysis is based on the following model.

$$FCI = \acute{\alpha}_1 + \acute{\alpha}_2 TBILL + \acute{\alpha}_3 TBILL\text{-}3 + \acute{\alpha}_4 CPI\text{-}1 + \acute{\alpha}_5 CPI\text{-}2 + \acute{\alpha}_6 CAMBIO + \acute{\eta}$$

WHERE

$\acute{\alpha}_1$	INITIAL CONDITIONS
TBILL	CURRENT MONTH AVERAGE MONTHLY TBILL YIELD
TBILL-3	THREE MONTHS AGO AVERAGE MONTHLY TBILL YIELD
CPI-1	LAST MONTH'S CHANGES IN THE CPI
CPI-3	TWO MONTHS AGO CHANGES IN THE CPI
CAMBIO	DUMMY FOR THE INTRODUCTION OF CAMBIOS IN THE FINANCIAL SYSTEM
FCI	MONTHLY PURCHASES OF US$

$\acute{\eta}$	RANDOM ERROR

Note that other variables were included but they did not add to the predictive power of the model hence they were excluded from the final model estimated.

The following is the estimated equation.

$$FCI = 62.4 - 2.5TBILL + 2.035TBILL\text{-}3 + 2.02CPI\text{-}1 + 0.7184CPI\text{-}2 + 17.67CAMBIO$$
$$(7.61) \quad (-7.684) \qquad (8.913) \qquad (6.817) \qquad (2.307) \qquad (4.425)$$

R-SQ=0.84

t-stat in parenthesis

(4) *Exchange rates US$ to J$:*

The regression analysis is based on the following model.

$$EXRATE = \acute{\alpha}_1 + \acute{\alpha}_2 FOR\text{-}1 + \acute{\alpha}_3 FOR\text{-}3 + \acute{\alpha}_4 CPI + \acute{\alpha}_5 CPI\text{-}1 + \acute{\alpha}_6 CPI\text{-}3 + \acute{\alpha}_7 CAMBIO + \acute{\eta}$$

WHERE:

EXRATE	MONTHLY AVERAGE EXCHANGERATES OF US$ TO J$
$\acute{\alpha}_1$	INITIAL CONDITIONS
FOR-1	LAST MONTH'S US$ PURCHASES ON THE SPOT MARKET
FOR-3	THREE MONTHS AGO US$ PURCHASES ON THE SPOT MARKET
CPI	CURRENT MONTH'S CHANGES IN CPI
CPI-1	LAST MONTH'S CHANGES IN CPI
CPI-3	THREE MONTHS AGO CHANGES IN CPI
CAMBIO	DUMMY VARIABLE TO CAPTURE THE INTRODUCTION OF CAMBIO IN THE FOREIGN EXCHANGE MARKET
$\acute{\eta}$	RANDOM ERROR

Note that other variables were included but they did not add to the predictive power of the model hence they were excluded from the final model estimated. The model presented above is the refined model on which diagnostics have been done.

The following is the estimated equation

Exchange Rate: $21.936 - 0.036$ FOR-1 $+ 0.0224$ FOR-3

      (16.269)   (-2.047)   (1.304)

    $+0.2176$ C C.P.I. $+ 0.128$ C C.P.I. -1 $+ 0.042$C C.P.I. - 3

       (4.506)   (2.298)   (0.792_

    $+ 8.92$ Cambio

      (12.703)

                            R.Sq $= 0.93$

                            t-stat in parenthesis

(5) *Monthly changes in the Consumer Price Index*

The sensitivity of the C.P.I. in some major Macro-economic variables for the period 1990-1995 is estimated based on monthly data from the Bank of Jamaica Statistical Digest. The Regression Analysis is based on the following model.

$$C.P.I = \pi_1 + \pi_2 CM2 + \pi_3 CM2\text{-}1 + \pi_4 CM2\text{-}2 +$$

$$\pi_5 CM2\text{-}3 + \pi6 \, C.P.I - 1 + \pi_7 \, C.P.I. \text{-}2 +$$

$$\pi_8 \, C \, C.P.I. \text{-} 3 + \acute{\eta}$$

Where:

π_1	INITIAL CONDITIONS
C.P.I.	CURRENT MONTH CHANGES IN C.P.I.
C.P.I.-1	LAST MONTHS CHANGES IN C.P.I.
C.P.I. -2	TWO MONTHS AGO CHANGES IN C.P.I.
C.P.I. -3	THREE MONTHS AGO CHANGES IN C.P.I
CM2	CURRENT MONTHS CHANGES IN M2
CM2-1	LAST MONTHS CHANGES IN M2
CM2-2	TWO MONTHS AGO CHANGES IN M2
CM2-3	THREE MONTHS AGO CHANGES IN M2

$\acute{\eta}$	RANDOM ERROR

Note that other variables were included in the model but were left out because they did not add to the predictive power of the model. The model presented above is a referred model which was arrived at after diagnostic checks and correction made.

The following is the estimated equation:

$$\begin{aligned}
C.P.I = \quad & 1.04 \quad + \quad 0.00053\,CM2 \quad + \quad 0.00019\,CM2\text{-}1 \\
& (0.781) \quad\quad (0.741) \quad\quad\quad\quad\quad (0.293) \\
& + 0.0015\,C\,M2\text{-}2 - 0.00022\,CM2\text{-}3 + 0.58\,C\,C.P.I.\text{-}1 \\
& \quad (2.259) \quad\quad\quad (0.285) \quad\quad\quad (4.249) \\
& +0.377C\,C.P.I\text{-}2 - 0.182\,C\,C.P.I\text{-}3 \\
& \quad (2.503) \quad\quad\quad (\text{-}1.296)
\end{aligned}$$

$$R\text{-}sq = 0.93$$

t-stat in parenthesis

Ref: cshresrv.wpd (server wp6.1)
Dyan
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FINDINGS OF RESEARCH PROJECT ON THE FINANCIAL SECTOR WITH RESPECT TO INTEREST RATES, CASH RESERVES AND FOREIGN CURRENCY INFLOWS.

INTRODUCTION

In order to substantiate some of our apriori relationships the following models were formulated. All the models are Econometric models.

Model 1.

We sought to established the major determinants of the exchange rate.We used foreign currency infows laged one and three months and changes in the currrent month's C.P.I. and C.P.I. changes laged one and three months and a dummy variable to capture the introduction of cambios intto the foreign exchange market.

The exchange rate is negatively and significantly related to foreign currency inflows laged one month with of coefficient of -0.036. This means that a one million US$ increased in foreign currency inflows , with all other factors that affect exchange rates remaining constant(ie demand for foreign currency) would cause the exchange rate to appreciate by 3.6 cents.

The exchange rate is positvely and significantly related to changes in the monthly C.PI. of current month and laged one month. The coefficients are 0.2176 and 0.128 respectively.

The exchange rate is also positively and significantly related to the introduction of cambios in the foreign exchange market. This means that since the introduction of cambios the exchange rate has been on average $8.92 higher than before the introduction.

The two major factors affecting the exchange rate movement in Jamaica from January 1992 to March, 1996, are foreign currency inflows and changes in the monthly Consumer Price Index. These two variables together accounted for 99.92% of the variation in the exchange rate.This model shows that exchange rates are negatively related to foreign currency inflow and positively related to changes in the C.P.I.. For example if foreign currency inflow go up then the price of US$ goes down(the value of J$ goes up) while if the inflation rate increases then the price of US$ goes up (the value of J$ goes down).

Model 2

In this model we sought to establish the determinants of the three to less than six months deposit rates of the commercial banks.We used the following explanatary variables; current month changes in the money supply, changes in the money supply lagged one, two and three months, current month changes in the C.P.I., changes in the C.P.I. lagged one, two and three months,cash reserve ratio and non-cash reserve ratio.

13

Deposit rate for three to less than six months is significantly and negatively affected by changes in the money supply of the current month,and of one and two months ago .It is also significantly and positively affected by changes in the Consumer Price Index of three months ago.The coefficient for changes in the money supply for the current month , one and two months ago are -0.00219 ,-0.00154 and -0.0017 respectively.While the coefficient for changes in the C.P.I. of three months ago is 0.538.

This means that if the M2 measure of money supply should this month increase by one billion Jamaican dollars then three months down the road we would expect deposit rate to decrease by 2.19%. If the C.P.I. of three months ago should increase by 1% and all other things remain unchanged then we would expect that deposit rates should increase by 0.54%.

It is also important to note that there was no significant relationship between the deposit rates and cash reserve ratio nor the non-cash portion of the liquidity reserve ratio.

Model 3.

In this model we sought to establish the determinants of the weighted loan rates of the commercial banks. We used the following explanatary variables; current month changes in the money supply , changes in the money supply lagged one, and two months, current month changes in the C.P.I, changes in the C.P.I. lagged one, two and three months, cash reserve ratio and non-cash reserve ratio.

Weighted loan rates of commercial banks are significantly and positively affected by changes in the CPI of two and three months ago. The coefficient of two and three months ago are 0.19 and 0.25 respectively.This means that a 1% increase in the C.P.I. of two months ago should increase the weighted loan rates of commercial banks by 0.19%. While a 1% increase in the C.P.I.of three months ago should increase the weighted loan rates by 0.23%.

The weighted loan rates of commercial banks are also significantly and positively affected by both the cash and non-cash reserve portions of the liquidity ratio. The coefficient of the cash and non-cash portion of the liquidity ratio are 93.2 and 24.87 respectively. It is important to note that the unit of measurement is decimal.This means that a 1% decrease in the cash reserve ratio of the commercial banks would decrease the weighted loan rates by 0.932%. While 1% decrease in non-cash reserve ratio would decrease the loan rates by 0.278%.

This model captures 90.26% of the movement of the lending rates over this period under study.

Model 4.

In this model we sought to establish the determinants of foreign currency inflows.We used the following explanatary variables: current average T-bill rates and average T-bill rates lagged three months, changes in the C.P.I. lagged one and two months and a policy dummy for cambios.

Foreign currency inflows are significantly and positively related to T-bill rates lagged three months, changes in the C.P.I. lagged one and two months and a policy dummy to capture the significence of the introduction of Cambios. The coefficients are 2.035, 2.023, 0.718 and 17.67 respectively. It is also significantly and negatively related to the current month T-bill rate with a coefficient of -2.49.This model captures 84.228% of the movement of foreign currency inflows in the period under study.

This means that 1% increase in the T-bill rates of three months ago would increase foreign currency inflows by 2.03 million US dollars. While on average there are 17.67 million US dollars more in the system than before there were any Cambios.

Note the strange relationship between present T-bill rates and foreign currency inflows.

Model 5.

Im this model we sought to establish the determinants of the monthly changes in the Consumer Price Index. We used the following explanatory variables: current month's changes in the M2 measure of money supply, changes in M2 laged one two and months and a set of laged dependent variables laged one, two and three months (ie changes in monthly C.P.I)

The changes in the monthly C.P.I. is positively and significantly related to changes in M2 laged two months and changes in the C.P.I laged one and two months. The coefficients of are 0.0015, 0.58 and 2.503 respectively.This means that for example if last month's C.P.I. increases by 1% point then this month's C.P.I.will increase by 0.58% (assuming that all other things remain constant).

OTHER STATISTICAL TESTS
CORRELATION TESTS WERE DONE ON THE FOLLOWING PAIRS OF VARIABLES:

Exchange Rates vs Foreign currency inflows

Exchange rates are positively and significantly related to foreign currency inflows lagged three and four months and to leads of one, two ,three and four months. For lags of three and four months the correlation coefficients are .35 and .45 respectively. Also for leads of one, two, three and five months are .63, .67, .7 and .72 respectively.

This means that if the actual foreign currency inflows were high three and four months ago then there would be a 35% and 45% chance that there would be a depreciation of the Jamaican currency. Even if people expect foreign currency inflows to be high in the future there would be still a very strong possibility that the currency would depreciate. For example, if people expect foreign currency inflows to be high next month there would be a 63% chance that the Jamaicn currency would depreciate. Hence it appears that in the foreign currency market what matters is the current level of inflows and not past or future inflows of foreign currency.

Foreign Currency Inflows vs T-bill Rates

Foreign currency inflows are positively and significantly related toT-bill rates lagged one, two and three months.It is also negatively and significantly related to T-bill rates of a lead of three and four months.The correlation coefficients are .5, .46 and .38 respectively for T-bill rates lagged one, two and three months. For a lead of three and four months the correlation coefficients are .35 and .51 respectively.

This means that for example, if T-bill rates were high last month then there is a 50% chance that foreign currency inflows for this month would also be high. For leads, it means that after three months there is a 35% chance that high T-bill rates will not be suatained and foreign currency inflows will decrease while there would be an even greater possibility that after four months the trends in the economy would reverse themselves and foreign currency inflows would be low.

Foreign Currency Inflows vs Changes in CPI

Foreign currency inflows are positively and significantly related to changes in the CPI lagged two, three, four and five months and is negatively and significantly related to changes in the CPI of a lead of two, three ,four and five months. For leads of two, three, four and five months the correlation coefficients are .51, .49,.47 and .43 respectively. While for lags of two, three, four and five months the correlation coefficients are .34, .43, .50 and .51 respectively.

This means that for instance, if we had a high inflation rate last month there is a 34% chance that there will be an increase in the level of foreign currency inflows this month. This trend gets stronger the longer the lag period , for example if the inflation rate was high five months ago the there is a 51% chance that the inflows of foreign currency will be high this month.

For leads, it means that if people expect inflation to be higher two months from today, then there is a 51% chance that inflows will be low for this month. The probability decreases as the expectation horizon gets longer, for example if people expect that inflation will be high five months from today then there would be 43% chance that foreign currency inflows will be low for this month.

Data Source.

The data for the work were monthly data from January, 1990 to December, 1995. These were summary data taken from the Bank Of Jamaica's Statistical Digest.

Note.

All tests were done at the 95% confidence level.

LIMITATIONS:

1. Remember that all these results assume that all other things except the variable under consideration remain constant(unchanged).

2. Remember that all data used in this study are summary data for the economy as a whole and hence there will be variation for individual institutions in respect to these results.

Ref: a:\geopro1.wpd
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