# LIBERALISATION OF THE EXCHANGE RATE REGIME: LESSONS FROM THE JAMAICAN EXPERIENCE

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## Introduction

The performance of the Jamaican economy has been severely constrained by a shortage of foreign exchange over the past two decades. Since 1983 governments have placed increased reliance on market forces in an attempt to find a solution for the payments problem. In September of 1991, following a period of rapid depreciation of the exchange rate and declining currency inflows, the Government decided to proceed with legislation eliminating all exchange controls.

It was anticipated that liberalisation of the exchange rate regime would help stabilise the foreign exchange market, arising in large part from the positive impact it would have on currency inflows. The subsequent six month period was associated with continued massive instability in the foreign exchange market. Since April of1992 a combination of public and private sector initiatives have succeeded in stabilising the exchange rate.

In this paper a detailed analysis will be conducted of developments in the market over this period with a view to providing an explanation for the instability in the market. It will be argued that liberalisation of the exchange rate regime will not obviate the need for a strategy of exchange rate management.

The paper will be organised as follows. In the first section there will be a brief review of developments in the foreign exchange market in the months preceding liberalisation. The second section will be devoted to an analysis of developments in the market from September 1991 through March 1992, with special attention directed to the role played by speculators and the commercial banks in the performance of the market. In the final section an assessment will be conducted on the Jamaican approach to exchange rate management since April 1992 and the requirements for an effective strategy of exchange rate management in the Jamaican context.

The Foreign Exchange Market in the Pre Liberalisation Period

The spot market rate over the first quarter of 1991 remained fairly stable. Over the second quarter there was a 25 percent depreciation in the rate. As Chart 1 illustrates, the rate remained unchanged during the months of June and July. This was a reflection of a deliberate attempt on the part of the commercial banks, the administrators of the market, to effect a modest revaluation and stabilisation of the rate(Statistical Institute of Jamaica Economic and Social Survey 1991). This effort at stabilisation of the rate was short lived and over the subsequent six weeks there was an approximate 40 percent depreciation in the rate.

The rapid depreciation in the rate in the latter part of the third quarter is generally attributed to the consequences of inappropriate fiscal and monetary policy during 1991. Girvan,for example, pointed to the rapid growth in the money supply and credit to the private sector(Girvan,1992). The Statistical Institute also made reference to the role played by excessive public sector borrowing and what was deemed to be the premature reduction in interest rates on Treasury Bills and Certificates of Deposit(Economic and Social Survey 1991).

There was a steady decline in foreign exchange inflows to the market throughout the

CHART 1

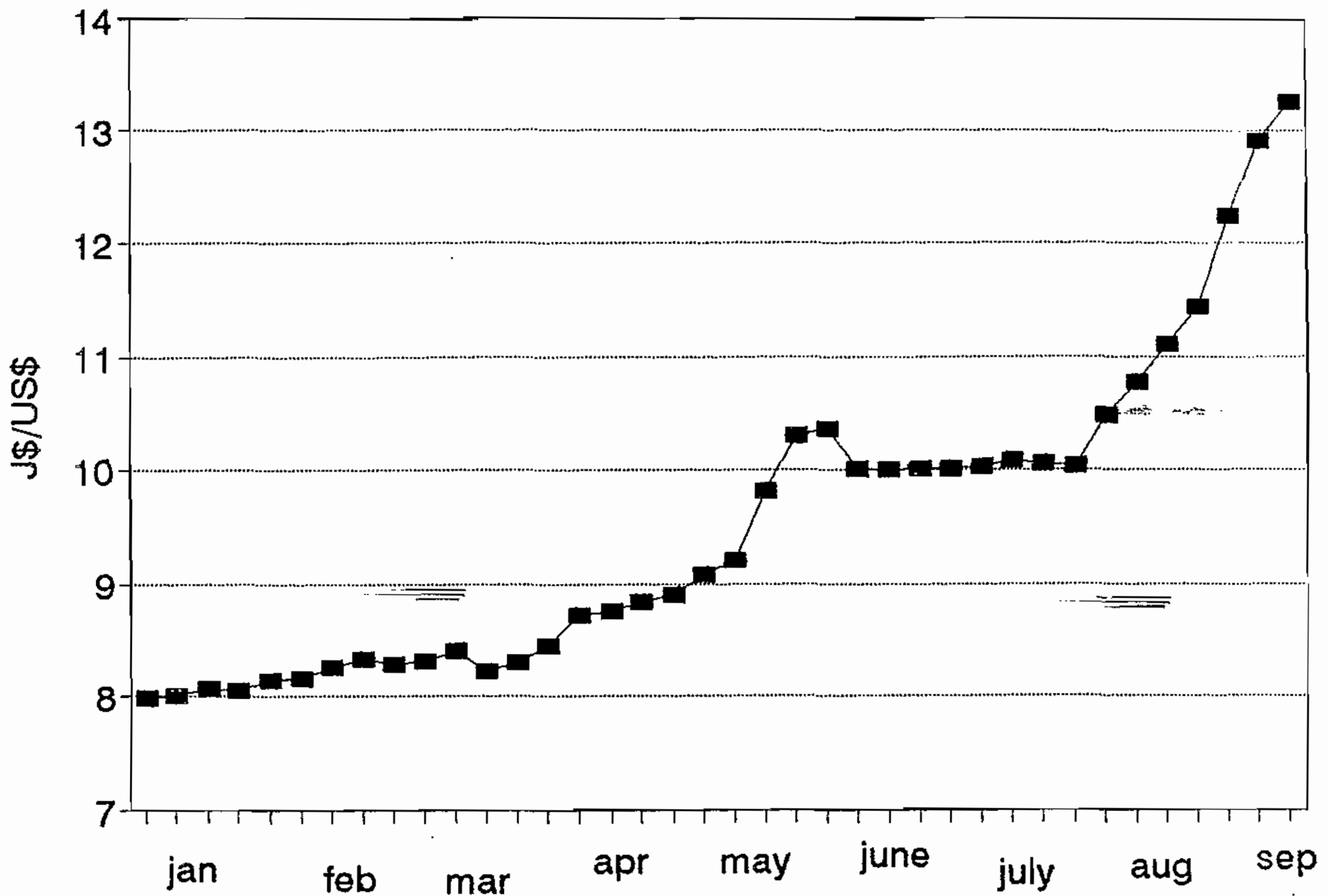
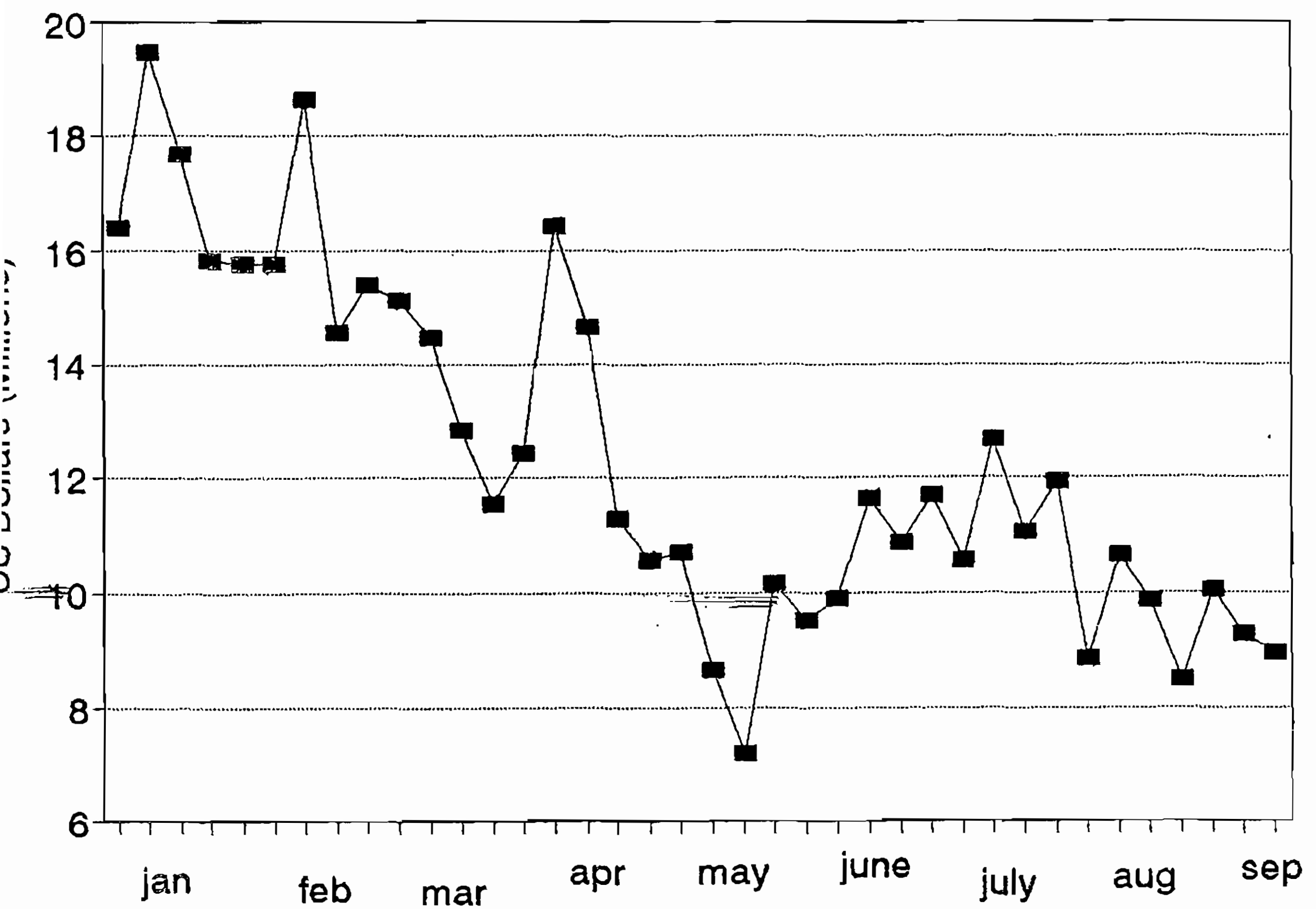


CHART 2

## Weekly Foreign Exchange Intake

### Week Ending Jan.4-Sep.20 1991



entire period. Chart 2 shows the weekly foreign exchange intake from January through September. The average weekly intake from mid July through to mid September was about 75 percent of what it had been in the earlier period.

It was indicated above that the rapid depreciation in the rate was attributed to the expansion of credit to the private sector. At the same time one would also expect the major decline in inflows to contribute to the depreciation in the rate. In order to assess the significance of these two factors on the rate the following equation was estimated.

$$\text{Log } y = A - b\log X + c\log X1 \qquad (1)$$

where log y=rate of change in the spot rate; logX the rate of change in inflows; logX1 the rate of change in credit to the private sector. The results, reported below, are based on twelve monthly observations from September 1990 to August 1991

$$\text{Log } y = \underset{(-3.73)}{-19.13} - \underset{(-0.586)}{-0.057\, X} + \underset{(4.276)}{2.417\, X1}$$

$R^2 = .64$; D.W.= 1.92

It would appear that changes in the amount of credit extended to the private sector had a major impact on the spot rate, while changes in inflows had no significant impact on the rate. We will return to the matter of the potential relationship between currency inflows and the rate at a later stage in the paper when emphasis will be placed on the role of expectations in the determination of the rate. The official view was that the combination of rapid expansion of credit, the reduction in interest rates and the rise in the rate of inflation helped to encourage a diversion of foreign exchange flows from the official market to the black market, as investors competed for funds in

an effort to secure foreign financial assets(Bank of Jamaica Annual Report 1991 )

It was against this background of an accelerating rate of depreciation of the exchange rate and a sharp decline in currency inflows, that a decision was taken to liberalise the foreign exchange market. The move was expected to introduce an important element of stability to the market for the following reasons. First, by providing residents with the freedom to hold foreign currency accounts, this was expected to encourage a repatriation of funds from abroad and ease the supply deficiencies. Secondly, the fact that the government sector would no longer have privileged access to foreign exchange meant that an increase in government requirements would not automatically reduce the amount available for the private sector.

The Post Liberalisation Period September 1991 to April 1992

The stability which the removal of exchange controls was expected to bring to the market was not realised during this period. As indicated in Chart 3, the weekly average spot rate continued to depreciate rapidly throughout the period. By December, the rate had depreciated by 25 percent. After a period of relative stability from January through to the middle of February ,there was a rapid depreciation in the rate over the subsequent eight week period. During that period there was a further 27 percent decline in the value of the currency. The end result was that the exchange rate which had stood at,approximately, J$ 13 per US dollar just prior to liberalisation, had risen to almost J$ 30 per US dollar by the second week in April.

Liberalisation did lead to an increase in currency inflows to the market. With the exception of two weeks in October, the weekly intake through the month of December ranged from 40 percent to more than a 100 percent above the intake during the month of August. However, as shown in Chart 4, the weekly intake after reaching a peak of US$ 24 million in

CHART 3

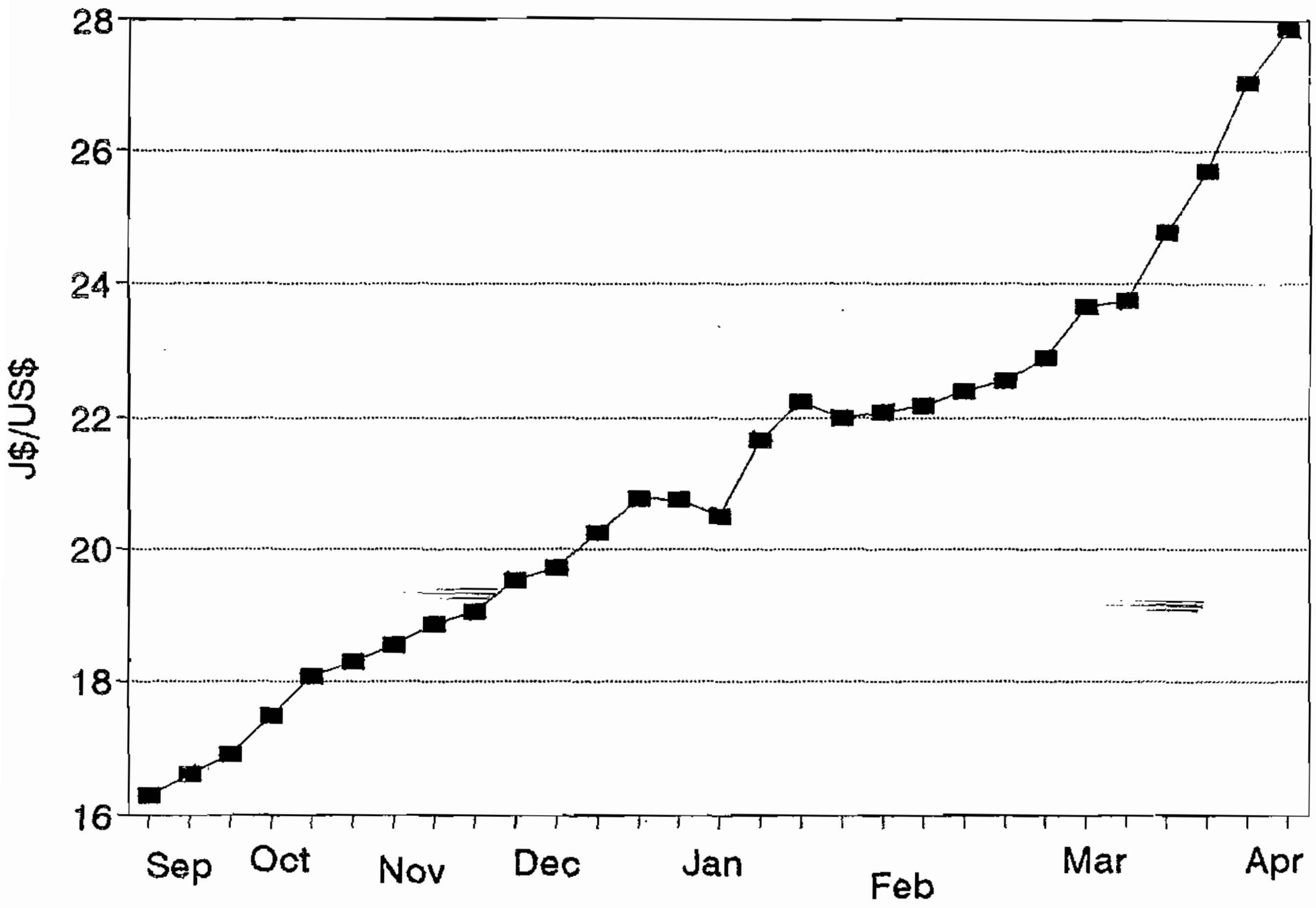
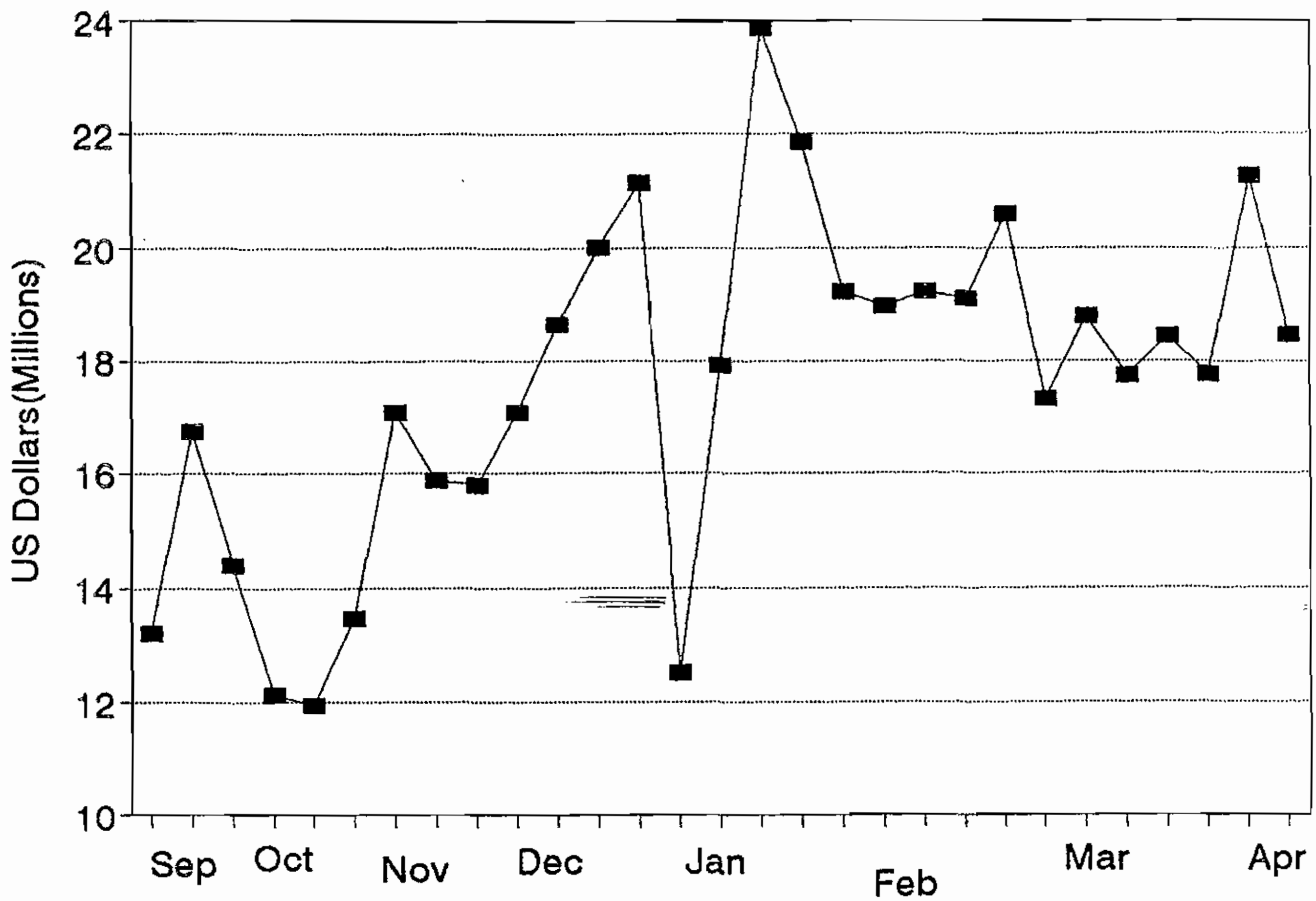


CHART 4



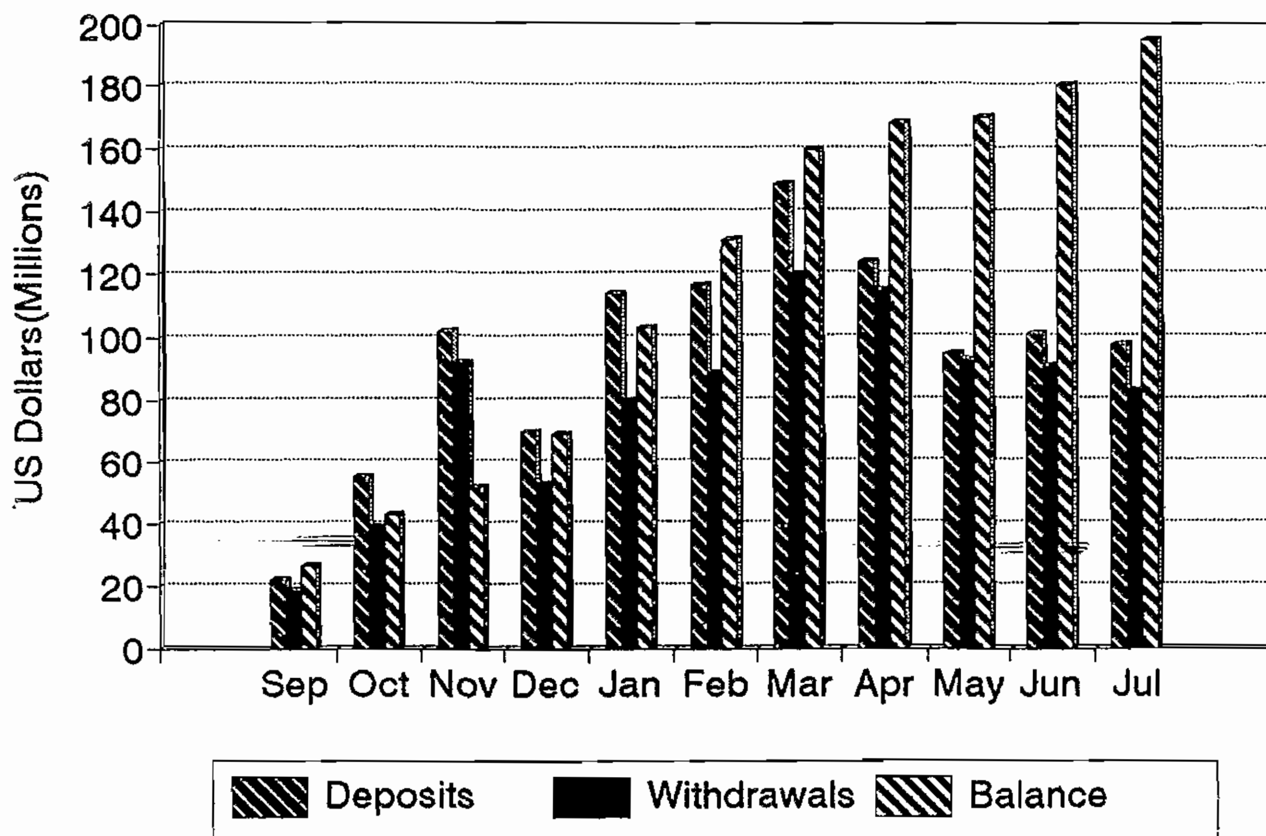
January declined rapidly and for most of the subsequent period ranged between US$ 17 and US$ 19 million.

The removal of restrictions on the right of residents to hold foreign currency accounts led to a rapid build up in balances in such accounts over the period. In five of the eight months from September through April, monthly deposits to these accounts exceeded US$ 100 million. By the end of April, the cumulative balance in these accounts had exceeded US$ 160 million. As Chart 5 illustrates, not only was there a rapid build up in balances in these accounts, there was also a rapid rate of turnover in the accounts. This suggests that many residents used these accounts as an alternative to the foreign exchange market. Those institutions which were regular earners of foreign exchange, and would have to meet foreign payment obligations on a regular basis, could avoid exchange risk and delays in receiving currency when required by depositing and withdrawing funds from theseaccounts.

During the months of February and March,withdrawals from these accounts exceeded the level of sales on the market. The foreign exchange market at that time played a decidedly secondary role in the settlement of the country's international payment obligations.

The existence of these accounts could potentially have a stabilising, or destabilising impact on the market. The stabilising influence could arise from the fact that as residents use these accounts to make payments, this should reduce demand pressure on the market. On the other hand, since a depreciating exchange rate would encourage residents to reduce their sales of foreign currency on the market and divert funds to these accounts, this would operate to increase market scarcities and accelerate the rate of depreciation of the rate. At the same time, the existence of these accounts provides an opportunity for speculators to bid for funds on the

CHART 5



spot market and hold them in these accounts for future sale. Since, as was indicated above, withdrawals from these accounts exceeded market sales during the months of February and March, this should have operated to reduce demand pressure. Yet this was a period of massive depreciation in the rate. In the next section an analytical framework will be formulated to provide insights into the reasons for the instability in the market during this period.

Analysis of Market Behaviour:Mid February-Mid April 1992

One of the unique characteristics of the foreign exchange market for a heavily indebted country like Jamaica, is the dominant role played by government as a buyer of foreign exchange. Since government requirements are usually satisfied on a priority basis, it is the residual balance which is available for satisfying private sector needs. In most instances this residual is unlikely to be sufficient for satisfying private sector needs. The availability of foreign exchange and expectations with respect to availability will play a major role in the performance of the market. On the other hand, advocates of market liberalisation often base their arguments on the assumption that price is the major factor governing the decisions taken by buyers and sellers in the short run.

Given the central importance of foreign exchange in virtually all aspects of production and consumption, foreign exchange is viewed as a prized financial asset. Consequently, expectations will play the major role in the decisions taken by buyers and sellers. The key to understanding market behaviour in this context will be the ability to identify the principal factors in the formulation of expectations.

As indicated earlier, the government is a major player in the market. The size of government foreign exchange requirements, as well as any information related to changes in these

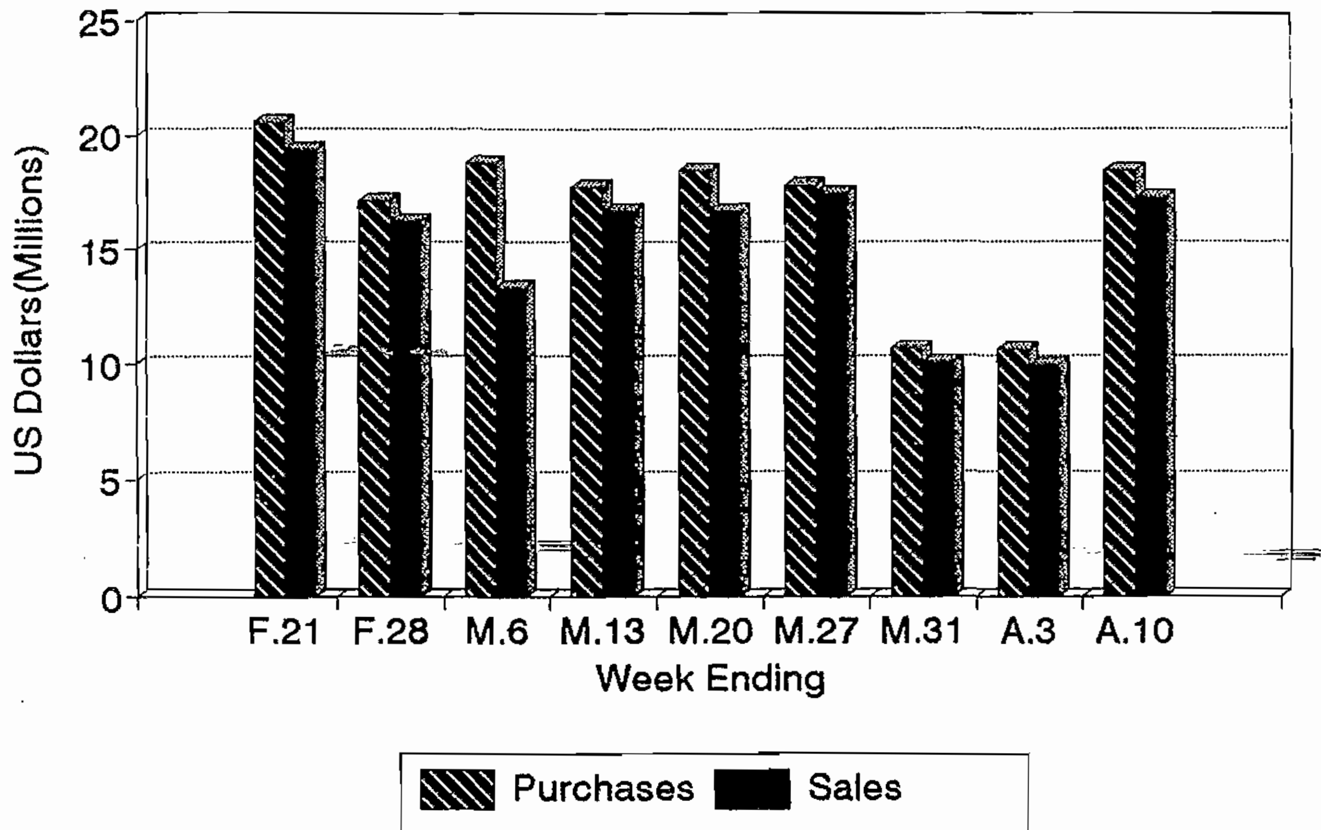
requirements, would influence expectations with respect to future changes in the exchange rate, since it would have a bearing on the amount of funds likely to be available for the private sector.

Market participants are also likely to formulate expectations based on such factors as immediate past movements in the exchange rate and the pattern of currency inflows to the market. This is a common feature of asset markets where immediate past trends tend to create a mood in the market which leads to an acceleration of such trends.

In pointing to the role of market trends in influencing expectations, it is important to give some consideration to the institutional framework within which the market operates. The commercial banks, the institutions which ran the market, were assured of being able to sell all the foreign exchange they were able to buy at a markup over their purchase price. Trading in foreign exchange was, potentially, a highly profitable activity for the commercial banks. Consequently, one ought not to view the role of the commercial banks as being that of neutral intermediaries. For example, in an attempt to enhance market share and hence profits earned from foreign exchange trading, their aggressive bidding for currency could establish a trend in rates which could, in turn, help to mould private sector expectations. During this period there were no major changes in public sector demands for foreign exchange. At the same time, as shown in Chart 6, purchases of foreign exchange by the banks exceeded their level of sales, yet the weighted average buying rate rose from J$22 to J$28 per US dollar.

The generally accepted view, as reflected in the media and official publications, was that the decline in the value of the currency was due to the activity of speculators, facilitate by an easing of credit conditions. After a decline in January and February,there was a major increase

CHART 6



in the amount of credit extended to the private sector during the month of March. As we indicated earlier, an easing of credit conditions was found to be a major contributory factor to the depreciation of the rate during 1991. Nevertheless, there was no direct evidence of the kind of demand pressure which could have caused the rise in the rate, given the fact that purchases of foreign currency consistently exceeded sales. The fact that deposits to foreign currency accounts reached record levels in those months could be interpreted as indicating an expectation on the part of the public of an imminent depreciation of the rate. However, if this was indeed indicative of speculative activity, it could not be linked to the depreciation since, as indicated above, withdrawals from these accounts exceeded the level of market sales. In essence, the rise in activity in these accounts while contributing to a decline in market inflows would also have been associated with a reduction in market demand.

It is also the case that during this period interest rates were at very high levels. Commercial bank lending rates exceeded fifty percent, while yields on government securities, such as certificates of deposits, were also in the fifty percent range. In light of these considerations, speculation in foreign exchange at that time would have been a costly activity. In Chart 7, a hypothetical illustration is provided of the potential differential in earnings from speculation in foreign exchange as opposed to investments in risk free securities, such as certificates of deposit. Speculative earnings were based on the average weekly rate of depreciation of the currency and on the assumption that speculators would be successful in timing their purchases and sales fifty percent of the time. On only two occasions would the speculative premium exceed one percent and in five of the nine weeks the risk free investment would have provided a higher rate of return.

If as we have argued, it is unlikely that the sharp depreciation in the rate which occurred could be linked to either speculative activity or overall demand pressure then the responsibility must rest with the operators of the market, the financial institutions. These institutions, faced with a decline in inflows to the market as individuals opted increasingly for holding their balances in foreign currency accounts, would be willing to bid ever higher prices for foreign exchange in order to support an activity which was a principal source of earnings. Their control over the market and the overall global shortage of foreign currency placed them in a position where they could be confident that higher purchase prices could always be passed on to buyers.

In order to derive further insights into the way in which the factors listed above may explain the behaviour of the market, the following model was estimated.

$$y= a+bX +cX1 \qquad (2)$$

where y=the rate of change of the daily weighted average buying rate, x=the rate of change in the daily inflows of currency,x1= the immediate past trend in the daily selling rate. The estimates were based on 40 daily observations covering the period from February 17 to April 13. The equation was estimated in logarithmic form as:

$$\ln y=a+b\ln X +c\ln X1 \qquad (3)$$

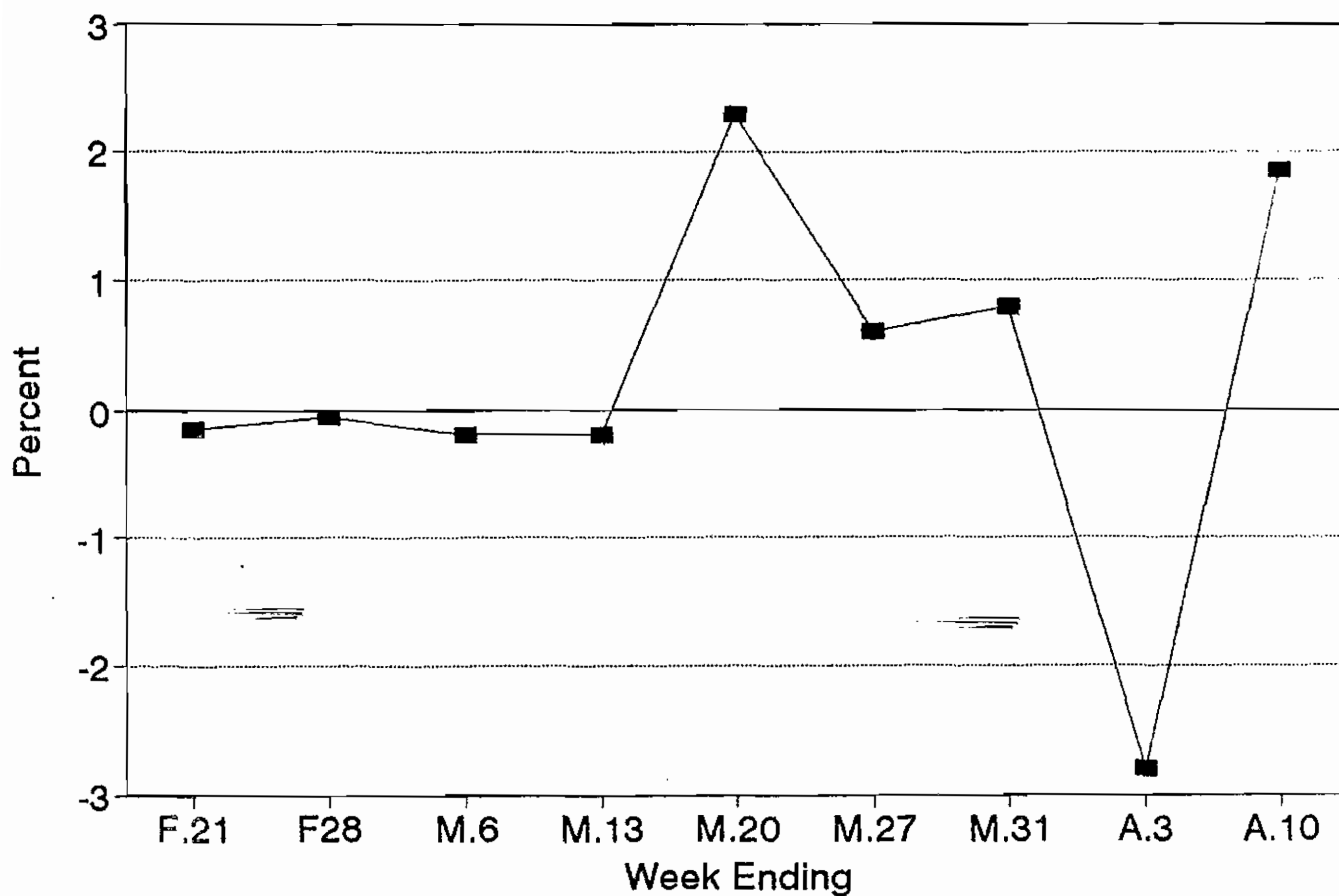
ln X1 which represents the immediate past trend in the selling rate is estimated as ln(X1-1/X1-3) while the other estimates are the logarithms of the change over one period.

The following results were derived.

$$\underline{.0043} + \underline{.0406X} + \underline{.3512\ X1} \quad R^2 = .62 \quad DW=2.13$$

$$(2.99)\quad (6.69)\quad (3.00)$$

CHART 7



The coefficient for the rate of inflow had a very low value and so although it was statistically significant, would not have been a major factor in the movement of the rate. The coefficient representing immediate past trends in the selling rate was highly significant. This might be interpreted as indicating that evidence revealing an absence of resistance on the part of buyers to higher rates would make the institutions less reluctant to bid higher prices for foreign exchange.

In summary, it would appear that the major depreciation in the currency which occurred during that period was most likely a reflection of interbank rivalry associated with their attempts to maintain and enhance their trading shares in a lucrative market. Their was no evidence to link the depreciation in the rate to the activity of speculators. The fact that the institutions responsible for administering the market could emerge during this period as a destabilising influence on the market, suggested the existence of a major institutional deficiency in the structure of the market. They were placed in a position where they could exercise effective control over price in a context where sales were always assured. The depreciation in the exchange rate was not a natural consequence of the operation of competitive market forces. It could more accurately be thought of as arising from institutions exercising their market power to serve their own interests. There was a need for a set of rules to govern the operations of the market to ensure that the public interest was protected. In the next section we will turn to a consideration of the initiatives announced in April of 1992 to ascertain the extent to which they addressed these deficiencies.

## Initiatives for Stabilising the Exchange Rate

On April 14 the Minister of Finance announced a series of measures which it was hoped

would work to stabilise the exchange rate. In an effort to introduce a greater measure of orderliness to the competitive bidding for foreign exchange, each authorized dealer was required to announce a fixed buying and selling rate at which all transactions would be conducted during the course of each business day. In addition, foreign exchange dealers were required to limit the margin between buying and selling rates to a maximum of one and one half percent. Along with these changes, the Bank of Jamaica commenced to issue daily directives to the commercial banks stating the maximum price it would pay for foreign exchange bought to meet debt service requirements.

The first measure, the requirement that dealers announce fixed daily buying rates was designed to limit the bargaining power of sellers of large blocks of foreign currency. It had been a common practice in the past for large sellers to bargain aggressively for the highest possible rates. This had resulted in such absurd occurrences as two transactions of equal value being settled at different prices at the same bank during a single trading period. The other measures, regulating the spread between buying and selling rates and the Bank of Jamaica declaration of a fixed daily buying rate, would impose some limitation on the banks' monopoly price setting power. Since, as a result of these measures, the banks could no longer expect to automatically adjust selling prices to offset higher purchase prices, they would now be more willing to resist the pressure for higher prices from large sellers.

At the time these measures were announced in April, the amount of foreign exchange required to satisfy Government's debt service obligations would have absorbed 28 percent of the daily inflows of foreign currency to the system. Although the Government, officially, was on an equal status with other participants in the market, there was a general understanding that the

Government's debt service obligations had to be met. Accordingly, since they were obliged to turn over to the Bank of Jamaica this large block of foreign currency at a price which it had predetermined, the day to day level of the rate would be effectively controlled by the Bank of Jamaica. The Bank of Jamaica was placed in a position where it could exercise its influence in the foreign exchange market to prevent a serious misalignment of the rate and thus protect the economy from the negative inflationary and income consequences of such a misalignment. This was the type of change in the institutional setting which could, potentially, provide a greater measure of protection for the public interest.

Apart from these official initiatives, there were two major private initiatives which arose out of a growing concern with the devastating impact of the rapid fall in the exchange rate on personal income. Both of these initiatives were designed to effect a revaluation and eventual stabilisation of the currency. The "Stewart" initiative, announced in mid April, involved a commitment on the part of Stewart, a major local business personality, to sell one million US dollars each week at a price which was substantially below the market rate at that time. There was, also, the "Save the Dollar" initiative promoted by leading media personalities, which was designed to encourage members of the public to stop hoarding foreign currency and to sell all their holdings on the official market.

Market Performance Since the Stabilisation Initiatives

In the three month period following the initiatives there was a significant appreciation in the exchange rate. As indicated in Chart 8, the selling rate fell from just under J$28 per US dollar, following the initiatives, to just over J$22 by the end of the second week of July. It has remained at that level to the present time,October,1992. There was also an increase in inflows

CHART 8

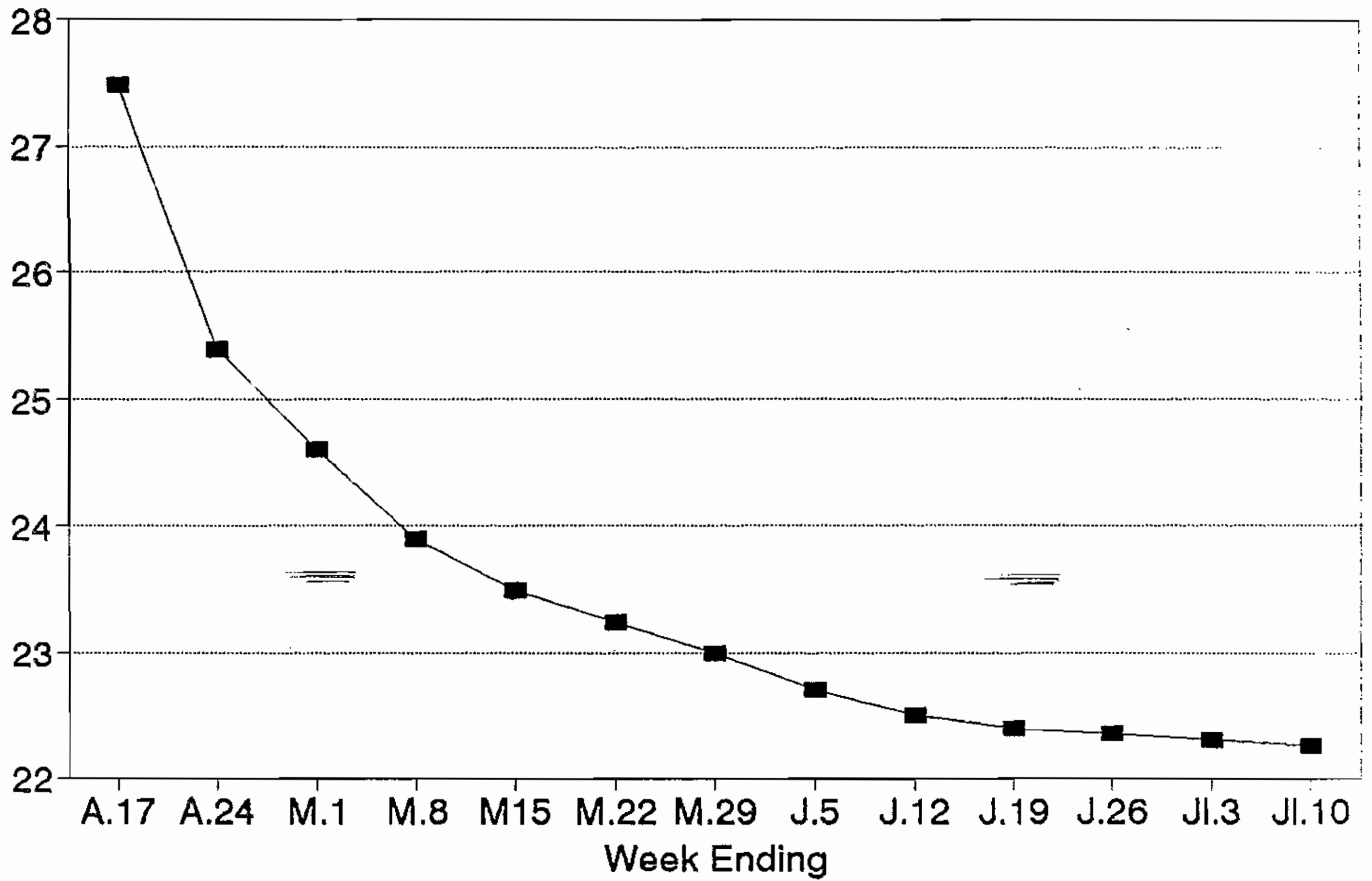
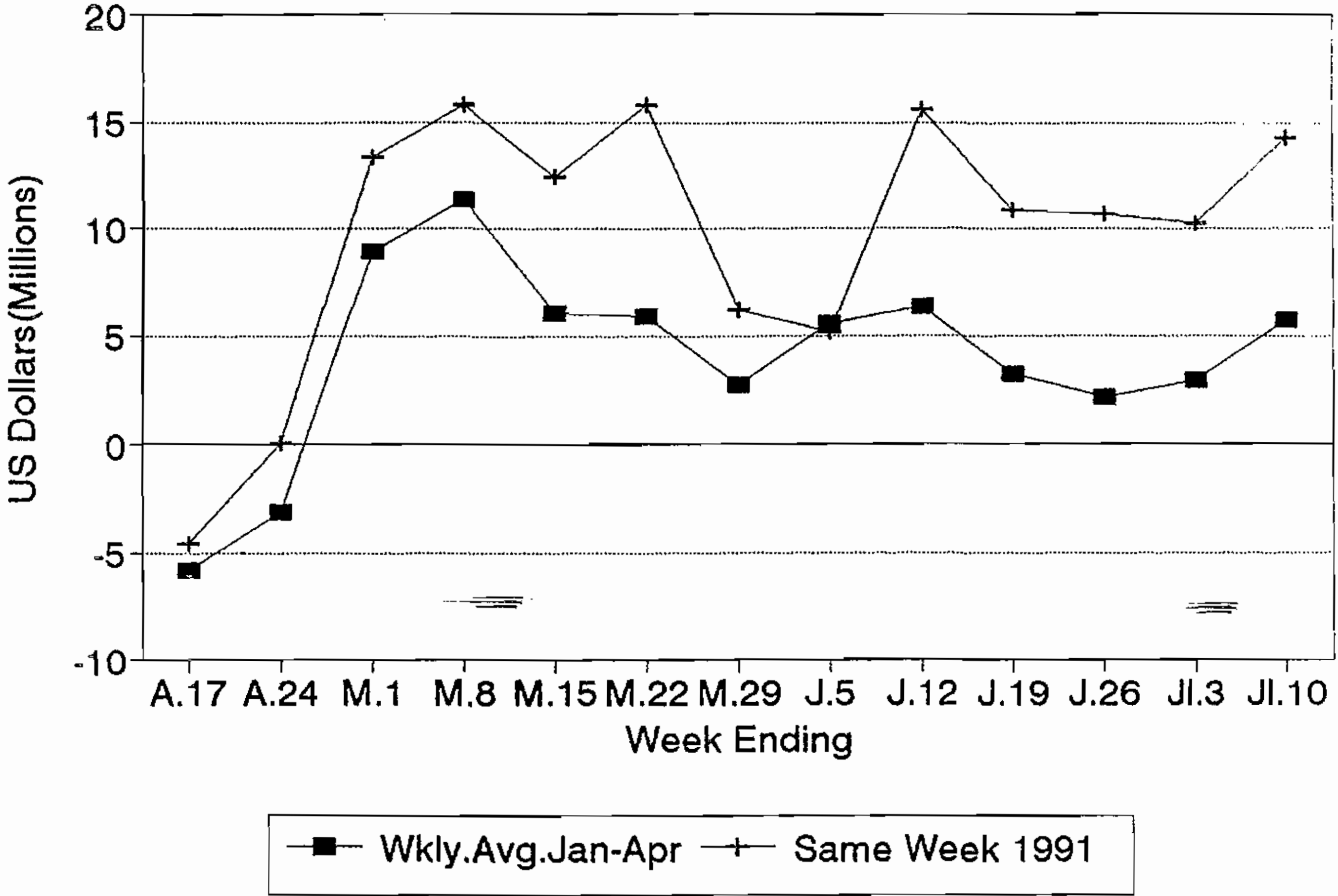


CHART 9



of currency to the market. Weekly inflows to the market, as indicated in Chart 9, were substantially above that for the period from January through mid April. The differential was even greater when a comparison is made with inflows for the corresponding week of the previous year. There was a reduction in the accumulation of balances in foreign currency accounts. Monthly deposits declined from a peak value of over US dollars 140 million in March to around US dollars 100 million in May and June. There was,however, no decline in balances in these accounts as withdrawals never exceeded deposits.

Most of the public debate in Jamaica has centred on the importance of the private sector initiatives in contributing to the changes in the exchange rate and currency inflows. In addition, doubts have been raised as to whether any of the changes which occurred in the period immediately following the initiatives could be long lasting, since these initiatives could not in themselves counter the natural interplay of the forces of supply and demand. A former Governor of the Bank of Jamaica, was one of the leading advocates of this position(See, for example, The Financial Gleaner various editions during the months of May and June).

The private sector initiatives played an important role in modifying public perceptions that a continued devaluation of the currency was inevitable, and hence it made sense to retain for as long as possible any foreign currency which one was able to acquire. The slow down in the rate of accumulation of balances in foreign currency accounts and the increase in currency sales on the foreign exchange market lends support to this notion of a change in public attitudes.

It is our contention that a great deal of the criticism directed towards the private sector initiatives was based on a false perception of the workings of the foreign exchange market in Jamaica. The repeated references made to the natural interplay of the forces of supply and

demand in the setting of the exchange rate, suggests that the critics believed that the competitive commodity market model was the appropriate one for analysing the behaviour of the market. However, as we have argued, the appropriate market model is that for financial assets. Furthermore, given the institutional structure of the market, specifically, the influence which the institutions which operated the market could exercise in setting prices, it would not satisfy the criteria for a competitive market. Attention should then have been directed towards assessing the potential impact of these initiatives on modifying expectations as well as the institutional structure of the market.

The initiatives were clearly directed towards influencing expectations and, as was argued above, appeared to have had the desired effect. However, it is unlikely that such would have been the case in the absence of measures designed to influence the institutional framework within which the market operated. Furthermore,the Stewart initiative involved sales of US dollars one million each week.The average daily inflow in the period following the initiatives was of the order of US dollars five million. It is for this reason why it will be argued that it was the public sector initiatives which played the critical role in bringing about the changes in the performance of the market. The most important aspect of the public sector initiative in this regard was the decision taken to limit the discretionary power of the financial institutions in the setting of the exchange rate. The developments in the market during the months of February and March indicated that the Government had to play a role in the management of the exchange rate, even with the abandonment of the fixed exchange rate regime. Since the break down of the Bretton Woods system and the move to generalised floating in the seventies by the industrial countries, the need for exchange rate management has been generally accepted. Yet, for no apparent

reason, the myth has been maintained that in developing countries like Jamaica, that the move to a floating rate regime could be sustained with government playing no part in the determination of the rate.

The Government used its market power to bring about the major revaluation of the currency which occurred over the months of May and June. In using its market power to effect a revaluation of the currency, it provided the evidence that a continued devaluation was not inevitable. There was then a basis for a change in expectations, a major determinant of the behaviour of participants in the market. The Government, by engineering a steady appreciation of the currency over a period of several weeks, provided the clear signal the public needed that there was a benefit to be derived from a quick sale of foreign exchange.

The question arises as to whether the successful revaluation and stabilisation of the currency, which we have attributed in large part to the public sector initiatives, can be sustained. This will depend on whether the level of inflows to the market will be maintained, as well as the balances held in foreign currency accounts. In other words, it is our contention that it is supply rather than demand shocks, which are likely to be the principal destabilising factors. As indicated earlier, we found no evidence to support the popular view that the massive depreciation of the currency which occurred in the first quarter could be linked to a sudden change in demand.

A major factor in determining whether currency inflows will be sustained will be the level of public confidence, particularly among members of the business community, in the Government's conduct of economic policy. Apart from such obvious factors as maintaining a high degree of discipline in the conduct of monetary and fiscal policy, the Government will have

to avoid sudden policy reversals. In addition, it will also be important for the Government to consult with parties likely to be affected by policy changes, when such changes are being considered. The initiatives for stabilising the foreign exchange market were formulated following extensive consultations with the financial institutions. The support of the institutions undoubtedly played an important role in the success of the initiative.

At the end of July, balances in foreign currency accounts stood at US $195 million. This was almost twice the value of foreign exchange sold in any single month. Imaginative management of these accounts on the part of the financial institutions could help to sustain and encourage growth in these accounts and contribute to an easing of the supply constraint on the market.

## Conclusions

The Jamaican experience with liberalisation of the exchange rate regime provides the following lessons. First of all the act of liberalising the regime cannot in and of itself eliminate a chronic shortage of foreign exchange in the short run. Consequently, passing over responsibility for administering the market to a set of institutions confident in their ability to sell whatever foreign exchange they can acquire, will inevitably lead to a massive devaluation of the currency.

The rapid accumulation of balances held in foreign currency accounts highlight an important psychological benefit arising from liberalisation. The feeling of security that one would always retain control over ones foreign currency balances encouraged a repatriation of funds and could potentially play an important role in easing the currency shortage and help stabilise the exchange rate.

The Government in liberalising the system must concurrently formulate a policy for managing the exchange rate. Such a policy, if it is to be effective, must be formulated in close collaboration with the institutions responsible for administering the market. Given the relative thinness of currency markets in developing countries, there are insufficient checks and balances to ensure protection of the public interest. This essential role will then have to be performed by government and requires an explicit acceptance on the part of government that under the guise of liberalisation it cannot surrender all responsibility for the conduct of the market.

Finally, the effective conduct of exchange rate policy, like any aspect of government policy, will not be successful without widespread public support. Such support will only be forthcoming when there is a wide acceptance of the need for the policy and an understanding of the implications of failure of the policy. In the Jamaican case, there was a widespread acceptance of the necessity to do something to halt and reverse the depreciation of the currency. Once the initiatives were announced there was little doubt in the mind of most members of the public of the horrendous consequences of a failure of the policy.

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